



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

REPLY TO
ATTENTION OF

CENWS-PM-ER

**EDIZ HOOK BEACH NOURISHMENT MAINTENANCE CYCLE
EDIZ HOOK BEACH EROSION CONTROL PROJECT
CLALLAM COUNTY, WASHINGTON**

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

1. Background. Ediz Hook provides storm protection to Port Angeles Harbor and its boat basin, provides a land-link to the mainland for the U.S. Coast Guard (USCG) station located on the spit's eastern end, and provides day-use recreation for local residents and tourists. Erosion from wave action and the lack of new sediment feeding the spit has caused incremental bank failure along several hundred feet of shoreline at the site. The primary focus of the project is to perform routine maintenance work on the Ediz Hook Beach Erosion Control Project. Access for the project would be via the Ediz Hook Road. The work would take place on two sections of beach along the northwest, Strait of Juan de Fuca, side of the Ediz Hook spit.

The purpose of the Ediz Hook Beach Erosion Control Project is to protect the sand spit from erosion, thereby maintaining protection of Port Angeles Harbor and the small boat basin from direct wave action, and preserving access to a USCG station located at the tip of the spit. Erosion has resulted from a reduction in sand, gravel, and cobble materials carried to the spit via longshore currents as compared to historic conditions. This reduction has been attributed to shoreline armoring along the toe of feeder bluffs west of Ediz Hook and two dams on the Elwha River.

2. Proposed Action. The action area for the proposed project is comprised of the upland portions of Ediz Hook on the northwestern side of the spit and adjacent Strait of Juan de Fuca waters out to the -20 foot Mean Lower Low Water (MLLW) depth contour, which is where the active sediment transport zone ends.

Beach nourishment material would be placed along the face of the revetment at two stockpile locations. The nourishment material consisting of about 50,000 tons (approximately 34,500 cubic yards) of 3- to 12- inch rounded gravel and cobble from an existing upland gravel pit would be brought to the stockpile areas by 20-cubic yard end-dump trucks.

The trucks would dump their loads creating the top of a berm at the +12 ft MLLW contour and extending seawards approximately 25 ft. Gravity would do the work to bring the nourishment material down to the 0 ft MLLW contour, approximately 40 feet seaward from the revetment face. No grooming of the slope by mechanical means would be necessary. Approximately 10 tons (7 cubic yards) of material would be placed per linear foot of beach. The affected area of nourishment would be approximately 5200 feet in length. The waterward face of the stockpile

would not be graded; instead, it would be allowed to reach a natural angle of repose, likely on the order of 1.5:1 or 2:1. However, a small bulldozer may be used to spread material laterally along the top of stockpiles to allow for dump truck access. The maximum width of the dump truck access would be 25 feet in the cross-shore direction.

Each of the two stockpiles would have a single access point created by removal of revetment stones. These stones would be side cast landward of the revetment and would be re-keyed before equipment demobilization. The addition of revetment stones (riprap) is not planned during this maintenance cycle. A small equipment staging area would be located on an existing concrete/gravel pad adjacent to the Nippon mill.

Beach logs and pieces of driftwood, larger than 1-ft diameter and greater than 6-ft in length, found in the beach nourishment reaches would be removed from the beach prior to construction of the fill, placed landward of the work area, but seaward of the road. Upon completion of fill placement, the beach logs and driftwood would be replaced on the beach above elevation +12 ft MLLW. All other debris including small beach logs, small pieces of driftwood, trash, and other items would be removed and disposed offsite.

In all, approximately 6.5 acres of cobble habitat between elevations 0 ft and +12 ft MLLW and a length of 5200 linear feet would be directly affected by the beach nourishment and creation of the stockpiles. Once on the beach, the nourishment material is expected to disperse rapidly over the entire spit. The construction period is expected to take place late summer to fall, approximately 8 weeks in duration, and would be in compliance with construction conservation windows.

3. Conservation Measures. Construction would occur when Chinook, Hood Canal chum, and bull trout are least likely to be present in the action area. The proposed construction schedule (between July 16 to February 15) is outside of the U.S. Fish and Wildlife Service (USFWS) in-water closure period for bull trout in Puget Sound marine waters (February 16 to July 15), and the National Marine Fisheries Service (NMFS) closure period for Chinook in Puget Sound marine waters (March 1 to July 1).

The placement of the nourishment materials and all rock removal and re-keying work would be timed to avoid periods when tidal waters have inundated the project site. In addition, several construction best management practices (BMPs) would be implemented:

- use of motorized equipment on the beach would be minimized, with a single access point for each stockpile area and a 50-ft work corridor waterward of the armor rocks;
- some large woody debris may be removed from the nourishment stockpile areas prior to gravel/cobble placement, but any logs would be moved to adjacent beach areas instead of off-site;
- drive trains of equipment would not operate in the water;
- biodegradable hydraulic fluids would be used for machinery at the site;
- at least one fuel spill kit with absorbent pads would be onsite at all times; and
- no equipment fueling or servicing would occur within 300 feet of the water.

If during construction activities the contractor observes items that might have historical or archaeological value, the contractor would stop operations and notify the Corps archaeologist. The contractor shall prevent his employees from trespassing on, removing, or otherwise damaging such resources. The Corps archaeologist will make notification to the State Historic Preservation Officer and affected Tribes.

If human remains are found, the Clallam County Sheriff will be called to determine if the human remains are of recent and potentially criminal origin. Concurrently, the Corps archaeologist will notify the appropriate Indian Tribe(s) for consultation about the nature and disposition of the remains should the Sheriff's Department determine that the remains are not the result of a crime. The contractor shall redirect work to other areas or tasks until the disposition of the remains is arranged to the satisfaction of the appropriate Indian Tribe.

4. Summary of Impacts and Compliance. This office has assessed the impacts of the proposed action on important resources including water quality, vegetation, fish and wildlife, threatened and endangered species, cultural resources and Native American concerns, land use, utilities and public services, air quality, noise, transportation, socioeconomics, recreation, and aesthetics. No significant adverse impacts were identified for any important resources. No impacts were identified that would require compensatory mitigation.

Unavoidable adverse effects of the proposed project include: (1) noise disturbance to wildlife and recreational users in the vicinity of operating heavy machinery; (2) mortality of sessile and mobile epibenthic invertebrates within and directly adjacent to the stockpile footprints; and (3) disruption of local and tourist traffic in the project vicinity. Given the temporary, localized, and minor nature of these effects, the Corps has determined that the proposed maintenance work is not expected to result in significant adverse environmental impacts.

In accordance with Section 7(a)(2) of the Endangered Species Act of 1973, as amended, Federally funded, constructed, permitted, or licensed projects must take into consideration impacts to federally listed or proposed threatened or endangered species and their critical habitats. A Biological Evaluation and Section 7 ESA consultation has been completed prior to construction. The Corps has determined that the project **may affect, not likely to adversely affect** marbled murrelet, green sturgeon, eulachon, rockfish, bull trout, Chinook salmon, steelhead, and Steller sea lion. The project **may affect, not likely to adversely affect** the critical habitat of green sturgeon, eulachon, bull trout and Chinook salmon. The proposed project would have **no effect** on the critical habitat of marbled murrelet, chum salmon, and Steller sea lion. The project would have **no effect** on killer whales, leatherback sea turtles, or their critical habitats. In letters dated August 10, 2011 and July 8, 2011, the USFWS and the NMFS respectively concurred with these findings.

No impacts to cultural resources or National Register of Historic Places eligible properties are anticipated as a result of project construction activities, and the Washington State Office of Archaeology and Historic Preservation concurred with this effects determination.

Under the Corps Regulatory Program, Nationwide Permit (NWP) 3 applies to the repair, rehabilitation, or replacement of a previously authorized structure for Clean Water Act Sections

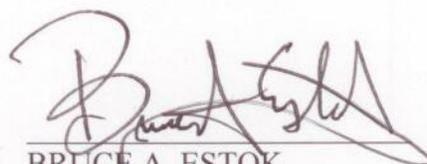
401 and 404, and Coastal Zone Management Act (CZM) Consistency. The Corps has concluded that the Ediz Hook Beach Nourishment project effects are functionally analogous to the effects of a repair to an authorized structure conducted in accordance with NWP 3. In a letter dated July 20, 2011, the Washington Department of Ecology concurred with the finding that the project meets the requirements for Washington State 401 Water Quality Certificate and CZM Consistency under NWP 3 Maintenance, therefore, an individual 401 certification will not be required for the project.

5. Public Involvement. The proposed action has been coordinated with appropriate Federal, state, and local agencies. The draft EA was made available for public review on June 29, 2011 via mailings to local libraries and posting on the public Corps website.

6. Conclusion. Based on the attached environmental documentation, coordination, and analysis conducted by the Corps environmental staff, I have determined that this proposed action will not result in significant adverse environmental impacts. The proposed action is not a major Federal action significantly affecting the quality of the human environment and, therefore, does not require preparation of an environmental impact statement.

SEP 2 2011

Date



BRUCE A. ESTOK
Colonel, Corps of Engineers
Commanding

FINAL ENVIRONMENTAL ASSESSMENT

Ediz Hook Beach Nourishment Maintenance Cycle Ediz Hook Beach Erosion Control Project

Clallam County, Washington



**US ARMY CORPS OF ENGINEERS
SEATTLE DISTRICT**

August 2011



**US Army Corps
of Engineers**
Seattle District

**Ediz Hook Beach Nourishment Maintenance Cycle
Ediz Hook Beach Erosion Control Project**

Clallam County, Washington

Draft Environmental Assessment

Responsible Agencies: The responsible agency for this routine maintenance work is the U.S. Army Corps of Engineers (Corps), Seattle District.

Abstract: This document evaluates the impacts of the Corps maintenance of the Ediz Hook Beach Erosion Control Project. The purpose of the erosion control project is to protect the sand spit from erosion, thereby protecting Port Angeles Harbor and the small boat basin from direct wave action, and maintaining access to the U.S. Coast Guard Station, Port Angeles, located at the end of the spit.

During the fall of 2011, the Corps is planning to perform routine maintenance work, consisting of beach nourishment on two sections of the northwest side of Ediz Hook. Approximately 50,000 tons of 3 to 12- inch rounded gravel and cobbles from an existing upland quarry would be placed onto two stockpile areas along Ediz Hook prior to being moved to the nourishment sites. The cobble would be placed between the rock revetment and the mean lower low water (MLLW) depth contour. In addition, readily accessible armor rocks that have fallen from the revetment onto the beach or moved during construction would be re-keyed onto the revetment.

Potential impacts of the proposed work are described in this document. Impacts would generally be highly localized in nature, short in duration, and minor scope. Impacts are not expected to be significant either individually or cumulatively.

Please send requests for additional information to:

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1.0 INTRODUCTION

This Draft Environmental Assessment (EA) is prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 (42 USC §§ 4321-4370e), Sec. 102(C). It evaluates the environmental, cultural and social effects of the proposed beach nourishment and shoreline stabilization intended to prevent further loss of shoreline on Ediz Hook, Clallam County, Washington. Erosion from wave action and the lack of new sediment feeding the spit has caused incremental bank failure along several hundred feet of shoreline at the site.

The primary focus of the project is to perform routine maintenance work on the Ediz Hook Beach Erosion Control Project. Access for the project would be via the Ediz Hook Road. The work would take place on two sections of beach along the northwest, Strait of Juan de Fuca, side of the Ediz Hook spit (Figure 1).

1.1 BACKGROUND

Ediz Hook is located on the northern shore of the Olympic Peninsula in Port Angeles, Clallam County, Washington (Township 30 North, Range 6 West, Sections 32, 33, and 34). The spit juts easterly approximately 3.5 miles into the Strait of Juan de Fuca, forming Port Angeles Harbor (Figure 1).

Ediz Hook provides storm protection to Port Angeles Harbor and its boat basin, provides a land-link to the mainland for the U.S. Coast Guard (USCG) station located on the spit's eastern end, and provides day use recreation for local residents and tourists (Figure 2). The proposed beach nourishment area is located on the Strait side of the spit.

1.2 AUTHORITY

Section 4 of the 1974 Water Resources Development Act (Public Law 93-251) authorized the Ediz Hook Beach Erosion Control Project. The authorization included construction and maintenance of rock protection, as well as initial and periodic beach nourishment. The initial construction took place in 1977 and 1978. Planned maintenance of the project included a program of beach nourishment of approximately 100,000 cubic yards every five years. Periodic beach nourishment has occurred in 1985, 1997 and 2002.

A final Environmental Impact Statement (EIS) was filed for the project on 7 May 1973. Additionally, three previous EAs were completed in 1984, 1997, and 2002 to assess the impacts of proposed beach nourishment and revetment repair. These reports are incorporated by reference, and available for inspection at the Seattle District Office.

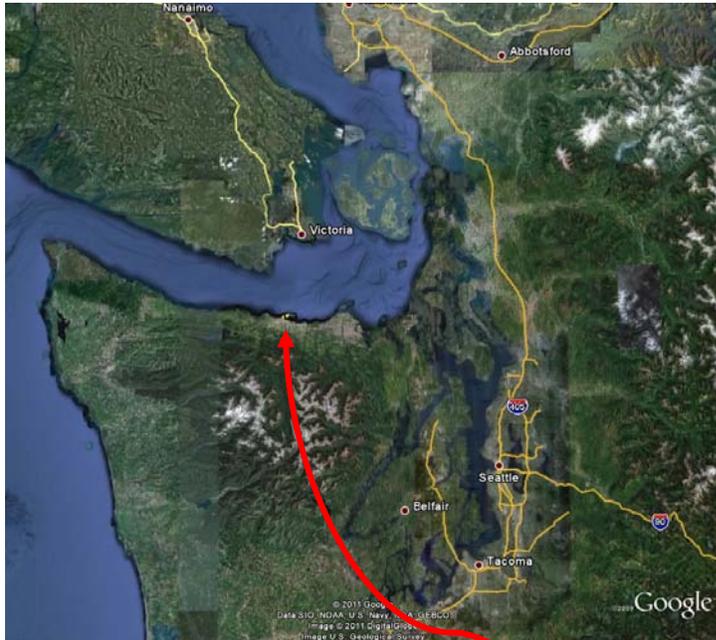


Figure 1. Ediz Hook Beach Nourishment Project, Port Angeles, Clallam County, WA.



- 1) Nippon Paper Industries
 - 2) Sail & Paddle Park, City of Port Angeles Parks & Recreation
 - 3) Harborview Park, City of Port Angeles Parks & Recreation
 - 4) US Coast Guard Group Port Angeles Station
 - 5) Port of Port Angeles
- Yellow lines – beach nourishment sites

Figure 2. Ediz Hook and Port Angeles Harbor Features

2.0 NEED AND PURPOSE

The purpose of the Ediz Hook Beach Erosion Control Project is to protect the sand spit from erosion, thereby maintaining protection of Port Angeles Harbor and the small boat basin from direct wave action, and preserving access to a U.S. Coast Guard station located at the tip of the spit. The supply of sand, gravel, and cobble materials carried to the spit via longshore currents is reduced as compared to historic conditions. This reduction has been attributed to shoreline armoring along the toe of feeder bluffs west of Ediz Hook, and two dams on the Elwha River.

3.0 ALTERNATIVES

The Corps evaluated two alternatives for maintenance of the Ediz Hook Erosion Control Project, the no action alternative and the proposed alternative. Under the no action alternative, the Corps would not maintain the erosion control project.

In the 2002 nourishment cycle, Washington Department of Fish and Wildlife (WDFW) suggested changing the gradation of the nourishment materials specified in the project operation and maintenance manual (US Army Corps of Engineers 1981). WDFW has encouraged the Corps to use a larger proportion of coarse sand and gravels less than one inch in diameter in the nourishment materials. This is because the proposed nourishment material grain size gradation is slightly coarser than that of the native material, particularly along the seaward tip of the spit where sediment sizes are somewhat smaller than those at the base. In addition, anecdotal information suggests that historical beaches along the Ediz Hook shoreline were composed of more sand than is present today (Wray and Valadez 2011).

Upon consultation with the project coastal engineer, it was determined that such a change would not meet the project goals. Fine material tends to be unstable on the beach, moving rapidly offshore where it is distributed over broad areas, providing little or no functional use in beach erosion control or storm protection. When material consisting of a mixture of cobbles, gravel, coarse sand, fine sand, and silt is used as beach fill, natural sorting processes act upon it, redistributing the finer material offshore and developing a coarser grained residual on the beach face and in the surf zone (US Army Corps of Engineers 1976). The Corps' authority for this nourishment program is to protect the revetment structure from being undermined by storm waves. Larger sized material would be more resistant to erosion, thereby remaining in the littoral system longer and reducing replenishment frequency.

3.1 NO ACTION

Under the no-action alternative, no work would be done to stabilize the shoreline. The shoreline would continue to erode and landward resources would continue to be placed at risk. The no-action alternative would result in continued erosion of the ocean side of the spit. Over time, the elevation of the fore beach would be lowered, resulting in increases in wave height and greater damage to the revetment. If the neck of the Hook eroded to the extent that the spit breached, the Coast Guard station may need to be relocated. Although the no-action alternative does not meet authorized project objectives, it will be carried forward for comparison purposes.

3.2 PREFERRED ALTERNATIVE: BEACH NOURISHMENT WITH COBBLE

The action area for the proposed project is comprised of the upland portions of Ediz Hook, on the northwestern side of the spit, and adjacent Strait waters out to the -20 foot Mean Lower Low Water (MLLW)¹ depth contour, which is where the active sediment transport zone ends (Figure 1).

Beach nourishment material would be placed along the face of the revetment at two stockpile locations. The nourishment material, consisting of about 50,000 tons (approximately 34,500 cubic yards) of 3- to 12- inch rounded gravel and cobble from an existing upland gravel pit, would be brought to the stockpile areas by 20-cubic yard end-dump trucks. The trucks would dump their loads forming the top of the berm at the +12 ft MLLW contour and the berm would extend seawards approximately 25 ft. Gravity would do the work to bring the nourishment material down to the 0 ft MLLW contour, approximately 40 feet seaward from the revetment face. No grooming of the slope by mechanical means would be necessary. Approximately 10 tons (7 cubic yards) of material would be placed per linear foot of beach. The affected area of nourishment would be approximately 5200 feet (ft) in length. The waterward face of the stockpile would not be graded; instead, it would be allowed to reach a natural angle of repose, likely on the order of 1.5:1 or 2:1. However, a small bulldozer may be used to spread material laterally along the top of stockpiles to allow for dump truck access. The maximum width of the dump truck access would be 25 feet in the cross-shore direction (figures 3 and 4).

Each of the two stockpiles would have a single access point, created by removal of revetment stones. These stones would be side cast landward of the revetment and would be restored before equipment demobilization. The addition of revetment stones (riprap) is not planned during this maintenance cycle. A small equipment staging area would be located on an existing concrete/gravel pad adjacent to the Nippon mill.

Beach logs and pieces of driftwood, larger than 1-ft diameter and greater than 6 ft in length, found in the beach nourishment reaches would be removed from the beach prior to construction of the fill, placed landward of the work area, but seaward of the road. Upon completion of fill placement, the beach logs and driftwood would be replaced on the beach above elevation +12 ft MLLW. All other debris, including small beach logs, small pieces of driftwood, trash, and other items, would be removed and disposed offsite.

In all, approximately 6.5 acres of cobble habitat between elevations 0 ft and +12 ft MLLW, and a length of 5200 linear feet, would be directly affected by the beach nourishment and creation of the stockpiles. Once on the beach, the nourishment material is expected to disperse over the entire spit rapidly.

¹ The mean high water datum at this location is +7.10 ft MLLW. The highest estimated tide is approximately +11 ft MLLW.

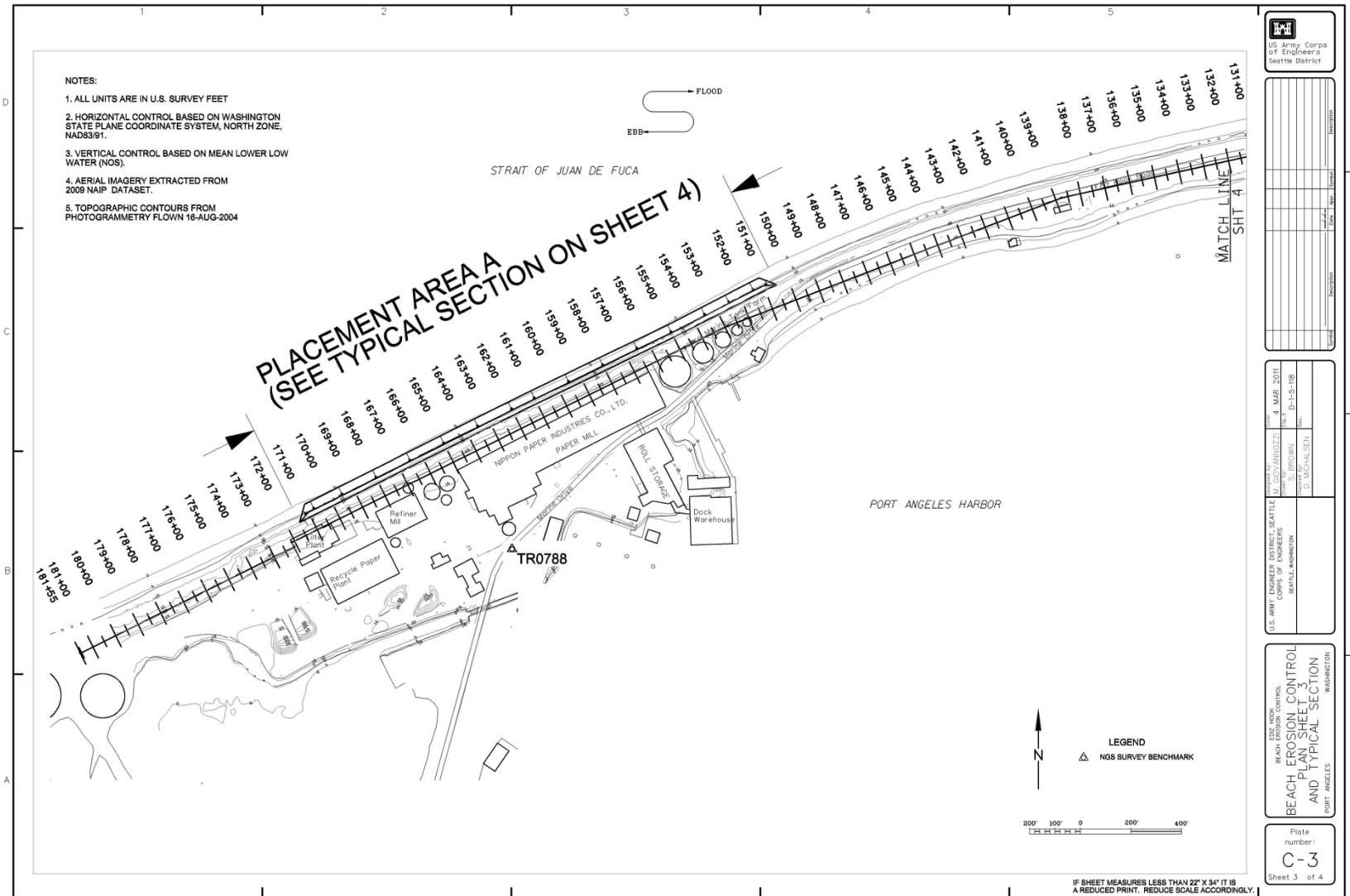


Figure 3. Ediz Hook beach nourishment, Area A

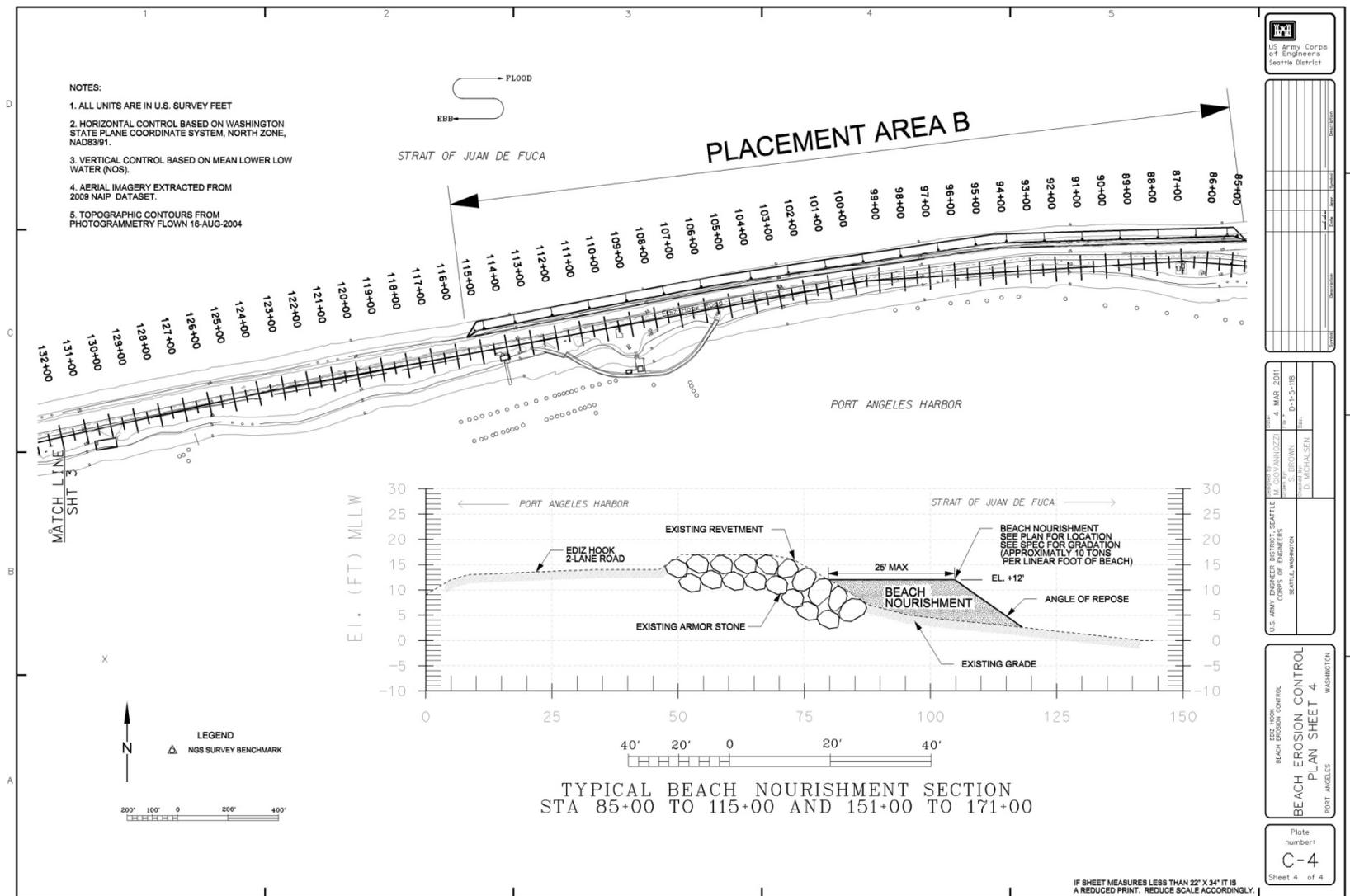


Figure 4. Ediz Hook beach nourishment, Area B; and typical cross section.

The construction period is expected to take place late summer to fall and would be in compliances with conservation windows.

- 1) **Rock Sources.** Rock sources would be existing commercial or governmental quarries.
- 2) **Access.** Access to the beach would be restricted to one site for each of the placement areas. Revetment stones removed for access would be replaced before equipment is demobilized.
- 3) **Duration.** Work is expected to take 8 weeks, which includes mobilization and demobilization as well as allowances for weather delays. At a rate of 10,000 tons of rock per week, it is expected to take a total of 5 weeks to place the 50,000 tons of rock
- 4) **Habitat Loss Prevention and/or Mitigation.** No upland or sub-tidal habitat would be lost. Approximately 6.5 acres of intertidal beach, 5200 linear ft, would be filled as a result of the project. To lessen potential project effects to sub-tidal habitat, all work would take place from land and above the MLLW contour. Equipment and vehicular access would be from the road and would stop at the approximate +12 ft MLLW contour. Further, lessen potential impacts to threatened, endangered, and sensitive species work would take place in during the work window of July 15 to November 1.
- 5) **Material Quantities.** Approximately 50,000 tons of 3 to 12 inch washed cobble would be placed on 5200 linear feet of beach.

3.3 CONSERVATION MEASURES

Construction would occur when Chinook, Hood Canal chum, and bull trout are least likely to be present in the action area. The proposed construction schedule (between July 16 to February 15) which is outside of the USFWS in-water closure period for bull trout in Puget Sound marine waters (February 16 - July 15), and the NMFS closure period for Chinook in Puget Sound marine waters (March 1 – July 1).

The placement of the nourishment materials and all rock removal and re-keying work would be timed to avoid periods when tidal waters have inundated the project site.

In addition, several construction best management practices (BMPs) would be implemented:

- use of motorized equipment on the beach would be minimized, with a single access point for each stockpile area and a 50 ft work corridor waterward of the armor rocks;
- some large woody debris may be removed from the nourishment stockpile areas prior to gravel/cobble placement, but any logs would be moved to adjacent beach areas instead of off-site;
- drive trains of equipment would not operate in the water;
- biodegradable hydraulic fluids would be used for machinery at the site;
- at least one fuel spill kit with absorbent pads would be onsite at all times; and
- no equipment fueling or servicing would occur within 300 feet of the water.

4.0 EXISTING ENVIRONMENT

4.1 GEOLOGY AND SOILS

Ediz Hook is a 3.5-mile long spit with an average top elevation of +14 ft MLLW, and widths ranging from 90 ft to 750 ft. The spit was formed by the eastward movement of littoral sand, gravel, and cobbles from eroding sea cliffs immediately to the west, and from river borne sediments of the Elwha River. Shoreline armoring along feeder bluffs west of Ediz Hook and dams on the Elwha River have reduced the materials carried to the spit by longshore currents. In addition to contributing to erosion at Ediz Hook, this reduced sediment supply has caused the eastern edge of the pre-dam Elwha delta to erode, and the barrier beach at Freshwater Bay to recede and steepen.

4.2 WATER QUALITY

Port Angeles Harbor has many commercial and industrial facilities along its shoreline. Over the past century, the Harbor has been used by a number of industries including saw mills and plywood manufacturing, pulp and paper production, marine shipping/transport, boat building and refurbishing, petroleum bulk fuel facilities, marinas, and commercial fishing. Since the early 1900s, pulp and paper mills have comprised a dominant portion of Port Angeles' industrial sector. Treated and untreated mill process effluents were commonly discharged into the Harbor, and wood product sources throughout the Harbor have been identified as significant sources of chemicals of potential concern (COPCs) in marine sediments. Petroleum storage and transport businesses have historically operated and currently conduct business along the Port Angeles waterfront. Spills and leaks from petroleum facilities and tankers, as well as from facilities with leaking underground storage tanks (UST), have introduced COPCs into the Harbor. Marinas, shipping industries, and docks and piling infrastructure all have a variety of potentially associated COPCs. Historically and currently, the Harbor has received discharges from Combined Sewer Outfalls (CSO), deepwater effluent outfalls, septic systems in various stages of maintenance outside the city limits, non-point source runoff from stormwater, and surface water discharge from creeks with varying degrees of residential and commercial land-use influences. All these discharges may contribute COPCs to the Harbor (Washington Department of Ecology 2008).

4.3 VEGETATION

Upland vegetation along Ediz hook consists of terrestrial salt-tolerant grasses and shrubs. No trees are present on the spit, other than some shore pines (*Pinus contorta*) planted near the Coast Guard administrative buildings. Eelgrass (*Zostera marina*) is present in the sheltered waters of Port Angeles Harbor east of the spit and mid-length on the northwest side of the spit, and kelp beds are present in Strait of Juan de Fuca waters west of the spit (Norris and Fraser 2006, and Norris et al 2011). The species composition of the kelp beds in the vicinity of Ediz Hook shift seasonally, and consist of an overstory of the annual brown kelp *Nereocystis luetkeana*, commonly known as bull kelp, and a varied understory of Laminariales and fleshy red algae. *N. luetkeana* densities are highest in the summer and fall months, while fleshy red algae are seasonally present in the winter and spring months. The perennial brown algae *Pterygophora californica* is the dominant understory component of *Nereocystis* beds in this area of Strait (Shaffer, et al. 2007).

4.4 FISH AND WILDLIFE

4.4.1 FISH

Out-migrating juvenile salmonids utilize waters in the vicinity of Ediz Hook. The peak migration period is between March 15 and June 15. Juvenile salmon inhabiting nearshore marine and estuarine waters feed on pelagic and epibenthic invertebrates. Forage fish such as Pacific herring, sand lance, and surf smelt are also present in the project area. A documented sand lance spawning beach is located on the harbor side of Ediz Hook. Pacific halibut reside in Strait of Juan de Fuca waters near Ediz Hook. During summer months, adult halibut dwell in the shallower waters feeding on forage fish and crustaceans. In November, they migrate into deeper waters to spawn.

4.4.2 WILDLIFE

Ediz Hook and adjacent waters provide habitat for a variety of shorebirds and waterfowl. The protected waters of Port Angeles Harbor attract plovers, whimbrels, oyster catchers, geese, loons, ducks, turnstones and sanderlings. Auklets, puffin, and common murre are occasional visitors, and the project area is one of the Olympic Peninsula's best viewing areas for gull species.

4.4.3 THREATENED AND ENDANGERED SPECIES

Several species listed protected under the Endangered Species Act are potentially found in Ediz Hook (Table 1.). In accordance with Section 7(a)(2) of the Endangered Species Act of 1973, as amended, federally funded, constructed, permitted, or licensed projects must take into consideration impacts to federally listed and proposed threatened or endangered species. The Corps has prepared a Biological Evaluation (BE) to assess potential impacts of the proposed work on species protected under the Act. Section 7 Endangered Species Act consultation will be completed prior to construction.

Table 1. Protected Species Potentially Occurring in the Project Area

Species	Listing Status	Critical Habitat
Marbled Murrelet (<i>Brachyramphus marmoratus</i>)	Threatened	Designated – not in project area
Southern distinct population green sturgeon (<i>Acipenser medirostris</i>)	Threatened	Designated
Southern distinct population smelt (eulachon) (<i>Thaleichthys pacificus</i>)	Threatened	Proposed – not in project area
Bocaccio (<i>Sebastes paucispinis</i>) Puget Sound / Georgia Basin distinct population segment	Endangered	--
Canary rockfish (<i>S. pinniger</i>)	Threatened	--
Yelloweye rockfish (<i>S. ruberrimus</i>)	Threatened	--
Coastal/Puget Sound bull trout (<i>Salvelinus confluentus</i>)	Threatened	Designated
Puget Sound Chinook salmon (<i>Onchorhynchus tshawytscha</i>)	Threatened	Designated
Hood Canal summer-run chum salmon (<i>O. keta</i>)	Threatened	Designated

Species	Listing Status	Critical Habitat
Puget Sound steelhead (<i>O. mykiss</i>)	Threatened	--
Southern resident Killer whale (<i>Orcinus orca</i>)	Endangered	Designated
Steller sea lion (<i>Eumetopias jubatus</i>)	Threatened	Designated – not in project area
Leatherback sea turtle (<i>Dermochelys coriacea</i>)	Endangered	Designated – not in project area
Puget Sound/Strait of Georgia coho salmon (<i>O. kisutch</i>)	Species of Concern	--
Bald Eagle (<i>Haliaeetus leucocephalus</i>)	Species of Concern	--

4.5 CULTURAL RESOURCES AND NATIVE AMERICAN CONCERNS

A professional cultural resources reconnaissance survey was conducted for the 2002 beach nourishment cycle. The survey consisted of an examination of the archaeological and historic site records at the Washington State Department of Archaeology and Historic Preservation (DAHP) and a pedestrian survey of the project area. A total of four archeological sites and one historic property are located within a 1 mile vicinity of the project area. Of the four archaeological sites; two have been previously recorded within or closely adjacent to the proposed project. The records search indicated that no properties listed on the National Register of Historic Places (NRHP) are located within the proposed project area. However, one archaeological site and the Ediz Hook Light Station are listed on the NRHP and are located within 1 mile of the project area. The pedestrian survey did not find any evidence of prehistoric or historic-period cultural material within the proposed project area. Records were rechecked in March 2011, and no new archeological data was found for the proposed project area.

4.6 LAND USE

4.6.1 COAST GUARD GROUP PORT ANGELES

The U.S. Coast Guard air-sea rescue station that serves Washington’s coastal and inland waters lies on the seaward end of Ediz Hook. Established in 1935, Group Port Angeles is the nation's oldest operating air station, in operation since 1935. There are approximately 300 men and women based at this station, including a helicopter rescue crew. The base has a 24-hour operations center; military exchange, medical clinic, administrative building; and temporary quarters for personnel during their 24-hour shifts. The base has a 4,000 foot long runway used in the training of Coast Guard helicopter pilots and crew. The runway is considered too short and narrow for larger-aircraft landings, although larger cargo planes have occasionally used it to land. Logs thrown up by storms and large flocks of sea gulls make the runway hazardous.

4.6.2 NIPPON PAPER INDUSTRIES USA

Nippon Paper Industries USA Co., Ltd. owns and operates the 90 year old paper mill on the landward end of Ediz Hook. The company today manufactures telephone book paper and other lightweight products, such as paper for advertising inserts, flyers, directories, and newsprint. Approximately 40 percent of the paper is produced from recycled fibers. More than 200 people

are currently employed at the mill site. Nippon Paper Industries has plans to build a \$71 million cogeneration plant at the mill that would use forest biomass to produce energy. The mill currently uses steam from an electric boiler, two oil-fired boilers, and a large biomass boiler.

4.7 UTILITIES AND PUBLIC SERVICES

There are no utilities or public services in the immediate area of the project site. Utilities are aligned with Ediz Hook Road.

4.8 AIR QUALITY AND NOISE

Clallam County meets EPA Ambient Air Quality standards, and those set by the State of Washington for suspended particulates and sulfur dioxide. Principal sources of sound along much of the project area are natural (i.e., wind and surf). Areas near the Coast Guard station and Nippon mill would periodically have higher noise levels (e.g., helicopters).

4.9 TRANSPORTATION

Port Angeles Harbor is the only deep-draft harbor on the northern shore of the Olympic Peninsula; it is easily accessible to the largest vessels due to its natural depths of up to 192 feet. Licensed pilots board almost all ships destined for Puget Sound ports in Port Angeles. Port Angeles Harbor also provides moorage for log ships, oil tankers, two commercial ferries, recreational fishers, crabbers and shrimpers.

4.10 SOCIOECONOMICS

The project is located near the city of Port Angeles, Washington in Clallam County. Employment within the county is primarily related to management/professional, service, sales, transportation, education/health, and social services. In the 2005-2009 5-year estimates, the US Census Bureau estimated that non-whites made up 25.5 percent of the total population in Clallam County, and the percentage of residents with incomes below poverty level was 13.5 percent (US Census Bureau 2009)².

The end of the spit is home to a USCG air-sea rescue station (Section 4.6.1) which currently has approximately 300 personnel based there. The Nippon Mill on the landward end of the spit employs over 200 people. The City of Port Angeles hosts a ferry landing, linking it with Victoria, British Columbia, Canada. The various businesses utilizing the Port have the direct impact of over 1600 jobs, and business revenue of over \$190 million. Indirectly the Port's economic benefits in Clallam County are approximately 3,500 jobs with an income of \$90 million (Port of Port Angeles 2010).

4.11 RECREATION

Two Port Angeles city parks and a portion of an 8 mile long waterfront trail are located on Ediz Hook. There are also a number of picnic areas and boat launches along the eastern side of the spit. Recreational fishing occurs in the harbor, from boats or the city pier. The large number of shorebirds, gulls, and waterfowl in the area make the spit a prime location for birdwatchers.

² Specific data sets, such as demographics from Census 2010 are not yet available (March 2011)

4.12 AESTHETICS

The rock revetment lies between the beach and the road to the end of the hook. Pleasing views of the Olympic Mountains, Strait of Juan de Fuca, the San Juan Islands, Canada, and the City of Port Angeles are visible from the spit.

5.0 ENVIRONMENTAL EFFECTS

The anticipated effects of the two alternatives are documented together below so as to allow comparison of the alternatives in relation to each affected resource.

5.1 GEOLOGY AND SOILS

5.1.1 NO-ACTION

Beach soil characteristics would not be affected by this alternative. However, the erosive nature of soils on site would continue to be an issue, with wave-induced instability and sloughing as an ongoing effect. Without nourishment, there is risk that a breach would occur on the landward end of the spit, which over time would lead to the erosion of the entire spit eliminating the protection from direct wave action provided to Port Angeles Harbor and the small boat basin, and eliminating access to the U.S. Coast Guard Station, Port Angeles, located at the end of the spit.

5.1.2 BEACH NOURISHMENT

The revetment, along with the reduction in sediment available to naturally feed the beach, has resulted in a steepening of the beach profile along the western side of Ediz Hook. The proposed nourishment project would delay the conversion of the beach fronting the revetment from a high intertidal beach to a subtidal beach. Bathymetric surveys conducted prior to and after past nourishment activities showed a restored beach profile above –10 ft MLLW, with little change in the beach profile between –10 ft and –20 ft MLLW. Generally, most of the nourishment materials are caught up by the littoral flow and distributed in the first two winter seasons. The deep water to the east of Ediz Hook has and would continue to intercept the littoral drift. Therefore, no change to beaches east of Ediz Hook would occur as a result of the project.

The nourishment material would be placed as high as possible in the intertidal zone, thereby mimicking natural sediment erosion and transport processes to the maximum extent possible. The beach nourishment material would be slightly coarser than that of the native material. The larger sized material would be more resistant to erosion, thereby remaining in the littoral system longer and reducing replenishment frequency.

5.2 WATER QUALITY

5.2.1 NO-ACTION

The shoreline would continue to erode, resulting in continued suspension of solids, and turbid conditions. There would be no change to water temperature.

5.2.2 BEACH NOURISHMENT

Any increases in turbidity resulting from the proposed action would be minor considering the large grain sizes of the nourishment material. The nourishment materials would be washed at the quarry so that the percentage of fines would be quite low (less than 3 percent by weight). Any sediment plumes attributable to the project would be temporary, localized, and equivalent to those created by natural sediment transport processes. With respect to chemical contamination, the proposed action would not affect baseline conditions for this indicator.

5.3 VEGETATION

5.3.1 NO-ACTION

Under the no action plan, terrestrial plants would be subjected to greater wave action and over time as the spit erodes, would lose their foothold. In the long term, if a breach should occur, then the remaining land and its associated plant community would be subjected to greater risk of erosion. Indirect impacts may affect sub-aquatic vegetation, such as eel grass beds, if the hydrology and currents change due to a breach in the land spit.

5.3.2 BEACH NOURISHMENT

The proposed action is not expected to have an effect on the kelp bed offshore of the Ediz Hook revetment for two reasons. First, the nourishment material would be placed upon the beach adjacent to the kelp bed during mid-summer months. Algae are most vulnerable to sediment impacts during spring months, when increasing light levels trigger reproduction. Second, the nourishment materials would have a coarse grain size and therefore are not expected to remain suspended in the water column for very long. This reduces the chance for sub-threshold light levels that could affect macroalgae growth rates or reproductive cycles. No impacts to the terrestrial vegetation or eelgrass beds are anticipated as the cobble material will be dumped above the MLLW contour (0 ft), and the surveyed beds in the area are below the -15 ft contour (Norris and Fraser, 2006).

5.4 FISH AND WILDLIFE

5.4.1 FISH

5.4.1.1 No-Action

The shoreline would continue to erode without beach nourishment. Over time the beach would convert from high intertidal beach to a subtidal beach. Indirect impacts such as a change in the fish species composition could occur if a breach would occur in the spit.

5.4.1.2 Beach Nourishment

In addition to protecting the integrity of the revetment, maintenance of a higher, more gently graded beach profile would maintain the range of intertidal elevations necessary to support the epibenthic invertebrates which serve as prey for a wide variety of marine fishes. However, the proposed action would temporarily adversely affect epibenthic prey organisms, particularly gammarid amphipods, within and adjacent to the 5 acre beach nourishment footprint.

Amphipods are mobile epifauna that are adapted to heavy disturbance regimes, and are thus expected to recolonize the nourishment area quickly. The scale of mortality impacts which would result from the proposed project is not likely to affect amphipod population dynamics in the project area. Likewise, a shift in benthic assemblage composition due to the use of nourishment material slightly coarser than native material is not expected.

Forage fish such as herring, surf smelt, and sand lance, would not be directly impacted by the proposed action for two reasons. First, placement of the nourishment materials would occur above the waterline at low tides so as not to directly interfere with fish usage of beach habitat. Second, turbidity is not expected to increase substantially above ambient conditions due to the large grain size of the material. Indirect effects are also not anticipated since no documented spawning beaches occur in the project area. NOAA-sponsored studies have shown that the epibenthic fauna which would likely be impacted by material placement do not appear to constitute a significant fraction of these species' diet, as they tend to rely more on pelagic organisms (Simenstad, et al. 1977).

The nourishment material would be placed along Ediz Hook soon after the end of the juvenile salmonid outmigration period. This schedule would allow for maximum recovery of the epibenthos prior to the 2012 salmonid outmigration period.

5.4.2 WILDLIFE

5.4.2.1 No Action

As the intertidal beach erodes to subtidal beach, foraging habitat for wildlife would decrease for those species who feed in the intertidal zone.

5.4.2.2 Beach Nourishment

Noise associated with the project may have a temporary effect on bird populations in the vicinity of operating heavy machinery. The impacts of any sound disturbance would likely result in displacement of animals rather than injury. Disposal operations are not expected to result in a long-term reduction in the abundance and distribution of any prey items. No breeding or nesting areas would be directly impacted. Therefore, any impacts would be minor.

5.4.3 THREATENED AND ENDANGERED SPECIES

5.4.3.1 No Action

Under the No-Action alternative, land use is expected to continue similar to baseline conditions, with no changes expected to threatened or endangered species or their critical habitats.

5.4.3.2 Beach Nourishment

Construction would occur when Puget Sound Chinook, Hood Canal chum, and bull trout are least likely to be present in the action area, and during a portion of the year when bald eagles are most tolerant of disturbance. The maintenance work would be scheduled to occur between July 16 and September 30 to accommodate work windows. Effect determinations made in the project Biological Evaluation (BE) are listed in Table 2. Section 7 Endangered Species Act consultation will be completed with the USFWS and NMFS prior to construction.

Table 2. Species of Concern Determination Summary

Species	Effects Determination	Critical Habitat Determination
Marbled Murrelet	Not likely to adversely affect	No effect
Green Sturgeon	Not likely to adversely affect	Not likely to adversely affect
Eulachon	Not likely to adversely affect	Not likely to adversely affect
Rockfish	Not likely to adversely affect	--

Species	Effects Determination	Critical Habitat Determination
Bull trout	Not likely to adversely affect	Not likely to adversely affect
Chinook salmon	Not likely to adversely affect	Not likely to adversely affect
Chum salmon	Not likely to adversely affect	No effect
Steelhead	Not likely to adversely affect	--
Killer whale	No effect	No effect
Steller sea lion	Not likely to adversely affect	No effect
Leatherback sea turtle	No effect	No effect
Coho salmon	Not likely to adversely affect	--
Bald Eagle	Not likely to adversely affect	--

5.5 CULTURAL RESOURCES AND NATIVE AMERICAN CONCERNS

5.5.1 NO-ACTION

Without implementation of the proposed action, the Ediz Hook spit is at risk of breaching in the long term. The two archeological / historic sites could potentially be damaged should this breach occur.

5.5.2 BEACH NOURISHMENT

The project would continue to provide protection from seaward side erosion to an archaeological site and a historic site, the Ediz Hook Light Station. The proposed nourishing of two areas along the spit's beach and re-keying boulder-sized revetment rocks that have fallen onto the beach should not disturb the underlying old spit material. Consequently, there does not appear to be any possibility of disturbing any previously unrecorded archaeological deposits during construction-related activities. One archaeological site near the project area may contain archaeological deposits that are eligible for listing on the National Register of Historic Places.

5.6 LAND USE

5.6.1 NO-ACTION

Without beach nourishment, wave run up against the revetment that protects Ediz Hook Road would increase, causing the revetment to fail. Without the revetment to mitigate wave action, the road would be subject to pounding waves, and would be damaged. Access to points towards the end of the road, to the City of Port Angeles two parks, and the USCG Station, would be cut off. If a breach occurred in the spit, the protection the spit provides to Port Angeles Harbor and the small boat basin from direct wave action would be eliminated, and access to the U.S. Coast Guard Station, Port Angeles, located at the end of the spit would be eliminated.

5.6.2 BEACH NOURISHMENT

The project would have no effects on land use in the immediate vicinity. With beach nourishment, wave run-up would be lessened, and the revetment protecting Ediz Hook Road would remain more stable. Severe storms and their associated waves could still affect the road.

Construction vehicles may disrupt traffic for Coast Guard personnel, those utilizing the City of Port Angeles Sail and Paddle Park or Harborview Park, or those employed at the Nippon paper mill. These impacts would be temporary and highly localized, and are therefore are expected to be minor.

5.7 UTILITIES AND PUBLIC SERVICES

5.7.1 NO-ACTION

There is expected to be no effect on utilities or public services as a result of continued erosion under the No-Action Alternative.

5.7.2 BEACH NOURISHMENT

No effect to utilities or public services is expected under the Preferred Alternative, since none are on the site.

5.8 AIR QUALITY AND NOISE

5.8.1 NO-ACTION

No impact concerning air quality or noise would occur as a result of taking no action to address the erosion.

5.8.2 BEACH NOURISHMENT

The operation of heavy equipment associated with the project would temporarily increase air emissions, including greenhouse gases, and noise in the immediate project vicinity. These increases would be minor in scope, temporary in duration, and are not expected to result in significant impacts. The total volatile organic compound emissions for this project during construction were also anticipated to be well below the *de minimis* level of 100 tons per year. Therefore, this action conforms to the Washington State Air Quality standards, administered locally by the Northwest Air Pollution Authority. Diesel fuel consumption by heavy machinery required for construction, material haul-off, and gasoline consumption for travel to the sites for all Corps projects, including this project, are a part of world-wide cumulative contributions to change in climate by way of increases in greenhouse gas emission

5.9 TRANSPORTATION

5.9.1 NO-ACTION

If the wave driven erosion continued unchecked, causing damage to the Ediz Hook Road, then access to facilities beyond the point of the damage or breach would hampered or cut-off completely. Further, protection for all sized of water craft utilizing the natural harbor formed by the Hook would be detrimentally effected.

5.9.2 BEACH NOURISHMENT

A primary purpose of the proposed project is to the protect Port Angeles Harbor and the small boat basin from direct wave action and to provide access to the U.S. Coast Guard Station, Port Angeles. With the maintenance work completed, there is less risk of erosion to the road or risk of breach in the continuity of the spit. In the immediate vicinity of the project area, no impacts to commercial or recreational vehicles or watercraft are expected to result from the maintenance work.

5.10 SOCIO-ECONOMICS

5.10.1 NO-ACTION

Under the no action plan, continued protection of Port Angeles Harbor and the small boat basin from direct wave action and access to the USCG station are at risk. Potentially the station could be relocated and the Port Angeles community could lose the economic benefit of the approximately 300 employees stationed there. The Nippon Mill on the landward end of the spit would be increased risk for wave damage, potentially causing the mill to close and the company to relocate or layoff the 200 or more people employed. Watercraft and associated businesses utilizing the harbor would also be at risk if a breach occurred in the spit, causing the waterfront to be subject to increased wave action. The Port Angeles community would suffer the indirect economic impacts of the potential loss of over 500 jobs.

5.10.2 BEACH NOURISHMENT

By nourishing the beach, those businesses and services utilizing the Ediz Hook Road would not be at risk of closing or forced relocation due to the spit eroding away. The Port Angeles harbor and those businesses associated with it would remain protected.

5.11 RECREATION

5.11.1 NO-ACTION

Without beach nourishment, the direct loss of the recreational benefits those people enjoy utilizing the beach for such activities as walking, beach combing, fishing, and watching wildlife. Indirect impacts would be the increased risk of damage to the Ediz Hook Road, which could cut off access to the City's Sail and Paddle Park and Harborview Park, which would include loss of access to the small watercraft boat launch. Protection to Port Angeles Harbor and the small boat basin from direct wave action would also be eliminated.

5.11.2 BEACH NOURISHMENT

As stated above, construction vehicles may temporarily disrupt local and tourist traffic on and adjacent to Ediz Hook. Noise associated with the usage of heavy machinery may disturb recreational users of the parks on the spit. Use of the beach areas in and directly adjacent to the stockpile footprints would be precluded during construction for safety reasons. However, these impacts would be also be temporary and highly localized, so no significant impacts on recreation are anticipated. Protection to Port Angeles Harbor and the small boat basin from direct wave action with the spit in place would be continued.

5.12 AESTHETICS

5.12.1 NO-ACTION

With no-action plan, the viewshed of the spit would be imperiled as the erosive wave action would continue unchecked. Over time a breach could occur, leaving increased rubble in it's wake.

5.12.2 BEACH NOURISHMENT

The stockpiles would not block views of the Strait of Juan de Fuca from the road. The stockpile areas are expected to be indistinguishable from adjacent areas shortly after project completion. Once construction is complete, the viewshed would be returned to the current conditions.

5.13 BEST MANAGEMENT PRACTICES AND MITIGATION

By observing the conservation measures outlined in Section 3.3, mitigation would take the form of avoidance and minimization.

5.14 UNAVOIDABLE ADVERSE EFFECTS

Unavoidable adverse effects of the proposed project include: (1) noise disturbance to wildlife and recreational users in the vicinity of operating heavy machinery; (2) mortality of sessile and mobile epibenthic invertebrates within and directly adjacent to the stockpile footprints; and (3) disruption of local and tourist traffic in the project vicinity. Given the temporary, localized, and minor nature of these effects, the Corps has determined that the proposed maintenance work is not expected to result in significant adverse environmental impacts.

5.15 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

The proposed restoration program would not entail any significant irretrievable or irreversible commitments of resources. The work would require importing cobbles and gravels from an existing, licensed quarry. These materials would remain on the beach for a limited amount of time, and then be lost to deeper waters at the eastern end of the spit.

5.16 CUMULATIVE IMPACTS

As described in previous sections, erosion at Ediz Hook is thought to be symptomatic of a reduction in sand, gravel, and cobble materials carried to the spit via longshore currents. The reduction in sediment transport can be at least partially attributed to two factors: a municipal drinking water/industrial supply water line and associated shoreline armoring running along the toe of feeder bluffs west of Ediz Hook, and two dams on the Elwha River. In the fall of 2011 and continuing into 2012, removal of the two dams is scheduled to occur. According to the 1996 Environmental Impact Statement for the removal of the two dams, a 35 percent increase in sediment load from the Elwha River is expected. It could take up to 5 years before the natural source of sediment would be seen on Ediz Hook (National Park Service 1996).

The proposed work is intended to counteract some of the adverse impacts associated with these past development projects. The placement of nourishment materials would mimic natural littoral processes, thereby reducing the symptoms of a chronic sediment shortage.

The Lower Elwha Klallam Tribe in conjunction with the Environmental Protection Agency (EPA) has commenced construction on a nearshore restoration project on the harbor side of Ediz Hook. This project consists of removing pilings, creosote bulkheads, concrete pads, and associated fill materials. The beach will be restored by filling with approximately 3,500 cubic yards of sand and gravel.

With the removal of the two dams on the Elwha River, the natural sediment source for Ediz Hook should increase; however, it is not anticipated to cease requiring beach nourishment cycles or other beach rebuilding activities, it may only lengthen the time span between cycles.

6.0 COORDINATION

The following agencies and entities have been involved with the environmental coordination of the proposed project:

- U.S. Fish and Wildlife Service (USFWS)
- National Marine Fisheries Service
- Washington Department of Fish and Game
- Washington Department of Ecology
- Lower Elwha Tribal Council

7.0 ENVIRONMENTAL COMPLIANCE

7.1 NATIONAL ENVIRONMENTAL POLICY ACT

This Environmental Assessment (EA) is being prepared pursuant to Sec. 102(C) of NEPA, and includes compliance with other laws, regulations and Executive Orders as discussed below. A 20-day public review of this EA commences on June 29, 2011.

7.2 ENDANGERED SPECIES ACT

In accordance with Section 7(a)(2) of the Endangered Species Act of 1973, as amended, federally funded, constructed, permitted, or licensed projects must take into consideration impacts to federally listed or proposed threatened or endangered species and their critical habitats. A Biological Evaluation was prepared and Section 7 ESA consultation has been completed. The Corp has determined that the project **may affect, not likely to adversely affect** marbled murrelet, green sturgeon, eulachon, rockfish, bull trout, Chinook salmon, steelhead, and Steller sea lion. The project **may affect, not likely to adversely affect** the critical habitat of green sturgeon, eulachon, bull trout and Chinook salmon. The proposed project would have **no effect** on the critical habitat of marbled murrelet, chum salmon, and Steller sea lion. The project would have **no effect** on killer whales or leatherback sea turtles or their critical habitats. In letters August 10, 2011 and July 8, 2011, the USFWS and NMFS (respectively) concurred with this finding.

7.3 CLEAN WATER ACT, SECTION 401 AND 404

The Corps does not issue permits for its own civil works activities. Nevertheless, the Corps complies substantively with Section 404. Under the Corps Regulatory Program, Nationwide Permit (NWP) 3 applies to the repair, rehabilitation, or replacement of a previously authorized structure. The Corps has concluded that this Ediz Hook Beach Nourishment effects are functionally analogous to the effects of a repair to an authorized structure conducted in accordance with NWP 3, and that State's water quality certification for NWP 3 applies to this project. In a letter dated July 20, 2011, The Washington Department of Ecology concurred with the finding that the project meets the requirements for Washington State 401 Water Quality Certificate under NWP 3, Maintenance.

7.4 COASTAL ZONE MANAGEMENT ACT

Pursuant to the CZMA, the Corps' actions are also required to be consistent to the maximum extent practicable with the approved State Coastal Zone Management Program. The State has provided CZMA consistency concurrence for NWP 3. Therefore, since the work is functionally analogous to work covered by NWP 3, Maintenance of an existing project; the NWP CZMA consistency determination applies to this work and the work is in compliance with CZMA. In a letter dated July 20, 2011, the Washington Department of Ecology concurred with this finding.

7.5 FISH AND WILDLIFE COORDINATION ACT

The Fish and Wildlife Coordination Act (16 USC 470) requires that wildlife conservation receive equal consideration and be coordinated with other features of water resource development projects. A Fish and Wildlife Coordination Act Report was completed for the initial construction of the project but is not required for maintenance work.

7.6 NATIONAL HISTORIC PRESERVATION ACT

The National Historic Preservation Act (16 USC 470) requires that the effects of proposed actions on sites, buildings, structures, or objects included or eligible for the National Register of Historic Places must be identified and evaluated. To comply with the National Historic Preservation Act, a historic site records search was conducted at the Washington State DOAHP and a pedestrian archaeological reconnaissance survey was conducted of the proposed project area in August 2002. Both the SHPO and the Lower Elwha Tribe were consulted. The 2002 pedestrian survey included the 2011 beach nourishment area and determined that the nourishment and placement of boulder sized revetment rocks should not disturb native sediment. The pedestrian survey did not find any evidence of prehistoric or historic-period cultural material within the proposed project area. The SHPO concurred with the Corps determination that there would be no adverse affect to NRHP eligible properties for the undertaking

If, during construction activities, the contractor observes items that might have historical or archaeological value, the contractor would stop operations and notify the Corps archaeologist. The contractor shall prevent his employees from trespassing on, removing, or otherwise damaging such resources. The Corps archaeologist will make notification to the State Historic Preservation Officer and affected tribes.

If human remains are found, the Clallam County Sheriff will be called to determine if the human remains are of recent and potentially criminal origin. Concurrently, the Corps archaeologist will notify the appropriate Indian tribe(s) for consultation about the nature and disposition of the remains, should the Sheriff's Department determine that the remains are not the result of a crime. The contractor shall redirect work to other areas or tasks until the disposition of the remains is arranged to the satisfaction of the appropriate Indian group.

7.7 EXECUTIVE ORDER 12898, ENVIRONMENTAL JUSTICE

Executive Order 12898 directs every federal agency to identify and address disproportionately high and adverse human health or environmental effects of agency programs and activities on minority and low-income populations. Since no adverse human health or environmental effects

are anticipated to result from the project, the Corps has determined that no disproportional adverse impacts to low-income or minority populations would occur.

8.0 CONCLUSION

Based on the above analysis, this project is not a major Federal action significantly affecting the quality of the human or natural environment, and therefore does not require preparation of an environmental impact statement. A signed FONSI will complete this environmental review.

9.0 PREPARERS

The following people contributed directly to preparation of this document:

Elizabeth L. McCasland, Biologist/Environmental Coordinator
Kara Kanaby, Archeologist
Michael Giavannozzi, Civil Engineer
John A. Hicks, Project Manager
Michael R. Scuderi, Supervisory Biologist

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11.0 ACRONYMS AND ABBREVIATIONS

BMP	best management practice
DPS	distinct population segment
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ESU	evolutionary significant unit
Ft	foot/feet (measurement)
MLLW	mean lower low water
MHHW	mean higher high water
NOAA	National Oceanic and Atmospheric Administration
NMFS	National Marine Fisheries Service
NRHP	National Register of Historic Places
OAHP	Washington State Office of Archaeology and Historic Preservation
PFMC	Pacific Fishery Management Council
SHPO	State Historic Preservation Officer
USCG	United States Coast Guard
USFWS	United States Fish and Wildlife Service
WDFW	Washington Department of Fish and Wildlife
WNDR	Washington Department of Natural Resources
WDOE	Washington Department of Ecology
WRIA	water resource inventory area

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Appendix A: Concurrence Letters – ESA, CWA and CZMA

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United States Department of the Interior

FISH AND WILDLIFE SERVICE



Washington Fish and Wildlife Office
510 Desmond Dr. SE, Suite 102
Lacey, Washington 98503

AUG 10 2011

In Reply Refer To:
13410-2011-I-0328

Evan R. Lewis, Chief
Seattle District, Corps of Engineers
ATTN: Environmental and Cultural Resources Branch (McCasland)
P.O. Box 3755
Seattle, Washington 98124

Dear Mr. Lewis:

Subject: Ediz Hook Beach Erosion Control Project, Clallam County, Washington

This is in response to your letter dated June 29, 2011, to add material to eroding beaches on Ediz Hook, Clallam County, Washington. Your letter and biological evaluation were received in our office on July 5, 2011. The letter requests our concurrence with your finding that the proposed action "may affect, but is not likely to adversely affect" marbled murrelet (*Brachyramphus marmoratus*), bald eagle (*Haliaeetus leucocephalus*), bull trout (*Salvelinus confluentus*), and bull trout designated critical habitat. This request was submitted in accordance with section 7(a)(2) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act).

The U.S. Army Corps of Engineers (Corps) will add a one-time placement of up to 50,000 tons of 1- to 12-in-diameter rounded gravel and cobble to the Ediz Hook berm at and above the +12 foot mean lower low water (MLLW) tide level in two locations. The Corps has previously implemented similar projects 3 times, at approximately 6-year intervals, due to eroding conditions at the site(s). The beach continues to erode due to the lack of material supply from the drift cell that created and sustained Ediz Hook. Historically the majority of the material deposited on and along the hook was from two sources: the Elwha River and feeder bluffs to the west of Ediz Hook. These sediment sources have been eliminated due to the construction of dams on the Elwha River and installation of shoreline armoring at the foot of the feeder bluffs, respectively. With the impending removal of the dams on the Elwha River, the installation frequency or amount of armor placed to control beach erosion should be reduced but not eliminated because the shoreline armor waterward of the feeder bluffs will remain.

The Corps will obtain gravel and cobble from a nearby upland gravel pit and transport the material to the Ediz Hook sites via dump trucks. Once on site the material will be minimally redistributed with heavy equipment (i.e., bull dozers) that will access the sites from the existing road. Heavy equipment will be operated on the beach in areas limited to a 25-foot-wide corridor for access and placement. Most of the redistribution of materials (which are comprised primarily of coarse cobbles and gravels with minimal fines) will occur naturally via long shore currents and wave action. The goal of the project is to protect the existing revetment and re-create a naturally sloping shoreline. No machinery will enter the water and all hydraulic fluids will be vegetable-based. The proposed action will take about 8 weeks to complete.

The Corps requested consultation for the marbled murrelet, bald eagle, bull trout, and bull trout critical habitat. Please note that the bald eagle was removed from the Federal List of Threatened and Endangered Wildlife, effective August 8, 2007. Consequently, consultation under section 7(a)2 of the Endangered Species Act for this species is not required. We have therefore not provided concurrence on your effect determination for the bald eagle. Based on the information provided in the Corps' letter and biological evaluation, we have concluded that effects to the federally listed marbled murrelet, bull trout, and bull trout critical habitat associated with the proposed project would be insignificant or discountable. Therefore, we concur with your "may affect, not likely to adversely affect" determination for these resources. Our conclusion is based on the following rationale.

Marbled Murrelet

- The project is more than 0.25 mile from suitable marbled murrelet nesting habitat. Although the proposed construction will generate sounds above ambient levels, the sound levels are extremely unlikely to affect marbled murrelets while on the nest or in the nest stand at this distance. Therefore, direct effects to marbled murrelets and their young while on the nest are considered insignificant.
- Marbled murrelets may be present in the marine waters adjacent to the project sites during construction. Due to the existing shipping traffic within in the area, foraging marbled murrelets are not expected to be measurably affected by sound pressure and other disturbances that are anticipated to be within ambient conditions. Therefore, the effects of the proposed action on marbled murrelets in marine waters are considered insignificant.

Bull Trout

- Placement of materials will occur between late August and September during the recommended in-water work window for the project site (July 16 to February 15) when bull trout are unlikely to be present in the area and exposed to project construction. Therefore, effects to bull trout from the proposed action are considered discountable.

Both Species

- The proposed action may affect forage fish, which are prey resources for bull trout and marbled murrelets. The proposed project is not within documented forage fish spawning habitat, although the area is considered potentially suitable forage fish spawning habitat. The wave and current energy along the southern side of Ediz Hook rapidly carries away fine grained material and likely precludes suitable forage fish spawning conditions at the sites. We anticipate that adequate forage fish resources will be available for bull trout and marbled murrelets that may be foraging in the area during and after the project construction. Thus, effects to bull trout and marbled murrelets via their prey species are considered insignificant.
- The proposed action may result in the suspension of minor amounts of sediment during placement of materials at the project site. The work will be done in-the-dry, which will reduce the amount of sediment that is resuspended in the water column as the tide returns. Based on this and other conservation measures, the extent and duration of the suspension of sediments will be limited, and is not expected to measurably affect bull trout and marbled murrelets should they be present during these activities. Therefore, effects to bull trout and marbled murrelets are considered insignificant.
- Operation and maintenance of the proposed action is not anticipated to result in ambient noise levels or other stressors that would appreciably affect bull trout, marbled murrelets, or their prey. Therefore, effects to bull trout and marbled murrelets are considered insignificant.

Bull Trout Critical Habitat

The final revised rule designating bull trout critical habitat (75 FR 63898 [October 18, 2010]) identifies nine Primary Constituent Elements (PCEs) essential for the conservation of the species. Of the nine bull trout critical habitat PCEs described, five PCEs are present in the action area. We have examined the anticipated effects of the proposed action on the applicable PCEs below.

PCE #2: Migration habitats with minimal physical, biological, or water quality impediments between spawning, rearing, overwintering, and freshwater and marine foraging habitats, including but not limited to permanent, partial, intermittent, or seasonal barriers.

The proposed action may affect the migratory corridor and/or habitats as a result of suspended sediment releases; some of the proposed erosion control will occur within areas that may be used by bull trout for migration. The area between mean higher high water and -33 foot MLLW is considered to be the habitat most consistently used by bull trout in marine waters (70 FR 56212). The proposed project would occur primarily above +12 foot MLLW, some activity could occur below that elevation in the intertidal area. However intertidal work will be done in the dry, when the tide is out. The imported material will be redistributed by waves, tides, and currents. We anticipate that any impacts will be temporary in nature and unlikely to result in a measurable

effect to the function of this critical habitat as a migratory corridor. No other physical, biological, and/or water quality barriers to the migratory corridor are anticipated as a direct or indirect result of the proposed action. Therefore, effects to this PCE are considered to be insignificant.

PCE #3: An abundant food base, including terrestrial organisms of riparian origin, aquatic macroinvertebrates, and forage fish.

The proposed action may impact the food base of the bull trout through a small reduction of prey individuals. However, the impacts are not expected to be appreciable due to the inclusion of Best Management Practices, conservation measures, mitigation, and/or other components of the project design that are expected to reduce the effects from these impacts. Therefore, effects to this PCE are expected to be insignificant.

PCE #4: Complex river, stream, lake, reservoir, and marine shoreline aquatic environments, and processes that establish and maintain these aquatic environments, with features such as large wood, side channels, pools, undercut banks and unembedded substrates, to provide a variety of depths, gradients, velocities, and structure.

The proposed action would not include any activities that would increase or decrease habitat complexity in the action area. No large woody debris or other habitat-forming components would be removed from the shoreline, and the project would have no measurable effect on any features in the action area that provide complex habitat for bull trout or their prey species. Therefore, effects to this PCE are expected to be insignificant.

PCE #5: Water temperatures ranging from 2 to 15 °C (36 to 59 °F), with adequate thermal refugia available for temperatures that exceed the upper end of this range.

The proposed action would not include any activities that would directly or indirectly alter water temperature, such as the release of heated or cooled water, the extraction or addition of water, the increase or decrease of water depth, or the removal of shading vegetation. Therefore, no effects are anticipated to this PCE.

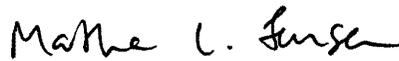
PCE #8: Sufficient water quality and quantity such that normal reproduction, growth, and survival are not inhibited.

The proposed project may impact water quality as the tidal and wave currents redistribute material causing a minor increase in turbidity. However, this impact is anticipated to be short-term as resuspended material will settle out quickly. Also changes in water quality will be confined to the immediate vicinity of placed material, resulting in minimal impacts to bull trout critical habitat via increased turbidity. Furthermore, the minor increase in turbidity will not prevent bull trout from using aquatic habitat in the project area. Changes in dissolved oxygen are not anticipated. Therefore, effects to this PCE are considered insignificant.

This concludes informal consultation pursuant to the regulations implementing the Act, 50 CFR 402.13. This project should be reanalyzed if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not considered in this consultation. The project should also be reanalyzed if the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this consultation, and/or if a new species is listed or critical habitat is designated that may be affected by this project.

If you have further questions about this letter or your responsibilities under the Act, please contact Karen Myers at (360) 753-9098 or Martha Jensen at (360) 753-9000 of this office.

Sincerely,



for Ken S. Berg, Manager
Washington Fish and Wildlife Office

cc:

WDOE, Lacey, WA (L. Ochoa)

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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, Washington 98115

NMFS Tracking No:
2011/02728

July 8, 2011

Evan Lewis
Chief, Environmental & Cultural Resources Branch
Department of the Army
Seattle District, Corps of Engineers
P.O. Box 3755
Seattle, WA 98124-3755

Re: Endangered Species Act Section 7 Informal Consultation for Ediz Hook Beach Nourishment,
Port Angeles, Clallam County, Washington (PL-11-11).

Attention: John Hicks

Dear Mr. Lewis:

This correspondence is in response to your request for informal consultation under the Endangered Species Act (ESA).

The Army Corps of Engineers (COE) submitted a Biological Evaluation (BE) and Memorandum for Services to the National Marine Fisheries Service (NMFS) for the project referenced above on June 30, 2011. The COE requested concurrence with the determinations of “may affect, not likely to adversely affect” Puget Sound (PS) Chinook, Hood Canal (HC) summer-run chum, and PS Steelhead. The COE also requested concurrence with the determination of “may affect, not likely to adversely affect” for designated critical habitat for PS Chinook. The NMFS determines that the project will have no effect on Puget Sound/Georgia Basin (PSGB) yelloweye rockfish, (PSGB) canary rockfish, (PSGB) bocaccio, the southern distinct population (DPS) of eulachon, and southern DPS of green sturgeon and green sturgeon critical habitat.

The COE proposes to place 50,000 tons of washed cobble (1”-12” diameter) along the north facing coast of Ediz Hook to supplement eroded material and protect existing infrastructure. The fill will occur in two locations: 2100 feet of shoreline near the Nippon Paper Mill, and 3100 feet along the spit between the Nippon Paper Mill and Coast Guard Air Station Port Angeles. Approximately 10 tons of material will be placed per linear foot in the project sites via dump trucks from a nearby upland staging area. Gravity and wave action will disperse stockpiled materials. No grading of materials will occur along the beach, and all materials will be placed as high in the intertidal zone as practicable.



All work will be conducted in the dry during the work window of July 16 to September 30. Dump trucks will access each site through a single point of entry. Access points will be constructed by the removal of armor rocks for the duration of the project, but will not require significant excavation in intertidal areas. Any large woody debris encountered during the project would be relocated to adjacent beaches along Ediz Hook. Over the long term, the project will not change baseline environmental conditions along Ediz Hook. Through the short term, there will potentially be a slight change in turbidity, a temporary loss of wrack-based forage and microhabitat, and alteration of beach profile. Total project time is expected to be five weeks. Best management practices will be followed as outlined in the BE to minimize risk to ESA listed species and habitat.

No in-water work will occur. There is a documented eelgrass bed adjacent to the eastern project site that is not expected to be impacted by project activities. There are no documented forage fish spawning areas in the action area, and no suitable spawning substrate. The action area includes the area where new material is being placed, and a radius of approximately 0.1 miles from the project site to include areas of potential turbidity increase and cobble migration. The project location is the Ediz Hook, Clallam County, Washington (Lat: 48.1400, Long: -123.4500, HUC: 171100200405).

Species Determinations

Puget Sound Chinook salmon
Hood Canal Summer-run chum salmon
Puget Sound Steelhead

Puget Sound Chinook salmon and Hood Canal summer-run chum salmon were listed as threatened June 28, 2005 (70FR37160). Puget Sound steelhead were listed as threatened May 11, 2007 (72FR26722).

PS Chinook, HC summer-run chum, and steelhead juveniles may be present in the action area during the work window. However, the action area contains few habitat features that would attract rearing or migration behavior by juveniles; there is no riparian vegetation or submerged aquatic vegetation in the project area. Because there is no in-water work, it is highly unlikely that there will be interaction between project activities and salmon present beyond increased ambient noise and potential turbidity. Turbidity effects are expected to be insignificant because the fill material will be washed prior to placement and the project will be of short duration. Adult salmon generally do not make use of the nearshore environment and are not expected to be present. PS steelhead juveniles and adults are not expected to be present in the action area.

Because the potential for effects on PS Chinook, HC summer-run chum, and PS steelhead are discountable and insignificant, NMFS concurs with the COE effect determination of “may affect, not likely to adversely affect” for PS Chinook salmon, HC summer-run chum salmon, and PS Steelhead.

Critical Habitat Determination

Puget Sound Chinook salmon

The final rule designating critical habitat for PS Chinook was published on September 2, 2005 (70 FR 52630) and became effective on January 2, 2006. Critical habitat in the action area includes the following Primary Constituent Elements (PCE):

Nearshore marine areas free of obstruction and excessive predation with water quality and quantity conditions and forage, including aquatic invertebrates and fishes, supporting growth and maturation, and natural cover such as submerged and overhanging large wood, aquatic vegetation, etc.

NMFS analyzed the potential impacts of the project on the nearshore PCE and determined that the impacts will be negligible. No submerged or overhanging vegetation will be impacted. Any potentially decreased water quality will be localized and of short duration. Additionally, there will be no impact on submerged aquatic vegetation or on forage fish spawning activities. The methods and materials of the proposed project are consistent with measures needed to protect critical habitat.

Because the conservation value of the PCE in the action area will be maintained or enhanced, and there are no adverse effects, NMFS concurs the action “may affect, is not likely to adversely affect” PS Chinook critical habitat.

This concludes informal conference pursuant to the regulations implementing the ESA, 50 CFR 402.10. The COE should reanalyze this informal consultation if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not considered in this consultation. The consultation should also be reinitiated if the action is subsequently modified in a manner that causes an effect on the listed species or critical habitat that was not considered in this consultation, and/or if a new species is listed or critical habitat for another species is designated that may be affected by this project.

The NMFS has determined there are no adverse effects on essential fish habitat regulated under the Magnuson and Stevens Fishery Conservation Act.

If you have questions concerning this consultation for ESA, please contact Zach Hughes of the Washington State Habitat Office at 360-753-6052, or by e-mail at zach.hughes@noaa.gov.

Sincerely,



WWS William W. Stelle, Jr.
Regional Administrator

Bc: F/NWR – PDF (Nickerson)
WSHO – PDF (Hughes)
WSHO – PDF (Chron)
WSHO – File Copy

From: [Matt Longenbaugh](#)
To: [Donnelly, Robert F NWS](#)
Cc: [Pell, John L NWS](#); [Hicks, John A NWS](#); [Mccasland, Elizabeth NWS](#)
Subject: Re: Ediz hook work window (UNCLASSIFIED)
Date: Wednesday, August 17, 2011 3:26:38 PM
Attachments: [201102728_Ediz_Nourishment_7-8-2011.pdf](#)
[matthew_longenbaugh.vcf](#)

Hi Bob, yes, extending the work window from mid July to mid-Feb is still NLAA and consistent with the original LOC, attached.

Another way to look at this Q is that the work window is immaterial because there is no in-water work. The LOC merely restated the COE's action description,.

Please contact me if Q.

Thanks, ML

Donnelly, Robert F NWS wrote:

- > Classification: UNCLASSIFIED
- > Caveats: NONE
- >
- > Hi Matt
- >
- > The Corps would like clarification on the Ediz Hook work window. Initially
- > the project was envisioned to occur during summer, however due to unforeseen
- > circumstances it is now scheduled for this fall. The overall work window for
- > the area is July 16 to February, which includes the fall season. The Letter
- > of Concurrence states the Corps must work within a work window of 16 July to
- > September 30. The Corps needs to do the work this fall outside of the stated
- > work window in the Letter of Concurrence. The work would be finished before
- > February of next year, thus staying within the overall work window.
- >
- > In addition, the project will be conducted in the dry, out of the water.
- >
- > The Corps believes the overall work window of 16 July to February is
- > appropriate for this project.
- >
- > Awaiting your response.
- >
- > Bob Donnelly
- > Environmental coordinator
- > 206 764 6981
- >
- >
- >
- > Classification: UNCLASSIFIED
- > Caveats: NONE
- >
- >
- >

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

July 20, 2011

U.S. Army Corps of Engineers, Seattle District
ATTN: Ms. Beth McCasland
P.O. Box 3755
Seattle, WA 98124-3755

RE: U.S. Army Corps of Engineers Reference No. PL-11-11
Ediz Hook Beach Nourishment and Revetment Maintenance, Strait of Juan de Fuca,
Clallam County, Washington.

Dear Ms. McCasland:

This letter is to confirm that the above-referenced project will not require an individual water quality certification from the Department of Ecology. Upon review of the JARPA received May 17, 2011, Ecology has determined that the project meets the requirements for Washington State 401 Water Quality Certification and Coastal Zone Management Act Consistency under NWP 3, Maintenance. Therefore, an Individual 401 certification will not be required for this project.

Any changes to your project that would impact water quality should be submitted in writing to Ecology before work begins for additional review.

Please contact me if you have any questions regarding this letter at (360) 407-6926 or e-mail loch461@ecy.wa.gov.

Sincerely,

Lori Ochoa
Federal Permit Coordinator
Shorelands and Environmental Assistance Program

cc: Chris Waldbillig, WDFW

e-cc: ECY RE FEDPERMITS
Loree' Randall, Ecology HQ
Jessica Moore, Ecology HQ
Lori Ochoa, Ecology SWRO
Rick Mraz, Ecology SWRO



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Appendix B: National Historic Preservation Act Section 106 Coordination with State Historic Preservation Office and Affected Tribes

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STATE OF WASHINGTON

OFFICE OF COMMUNITY DEVELOPMENT
Office of Archaeology and Historic Preservation
1063 S. Capitol Way, Suite 106 - Olympia, Washington 98501
(Mailing Address) PO Box 48343 • Olympia, Washington 98504-8343
(360) 586-3065 Fax Number (360) 586-3067

August 28, 2002

Mr. Ronald J. Kent
Department of the Army
U.S. Corps of Engineers Seattle District
P.O. Box 3755
Seattle, Washington 98124-2255

In future correspondence, please refer to:

Log: 082802-25-COE-S

Re: Cultural Resources Reconnaissance Survey for the Ediz
Hook Beach Nourishment and Revetment Maintenance
Project, Port Angeles

Dear Mr. Kent:

Thank you for contacting the Washington State Office of Archaeology and Historic Preservation (OAHP) regarding the above referenced proposal. This consultation is in adherence to the National Historic Preservation Act of 1966 (as amended) and implementing regulations 36 CFR Part 800. From your correspondence I understand that the U.S. Army Corps of Engineers proposes to undertake beach nourishment along the foreshore beach of Ediz Hook as well as revetment maintenance activities along the beach and at the east end of the revetment and the Coast Guard Station runway.

In response and on behalf of the State Historic Preservation Officer (SHPO), I concur with your determination that this action will have no adverse effect on the National Register status of historic and cultural resources within the project Area of Potential Effect (APE). This concurrence is based upon review of the proposed monitoring plan for this project. In reviewing the monitoring plan for this work, OAHP staff recommend that implementation of the monitoring plan be a required element of the project and that the World War II era concrete foundation be avoided as part of the access route for heavy equipment to the scour hole. In view of our concurrence on the "no adverse effect" determination, further contact with OAHP on the matter is not necessary. However, should the project scope of work change significantly and/or should archaeological resources be discovered during the course of project work, immediately contact OAHP and interested tribal representatives for further consultation.

Again, thank you for the opportunity to review and comment on this action. Should you have any questions, please feel free to contact me at 360-586-3073.

Sincerely,

Gregory Griffith
Deputy State Historic Preservation Officer

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Appendix C: Public Comments and Responses

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Board of Clallam County Commissioners

223 East 4th Street, Suite 4
Port Angeles, WA 98362-3015
360.417.2233 Fax: 360.417.2493
Email mdoherty@co.clallam.wa.us

*From the Desk of
COMMISSIONER MIKE DOHERTY*

File: A49

19 July 2011

US Army Corps of Engineers
Environmental Resources Branch
P.O. Box 3755
Seattle, WA 98134

RE: Ediz Hook Nourishment Project

I write in support of the proposed Ediz Hook Nourishment Project. As a resident of Port Angeles for over 60 years, I have witnessed the gradual erosion of the mass of Ediz Hook. I understand that the below water erosion is much more dramatic. As a young person in this community, I witnessed the major sheet-piling and armoring project in the 1970s(?) and limited subsequent repairs. Clearly the proposed project is needed.

I would like to bring your attention to a potential source of some of the nourishment material. For several years, residents of Sekiu and Clallam Bay have been concerned with the increased sedimentation of the Sekiu marina and adjacent tideland areas. While much of the sedimentation along the shoreline areas appears to be sand and forest product residuals, the marina area, particularly near the commercial fueling docks, is gravel and may be appropriate for the Ediz Hook project.

In a recent meeting of concerned citizens of Sekiu, the beach nourishment project on Ediz Hook was discussed. The source of the material for this project is unknown. If the Army Corps of Engineers is willing to hydraulically or clamshell bucket dredge the sediment from the most critical areas in western Clallam Bay (the Sekiu Marina, or parts thereof), the material could be barged directly to Ediz Hook. There may be critical biological advantages to relocating existing marine deposits from an area of problem to an area of needed enhancement. The need to dredge the Sekiu harbor is obvious for the following reasons:

1. Recreational and commercial fishing are the major industries in Sekiu. If sedimentation becomes severe enough to adversely affect the ability of boats to operate out of these facilities, the local economy will suffer.
2. Homeland Security, and other law enforcement agencies (also marine research vessels, oil spill response vessels, etc.) use the launches in this bay on a regular basis.

3. Currently, the only fueling dock available is located in an area of severe sedimentation and may not be accessible within a few years.
4. Privately owned docks of fishing resorts and local charter businesses have lost about one third of their capacity to moor boats as near shore sedimentation makes the water too shallow. This problem is often exacerbated by the summer daytime low tides. Yet the dock owners are charged for the full length of the docks by the Washington State Department of Natural Resources.
5. In certain emergencies (oil spills, law enforcement exercises, etc.) in the outer Straits of Juan de Fuca, the response vessels would be looking to Sekiu for refueling and other purposes.
6. In the event of a natural disaster that either severs land access to the area (zero roadway redundancy), or if any cruise ships that frequently use the Strait suffer an event that requires rapid mass evacuation of passengers, Clallam Bay is the only location equipped to handle it. This is a critical area between Neah Bay and Port Angeles and must retain the ability to service a large volume of supply or evacuation vessels.
7. An ancillary benefit to dredging at Sekiu would be to assist the long-term efforts of other agencies investigating the economic benefits of re-establishing important shellfish habitat currently contaminated by many feet of wood debris deposited within the Bay as a result of log rafting operations many decades ago. It is likely that the marine needs within this Bay will need to be prioritized and funded accordingly. As always, funding is the key element to solving these problems.

A regional representative of the Washington State Department of Fish and Wildlife indicated that State law requires permitting agencies to issue permits that allow a bay or harbor to be maintained to the degree originally established; however there is no State law that provides funding for such maintenance. Funding may be available through state or federal programs but unlikely given the current economy. Private funding is also unlikely.

Thank you for the opportunity to comment. I appreciate your attention to this matter.

Sincerely,



Mike Doherty

Corps response to Commissioner Doherty:

Thank you for your proposal to use Sekiu harbor material as potential beach restoration material. As stated in the proposed project description section of the EA (Section 3.2), the beach nourishment material would come from existing upland quarries. The potential use of Sekiu Harbor material would require additional engineering and environmental study for fitness of the material and impacts to the environment. If the harbor material is too fine, consisting of sand, shells, and small gravel, it would wash away too quickly in the high energy environment that forms Ediz Hook spit. Further, dredging Sekiu Harbor is beyond the scope and authorization of the Ediz Hook Maintenance project, and it is not a harbor that the Corps is currently authorized to maintain by the US Congress.

From: [Justine Barton](#)
To: [Linda Storm](#)
Cc: [Mccasland, Elizabeth NWS](#); [Lisa Chang](#); [Diana Boquist](#)
Subject: Re: Fw: Ediz Hook Beach Nourishment Public Notice (UNCLASSIFIED)
Date: Monday, July 18, 2011 2:00:51 PM

Hi Linda & Beth --

I do have a quick comment on the draft EA. It looks like Linda is out of the office today, and the deadline for comment is looming, so I'm ccing you, Beth, so that my comments can be included as you work on the final EA.

Section 5.16 Cumulative Impacts (draft EA p. 19) needs to be updated to include the latest information and status of the phased Ediz Hook restoration project directly adjacent to the Corps/ beach nourishment, on the inner side of the Hook. Currently in Phase III of three phases, much has already been accomplished. EPA is currently funding the Lower Elwha Klallam Tribe to complete Phase III. Perhaps the best summary description would be the abstract that accompanies the Tribe's Phase III work plan. The Corps should contact Mike McHenry at the Elwha Tribe's Natural Resources Department mike.mchenry@elwha.nsn.us (360)457-4012 ext. 14 to get the abstract and/or the most up to date description of the adjacent inner Hook restoration effort. Included in this description should be the Tribal office and/or lead agencies for the various phases of this restoration. This information should then be placed in a logical section of the EA.

Please feel free to call me with any questions/comments on the above. JB

Justine Barton
US EPA Region 10, ms ETPA-088
1200 Sixth Ave. Suite 900
Seattle, WA 98101-3140
barton.justine@epa.gov
phone 206.553.6051
fax 206.553.6984

From: Linda Storm/R10/USEPA/US
To: Justine Barton/R10/USEPA/US@EPA
Date: 07/12/2011 11:52 AM
Subject: Fw: Ediz Hook Beach Nourishment Public Notice
(UNCLASSIFIED)

FYI - do you have any comments?

Linda Storm, Ecologist
U.S. Environmental Protection Agency
Aquatic Resources Unit (ETPA-083)
Office of Ecosystems, Tribal & Public Affairs
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

Phone: (206) 553-6384; Cell: (206) 437-2293

Corps response to Ms Barton, EPA:

Thank you for your comment, the Cumulative Impacts section (Section 5.16) has been updated to reflect that the Lower Elwha Klallam Tribe is local sponsor for the harbor side environmental restoration project, and that construction has commenced.

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