FINDING OF NO SIGNIFICANT IMPACT (FONSI)
AND
CLEAN WATER ACT SECTION 404 STATEMENT OF FINDINGS
QUILLAYUTE RIVER FEDERAL NAVIGATION PROJECT
MAINTENANCE DREDGING AND PLACEMENT (2024-2031)
CLALLAM COUNTY, WASHINGTON
NEPA ID Number: EAXX-202-00-G3P-1733923788

The U.S. Army Corps of Engineers, Seattle District (USACE) conducted an environmental analysis in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended. The final Environmental Assessment (EA) dated December 2024, for the Quillayute River Federal Navigation Project Maintenance Dredging and Placement (2024 –2031) addresses safe passage of marine traffic to sustain the associated economic benefits to La Push, Clallam County, Washington.

The Final EA, incorporated herein by reference, evaluated various alternatives to resume maintenance dredging for the Quillayute River Federal Navigation Project. One Federal action requiring NEPA compliance is analyzed in the EA summarized below.

a. Proposed Action: The preferred alternative is Alternative 2 – Dredging Quillayute River Federal Navigation Channel with Beach Nourishment Placement. Alternative 2 involves maintenance dredging in the Quillayute River Federal Navigation Channel and small boat basin via a hydraulic cutterhead pipeline dredge and placement of dredged materials at three shoreline areas. The dredging project footprint consists of a 4,400-foot-long channel and a small boat basin that is 1,070 feet long by 313 feet wide. The authorized project depth is -10 feet MLLW. Two additional feet of overdepth is allowed. Dredging within the boat basin includes the main access lane, access lane for the US Coast Guard (USCG) station and fuel dock. Dredged materials will be strategically placed for beach nourishment and protection of the South Jetty (Site A) and Quillayute Spit (Site B and First Beach). The authorized in-water work window for the Quillayute River channel is between 1 September and 1 March. Up to 15,000 cubic yards (cy) of material dredged from the outer channel could be placed at Site A per dredging event. Up to 85,000 cy of dredged material from the inner channel and boat basin could be placed at Site B and First Beach. Placement of material at First Beach may not begin until after 1 October of any year to protect surf smelt spawning habitat. USACE estimates a maximum volume of 100,000 cy would be dredged during each project event (up to four events and expected to occur approximately once every 2 to 3 years). This

document is intended to cover the period from 1 September 2024 to 1 March 2031, to allow for the possibility that dredging may be required throughout the work window to complete the work event that starts in the fall 2030.

Alternatives: In addition to a "no action" plan (Alternative 1), the preferred alternative (Alternative 2) was evaluated. For both alternatives, the potential effects were evaluated, as appropriate. The No Action Alternative does not satisfy the project's purpose and need, but NEPA requires analysis of the No Action Alternative to set the baseline from which to compare other alternatives. A summary assessment of the potential effects of the recommended plan are listed in Table 1.

Table 1: Summary of Potential Effects of the Proposed Action

	Insignificant effects	Insignificant effects as a result of mitigation*	Resource unaffected by action
Aesthetics	☐	☐	☒
Air quality	☒	☐	☐
Aquatic resources/wetlands	☐	☐	☒
Invasive species	☐	☐	☒
Fish and wildlife habitat	☒	☐	☐
Threatened/Endangered species/critical habitat	☒	☐	☐
Historic properties	☐	☐	☒
Other cultural resources	☐	☐	☒
Floodplains	☐	☐	☒
Hazardous, toxic & radioactive waste	☐	☐	☒
Hydrology	☒	☐	☐
Land use	☐	☐	☒
Navigation	☒	☐	☐
Noise levels	☒	☐	☐
Public infrastructure	☐	☐	☒
Socioeconomics	☒	☐	☐
Environmental justice	☒	☐	☐
Soils	☒	☐	☐
Tribal trust resources	☒	☐	☐
Water quality	☒	☐	☐
Climate change	☒	☐	☐

*No compensatory mitigation is proposed.

Impact Minimization: All practicable and appropriate means to avoid or minimize adverse environmental effects were analyzed and incorporated into the recommended plan. Best management practices (BMPs) as detailed in the EA (section 3.3) will be implemented, if appropriate, to minimize impacts.

Public Review: Public review and comment of the DRAFT EA/FONSI for the proposed maintenance dredging was initiated on August 13, 2024 for thirty (30) calendar days, and completed on September 14, 2024. No comments were received.

Tribal Notification: The Hoh Indian Tribe, Makah Indian Tribe of the Makah Indian Reservation, Quileute Tribe of the Quileute Reservation, and Quinault Indian Nation were contacted regarding the proposed dredging and open-water disposal actions and USACE will continue to coordinate throughout the project. Letters informing the Tribes of the preparation of an EA were sent on May 16, 2024.

Compliance:

a. Endangered Species Act:

The National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) are responsible for administering the Endangered Species Act of 1973 (ESA). USACE prepared and submitted a biological assessment to the USFWS and the NMFS on 16 December 2017, initiating formal consultation for routine maintenance of eight navigation projects in western Washington for a 25-year period. For the Quillayute River Project, USACE determined that this dredging and disposal action would have “no effect” on any ESA-listed species or their critical habitat. USFWS concurred with USACE’s determination and issued a Letter of Concurrence (Reference No. 0lEWFW00-2017-1-0277) on 24 May 2017. NMFS issued a biological opinion (Reference No. WCR-2016-6057) on 26 January 2018, concluding the proposed action was likely to adversely affect but not likely to jeopardize the continued existence of eulachon and green sturgeon. NMFS also concluded that the proposed action was likely to adversely affect designated critical habitat for green sturgeon but is not likely to result in the destruction or adverse modification of the designated critical habitat. In this Opinion, NMFS also concluded that the proposed action was not likely to adversely affect ESA-listed marine mammal species, designated critical habitat for southern resident killer whales, ESA-listed marine turtles, and designated critical habitat for leatherback turtles. NMFS provided conservation measures to reduce adverse alteration of substrate and forage abundance and to reduce adverse alteration of water quality. These conservation measures are incorporated in the BMPs (section 3.3) and avoidance and minimization measures (section 5).

b. Magnuson-Stevens Fishery Conservation and Management Act:
NMFS also reviewed the likely effects of the proposed maintenance action on Essential Fish Habitat (EFH) and concluded that the action would adversely affect designated EFH for Pacific Coast Salmon, Pacific Coast Groundfish and Coastal Pelagic species. NMFS provided conservation measures to reduce adverse alteration of substrate and forage abundance and to reduce adverse alteration of water quality. These conservation measures are incorporated in the BMPs (section 3.3) and avoidance and minimization measures (section 5) in the EA.

c. Coastal Zone Management Act:
USACE has determined the proposed project is consistent to the maximum extent practicable with the enforceable policies of the State of Washington Coastal Zone Management Program. USACE provided a Coastal Zone Management Act Consistency Determination outlining this determination to the Washington Department of Ecology on August 14, 2024. Concurrence was received from the Washington Department of Ecology on December 4, 2024.

d. Clean Water Act:
USACE prepared a Section 404(b)(1) Evaluation to demonstrate substantive compliance with Section 404 of the Clean Water Act (CWA) and 40 CFR 230 (Appendix A of the EA) and requested a Section 401 water quality certification from the Environmental Protection Agency (EPA). The preferred action represents the least costly alternative, constituting the discharge of dredged or fill material into the marine waters of the United States in the least costly manner, at the least costly and most practicable location, consistent with sound engineering practices and meeting the environmental standards established by the Clean Water Act Section 404(b)(1) evaluation process. Execution of the selected alternative, following consideration of all applicable evaluation factors, is in the public's interest. USACE received a Section 401 water quality certification from the EPA on November 25, 2024.

e. National Historic Preservation Act:
USACE consulted with the Washington State Historic Preservation Office (SHPO) and the Hoh Indian Tribe, Makah Indian Tribe of the Makah Indian Reservation, Quileute Tribe of the Quileute Reservation, and Quinault Indian Nation for this project. Based on the results of literature and records review, the absence of known or recorded cultural resources within the APE, and consultation with the SHPO and the Tribes, USACE determined that there are no historic properties located within the APE and found there will be no historic properties affected by the continued maintenance dredging of the Quillayute River navigation channel. An initial letter to document the APE was sent to SHPO on 16 January 2024. The SHPO agreed with

USACE's determination of the APE on 16 January 2024. USACE requested knowledge and concerns from the Hoh Tribe, Makah Indian Tribe, Quileute Indian Tribe, and Quinault Indian Nation on the proposed APE on 16 January 2024. The Tribes did not comment. USACE submitted its finding that there will be no historic properties affected to SHPO on 16 January 2024. SHPO agreed with USACE's finding in a letter dated 26 March 2024.

f. Migratory Bird Treaty Act Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds:

Maintenance dredging and beach nourishment placement of the dredged materials will not have any direct negative effects to migratory birds. There will be no adverse effect on habitat and the project will only have minor and temporary effects to a small number of individual birds that may be in the project area. No permit application for "take" of migratory birds is required. These birds are assumed to be habituated to the noise and activity of La Push and the marine traffic entering and leaving the Quillayute River navigation channel.

g. Clean Air Act:

Maintenance dredging and disposal activities under the proposed action will result in an increase in emissions that is clearly *de minimis* and will constitute maintenance dredging where no new depths are required and no new disposal sites are designated, so the project is exempt from any requirement to conform to a State Implementation Plan under 40 CFR 93.153 (c)(2)(ix).

h. Other Significant Environmental Compliance:

The following applicable environmental laws and regulations have also been considered and coordination with appropriate agencies and officials has been completed.

- Marine Mammal Protection Act
- Executive Order 13175, Consultation and Coordination with Indian Tribal Governments
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

Finding: I have evaluated the maintenance activity in light of the public interest factors prescribed in 33 CFR 336.1(c). The following factors were evaluated as considerations potentially impacting the quality of the human environment in the accompanying EA and coastal zone consistency evaluation: navigation and the Federal standard, water quality, coastal zone consistency, wetlands, endangered species, historic resources, scenic values, recreational values, fish and wildlife, and application of non-federal land use policies. No additional impacts are anticipated as the project will provide access to federally authorized navigation channels that are already in use. In accordance with 33 CFR 337.1(a)(14) and 325.3(c)(1), the following additional relevant factors were also considered: conservation, economics, shoreline erosion and accretion, safety, and property ownership.

The selected alternative represents the least costly alternative and is also the environmentally preferred alternative that constitutes the discharge of dredged or fill material into the waters of the United States in the least costly manner and the least costly and most practicable location, consistent with sound engineering practices, and meeting the environmental standards established by the CWA Section 404(b)(1) evaluation process. Execution of the selected alternative following considerations of all applicable evaluation factors, is in the public interest.

All applicable laws, executive orders, regulations, and local government plans were considered in evaluation of alternatives. Based on the analysis presented in the EA, which has incorporated or referenced the best information available as well as the reviews by other Federal, State, local agencies and Tribes, input of the public, and the review by my staff, it is my determination that the recommended plan would not cause significant effects on the quality of the human environment. Therefore, preparation of an Environmental Impact Statement is not required.

12-Feb-2025
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Date

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KATHRYN P. SANBORN, PhD, PE, PMP
COL, EN
Commanding

QUILLAYUTE RIVER FEDERAL NAVIGATION PROJECT MAINTENANCE DREDGING AND PLACEMENT (2024-2031)

NEPA ID Number: EAXX-202-00-G3P-1733923788

FINAL ENVIRONMENTAL ASSESSMENT AND CLEAN WATER ACT, SECTION 404 PUBLIC INTEREST REVIEW

CLALLAM COUNTY, WASHINGTON

February 2025

U.S. ARMY

US Army Corps of Engineers®

Quillayute River Federal Navigation Project

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ACRONYMS AND ABBREVIATIONS

APE	Area of Potential Effect
BMPs	Best Management Practices
CAA	Clean Air Act
CEQ	Council of Environmental Quality
cy	Cubic Yards
CWA	Clean Water Act
DAHP	Washington State Department of Archaeology and Historic Preservation
dB	Decibels
DMMP	Dredged Material Management Program
DMMU	Dredged Material Management Units
DO	Dissolved Oxygen
DPS	Distinct Population Segment
EA	Environmental Assessment
Ecology	Washington State Department of Ecology
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
GHG	Green House Gases
MLLW	Mean Lower Low Water
MMPA	Marine Mammal Protection Act
mg/L	milligrams per liter
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NTU	Nephelometric Turbidity Units
Quileute Tribe	Quileute Tribe of the Quileute Reservation
RMS	Root Mean Square
SEL	Sound Exposure Level
SHPO	State Historic Preservation Office
SRKW	Southern Resident Killer Whale
TMDL	Total Maximum Daily Load
TPY	tons per year
TSS	Total Suspended Solids
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
USFWS	U.S. Fish and Wildlife Service
WAC	Washington Administrative Code
WDFW	Washington State Department of Fish and Wildlife
WQC	Water Quality Certification
WQMP	Water Quality Monitoring Plan

1 PROPOSAL FOR FEDERAL ACTION

The U.S. Army Corps of Engineers, Seattle District (USACE), has prepared this Environmental Assessment (EA) in accordance with the National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. § 4321 et seq.), and applied as a procedural construct the regulations of the Council on Environmental Quality for implementing the procedural provisions of NEPA (40 CFR parts 1500-1508), and USACE procedures for implementing NEPA (33 CFR 230). Pursuant to Section 102(C) of NEPA, this assessment evaluates environmental impacts of the proposed biennial (occurring once every two years) maintenance dredging of the Quillayute River Federal Navigation Channel.

This document also integrates a review of factors underlying a determination of whether executing the project would be in the public interest, pursuant to Clean Water Act (CWA) Section 404 and rules and regulations published as 33 CFR Part 335, "*Operation and Maintenance of Army Corps of Engineers Civil Works Projects Involving the Discharge of Dredged or Fill Material into Waters of the U.S. or Ocean Waters*"; 33 CFR Part 336, "*Factors to be Considered in Evaluation of Army Corps of Engineers Dredging Projects Involving the Discharge of Dredged Material into Waters of the U.S. and Ocean Waters*"; 33 CFR Part 337, "*Practice and Procedure*"; and 33 CFR Part 338, "*Other Corps [USACE] Activities Involving the Discharge of Dredged Material or Fill into Waters of the U.S.*"

1.1 BACKGROUND

The Quillayute River Federal Navigation Channel is located at the town of La Push in Clallam County, Washington. The channel and boat basin provide a harbor of refuge along the Washington Coast between Neah Bay and Grays Harbor. Maintenance of the navigation project has been ongoing since 1932; USACE maintenance began in 1949. The boat basin was constructed in 1962 and is also part of the ongoing maintenance. The authorized navigation channel dimensions allow safe navigation during all tide levels. USACE maintains the navigation channel primarily by armoring a protective spit and dredging the navigation channel. Maintenance dredging of the navigation channel is needed because of the shoaling of river-borne sediments that reduce the depth of the channel, especially across the bar at the mouth of the river. Shallow areas within the channel present safety hazards to deep draft vessels. Occasionally, deep draft vessels must wait for high tide to transit.

The Quillayute River carries up to 605,000 tons of bedload material annually (Nelson 1982). The rate of accretion of sediment in the channel requires removal approximately once every 2 years to achieve adequate depth for safe navigation. Dredged material is repurposed by placement at sites near the navigation channel and locations in the nearshore zone or adjacent upland areas. Hydraulic dredging allows the direct placement of material onto beneficial-use sites.

It is important that material dredged from the Quillayute River navigation channel be used within the system on the ocean side of the rocky islands and armored spit to

simulate the natural sediment transport processes that have been interrupted due to the armoring of Quillayute Spit and construction of jetties. The aquatic placement and beneficial use of dredged materials also reduces future maintenance needs of the navigation features that protect the waterfront developments.

1.2 AUTHORITY

The Quillayute River Navigation Channel project was authorized by the Rivers and Harbors Act of July 3, 1930 (Referencing House Document 125, 71st Congress, 1st session) and then modified by the Rivers and Harbors Acts of March 2, 1945 (Referencing House Document 218, 78th Congress, 1st Session) and September 3, 1954 (Referencing House Document 579, 81st Congress, 2nd Session). The original authorization included the construction of a jetty on the eastern side of the river inlet and a dike with groins on the westerly side. Maintenance dredging of the channel to a depth of 6 feet was authorized in 1945. Raising of the jetty to a height of 15 feet, maintenance dredging to a depth of 10 feet, and inclusion of a moorage basin was authorized in 1954.

1.2.1 Navigation Features

Construction of the navigation project began in 1931. USACE maintenance began in 1949 and continues today. The purpose of the continuing maintenance of the various project features is to protect the navigational channel and the infrastructure and property of the community of La Push. The following is a list of authorized features of the Federal navigation project (Figure 1):

1. A small boat basin 1,070 feet long, 313 feet wide, and -10 feet mean lower low water (MLLW), plus an authorized overdepth of 2 feet along the west side to reduce shoaling inside the boat basin, with a 1,250-foot timber training wall constructed to elevation +16 feet MLLW, and a timber seawall at the downstream end to protect against ocean waves.
2. A rubble mound jetty 1,450 feet long with a crest width of 18 feet, located on the eastern side of the river mouth authorized at +15 feet MLLW.
3. A rubble mound sea dike 1,050 feet long with a crest width of 14 feet, authorized at +8 feet MLLW, along the west side of the river between Quillayute Spit and James Island. The sea dike included four optional rock groins that were not constructed.
4. A navigation channel varying from 75 to 275 feet wide and -10 feet MLLW, plus 2 feet of allowable overdepth, with an entrance channel southeast of James Island and extending 4,400 feet upstream ending with a settling basin alongside the marina's training wall.
5. Maintenance of Quillayute Spit, 2,080 feet long and +20 feet MLLW, a naturally occurring spit that is artificially maintained with armoring to protect the marina and town from ocean waves.

Except for the proposed groins on the sea dike, navigation project construction was completed in February 1960. Construction of the four optional rock groins as part of the sea dike did not occur in the initial 1931 effort and were later found unnecessary a report to the Chief of Engineers in 1939 classified them as inactive.

Figure 1. Federally authorized navigation features at the Quillayute River estuary, La Push, Washington. Approximate location of the navigation channel is indicated by the green lines.

1.3 PROJECT LOCATION

The Quillayute River Federal Navigation Channel is located at the town of La Push in Clallam County, Washington (Township 28 North, Range 15 West, Section 28). The town of La Push is about 50 miles southwest of Port Angeles and 15 miles west of Forks (Figure 2). The Quillayute River Navigation Channel provides the only harbor of refuge for 100 nautical miles along the Washington Coast between Neah Bay and Westport.

Figure 2. Proposed project vicinity and location (blue star) on the southwest coast of Washington State

2 PURPOSE AND NEED

The purpose of the action is to provide for safe navigation and moorage by maintaining the authorized depth of -10 feet MLLW, plus 2 feet of allowable overdepth, and to maintain the U.S. Coast Guard (USCG) moorage slips to provide adequate depth for vessels. The purpose for placement of sediments at the two beneficial-use sites is to keep estuarine sediments in the natural system for beach nourishment that will enhance forage fish habitat and to add material to the Quillayute Spit and South Jetty that helps protect developments at La Push from damage by high river flows and ocean waves. Maintenance dredging of the navigation channel is needed because of the shoaling of river-borne sediments that reduce the depth of the channel especially across the bar at the mouth of the river. The rate of accretion of sediment requires removal approximately every 2 years to maintain adequate depth for safe navigation. The USCG Quillayute Station is the only vessel response point between Neah Bay and Grays Harbor and is therefore an important location for timely response to endangered mariners nearby in the Pacific Ocean. The marina at La Push offers a livelihood for approximately 325 Tribal members and 50 non-Tribal citizens including USCG personnel. The primary commercial activities are fishing and fish processing, which generate approximately $4,000,000 in annual revenue. The channel must be maintained to support the navigation activities of this small community.

3 PROPOSED ACTION AND ALTERNATIVES

According to the identified need for safe navigation and moorage, USACE formulated, evaluated, and screened alternatives for determining the action that qualifies as the Federal standard or preferred alternative. USACE regulations define the Federal standard as the least costly alternative that is consistent with sound engineering practices and meets all Federal environmental requirements. This chapter describes the range of alternatives that were evaluated and screened for selection of the preferred alternative and identifies the preferred alternative that was selected.

3.1 ALTERNATIVE 1: NO-ACTION ALTERNATIVE

USACE analyzed the No-Action Alternative as the future without-project conditions for comparison with the action alternatives. If USACE takes no action to clear shoaling sediment from the Quillayute River channel and boat basin, continued shoaling would pose a risk to the USCG's ability to carry out rescue missions, and to recreational boaters and commercial fishermen who may run aground when transiting the channel. Eventually, the marina would become inaccessible. Discontinuing the present maintenance dredging program would cause the Quillayute River Channel to shoal, preventing passage of most vessels. This would have significant economic effects to the Quileute Tribe of the Quileute Reservation (Quileute Tribe) at the town of La Push. USCG stated that they would likely have to close this station. This alternative would not meet the project purpose and need, but it is carried forward for evaluation purposes.

3.2 ALTERNATIVE 2: DREDGING QUILLAYUTE RIVER FEDERAL NAVIGATION CHANNEL WITH BEACH NOURISHMENT PLACEMENT

Alternative 2 is the USACE-preferred alternative and the environmentally preferred alternative. It involves the maintenance dredging in the Quillayute River Navigation Channel and small boat basin via a hydraulic cutterhead pipeline dredge and placement of dredged materials at three shoreline areas. The dredging project footprint consists of a 4,400-foot-long channel and a small boat basin that is 1,070 feet long by 313 feet wide. The authorized project depth is -10 feet MLLW. Two additional feet of overdepth is allowed due to the coarse precision of dredging. Dredging within the boat basin includes the main access lane, access lane for the USCG station, and fuel dock. If needed, the boat basin vessel slips may be dredged. Dredged materials will be used for beach nourishment.

Dependent on receipt of actual funds, USACE anticipates dredging every two years (for instance, in fiscal years 2025, 2027, 2029, and 2031). Dredging could extend the full duration of the in-water work window that closes on March 1st of each year. This document analyzes the effects of conducting the proposed action on a reoccurring basis, and relies upon a representative time period from September 1, 2024, to March 1, 2031, for planning purposes, although operation and maintenance of this federal channel is expected to continue beyond this time period. As a congressionally authorized project, the depths of this federal navigation channel are expected to be maintained in perpetuity.

Project Design

The proposed action consists of the maintenance dredging of up to 100,000 cubic yards (cy) approximately once every 2 years from the navigation channel and the boat basin, which are to be maintained at -10 feet MLLW. Dredging would occur with a hydraulic cutterhead pipeline dredge. This type of dredge is a vessel with an intake pipeline extended to the sea floor and an output pipeline extended to the material placement location. The suction pipe is outfitted with a cutting implement that disturbs and breaks up the sediment so it can be sucked up into the pipeline. An impeller on the vessel provides the suction power as well as the pushing power to discharge the sediments through the output pipeline to deliver the material to a placement location. The sediment moves in a slurry that is at least 50 percent water to provide the transport power. A bulldozer moves the output pipeline along the placement area as material accumulates. The size of dredge typically used at the Quillayute navigation channel would be able to move an average of 1,500 cy of material per day and complete the project within roughly 60 days, weather permitting. However, the work may take up to 120 days due to winter storms on the Washington Coast. These productivity rates assume the dredge would be in operation 24 hours a day, with short periods of down time for shift changes and mechanical maintenance. However, the dredge operation would only operate in daylight hours, so the estimated time to complete the work could potentially be greater than 120 days.

The authorized in-water work window for the Quillayute River channel is between September 1st and March 1st. Up to 15,000 cy of material dredged from the outer channel could be placed at Site A (Figure 3) per dredging event. Up to 85,000 cy of dredged material from the inner channel and boat basin could be placed at Site B and First Beach (Figure 3). Placement of material at First Beach may not begin until after October 1st of any year to protect surf smelt spawning habitat.

USACE typically places dredged material via hydraulic pipeline dredge with the outlet just over the crest of the Quillayute Spit armoring and above MHHW (+8.45 feet MLLW at Site B) to minimize suspended sediment in the water. Material that enters the water directly, primarily during higher tides, moves along by longshore currents and deposits in the intertidal zone further down current to the north. The contractor uses a bulldozer to place the pipeline at the correct location for placement (Figure 4).

Figure 3. Quillayute River Navigation Channel routine maintenance dredging and placement project area.

Figure 4. Site B looking west. Bulldozer on riverside of Quillayute Spit with pipeline and sediment placement on the ocean side of the spit.

Placement Site A

Site A is a 1.75-acre site on the Quileute Tribe's reservation at the southwest corner of the town of La Push (Figure 3). The area used for material placement has capacity for approximately 15,000 cy per placement episode. For instance, this would mean that up to 60,000 cy maybe placed at Site A over the next 7 years, if USACE places dredged material via hydraulic pipeline dredge at this location. In addition, a bulldozer or excavator would create a suitably sized basin, using onsite material to surround the basin with a containment berm. The basin inside the berm would be of sufficient size to allow turbid water to settle, before allowing the water to return to the Quillayute River through an outfall weir that directs the clean water onto riprap to prevent shoreline erosion. USACE will monitor turbidity levels of discharged decant water and manages discharges consistent with the Water Quality Monitoring Plan (Appendix C) and the conditions of the CWA, Section 401 Water Quality Certification issued by the U.S. Environmental Protection Agency. Material placed at Site A may be later be utilized at the First Beach Placement Area to protect the jetty root as described in the following section. Material that is not placed onto First Beach may be available for Quileute Tribal use in suitable upland areas. However, the environmentally preferable placement locations are those where the sediment can remain in the marine ecosystem.

First Beach Placement Area

The area of the First Beach site is 1.51 acres (Figure 5). After October 1st, material from Placement Site A may be placed onto First Beach at the discretion of USACE to protect the root of the South Jetty from coastal storm events. Per dredging episode, up to 15,000 cy of suitable dredged material placed in upland Site A is available to be pushed onto the sloped bank at First Beach with a bulldozer. Material would be placed

on the beach to dewater, which would prevent elevated levels of turbidity in the waters surrounding First Beach. The material for placement at First Beach would consist of sand with a small fraction of gravel and cobble from the outer river channel. Once fully drained within Site A's berm basin, the suitable dredged material may be transported over the top of the bank at First Beach down to where it intersects the shoreline, not to extend below MLLW. A bulldozer will then grade the material to a slope varying between 5:1 and 20:1 depending on height of the bank and quantity of suitable available material for placement at First Beach (Figure 5). Once in place, the material would move with natural erosive forces (wave action and longshore currents) to assume its final contours and sediment gradations. Up to 60,000 cy could be placed in this site over the 7 years if there are four biennial dredging episodes from 2024 - 2031. The purpose for placement is to protect the South Jetty at First Beach.

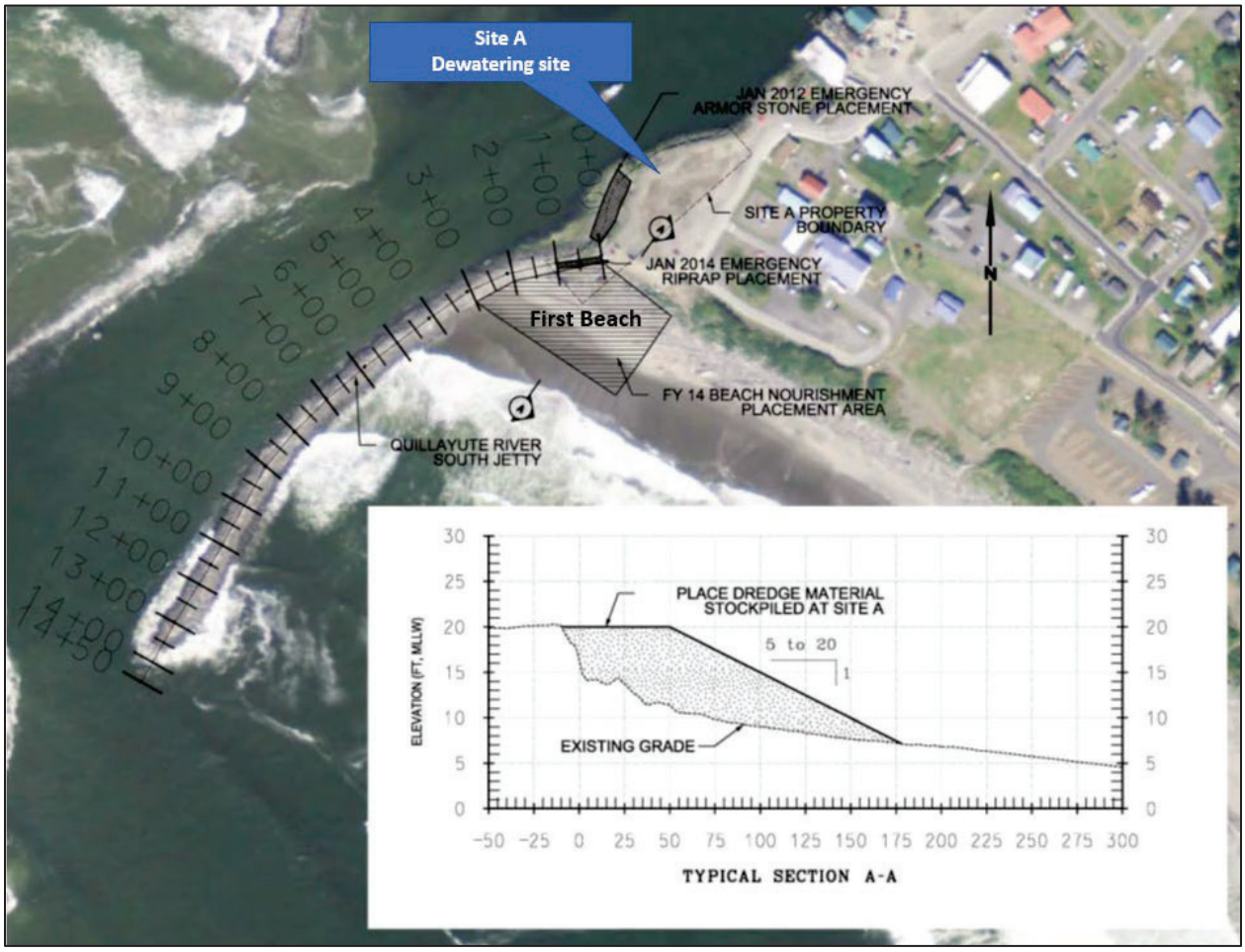

Figure 5. Location, footprint, and grading profile of material placed at First Beach.

Placement Site B

Wave action continues to damage areas along the entire Quillayute spit, eroding material from the toe of the riprap. Site B is approximately 3,000 feet long and 75 feet wide, within an area of approximately 6 acres (Figure 3). Use of this location keeps river-borne material within the nearshore environment and enhances the integrity of

Quillayute Spit. USACE expects to place up to 85,000 cy of suitable dredge material per dredge episode within Site B. Technical input from USACE coastal engineers and analysis of the latest site conditions will factor into the selection of specific placement locations along Site B before each dredging episode.

3.3 Best Management Practices for Impact Avoidance and Minimization

To avoid and minimize environmental impacts during construction and maintenance activities, USACE would incorporate the following Best Management Practices (BMPs) into the action:

a. In-water work will be limited to the in-water work window September 1st to March 1st to avoid peak movement of salmonids and spawning forage fish. Placement of material at First Beach may not begin until after October 1st of any year to protect surf smelt spawning habitat.
b. Each dredging episode will be coordinated in advance with the Indian Tribes that have usual and accustomed fishing rights in each project area (Quileute Tribe and the Quinault Indian Nation) prior to the start of dredging.
c. Project is limited to specific authorized dimensions and will be executed in a manner consistent with USACE's project authority.
d. Maintenance dredging will be conducted in reliance upon the results of site-specific hydrographic condition and bathymetric surveys conducted in advance of each dredging episode.
e. Any placement of material for in-water disposal will adhere to a project specific suitability determination by the Dredged Material Management Program (DMMP) Agencies.
f. All criteria and conditions in the water quality certification (WQC) from Washington State Department of Ecology (Ecology) consistent with USACE responsibilities and authorities will be followed.
g. Delivery of a bulldozer will avoid disturbance of marbled murrelets by scheduling the arrival of the bulldozer to occur between 0900 and 1700 at the Rialto Beach parking area. The bulldozer will then be driven 0.25 mile, or further, away for the duration of each dredging episode.
h. For placement of sediment at First Beach, all large wood pieces would be moved out of the placement zone and then replaced above the high tide line on the beach after sediment placement to maintain their availability as a resource in the nearshore zone.
i. Containment berms will be constructed with on-site material to hold dredge slurry water to allow infiltration into substrate at Site A.
j. Dredged material is to be placed above MLLW at First Beach and Site B.
k. Hydraulic pipeline dredges limit, to the extent possible, pumping activities to when the suction equipment is on the substrate. In general, pump operations start after the equipment is on the substrate. When hoppers are full or dredging is

interrupted, the equipment will be lifted off the surface long enough to flush the remaining sediment from the pipes and pumping will cease.

4 ALTERNATIVES COMPARISON

This section provides information on the existing conditions of resources within the project area and issues relevant to the decision process for selecting the preferred alternative. Existing conditions are the physical, chemical, biological, and socioeconomic characteristics of the project area. Factors for selecting the preferred alternative include which of the alternatives would be the least costly, environmentally acceptable, consistent with engineering practices, and congruent with the project's purpose and need. Table 1 identifies the resources evaluated for detailed analysis and provides a rationale for inclusion or exclusion. USACE excluded resources from detailed analysis if they are not potentially affected by the alternatives or have no meaningful bearing or are not relevant for this decision-making process.

Table 1. List of resources considered for detailed effects analysis and rationale for inclusion or exclusion.

Resource	Included in Detailed Analysis? (Y/N)	Rationale for inclusion or exclusion
Hydraulics and Geomorphology	Y	Alteration of the bathymetric condition may affect local hydraulics and geomorphology. The proposed action requires study of these characteristics.
Groundwater	N	The proposed action is limited to the subtidal environment. No groundwater would be affected.
Wetlands	N	No wetlands occur within the project footprint or potential area of influence.
Sediments	Y	Analysis is required to determine the potential changes to sediments in and around the project location.
Water Quality	Y	Potential impacts to water quality are necessary to understand for comparing alternatives.
Vegetation	Y	Vegetation occurs in the project footprint. An analysis is required to determine the potential impacts to vegetation in and around the project location.
Fish	Y	Numerous fish species may be present. Analysis is required to determine the timing of their presence, the intensity of effects, and how to avoid or minimize effects.
Wildlife (mammals and birds)	Y	Dredging and disposal activities have the potential to disrupt nearby wildlife species.

Resource	Included in Detailed Analysis? (Y/N)	Rationale for inclusion or exclusion
Benthic Invertebrates	Y	Benthic macroinvertebrate populations are known to recover quickly from the type of action proposed, but community structure can change under disturbance regimes. Significant negative effects are not anticipated, but analysis is required to determine intensity of effects.
Threatened and Endangered Species	Y	The proposed action may affect ESA-listed species in the project area. Analysis is required to determine the intensity of effects and how to avoid or minimize impacts.
Invasive Species	N	Maintenance dredging would not introduce new invasive species or spread established invasive species. The proposed action would not increase the number of vessels entering the marina, nor would the origin of the vessels change.
Cultural Resources	Y	Analysis is required to investigate cultural resources and to determine the extent of any potential effects.
Indian Treaty Rights	Y	Treaty-reserved fishing areas and usual and accustomed areas occur in the Quillayute River and estuary.
Air Quality and Greenhouse Gas Emissions	Y	The air-pollutant concentrations in the project area have consistently been below the National Ambient Air Quality Standards; however, an analysis of pollutants emissions from dredging and dredged material placement is necessary to disclose to the public.
Noise	Y	The action has the potential to impact sensitive noise receptors during dredging and dredged material placement, including fish and wildlife. Analysis is required to determine the intensity of effects.
Hazardous, Toxic, and Radiological Waste	N	The most recent sediment suitability determination indicated that proposed dredge materials from this federal navigation channel meet criteria for beach nourishment. Potential impacts are evaluated under the sediment section.
Recreational and Scenic Value	Y	Resources may be temporarily impacted during dredging and dredge material placement activities. Analysis is required to determine the intensity of effects.

Resource	Included in Detailed Analysis? (Y/N)	Rationale for inclusion or exclusion
Socioeconomic Resources	Y	There are sufficient economic benefits to support justification of the project. A purpose of the project is to maintain safe navigation for commercial and recreational uses, thus maintaining affected economies.
Environmental Justice	Y	Required to be analyzed by presidential executive order. The proposed action would not have detrimental effects to sensitive populations as there would be no disproportionately high or adverse human health impacts to any environmental justice communities. The proposed project is expected to provide benefits to the community by facilitating safe passage for fishing and recreational vessels.
Public Services and Utilities	N	The proposed action would have no substantial effect on electricity, water, wastewater and stormwater collection, sewer and solid waste, natural gas, oil/petroleum, or telecommunications services.
Public Health and Safety	Y	The proposed dredging would improve safe navigation, but safety during operations must be analyzed.

4.1 HYDRAULICS AND GEOMORPHOLOGY

The Quillayute River drainage basin occupies the northwest corner of the Olympic Mountain Range and experiences 120-140 inches of rainfall annually. The basin is composed of old sandstones and conglomerates, a broad upland surface underlain by Pleistocene marine sands, silts, and gravels, and mantled by glacial outwash. Because of these sources of material, as well as a history of timber harvest in the central basin, the river transports a moderate bedload of variously sized sediment depending on seasonal discharges. A single storm event creating higher river stages can deliver significant quantities of gravel and sand to the estuary.

The Quillayute River enters the Pacific Ocean at La Push among rocky islands and sea stacks. Low tide exposes mixed sand and gravel bars in the estuary. The coastal beach zone on the ocean side of the South Jetty consists of cobble, gravel, and sand distributed into strata along the beach. Large drift logs dominate the beach within the storm tide zone. Large ocean swells overtop the jetty during some winter storms.

Many of the naturally dynamic features of the estuary have been stabilized to protect developments at La Push from damage by high river flows and ocean waves. The intertidal estuarine areas at the mouth of the Quillayute River have a mostly diked or riprapped shoreline, including the stabilized Quillayute Spit, the Sea Dike at James

Island, and the South Jetty. The result is a channelized river with a large amount of non-native riprap in the aquatic ecosystem, which prevents some of the natural processes at this location. Additionally, stabilization of the Quillayute Spit has interrupted the sediment transport process in the littoral drift cell that feeds Rialto Beach to the north causing substantial erosion over the past two decades.

4.1.1 Alternative 1 – No Action Alternative

Under the No Action Alternative, sediment would continue to accumulate in the navigation channel. Shoaling of sediment would begin to hamper vessel passage to and from the marina across the bar. The current patterns in the channel would change and become more difficult to navigate. Temporary closures of the bar reach would occur when sediment accumulation had made this reach too shallow for safe navigation during storms or low tides. Continued shoaling would result in less water depth throughout the channel and, if allowed to continue unimpeded, could reduce or eliminate vessel traffic. Eventually, enough sediment would accumulate that the channel between the harbor and the ocean would no longer be navigable.

4.1.2 Alternative 2 – Dredging Quillayute River Federal Navigation Channel with Beach Nourishment Placement

Alternative 2 would allow dredging as well as beneficial use placement on Site A and Site B to begin on September 1st with transport to First Beach beginning October 1st. The proposal is to conduct up to four maintenance dredging episodes over 7 years. Dredging would maintain the modified estuary as it is to provide safe and reliable access through the navigation channel to the marina. Hydraulics and geomorphology would remain the same as present conditions throughout the navigation channel, boat basin, and placement sites.

Placement of dredged material at Site A with subsequent placement onto First Beach would help to protect the South Jetty from erosion. Removal of dredged material from Site A for upland uses would further disrupt the already impaired sediment transport and deposition process. However, this material is available if coastal engineers determine it is not needed at the South Jetty. Site A would receive up to 15,000 cy in each of the four maintenance episodes.

Placement of material at Site B would partially replace the sediment transport process, reduce erosion at the toe of the riprap, and would supply sediment to the littoral drift cell that delivers sediment northward along Rialto Beach compared to the No Action Alternative. Most of the material that accumulates, especially in the inner navigation channel and boat basin, has an appropriate grain size distribution to help maintain the surf smelt spawning habitat. Therefore, placement of dredged material at Site B is a beneficial use of the dredged material that would move northward in the drift cell over weeks and months. Site B would receive up to 85,000 cy of sediment in each of the four maintenance episodes.

4.2 SEDIMENTS

Sediments at the river mouth are smooth gravel and cobble decreasing in size to sand near the shore. The grain size distribution in the boat basin is primarily sandy silt and

the channel is nearly all sand with some gravel. The outer channel material is mostly gravel and cobbles as large as 6 inches in diameter. The earliest suitability determination from the DMMP agencies on record for this federal navigation channel is from 1993 and sediments were found suitable for in-water placement.

The most recent sediment characterization by the DMMP agencies of this federal navigation channel occurred in 2023 (USACE 2024), including the boat basin area, and found the material to be suitable for in-water placement. Sediment samples were collected by power grab sampler on June 21-22, 2023. A total of 15 grab samples were collected and composited to represent DMMUs 1 to 5 in the navigation channel and boat basin. The 2023 survey indicated significant infill above the authorized depth in the boat basin and smaller amounts of infill in the inner and outer navigation channel. These findings are similar to the previous bathymetric survey conducted in February 2017, in which significant infill was indicated above the authorized depth in the upstream portion of the inner navigation channel and smaller amounts of infill found towards the mouth of the navigation channel and in the boat basin (USACE 2018). No sampling issues occurred in 2023, and all sediment samples were considered acceptable by the DMMP agencies.

4.2.1 Alternative 1 – No Action Alternative

The No Action Alternative would have no effect on the sediments in the Quillayute River or the nearshore zone of Quillayute Spit or First Beach. This alternative would allow sediment to continue accumulating, which would eventually jeopardize the ability for safe navigation through the channel. Without placement of dredged material at First Beach, the need for an emergency repair of a breach of the South Jetty is more likely, and may be done with angular quarried rock, which is less appropriate than the native material. This alternative would not meet the project purpose and need because the Quillayute River Navigation Channel would not maintain its authorized depth, given the rate of accretion in this area as regularly performed bathymetric surveys have shown.

4.2.2 Alternative 2 – Dredging Quillayute River Federal Navigation Channel with Beach Nourishment Placement

Alternative 2 would return the navigation channel to its congressionally authorized maintenance depth. The direct effect of this alternative on sediments would be removal of accumulated surface sediments and exposure of underlying sediments to the water and currents of the channel. The dredged material placed at the beneficial use placement sites would have essentially the same grain size distribution and would match the coarseness of the material already located at the beneficial use sites. Removal of sediments from the navigation channel, followed by placement of suitable material at the nearshore zone sites would substitute for the natural sediment transport and deposition processes in the Quillayute estuary.

In past dredging events, placement at Site A has typically removed up to 15,000 cy of material from the estuarine environment. However, with relocation of suitable material to First Beach, this sediment would stay within the marine system, and return to the nearshore zone. The composition of First Beach in the winter, when the material would be placed, is mostly gravel and cobble. In the summer, sand washes up onto higher

elevations and buries this coarser material. The material placed on First Beach from the outer channel is a sand/gravel/cobble mixture. USACE expects the material to integrate quickly with the natural composition of the beach material and profile. In the winter, the sand would disperse to lower elevations by wave activity and in the summer, it would likely wash back up on the higher beach.

With biennial dredging episodes occurring on a regular basis (approximately four episodes over the next 7 years), sufficient material may be provided to avoid further, and more substantial, reinforcement of the South Jetty, when compared to conditions under the No Action Alternative. The material dredged from the inner navigation channel and boat basin would be pumped hydraulically to the ocean side of Quillayute Spit for placement along Site B. The material that accumulates in the boat basin is deemed appropriate grain size distribution to help maintain the surf smelt spawning habitat and to cover the riprap of the Quillayute Spit. Additionally, the coarse-grained material plays a critical role in protecting the spit and sea dike structures from wave damage and erosion (Schuldt 1974).

4.3 WATER QUALITY

The Washington State Department of Ecology (Ecology) classified the fresh/estuarine waters of the Quillayute River and the coastal marine waters as extraordinary (Washington Administrative Code [WAC] 173-201A-210), suitable for primary contact recreational uses, shellfish harvest, wildlife habitat, harvesting, commerce and navigation, boating, and aesthetics. No part of the 5.6-mile Quillayute River is on the 303(d) list for any water quality parameters. However, First Beach is listed as Category 2 for bacteria and the Dickey River, a tributary to the Quillayute, is listed as Category 5 for temperature. Dissolved oxygen (DO) in the navigation channel does not typically reach levels sufficiently low to cause aquatic organisms harm (below 4 milligrams per liter [mg/L]) because flushing from tidal currents keeps the water oxygenated. The frequent flushing of tidewater from the Pacific Ocean controls water temperatures in the project area. Aside from logging and a road network in the sub-basins of the upper watershed tributaries to the Quillayute causing increased temperature and sedimentation, there is little other disturbance that might affect water quality.

4.3.1 Alternative 1 – No Action Alternative

The No Action Alternative would have no effect to water quality in the Quillayute estuary or at any placement sites as no dredging activities would occur.

4.3.2 Alternative 2 – Dredging Quillayute River Federal Navigation Channel with Beach Nourishment Placement

Alternative 2 would have a minor, short-term degradation of water quality related to turbidity and DO in an area immediately downcurrent from the active dredging operations. Dredging operations would cause turbidity due to short-term resuspension of sediments in the water column and the amount of resuspended sediment would decrease with distance from the dredging. The area affected by turbidity would be only slightly wider than the dredging equipment as currents move the suspended sediments and they settle or are diluted. The down-current distance would likely be 300 feet or less as the sediments stay close to the sea floor where the cutterhead is operating and

disturbing the substrate. These water quality characteristics are of low concern for the aquatic biota in the project area because most mobile organisms that could be affected by turbidity or minor reductions in DO would be able to avoid or escape the affected area without measurable harm. These effects would occur in each of the biennial dredging episodes, approximately four dredging over a period of 7 years. Dredging takes about 60 days, although can be as many as 120 days per event because many days may have no dredging due to rough weather in which the water quality has natural turbidity from storm events. Turbidity monitoring and exceedances are described in the Water Quality Monitoring Plan (Appendix C).

DO may temporarily decline during dredging operations when the suspension of anoxic sediments in the plume area creates elevated chemical oxygen demand. During dredging operations, DO in the navigation channel is not expected to reach levels sufficiently low to cause aquatic organisms harm (below 4 mg/L) because flushing from tidal currents would keep the water oxygenated. It is unlikely that the sediments to be dredged are strongly anoxic because the bulk of the sediment in the Quillayute River channel typically has a low percentage of fine materials. Short-term effects of decreased DO could include avoidance of the dredging area by mobile aquatic organisms and reduced foraging opportunity during and immediately after dredging as fish avoid areas of depressed DO. Given the amount of tidal exchange in the project area and low likelihood for substantial amounts of anoxic sediments, it is unlikely that DO would have measurable changes due to dredging and would therefore not cause harm to aquatic organisms.

Runoff from the temporary holding location at Site A would be controlled by setting up a containment berm using a bulldozer to scrape up the surface layer of material at Site A, and then protecting intrusion from vehicles by placing ecology blocks at the side facing the street. Before dredged material is placed at Site A, a water control weir would be placed within the berm so that water draining from the dredged material can runoff onto the armoring on the riverbank. The purpose of the weir structure is to regulate the release of ponded water from the containment area. Proper weir design and operation can control re-suspension and withdrawal of settled solids. Weir design provides the capability for selective withdrawal of the clarified upper layer of ponded water. Controlling the weir crest elevation within the pond maintains adequate ponding depth during the dredging operation. Once the crest of the pond overtops the height of the interior side of the weir, clarified water flows into the center of the weir. Water drains from the exterior side of the weir through a pipe of sufficient length and diameter to pipe the water to the desired location, which is an outfall onto a hard surface such as rip rap to ensure no erosion of riverbank soils and to avoid turbidity. The most popular type of weir is the rectangular weir. It is easily constructed and installed, and it provides greater control of water entering the weir. Weir crest elevations are usually controlled by placing boards within the weir structure. The material placed at First Beach would come from Site A consisting of the coarser outer entrance channel material that has drained of water. Once transported onto First Beach, this clean material would integrate with the natural profile and composition by summer. USACE received a Water Quality Certification from the EPA and will comply with all required conditions associated with

the discharge of dredged or fill material into waters of the U.S. contained in the certification. No release of contaminants is expected due to the clean nature of the dredged material. Beyond the short-term minor effects to water quality, there would be no significant impact to this resource under Alternative 2.

Material that is pumped to Site B during active dredging exits a pipeline as a slurry and falls onto the beach as a mix of sand and water. During most tide levels, the sediment falls onto the beach surface and the water quickly drains into the coarse sediment of the beach. During higher tide levels, the slurry of sand and water often mixes with ocean water as the waves run up the beach. This can generate a small visible turbidity plume during the hour the tide reaches this height; however, the power of ocean waves moves vast quantities of sediment around the beach creating wide areas of visible ambient turbidity even when no dredging is occurring. Therefore, the minor amount of dredged material entering the water for the short duration of high tide is not considered a significant effect. Compared to Alternative 1, effects to water quality under Alternative 2 would be slightly detrimental to aquatic life in the immediate area of the activity but would not constitute a significant impact.

4.4 VEGETATION

The coastal beach zone consisting of the jetties, dike, and rocky habitat are mostly devoid of vegetation, but may have some attached micro- and macroalgae. According to the Washington Department of Natural Resources, subtidal kelp forests occur offshore from the project area and around James Island (WDNR 2014). Rockweeds and other periphyton grow on the large rock of the South Jetty during spring, summer, and fall months. The beach grass/scrub zone is a narrow zone typically above the line of driftwood. This area primarily hosts dune grass and common yarrow, as well as invasive weeds such as English plantain, tansy ragwort and oxeye daisy. Other species present include goldenrod, vetch, hawksbeard, and pearly everlasting. The scrub zone is thought to be an older successional zone on accreting sandy areas. Common plants there are twinberry, salal, Sitka willow, and red alder. The intertidal estuarine areas at the mouth of the Quillayute River have a mostly diked or riprapped shoreline. At low tide, mixed sand and gravel bars become exposed.

Further upstream past the marina, sparsely vegetated sand and gravel bars exist in the low water areas and the riverbanks become steep above the mean water line. A few patches of brackish marsh have been observed with typical salt-tolerant plant species. The vegetation on the riverbanks is almost exclusively freshwater species. Emergent marshes occur on intertidal shores of unconsolidated substrate that are colonized by erect, rooted, herbaceous hydrophytes. Perennial plants dominate most of the growing season in most years. Emergent marshes tend to form in the mixing region where tidal energy generates flood tide periods with high settling of suspended sediments. The lowest water vegetation is mainly hairgrass, pea, Douglas aster, and curly dock. The high-water vegetation zone is principally common rush, silverweed, sedges, and redtop. The sand flats primarily host forbs and graminoids. The most common species in this area are dune grass, invasive reed canarygrass, silverweed, and thistles. Other less abundant species include English plantain and yarrow, while woody species are absent. An area of sedge wet meadow lies just upstream from the project area in the last bend

of the river. This is a seasonally saturated freshwater wetland dominated by sedges and common rush. Woody species are absent. Both maritime forest and broadleaf mixed forest stand near the project area.

The maritime forest is adjacent to local wetlands and the river floodplain and contains Sitka spruce and red alder with occasional patches of sedges and willows. The broadleaf mixed forest community is dominated by red alder groves with some Sitka spruce, ash, and hemlock. The understory is dominated by salmonberry, buttercups, and piggyback, with small invasions of typical non-native plants.

4.4.1 Alternative 1 – No Action Alternative

The No Action Alternative would have no effect to any vegetation or tidal wetlands in the project area. While shoaling may eventually create shallower aquatic habitats within the estuary, the processes that allow tidal wetlands to develop are substantially degraded making low likelihood for wetland creation to occur in the absence of the dredging project.

4.4.2 Alternative 2 – Dredging Quillayute River Federal Navigation Channel with Beach Nourishment Placement

Placement of dredged material has the potential to bury dune grass; however, this species is expected to recolonize the placement area quickly due to recruitment of plants from adjacent unaffected areas and because the deposited material erodes rapidly off the beach exposing habitable substrate. This is likely to occur in each spring growing season, so dredging four times over the next 7 years would maintain the same pattern that has been occurring for the past couple of decades of maintenance dredging episodes. Compared to the No Action Alternative, dune grass may be intermittently reduced in coverage. No other vegetation is expected to experience the effects of the dredging and placement operations.

4.5 FISH

The Quileute Tribe Fisheries Department conducted an environmental resources survey of the Quillayute River estuary in 1979 and 1980 to assist USACE in scheduling dredging and other maintenance activities for impact avoidance and minimization based on timing (Chitwood 1981). Information on fish resources from this study is incorporated below as well as information from more recent sources.

Forage Fish

Forage fish are a critical prey item for many fish and wildlife species. Two distinct sizes of surf smelt have been found in the estuary (about 2-4 inches and 5-10 inches), possibly representing 1-year-old and 2- to 3-year-old age classes, respectively. Most of the smelt were caught in the lower and middle estuary. The surf smelt are known to spawn on Rialto Beach May through September with the peak in July and August (Fradkin 2001). Other forage fish captured during survey included Pacific herring, sand lance, and anchovy (Chitwood 1981). No Pacific smelt were captured during the Tribe's 1979-1980 study, and none have been reported since that time. According to Washington State Department of Fish and Wildlife (WDFW) Forage Fish Spawning

Data, there are no recorded detections of sand lance or Pacific herring spawning along this reach of the Washington Coast (WDFW 2016a).

Timing, location, and beach substrate suitability are the primary parameters of concern for effects of dredged material placement on beach-spawning forage fish. Studies of surf smelt spawning on the Washington Coast between 1997 and 2014, included sample sites at or near the proposed beach nourishment placement sites. (Fradkin 2001) found greater spawning density at the north end of the Rialto Beach study area, which was approximately 0.5-mile north of the beach placement sites on Quillayute Spit. Timing of surf smelt spawning reported in the Fradkin 2001 study was similar to previous observations of the spawning occurring March to September with a peak in July and August. Only one year of the study observed spawning in September, and no winter spawning at this area during a year of relatively abundant spawning activity. A later survey only detected eggs in the gravel in late July and early August even though sampling continued into November (ICF 2010), which coincides with previous evidence that peak spawning is in July and August. The eggs were north of the end of proposed nutrient beach nourishment placement Site B. This study found that grain size distribution in the study area is more favorable for surf smelt spawning to the north of proposed Site B. Additionally, the beach profiles transition from unfavorable in placement Site B to favorable for surf smelt just north of the end of Site B.

Based on coastal shoreline surveys for beach spawning fish, Washington Department of Fish and Wildlife (WDFW) has mapped spawning locations (Figure 6). Surf smelt spawning locations are documented to the north and south of the project area; each site is slightly less than one mile away from Site B and First Beach placement areas. A surf smelt study conducted in 2009, which looked for impacts of beach placement to the surf smelt population that spawns on Rialto Beach, showed no surf smelt eggs present during the timing of proposed material placement on the beach (ICF 2010). The beach profile analysis showed the beach is a highly dynamic environment and the substrate shifts significantly through storms as well as seasonally between summer and winter; massive amounts of beach material move with each tide cycle and especially in storm events (ICF 2010). USACE estimated that the quantity of material placed from dredging is a minor fraction of all the material transported in this drift cell. Later surveys conducted by WDFW, and local tribes contributed information regarding timing and location of surf smelt spawning activity. Sampling occurred October 2012 through October 2014 and found no eggs in the substrate of Rialto Beach in the first year, and minimal evidence of spawning in the second year at a location approximately 1.3 miles north of the Quillayute Spit. One egg was identified in gravel at the southeast end of First Beach. These surveys detected minimal evidence of forage fish spawning at Rialto Beach and First Beach (Langness et al. 2015).

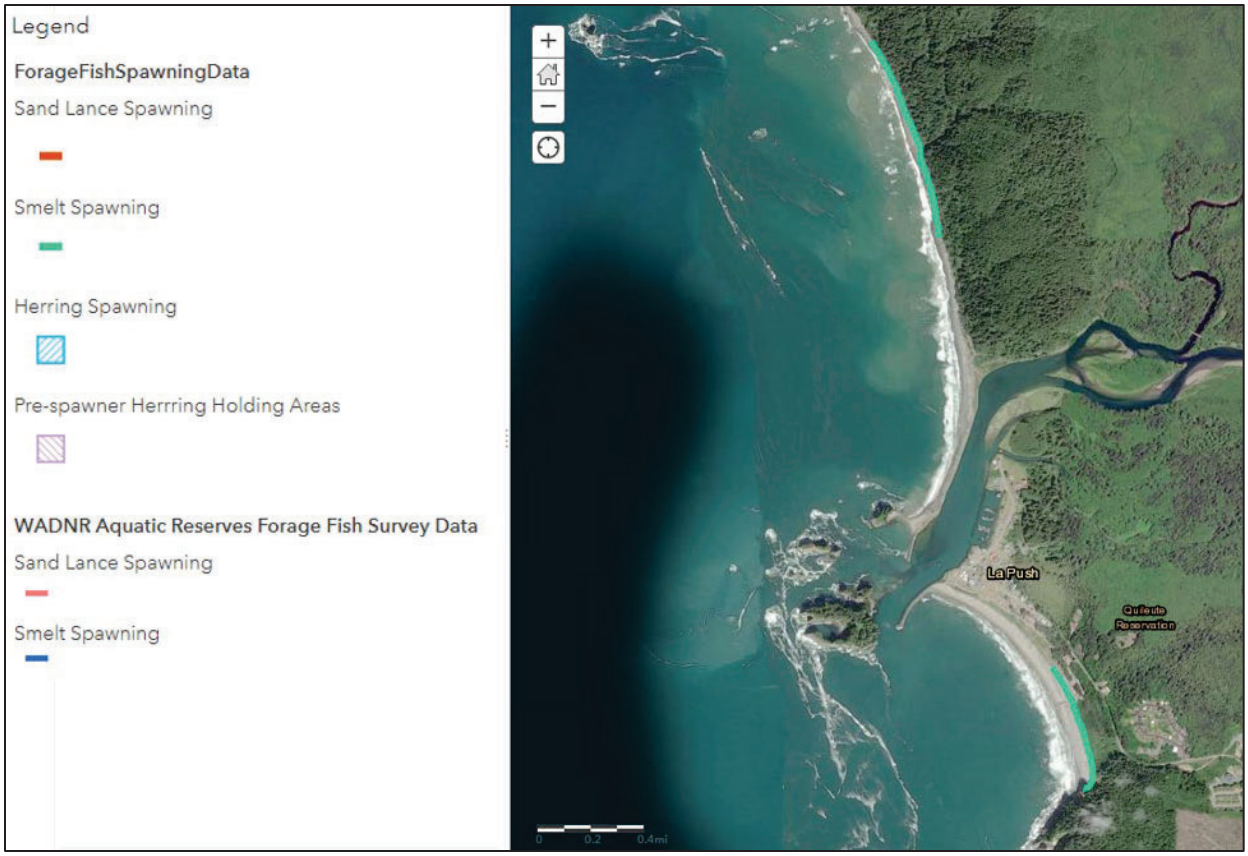

Figure 6. Documented surf smelt spawning locations near La Push, Washington (WDFW 2023).

Salmonids

The Quillayute River watershed supports six anadromous salmonid species: Chinook, coho, chum, pink, sockeye, and steelhead. Chinook are the most important fishery species for the Quileute Tribe and steelhead are a popular sportfishing target in the river. Fish usage of the estuary occurs throughout the year, although the greatest numbers appear in summer and the least in winter. Continuing outmigration studies have shown that maximum usage of the estuary by young-of-the-year Chinook consistently occurs between April and September. Coho predominantly out-migrate between April and August each year. Three hatcheries in the watershed release salmon parr in early March for their river rearing and outmigration stage. No bull trout have been captured in any sampling effort or recorded in any studies of the estuary.

Other Pelagic and Demersal Fish

Small numbers of other fish captured during sampling included saddleback gunnels, starry flounder, sculpins, rockfish, perch, threespine stickleback, and shad (Chitwood 1981). The rocky environment along the South Jetty likely provides habitat for reef dwelling fish like rockfish and lingcod.

4.5.1 Alternative 1 – No Action Alternative

The No Action Alternative would have no negative effects to fish species as no dredging or deposit of dredged materials at placement sites would occur. However, if the

Quillayute jetty remains in place and beach nourishment material is not provided, then the surf smelt spawning beach to the north would be starved of sediment. It is difficult to speculate on whether eroding beach conditions would continue to support spawning habitat without the input of dredged material from the river.

4.5.2 Alternative 2 – Dredging Quillayute River Federal Navigation Channel with Beach Nourishment Placement

The proposed action may cause temporary effects to water quality including increased suspended solids and small decreases in DO in the immediate dredging area. The temporary increases in suspended solids could affect fish in the immediate dredging area through decreased visibility for foraging activities and impaired oxygen exchange due to clogged or lacerated gills. However, the total suspended solids (TSS) levels expected for cutterhead dredging (up to 550 mg/L]) are below those shown to have adverse effect on fish (typically up to 1,000 mg/L; Johnson 2018; summary of scientific literature in Burton 1993; Wilber and Clarke 2001).

Modeling results of cutterhead dredging indicated that TSS concentrations above background levels would be present throughout the bottom 6 feet of the water column for approximately 1,000 feet (USACE 1983). Elevated suspended sediment levels are expected to be present only within about a 984- to 1,640-foot radius of the cutterhead dredge (USACE 1983; LaSalle 1990; Hayes et al. 2000, as reported in Wilber and Clarke 2001). TSS concentrations associated with cutterhead dredge sediment plumes typically range from about 12 to 282 mg/L with the highest levels (550 mg/L) detected adjacent to the cutterhead dredge and concentrations decreasing with greater distance from the dredge (Nightingale and Simenstad 2001; USACE 2005, 2010, 2015). Any turbidity would primarily be at the bottom of the water column at 10 feet deep in the center of the channel. Additionally, the in-water work window (September 1st to March 1st) avoids substantial overlap between the timing of dredging and salmon outmigration. Therefore, any effects would occur to very few if any juvenile salmonids.

Due to very little coincidence of timing and location, effects of reoccurring biennial dredging, occurring four times in the next 7 years would be discountable. Adult salmonids are expected to avoid areas of increased turbidity, and juvenile salmonids are unlikely to frequent areas of dredging as they stay close to the shorelines during migration and feeding. Fish that use the calmer waters of the boat basin may be susceptible to disturbance by dredging activities. Dredging would only occur during the in-water work window (between September 1st and March 1st), which protects the sensitive life stage of out-migrating juvenile salmonids as well as forage fish spawning to avoid exposure to increased suspended sediments.

4.6 WILDLIFE

Estuaries like the Quillayute River estuary are important forage areas for visiting wildlife, such as migratory shorebirds, ducks, and geese. USACE conducted wildlife surveys in 2002 focusing on the navigation maintenance project area. Four habitat areas were identified: the beach, the sea stacks with coves, estuarine river area, and the developed waterfront (SAIC 2003). Researchers identified 35 bird species across the four habitats studied. Most of the observed avian species (60 percent) use the estuary, while 20

percent appeared more on the revetted beach, and 17 percent of the species occurred within the sea stacks marine habitat. During low tide, gulls tend to loaf on the exposed intertidal area, and spotted sandpipers and whimbrels feed in the shallow margins. Cormorants and mergansers commonly inhabit the estuary and river area. The cove between sea stacks commonly hosts scoters, pigeon guillemots, and cormorants. Petrel Island is an important nesting area of common murres and peregrine falcons. Several other bird species occupy the sea stacks including brown pelicans. Bald eagles appear often throughout the project area. Marbled murrelets occur in the area and one nest has been documented in the National Park, north of the project area.

Harbor seals appear frequently in the estuary, and an occasional California sea lion has been observed. River otters feed in the estuary and river. Common terrestrial mammals along the beach and riverbank include raccoon, Douglas squirrel, and black-tailed deer.

4.6.1 Alternative 1 – No Action Alternative

No dredging or placement of dredged materials would occur. Consequently, Alternative 1 would have no effect on marine mammals, birds, or terrestrial wildlife.

4.6.2 Alternative 2 – Dredging Quillayute River Federal Navigation Channel with Beach Nourishment Placement

Routine biannual maintenance dredging of the Federal navigation channel and its associated placement sites would have a low level of disturbance to wildlife due to noise and presence of humans on the dredge vessel. This may have the effect of temporarily displacing a small number of birds and marine mammals including cormorants, mergansers, sandpipers, sea lions, and harbor seals that commonly use the estuary. Harbor seals are frequently present in the estuary and boat basin regardless of boat traffic. They typically avoid vessels, so the presence of the dredge may cause similar avoidance behavior. The dredge is no larger than the typical fishing vessels that use the marina and is therefore not expected to cause more than the usual amount of disturbance to birds or marine mammals; however, the constant noise from the operating dredge may cause marine mammals to avoid the estuary during the 60 to 120 days of dredging. They would be expected to return to normal once the dredging is complete in about early November, depending on seasonal weather conditions.

Operation of hydraulic dredge machinery and associated vessels is categorized as non-impulsive sound and has been measured at 100 to 110 decibels (dB) root mean square (RMS) with frequencies in the range of 70 to 1,000 hertz in a study in Cook Inlet, Alaska (Clarke et al. 2002). A study involving the specific dredge most often used in the Quillayute River recorded maximum sound pressure levels in the range of 155 dB to 161 dB with a rare peak at 177 dB; measurements were about 13 feet away from the cutter head (SAIC and RPS Evans-Hamilton 2011). Based on the recently released technical guidance for assessing the effects of underwater anthropogenic sound on marine mammals, dredging at Quillayute would be below the sound exposure level (SEL) that causes a temporary threshold shift in the hearing ability of seals and sea lions; the SEL for non-impulsive sound is 181 dB and 199 dB for seals and sea lions, respectively (NMFS 2016). Additionally, sound would attenuate quickly with distance from the dredge and would not cause any greater harm than avoidance of the

immediate dredging area. This effect would be expected to occur in each of the four proposed dredging episodes over the next 7 years and is assumed to continue to have the same level of effect.

4.7 BENTHIC INVERTEBRATES

USACE studied abundance and distribution of the benthic intertidal organisms in July 1980 (Chitwood 1981), and the study was replicated in 2002 (SAIC 2003). Researchers found 27 taxa among the 21 sampling sites located on ocean beaches and in the estuary. The greatest numbers of epibenthic taxa occurred on the boulders of the dike. The greatest densities of infaunal organisms were found in subtidal mud sediments and in the cobble/gravel habitat in the estuary. The predominant species in these areas were amphipods and oligochaetes, while amphipods and nemertean worms were the most abundant taxa on the outer coast beaches. In the bay between James and Rock Islands, the dominant species included several polychaete families, amphipods, oligochaetes, and isopods. Bivalve mollusks were found only in this bay. The only species of crab found during the Tribe's 1979-1980 sampling was the Dungeness. This species uses the estuary most heavily in the spring and summer months; very few were found during the winter (Chitwood 1981).

4.7.1 Alternative 1 – No Action Alternative

Alternative 1 would have no negative effects to benthic invertebrates as no dredging or placement of dredged material would occur. The navigation channel is dredged every 2 to 3 years, so there may be a lack of long-lived invertebrates in the channel. Ceasing a maintenance dredging program may allow greater biodiversity to develop into a more stable benthic community in the channel over a period of many years after the last dredging event.

4.7.2 Alternative 2 – Dredging Quillayute River Federal Navigation Channel with Beach Nourishment Placement

Dredging the channel and boat basin would disrupt the benthic community and cause direct mortality to smaller organisms that are unable to avoid the dredging operation. This would occur every other year per the proposed schedule of four dredging events over 7 years. The dredging area is small relative to the total benthic area covered by the invertebrate populations; the loss of a relatively small number of crabs to hydraulic dredging compared to total habitat available around the project area would not impact the total population. Rate of entrainment depends on the density of crabs in the dredging footprint. Based on environmental studies of the project area (Chitwood 1981; SAIC 2003), USACE anticipates loss of a few crabs, but not enough to impact population abundance or commercial and recreational catch rates.

Deposit of dredged material at placement sites would cause mortality of invertebrates present in the narrow strips of beach habitat where material lands. Larger organisms such as crabs would be able to flee the area and are rarely observed at the higher tide elevations where the sediment is placed. Sediments would be the same type and coarseness as those already present in the beneficial use sites and the depth of the total habitat area available would not change. In a relatively short period, organisms would reestablish in the placement area due to recruitment from adjacent undisturbed

areas. Based on these factors, effects to benthic invertebrate populations and their habitat at the placement sites would be minor. Within the dredged areas, the species that dominate this benthic invertebrate community are expected to return to pre-dredging conditions within 3 months after dredging is complete. The community in the channel is likely adapted to the dredging cycle and populated with short-lived species with an overall lower biodiversity compared to natural conditions in estuaries that are not regularly dredged (McCauley et al. 1977). The less frequently dredged areas of the boat basin might experience minor changes due to their proximity to the areas that are dredged more often (e.g., USCG slips), but are not likely to have a notably different community structure (Skilleter et al. 2006). The temporary loss and shift in community structure of benthic invertebrates would not substantially affect the broader estuarine community and biodiversity in the project area.

4.8 Threatened and Endangered Species

Eighteen species listed as threatened or endangered under the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531, et seq.) may occur in the project area (Table 2). Critical habitat is designated for 10 of the 18 species listed in Table 2, but only 2 of these species (green sturgeon, the leatherback turtle) have a critical habitat designation in the project area. Critical habitat designated for green sturgeon, the leatherback turtle and Southern Resident killer whale (SRKW) includes the nearshore areas of the Washington coast but excludes the Quillayute River estuary.

Table 2. Endangered Species Act listed species and designated critical habitat found in the action area of the maintenance dredging and beneficial use disposal sites.

Species	Federal Listing	Year Listed	Critical Habitat in Action Area	Potential Occurrence[1] (Likely, Unlikely, or Absent)
Coastal/Puget Sound Bull Trout	Threatened Critical Habitat Designated	1999 2010	No	Unlikely
North American Green Sturgeon	Threatened Critical Habitat Designated	2006 2009	Yes, but not in estuary	Unlikely
Pacific Eulachon	Threatened Critical Habitat Designated	2010 2011	No	Unlikely
Marbled Murrelet	Threatened Critical Habitat Designated	1992 1996	No	Likely
Streaked Horned Lark	Threatened Critical Habitat Designated	2013 2013	No	Absent
Yellow-billed Cuckoo	Threatened Critical Habitat Proposed	2014 2014	No	Absent
Northern Spotted Owl	Threatened Critical Habitat Designated	1990 2012	No	Unlikely

[1] Likely means that the species could be present in the action area. Unlikely means the species has the ability to be present in the action area but due to lack of habitat preference and/or food is not expected to be present. Absent means that the species is not present in the action area.

Species	Federal Listing	Year Listed	Critical Habitat in Action Area	Potential Occurrence[1] (Likely, Unlikely, or Absent)
Short-tailed Albatross	Endangered	1970	No	Absent
Southern Resident Killer Whale	Endangered Critical Habitat Designated	2005 2006	No	Unlikely
Humpback Whale	Endangered	1970	No	Absent
Blue Whale	Endangered	1970	No	Absent
Fin Whale	Endangered	1970	No	Absent
Sei Whale	Endangered	1970	No	Absent
Sperm Whale	Endangered	1970	No	Absent
Leatherback Sea Turtle	Endangered Critical Habitat Designated	1970 2012	Yes, but not in estuary	Unlikely
East Pacific Green Sea Turtle	Threatened Critical Habitat Designated	1978 1998	No	Absent
Loggerhead Sea Turtle	Endangered	1978	No	Absent
Sunflower Sea Star	Candidate	2023	NA	Unlikely

The National Marine Fisheries Service (NMFS) recently published a proposed rule (88 FR 16212; March 16, 2023) to list the sunflower sea star as threatened under the ESA. The species is a candidate species and, per Section 7(a)(4) of the ESA, USACE must confer with NMFS on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed. While the proposed listing determined that dredging may affect the sunflower sea star, the action was not identified as a moderate or high risk to the species or cause of population decline. The proposed action will not jeopardize the continued existence of sunflower sea star due to its generalist nature and persistence in urbanized settings prior to the disease outbreak leading to the species proposed listing (Lowry et al., 2022). USACE determined the action would have no effect on the sunflower sea star's population.

For several species and their designated critical habitat listed in Table 2 (streaked horned lark, yellow-billed cuckoo, Northern spotted owl, short-tailed albatross, humpback whale, blue whale, fin whale, sei whale, sperm whale, and the sea turtle species), the proposed project would have no effect. This is due to their sensitivities to human encroachment or because their presence is so transitory or unlikely due to habitat preferences absent in the action area. Except for the SRKW, the preferred habitat for whales is the open ocean, not shallow estuaries. Thus, it is extremely unlikely

that any of the whales listed in Table 2 would be present where the proposed work is to occur. The SKRW monitored off the Olympic coast spend about 10 to 16 days annually near the Quillayute River in the winter months (Hanson et al. 2018). Only transient killer whales have been observed near the Quillayute River (Geyer 2021). Of the three marine turtles listed in Table 2, only the leatherback sea turtle has the potential to be present in the action area as it has some ability to regulate its body temperature and can survive in colder waters unlike the other sea turtles.

4.8.1 Alternative 1 – No Action Alternative

Alternative 1 would have no effect on ESA-listed species or their designated critical habitat because dredging and placement of dredged materials would not occur.

4.8.2 Alternative 2 – Dredging Quillayute River Federal Navigation Channel with Beach Nourishment Placement

The potential stressors arising from the proposed maintenance action that could cause direct effects on ESA-listed species include 1) entrainment during dredging and sediment placement, 2) direct contact with cutterhead, 3) vessel collision, 4) elevated noise, and 5) degraded water quality. Indirect effects may also result from impacts on forage resources. USACE evaluated these effects and submitted a biological assessment (USACE 2016) to the U.S. Fish and Wildlife Service (USFWS) and NMFS on December 16, 2016, to initiate informal consultation to cover routine maintenance of eight navigation projects in western Washington for a 25-year period (2018-2033). For the Quillayute River Project, USACE determined that this dredging and disposal action would have “no effect” on any ESA-listed species or their critical habitat.

USFWS sent a Letter of Concurrence (Reference No. 0lEWFW00-2017-1-0277) for the proposed project on May 24, 2017. USFWS concurred with USACE determination and stated that with full and successful implementation of conservation measures, effects of the proposed maintenance action would not be expected to result in measurable effects to bull trout or marbled murrelets.

NMFS issued a biological opinion (Reference No. WCR-2016-6057) on January 26, 2018, concluding that with the implementation of BMPs (section 3.3) and minimization measures (section 5), the proposed action was likely to adversely affect but not likely to jeopardize the continued existence of eulachon and green sturgeon. NMFS also concluded that the proposed action was likely to adversely affect designated critical habitat for green sturgeon but is not likely to result in the destruction or adverse modification of the designated critical habitat. In this Opinion, NMFS also concluded that the proposed action was not likely to adversely affect ESA-listed marine mammal species, designated critical habitat for SRKW, ESA-listed marine turtles, and designated critical habitat for leatherback turtles. NMFS also reviewed the likely effects of the proposed maintenance action on Essential Fish Habitat (EFH) and concluded that the action would adversely affect designated EFH for Pacific Coast Salmon, Pacific Coast Groundfish, and Coastal Pelagic species.

The NMFS biological opinion outlined three Reasonable and Prudent Measures as follows:

1. Minimize the incidental take from dredging and in-water sediment disposal.
2. Minimize the exposure of listed fish to contaminants and reduced DO.
3. Implement a monitoring and reporting program to confirm that the take exemption for the proposed action is not exceeded. USACE shall develop and implement a plan to collect and report details about the take of listed fish.

With full and successful implementation of the BMPs (section 3.3) and avoidance and minimization measures (section 5), effects of the proposed maintenance action are not expected to result in measurable effects to listed species.

4.9 Cultural Resources

USACE coordinated its review of cultural resources impacts under Section 106 of the National Historic Preservation Act (NHPA). USACE determined the area of potential effect (APE) for both direct and indirect effects to be the Quillayute River navigation channel and all dredging placement sites. The Washington State Historic Preservation Office (SHPO) agreed with USACE's determination of the APE on January 16, 2024.

A USACE staff archaeologist conducted a records search and literature review for the APE, including a records search of the archaeological and historic site records at the Washington State Department of Archaeology and Historic Preservation (DAHP) online database and a review of archival records available at USACE, Seattle District. The literature review revealed that there are multiple archaeological sites in the vicinity that are of historic and cultural significance to the Quileute Tribe, although these properties are located outside the APE and their significant values would not be affected. There are no properties listed in the National Register of Historic Places or the Washington State Historic Site Register in the project vicinity, and no cultural resources have been recorded within the APE.

4.9.1 Alternative 1 – No Action Alternative

As no dredging or placement of dredged materials would occur, the No Action Alternative would have no effect to cultural resources.

4.9.2 Alternative 2 – Dredging Quillayute River Federal Navigation Channel with Beach Nourishment Placement

Alternative 2 would have no effect on cultural resources. There are no cultural resources located within the APE and USACE has arrived at a determination of No Historic Properties Affected.

4.10 Native American Treaty Rights

The United States has a unique, legally affirmed Nation-to-Nation relationship with American Indians and Alaska Native Tribal Nations, which is recognized under the Constitution of the United States, treaties, statutes, EOs, and court decisions. The United States recognizes the right of Tribal Governments to self-govern and supports Tribal sovereignty and self-determination. The United States also has a unique trust relationship with and responsibility to protect and support Tribal Nations.

The Tribes that may be affected by this action have treaty-reserved rights in the area of the proposed action. One of the treaty-reserved rights is the ability to conduct fishing activities at all usual and accustomed locations. Tribal fisheries are central to the cultural and economic existence of the Tribes and their members.

4.10.1 Alternative 1 – No Action Alternative

Alternative 1 would eventually result in reduced access and capability for Native American fishing to occur due to shoaling in the channel and loss of navigability of the waterway.

4.10.2 Alternative 2 – Dredging Quillayute River Federal Navigation Channel with Beach Nourishment Placement

Maintenance dredging would keep the channel open and navigable for fishing vessels to launch and access usual and accustomed fishing and shellfishing locations. The Quileute Tribe has expressed support for maintenance dredging of the channel and boat basin as vital to exercising their fishing and shellfishing rights and critical for the economic stability of the community. Maintenance dredging would have a positive effect on Tribal economics by providing access to usual and accustomed fishing areas at all tide stages and supports a charter fishing business as well as transient moorage for recreational fishing boats. Thus, maintaining the project to authorized dimensions is important to the Tribe because fishing is an important economic and cultural activity for the Tribe.

4.11 Air Quality and Greenhouse Gases

The Olympic Region Clean Air Agency does not monitor air quality along the Washington Coast in the project area because the northern coast is within the Olympic National Park and has no cities or industrial complexes. The air quality is at low risk for health concerns. There are no significant sources of air pollution within the project area, and onshore winds disperse local emissions from residential and vehicular sources. The median daily Air Quality Index value between 2000-2023 was 37[2] at nearest air quality monitoring station (Cheeka Peak; EPA 2024). Values range from 0-500. Values below 50 are considered “good.” Values above 100 imply risk to sensitive groups. Values above 300 are “hazardous”. The project area is in an attainment zone for all air quality parameters meeting National Ambient Air Quality Standards (NAAQS).

Anthropogenic sources of greenhouse gases (GHG; primarily carbon dioxide, methane, and water vapor) have been increasing over the past 150 years and have reached a rate of contribution that is causing global climate change. The concern for Federal projects is the contribution of GHGs to the atmosphere in such large quantities as to outweigh the benefit of executing the proposed action.

Washington statewide total GHG emissions were estimated at 102.1 million metric tons (MMT) of carbon dioxide equivalent (CO_2e) in 2019, a 9.3 percent increase over the

[2] The Air Quality Index converts concentrations (i.e., micrograms per cubic meter) for fine particles to a number on a scale from 0 to 500.

1990 baseline level. The largest GHG source in the state is highway gasoline transport, and non-highway transport (aviation, marine, trains, heavy machinery and agricultural), contributing 40.3 MMT CO_2e (carbon dioxide equivalents). Building (residential, commercial, industrial) and electricity generation contributed the subsequent highest emissions, 25.3 and 21.9 MMT CO_2e respectively (Ecology 2022). The nation's annual gross GHG emissions in 2021 were estimated at 6,340.2 MMT CO_2e (EPA 2023).

4.11.1 Alternative 1 – No Action Alternative

No dredging activities would occur under Alternative 1 and so this alternative would have no effect on regional or local air quality and would have no output of GHGs.

4.11.2 Alternative 2 – Dredging Quillayute River Federal Navigation Channel with Beach Nourishment Placement

Construction activities associated with the proposal would create air emissions from operating equipment in each of the four dredging episodes over the next 7 years. The proposed action would not occur in a nonattainment or maintenance area. Each dredging event would occur in the fall and winter months when the typical weather of wind and rain would be expected to disperse air pollutants. Emissions are not expected to cause adverse health effects or result in violation of applicable air quality standards. Operation of the dredge and associated support vessels would emit GHGs, primarily carbon dioxide and nitrous oxides from burning fossil fuels. In each of the four dredging episodes, the roughly 60 days of work would emit an estimated 2,863 metric tons of carbon dioxide and 11 metric tons of nitrous oxides (Table 3).

Table 3. Estimated emissions in metric tons per year for pollutants of concern using SCAQMD (2024).

Air Pollutant	Estimated Annual Emissions in Metric Tons
Nitrogen Oxide (NOx)	11.22
Reactive Organic Gasses (ROGs)	1.47
Carbon Monoxide (CO)	6.29
Particulate Matter (PM^{10})	0.34
Sulfur Dioxide (SO_2)	0.03
Carbon Dioxide (CO_2)	2,863.00

While there is no regional carbon dioxide emission inventory for the project area, state-level carbon dioxide inventories from fossil fuel combustion by multiple sectors (transportation, industry, commercial energy, residential energy, energy production, agriculture, solid waste, and wastewater) are available from Ecology's Greenhouse Gas Inventory (Ecology 2022). Ecology requires facilities and state agencies to report emissions over 10,000 metric tons of CO_2e and reports these emissions on their website to help the state develop policies to reduce GHG emissions and track progress. The closest facilities with emissions over 10,000 metric tons of CO_2e are a lumber mill in Port Angeles and nearby paper mill. These two facilities emit a reported 42,970 and 159,597 metric tons of CO_2e, respectively. The estimated emissions from the proposed

action would amount to about 3 percent of the annual emissions generated by the lumber and paper mills, or the equivalent of one day of passenger air traffic between New York and London (ICAO 2024; EEA 2024).

The proposed action would occur in an attainment area, and according to 40 CFR 93.153(c)(2)(ix), EPA thresholds do not apply to "maintenance dredging and debris disposal where no new depths are required, applicable permits are secured, and disposal at an approved disposal site." Emissions would not cause adverse health effects or result in violation of applicable air quality standards. Therefore, impacts would be inconsequential, as compared with the No Action Alternative (40 CFR 93.153(c)(2)).

4.12 NOISE

Noise can affect the behavior, alter temporal or movement patterns, and/or increase physiological stress of fish and wildlife (Francis and Barber 2013; Popper et al. 2014, 2019; Shannon et al. 2016). Noise is a pressure wave that decreases in intensity over distance from the source. Depending on the nature of the noise source, noise propagates at different rates. A noise that is 100 dB at about 3 feet will have an intensity of only 1/100 as much at about 32 feet. This means that at 32 feet the sound is 80 dB and at 328 feet the intensity is reduced to 60 dB (i.e., comparable to background conversation in a restaurant). Background and ambient sound levels vary by location and weather conditions such as wind or rainfall can increase ambient sound in undeveloped areas. Locations on the Pacific Coast have higher ambient sound levels due to flow noise from surface wind, breaking waves, and bubble formation (Wenz 1962).

Most vessels, but particularly large ships, produce low frequency sound (i.e., below one kilohertz) from onboard machinery, hydrodynamic flow around the hull, and from propeller cavitation, which is typically the dominant source of noise (Ross 1987, 1993). A tug/barge vessel generates about 170 dB traveling at 8 knots (Veirs et al. 2016). As discussed in section 4.6.2, a hydraulic cutterhead pipeline dredge has maximum sound pressure levels in the range of 155 dB to 161 dB with rare peaks at about 177 dB (SAIC and RPS Evans-Hamilton 2011). Fishes' sensitivity to hearing varies, but most exhibit a response to sounds in the range of 50 hertz to 2 kilohertz, with a minimum threshold around 70 dB (Hastings and Popper 2005). Noise frequencies from hydraulic dredging fall within this range (Dickerson et al. 2001). The impacts to fish would vary by species, their behavior, and habitat.

4.12.1 Alternative 1 – No Action Alternative

Under Alternative 1, USACE would not dredge the project features and so there would be no effect to noise due to a Federal action.

4.12.2 Alternative 2 – Dredging Quillayute River Federal Navigation Channel with Beach Nourishment Placement

Under Alternative 2, the proposed action would generate underwater noise that could affect fish. No studies have been identified that directly measure the effects to fish from dredging derived underwater noise. However, exposure criteria developed by the Fisheries Hydroacoustic Working Group can be used to estimate the potential injury risk (Suedel et al. 2019). Noise generated by a dredge operation is characterized as

continuous (or non-pulsed), since the elevated sound pressure occurs over seconds (not milliseconds, as is the case with pulsed noise). Injuries to fish are generally limited to high intensity pulsed sounds (e.g., explosions, air guns) (Suedel et al. 2019). The following are noise thresholds for continuous sound (vibratory pile driving) based on Popper et al. (2014):

- For fish with swim bladders that are involved in hearing ("hearing specialists" e.g., herring)
  - 170 dB RMS for 48 hours for recoverable injury
  - 158 dB RMS for 12 hours for Temporary Threshold Shift, or complete recovery of hearing loss
- There is no direct evidence for mortality or potential mortal injury for continuous noise.
- There are no continuous noise thresholds set for fish without swim bladders or those with bladders that are not involved in hearing (salmonids).

Data on the effects of continuous sound on fish are limited. In the technical report of sound exposure guidelines prepared by Popper et al. (2014), they rank the level of risk of injury as high, moderate, or low for most categories of fish instead of presenting number thresholds for harm. According to Popper et al. (2019), the risk of mortality for continuous sound such as hydraulic dredging is low for all categories of fish at all distances from the sources of sound.

4.13 Recreational and Scenic Value

Recreation opportunities in the project area are primarily boating, surfing, beach walking, and fishing. The rugged wilderness character of the area attracts travelers from throughout the Pacific Northwest and farther away. Sportfishing is a popular activity at La Push, where anglers fish for salmon, halibut, rockfish, and lingcod. Surfing has been gaining popularity at the beaches on the south side of town, which also bring in campers and backpackers. Cabin rental and recreational vehicle parking is highest in summer, but winter storm watching can bring visitors to La Push in the non-typical tourist season. Visitors to Rialto Beach north of the project area often walk southward along Quillayute Spit. A wide variety of bird species occur around the offshore rocks as well as along the wilderness beaches north and south of town and this area is extremely popular among nature photographers due to the wilderness scenery.

4.13.1 Alternative 1 – No Action Alternative

Alternative 1 would have a negative effect on recreation by reducing the ability for recreational vessels use of the navigation channel that provides access to the marina, at least for the larger recreational fishing vessels. This alternative would have no effect to the ability of the public to enjoy the popular scenic viewpoints of the town's waterfront and public beaches.

4.13.2 Alternative 2 – Dredging Quillayute River Federal Navigation Channel with Beach Nourishment Placement

Maintenance dredging the channel and boat basin as well as providing added protection to the South Jetty and Quillayute Spit would benefit recreational vessel traffic. These

vessels need the ability to continue using the marina and transiting the bar for access to ocean sailing and recreational fisheries as well as refueling and restocking boat supplies and groceries. For the 60 to 120 days of dredging activity every other year, the dredge would be visible from the shore of the marina and could be seen as an industrial interruption to the viewshed of the Quillayute River estuary. However, the marina itself is a built environment with vessel traffic, so the presence of a dredge would not be a substantial degradation of the local aesthetics and would not be a permanent fixture.

Site A would become unavailable as a parking area for viewing the sunset during September and October in the years that the proposed dredging activity occurs. However, other parking is available. The placement of material from Site A onto First Beach would cause a slight decrease to the aesthetic value of this specific location due to the change from a natural beach slope to an artificial shape of graded sand material. However, this impact would be minor in spatial scale and temporary for only the few weeks it takes for the tides to shape the sediment. People walking south from Rialto Beach onto Quileute Tribal lands might encounter the bulldozer and outfall pipe, which would be a minor and temporary disruption of the natural characteristics of the wilderness beach.

4.14 Socioeconomic Resources

The project area is contained within the Quileute Tribe's 594-acre reservation. This area contains the Quileute Headquarters building, a museum, a school, a seafood company, ocean front resorts, fish hatchery, the USCG station, the Quileute Natural Resources building, marina, convenience store, and additional amenities. In 2021, there were 107 housing units in the community, of which 92 percent were occupied and 8 percent were vacant (US Census 2021). Of the occupied housing units, 55 percent were owner occupied and 37 percent were renter occupied (US Census 2021). The USCG Station Quillayute River hosts approximately 30 active-duty personnel. Fishing and fishing-related tourism are the two most significant sources of income for the community. The rugged wilderness character of the area attracts travelers from throughout the northwest for activities such as sportfishing, surfing, and camping. Cabin rental and recreational vehicle parking bring tourist dollars to the local area.

In 2021, La Push had a population of 336, with a gender distribution of 48 percent male and 52 percent female (US Census 2021). About 79 percent of residents were American Indian and Alaska Native, 7 percent Caucasian, 1 percent Black, and 4 percent of two or more races. Approximately 9 percent of La Push residents identified themselves as Hispanic or Latino. A small percentage of residents (0.9 percent) were foreign-born having come from Mexico, Canada, and Australia. The median age in La Push in 2021 was 31.6 years, lower than the Washington State's median age of 37.9 years. Of the population age 18 years and over, 70.8 percent had graduated from high school or continued to higher education, 4 percent had received a bachelor's degree or higher, and 1 percent had received a graduate or professional degree according to the 2021 U.S. Census.

The Census reports that in 2021 the income of 40.6 percent of the population was below the poverty level. Using the Council on Environmental Quality's Climate and

Economic Justice Screening Tool (CEQ 2023), the census tract (53009000400; Figure 7) within the project area is identified as disadvantaged because more than one burden threshold is met and the associated socioeconomic threshold. Communities are identified as disadvantaged in the climate change burden category above the 90th percentile for projected flood risk.

4.14.1 Alternative 1 – No Action Alternative

Under Alternative 1, the proposed dredging would not occur, the navigation channel would continue to shoal in, and boat traffic would find it increasingly difficult to traverse the channel. The local community, composed primarily of minority and low-income individuals, would be adversely affected as they would potentially be unable to fish or provide recreational opportunities to boaters. Ocean access for fishing vessels in the marina is critical for the Tribe to exercise treaty reserved fishing rights, which is the largest source of income in La Push. Marina access also attracts recreational fishing vessels to the coastal fisheries resources thereby providing economic inputs to the La Push community. Shoaling could impact USCG's ability to conduct rescue missions and potentially lead to closure of the station. The absence of the more than 30 USCG staff would remove this source of economic input to the local community. Such developments may result in negative impacts to the fishing and recreational businesses of the area and impact the local economy. Therefore, Alternative 1 would result in in a disproportionately high adverse human health impact since the local economy in La Push is economically vulnerable to flooding damage (section 4.14) and life-safety issues (section 4.16).

4.14.2 Alternative 2 – Dredging Quillayute River Federal Navigation Channel with Beach Nourishment Placement

The dredging project has important socioeconomic benefits for the Quileute Tribe and the town of La Push. Fishing and recreation, as well as the presence of the USCG station, provide income to members of the community, and these activities are dependent upon being able to safely navigate the Quillayute River channel. Maintaining the navigability of the channel and boat basin, as well as providing added protection to the root of the South Jetty and Quillayute Spit would preserve the socioeconomics of the town of La Push and the Quileute Tribe by maintaining access through the navigation channel and providing sufficient depth for moorage in the marina. Tribal fishermen would be able to continue participating in local fisheries, and the Quileute Tribe would benefit from the ability to host transient mariners. The Quileute Tribe supports the placement of dredged materials on First Beach to protect the South Jetty and on Quillayute Spit to maintain protection of the town from ocean waves. Maintaining navigability for the USCG station and harbor of refuge are also important socioeconomic resources for the local area. Implementing Alternative 2 is expected to benefit minority or low-income populations.

Figure 7. Census tracts that are overburdened and underserved in the vicinity of the Quillayute River are highlighted in grey (source: CEQ 2023).

4.15 Public Health and Safety

USCG maintains the Quillayute River Station within the boat basin of the Quileute Tribe's marina, which provides the only harbor of refuge between Neah Bay and Grays Harbor. USCG monitors safety conditions for mariners in this locale and limits vessel traffic across the bar that forms in the entrance reach of the Federal navigation channel. As time progresses after dredging, the entrance reach of the channel fills in across the bar that forms between outgoing river flows and the tidal currents from the ocean. USCG issues vessel restrictions for crossing the bar and occasionally must close the bar to all vessel traffic. Heavy weather and the shallow bar depth cause these

dangerous conditions. Wind speeds and wave heights are the primary parameters of concern during October through February. Extreme wind velocities at 30 feet above the ground can be expected to reach 50 miles per hour (mph) at least once in 2 years, 60 to 70 mph once in 50 years, and 80 mph once in 100 years (WRCC 2024). Wave heights on the Washington Coast are an average of 4 to 6 feet in the summer and 7 to 10 feet in the winter; storms can cause wave heights of 23 feet at sea that become 30 to 33 feet high at the shoreline (Tillotson and Komar 1997).

4.15.1 Alternative 1 – No Action Alternative

In rough weather conditions that coincide with lower tides, the USCG must move their vessels out of the safe harbor and take up a more exposed position outside the bar to be able to respond if needed for rescues. In addition, the berths for USCG rescue vessels can experience shoaling as the navigation channel fills in, leaving limited options for vessel moorage and safety. Alternative 1 would exacerbate these conditions and would eventually cause the USCG to close this station.

4.15.2 Alternative 2 – Dredging Quillayute River Federal Navigation Channel with Beach Nourishment Placement

The work occurs in water and the presence of dredging and placement equipment may require commercial vessels and recreational boaters to detour slightly to avoid collisions with this equipment. Increased noise and interaction with vessels are health and safety factors that could affect the public. However, the presence of these obstructions would be temporary, only during dredge and placement activity, and the effect would be negligible as there is sufficient space within the channel to avoid dredging equipment. Executing routine maintenance dredging to authorized depths would provide the USCG with full access for ingress and egress of the channel for search and rescue missions.

5 COMPENSATORY MITIGATION

No compensatory mitigation is proposed for this action as no loss of wetlands, no substantial adverse effects to ESA-listed species, and no significant impacts to commercially important species or protected marine mammals are anticipated to occur based on the analyses in this document. USACE will implement the following avoidance and minimization measures to ensure impacts are no greater than minimal, short-term effects:

a. Require dredge operators to comply with the BMPs outlined in section 3.3.
b. Require dredge operators to use best available technologies to ensure that dredging and/or disposal activities are confined to areas within the current official boundaries of the Federal channels and disposal sites.
c. Require hopper dredge operators to operate in a manner that maintains optimum draghead contact with the substrate.
d. Require all hydraulic-type dredge operators to minimize pump operations when dragheads and/or cutter heads are above the substrate.
e. Require dredge operators to limit the dredge prism and the volume of removed sediment to the minimum area necessary to achieve project goals.

f. Limit dredging to areas where sediments meet the DMMP guidelines for suitability for unconfined aquatic disposal in the marine environment.
g. Require dredge operators to follow the water quality monitoring plan (WQMP).
h. Require dredge operators to stop dredging when turbidity exceeds 10 Nephelometric Turbidity Units (NTU) above background levels of 50 NTU or less or exceeds 20 percent above background levels that are more than 50 NTU at 600 feet from dredging or sediment disposal. Dredging may only resume after turbidity levels return to compliant levels.
i. Require dredge operators to maintain and submit dredging logs to verify that all take indicators are monitored and reported. Minimally, logs should include 1) type of dredging vessel; 2) vessel position relative to the channel while dredging, or certification that dredging was within the establish channel, and the methods used to confirm vessel location; 3) volumes of sediment removed/disposed; 4) extent of turbidity plumes and compliance with the WQMP; and 5) all incidents of observed entrainment of listed species.
j. Establish procedures for the submission of observer and dredge operator logs and other materials to the Seattle USACE office, which will draft and submit reports.

6 UNAVOIDABLE ADVERSE EFFECTS

Unavoidable adverse effects associated with the preferred alternative at the site would be (1) temporary and localized increases in noise, activity, and emissions that may affect fish and wildlife in the area; (2) temporary and localized disruption of local traffic by construction activity, vehicles, and barges; (3) irretrievable commitment of fuels and other materials for repairs; and (4) temporary and localized increase in turbidity levels during in-water construction, which may affect aquatic organisms in the area. These impacts would be localized to the navigational channel and placement sites and temporary in nature.

The primary unavoidable adverse impacts from the long-term routine maintenance dredging are the disruptions of the benthic community in the navigation channel and the vegetation at the placement sites. Slow moving or non-motile fish, wildlife, invertebrates, and plant (aquatic and terrestrial) species could be entrained in the materials during dredging or smothered during placement of the disposal materials. These losses would be irretrievable as well. Invertebrate communities are likely to recover within the navigation channel due to the infrequency of dredging events (about once every 2 or 3 years). The rate of recovery is highly variable depending on many factors including the type of community that inhabits the deposits in the dredged area as well as the extent to which the community is naturally adapted to high levels of sediment disturbance and suspended particulate load (Newell at al. 1998). Benthic communities in the project area have likely adapted to the dredging cycle disturbance and are likely populated with short-lived species with an overall lower biodiversity compared to natural conditions in other areas that are not regularly dredged (McCauley et al. 1977). The temporary loss and shift in community structure of the benthic invertebrates does not appear to have

substantially affected the broader estuarine community and biodiversity surrounding the project area.

Another unavoidable adverse impact would be air pollution and greenhouse gas emissions from the dredge and associated machinery. Both air pollution and greenhouse gas emissions would be small in scale.

There would be some effects to water quality in the immediate vicinity of the active dredge and during dredge material placement. Any effects to water quality would be short lived and small in scale. Effects to aquatic wildlife would be minimized by working during times of the year when ecologically important aquatic species (including ESA-listed species) would not be in the area or in low abundance.

7 CUMULATIVE EFFECTS

NEPA defines cumulative effects as the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-federal) or person undertakes such other actions (40 CFR §1508.7). If the proposed action would have no effect on a resource, it would not contribute to cumulative impacts on that resource. This section describes the past, current, and future actions that may affect the environment in and near the project area. It also describes the impacts of the preferred alternative (Alternative 2) that could contribute to cumulative impacts and the resulting cumulative effects.

The lower Quillayute River has endured significant hydrological modifications to support the boat basin, USCG station, and flood protection features to protect the town of La Push. The river has been channelized to the point that sediment is no longer naturally delivered to the adjacent ocean beaches, which show signs of erosion. Past construction actions in the project area include initial construction of the boat basin and navigation channel in 1932, and Federal maintenance beginning in 1949, continuing to the present. Additional project features were constructed in 1962 and include a timber training wall (1,500 feet long with elevation at +16 feet MLLW), the South Jetty (1,400 feet long and +15 feet MLLW), and the sea dike at James Island (1,050 feet long at +8 feet MLLW). As part of routine operations and maintenance, the navigation channel is maintained to authorized depth of -10 feet MLLW. Construction and repair of these navigation features resulted in a loss of 6.8 acres of beach habitat, 3.4 acres of beach grass, 2.8 acres of sandbar, and a gain of 7.6 acres of rocky habitat (SAIC 2003). However, these habitat losses are also linked to activities in the upper watershed such as past forestry practices that caused unnatural rates of sedimentation and erosion.

Dredging quantities removed from the navigation channel since 1993 appear in Table 4. The average quantity dredged is 58,289 cy and the greatest amount dredged in this period occurred in 1995 when 89,496 cy of material was removed. While shoaling might be decreasing, USACE has analyzed impacts of dredging and placement of 100,000 cy to assess effects of a conservative scenario.

Table 4. Quantities dredged from the Quillayute Navigation Channel and boat basin by year.

Year of Dredging	Quantity (in cubic yards)
1993	51,349
1995	89,496
1998	53,461
1999	83,089
2003	33,821
2007	56,067
2009	60,254
2011	58,960
2015	46,751
2017	53,495
2020	61,579
2022	51,141

The La Push boat basin was cleared of submerged debris, wrecks, and abandoned vessels in 2024 by the Quileute Tribe. The marina and its operations (commercial and recreational) continue to function in a manner consistent with tribal use over the past decades. The USCG station maintains emergency readiness with response vessels out of the boat basin. The National Park Service maintains facilities and infrastructure for the Olympic National Park adjacent to the project area.

The proposed biennial episodes of maintenance dredging and placement would cause a temporary effect to biological functions and minor, temporary loss of benthic invertebrates for each dredging episode, but would maintain congressionally authorized depths for this federal navigation channel. In consideration of past developments still in existence in the Quillayute estuary, and the limited amount of known future alterations, the proposed routine maintenance of the Federal navigation channel with associated placement sites is not a significant addition to cumulative impacts at the mouth of the Quillayute River. Beneficial use of dredged material at the nearshore zone placement sites is a countervailing effect to the impacts of constructing jetties at the mouth of the river. The short-term disruption of dredging is outweighed by the assumed long-term benefit of providing stabilizing material to the jetties to help reinforce against erosive forces and avoiding further introduction of non-native rock material into the natural beach environment. USACE therefore concludes that there would be no significant contribution to cumulative effects associated with the proposed maintenance dredging and placement actions.

8 COORDINATION

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

- Quileute Tribe
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service

- National Marine Fisheries Service
- Washington Department of Archaeology and Historic Preservation
- Washington Department of Fish and Wildlife
- Washington Department of Natural Resources
- Washington Department of Ecology

9 ENVIRONMENTAL COMPLIANCE

This Environmental Assessment (EA) is being prepared pursuant to Sec. 102(C) of the National Environmental Policy Act (NEPA), and includes compliance with other laws, regulations, and Executive Orders as discussed below.

9.1 CLEAN AIR ACT OF 1972

The Clean Air Act (CAA) as Amended (42 U.S.C. § 7401 et seq.) prohibits Federal agencies from approving any action that does not conform to an approved State or Federal implementation plan. Under the CAA General Conformity Rule (Section 176(c)(4)), Federal agencies are prohibited from approving any action that causes or contributes to a violation of a NAAQS in a nonattainment area. According to 40 CFR Section 93.153 (c)(2)(ix), the requirement for a conformity determination is waived where the proposal will result in a clearly *de miminis* increase in emissions, as long as the project involves maintenance dredging and disposal operations in which no new depths are required and approved disposal sites are used. The proposed action is maintenance dredging and placement at approved sites with no new widths or depths, in an attainment area where no more than *de minimis* increase in emissions would be generated and is therefore exempt from the requirement for a General Conformity Determination.

9.2 CLEAN WATER ACT

The Federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.) is more commonly referred to as the Clean Water Act (CWA). This act is the primary legislative vehicle for Federal water pollution control programs and the basic structure for regulating discharges of pollutants into waters of the U.S. The CWA was established to “restore and maintain the chemical, physical, and biological integrity of the nation’s waters.” The CWA sets goals to eliminate discharges of pollutants into navigable waters, protect fish and wildlife, and prohibit the discharge of toxic pollutants in quantities that could adversely affect the environment.

This EA evaluates possible impacts to water quality, primarily with respect to suspended solids, turbidity, and temperature. Three sections of the CWA are pertinent to the proposed actions: Section 401 covers water quality standards and evaluation of the effects discharges would have on those standards; Section 402 addresses non-point discharges including, but not limited to, stormwater runoff from construction sites; and Section 404 addresses discharge of fill into Waters of the U.S. Requirements of those three CWA sections are briefly discussed below.

USACE does not issue Section 404 permits to itself for its own civil works activities, but it accepts responsibility for the compliance of its civil works projects with the substantive requirements of Section 404 including the 404(b)(1) guidelines and Section 401 certification.

USACE has prepared a Section 404(b)(1) evaluation and public interest review, which appears in Appendix A. The findings are that there would be no significant adverse effects to aquatic ecosystems functions and values, that the proposed action is within the public interest, and the proposed action is the Federal Standard.

USACE obtained a Section 401 water quality certification from the U.S. Environmental Protection Agency on November 25, 2024 (Appendix B), valid through March 1, 2031, and implements a water quality monitoring plan (Appendix C). USACE would implement the approved 401 water certification conditions, including BMPs (section 3.3) during all dredging operations.

9.3 Coastal Zone Management Act of 1972

The Coastal Zone Management Act of 1972 as amended (16 U.S.C. §1451-1464) requires Federal agencies to conduct activities in a manner that is consistent to the maximum extent practicable with the enforceable policies of the approved State Coastal Zone Management Program. USACE is substantively consistent with the enforceable polices of the Clallam County Shoreline Master Program and provided documentation of this through a consistency determination submitted to Ecology. Concurrence was received from Ecology on December 3, 2024 (Appendix D).

9.4 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.

USACE conducted informal consultation in 2004 for a 5-year period and received concurrence letters from NMFS on October 19, 2004 (Reference No. 2004/01099) and USFWS on December 22, 2004 (Reference No. 1-3-05-I-0026). Consultation occurred again in 2009, for another 5-year period and USACE received a concurrence letter from NMFS on July 23, 2009 (Reference No. 2009/02967). Based on results of informal conversations between USACE and USFWS staff, USACE determined dredging would have no effect to ESA-listed species that are under the jurisdiction of USFWS and wrote a “no effect” memo for the project record in 2009. An analysis of project effects in 2014 resulted in USACE writing a “no effect” memo for all ESA-listed species. USACE maintained the conclusion of no potential effects on any listed species or designated critical habitat.

On December 16, 2017, USACE prepared and submitted a biological assessment (USACE 2016) to the USFWS and NMFS, initiating formal consultation to cover routine maintenance of eight navigation projects in western Washington for a 25-year period. For the Quillayute River Project, USACE determined that this dredging and disposal

action would have “no effect” on any ESA-listed species or their critical habitat. USFWS concurred with USACE’s determination and issued a Letter of Concurrence (Reference No. 0lEWFW00-2017-1-0277) on May 24, 2017.

NMFS issued a biological opinion (Reference No. WCR-2016-6057) on January 26, 2018, concluding that with the implementation of BMPs (section 3.3) and minimization measures (section 5), the proposed action was likely to adversely affect but not likely to jeopardize the continued existence of eulachon and green sturgeon. NMFS also concluded that the proposed action was likely to adversely affect designated critical habitat for green sturgeon but is not likely to result in the destruction or adverse modification of the designated critical habitat. In this Opinion, NMFS also concluded that the proposed action was not likely to adversely affect ESA-listed marine mammal species, designated critical habitat for SRKW, ESA-listed marine turtles, and designated critical habitat for leatherback turtles. NMFS also reviewed the likely effects of the proposed maintenance action on Essential Fish Habitat (EFH) and concluded that the action would adversely affect designated EFH for Pacific Coast Salmon, Pacific Coast Groundfish and Coastal Pelagic species (section 9.6).

The NMFS biological opinion outlined three Reasonable and Prudent Measures as follows:

1. Minimize the incidental take from dredging and in-water sediment disposal.
2. Minimize the exposure of listed fish to contaminants and reduced DO.
3. Implement a monitoring and reporting program to confirm that the take exemption for the proposed action is not exceeded. USACE shall develop and implement a plan to collect and report details about the take of listed fish.

With full and successful implementation of the BMPs (section 3.3) and avoidance and minimization measures (section 5), effects of the proposed maintenance action are not expected to result in measurable effects to listed species.

9.5 Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act of 1934 as amended (16 U.S.C. §661-667e) provides authority for the USFWS involvement in evaluating effects to fish and wildlife from proposed water resource development projects. However, USFWS coordination is not required for maintenance work such as the proposed project.

9.6 Magnuson-Stevens Fishery Conservation and Management Act of 1976

The Magnuson-Stevens Fishery Conservation and Management Act, (16 U.S.C. § 1801 *et. seq.*), as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267) requires Federal agencies to consult with the NMFS regarding actions that may adversely affect Essential Fish Habitat (EFH) for Pacific coast groundfish, coastal pelagic species, and Pacific salmon. The Act defined EFH as “*those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity*.” EFH is the habitat (waters and substrate) required to support a sustainable fishery and a managed species’ contribution to a healthy ecosystem. Waters include aquatic areas and their associated physical, chemical, and biological properties used by fish.

Substrate includes sediment, hard bottom, structures underlying the waters, and associated biological communities.

The project area has been designated as EFH for various life stages of 50 species of groundfish, 5 coastal pelagic species, and 2 Pacific salmon species. USACE determined that the proposed action could adversely affect EFH, because removal of dredged material would constitute a detectable effect to EFH (USACE 2016). USACE submitted this determination to NMFS on December 16, 2017. The NMFS agreed with USACE's determination stating the proposed Federal action would cause small-scale adverse effects on EFH through direct and/or indirect physical, chemical, or biological alteration of the water or substrate, and through alteration of benthic communities, and the reduction in prey availability. NMFS provided conservation measures to reduce adverse alteration of substrate and forage abundance and to reduce adverse alteration of water quality. These conservation measures are incorporated in the BMPs (section 3.3) and avoidance and minimization measures (section 5).

9.7 Marine Mammal Protection Act of 1972

The Marine Mammal Protection Act (MMPA) of 1972 (16 U.S.C. §1361-1407) restricts harassment of marine mammals and requires interagency consultation in conjunction with the ESA consultation for Federal activities. All marine mammals are protected under the MMPA regardless of whether they are endangered, threatened, or depleted.

The primary concern for marine mammals in dredging projects is underwater noise from construction and potential vessel collision. The risk of collision between a dredge-related vessel and a marine mammal is unlikely as the mammals are expected to detect the vessel and respond by quickly swimming away from the vessel. USACE has compared the estimated noise from dredging and the guidance on assessing impacts (section 4.6.2) and concluded that there is no requirement for an Incidental Harassment Authorization.

9.8 Migratory Bird Treaty act of 1918 and Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds

The Migratory Bird Treaty Act (16 U.S.C. § 703-712) as amended protects over 800 bird species and their habitat and commits that the U.S. will take measures to protect identified ecosystems of special importance to migratory birds against pollution, detrimental alterations, and other environmental degradations. Executive Order (EO) 13186 directs Federal agencies to evaluate the effects of their actions on migratory birds, with emphasis on species of concern, and inform the USFWS of potential negative effects to migratory birds.

Implementation of Alternative 2, the preferred alternative, would not have any direct and deliberate negative effects to migratory birds. No adverse effect on habitat is expected from the proposed action and there would be only minor and temporary effects to a small number of individual birds that may be present in the project area. No permit application for "take" of migratory birds is thus required. These birds are assumed to be habituated to the noise and activity of the Quillayute River estuary. Dredging is scheduled to occur after the critical nesting period.

9.9 National Environmental Policy Act

The NEPA (42 U.S.C. § 4321 et seq.) commits Federal agencies to considering, documenting, and publicly disclosing the environmental effects of their actions. It requires that an Environmental Impact Statement (EIS) be included in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment. The EIS must provide detailed information regarding the proposed action and alternatives, the environmental effects of the alternatives, appropriate mitigation measures, and any adverse environmental effects that cannot be avoided if the proposal is implemented. Agencies are required to demonstrate that decision makers have considered these factors prior to undertaking actions. Major Federal actions determined not to have a significant adverse effect on the quality of the human environment may be evaluated through an EA.

Alternative 2 is the preferred alternative and involves maintenance dredging in the Quillayute River Navigation Channel and small boat basin via a hydraulic cutterhead pipeline dredge and placement of dredged materials at three shoreline areas.

This EA evaluates the environment effects requiring NEPA compliance with the proposed maintenance dredging. A draft EA/FONSI for the proposed project was made available for public review and comment on August 13, 2024. The comment period ended on September 14, 2024. No comments were received.

9.10 National Historic Preservation Act of 1966

Section 106 (54 U.S.C. § 306108) of the NHPA (54 U.S.C. § 300101) requires that Federal agencies evaluate the effects of Federal undertakings on historical, archeological, and cultural resources and afford the Advisory Council on Historic Preservation opportunities to comment on the proposed undertaking if there is an adverse effect to an eligible historic property. The lead agency must examine whether feasible alternatives exist that avoid eligible cultural resources. If an effect cannot reasonably be avoided, measures must be taken to minimize or mitigate potential adverse effects.

USACE consulted with the Washington SHPO and the Hoh Indian Tribe, Makah Indian Tribe of the Makah Indian Reservation, Quileute Tribe, and Quinault Indian Nation for this project. Based on the results of literature and records review, the absence of known or recorded cultural resources within the APE, and consultation with the SHPO and the Tribes, USACE determined that there are no historic properties located within the APE and found there would be no historic properties affected by the continued maintenance dredging of the Quillayute River navigation channel. An initial letter to document the APE was sent to SHPO on January 16, 2024. The SHPO agreed with USACE's determination of the APE on January 16, 2024. USACE previously requested knowledge and concerns from the Hoh Indian Tribe, Makah Indian Tribe of the Makah Indian Reservation, Quileute Tribe, and Quinault Indian Nation on the proposed APE on January 16, 2024. The Tribes did not comment. USACE submitted its finding that there would be no historic properties affected to SHPO on January 16, 2024. SHPO agreed with USACE's finding in a letter dated March 26, 2024.

9.11 WILD AND SCENIC RIVERS ACT OF 1968

The Wild and Scenic Rivers Act (16 U.S.C. 1271-1278) of 1968 requires Federal agencies to protect the free-flowing condition and other values of designated rivers and consult with the Federal agency charged with administering the Act.

9.12 NATIVE AMERICAN TRIBAL TREATY RIGHTS & TRIBAL CONSULTATION UNDER EO 13175, CONSULTATION AND COORDINATION WITH INDIAN TRIBAL GOVERNMENTS

The United States has a unique, legally affirmed Nation-to-Nation relationship with American Indians and Alaska Native Tribal Nations, which is recognized under the Constitution of the United States, treaties, statutes, EOs, and court decisions. The United States recognizes the right of Tribal Governments to self-govern and supports Tribal sovereignty and self-determination. The United States also has a unique trust relationship with and responsibility to protect and support Tribal Nations.

Between 1778 and 1871, the United States entered into about 400 treaties with various Indian Nations on a Government-to-Government basis. Under the United States Constitution, treaties are accorded precedence equal to Federal law. Treaty rights are binding on all Federal and state agencies, and take precedence over State constitutions, laws, and judicial decisions. Treaty terms, and the rights arising from them, cannot be rescinded or cancelled without explicit and specific evidence of Congressional intent – indicating that Congress was aware of the conflict between its intended action on the one hand and Indian treaty rights on the other, and chose to resolve the conflict by abrogating the treaty. A right enumerated in a treaty ratified by the Senate may only be superseded by a subsequent act of Congress.

USACE has a trust policy to consult with, and consider views of, federally recognized American Indian Tribes when proposing an action that may have the potential to significantly affect Tribal rights, resources, and lands. See Department of Defense Instruction (DODI) 4710.02, Section 3, Subject: DOD Interactions with Federally Recognized Tribes (24 September 2018). USACE discharges that duty by notifying, consulting with, and meaningfully considering Tribal concerns that are raised through this consultation process.

In the 1850s, in exchange for the cession of their ancestral lands, numerous Tribes in the Pacific Northwest entered into treaties with the United States to secure for themselves, amongst other considerations, the preservation of fishing rights in the ceded areas. These treaties were negotiated and signed by the then-Governor of the Washington Territory, Isaac I. Stevens, and are collectively known as the “Stevens Treaties.”

In 1974, many (but not all) of the Stevens Treaties signatory Tribes’ “usual and accustomed grounds” within Puget Sound were delineated in a Federal court adjudication, U.S. V. Washington, 384 F. Supp. 312 (W.D. Wash. 1974). The Stevens treaties reserved the signatory Tribes’ right to “take fish at usual and accustomed grounds and stations… in common with all citizens of the territory” (*U.S. v. Washington*, 384 F. Supp. at 332). Federal case law has recognized that the signatory Tribes also

reserved the right to take up to 50 percent of the harvestable anadromous fish runs passing through those grounds (Fair Share). Over the years, the courts have held that this right also comprehends certain subsidiary rights, such as access to their "usual and accustomed" fishing grounds. *See Northwest Sea Farms v. USACE*, 931 F. Supp 1515 (W.D. Wash.1996).

The Ninth Circuit has held that this right encompasses the right to take shellfish [U.S. v. Washington, 135 F.3d 618 (9th Cir 1998)]. The Quileute Tribe has had representation in this process through coordination with USACE on matters involving frequency and areas of dredging to maintain navigability of the marina and access to ocean fisheries. Other Native American Tribes that may be affect by the proposed action include the Hoh Indian Tribe, Makah Indian Tribe, and the Quinault Indian Nation. Additionally, USACE has consulted with Quileute Tribal biologists regarding avoiding impacts to Tribal fisheries resources. The Quileute Tribe has expressed support for maintenance of the authorized depths of the navigation channel and for beneficial use of dredged material to reduce erosion of the Quillayute Spit and the South Jetty with placement of sediment at Sites A and B, and First Beach.

9.13 Executive Order 11988 Floodplain Management

EO 11988 requires Federal agencies to avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of flood plains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. The Federal action complies with this EO as there are no plans to occupy or modify a flood plain.

9.14 Executive Order 11990 Protection of Wetlands

EO 11990 encourages Federal agencies to take actions to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands when undertaking Federal activities and programs. The Federal action complies with this EO as no destruction, loss, or degradation of wetlands would occur. The preferred alternative of maintenance dredging with beneficial use of dredged material would have no effect to any tidal wetlands, as dredging would maintain existing conditions and the placement sites are sufficiently distant so as not to influence any wetlands.

9.15 Executive Order 13175 Consultation and Coordination with Indian Tribal Governments

EO 13175 (November 6, 2000) reaffirmed the Federal Government's commitment to a government-to-government relationship with Indian Tribes and directed Federal agencies to establish procedures to consult and collaborate with Tribal governments when new agency regulations would have Tribal implications. USACE has a government-to-government consultation policy to facilitate the interchange between decision makers to obtain mutually acceptable decisions. In accordance with this EO, USACE has engaged in regular and meaningful consultation and collaboration with the federally recognized Tribes surrounding the project area.

10 PUBLIC INTEREST EVALUATION FACTORS FOR MAINTENANCE DREDGING ACTIVITIES

USACE conducts an evaluation of each dredging and discharge activity in light of the public interest factors prescribed in 33 CFR 336.1(c). These factors include navigation and the Federal standard for dredged material disposal; water quality; coastal zone consistency; wetlands; endangered species; historic resources; scenic and recreation values; fish and wildlife; marine sanctuaries; and applicable state/regional/local land use classifications, determinations, or policies.

Of these, navigation and the Federal standard, water quality, coastal zone consistency, wetlands, endangered species, historic resources, scenic values, recreational values, and fish and wildlife have been evaluated in this EA. The factor of marine sanctuaries established under the Ocean Dumping Act has been considered; USACE has consulted with staff from the Olympic Coast National Marine Sanctuary and there are no sanctuary effects of dredging or placement. The factor of application of non-federal land use policies was considered in connection with the coastal zone consistency evaluation; no additional impacts to state/regional/local land use classifications, determinations, or policies are anticipated as the project would maintain a federally authorized channel that is already used for vessel traffic.

In accordance with 33 CFR 337.1(a)(14) and 325.3(c)(1), USACE considered the following additional relevant factors:

- Conservation: This action would entail maintenance dredging and would not involve any new channel construction or change to channel depths. The effects on fish and wildlife, including marine mammals and ESA-listed species, have been fully evaluated. This project would conserve dredged material as a resource as beneficial use in the nearshore zone to return the sediments to the littoral system.
- Economics: As reflected in this EA, the local community relies on the availability and full utility of the navigation channel, the use of which this action would perpetuate. The preferred alternative is the least costly alternative that would meet the project's purpose and need. The economic benefits afforded through accomplishing maintenance dredging to the authorized depths outweigh the Federal costs of the action and the costs the region would incur with an eventual return to the pre-construction conditions that would ensue under the No Action Alternative.
- Shoreline erosion and accretion: The effects on shoreline erosion and accretion appear in the hydraulics and geomorphology section of this EA. Overall, the proposed placement sites would reduce negative effects of shoreline erosion.
- Safety: Maintenance dredging to the authorized depths and providing a navigable waterway for the safe and efficient transit of commercial, Tribal, and recreational vessels serves the interests of safety.
- Property ownership: Maintaining use of the navigation channel provides full utilization of the private vessel ownership interests by tenants of and visitors to the small boat basin adjacent to the navigation channel.

As provided in 33 CFR Sections 335.4, 336.1(c)(1) and 337.6, the USACE has fully considered, on an equal basis, all alternatives that are both reasonable and practicable, i.e., available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. The necessary budget resources are available and adequate to fully support the action. The preferred alternative represents the least costly alternative, constituting the discharge of dredged or fill material into waters of the United States in the least costly manner and at the least costly and most practicable location, is consistent with sound engineering practices, and meets the environmental standards established by the Clean Water Act Section 404(b)(1) evaluation process. Execution of the preferred alternative, following consideration of all applicable evaluation factors, would be in the public interest.

11 SUMMARY OF ASSESSMENT

As described, the proposed Federal action of maintenance dredging in the Quillayute River Navigation Channel and small boat basin via a hydraulic cutterhead pipeline dredge and placement of dredged materials at three shoreline areas would not have significant impacts to the quality of the human environment. Adhering to the in-water work window, limiting the work to the project's designated footprint, and employing the BMPs listed in section 3.3 are sufficient measures to avoid significant impacts to natural resources.

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Appendix A
Clean Water Act Section 404 Statement of Findings (SOF)

Clean Water Act Section 404 (b)(1) Analysis
Quillayute River Federal Navigation Project
Maintenance Dredging and Placement 2024-2031
La Push Clallam County, Washington
Substantive Compliance for
Clean Water Act Section 404(b)(1) Evaluation

1 INTRODUCTION

This document records the U.S. Army Corps of Engineers' (USACE) evaluation and findings regarding this project pursuant to Section 404 of the Clean Water Act (CWA). It covers the analysis of the following maintenance dredging locations, dimensions, and amounts.

The following action is covered by this document: routine maintenance dredging of the Quillayute River Federal Navigation Channel and boat basin with placement of dredged sediments at First Beach and Site B designated placement sites and the return water from the Site A sediment placement area. Work would be conducted at the direction of USACE. The proposed action is for maintenance dredging of approximately 100,000 cubic yards (cy) once every 2 years from the navigation channel and the boat basin, which are maintained at -10 feet mean lower low water (MLLW) with 2 feet of allowable overdepth.

Dredging occurs with a hydraulic pipeline dredge that would be able to move approximately 1,500 cy of material per day and complete the project within roughly 60 days, weather permitting. However, the work may take up to 120 days due to winter storms on the Washington Coast. Dredge years are anticipated to be fiscal years 2025, 2027, 2029, and 2031. The full duration of the fish work window that closes March 1st each year. This document is intended to cover the period from September 1, 2024 to March 1st, 2031, to allow for the possibility that dredging may be required throughout the work window to complete the work that starts in fall 2030.

This document addresses the substantive compliance issues of the CWA 404(b)(1) Guidelines [40 CFR §230.12(a)] and the Regulatory Program of the Corps of Engineers [33 CFR §320.4(a)].

2 DESCRIPTION OF THE PROPOSED DISCHARGE

The Quillayute River Federal Navigation Channel is located at the town of La Push in Clallam County, Washington. The town of La Push is wholly within lands belonging to the Quileute Tribe of the Quileute Reservation (Quileute Tribe) on the northwest coast of the Olympic Peninsula. USACE proposes to conduct up to four maintenance dredging events in the Quillayute River channel over a 7-year period (2024-2031), with placement of dredged material occurring at 3 sites around the vicinity of the navigation channel. These placement sites include Site A, First Beach, and Site B (Figure 1).

Figure 1. Quillayute River Navigation Channel routine maintenance dredging and placement project area.

Site A is an upland placement site. USACE would employ hydraulic dredging, which would allow direct placement of material onto Site A stockpile area, and Site B as a beneficial use site. Material from Site A stockpile would later be pushed onto First Beach as beneficial use material.

Site A is a 1.75-acre site on land owned by the Quileute Tribe at the southwest corner of the town of La Push. The area used for material placement has capacity for approximately 15,000 cy per placement episode. Dredged material would be placed via hydraulic pipeline dredge. The contractor would use a bulldozer or excavator to create a suitably sized basin and then surround the basin with a berm made from on-site material. The basin inside the berm would be of sufficient size to allow turbid water to settle before allowing the water to return to the Quillayute River through an outfall weir that directs the clean water onto riprap to prevent shoreline erosion.

The First Beach site is 1.51 acres. Up to 15,000 cy of dredged material would be pushed onto the sloped bank at First Beach with a bulldozer. Once fully drained of water, the dredged material would be transported over the top of the bank at First Beach down to where it intersects the shoreline, not to extend below MLLW. A bulldozer would grade the material to a slope varying between 5:1 and 20:1 depending on height of the bank and quantity of available material. At USACE's discretion, material that has dewatered at Site A would be placed onto First Beach to protect the root of the South Jetty that erodes during coastal storm events. Once in place, the material would move with natural erosive forces (wave action and longshore currents) to assume its final contours and sediment gradations. The material placed would consist of sand with a small fraction of gravel and cobble from the outer river channel.

Site B is approximately 3,000 feet long, 75 feet wide, with an area of approximately 6 acres. USACE expects to place approximately 85,000 cy per dredge episode within Site B. Dredged material placement would be via hydraulic pipeline dredge with the outlet just over the crest of the jetty armoring and above mean higher high water (+8.45 feet MLLW at this location) to minimize suspended sediment in the water. Material that enters the water directly, primarily during higher tides, would move along by longshore currents and deposit in the intertidal zone further down current to the north. The contractor would use a bulldozer to place the pipeline at the correct location for placement and for grading the sediment to natural beach profiles. The focus for each placement event would be limited to those areas identified as in need of nourishment. Placement at Site B would keep riverborne material within the nearshore environment. The material would enhance the shoreline in the drift cell down current (northward) of the placement site and buttress the protective spit.

3 PROJECT NEED

The navigation channel requires dredging because shoaling of riverborne sediments reduces the depth of the channel, especially across the bar at the mouth of the river.

The rate of sediment accretion requires removal approximately every 2 years to maintain adequate depth for safe navigation. The U.S. Coast Guard (USCG) and Tribal fishing vessels are the primary users of this channel.

4 PROJECT PURPOSE

The purpose of the action is to provide for safe navigation and moorage by maintaining the authorized depth of -10 feet MLLW plus 2 feet of allowable overdepth, and to maintain the USCG moorage slips to provide adequate depth for vessels. The purpose for placement at the two beneficial use sites is to keep estuarine sediments in the natural system for beach nourishment and to add material to the Quillayute Spit and South Jetty structural navigation features to reduce risk of breaching.

5 AVAILABILITY OF ENVIRONMENTALLY ACCEPTABLE PRACTICABLE ALTERNATIVES TO MEET THE PROJECT PURPOSE

The alternatives evaluated for this project were as follows:

5.1 ALTERNATIVE 1 (NO ACTION)

USACE analyzed the No-Action Alternative as the future without-project conditions for comparison with the action alternatives. If USACE takes no action to clear shoaling sediment from the Quillayute River channel and boat basin, continued shoaling would pose a risk to the USCG's ability to carry out rescue missions, and to recreational boaters and commercial fishermen who may run aground when transiting the channel. Eventually, the marina would become inaccessible. Discontinuing the present maintenance dredging program would cause the Quillayute River Channel to shoal, preventing passage of most vessels. This would have significant economic effects to the Quileute Tribe at the town of La Push. USCG stated that they would likely have to close this station. This alternative would not meet the project purpose and need, but is carried forward for evaluation purposes.

5.2 ALTERNATIVE 2 – DREDGING QUILLAYUTE RIVER FEDERAL NAVIGATION WITH BEACH NOURISHMENT PLACEMENT

Alternative 2 is the USACE-preferred alternative. It involves the maintenance dredging in the Quillayute River Navigation Channel and small boat basin via a hydraulic cutterhead pipeline dredge and placement of dredged materials at three shoreline areas. The dredging project footprint consists of a 4,400-foot-long channel and a small boat basin that is 1,070 feet long by 313 feet wide. The authorized project depth is -10 feet MLLW. Two additional feet of overdepth is allowed due to the inaccuracy of dredge equipment. Dredging within the boat basin includes the main access lane, access lane for the USCG station, and fuel dock. The boat basin vessel slips would not be dredged. Dredged materials would be used for beach nourishment.

Dependent on funding, USACE anticipates dredging in fiscal years 2025, 2027, 2029, and 2031 and dredging could extend the full duration of the in-water work window that closes on March 1st of each year. This document is intended to cover the period from September 1, 2024 to March 1, 2031, to allow for the possibility that dredging may be required throughout the work window to complete the work that starts in the fall 2030.

5.2.1 Project Design

The proposed action consists of the maintenance dredging of up to 100,000 cy approximately once every 2 years from the navigation channel and the boat basin, which are to be maintained at -10 feet MLLW. Dredging would occur with a hydraulic cutterhead pipeline dredge. This type of dredge is a vessel with an intake pipeline extended to the sea floor and an output pipeline extended to the material placement location. The suction pipe is outfitted with a cutting implement that disturbs and breaks up the sediment so it can be sucked up into the pipeline. An impeller on the vessel provides the suction power as well as the pushing power to discharge the sediments through the output pipeline to deliver the material to a placement location. The sediment moves in a slurry that is at least 50 percent water to provide the transport power. A bulldozer moves the output pipeline along the placement area as material accumulates. The size of dredge typically used at the Quillayute navigation channel would be able to move an average of 1,500 cy of material per day and complete the project within roughly 60 days, weather permitting; however, the work may take up to 120 days due to winter storms on the Washington Coast. This productivity rate assumes the dredge would be in operation 24 hours per day with short periods of down time for shift changes and mechanical maintenance.

The authorized in-water work window for the Quillayute River channel is between 1 September and 1 March. Up to 15,000 cy of material dredged from the outer channel could be placed at Site A (Figure 1) per dredging event. Up to 85,000 cy of dredged material from the inner channel and boat basin could be placed at Site B and First Beach (Figure 1). Placement of material at First Beach may not begin until after 1 October of any year to protect surf smelt spawning habitat.

Dredged material placement is typically via hydraulic pipeline dredge with the outlet just over the crest of the jetty armoring and above mean higher high water (+8.45 feet MLLW at this location) to minimize suspended sediment in the water. Material that enters the water directly, primarily during higher tides, moves along by longshore currents and deposits in the intertidal zone further down current to the north. The contractor uses a bulldozer to place the pipeline at the correct location for placement (Figure 2).

Figure 1. Site B looking west; bulldozer on riverside of Quillayute Spit with pipeline and sediment placement on the ocean side of the spit.

5.2.1.1 Placement Site A

Site A is a 1.75-acre site on the Quileute Tribe's land at the southwest corner of the town of La Push (Figure 1). The area used for material placement has capacity for approximately 15,000 cy per placement episode. A total of up to 60,000 cy could be placed at Site A over the next 7 years if four dredging events are executed. Dredged material is typically placed via hydraulic pipeline dredge. The contractor uses a bulldozer or excavator to create a suitably sized basin and then uses the onsite material to surround the basin with a containment berm. The basin inside the berm would be of sufficient size to allow turbid water to settle, before allowing the water to return to the Quillayute River through an outfall weir that directs the clean water onto riprap to prevent shoreline erosion. Turbidity levels of discharged decant water are monitored and managed in accordance with the conditions of the Clean Water Act (CWA), Section 401 Water Quality Certification issued by the U.S. Environmental Protection Agency (EPA). The Quileute Tribe has used the material for construction purposes in the past, but in recent years, it has been used at First Beach to protect the jetty root as described in the following section. Material that is not placed onto First Beach may be available for Tribal reuse in upland areas; however, the environmentally preferable placement locations are those where the sediment can remain in the marine ecosystem.

5.2.1.2 First Beach Placement Area

The area of the First Beach site is 1.51 acres (Figure 1). Up to 15,000 cy of dredged material placed per episode in upland Site A is pushed onto the sloped bank at First Beach with a bulldozer. Once fully drained within Site A's bermed basin, the dredged material is transported over the top of the bank at First Beach down to where it intersects the shoreline, not to extend below MLLW. A bulldozer grades the material to a slope varying between 5:1 and 20:1, depending on height of the bank and quantity of available material (Figure 3). After October 1st, material at Placement Site A may be placed onto First Beach to protect the root of the South Jetty that erodes during coastal storm events at the discretion of USACE. Placing dewatered material on the beach would prevent elevated levels of turbidity in the waters surrounding First Beach. The material placed would consist of sand with a small fraction of gravel and cobble from the outer river channel. Once in place, the material would move with natural erosive forces (wave action and longshore currents) to assume its final contours and sediment gradations. Up to 60,000 cy could be placed in this site over the next 7 years. The purpose for placement is to protect the South Jetty at First Beach.

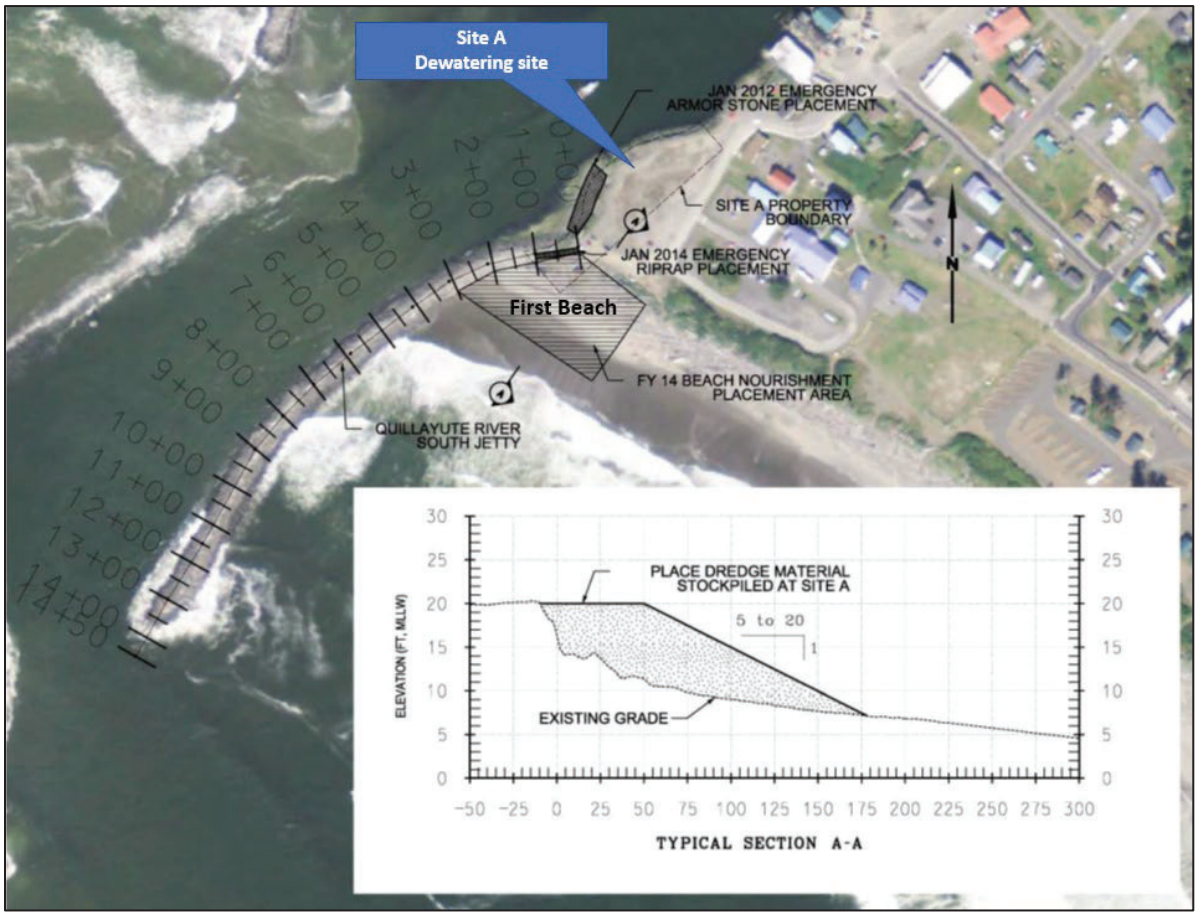

Figure 2. Location, footprint, and grading profile of material placed at First Beach.

5.2.1.3 Placement Site B

Wave action continues to damage areas along the entire Quillayute spit, eroding material from the toe of the riprap. Site B is approximately 3,000 feet long and 75 feet wide, with an area of approximately 6 acres (Figure 1). Use of this location keeps riverborne material within the nearshore environment and enhances the integrity of Quillayute Spit. USACE expects to place up to 85,000 cy per dredge episode within Site B. The focus for each placement event would be limited to those areas identified in need of nourishment. Technical input from USACE coastal engineers and analysis of the latest site conditions would factor into the selection of specific placement locations along Site B.

5.2.2 Best Management Practices for Impact Avoidance and Minimization

To avoid and minimize environmental impacts during construction and maintenance activities, USACE would incorporate the following Best Management Practices (BMPs) into the action:

a. In-water work will be limited to the in-water work window September 1st to March 1st to avoid peak movement of salmonids and spawning forage fish. Placement of material at First Beach may not begin until after October 1st of any year to protect surf smelt spawning habitat.
b. No work would occur during the spring months when macroalgae are most susceptible to harm from increased turbidity.
c. The dredging projects will be coordinated with the local Indian Tribes that have usual and accustomed fishing rights in each project area (Quileute Tribe and the Quinault Indian Nation) prior to the start of dredging.
d. Conduct work during daylight hours only.
e. Project is limited to specific authorized dimensions and will be executed within the authority for the project.
f. Maintenance dredging is conducted based on the results of site-specific hydrographic condition surveys conducted for each dredging event.
g. A suitability determination has been issued for the sediment disposal at open water sites following Dredged Material Management Program (DMMP) protocols for sediment disposal and places material at the appropriate designated disposal sites.
h. All criteria and conditions in the water quality certification (WQC) from Washington State Department of Ecology (Ecology) will be followed to the extent that they are determined to be feasible and consistent with USACE authorities.

i. Delivery of the bulldozer would avoid disturbance of marbled murrelets by scheduling the arrival of the bulldozer to occur between 0900 and 1700 at the Rialto Beach parking area. The bulldozer would then be driven greater than 0.25 mile away for the duration of dredging and placement.
j. For placement of sediment at First Beach, all large wood pieces would be moved out of the placement zone and then replaced on the beach after sediment placement to maintain their availability as a resource in the nearshore zone.
k. Containment berms are constructed with on-site material to hold dredge slurry water to allow infiltration into substrate at Site A.
l. Dredged material is placed in the dry at low tide at First Beach and Site B.
m. Dredging projects are managed by USACE construction management Standard Operating Procedures, which are employed and enforced by Construction Oversight Representatives.
n. Hydraulic pipeline dredges limit, to the extent possible, pumping activities to when the suction equipment is on the substrate. In general, pump operations start after the equipment is on the substrate. When hoppers are full or dredging is interrupted, the equipment is lifted off the surface long enough to flush the remaining sediment from the pipes and then pumping is stopped.
o. Once the material has been removed, the material will not be dumped back into the water, except onto an appropriate beneficial use site.

5.3 FINDINGS

USACE rejected Alternative 1 because it would not meet the project purpose and need. Alternative 2 is the least environmentally damaging practicable alternative that meets the purpose and need.

6 SIGNIFICANT DEGRADATION, EITHER INDIVIDUALLY OR CUMULATIVELY, OF THE AQUATIC ENVIRONMENT

6.1 EFFECTS ON ECOSYSTEM FUNCTION

The runoff from the Site A containment area is clean water that drains from the dredged material, which has been determined suitable for aquatic disposal and would be tested again prior to dredging. The basin inside the berm allows turbid water to settle before allowing the water to return to the Quillayute River through an outfall weir that directs the clean water onto riprap to prevent shoreline erosion. The material placed at First Beach would come from Site A consisting of the coarser outer entrance channel material that has drained of water. Once transported onto First Beach, this clean material would integrate with the natural profile and composition by summer. USACE anticipates receiving a water quality certification from the EPA and would comply with all

required conditions associated with the discharge of dredged or fill material into waters of the U.S. contained in the certification. No release of contaminants is expected due to the clean nature of the material. Based on the short-term, minor effects to water quality, there would be no significant impact to this resource.

Material that is pumped to Site B during active dredging exits a pipeline as a slurry and falls onto the beach as a mix of sand and water. During most tide levels, the sediment falls onto the beach surface and the water quickly drains into the coarse sediment of the beach. During higher tide levels, the slurry of sand and water often mixes with ocean water as the waves run up the beach. This can generate a small visible turbidity plume during the hour the tide reaches this height; however, the power of ocean waves moves vast quantities of sediment around the beach creating wide areas of visible turbidity even when no dredging is occurring. Therefore, the minor amount of dredged material entering the water for the short duration of high tide is not considered a significant effect.

6.2 Effects on Recreational, Aesthetic, Historical, and Economic Values

No significant adverse effects on recreation, aesthetics, or the economy are anticipated.

6.3 Findings

USACE has determined that the proposed work would have beneficial economic impacts and no significant adverse impacts to aquatic ecosystem functions, recreational, and aesthetic values.

7 APPROPRIATE AND PRACTICABLE MEASURES TO MINIMIZE POTENTIAL HARM TO THE AQUATIC ECOSYSTEM

a. Impact Avoidance and Minimization Measures. The primary avoidance measure concerns the timing of in-water work and placement of dredged materials. Dredging would only occur within the allowed in-water work window for the protection of juvenile salmon and spawning surf smelt. Avoiding dredging in the springtime also prevents introducing turbidity into kelp beds during a sensitive time of year. Another avoidance measure is to dredge as infrequently as possible, and USACE schedules dredging to occur every other year rather than every year. USACE would minimize impacts to marbled murrelets by observing a Limited Operations Period in which the bulldozer would be delivered to Quillayute Spit during the daytime when the birds are least likely to be disturbed by the activity. The bulldozer would move farther than 0.25 mile away to minimize noise that could disturb birds on nests. Additionally, USACE would minimize dredging by not adding width or depth to the maintenance area footprint. Dredging and placement would occur farther than 0.25 mile away from the nearest suitable nest site.

b. Compensatory Mitigation. There would be no compensatory mitigation measures because the work would not have more than a negligible change to any habitat characteristics. The placement of dredged material would occur at areas that have previously received fill material and would emulate the natural sediment transport process that has been interrupted by stabilization and armoring of the Quillayute Spit and South Jetty. Placement of the dredged material is expected to maintain and enhance surf smelt spawning habitat as the material enters the littoral drift cells along the beaches.

7.1 FINDINGS

USACE has determined that all appropriate and practicable measures have been taken to minimize potential harm. There are no practicably available placement alternatives that would be less costly and still be consistent with engineering and environmental requirements, while meeting the project need for disposition of dredged material.

8 OTHER FACTORS IN THE PUBLIC INTEREST

8.1 FISH AND WILDLIFE

USACE coordinates with State and Federal agencies, as well as the Quileute Tribe, to assure careful consideration of fish and wildlife resources. USACE evaluated potential effects to fish and wildlife resources and submitted a biological assessment to the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) on December 16, 2017, to initiate formal consultation for routine maintenance of eight navigation projects in western Washington for a 25-year period. Consultation was completed when USFWS sent a Letter of Concurrence (Reference No. 0lEWFW00-2017-1-0277) for the proposed project on May 24, 2017, and NMFS issued a biological opinion (Reference No. WCR-2016-6057) on January 26, 2018. NMFS also reviewed the likely effects of the proposed maintenance action on Essential Fish Habitat (EFH) and concluded that the action would adversely affect designated EFH for Pacific Coast Salmon, Pacific Coast Groundfish and Coastal Pelagic species. The biological opinion outlined three Reasonable and Prudent Measures as follows:

1) Minimize the incidental take from dredging and in-water sediment disposal.
2) Minimize the exposure of listed fish to contaminants and reduced dissolved oxygen (DO).
3) Implement a monitoring and reporting program to confirm that the take exemption for the proposed action is not exceeded. USACE shall develop and implement a plan to collect and report details about the take of listed fish.

USACE would assure full compliance with the Endangered Species Act (ESA) prior to and during project implementation.

8.2 Water Quality

USACE would pursue a Section 401 Water Quality Certification from the EPA. USACE would abide by the conditions in the Water Quality Certification to ensure compliance with State water quality standards.

8.3 Historical and Cultural Resources

Since the proposed dredging is confined to the removal of recently deposited sediments within the previously dredged channel width and depth boundaries, no submerged cultural resources would be affected by the project.

8.4 Activities Affecting Coastal Zones

USACE is substantively consistent with the enforceable polices of the Clallam County Shoreline Master Program and provided documentation of this consistency determination to Ecology on August 2, 2024.

8.5 Environmental Benefits

Placement of dredged materials at First Beach and Site B would keep riverborne material within the nearshore environment. The material would enhance the shoreline in each drift cell down current of the placement sites. The dredged material is the same grain size distribution as the material at the placement sites. Adding sediment to the erosional zones would reduce the need for adding less natural material such as riprap for reinforcement of the navigation structures.

8.6 Navigation

A minor, temporary disruption of navigation traffic may result from dredging and placement operations. A “Notice to Mariners” would be issued before dredging and placement operations are initiated. The action would have an overall benefit for navigation by returning the Federal navigation channel to its authorized depth. This allows vessel entry and exit to the USCG station and marina and reduces the number of times each winter that the bar is closed for navigation during storms.

8.7 Findings

USACE has determined that this project is within the public interest based on review of the public interest factors.

9 CONCLUSION

Based on the analyses presented in the Environmental Assessment, as well as the following 404(b)(1) Evaluation and Application by Analogy of the General Policies for the Evaluation of the Public Interest, USACE finds that this project complies with the substantive elements of Section 404 of the Clean Water Act.

404(B)(1) EVALUATION [40 CFR §230]

POTENTIAL IMPACTS ON PHYSICAL AND CHEMICAL CHARACTERISTICS [SUBPART C]:

1. Substrate [230.20] The surface substrate at First Beach and Site B placement sites consists of sand, gravel, and cobbles. Dredged materials placed at these sites would be similar particle size and would integrate with the natural beach sediments. Placement is considered a beneficial use to maintain the characteristics of the forage fish spawning habitat. Runoff from Site A sediment containment area would be clean water directed onto riprap to prevent erosion of riverbank substrate.

2. Suspended particulates/turbidity [230.21] Material placed at First Beach would be dewatered at Site A prior to placement and is therefore not expected to cause noticeable turbidity. Runoff from Site A would be clean water because sediment would have settled out from the water before the water flows through the weir structure. No turbidity is anticipated from Site A runoff water. The discharge of dredged material at Site B would result in a temporary increase in turbidity and suspended particulate levels only during high tides when the effluent reaches the ocean water. The material would rapidly sink to the bottom, while a small percentage of finer material is expected to remain in suspension. Increases in turbidity associated with placement operations would be minimal (confined to the areas in the immediate vicinity of the placement site) and of short duration (currents would disperse any suspended material within hours of placement).

3. Water Quality [230.22] No significant water quality effects are anticipated. The material placed at First Beach would come from Site A consisting of the coarser outer entrance channel material that has dewatered. Once transported onto First Beach, this clean material would integrate with the natural profile and composition by summer. USACE anticipates receiving a water quality certification from the EPA and would comply with all required conditions associated with the discharge of dredged or fill material into waters of the U.S. contained in the certification. No release of contaminants is expected due to the clean nature of the material. Based on the short-term, minor effects to water quality, there would be no significant impact to this resource. Material that is pumped to Site B during active dredging exits a pipeline as a slurry and falls onto the beach as a mix of sand and water. During most tide levels, the sediment falls onto the beach surface and the water quickly drains into the coarse sediment of the beach. During higher tide levels, the slurry of sand and water often mixes with ocean water as the waves run up the beach. This can generate a small visible turbidity plume during the hour the tide reaches this height; however, the power of ocean waves moves vast quantities of sediment around the beach creating wide areas of visible turbidity even when no dredging is occurring. Therefore, the minor amount of dredged material entering the water for the short duration of high tide has a

negligible effect to water quality. Prior to placement, all sediments would have been tested and approved for open water placement under the guidelines of the Dredged Material Management Program (DMMP) administered by USACE, EPA, Ecology, and Washington Department of Natural Resources. Any material that does not meet DMMP guidelines would be disposed of in an approved upland disposal site and thus would not affect water quality. The runoff from Site A containment area is clean water that drains from the dredged material, which has been determined suitable for aquatic disposal and would be tested again prior to dredging. Sediment would have settled out from the water before the water flows through the weir structure. No change to water quality is anticipated.

4. Current patterns and water circulation [230.23] The placement of material would not obstruct flow, change the direction or velocity of water flow/circulation, or otherwise change the dimensions of the receiving water body. The placement sites are located on shorelines with tidal influences, which means that flow is expected to disperse sediment quickly and carry sediments out to the ocean.

5. Normal water fluctuations [230.24] The placement of material would not impede normal tidal fluctuations or riverine currents.

6. Salinity gradients [230.25] The placement of material would not alter the salinity gradient as salinity is driven by the change in tides and freshwater inputs and those factors would be unaffected, as explained above.

POTENTIAL IMPACTS ON BIOLOGICAL CHARACTERISTICS OF THE AQUATIC ECOSYSTEM [SUBPART D]:

1. Threatened and Endangered Species [230.30] Pursuant to Section 7 of the ESA, USACE analyzed potential effects of placement at First Beach and Site B placement sites and runoff from Site A on protected species. The potential stressors arising from the proposed maintenance action that could cause direct effects on ESA-listed species include 1) entrainment during dredging and sediment placement, 2) direct contact with cutterhead, 3) vessel collision, 4) elevated noise, and 5) degraded water quality. Indirect effects may also be caused by impacts on forage resources. USACE evaluated these effects and submitted a biological assessment to the USFWS and the NMFS on December 16, 2017, to initiate formal consultation for routine maintenance of eight navigation projects in western Washington for a 25-year period. Formal consultation was completed for the proposed project with the USFWS forwarding a Letter of Concurrence (Reference No. 0lEWFW00-2017-1-0277) on May 24, 2017, and the NMFS issuing a biological opinion (Reference No. WCR-2016-6057) on January 26, 2018.

2. Aquatic Food Web [230.31] Turbidity associated with placement operations may interfere with feeding and respiratory mechanisms of benthic, epibenthic, and planktonic invertebrates. Placement of dredged material at First Beach and Site B would cause mortality of invertebrates present in the narrow strip of beach habitat where material lands. Larger organisms such as crabs would be able to flee the area and are rarely observed at the higher tide elevations where the sediment is placed. Sediments would be the same type and coarseness as those already present in the beneficial use sites and the depth of the total habitat area available would not change. In a relatively short period, organisms would reestablish in the placement area due to recruitment from adjacent non-disturbed areas. Based on these factors, effects to benthic invertebrate populations and their habitat at the placement sites would be minor and discountable. Potential effects of placement operations on salmonids would be reduced or avoided through implementation of timing restrictions. Placement of dredged material may risk a low level of disturbance to spawning surf smelt; however, the sediment provides a long-term benefit to their habitat. Runoff from Site A would have no effect to the aquatic food web.

3. Wildlife [230.32] Noise associated with placement operations may have an effect on bird and marine mammals in the project area. The effects of any sound disturbance would likely result in displacement of animals, but not injury. Limited operating periods would avoid disturbance to the marbled murrelet nesting area. Increases in turbidity associated with dredged material placement could reduce visibility, thereby reducing foraging success for any animals in the area. Any reduction in availability of food would be highly localized and would subside rapidly upon completion of the placement operations. Placement operations are not expected to result in a long-term reduction in the abundance and distribution of prey items. Runoff from Site A would have no effect to wildlife.

POTENTIAL IMPACTS ON SPECIAL AQUATIC SITES [SUBPART E]:

1. Sanctuaries and Refuges [230.40] The Olympic Coast National Marine Sanctuary is located near but does not include the placement areas. No effects of the project are expected to extend to the Sanctuary.

2. Wetlands [230.41] Dredged material would not be discharged in wetlands. Use of the designated placement sites would not alter the inundation patterns of wetlands in the project area. Runoff from Site A would have no effect to any wetlands.

3. Mudflats [230.42] Dredged material would not be discharged onto mudflats. Use of the designated placement sites would not alter the inundation patterns of nearby mudflats.

4. Vegetated Shallows [230.43] Dredged material would not be discharged onto or directly adjacent to vegetated shallows.

5. Coral Reefs [230.44] Not applicable.

6. Riffle and Pool Complexes [230.45] Not applicable.

POTENTIAL EFFECTS ON HUMAN USE CHARACTERISTICS [SUBPART F]:

1. Municipal and Private Water Supplies [230.50] Not applicable.

2. Recreational and Commercial Fisheries [230.51] Tribal commercial and subsistence fisheries and non-tribal sportfishing are popular activities at La Push. Tribal members fish for salmon, halibut, rockfish, and lingcod. Maintenance dredging would keep the channel open and navigable for fishing vessels to launch and access fishing and shellfishing locations. Maintenance dredging provides access to fishing areas at all tide stages and supports a charter fishing business as well as transient moorage for recreational fishing boats.

3. Water Related Recreation [230.52] Recreation opportunities in the project area are primarily boating, surfing, beach walking, and fishing. Only temporary disruptions to beach walking at the First Beach and Site B placement sites would occur during the months of September and October while placement is in progress. Runoff from Site A would have no effect to water-related recreation. The project would have no permanent detriment to recreation and would in fact improve conditions for recreational vessels.

4. Aesthetics [230.53] The rugged wilderness character of the area attracts travelers from throughout the Pacific Northwest and farther away. The placement of material from Site A onto First Beach would cause a slight decrease to the aesthetic value of this specific location due to the change from a natural beach slope to an artificial shape of graded sand material. However, this impact would be minor in spatial scale and temporary for only the few weeks it takes for tides to shape the sand. People walking south from Rialto Beach might encounter the bulldozer and outfall pipe, which would be a minor disruption of the natural characteristics of the wilderness beach.

5. Parks, National and Historical Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves [230.54] The project is adjacent to a National Park. No changes to any park resources are anticipated to result from placement.

EVALUATION AND TESTING [SUBPART G]:

1. General evaluation of dredged or fill material [230.60] The material to be placed is predominantly coarse sand, gravel, and cobbles. The areas to be dredged would be tested in accordance with DMMP guidelines, and only material that is within those

guidelines would be placed in the nearshore zone. Any materials that do not meet DMMP guidelines would be disposed of in an approved upland disposal site.

2. Chemical, biological, and physical evaluation and testing [230.61] The sediments in the footprint of the proposed dredging areas would undergo testing conducted in accordance with DMMP procedures. The material in the dredge area is expected to meet DMMP guidelines and to be suitable for open-water placement based on the history of suitability determinations at this site. Testing of the material to be dredged would occur immediately preceding dredging and placement actions. Any material determined not suitable for open water placement would be disposed in an approved upland site. Only material that meets DMMP guidelines would be placed in the nearshore zone placement sites.

ACTIONS TO MINIMIZE ADVERSE EFFECTS [SUBPART H]:

1. Actions Concerning the Location of the Discharge [230.70] The effects of the discharge are minimized by the choice of placement sites. The placement sites have been designated for dredged material discharge. The discharge would not disrupt tidal flows. The location of the proposed discharge has been planned to minimize negative effects to the environment.

2. Actions Concerning the Material to be Discharged [230.71] Concentrations of chemicals of concern in the materials to be discharged are low, therefore no treatment substances nor chemical flocculates would be added before placement. The potency and availability of any pollutants present in the dredged material would remain unchanged.

3. Actions Controlling the Material After Discharge [230.72] No containment levees or capping are necessary because the clean material is intended to serve as beach nourishment. Clean water would be decanted from Placement Site A through a weir for discharge to the riverbank.

4. Actions Affecting the Method of Dispersion [230.73] The placement sites have been selected by making beneficial use of currents and circulation patterns to disperse the discharge out to the Pacific Ocean.

5. Actions Related to Technology [230.74] Appropriate machinery and methods of transport of the material for discharge would be employed. All machinery would be properly maintained and operated.

6. Actions Affecting Plant and Animal Populations [230.75] USACE has coordinated with the local Native American Tribe and the State and Federal resource agencies to assure there would be no greater than minimal effects to plant, fish, and wildlife resources.

7. Actions Affecting Human Use [230.76] The discharge would not result in damage to aesthetically pleasing features of the aquatic landscape. The discharge would not increase incompatible human activity in remote fish and wildlife areas.

8. Other actions [230.77] Not applicable.

Application by Analogy of the General Policies for the Evaluation of the Public Interest [33 CFR § 320.4, used as a reference]

1. Public Interest Review [320.4(a)] USACE finds these actions to be in compliance with the 404(b)(1) guidelines and not contrary to the public interest.

2. Effects on Wetlands [320.4(b)] No wetlands would be altered by the placement of material from dredging operations.

3. Fish and Wildlife [320.4(c)] USACE has coordinated with the local Native American Tribes and the state and Federal resource agencies to ensure there would be no greater than minimal effects to fish and wildlife resources.

4. Water Quality [302.4(d)] USACE would obtain a 401 Water Quality Certification from the EPA and would abide by the conditions of the Certification to ensure compliance with water quality standards.

5. Historic, Cultural, Scenic, and Recreational Values [320.4(e)] USACE has consulted with representatives of interested Tribes, the State Historic Preservation Office, and other parties and has determined that the planned undertaking would have no effect on historic properties. No wild and scenic rivers, historic properties, National Landmarks, National Rivers, National Wilderness Areas, National Seashores, National Recreation Areas, National Lakeshores, National Parks, National Monuments, estuarine and marine sanctuaries, or archeological resources would be adversely affected by the proposed work.

6. Effects on Limits of the Territorial Sea [320.4(f)] The proposed disposal of sediment would not alter the coastline or baseline from which the territorial sea is measured for the purposes of the Submerged Lands Act and international law.

7. Consideration of Property Ownership [320.4(g)] The three placement sites are on Quileute Tribe's land. Access to Site B is through Federal property of the National Park Service, and USACE obtains right of entry prior to construction.

8. Activities Affecting Coastal Zones [320.4(h)] USACE has determined that the proposed work is consistent to the maximum extent practicable with the enforceable policies of the Washington Coastal Zone Management Act. USACE would seek Ecology's concurrence on this determination.

9. Activities in Marine Sanctuaries [320.4(i)] The Olympic Coast National Marine Sanctuary is located near but does not include the placement areas. No effects of the project are expected to extend to the Sanctuary. USACE has coordinated with the Sanctuary staff for consideration of natural resources.

10. Other Federal, State, or Local Requirements [320.4(j)]

a. National Environmental Policy Act. USACE prepared a Draft Environmental Assessment (EA) and this CWA Section 404 Public Interest Review to satisfy the documentation requirements of NEPA. Following a 30-day public review and comment period, USACE would determine whether preparation of an Environmental Impact Statement is warranted.

b. 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 threatened or endangered species. USACE evaluated potential effects to ESA-listed species and submitted a biological assessment to the USFWS and the NMFS on December 16, 2017, to initiate formal consultation for routine maintenance of eight navigation projects in western Washington for a 25-year period. For the Quillayute River Project, USACE determined that this dredging and disposal action would have "no effect" on any ESA-listed species or their critical habitat.

USFWS sent a Letter of Concurrence (Reference No. 0lEWFW00-2017-1-0277) for the proposed project on May 24, 2017. USFWS concurred with USACE determination and stated that with full and successful implementation of conservation measures, effects of the proposed maintenance action would not be expected to result in measurable effects to bull trout or marbled murrelets.

NMFS issued a biological opinion (Reference No. WCR-2016-6057) on January 26, 2018, concluding that with the implementation of BMPs and minimization measures, the proposed action was likely to adversely affect but not likely to jeopardize the continued existence of eulachon and green sturgeon. NMFS also concluded that the proposed action was likely to adversely affect designated critical habitat for green sturgeon but is not likely to result in the destruction or adverse modification of the designated critical habitat. In this Opinion, NMFS also concluded that the proposed action was not likely to adversely affect ESA-listed marine mammal species, designated critical habitat for Southern Resident killer whales, ESA-listed marine turtles, and designated critical habitat for leatherback turtles. NMFS also reviewed the likely effects of the proposed maintenance action on Essential Fish Habitat (EFH) and concluded that the action would adversely affect designated EFH for Pacific Coast Salmon, Pacific Coast Groundfish, and Coastal Pelagic species.

c. Clean Water Act. USACE must demonstrate compliance with the substantive requirements of the Clean Water Act. This document records USACE's evaluation and findings regarding this project pursuant to Section 404 of the Act. Public Notice CENWS- PMP-24-03 served as the basis for seeking a Section 401 Water Quality Certification from the EPA. USACE will abide by applicable conditions of the Water Quality Certification associated with the discharge of dredged material into the waters of the U.S. to ensure compliance with water quality standards.

d. Coastal Zone Management Act. The Coastal Zone Management Act of 1972, as amended, requires Federal agencies to carry out their activities in a manner which is consistent to the maximum extent practicable with the enforceable policies of the approved Washington Coastal Zone Management Program. USACE has prepared a Coastal Zone Management Act Consistency Determination for the Quillayute River Federal navigation channel maintenance project. USACE would seek Ecology's concurrence with this determination.

e. Marine Protection, Research, and Sanctuaries Act. Section 102 of the Marine Protection, Research, and Sanctuaries Act (MPRSA) authorizes the EPA to promulgate ocean dumping criteria and designate ocean disposal sites. This project would not involve ocean disposal of dredged material.

f. 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. USACE has initiated consultation with the Washington State Historic Preservation Office and the Quileute Tribe. USACE has determined no historic properties would be affected.

g. 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 (FWCA) is not required for the proposed placement of sediments because the FWCA does not apply to operations and maintenance activities on existing projects.

11. **Safety of impoundment structures [320.4(k)]** Not applicable.
12. **Floodplain Management [320.4(l)]** The proposed dredging and disposal would not alter any floodplains.
13. **Water supply and conservation [320.4(m)]** Not applicable.
14. **Energy conservation and development [320.4(n)]** Not applicable.
15. **Navigation [320.4(o)]** This project would maintain the navigability of the Quillayute River Navigation Channel. The placement activities would not impede navigation.

16. **Environmental benefits [320.4(p)]** Placing dredged material at First Beach and Site B would add beneficial sediment to the beach environment.

17. **Economics [320.4(q)]** Maintaining the navigation channel and placing material within the nearshore ecosystem at the project site is an economic benefit for the local community. Tribal fishermen would be able to continue participating in local fisheries, and the Quileute Tribe would benefit from the ability to host transient mariners. Maintaining navigability for USCG station and harbor of refuge are also important socioeconomic resources for the local area. USACE has determined that this project is economically justified.

18. **Mitigation [320.4(r)]** Potential effects of placement operations would be avoided and minimized through implementation of timing restrictions. No compensatory mitigation would be required for the project.

Appendix B
Clean Water Act Section 401 Water Quality Certificate

REGION 10
SEATTLE, WA 98101

November 25, 2024

Colonel Kathryn P. Sandorn
U.S. Army Corps of Engineers
4735 East Marginal Way South
Seattle, Washington 98134-3755

The United States Environmental Protection Agency (EPA) received a Clean Water Act (CWA) section 401 request for water quality certification (WQC) for the Quillayute River Federal Navigation Channel Maintenance Dredging and placement (2024 – 2031) project # CENWS-ODP-NS-46, from the project proponent, U.S. Army Corps of Engineers (USACE), on August 7, 2024.

This grant of certification with conditions applies to the water quality-related impacts from the activity subject to the USACE dredging project referenced. The USACE proposes to impact waters to conduct maintenance dredging activities. The project is located in the Quillayute River, in Clallam County, Washington (Latitude 47.909830, Longitude -124.640601).

Section 401 of the CWA requires applicants for Federal licenses or permits to conduct any activity which may result in any discharge into waters of the United States to obtain a certification or waiver from the certifying authority where the discharge originates or will originate. Where no state or Tribe has authority to give such certification, the EPA is the certifying authority (33 U.S.C. 1341(a)(1)). In this case, the Quileute Tribe of the Quileute Reservation does not have the authority to provide CWA Section 401 certification for projects within the Quileute Reservation, therefore, the EPA is making the certification decision for the Quillayute River Federal Navigation Channel Maintenance Dredging and Placement (2024 – 2031) project.

The USACE requires section 401 certification for its civil works projects, even though there is no Federal license or permit associated with those projects. Under the USACE regulations, the USACE must seek section 401 certification for discharges of dredged material or fill into waters of the United States (33 CFR 336.1(a)(1); 33 CFR 335.2). In these instances, the EPA understands that the USACE will follow the certification process described at 40 CFR 121.

Project Description
The USACE proposes to hydraulically dredge up to a total of 100,000 cubic yards (CY) of material from the outer and inner channels and the boat basin to bring the project to an authorized depth of -10' mean lower low water (MLLW) plus 2 feet of overdepth. Dredging would occur approximately every other year and begin after September 1st of any dredging year. Dredged material disposal will occur

primarily as direct beach nourishment on the ocean side of the Quillayute Spit at "Site B". In addition, up to 15,000 CY of material dredged from the outer portions of the entrance channel may be placed and dewatered at upland "Site A". After October 1st of any dredging year, dewatered "Site A" material may be moved to the upper elevations of "First Beach," adjacent to the South Jetty, to help protect the jetty root from wave action and erosion.

The EPA's Public Notice Process
On August 27, 2024, the EPA issued a public notice regarding the proposed project and provided the opportunity for the public to submit comments until September 26, 2024. No comments were received.

General Information
The general information provided in this section does not constitute a certification condition(s).

1. Work authorized by this certification is limited to the work described in the application materials provided to EPA.

2. Pursuant to CWA section 308(a), EPA Region 10 is authorized to inspect the authorized activity to determine compliance with the terms and conditions of this certification.

3. This certification does not exempt the project proponent from compliance with other statutes, codes or requirements administered by other federal, Tribal, state or local agencies.

4. The project proponent should retain a copy of this certification in its files as documentation of EPA certification for the above-referenced project.

5. This certification is valid through March 1, 2031.

Project Conditions

Condition 1 - Pre-dredge notification: The project proponent shall schedule a pre-dredge meeting with EPA Region 10 at least seven days prior to dredging. The project proponent shall submit a finalized dredging and disposal work plan consistent with the project description to EPA Region 10 (R10-401-Certs@epa.gov) at least 14 days prior to the pre-dredge meeting. The project proponent shall include the following components in the final dredging and disposal work plan:

a. General information including schedule (e.g., dredging/disposal events), primary contact, and hours of operation.
b. Planned dredging volumes.
c. Map and description of staging areas, debris holding areas, vehicle access routes, barge access routes, dredging disposal locations (including any uplands), water quality monitoring locations, vehicle and equipment cleaning areas, maintenance areas, refueling areas, and fuel storage areas.
d. Time-stamped photos of placement site A, site B, and First Beach prior to disposal.
e. Debris disposal methods.
f. Dredging procedures and sequence.
g. Equipment list.
h. A description of the best management practices (BMPs) to be used for dredging, dewatering,

trans-loading, and disposal to minimize impacts to beach and intertidal areas.

i. A spill prevention and containment plan.

Why the condition is necessary to ensure the proposed project will comply with water quality requirements: EPA must ensure the project proponent identifies methods, practices, and locations to minimize any potential adverse water quality impacts from the discharge and maintain the functions and values of the receiving body. Citations: 40 CFR 230.10(d); 40 CFR 230.70; 40 CFR 230.74.

Condition 2 - Post-dredge notification: The project proponent shall submit a dredge and disposal report with figures to EPA Region 10 (R10-401-Certs@epa.gov) within 30 days of each dredging and disposal event. The project proponent shall include the following items in the post-dredge and disposal report:

a. Dredging and disposal dates.
b. Updated project maps (see Condition 1.c.) displaying the disposal location(s).
c. Time-stamped photos of placement site A, site B, and First Beach following disposal.
d. Dredging and disposal volumes.
e. Debris removal and monitoring results (see Condition 4).
f. Water quality monitoring data as specified in the water quality monitoring plan.
g. Post-dredge bathymetry.

Within 15 days of receiving the post-dredge and disposal report, the EPA will review the post-dredge and disposal report to determine whether the project proponent conducted the dredging and disposal event consistent with the application materials and finalized dredging and disposal work plan. If the EPA determines that the project proponent did not conduct the dredging and disposal event consistent with the application materials and finalized dredging and disposal work plan, the EPA will notify the project proponent within 15 days of its determination.

Within 15 days of the notification, the project proponent shall provide the EPA with a written explanation for the deviation from the application materials and finalized dredging and disposal work plan and coordinate with the EPA Region 10 to remedy any actions which may cause adverse water quality impacts.

Why the condition is necessary to ensure the proposed project will comply with water quality requirements: EPA must ensure all activities were conducted as proposed in the application materials to minimize any potential adverse water quality impacts and maintain the functions and values of the receiving body. Citations: 40 CFR 230.10(d); 40 CFR 230.70; 40 CFR 230.74.

Condition 3 - Suitability determination recency: The project proponent shall complete all dredging activities prior to recency expirations listed in the January 22, 2024 suitability determination memorandum (SDM) issued by the Dredged Material Management Program (DMMP):

a. June 2033 for the outer navigation channel,
b. June 2030 for the inner navigation channel and boat basin non-slip area, and
c. June 2028 for the boat basin slip area and new area.

Why the condition is necessary to ensure the proposed project will comply with water quality requirements: EPA must ensure that discharge effects to water quality are minimized and that dredging operations do not expose sediments which may degrade water quality. Conducting dredging activities beyond the SDM recency expirations could degrade water quality. Citations: 40 CFR 230.10(d), 40 CFR 230.71.

Condition 4 – Debris removal and monitoring: The project proponent shall remove any anthropogenic marina debris prior to dredging and visually monitor the beach placement locations at either Quillayute Spit or First Beach to ensure anthropogenic marina debris is not discharged at these locations. The project proponent shall photo-document with a time stamp the placement location(s) before placement, during placement, and after removal of anthropogenic marina debris. The project proponent shall send copies of such time stamped photo-documentation to EPA Region 10 (R10-401-Certs@epa.gov) within 15 days of developing such documentation. The project proponent shall dispose of all anthropogenic marina debris at an approved waste facility.

Why the condition is necessary to ensure the proposed project will comply with water quality requirements: EPA must ensure proper management and disposal of debris is conducted to minimize adverse water quality effects of discharge at the disposal site. Citations: 40 CFR 230.10(d), 40 CFR 230.70, 40 CFR 230.76.

Condition 5 - Unauthorized discharges: The project proponent shall not discharge any fuels, oils, chemicals, or other hazardous materials into waters of the United States or in areas with the potential for discharge into waters of the United States.

Why the condition is necessary to ensure the proposed project will comply with water quality requirements: EPA must ensure that operational controls and best management practices are implemented to prevent the discharge of unauthorized materials or substances which may degrade water quality. This condition ensures water quality is not degraded by toxic pollutants in toxic amounts, raw materials, oil, grease, gasoline, or other hazardous materials. Citations: 40 CFR 230.10(c); 40 CFR 230.10(d); 40 CFR 230.71; 40 CFR 230.75

Condition 6 – Prevention of fish entrapment: The project proponent shall not place dredged material on Quillayute spit and/or First Beach in such a way that allows for the formation of pits or depressions which could trap fish.

Why the condition is necessary to ensure the proposed project will comply with water quality requirements: EPA must ensure that activities do not result in significant adverse effects to fish and wildlife habitat. Citations: 40 CFR 230.10(c)(3); 40 CFR 230.10(d); 40 CFR 230.75

Condition 7 – Water quality monitoring: The project proponent shall conduct turbidity monitoring as described in the water quality monitoring plan and notify EPA Region 10 (R10-401-Certs@epa.gov) within 24-hours of any exceedance.

Why the condition is necessary to ensure the proposed project will comply with water quality requirements: EPA must ensure that operational controls and best management practices are implemented to prevent degradation of water quality. Citations: 40 CFR 230.11(c); 40 CFR 230.10(d); 40 CFR 230.72.

If you have any questions regarding this certification, please contact Jeff Brittain at 206-553-0532 or by email at brittain.jeffrey@epa.gov.

Sincerely,

DAVID CROXTON

Digitally signed by DAVID CROXTON
Date: 2024.11.25 15:06:08 -08'00'

David Croxton, Manager
Wetlands and Oceans Section

ec: Daniel Taylor, U.S. Army Corps of Engineers
Caren Crandell, U.S. Army Corps of Engineers
Madelyn Martinez, U.S. Army Corps of Engineers

Appendix C
Water Quality Monitoring Plan

Water Quality Monitoring Plan: Hydraulic Dredging
Quillayute River Federal Navigation Channel
Maintenance Dredging and Disposal FY2024-2031

Constituents Monitored:

The Quillayute River Federal Navigation Maintenance Dredging and Placement project requires the following water quality monitoring parameters pursuant to the Water Quality Certification (WQC) issued by EPA Region 10 on 25 November 2024, Quillayute River, La Push, Washington, pursuant to 33 U.S.C. 1341(a)(1):

- Turbidity applicable criteria:
  - Visual Point of Compliance (POC) is 600 feet down current from the dredging activity.
  - Visual turbidity at 150 feet and 300 feet down current from the dredging activity shall be "recorded" as observed.
  - Visual turbidity anywhere at or past the POC from the activity and/or at the disposal location shall be "recorded" as an "exceedance" of the standard.

Frequency of Monitoring:

- The contractor's dredging equipment shall operate for at least 1 hour prior to visual turbidity observations to ensure the observations are representative of water quality conditions during active operations.
- The contractor's water quality monitoring for dredging and disposal will correspond with; 1) slack tide and 2) ebb or flood tidal conditions to the extent these times adequately reflect periods of active dredging and occur during daylight hours.
- The contractor shall monitor for turbidity visually during daily dredging activities during daylight hours:
  - Monitor and record visual turbidity at 150 feet, 300 feet, and the 600-foot POC down-current of the dredging every four (4) hours during daylight hours.
  - Monitor and record visible turbidity within the disposal area for every disposal action during daylight hours.
  - No monitoring shall occur before sunrise or after sunset unless authorized by the U.S. Army Corps of Engineers (USACE).
- The contractor shall continue to monitor and record (written) daily visual turbidity monitoring at the dredging monitoring locations and at the disposal site during every disposal event every day (daylight hours only) the dredge is in operation. At any point, including observations outside normal monitoring, if visual monitoring indicates a turbidity plume, the exceedance protocol listed below shall be followed.

Sampling Approach:

- The contractor shall visually observe turbidity during daylight hours and record the findings according to the frequency.

- The contractor shall visually observe turbidity within the disposal area and record the findings of every disposal action during daylight hours.

Monitoring Locations:

- The area of mixing point of compliance for turbidity during hydraulic dredging is 600 feet down-current from the dredging activity and at the point of placement, and thus will move as the dredging and placement progresses.
- The contractor shall establish Monitoring Points at:
  - Point of Compliance - visual turbidity observed at or beyond 600 feet of the dredging activity.
  - Visual turbidity observed at 150 feet and 300 feet of the dredging activity.
  - Visual turbidity within the disposal area for every disposal action during daylight hours.
- A map of sample locations will be included in the final plan, which will be developed by the dredge contractor.

Exceedances and Exceedance Protocol

- If a visual turbidity plume is present at or beyond 600 feet from the dredging activity and/or within the disposal area for a disposal action, that sample is recorded as an EXCEEDANCE.
  - The Contractor shall immediately verify that dredging and disposal BMPs are already implemented. If not, immediately implement appropriate BMPs.
  - The Contractor shall notify USACE by telephone as soon as is practicable, but within 30 minutes after there has been a visual exceedance.
  - USACE will notify EPA of the situation as soon as is practicable, but within 24 hours of the visual exceedance.
  - USACE will work with the Contractor to evaluate and identify conditions or actions that may be contributing to increased turbidity.
- During the notification and evaluation period, the Contractor will monitor and record the turbidity plume every 30 minutes until it is no longer visible.
- If the visual turbidity is caused by the dredging and/or disposal actions, those actions will be immediately addressed and corrected.
- If compliance cannot be achieved, the Contracting Officer may issue a stop work order until corrections are completed and/or plume has dissipated.
- Once compliance has again been achieved, the Contracting Officer will order the Contractor to resume dredging.
- USACE will provide monitoring data to EPA and notify EPA that dredging has resumed.

Reporting:

- USACE will report exceedances at the POC or disposal areas, including potential causes and BMPs to prevent reoccurrence, or dredging shutdowns to EPA by telephone and email as soon as is practicable, but within 24 hours.

- The contractor shall document any dredging shutdowns due to water quality exceedances with an Incident Report, which will be transmitted to USACE by email and through the QCS/RMS system within 24 hours of the exceedance.
- The Incident Report shall document all exceedances and will include the date, time, location, activity, turbidity data collected, name of person collecting the data, names of persons notified of the exceedance, photographs if taken, and summary of how the exceedance was resolved following the above protocol.
- Within 30 days of termination of the dredging and disposal activities, USACE will submit a summary report of the measured turbidity results to EPA.

Responsibility and Communication Plan:

- USACE will oversee turbidity monitoring conducted by the contractor.
- USACE will be responsible for coordinating with EPA and submitting the Turbidity Monitoring Reports and data provided by the contractor.
- USACE will notify EPA within 24 hours if an exceedance occurs.
- USACE will coordinate with the dredging contractor.
- The contractor shall provide Turbidity Monitoring Report and data to USACE, as directed.
- The contractor shall notify USACE within 30 minutes if an exceedance occurs.
- The contractor POC will be provided in the Contractor Water Quality Monitoring Plan.
- USACE Points of Contact for turbidity monitoring will be Michael Suh, Project Manager/COR, Michael.W.Suh@usace.army.mil, (206-764-6671), and Daniel Taylor, Environmental Coordinator, daniel.taylor@usace.army.mil (206-475-5407).
- The WA Ecology Point of Contact is Jeff Brittain, 401 Coordinator – U.S. EPA Region 10, Brittain.Jeffrey@epa.gov (206-553-0532)
- Official reporting of any incidents are to be sent to both the EPA Point of Contact AND to the R10-401-Certs@epa.gov inbox.

Appendix D
Coastal Zone Management Act Consistency Determination Concurrence

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47600, Olympia, WA 98504-7600 • 360-407-6000

December 3, 2024

U.S. Army Corps of Engineers
Seattle District
ATTN: Daniel Taylor
4735 E. Marginal Way South, Bldg. 1202
Seattle, Washington 98134

Re: Coastal Zone Management Federal Consistency Decision for Quillayute River Channel Maintenance Dredging and Placement 2024 - 2031, Quillayute River, La Push, Clallam County, Washington

Dear Daniel Taylor:

On August 14, 2024, the U.S. Army Corps of Engineers, Seattle District, submitted a Consistency Determination with the Washington State Coastal Zone Management Program (CZMP). On September 17, 2024, Ecology requested an extension pursuant to 15 CFR Part 930.41(b), extending the CZM decision deadline to December 14, 2024. Ecology issued a 21-day public notice on August 26, 2024, and received no comments.

The proposed activity includes a dredging event within the Quillayute River every two years with the removal and placement of approximately 100,000 cubic yards of material during each event. Disposal of the dredged materials will occur at three shoreline placement sites, Site A and Site B along the Quillayute Spit and First Beach, for beneficial use. The project is located with the Quillayute River federal navigation channel and shoreline placement sites in La Push, Clallam County, Washington.

Pursuant to Section 307(c)(3) of the Coastal Zone Management Act of 1972 as amended, Ecology concurs with U.S. Army Corps of Engineers' determination that the proposed work is consistent with Washington's CZMP.

If you have any questions regarding Ecology's decision, please contact Jessica Hausman at jessica.hausman@ecy.wa.gov.

Your right to appeal

You have a right to appeal this decision to the Pollution Control Hearings Board (PCHB) within 30 days of the date of receipt. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal, you must do all of the following within 30 days of the date of receipt of this decision:

- File your notice of appeal and a copy of this decision with the PCHB (see filing information below). "Filing" means actual receipt by the PCHB during regular business hours as defined in WAC 371-08-305 and -335. "Notice of appeal" is defined in WAC 371-08-340.

- Serve a copy of your notice of appeal and this decision on the Department of Ecology mail, in person, or by email (see addresses below).

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

Filing an appeal

Filing with the PCHB

For the most current information regarding filing with the PCHB, visit: https://eluho.wa.gov/ or call: 360-664-9160.

Service on Ecology

Street Addresses:

Department of Ecology
Attn: Appeals Processing Desk
300 Desmond Drive SE
Lacey, WA 98503

Mailing Addresses:

Department of Ecology
Attn: Appeals Processing Desk
PO Box 47608
Olympia, WA 98504-7608

E-Mail Address:

ecologyappeals@ecy.wa.gov

Sincerely,

Loree' Randall, Section Manager
Aquatic Permitting & Protection Section
Shorelands and Environmental Assistance Program

Sent via e-mail: Daniel.Taylor@usace.army.mil

E-cc: Jeff Brittain, EPA Region 10
Jessica Hausman, Ecology
fedconsistency@ecy.wa.gov

Appendix E
Cultural Resources Coordination

Allyson Brooks Ph.D., Director
State Historic Preservation Officer

January 16, 2024

Vanessa Pepi
Environmental Resources Section
Corps of Engineers – Seattle District
PO Box 3755
Seattle, Washington 98124-3755

Re: Quillayute River Federal Navigation Project Channel Maintenance Dredging and Placement 2024-2031 Project
Log No.: 2023-12-08074-COE-S

Dear Vanessa Pepi:

Thank you for contacting our department. We have reviewed the materials you provided for the Area of Potential Effect (APE) for the proposed *Quillayute River Federal Navigation Project Channel Maintenance Dredging and Placement 2024-2031 Project* near La Push, Clallam County, Washington

We concur with your determination of the Area of Potential Effect (APE) as described and presented in your figures and text.

We look forward to further consultation as you consult with the concerned tribal governments, the results of your identification efforts, and your determination of effect.

We would also appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of 36CFR800.4(a)(4).

These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer in compliance with the Section 106 of the National Historic Preservation Act, as amended, and its implementing regulations 36CFR800.4. Should additional information become available, our assessment may be revised. Thank you for the opportunity to comment.

Sincerely,

Robert G. Whitlam, Ph.D.
State Archaeologist
(360) 890-2615
email: *rob.whitlam@dahp.wa.gov*

Allyson Brooks Ph.D., Director
State Historic Preservation Officer

March 26, 2024

Collin Ray
Seattle District
Corps of Engineers
PO Box 3755
Seattle, Washington 98124

Re: Quillayute River Federal Navigation Project Channel Maintenance Dredging and Placement 2024-2031 Project
Log No.: 2023-12-08074-COE-S

Dear Collin Ray:

Thank you for contacting our department. We have reviewed the information and professional cultural resources review you provided for the proposed *Quillayute River Federal Navigation Project Channel Maintenance Dredging and Placement 2024-2031 Project* at the mouth of the Quillayute River and north of the town of La Push, Clallam County, Washington.

We concur with your Determination of No Historic Properties Affected with the stipulation for an unanticipated find plan.

We would appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of 36CFR800.4(a)(4). In the event archaeological or historic materials are encountered during project activities, work in the immediate vicinity must stop, the area secured, and the concerned tribe's cultural staff and cultural committee and this department notified.

These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer in compliance with the Section 106 of the National Historic Preservation Act, as amended, and its implementing regulations 36CFR800.4. Should additional information become available, our assessment may be revised, including information regarding historic properties that have not yet been identified. Thank you for the opportunity to comment and a copy of these comments should be included in subsequent environmental documents.

Sincerely,

Robert G. Whitlam, Ph.D.
State Archaeologist
(360) 890-2615
email: *rob.whitlam@dahp.wa.gov*