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COASTAL ZONE MANAGEMENT ACT CONSISTENCY DETERMINATION

Submitted by U.S. Army Corps of Engineers
Seattle District

For Actions Related to the

Willapa Bay Maintenance Dredging Project FY 2023-2038

August 2024

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Acronyms

CD	Consistency Determination
DMMP	Dredged Material Management Plan
CFR	Code of Federal Regulations
CWA	Clean Water Act
cy	cubic yards
CZMA	Coastal Zone Management Act
CZMP	Coastal Zone Management Program
Ecology	Washington State Department of Ecology
EPA	Environmental Protection Agency
FERC	The Federal Energy Regulatory Commission
FY	Fiscal Year
ISU	Important, Sensitive, and Unique Area
MLLW	Mean Lower Low Water
MSP	Marine Spatial Plan
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NWP	Nationwide Permit
ORCAA	Olympic Region Clean Air Agency
ORMA	Ocean Resources Management Act
Port	Port of Willapa Harbor
RCW	Revised Code of Washington
SMA	Shoreline Management Act
SMP	Shoreline Master Program
SMP	Shoreline Master Program
UIC	Underground Injection Control
USFWS	U.S. Fish and Wildlife Service
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
WACs	Washington Administrative Codes
WCAA	Washington Clean Air Act
WPCA	Water Pollution Control Act
WQC	Water Quality Certification

A. INTRODUCTION AND PROPOSAL DESCRIPTION

Congress enacted the Coastal Zone Management Act (CZMA) in 1972 to create a voluntary program to encourage states to develop comprehensive management programs for their coastal zones. The Federal consistency requirements of the CZMA apply to any Federal action with a "reasonably foreseeable effect" on any coastal use or resource. How coastal effects are determined and whether and how Federal consistency applies to a proposed Federal action are described in the National Oceanic and Atmospheric Administration's (NOAA) Federal Consistency regulations, which can be found at 15 CFR part 930.

For Federal agency activities under 15 CFR part 930, subpart C, the Federal Agency makes a determination of coastal effects. Federal Consistency regulations define coastal effects as both environmental effects (impacts to air, wetlands, water bodies, aquifers, plants, animals, etc.) and effects on coastal uses (fishing, recreation, tourism, public access, historic or cultural preservation, marinas, etc.). Effects include both direct effects resulting from the proposed Federal action and occur at the same time and place, and indirect (cumulative and secondary) effects resulting from the Federal action and occur later in time or are farther removed in distance but are still reasonably foreseeable.

Washington's coastal zone is comprised of the 15 coastal counties that border salt water. The Willapa Bay dredging activities will occur within the coastal zone governed by Pacific County. The U.S. Army Corps of Engineers (USACE) has determined that the proposed Willapa Bay Maintenance Dredging Project (Fiscal Year [FY] 2023-2038) will have effects on resources in the state's coastal zone.

Federal agencies must consider all development projects[1] within the coastal zone, as defined at 15 CFR § 930.31(b), to be activities affecting any coastal use or resource. The Willapa Bay Maintenance Dredging Project (FY 2023-2038) is considered a development project.

A.1 PROPOSED ACTION

The purpose of the proposed action is to maintain the Federally authorized channels to allow for safe passage of marine traffic and sustain the associated economic benefits to local and regional economies. Sedimentation and bed load transport naturally fill features of the Willapa Bay Federal Navigation Project. Dredging will return the shoaled channels to their authorized depths and function along the full width and length of each channel. Continued shoaling will result in navigation hindrance, impacting local fisheries and associated regional businesses.

In the past, USACE maintained the Willapa Bay Federal Navigation Project, but due to lack of Federal funding, USACE has deferred all maintenance dredging for over two decades. The Port of Willapa Harbor (Port) has been dredging, primarily at Bay Center

[1] "Development projects" are defined as a Federal agency activity involving the planning, construction, modification, or removal of public works, facilities, or other structures, and includes the acquisition, use, or disposal of any coastal use or resource.

and Tokeland, with its own dredge and at its own expense for the past decade. Since the Port was only able to remove approximately 30,000 cubic yards (cy) once every 3 years (USACE is proposing to remove about 330,000 cy per event to maintain the authorized depths), it has been unable to maintain the project's features to their authorized depths. The Port has requested that USACE resume maintenance dredging for the Willapa Bay Federal Navigation Project.

USACE proposes to dredge three authorized navigation features in Willapa Bay (Figures 1-5). The maximum volume expected to be dredged per event of the project (up to four events and expected to occur approximately once every 5 years) is estimated at about 330,000 cy, for a total of approximately 1.32 million cy of material over a 15-year period. Mechanical dredging will return the shoaled channels to their authorized depths along the full width and length of each feature. The proposed dredge material within the Bay Center Access Lane was planned to a depth of -10 feet Mean Lower Low Water (MLLW) without additional overdepth of advanced maintenance. All other features will include 2 feet each of overdepth and advanced maintenance. Aquatic disposal of dredged material in Willapa Bay's flow lane (a natural channel within Willapa Bay with high volume and velocity of water movement) allows natural dispersal of sediments in the least costly manner available. USACE proposes to dredge the following three features (Table 1):

1. Bay Center
    a. Entrance Channel and Mooring Basin Access Lane: An entrance channel 40 feet wide and 3,600 feet long, and an access lane into the boat basin to the authorized depth of -10 feet MLLW plus an additional 2 feet of allowable overdepth and 2 feet of advanced maintenance (Figure 2). An estimated 67,000 cy of accumulated sediment will be dredged per event.

    b. Palix River Access Lane: A channel 40 feet wide and about 3,600 feet long, to the authorized depth of - 10 feet MLLW (Figure 3). An estimated 55,000 cy of accumulated sediment will be dredged from shoals shallower than -10 feet MLLW per event. However, this amount has the potential to change between dredge events due to the dynamic nature of the Palix River at its confluence with Willapa Bay. The Palix River thalweg can change position resulting in shifting shoals along the river and at the river's entrance. An access lane will follow the Palix River thalweg between the bay and to the Bay Center Federal navigation channel. Only shoals within that thalweg will need to be dredged to allow for safe transit of dredge, scows, and tugboats from Bay Center to the disposal sites. For this reason, a specific alignment of the access lane will be based on conditions and shoals greater than -10 feet MLLW prior to the time of dredging for any given dredging event.

2. Tokeland Entrance Channel: An entrance channel 100 feet wide and 600 feet long, to an authorized depth of -15 feet MLLW plus an additional 2 feet of allowable overdepth and 2 feet of advanced maintenance (Figure 4). An estimated 53,000 cy of accumulated sediment will be dredged per event.

3. Nahcotta Entrance Channel and Mooring Basin Access Lane: An entrance channel 200 feet wide and 350 feet long, and a wider mooring basin access lane

approximately 1,210 feet long and 275 feet wide, to an authorized depth of -10 feet MLLW plus 2 feet of advance maintenance and 2 feet of allowable overdepth (Figure 5). An estimated 155,000 cy of accumulated sediment will be dredged per event.

Table 1. Anticipated dredging depths and volumes.

Area	Authorized Depth (feet MLLW)	Channel Dimensions (feet)	Advance Maintenance (feet)	Allowable Overdepth (feet)	Estimated Volume (cy) per event
Bay Center					
Entrance Channel / Mooring Basin Access Lane	-10	40 feet wide and 3,600 feet long	2	2	67,000 [1]
Palix River / Access Dredging	-10	40 feet wide and 3,600 feet long	none	none	55, 000 [1, 2]
Tokeland					
Entrance Channel	-15	100 feet wide and 1,400 feet long	2	2	53,000 [1]
Nahcotta					
Entrance Channel / Mooring Basin Access Lane	-10	200 feet wide, widening to 275 feet and 1,560 feet long	2	2	155,000 [1]

[1] Estimated volume includes advanced maintenance and overdepth material.
[2] Estimated volume may change between dredge events due to dynamic nature of the Palix River thalweg shifting shoals in the dredge area.

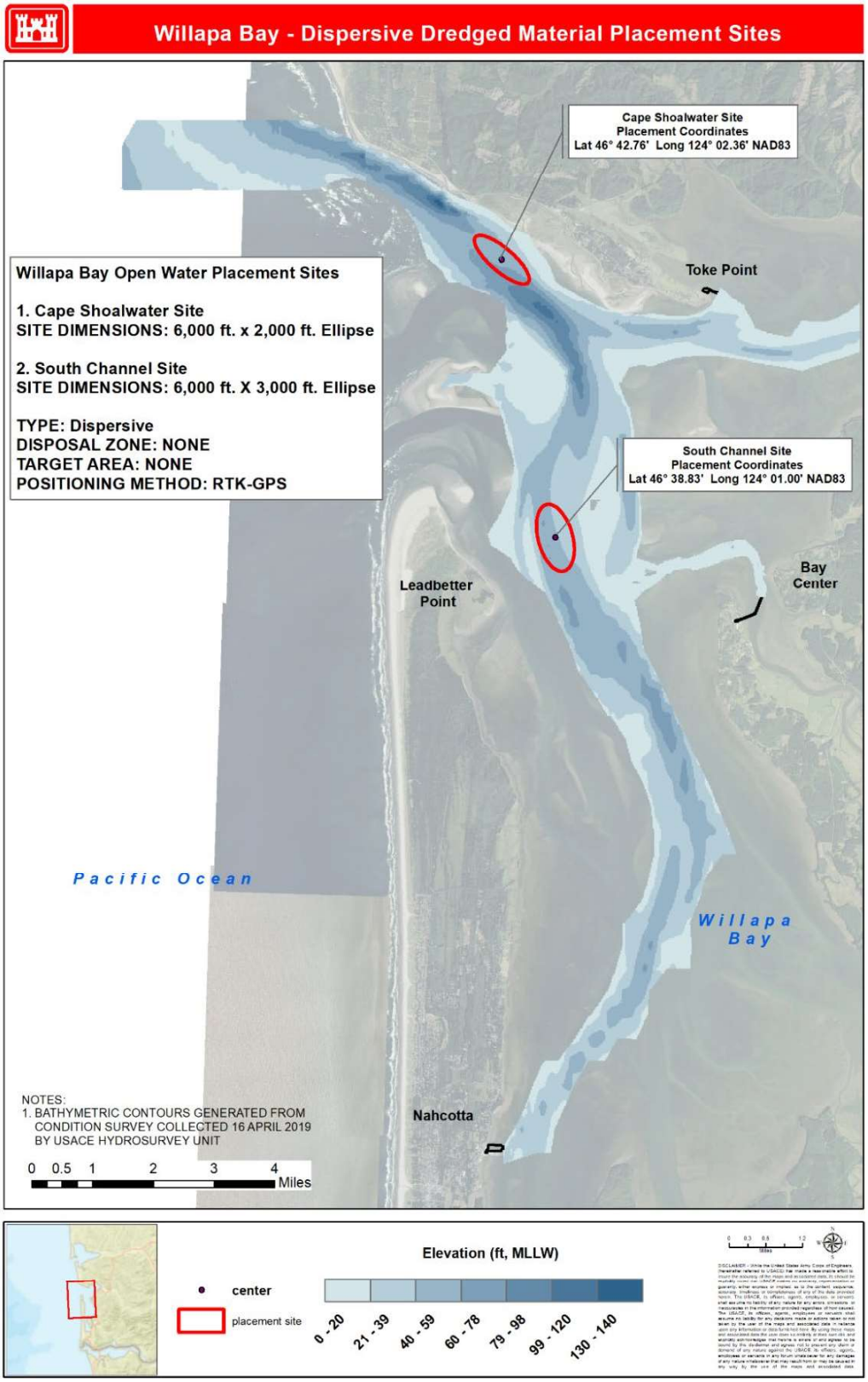

Figure 1. Proposed disposal sites in relation to Federal channels.

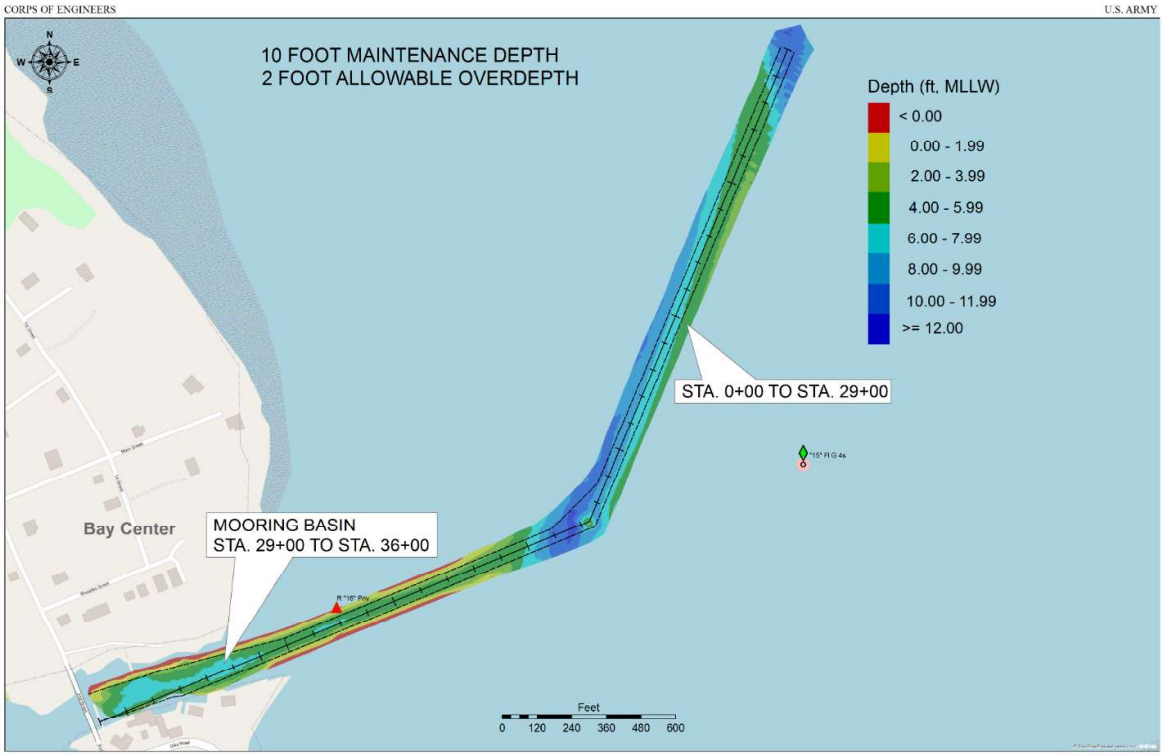

Figure 2. Bay Center Channel showing observed depths as of 2023.

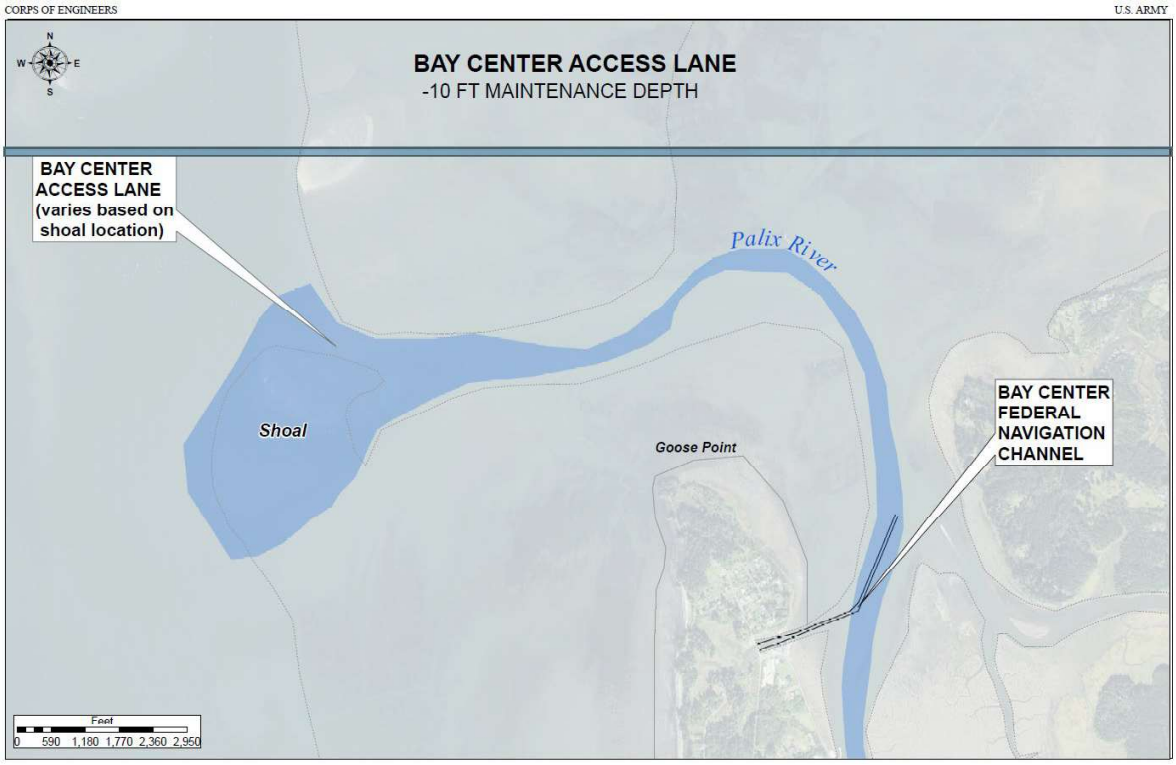

Figure 3. Proposed dredging of Bay Center Access Channel (hash marks indicate dredge footprint).

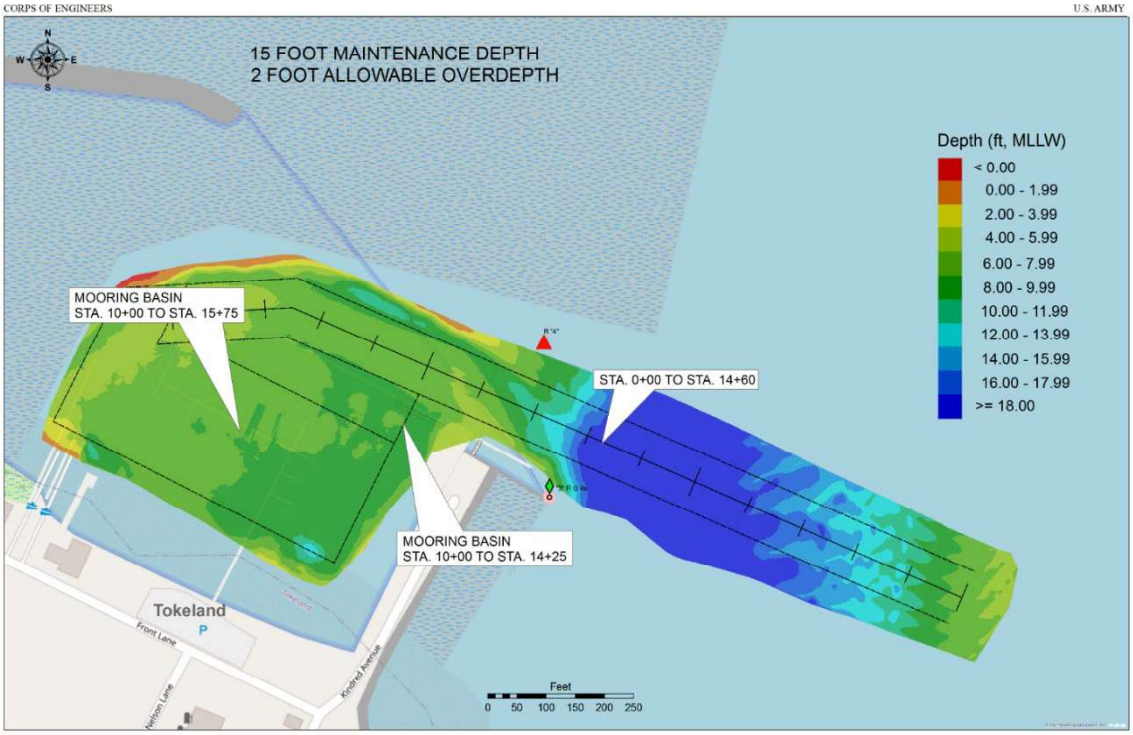

Figure 4. Tokeland Entrance Channel and Mooring Basin showing observed depths as of 2023.

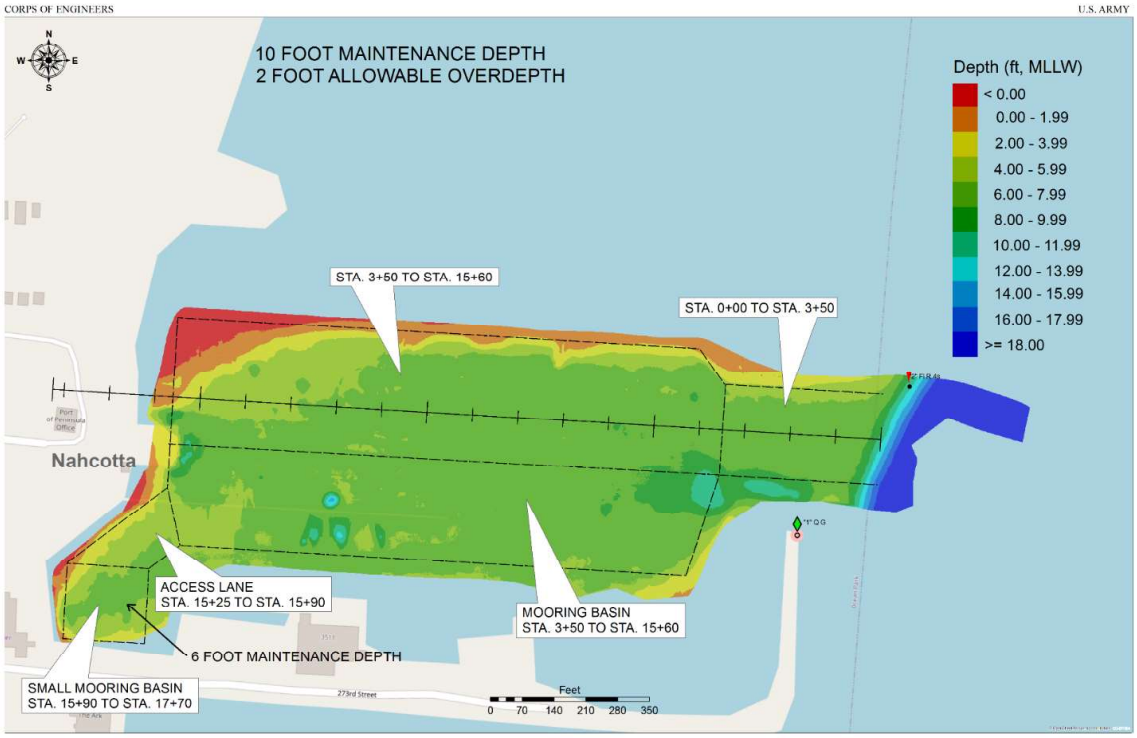

Figure 5. Nahcotta Entrance Channel and Mooring Basin showing observed depths as of 2023.

The authorized depths will be maintained to the above-listed dimensions using mechanical/ clamshell dredging. The maximum volume expected to be dredged per year of the project is estimated at approximately 330,000 cy. Estimated dredge quantities for each feature are shown in Table 1, above. Quantities are estimated for environmental impacts analysis and include the amount dredged for 2 feet of advance maintenance and 2 feet of allowable overdepth in any dredging episode.

Work consists of clamshell dredging with a bucket holding 5-25 cy. Buckets place dredged material on a bottom-dump barge, which holds up to 4,000 cy. The dredged material will be disposed at the Cape Shoalwater and/or South Channel disposal locations (Figure 1). Both sites are dispersive, elliptical, subtidal/estuarine sites within Willapa Bay flow lanes. The Cape Shoalwater site encompasses 275.5 acres. Its dimensions are 2,000 by 6,000 feet, with water depths ranging from 21 to 59 feet. The South Channel site is 3,000 by 6,000 feet (413.2 acres) with a similar depth range as the Cape Shoalwater site. Transport distance between dredge areas and the two disposal sites is approximately 3 miles for Tokeland to Cape Shoalwater and Bay Center to South Channel, and 14 miles, or 12 nautical miles for Nahcotta to South Channel. USACE may shift the precise location of the disposal sites as the dynamic nature of Willapa Bay may alter the alignment of deep flow-lanes.

A Suitability Determination for unconfined open-water disposal as determined by the Dredged Material Management Plan (DMMP) agencies (USACE, Washington State Departments of Ecology and Natural Resources, and the U.S. Environmental Protection Agency) was recorded in February 2021. The DMMP found all material suitable for unconfined open-water/flow-lane disposal.

The work may be done by USACE or through contracted commercial dredging companies with USACE oversight. Each project feature may be dredged up to four times between FY2023 and FY2038 depending on the rate of shoaling. Estimates suggest that the rate of shoaling will require dredging once every 5 years. Dredging will occur during the approved in-water work windows of 16 July to 30 September for Palix River Access Lane and Bay Center, 16 July to 15 February for Tokeland and 16 July to 1 February for Nahcotta (Figure 1). USACE estimates 45 to 135 days of dredging per event depending upon the amount of shoaling, working conditions in Willapa Bay, and the distance to accessible disposal sites. USACE will coordinate with Tribes (Chinook Indian Nation, the Confederated Tribes of the Grand Ronde Community of Oregon, the Shoalwater Bay Indian Tribe of the Shoalwater Bay Indian Reservation, the Confederated Tribes of the Chehalis Reservation, and the Quinault Indian Nation) each year prior to dredging to avoid impacts to Tribal fishery operations.

B. JURISDICTION AND CONSISTENCY REQUIREMENTS

The Washington State Department of Ecology (Ecology) administers Washington's federally approved Coastal Zone Management Program (CZMP). Under Washington's CZMP, proposed Federal actions that may have reasonably foreseeable effects on Washington's coastal uses or resources are reviewed for consistency with four state laws as identified below and their implementing regulations as well as the state Marine Spatial Plan.

- State Shoreline Management Act (Revised Code of Washington [RCW] 90.58)
  - Implementing Regulations at Washington Administrative Codes (WACs) 173-15 18, 20, 22, and 26
- State Water Pollution Control Act (RCW 90.48)
  - Implementing Regulations at WACs 173-40 to 270, 372-52 to 68
- Washington Clean Air Act (RCW 70.94)
  - Implementing Regulations at WACs 173-400 to 495
- State Ocean Resources Management Act (RCW 43.143)
  - Ocean Management Guidelines at WAC 173-26-360
- The Marine Spatial Plan for Washington's Pacific Coast
  - Important, Sensitive and Unique (ISU) Areas
  - Fisheries Protection Standards

Pursuant to the CZMA Federal Consistency regulations at 15 CFR § 930.36, if a Federal agency determines that a proposed activity will have reasonably foreseeable effects on coastal uses or resources of the state, the Federal agency must prepare a Consistency Determination (CD) and submit it to Ecology for review. The CD must show how the Federal agency is "consistent to the maximum extent practicable" with the enforceable policies.

The Federal Agency may submit the CD to Ecology in any manner it chooses as long as it provides the information contained at 15 CFR § 930.39. The amount of detail in the description of the activity and the evaluation of coastal effects, the applicable enforceable policies, and supporting information should be commensurate to the expected coastal effects of the proposed federal activity. The contents of a CD are specified at 15 CFR § 930.39(a).

All USACE responses to questions used to guide determination of consistency with the enforceable policies in this document are bolded and in italics.

B.1 Washington Clean Air Act

The Washington Clean Air Act (WCAA) regulates outdoor air pollution and establishes a system of regional air pollution control authorities to implement Federal and state air pollution control regulations. Air pollution control regulations cover the emission of air contaminants that are injurious to health or that unreasonably interfere with the enjoyment of life and property.

Determine the applicability of the WCAA to the proposed activity:

1. Does this proposed action and any associated emissions occur entirely on tribal lands?
   If no, the WCAA **does apply** to the activity; continue to Question 2. If yes, then the WCAA **does NOT apply** to the activity; address Question 1.1, then skip to Section B.2.

   USACE Response: The proposed action and any associated emissions do not occur entirely on Tribal lands and so the WCAA does apply to the activity.

2. Using the Washington clean air agencies map, note which air agencies apply to this proposed action based on location.

   USACE Response: The Olympic Region Clean Air Agency (ORCAA) applies to Pacific County, Washington. The ORCAA is a local government agency charged with regulatory and enforcement authority for air quality issues in Clallam, Grays Harbor, Jefferson, Mason, Pacific, and Thurston counties. ORCAA is one of seven such regional air pollution control agencies in Washington state.

B.2 State Water Pollution Control Act

Adopted in 1972, the Federal Clean Water Act (CWA) broadly regulates the discharge of pollutants into the nation's surface waters, including lakes, rivers, streams, wetlands, and coastal areas. Ecology is responsible for participating fully in, and meeting the requirements of, the Federal CWA through the Washington State Water Pollution Control Act (WPCA) (RCW 90.48) and the implementing regulations (WACs).

Determine the applicability of the WPCA to the proposed activity:

1. Is the proposed action within a wetland or waterbody; or will the proposed activity have a discharge into a wetland or waterbody?
   If no, then the WPCA **does NOT apply** to the activity; skip to Section B.3. If yes, the WPCA **does apply** to the activity; continue to Question 2.

   USACE Response: Yes. The WPCA applies as the proposed action is within a waterbody and will have a discharge into a waterbody.

2. Describe which water(s) the proposed action is located in. Describe the waters that may be impacted by the proposed action, including both the broader classification(s) and localized description(s).

   USACE Response: The proposed action is located in the coastal waters of the Pacific Ocean in Willapa Bay. Willapa Bay is an estuarine bay on the Pacific Ocean coast of Washington. Several rivers feed into the bay, including the Naselle River, the Palix River, the North River, and the Willapa

River, which is the largest. USACE proposes to perform maintenance dredging of the Tokeland, Bay Center, and Nahcotta features of the Willapa Bay Federal Navigation Project (Figures 1-5). The Federal navigation features at Bay Center, Tokeland, and Nahcotta were created many decades ago by dredging muddy tidal flats and expanding existing tide channels. In addition, a temporary access channel following the thalweg of the Palix River will be dredged to allow dredging equipment to safely reach the Bay Center channel. Two in-water disposal sites are proposed in deep flow lanes.

Willapa Bay seaward of Mailboat Slough light is designated as 'Excellent' aquatic life use, 'Primary Contact' recreational use, and 'all' harvest use (WAC 173-201A-612). Excellent quality aquatic life use designation is described as "Water quality of this use class shall meet or exceed the requirements for all uses including, but not limited to, salmonid migration and rearing; other fish migration, rearing, and spawning; clam, oyster, and mussel rearing and spawning; crustaceans and other shellfish (crabs, shrimp, crayfish, scallops, etc.) rearing and spawning." Specific water quality criteria are established for this designation (WAC 173-201A-210).

B.3 Shoreline Management Act

Enacted in 1971, the Shoreline Management Act (SMA), provides a statewide framework for managing, accessing, and protecting shorelines. Coverage extends to shorelines of the state[2] and shorelines of statewide significance[3], both of which include coastal marine waters, wetlands, aquatic areas, lakes, and streams. The law provides for the management of the shorelines of the state "by planning for and fostering all reasonable and appropriate uses." The law is aimed at "protecting against adverse effects to the public health, the land and its vegetation and wildlife, and the waters of the state and their aquatic life, while protecting generally public rights of navigation and corollary rights incidental thereto" (Revised Code of Washington [RCW] 90.58.020).

The SMA applies to major water bodies and their adjacent shorelands throughout Washington State. The shorelines of the state include:

- Marine waters
- Streams over 20 cubic feet per second mean annual flow
- Water areas and reservoirs 20 acres and greater
- Upland areas called shorelands that are 200 feet landward of the Ordinary High-Water Mark
- All associated wetlands

Determine the applicability of the SMA to the proposed activity:

[2] Defined at RCW 90.58.030(2)(e) and further specified at WAC 173-18.
[3] Defined at RCW 90.58.030(2)(f).

1. Is the proposed action within SMA jurisdiction?
   If no, the SMA **does NOT apply** to the activity, skip to Section B.4; if yes, the SMA **does apply** the activity, continue to Question 1.1.

   USACE Response: Yes. The proposed Federal action is within SMA jurisdiction. Willapa Bay is identified as an area with shorelines of statewide significance.

   1.1 Explain your response to Question 1.

   USACE Response: The proposed action takes place below the HTL and OHWM of Willapa Bay (RCW 90.58.030 (2)(f)(i)).

B.4 Ocean Resources Management Act

Passed in 1989, the Ocean Resources Management Act (ORMA) is an important tool for state and local governments to use in ensuring that proposed ocean and coastal activities do not adversely affect existing uses and resources in Washington's coastal areas and waters. The core regulations of ORMA are as follows:

> "Uses or activities that require Federal, state, or local government permits or other approvals and that will adversely impact renewable resources, marine life, fishing, aquaculture, recreation, navigation, air or water quality, or other existing ocean or coastal uses, may be permitted only if the criteria below are met or exceeded:"
>
> (a) There is a demonstrated significant local, state, or national need for the proposed use or activity.
> (b) There is no reasonable alternative to meet the public need for the proposed use or activity.
> (c) There will be no likely long-term significant adverse impacts to coastal or marine resources or uses.
> (d) All reasonable steps are taken to avoid and minimize adverse environmental impacts, with special protection provided for the marine life and resources of the Columbia River, Willapa Bay and Grays Harbor estuaries, and Olympic National Park.
> (e) All reasonable steps are taken to avoid and minimize adverse social and economic impacts, including impacts on aquaculture, recreation, tourism, navigation, air quality, and recreational, commercial, and tribal fishing.
> (f) Compensation is provided to mitigate adverse impacts to coastal resources or uses.
> (g) Plans and sufficient performance bonding are provided to ensure that the site will be rehabilitated after the use or activity is completed.
> (h) The use or activity complies with all applicable local, state, and Federal laws and regulations" (RCW 43.143.030(2)).

ORMA requires its implementing regulations – the Ocean Management Guidelines (WAC 173-26-360) – to further detail the requirements of ORMA.

Determine the applicability of ORMA to the proposed activity:

1. Do proposed activities take place in, under, over, or adjacent to the water?

   USACE Response: Yes. The proposed Federal activity occurs in the coastal waters of the Pacific Ocean from the mean high tide seaward into Willapa Bay and takes place in, under, and over water.

2. Is the proposed action located in Washington's "coastal waters", which are defined as the waters of the Pacific Ocean seaward from Cape Flattery south to Cape Disappointment, from mean high tide seaward two hundred miles (and including the Willapa Bay and Grays Harbor estuaries) [RCW 43.143.020(2)]?

   USACE Response: Yes

3. Is a Federal/state/local permit or other government approval required for the proposal?

   USACE Response: Yes. The project will comply with the Endangered Species Act, National Historic Preservation Act, Clean Water Act, and National Environmental Policy Act. USACE will obtain a Water Quality Certification from Ecology.

4. Does the proposed action contain uses or activities that will adversely impact renewable resources or existing coastal or ocean uses?

   USACE Response: Yes. Dredging and open-water disposal will only occur during approved in-water work windows to avoid and minimize potential impacts to fish and wildlife.

If the answer to one of the Questions 1-4 is "no", then ORMA **does NOT apply** to the activity; skip to Section C. If the answers to Questions 1-4 are all "yes", then ORMA **does apply** to the activity; continue to Section B.5.

B.5 Marine Spatial Plan for Washington's Pacific Coast

The Marine Spatial Plan (MSP) for Washington's Pacific Coast, adopted by the state in 2018, is a living management document written to address the complex issue of managing a growing number of potential new ocean uses – a situation that is further complicated by multiple overlapping jurisdictions offshore. The MSP uses a planning strategy and a coordinated decision-making process to address this challenge and anticipate future needs. It provides a framework for state agencies and local governments to evaluate new proposed ocean uses and identifies wide-ranging data that can help inform ocean resource management decisions for various parties.

While the marine planning law gives the state the authority to create the MSP, the plan itself is non-regulatory and creates no new authorities. Rather, it is implemented through existing state laws and regulations, particularly through the ORMA (RCW 43.143) and the Ocean Management Guidelines (WAC 173-26-360). It does, however, include two new enforceable policies (see below): 1) Important, Sensitive and Unique Areas (ISUs), and 2) the Fisheries Use Protection Standards. This enhances Ecology's ability to review Federal actions with foreseeable effects to Washington's coastal resources: Federal Consistency is required of all Federal actions with effects and can be applied to waters beyond the state boundary and the MSP study area.

Important, Sensitive and Unique Areas[4]

Purpose:

- Establish ISUs:
    - Define criteria for ISUs.
    - Designate a list of Ecological and Historic, Cultural, and Infrastructure ISUs.
    - Provide maps of best available data on ISU locations.
- Create protection standards and definitions for adverse effects for ISUs.

Fisheries Use Protection Standards[5]

Purpose:

- Establish a Fisheries Protection Standard:
    - Reiterate the existing state protection standards for fisheries contained in ORMA [RCW 43.143.030(2)(a)(c)(e)] and the marine planning law [RCW 43.372.040(8)].
    - Define adverse effects to fisheries.
    - List criteria to minimize impacts to fishing.

[4] For detailed information on ISUs, please see Section 4.3.3 "Important, Sensitive and Unique Areas (ISUs)" in Chapter 4 of the MSP, p. 4-23 to 4-26. For ISU maps please see Appendix A of the MSP, Maps 59-74.

[5] For detailed information on the Fisheries Use Protection Standards, please see Section 4.6.3 "Fisheries Use Protection Standards" in Chapter 4 of the MSP, p. 4-38 & 4-39.

Determine the applicability of the MSP to the proposed activity:

1. Is the proposed action within the MSP Study area[6]?

   USACE Response: Yes

2. Does the proposed action trigger ORMA[7]?

   USACE Response: Yes

3. Does the proposed action involve any activities that will be considered a "new use"[8]?

   USACE Response: No. While the MSP identifies dredging and dredged material disposal as a potential future use as expanded from historical dredging activities. The MSP identifies dredging in Willapa Bay as an existing activity (MSP 2.10.3).

If the answer to one of the Questions 1-3 is "no", then the MSP **does NOT apply** to the activity. If the answers to Questions 1-3 are all "yes", then the MSP **does apply** to the activity. Continue to Section C.

[6] The MSP study area extends from ordinary high water on the shoreward side out to 700 fathoms (4,200 feet) depth offshore – a distance of 35 to 55 nautical miles offshore, with an average distance of approximately 40 nautical miles. It extends along the coast from Cape Flattery on the north of the Olympic Peninsula south to Cape Disappointment at the Mouth of the Columbia River – a distance of 136 nautical miles. It encompasses estuaries along the coast, including two large estuaries: Grays Harbor and Willapa Bay.

[7] See Section B4 to make this determination.

[8] New uses, as defined by the MSP, are in-water uses, with potential adverse impacts to renewable resources or existing uses, and that have not been previously reviewed or permitted within the MSP study area prior to the adoption of the MSP in June 2018. The MSP anticipates new ocean use proposals for activities such as renewable energy, dredged material disposal, mining, marine product harvesting, and offshore aquaculture operations.

C. CONSISTENCY DETERMINATION

The following subsections describe how Willapa Bay Maintenance Dredging Project (FY2023-FY2038) is consistent with all applicable enforceable policies of Washington's CZMP.

C.1 Washington Clean Air Act

1. Does the WCAA apply to the proposed activity?

   USACE Response: Yes

   If no, skip to Section C.2. If yes, continue to Question 2 and complete the following analysis to determine whether the activity is consistent with the enforceable policies of the WCAA.

2. Describe conversations and correspondence with state or local clean air staff regarding the applicability of the WCAA to this proposed activity.

   USACE Response: No conversations have occurred.

PERMITS & REGISTRATION

3. List and describe any air quality permits (e.g., operating or notice construction permit) that are required for this proposal. If not applicable, please explain. Describe whether this proposed activity contains any permanent stationary sources and whether those sources need to be registered per. Be sure to cite conversations state or local clean air staff in your response.

   USACE Response: WAC 173-400-099 outlines the registration program requirements for air contaminant sources, which apply to permanent stationary sources (WAC 173-400-099 (2)(a)). USACE does not have to register our construction equipment since only mobile sources of emissions (vessels and generators) will be used.

DEMONSTRATING CONSISTENCY WITH THE REGULATIONS & POLICIES OF THE WCAA

The following regulations and policies apply to all proposed activities, regardless of whether a permit is required.

General Regulations for Air Pollution Sources

Nonroad Engines

4. Does the proposal include activities that involve any **nonroad engines**, as defined in WAC 173-400-030(59)?

USACE Response: Yes

4.1 Demonstrate how the proposal is consistent with the fuel standards in WAC 173-400-035(3).

USACE Response: All nonroad engines will use ultra-low sulfur diesel or ultra-low sulfur biodiesel (a sulfur content of 15 ppm or 0.0015 percent sulfur by weight or less), gasoline, natural gas, propane, liquefied petroleum gas, hydrogen, ethanol, methanol, or liquefied/compressed natural gas.

4.2 Does the proposal require the installation and operation of nonroad engines with a cumulative maximum rated brake horsepower (BHP) greater than 500 BHP and less than or equal to 2000 BHP?

USACE Response: Yes

4.2.1. Demonstrate how the proposal is consistent with WAC 173-400-035(4).

USACE Response: The owner or operator will keep records of the current engine and equipment activity in hard copy or electronic form. These records can be maintained on-site or off-site for at least 5 years and must be readily available to the permitting authority on request.

4.3 Does the proposal require the installation and operation of nonroad engines with a cumulative maximum rated brake horsepower greater than 2000 BHP?

USACE Response: No

4.3.1. Describe how the proposal is consistent with WAC 173-400-035(5).

USACE Response: Not applicable.

<u>General Standards for Maximum Emissions</u>

5. Does the proposal include any activities that include **sources or emission units**, as defined by WAC 173-400-030 (84) and (31), respectively?

USACE Response: Yes

5.1 Demonstrate how the proposal is consistent with the **visible emissions standards** in WAC 173-400-040(2).

USACE Response: WAC 173-400-040(2) states, "No person shall cause or allow the emission for more than three minutes, in any one hour, of an air contaminant from any emissions unit which at the emission point, or within a reasonable distance of the emission point, exceeds twenty percent opacity as determined by ecology method 9A. The following are exceptions to this standard: (a) Soot blowing or grate cleaning . . . (b) When the owner or operator of a source supplies valid data to show that the presence of uncombined water . . . (c) When two or more emission units are connected to a common stack . . . (d) When an alternative opacity limit . . . (e) Alternative visible emission standard for a hog fuel or wood-fired boiler . . . (f) Furnace refractory alternative visible emission standard. (g) Visible emissions reader certification testing. (h) Military training exercises. (i) Firefighter training."

This standard is not applicable to this project. Method 9A is applicable to stationary sources. Dredging operations are mobile and not a stationary source. Further, particulate matter (PM) makes up the non-water portion of visible emissions. For this project, PM10 and volatile organic compounds (VOCs) emissions are below de minimis and insignificant levels, as well as the level for exemption from new source review (Table 1).

Table 1. Estimated emissions in metric tons per year for pollutants of concern using SMAQMD (2016).

Air Pollutant of Concern	*Estimated Annual Emissions (metric tons)*	
	45 Days	*135 Days*
Nitrogen Oxide (NOx)	*6.12*	*18.37*
Reactive Organic Gasses (ROGs)	*0.64*	*1.91*
Carbon Monoxide (CO)	*2.56*	*7.69*
Particulate Matter (PM^{10})	*0.17*	*0.51*
Sulfur Dioxide (SO_2)	*0.01*	*0.03*
Carbon Dioxide (CO_2)	*995.09*	*2,985.28*

5.2 Demonstrate how the proposal is consistent with the **fallout standards** in WAC 173-400-040(3).

USACE Response: WAC 173-400-040(3) states, "No person shall cause or allow the emission of particulate matter from any source to be deposited beyond the property under direct control of the owner or operator of the source in sufficient quantity to interfere unreasonably with the use and enjoyment of the property upon which the material is deposited."

A conservative estimate of PM10 emissions at this project indicates that they are below Washington state thresholds (entities must report emissions if over 10,000 metric tons CO_2e) for insignificant emissions and exemption from new source review (Table 1). Further, the wet, dredged material will be disposed in approved open-water disposal sites. The material is not air borne. Therefore, deposition will not interfere with the use and enjoyment of property on which the material may be deposited.

5.3 Demonstrate how the proposal is consistent with the **odor requirements** in WAC 173-400-040(5).

WAC 173-400-040(5) states, "Any person who shall cause or allow the generation of any odor from any source or activity which may unreasonably interfere with any other property owner's use and enjoyment of her or his property must use recognized good practice and procedures to reduce these odors to a reasonable minimum."

A conservative estimate of gaseous emissions at this project indicates that they are below state thresholds for insignificant emissions. The contractors will be using ultra-low-sulfur diesel fuel, as required by EPA, WAC 173-400-035(3), and PSCAA's emission standards (Regulation I, Section 15.05 Emission standards, (a)). The proposed work is therefore consistent with the requirement not to unreasonably interfere with other property owner's use and enjoyment of her or his property.

5.4 Demonstrate how the proposal does not cause or allow that emission of any air contaminant from any source if it is detrimental to the health, safety, or welfare of any person, or causes damage to property or business, as required in WAC 173-400-040(6).

USACE Response: WAC 173-400-040(6) states, "No person shall cause or allow the emission of any air contaminant from any source if it is detrimental to the health, safety, or welfare of any person, or causes damage to property or business."

Willapa Bay in Pacific County is in an attainment area for EPA's ambient air quality standards. Washington State air quality standards at WAC 173-476 are the same as EPA's national standards (https://www.epa.gov/criteria-air-pollutants/naaqs-table).

The proposed work will take an estimated 45 to 135 days per dredging event depending upon the amount of shoaling, conditions in Willapa Bay, and the distance to accessible disposal sites. Estimated emissions from this project will be below state thresholds for insignificant emissions (Table 1). Further, the proposed action will contribute localized and infrequent temporally isolated emissions such that the project features

may be dredged once every 5 years, depending upon the rate of shoaling. In addition, the proposed action will occur in an attainment area, and the 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. Portions of the dredging will occur in the fall and winter months when the typical weather of wind and rain will be expected to disperse air pollutants. The proposed work will not degrade air quality or be detrimental to health, safety or welfare of any person or cause damage to property or business.

5.5 Does the proposal include any activities that involve **fugitive emissions**, as defined in WAC 173-400-030(41)?

USACE Response: According to WAC 173-400-030(41), fugitive emissions are "emissions that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening." The proposed work may involve fugitive emissions.

5.5.1. Demonstrate how the proposal is consistent with the requirements in WAC 173-400-040(4).

USACE Response: WAC 173-400-040(4) states, "The owner or operator of any emissions unit engaging in materials handling, construction, demolition, or other operation which is a source of fugitive emission: (a) If located in an attainment area and not impacting any nonattainment area, shall take reasonable precautions to prevent the release of air contaminants from the operation.

All known emissions at the site will be from engines in dredging operations. Equipment emissions (Table 1) fall below the state reporting threshold for insignificant emissions (entities are to report emissions over 10,000 metric tons of CO_2e). In addition, the proposed action occurs in an attainment area, and the 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. Portions of the dredging will occur in the fall and winter months when the typical weather of wind and rain will be expected to disperse air pollutants.

5.6 Demonstrate how the proposal is consistent with the **sulfur dioxide requirements** in WAC 173-400-040(7).

USACE Response: WAC 173-400-040(7) states, "No person shall cause or allow the emission of a gas containing sulfur dioxide from any emissions unit in excess of one thousand ppm of sulfur dioxide on a dry basis, corrected to seven percent oxygen for combustion sources, and based on the average of any period of sixty consecutive minutes."

In accordance with Federal and state law (i.e., EPA's regulation (40 CFR 80, Subpart 1), WAC 173-400-035(3), and PSCAA Regulation I.15.05(a), ultra-low sulfur diesel fuel will be used in all construction equipment. Potential sources of sulfur pollution will thereby be minimized at these sites.

5.7 Demonstrate how the proposal is consistent with the **concealment and masking requirements** in WAC 173-400-040(8), and as defined in WAC 173-400-030 (21) and (49), respectively.

USACE Response: WAC 1730400-040(8) states, "No person shall cause or allow the installation or use of any means which conceals or masks an emission of an air contaminant which will otherwise violate any provisions of this chapter. "Concealment means any action taken to reduce the observed or measured concentrations of a pollutant in a gaseous effluent while, in fact, not reducing the total amount of pollutant discharged" (WAC 173-400-030(21). "Masking means the mixing of a chemically nonreactive control agent with a malodorous gaseous effluent to change the perceived odor" (WAC 173-400-030(49). In addition, PSCAA regulations state, "(a) It shall be unlawful for any person to cause of allow the installation or use of any device or use of any means which, without resulting in a reduction in the total amount of air contaminant emitted, conceals an emission of air contaminant which will otherwise violate this article. (b) It shall be unlawful for any person to cause or allow the installation or the use of any device or use of any means designed to mask the emission of an air contaminant which causes detriment to health, safety or welfare of any person" (Regulation I, Section 9.13 Emission of Air Contaminant: Concealment and Masking Restricted).

For this project, USACE will comply with State law and will not take any action to conceal pollutants or to mask odors, nor will it allow installation or use of such methods, devices, or techniques.

5.8 Does the proposal include any activities that involve **fugitive dust**, as defined in WAC 173-400-030(40)?

USACE Response: WAC 173-400-030(40) states, "Fugitive dust means a particulate emission made airborne by forces of wind, man's activity, or both. Unpaved roads, construction sites, and tilled land are examples of areas that originate fugitive dust. Fugitive dust is a type of fugitive emission."

The proposed project involves in-water work and open-water disposal and is unlikely to generate fugitive dust.

5.8.1. Demonstrate how the proposal is consistent with the requirements in WAC 173-400-040(9).

USACE Response: WAC 173-400-040(9) states the following: "(a) The owner or operator of a source or activity that generates fugitive dust must take reasonable precautions to prevent that fugitive dust from becoming airborne and must maintain and operate the source to minimize emissions. (b) The owner or operator of any existing source or activity that generates fugitive dust that has been identified as a significant contributor to a PM-10 or PM-2.5 nonattainment area is required to use reasonably available control technology to control emissions. Significance will be determined by the criteria found in WAC 173-400-113(4)."

For this project, estimates of particulate matter (Table 1) emissions are below Washington state threshold reporting emissions levels (entities are to report emissions that are over 10,000 metric tons of CO_2e). In addition, the maintenance dredging project is located in Willapa Bay, an attainment area for air quality standards, including PM10, so use of control technology is not required.

Burning

1. Does the proposal involve any **indoor or residential burning**?
   If no, skip to Section C.2. If yes, continue to Question 6.1.

   USACE Response: No. The proposed action requires only outdoor construction activities. No indoor or residential burning of solid fuel or any materials listed in RCW 70A.15.3600 will occur in association with this proposal.

1.1 Demonstrate that the proposal does not involve burning any indoor or residential solid fuel burning device of any of the prohibited materials listed in RCW 70A.15.3600(1).

1.2 Does the proposal involve burning used oil as fuel in a land-based facility or in state water?
If no, skip to Question 6.3. If yes, continue to Question 6.2.1.

6.2.1. Describe how the proposal is consistent with RCW 70A.15.4510(1).

1.3 Does the proposal include the purchase of any solid fuel burning devices, as defined in WAC 173-433-030(13)?
If no, skip to Section C.2. If yes, continue to Question 6.3.1.

6.3.1. Demonstrate how the proposal will be consistent with the opacity standards in WAC 173-433-110.

6.3.2. Will any of the fuel types listed in WAC 173-433-120 be burned in a solid fuel burning device?

6.3.3. Describe how the proposal will be consistent with the general emission standards in WAC 173-433-130.

6.3.4. Has Ecology or the applicable local air authority for the proposal identified activities as a Stage 1 or Stage 2 impaired burn ban, as outlined in WAC 173-433-140?

If no, skip to Section C.2. If yes, continue to Question 6.3.4.i.

6.3.4.i. Demonstrate how the proposal is consistent with the restrictions for Stage 1 burn bans outlined in WAC 173-433-150(1), and/or the restrictions for Stage 2 burn bans outlined in WAC 173-433-150(2).

C.2 State Water Pollution Control Act

1. Does the WPCA apply to the proposed activity, as identified in Section B.2?
   If no, skip to Section C.3. If yes, continue to Question 2 and complete the following analysis to determine whether the activity is consistent with the enforceable policies of the WPCA.

   USACE Response: Yes. The WPCA does apply to the proposed project, as identified in section B.2.

PERMITS & AUTHORIZATIONS

2. Does your proposal require a federal license/permit from one or more of the following federal agencies?
   ☐The United Stated Army Corps of Engineers (Corps)
   ☐The United States Coast Guard (Coast Guard)
   ☐The Federal Energy Regulatory Commission (FERC)

   USACE Response: No. The project does not require a Federal license or permit from any of the listed Federal agencies. USACE does not issue itself permits but complies with the substantive requirements of the CWA.

3. Does the Corps plan to issue an individual permit or a Nationwide Permit (NWP)?[9] ***No, USACE does not issue themselves permits but does comply with the substantive requirements of Section 404 of the CWA.***

3.1 Is a Section 404 or Section 10 permit required from the Corps?

USACE Response: No. USACE does not issue themselves permits but does comply with the substantive requirements of Section 404 of the CWA.

[9] Note that the programmatic CZMA decision for the NWPs are not applicable to a federal agency, as they must follow the federal consistency requirements outlined in 15 CFR Part 930 Subpart C.

Further, maintenance of the Federal navigation channels in Willapa Bay is authorized by the Rivers and Harbors Act of 13 July 1892. Further modifications to the project were authorized numerous times with the most recent being the Rivers and Harbors Act of 1954. The law applies to any dredging or disposal of dredged materials, excavation, filling, rechannelization, or any other modification of a navigable water of the United States and gives USACE the responsibility for regulating structures and works in U.S. navigable waters.

3.2 Which NWP will be issued?

USACE Response: No NWP is being issued.

3.3 Did you receive verification from the Corps or Ecology that your proposal meets Ecology's programmatic Section 401 Water Quality Certification (WQC) for the NWP that will be issued?

USACE Response: USACE has requested a WQC from Ecology on May 2, 2024, and will comply with the requirements or conditions. The proposed Water Quality Monitoring Plan is attached as Appendix A.

3.3.1 Does the proposal trigger any of Ecology's Section 401 WQC General State Conditions and/or any of the NWP-specific WQC Conditions (if there are any) stated in the 2021 NWP User Guide[10]. [If yes, also describe which conditions are triggered.]

If no, the project meets the programmatic conditions for Section 401, skip to Question 5; if yes, the project does not meet the programmatic conditions for Section 401, continue to Question 4.

USACE Response: The proposed project involves dredging three authorized channels and one access lane to a federally authorized channel. Under Section 401 of the Clean Water Act, Federal agencies such as USACE cannot issue a license or permit before Ecology makes a determination on a water quality certification request or waives their right to review. Any conditions that the certifying agency sets then become conditions of the Federal permit or license. USACE will be seeking an individual WQC.

4. Is an individual Section 401 WQC required for the proposal?

USACE Response: Yes. There is a Section 401 WQC required for the proposal.

4.1 Who is the Certifying agency?

[10] See p.106 of the User Guide for Nationwide Permits in Washington State (2021-2026).

USACE Response: Washington State Department of Ecology is the certifying agency for the Willapa Bay Federal Navigation Project.

4.2 Is the Section 401 WQC pending or has a decision been issued? If neither, describe who have you been in contact with. Describe conversations and status of the WQC.

USACE Response: It is pending; no decision has been made as of yet; no conversations have occurred as of yet.

5. Does the proposal include any activities that involve the discharge of waste materials from construction, industrial, commercial, and municipal operations into ground and surface waters of the state or municipal sewerage systems, that will require a National Pollutant Discharge Elimination System (NPDES) and/or State Waste Discharge Permit?

If no, skip to Question 5.4. If yes, continue to Question 5.1.

USACE Response: The proposed project includes greater than 1 acre of land disturbing activities from dredge material placement. Therefore, the project must comply with Section 402 of the CWA.

5.1 Who is the water quality permitting agency?

USACE Response: Ecology

5.2 Is the permit pending, or has it been issued? If neither, describe who have you been in contact with. Describe conversations and status of the Section 401 WQC.

USACE Response: Pending.

5.3 Will an application or Notice of Intent (NOI) be submitted for an individual water quality discharge permit or for a general water quality discharge permit? Provide supporting documentation and if a general permit will be obtained, specify which one.

USACE Response: USACE has prepared a Section 404(b)(1) evaluation and public interest review, which appears in Appendix B. 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 that the proposed action meets the Federal Standard.

5.4 Describe why a permit is not required.

USACE Response: 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.

5.4.1. Describe how the proposal is consistent with RCW 90.48.080, which prohibits the discharge of polluting matters in any waters of the state.

USACE Response: A Suitability Determination for unconfined open-water disposal as determined by the Dredged Material Management Program (DMMP) agencies (USACE, Washington State Departments of Ecology and Natural Resources, and the U.S. Environmental Protection Agency) was recorded February 2021. The DMMP found all material suitable for unconfined open-water/flow-lane disposal.

DEMONSTRATING CONSISTENCY WITH THE REGULATIONS & POLICIES OF THE WPCA

Surface Water Impacts

If it was noted that an individual Section 401 WQC was required in Question 4, skip this "Surface Waters Impacts" section. If an individual Section 401 WQC is not required, continue to Question 6.

USACE Response: An individual Section 401 WQC is being provided.

6. Does this have a discharge to or include activities that occur in or adjacent to any **surface waters** of the state of Washington, including wetlands?

USACE Response: Yes. The project includes open-water disposal during approved in-water work windows (16 July to September 30 for Palix River Access Lane and Bay Center, 16 July to 15 February for Tokeland and 16 July to 1 February for Nahcotta).

6.1 Describe how the proposal will have no discharge or impact to surface waters.

USACE Response: The Cape Shoalwater and South Channel disposal sites are open-water dispersive sites within the highly dynamic Willapa Bay system. Tidal and riverine currents push waves of sand and shell hash along the bottom of the bay, while silts and clays either settle in calm mudflats or are carried directly out to the Pacific Ocean. Dredged material particles are mostly finer than the sand and shell hash substrate within the disposal sites and are likely to be moved quickly through the system. Changes to the character of the disposal sites' substrate will be short-lived as the dynamic nature of the system will widely disperse fine sediments outside of Willapa Bay.

Discharge of dredged material will cause a temporary increase in turbidity and suspended particulate levels in the water column, particularly in near-bottom waters. The particle sizes of the dredge material are quite variable across the sites, with 5 to 86 percent of the total composed of fine material (silt and clay). This material will rapidly sink to the bottom, while a small percentage of finer material is expected to remain in suspension. Increases in turbidity associated with disposal operations will be minimal (confined to the areas in the immediate vicinity of the disposal sites) and of short duration (currents will disperse any suspended material within hours of disposal).

7. Does this project involve the fill of wetlands or any other activities with impacts to wetlands that are not authorized under a Section 401 WQC or Agreed Order (AO)?
   USACE Response: No
8.
9. Does the proposal have a discharge to or include any activities that may have potential impacts to a **designated freshwater use** described in WAC 173-201A-600 and WAC 173-201A-602?
   9.1 Describe the potential impacts and specifically which designated uses are applicable to the proposal***.***
   9.2 Demonstrate how the project is consistent with each of the following numerical water quality standards outlined in WAC 173-201A-200, including how the Federal Agency will be monitoring to ensure compliance:
   9.2.1 Aquatic life temperature criteria [WAC 173-201A-200(1)(c)]

   USACE Response: WAC 173-201A-200(1)(c) states the following: "Aquatic life temperature criteria. Except where noted, water temperature is measured by the 7-day average of the daily maximum temperatures (7-DADMax)."

   The proposed maintenance project will not affect water temperature.

   9.2.2 Aquatic life dissolved oxygen (D.O.) criteria [WAC 173-201A-200(1)(d)]

   USACE Response: WAC 173-201A-200(1)(d) states the following: "Aquatic life dissolved oxygen (D.O.) criteria. The D.O. criteria are measured in milligrams per liter (mg/L) or percent oxygen saturation."

   During disposal operations, a localized turbidity plume may persist for a short period during the descent of dredged material through the water column. A minor reduction in dissolved oxygen (D.O.) may be associated with this plume, primarily during disposal of silty sediments. Because disposal operations consist of a series of instantaneous, discrete discharges over the dredging schedule, any water quality

effects should be short lived (hours) and localized. All of the sediments have been tested and approved for open water disposal under the guidelines of the Dredged Material Management Program (DMMP) administered by USACE, U.S. Environmental Protection Agency, Ecology, and Washington Department of Natural Resources.

9.2.3 Aquatic life turbidity criteria [WAC 173-201A-200(1)(e)]

USACE Response: WAC 173-201A-200(1)(e) states the following: "Aquatic life turbidity criteria. Turbidity is measured in "nephelometric turbidity units" or "NTUs." Table 200 (1)(e) lists the maximum turbidity criteria for each of the aquatic life use categories.

The turbidity criteria established under WAC 173-201A-200 (1)(e) shall be modified, without specific written authorization from the department, to allow a temporary area of mixing during and immediately after necessary in-water construction activities that result in the disturbance of in-place sediments. This temporary area of mixing is subject to the constraints of WAC 173-201A-400 (4) and (6) and can occur only after the activity has received all other necessary local and state permits and approvals, and after the implementation of appropriate best management practices to avoid or minimize disturbance of in-place sediments and exceedances of the turbidity criteria. A temporary area of mixing shall be as follows:

> ***(i) For waters up to 10 cubic feet per second (cfs) flow at the time of construction, the point of compliance shall be 100 feet downstream from the activity causing the turbidity exceedance.***
> ***(ii) For waters above 10 cfs up to 100 cfs flow at the time of construction, the point of compliance shall be 200 feet downstream of the activity causing the turbidity exceedance.***
> ***(iii) For waters above 100 cfs flow at the time of construction, the point of compliance shall be 300 feet downstream of the activity causing the turbidity exceedance.***
> ***(iv) For projects working within or along lakes, ponds, wetlands, or other nonflowing waters, the point of compliance shall be at a radius of 150 feet from the activity causing the turbidity exceedance."***

Discharge of dredged material will cause a temporary increase in turbidity and suspended particulate levels in the water column, particularly in near-bottom waters. The particle sizes of the dredge material are quite variable across the sites, with 5 to 86 percent of the total composed of fine material (silt and clay). This material will rapidly sink to the bottom, while a small percentage of finer material is expected to remain in suspension. Increases in turbidity associated with disposal operations will be minimal (confined to the areas in the

immediate vicinity of the disposal sites) and of short duration (currents will disperse any suspended material within hours of disposal).

USACE has drafted a Water Quality Monitoring Plan for the dredging effort and includes the following turbidity criteria:

- *Point of Compliance (POC) will be 400 feet down-current of the maximum swing radius of the dredge plant (pending Ecology's approval of extended mixing zone request).*
- *Turbidity criteria at the POC will be 5 nephelometric turbidity units (NTU) over background when the background is 50 NTU or less, or a 10 percent increase in turbidity when the background turbidity is more than 50 NTU.*
- *Visual turbidity anywhere at or past the POC from the dredging activity and/or during disposal activity at the disposal sites shall be considered a possible exceedance of the standard and shall be verified through measured turbidity sampling.*

The contractor shall monitor for turbidity, instrument measured and visual, during daily dredging and disposal activities and during daylight hours as follows:

- *Collect and record readings twice daily at one up-current and three down-current locations the first 5 consecutive days of dredging, assuming no exceedances.*
- *Record any visible turbidity down-current of the POC recorded at each reading collected at the POC the first 5 consecutive days of dredging, assuming no exceedances.*
- *Collect and record readings once a day along a transect across the navigation channel at the POC the first 5 consecutive days of dredging, assuming no exceedances.*
- *Record visible turbidity within the disposal area for every disposal action during daylight hours the first 5 consecutive days of dredging and disposal, assuming no exceedances.*
- *No monitoring is required before sunrise or after sunset unless authorized by USACE.*

Upon completion of the instrument measured monitoring days, the contractor shall send the monitoring data report daily to USACE within 24 hours of completion of monitoring activity.

- *If there are no exceedances in water quality within the first 5 consecutive days, the contractor shall discontinue instrument monitoring, unless otherwise directed by USACE (if required by Ecology).*
- *If there are exceedances in water quality within the first 5 consecutive days, the contractor shall continue monitoring following the steps listed in "Exceedances and Exceedances*

Protocol." until 5 consecutive days of no exceedances are achieved.

9.2.4 Aquatic life total dissolved gas (TDG) criteria [WAC 173-201A-200(1)(f)]

USACE Response: WAC 173-201A-200(1)(f) states the following: "Aquatic life total dissolved gas (TDG) criteria. TDG is measured in percent saturation. Table 200 (1)(f) lists the maximum TDG criteria for each of the aquatic life use categories."

No increases in TDG are expected during the proposed dredging and open-water disposal operation.

9.2.5 Aquatic life pH criteria [WAC 173-201A-200(1)(g)]

USACE Response: WAC 173-201A-200(1)(g) states the following: "Aquatic life pH criteria. Measurement of pH is expressed as the negative logarithm of the hydrogen ion concentration. Table 200 (1)(g) lists the pH levels for each of the aquatic life use categories."

No changes in pH are expected during the proposed dredging and open-water disposal operation.

9.2.6 Aquatic life fine sediment criteria [WAC 173-201A-200(1)(h)]

USACE Response: WAC 173-201A-200(1)(h) states the following: "Aquatic life fine sediment criteria. The following narrative criteria apply to all existing and designated uses for fresh water:

> ***(i) Water bodies shall not contain excess fine sediment (<2 mm) from human-caused sources that impair designated uses.***
> ***(ii) When reference values are used to demonstrate compliance with the fine sediment criteria, measured conditions shall be compared to those from reference sites or regional data that represent least disturbed site conditions of a comparable water body or ecoregion. Reference locations should be comparable in hydrography, geology, ecology, and habitat to that of the water body evaluated."***

The proposed dredging and open-water disposal project will occur in areas that have a tidal influence and are not in freshwater. USACE is pursuing a 401 Water Quality Certification (WQC) from WDOE and will comply with all requirements and conditions.

9.2.7 Water contact recreation bacteria criteria [WAC 173-201A-200(2)(b)]

USACE Response: WAC 173-201A-200(1)(h) states the following: "Water contact recreation bacteria criteria. Table 200 (2)(b) lists the bacteria criteria to protect water contact recreation in fresh waters. These criteria are based on Escherichia coli (E. coli) and fecal coliform organism levels, and expressed as colony forming units (CFU) or most probable number (MPN). The use of fecal coliform organism levels to determine compliance will expire December 31, 2020."

The proposed dredging and open-water disposal project will occur in areas that have a tidal influence. The material to be disposed is predominantly fine material (silt). The areas to be dredged have been tested in accordance with DMMP guidelines and all material was found suitable for open-water disposal. The proposed Federal action is not expected to generate or increase fecal coliform organisms.

10. Does the proposed activity have a discharge to or include any activities that may have potential impacts to a **designated marine waters use** described in WAC 173-201A-610 and WAC 173-201A-612?

USACE Response: Yes

10.1 Describe the potential impacts and specifically which designated uses are applicable to the project.

USACE Response: Willapa Bay is an area determined to be excellent for aquatic life, a primary contact for recreational use and all areas within Willapa are determined to provide harvest use. Willapa Bay is protected for the miscellaneous uses of aesthetics, boating, commerce/navigation, and wildlife habitat.

10.2 Demonstrate how the proposal is consistent with each of the following numerical water quality standards outlined in WAC 173-201A-210, including how the Federal Agency will be monitoring to ensure compliance:

10.2.1 Aquatic life temperature criteria [WAC 173-201A-210(1)(c)]

USACE Response: WAC 173-201A-210(1)(c) states the following: "Aquatic life temperature criteria. Except where noted, temperature is measured as a 1-day maximum temperature (1-DMax). Table 210 (1)(c) lists the temperature criteria for each of the aquatic life use categories."

The highest maximum temperature (1-DMax) criteria in marine waters for the "excellent" aquatic life use category in Table 210 (1)(c) is 16°C (60.8°F). Dredging and disposal of dredged materials will occur in marine areas with high flows and tidal influences. The proposed dredging operation is not expected to affect marine water temperature.

Further, USACE will obtain a 401 Water Quality Certification from the Washington State Department of Ecology and will abide by the conditions of the Certification to ensure compliance with water quality standards.

10.2.2 Aquatic life dissolved oxygen (D.O.) criteria [WAC 173-201A-210(1)(d)]

USACE Response: WAC 173-201A-210(1)(d) states the following: "Aquatic life dissolved oxygen (D.O.) criteria. Except where noted, D.O. concentrations are measured as a 1-day minimum in milligrams per liter. Table 210 (1)(d) lists the D.O. criteria for each of the aquatic life use categories."

The lowest 1-day minimum D.O. criteria in marine waters for the "excellent" aquatic life use category in Table 210 (1)(d) is 6.0 mg/L. The proposed dredging operation is not expected to greatly affect marine D.O. levels. The disposal sites have been selected to use currents and sediment transport patterns to predict the direction of dispersion of the discharge out to the Pacific Ocean. During disposal operations, a localized turbidity plume may persist for a short period during the descent of dredged material through the water column. A minor reduction in D.O. may be associated with this plume, primarily during disposal of silty sediments. Because disposal operations consist of a series of instantaneous, discrete discharges over the dredging schedule, any water quality effects should be short lived (hours) and localized. Sediments in the dredge prisms have been tested and approved for open water disposal under the guidelines of the DMMP administered by USACE, EPA, Ecology, and Washington Department of Natural Resources. Further, USACE will obtain a 401 Water Quality Certification from the Washington State Department of Ecology and will abide by the conditions of the Certification to ensure compliance with water quality standards.

10.2.3 Aquatic life turbidity criteria [WAC 173-201A-210(1)(e)]

USACE Response: WAC 173-201A-210(1)(e) states the following: "Aquatic life turbidity criteria. Turbidity is measured in "nephelometric turbidity units" or "NTUs." Table 210 (1)(e) lists the one-day maximum turbidity allowed as a result of human actions for each of the aquatic life use categories."

The aquatic life turbidity criteria in marine waters for the "excellent" category under WAC 173-201A-210(1)(e) is as follows: "Turbidity must not exceed 5 NTU over background when the background is 50 NTU or less; or a 10 percent increase in turbidity when the background turbidity

is more than 50 NTU." This criterion is included in the proposed project's draft Water Quality Monitoring Plan. Discharge of dredged material will cause a temporary increase in turbidity and suspended particulate levels in the water column, particularly in near-bottom waters. The particle sizes of the dredge material are quite variable across the sites, with 5 to 86 percent of the total composed of fine material (silt and clay). This material will rapidly sink to the bottom, while a small percentage of finer material is expected to remain in suspension. Increases in turbidity associated with disposal operations will be minimal (confined to the areas in the immediate vicinity of the disposal sites) and of short duration (currents will disperse any suspended material within hours of disposal). Further, USACE is pursuing a 401 Water Quality Certification (WQC) from WDOE and will comply with all requirements and conditions.

10.2.4 Aquatic life pH criteria [WAC 173-201A-210(1)(f)]

USACE Response: WAC 173-201A-210(1)(f) states the following: "Aquatic life pH criteria. Measurement of pH is expressed as the negative logarithm of the hydrogen ion concentration. Table 210 (1)(f) lists the pH levels allowed as a result of human actions for each of the aquatic life use categories.

The aquatic life pH criteria in marine waters for the "excellent" category is that pH must be within the range of 7.0 to 8.5 with a human-caused variation within the above range of less than 0.5 units. The proposed Federal action is not expected to affect pH levels. The disposal sites have been selected to use currents and sediment transport patterns to predict the direction of dispersion of the discharge out to the Pacific Ocean. Sediment sampling occurred within the navigation channel in August 2020 to determine suitability of sediments for open-water disposal. Chemical concentrations in all dredge prism composite samples were below the DMMP marine screening levels. The DMMP agencies have concluded that all characterized material from Tokeland, Bay Center, and Nahcotta Federal project sub-areas and the Bay Center access channel are suitable for unconfined open-water or flow-lane disposal in Willapa Bay.

10.2.5 Shellfish harvesting bacteria criteria [WAC 173-201A-210(2)(b)].
10.2.6 Water contact recreation bacteria criteria [WAC 173-201A-210(3)(b)].

11. Describe any proposed mitigation activities that are relevant to the impacts described in this "Surface Waters Impacts" subsection. ***Not applicable.***

Marine Sediment Impacts

If it was noted that an individual Section 401 WQC was required in Question 4, skip this "Marine Sediment Impacts" section. If an individual Section 401 WQC is not required, continue to Question 12.

An individual Section 401 WQC is being provided.

12. Does the proposal impact **marine sediment quality**, as defined by WAC 173-204-200(14)? [Guidance]
    If no, continue to Question 12.1; then continue to Question 20. If yes, skip to Question 13.
    12.1 Describe how the proposal will have no impact to marine sediment quality.
13. Do you have a Suitability Determination?
    If no, continue to Question 13.1. If yes, skip to Question 14.
    13.1 Are you working with the Dredge Material Management Program (DMMP) or the Portland Sediment Evaluation Team (PSET) to receive a suitability determination? [Guidance]
14. Are there known contaminated sediments on site? [Guidance]
    If yes, continue to Question 14.1.
    14.1 Are you working with Ecology's Toxics Cleanup Program or the EPA on a cleanup plan?
    If the answer is no to both Questions 13.1 & 14.1, continue to Question 15. If yes to either Questions 13 or 14.1, skip to Question 20.
15. Describe how the proposal is consistent with WAC 173-204-315 **or** WAC 173-204-320.
16. Does the proposal include **identifying, investigating, and cleaning up a release or threatened release of contaminant to sediment** that may pose a threat to human health or the environment?
    If no, skip to Question 18. If yes, continue to Question 17.1.
    16.1 Describe how the proposal is consistent with the cleanup decision process, the cleanup process expectations, and the sediment cleanup standards outlined in WAC 173-204-500.
    16.2 Describe how the proposal is consistent with the remedial investigation and feasibility study requirements outlined in WAC 173-204-550.
    16.3 Describe how the proposal is consistent with the general sediment cleanup standards outlined in WAC 173-204-560.
    16.4 Describe how the proposal is consistent with the sediment cleanup standards for human health in WAC 173-204-561.
    16.5 Describe how the proposed action in consistent with sediment cleanup standards to protect the benthic community in low salinity sediment, as outlined in WAC 173-204-562.
    16.6 Describe how the proposed action is consistent with the sediment cleanup standards to protect the benthic community in freshwater sediment, as outlined in WAC 173-204-563.
    16.7 Describe how the proposal is consistent with the cleanup standards to protect higher trophic level species, as outlined in WAC 173-204-564.

16.8 Describe how the proposal is consistent with the standards for selecting cleanup actions in WAC 173-204-570.

17. Describe how the proposal is consistent with the **antidegradation and designated use policies** in WAC 173-204-120.
18. Describe how the proposal is consistent with the **sampling and testing plan standards** in WAC 173-204-600.
19. Does the proposal include **marine finfish rearing facilities**, as defined in WAC 173-204-200(13)?
    If no, skip to Question 20. If yes, continue to Question 19.1.
    19.1 Describe how the proposal is consistent with WAC 173-204-412.

Groundwater Impacts

If it was noted that an individual Section 401 WQC was required in Question 4 and/or an NPDES or State Waste Discharge Permit was required in Question 5, skip this "Groundwater Impacts" section. If an individual NPDES or State Waste Discharge Permit is not required, continue to Question 20.

20. Does the proposal impact **groundwater**, as defined in WAC 173-200-020(12)?
    If no, continue to Question 10.1; then skip to Question 21. If yes, skip to Question 21.
    20.1 Describe how the proposal will have no impact to groundwaters.
21. Is the proposal **not** subject to the water quality standards for groundwaters of the state of Washington, according to WAC 173-200-010(3)?
    If no, continue to Question 21.1. If yes, skip to Question 22.
    21.1 Describe how the proposal is consistent with the maximum contaminant concentrations for the protection of beneficial uses of the state's groundwater, as outlined in WAC 173-200-040.
22. Does the proposal include **Underground Injection Control (UIC) wells**? See WAC 173-218-040 for classifications.
    If no, skip to Question 23. If yes, continue to Question 22.1.
    22.1 Does the proposed activity qualify as an exemption from UIC well status, according to WAC 173-218-050?
    If no, continue to Question 22.2. If yes, skip to Question 23.
    22.2 Describe how the proposal is consistent with the registration requirements in WAC 173-218-070.
    22.3 Does the proposal include a Class V UIC well, as defined in WAC 173-218-040(5)?
    If no, skip to Question 23. If yes, continue to Question 22.4.
    22.4 Does the proposal include a Class V UIC well that automatically meets the nonendangerment standard in WAC 173-218-100?
    If no, continue to Question 22.5. If yes, skip to Question 22.8.
    22.5 Does the proposal include a *new* Class V UIC well, as defined in WAC 173-218-030?
    If no, skip to Question 22.6. If yes, continue to Question 22.5.1.
    22.5.1 Describe how the proposal is consistent with the specific requirements in WAC 173-218-090(1).

22.6 Does the proposal include an *existing* Class V UIC well, as defined in WAC 173-218-030?

If no, skip to Question 22.7. If yes, continue to Question 22.6.1.

22.6.1 Describe how the proposal is consistent with the specific requirements in WAC 173-218-090(2).

22.7 Does the proposal include a Class V UIC well that is *not used for stormwater management*?

If no, skip to Question 22.8. If yes, continue to Question 22.7.1.

22.7.1 Describe how the proposal is consistent with the specific requirements in WAC 173-218-090(1).

22.8 Does the proposed activity include the decommissioning of a UIC well?

If no, skip to Question 23. If yes, continue to Question 22.8.1.

22.8.1 Describe how the proposal is consistent with the decommissioning standards in WAC 218-120.

Water Quality Discharges

If it was noted that an individual Section 401 WQC was required in Question 4 and/or an NPDES or State Waste Discharge Permit was required in Question 5, skip this "Water Quality Discharges" section. If an individual NPDES or State Waste Discharge Permit is not required, continue to Question 23.

23. Does the proposal include **discharges from domestic wastewater facilities** to waters of the state?

    If no, skip to Question 24. If yes, continue to Question 23.1.

    23.1 Describe how the proposal is consistent with the effluent limits in WAC 173-221-040.

    23.2 Are any of the following alternative treatments applicable to the proposed activity, as outlined in WAC 173-221-050?

    (1) Trickling filters

    (2) Waste stabilization ponds

    (3) Domestic wastewater facilities which receive flows from combined sewers

    (4) Domestic wastewater facilities which receive less concentrated influent wastewater

    If no, skip to Question 24. If yes, continue to Question 23.2.1.

    23.2.1 Describe how the proposal meets the relevant requirements in WAC 173-221-050.

24. Does the proposal include **upland finfish facilities**, as defined in WAC 173-221A-030?

    If no, skip to Question 25. If yes, continue to Question 24.1.

    24.1 Describe how the proposal is consistent with the permitting requirements in WAC 173-221A-100(1).

    24.2 Describe how the proposal is consistent with the timing requirements in WAC 173-221A-100(2).

24.3 Describe how the proposal is consistent with the prevention, control, and treatment requirements in WAC 173-221A-100(3).

24.4 Describe how the proposal is consistent with the effluent standards in WAC 173-221A-100(4).

24.5 Describe how the proposal is consistent with the general requirements in WAC 173-221A-100(5).

24.6 Describe how the proposal is consistent with the requirements for water quality studies, as outlined in WAC 173-221A-100(6).

25. Does the proposal include **marine finfish rearing facilities**, as defined in WAC 173-221A-030?

If no, skip to Question 26. If yes, continue to Question 25.1.

25.1 Describe how the proposal is consistent with the permitting requirements in WAC 173-221A-110(2).

25.2 Describe how the proposal is consistent with the timing requirements in WAC 173-221A-110(3).

25.3 Describe how the proposal is consistent with the general requirements in WAC 173-221A-110(4).

25.4 Describe how the proposal is consistent with the requirements for environmental studies, as outlined in WAC 173-221A-110(5).

26. Does the proposal include **combined sewer overflow (CSO) sites** not authorized by a water quality permit, as defined in WAC 173-245-020(6)?

If no, skip to Question 27. If yes, continue to Question 26.1.

26.1 Describe how the proposal is consistent with the general requirements in WAC 173-245-015.

Miscellaneous

27. Does the proposal include the application of **barley straw** to waters of the state for the purposes of water clarification?

USACE Response: No, the project does not include the application of barley straw to the waters of the state.

If no, skip to Question 28. If yes, continue to Question 27.1.

27.1 Describe how the proposal is consistent with the requirements in RCW 90.48.310.

28. Does the proposal include **aquatic noxious weed control**? No

If no, skip to Question 29. If yes, continue to Question 28.1.

USACE Response: No, the proposal does not include aquatic noxious weed control.

28.1 Does the federal agency have a permit from Ecology that allows the activity to take place? (Specify general vs. individual permit.)

28.2 Describe how the proposal is consistent with RCW 90.48.445(1) (a) and (b).

29. Does the proposal involve the control of **Eurasian water milfoil**? No
If no, skip to Section C.3. If yes, continue to Question 29.1.

USACE Response: No, the project does not include the control of Eurasian water milfoil.

29.1 Describe how the proposal is consistent with RCW 90.48.448.

C.3 Shoreline Management Act

1. Does the SMA apply to the proposed activity, as identified in Section B.3?

   USACE Response: Yes

2. Which shoreline of the state is the proposed activity associated with?

   USACE Response: Willapa Bay includes marine shorelines in the Pacific Ocean that are Shorelines of Statewide Significance.

3. Is the waterbody or associated waterbody a **"shoreline",** as defined in RCW 90.58.030(2)(e) or a **"shoreline of statewide significance"**, as defined in RCW 90.58.030(2)(f)?

   USACE Response: Willapa Bay is designated as a shoreline of statewide significance. It is included in RCW 90.58.030(2)(f)(i), "The area between the ordinary high-water mark and the western boundary of the state from Cape Disappointment on the south to Cape Flattery on the north, including harbors, bays, estuaries, and inlets."

4. Is there a component of the proposed activity occurring upland within the **"shorelands"**, as defined in RCW 90.58.030(2)(d)?

   USACE Response: Yes

5. Is there a component of the proposed activity occurring within water?

   USACE Response: Yes

There are two options for demonstrating consistency with the SMA: 1) through an SMA policy analysis, or 2) by following the relevant local Shoreline Master Program (SMP). If demonstrating consistency through an SMA policy analysis, please address Questions 6-33. If demonstrating consistency with the SMA using a local SMP, please address Questions 34-42. Note that this analysis is focused on content, not process (i.e., it is understood that the Federal Agency does not need to actually obtain a shoreline permit). The most recently updated SMPs approved by Ecology can be found on our website.

DEMONSTRATING CONSISTENCY WITH THE SMA THROUGH AN ANALYSIS OF THE ENFORCEABLE POLICIES

General Provisions

SMA Policy

The shorelines of the state are among the most valuable and fragile of its natural resources and there is great concern throughout the state relating to their utilization, protection, restoration, and preservation. In addition, ever increasing pressures of additional uses are being placed on the shorelines necessitating increased coordination in the management and development of the shorelines of the state. Much of the shorelines of the state and the uplands adjacent thereto are in private ownership; that unrestricted construction on the privately owned or publicly owned shorelines of the state is not in the best public interest; and therefore, coordinated planning is necessary in order to protect the public interest associated with the shorelines of the state while, at the same time, recognizing and protecting private property rights consistent with the public interest. ***There is, therefore, a clear and urgent demand for a planned, rational, and concerted effort, jointly performed by federal, state, and local governments, to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines.*** *[RCW 90.58.020]*

The SMA is designed to be liberally construed to give full effect to the objectives and purposes for which it was enacted [RCW 90.58.920] and shall not affect any treaty rights to which the United States is party [RCW 90.58.350]. The burden is on the proponent to demonstrate that a proposed use or development is consistent with the SMA [RCW 90.58.140(7)].

Activities included under the SMA regulations but deemed uncommon in relation to direct federal agency actions were omitted from this template. This includes agricultural activities [RCW 90.58.065], commercial timber cutting [RCW 90.58.150], floating homes [RCW 90.58.270], and oil or natural gas exploration in marine waters [RCW 90.58.550]. If the proposed activity includes any of these activities, please refer to the relevant regulations and demonstrate consistency accordingly. Additionally, if seeking relief from shoreline master program development standards and use regulations for shoreline restoration project under RCW 90.58.580, please also include a discussion of this in the CD.

6. If the proposed activity is within a **"shoreline of statewide significance"** (see Question 3), demonstrate how the project furthers any of the following **preferred uses** and outcomes of the SMA [RCW 90.58.020]:
   (1) Recognize and protect the statewide interest over local interest.
   (2) Preserve the natural character of the shoreline.
   (3) Result in long term over short term benefit.
   (4) Protect the resources and ecology of the shoreline.
   (5) Increase public access to publicly owned areas of the shorelines.
   (6) Increase recreational opportunities for the public in the shoreline.

   USACE Response: The proposed Federal action will further preferred uses 5 and 6 by improving public access in the navigation channels. Maintaining the navigability of the Federal navigation channels will provide long-term benefits to the socioeconomic conditions of the area by maintaining

access through Willapa Bay. Deep-draft-ocean vessels will be able to continue using Willapa Bay for shipping goods to and from the West Coast.

7. Describe how the proposal will result in **"no net loss"** of shoreline ecological functions, as outlined in WAC 173-26-186(8).

   USACE Response: The proposed dredging operation will occur in federally authorized navigation channels.

8. Does the proposed activity include any **new or expanded building or structure** of more than 35ft above average grade level [RCW 90.58.320]?
   8.1. Describe how the proposal will not obstruct the view of a substantial number of residences or adjacent public spaces.
   8.2. Describe how the proposal serves the public interest
9. Is the proposed activity near a **"critical area"**, according to WAC 173-26-221(2)?
   9.1. Specify the types(s) of critical areas.

   USACE Response: Wetlands and fish and wildlife habitat conservation areas.

   9.2. For each critical area identified in Question 9.1, describe how the proposal is consistent with the applicable standards in WAC 173-26-221(2)(c).

   USACE Response: The preferred alternative of mechanical dredging with placement of dredged material at local open-water disposal sites will have no long-term effect on tidal wetlands. No dredging will occur within wetlands. Dredging in areas adjacent to wetlands may cause a short-term decrease in productivity due to the drifting of dredged material into the wetlands. This short-term decrease in productivity will be insignificant because it will not cause mortality of wetland vegetation, and sediment will be removed by wave action and tidal currents. The dredged material disposal sites are sufficiently distant so as not to influence any wetlands.

   The presence and operation of dredging equipment, tugboats, and barges will increase human activity and noise levels in the area, potentially disturbing fish and wildlife that may be in the immediate vicinity of the project. Species most likely to be affected are waterbirds and shorebirds, harbor porpoises, and harbor seals. The most likely reaction of fish and wildlife to noise and disturbance is avoidance of the area. The noise levels will not be high enough to cause injury or mortality. Avoidance may cause minor disruption of foraging or migrating behaviors. Disruption would be short-term and localized, and animals will likely move to other portions of the bay that provide equivalent opportunities to engage in those behaviors.

Dredging and in-water disposal of dredged sediment will result in increased turbidity and suspended sediment that will reduce water quality. Reduced visibility may decrease foraging efficiency of birds and mammals in the project area or may cause them to leave the area to find better foraging opportunities elsewhere. Degraded water quality could also disturb or injure fish species that provide a food source for wildlife. However, impacts will be localized and temporary, and are unlikely to interfere with foraging wildlife or cause long-term reductions in concentrations or availability of prey species. USACE will monitor water quality during construction and will comply with conditions and criteria in the WQC (to be issued by Ecology) for the proposed action to minimize any adverse impacts from elevated suspended sediment concentrations.

10. Describe how the proposal is consistent with the **archaeological and historic resources** standards in WAC 173-26-221(1)(c).

    USACE Response: USACE archaeologists were utilized during the planning phases of the Willapa Bay Dredging project. Literature reviews of the project area located no archaeological or historic archaeological sites within the project footprint. USACE has determined that the proposed work complies with the National Historic Preservation Act. Since the proposed dredging is confined to the removal of recently deposited sediments within the previously dredged channel width and depth boundaries, no submerged archaeological resources will be affected by the project. An Inadvertent Discovery Plan (IDP) will be available in the event that archaeological resources are encountered during excavation.

11. Describe how the proposal is consistent with the **flood hazard reduction** standards in WAC 173-26-221(3)(c).

    USACE Response: The proposed maintenance dredging does not involve activities to reduce flood hazards. The proposed Federal action will improve physical public access in Willapa Bay and will not cause significant ecological impacts or increase flood hazards to other uses.

12. Describe how the proposal is consistent with the **public access** standards in WAC 173-26-221(4)(c).

    USACE Response: The proposed Federal action will improve physical public access in Willapa Bay, consistent with WAC 174-26-221(4)(c) principle ii, "Protect the rights of navigation and space necessary for water-dependent uses.".

13. Describe how the proposal is consistent with the **shoreline vegetation conservation** standards in WAC 173-26-221(5)(c).

USACE Response: The proposed Federal action will not affect the shoreline vegetation as no work will occur on upland areas. Some equipment will be staged in upland areas, but the equipment is expected to be staged on paved areas or areas already heavily disturbed. The proposed maintenance dredging is within established channels, and maintained channels will have very little vegetation. The open-water disposal is in the Willapa Bay flow areas, where there is no vegetation.

14. Describe how the proposal is consistent with the **water quality, stormwater, and nonpoint pollution** standards in WAC 173-26-221(6)(c).

USACE Response: USACE will abide by the Department of Ecology's WQC for the proposed dredging of three Federal navigation channels with open-water disposal in Willapa Bay. USACE has also prepared a Clean Water Act Section 404 (b)(1) Analysis. No net losses of shoreline ecological functions or impacts to aesthetic qualities or recreational opportunities will occur. The proposed maintenance dredging is within established channels and will improve the safe navigation for shellfish growers and the public. Impacts to water quality will be minor, temporary, and conform to State water quality standards. The proposed action will improve safe vessel navigation and will not impact views or passage of fish and wildlife.

Shoreline Uses & Standards

15. Which **general environment designation(s)** does this project fall under, according to WAC 173-26-211(5) (a)(iii), (b)(iii), (c)(iii), (d)(iii), (e)(iii) and (f)(iii)? Be specific and detailed.

USACE Response: WAC 173-26-211(5) (c)(iii) "Aquatic" environment. The Federal navigation channels are waterward of the ordinary high-water mark.

WAC 173-26-211(5) (d)(iii) "High-intensity" environment. The Federal navigation channels currently support high-intensity uses related to commerce, transportation and navigation; and are suitable and planned for high-intensity water-oriented uses.

15.1 For each of the environmental designations that apply to the project, describe how the proposal is consistent with the applicable purposes and management policies of WAC 173-26-211(5) (a)(i-ii), (b)(i-ii), (c)(i-ii), (d)(i-ii), (e)(i-ii) and (f)(i-ii).
USACE Response: The purpose of the "aquatic" environment is to protect, restore, and manage the unique characteristics and resources of the areas waterward of the ordinary high-water mark. The Federal maintenance

action follows the management policies such that the project: 1) improves public access in Federal navigation channels; 2) stays within the project's authorized footprint; 3) allows safe passage for a variety of vessels; 4) will not obstruct the passage of fish and wildlife; 5) will not adversely impact the ecological functions of critical saltwater and freshwater habitats; and, 6) will affect water quality by increasing turbidity but only temporarily and in very specific locations. The Federal maintenance project will not alter natural hydrograph conditions or impact existing shellfish harvest areas, critical habitats, aesthetics, or public access.

The purpose of the "high-intensity" environment is to provide for high-intensity water-oriented commercial, transportation, and industrial uses while protecting existing ecological functions and restoring ecological functions in areas that have been previously degraded. The Federal maintenance action follows the management policies such that the project: 1) will not result in any changes to water-related and water-enjoyment uses (the project could provide some benefit to these uses); 2) will not displace non-water-oriented uses with water-oriented uses; 3) will not result in any net loss of shoreline ecological functions; 4) will maintain public access; and 5) will not result in any change to aesthetics.

16. Does the proposed activity include **agriculture** as defined by WAC 173-26-020(3)?

USACE Response: No. The proposed project does not include agricultural activities defined in WAC 173-26-020(3).

16.1. Demonstrate how the project is consistent with WAC 173-26-241(3)(a)(v).

17. Does the proposed activity include **aquaculture**, as defined by WAC 173-26-020(6)?

USACE Response: No. The proposed project does not include any activity involving aquaculture.

17.1. Describe how the proposal is consistent with WAC 173-26-241(3)(b)(i)(C)**.**

17.2. Does the proposed activity include **geoduck** aquaculture specifically?

17.2.1. Describe how the proposal is consistent with WAC 173-26-241(3)(b) (ii), (iv)(F)(I), and (iv)(L).

18. Does the proposed activity include any **boating facilities**, as defined by WAC 173-26-241(3)(c)?

USACE Response: Yes. The proposed project involves the Federal navigation channel and boating facilities defined by WAC 173-26-241(3)(c).

18.1. Describe how the proposal is consistent with WAC 173-26-241(3)(c).

USACE Response: WAC 173-26-241(3)(c) includes the following provisions for boating facilities.

(i) Provisions to ensure that boating facilities are located only at sites with suitable environmental conditions, shoreline configuration, access, and neighboring uses.

- ***The boating facilities associated with the proposed project have already been established and maintained.***

(ii) Provisions that assure that facilities meet health, safety, and welfare requirements. Master programs may reference other regulations to accomplish this requirement.

- ***The proposed project will remove sediment built up at the entrances to the boating facilities to ensure the safe passage and mooring of vessels.***

(iii) Regulations to avoid, or if that is not possible, to mitigate aesthetic impacts.

- ***The proposed project involves maintenance of an existing boating facilities and there will be no changes to aesthetics in the area.***

(iv) Provisions for public access in new marinas, particularly where water-enjoyment uses are associated with the marina, in accordance with WAC 173-26-221(4).

- ***The marinas are publicly used and allows for water enjoyment, Federal activities, and Tribal uses.***

(v) Regulations to limit the impacts to shoreline resources from boaters living in their vessels (live-aboard).

- ***The marinas are established and near urban centers, so the shoreline resources are not heavily impacted by boaters living in their vessels.***

(vi) Regulations that assure that the development of boating facilities, and associated and accessory uses, will not result in a net loss of shoreline ecological functions or other significant adverse impacts.

- ***There will be no new development associated with the proposed project. There will only be maintenance dredging.***

(vii) Regulations to protect the rights of navigation.

- ***The proposed project involves protecting navigation channels and resources.***

(viii) Regulations restricting vessels from extended mooring on waters of the state except as allowed by applicable state regulations and unless a lease or permission is obtained from the state and impacts to navigation and public access are mitigated.

- ***Mooring is allowed at the marinas, but it is dependent on boat size. Mooring on the navigation channels would be infeasible due to the conditions or use of the area.***

19. Does the proposed activity include any **commercial development**?

USACE Response: No. The proposed project does not include commercial development.

19.1. Describe how the proposal is consistent with WAC 173-26-241(3)(d).

20. Does the proposed activity include **forest practice** conversions or other Class IV-General Forest practices where there is a likelihood of conversion to nonforest uses?

USACE Response: No. The proposed project does not include converting forestry uses to non-forestry uses.

20.1. Describe how the proposal with WAC 173-26-241(3)(e).

21. Does the proposed activity include **industrial development**?

21.1. Describe how the proposal is consistent with WAC 173-26-241(3)(f).

USACE Response: No. The proposed project does not include industrial development.

22. Does the proposed activity include **in-stream structures**, as defined by WAC 173-26-241(3)(g)?

USACE Response: No. The proposed activity does not have any in-stream structures.

22.1. Describe how the proposal will be consistent with WAC 173-26-241(3)(g).

23. Does the proposal include **mining** activities, as defined by WAC 173-26-241(3)(h)?

USACE Response: No. The proposed project does not include mining activities.

23.1. Describe how the proposal is consistent with WAC 173-26-241(3)(h) (i) and (ii)(A and D).

24. Does the proposed activity include **recreational development**, as defined by WAC 173-26-241(3)(i)?

USACE Response: No. The proposed project does not include recreational development.

24.1. Describe how the proposal is consistent with WAC 173-26-241(3)(i).

25. Does the proposed activity include **residential development**?

USACE Response: No. The proposed project does not include residential development.

25.1. Describe how the proposal is consistent with WAC 173-26-241(3)(j) (ii) and (iii).

25.2. Does the proposed activity include multiunit residential development?

25.2.1. Describe how the proposal is consistency with WAC 173-26-241(3)(j)(v).

26. Does the proposed activity include **transportation and parking**?

USACE Response: No. The proposed project does not include transportation and parking.

26.1. Describe how the proposal is consistent with WAC 173-26-241(3)(k)***.***

27. Does the proposed activity include **utilities**, as defined by WAC 173-26-241(3)(l)?

USACE Response: No. The proposed project does not include utilities.

27.1. Describe how the proposal is consistent with WAC 173-26-241(3)(l).

Shoreline Modification Standards

28. Does the proposed activity include **shoreline stabilization**, as defined in WAC 173-26-231(3)(a)(i)?

USACE Response: No. The proposed project does not have shoreline stabilization activities.

28.1. Does the proposed activity also constitute new development***.***

USACE Response: No. The proposed project does not constitute a new development.

28.1.1. Describe how the proposal is consistent with the standards in WAC 173-26-231(3)(a)(iii)(B)(III)***.***

28.2. Does the proposal aim to protect existing primary structures?

USACE Response: No. The proposed project does not aim to protect existing structures.

28.2.1. Describe how the proposal meets the requirements in WAC 173-26-231(3)(a)(iii)(B)(I).

28.3. Does the proposal aim to support new nonwater-dependent development (including single-family residences)?

USACE Response: No. The proposed project will not support new non water dependent development.

28.3.1. Describe how the proposal meets the requirements in WAC 173-26-231(3)(a)(iii)(B)(II).

28.4. Does the proposal aim to support water-dependent development?

USACE Response: No. The proposed project will not support water-dependent development.

28.4.1. Describe how the proposal meets the requirements in WAC 173-26-231(3)(a)(iii)(B)(III).

28.5. Does the proposal aim to protect projects for the restoration of ecological functions or hazardous substance remediation projects pursuant to RCW 70.105D?

USACE Response: No. The proposed project will not include restoration of ecological functions or hazardous substance remediation projects pursuant to RCW 70.105D.

28.5.1. Describe how the proposal meets the requirements in WAC 173-26-231(3)(a)(iii)(B)(IV).

28.5.2. Describe how the proposal meets the requirements in WAC 173-26-231(3)(a)(i)(E).

28.6. Does the proposal aim to replace an existing shoreline stabilization structure with a similar structure?

28.6.1. Describe how the proposal is consistent with the standards in WAC 173-26-231(3)(a)(iii)(C).

28.7. Was a geotechnical report prepared for this project?

USACE Response: No. A geotechnical report was not made for this project.

28.7.1. Describe how the proposal is consistent with the standards in WAC 173-26-231(3)(a)(iii)(D).

29. Does the proposed activity include **beaches and dune management**?

USACE Response: No. The proposed project does not include beaches and dune management.

29.1 Describe how the proposal is consistent with WAC 173-26-231(3)(e).

30. Does the proposed activity include **piers and docks**?

USACE Response: No. The proposed project does not include piers and docks.

30.1 Describe how the proposal is consistent with WAC 173-26-231(3)(b).

31. Does the proposed activity include **breakwaters, jetties, groins, or weirs**?

USACE Response: No. The proposed project does not include breakwaters, jetties, groins, or weirs.

31.1 Describe how the proposal is consistent with WAC 173-26-231(3)(d).

32. Does the proposed activity include **dredging and/or dredge material disposal**?

USACE Response: Yes. The proposed project includes dredging and/or dredge material disposal.

32.1 Describe how the proposal is consistent with WAC 173-26-231(3)(f).

USACE Response: WAC 173-26-231(3)(f) states: "Plan for the enhancement of impaired ecological functions where feasible and appropriate while accommodating permitted uses. As shoreline modifications occur, incorporate all feasible measures to protect ecological shoreline functions and ecosystem-wide processes."

No known or discernable shoreline processes will be substantially impacted from a baseline condition by the proposed dredging and open-water disposal project. The dredging activities will be performed in the federally authorized channels. No new depths are being proposed. All dredged materials that are approved for disposal will be disposed in open-water disposal sites in the Willapa Bay flow lanes.

33. Does the proposed activity include **shoreline habitat and natural systems enhancement projects**?

USACE Response: No, the proposed project does not include shoreline habitat and natural systems enhancement projects.

33.1 Describe how the proposal is consistent with WAC 173-26-231(3)(g).

DEMONSTRATING CONSISTENCY WITH THE SMA ENFORCEABLE POLICIES USING THE LOCAL SMP(S)

The local SMPs are not enforceable policies of the Washington CZMP, but the standards and policies contained within SMPs were developed to meet the objectives of the SMA and its implementing WACs, many of which are approved enforceable policies for CZMA consistency review purposes. As noted above, if a shoreline permit is issued for the proposed federal action, then no further review of the SMA's enforceable policies may be necessary. However, if the applicant is not required to obtain a permit, (either because they are a federal agency or they have a shoreline permit exemption from the local government) but the SMA would apply, then, for federal consistency purposes the applicant will need to demonstrate consistency with the SMA and its implementing WACs. Thus, the applicant is advised to rely on the applicable SMP because SMPs constitute local expressions of the SMA for that particular area. The SMPs should be used as guidance or a tool to evaluate whether a proposal is consistent with the enforceable policies of the SMA and the WACs.

Unless required by Federal law, Federal agencies are not required to obtain shoreline permits. However, Ecology encourages Federal agencies to rely on the provisions of the applicable SMPs, when preparing their CDs, as an administrative convenience to demonstrate consistency. In doing so, Ecology recognizes that the Federal agency is not applying for a permit or requesting local authorization.

If a Federal Agency chooses NOT to rely on the SMPs to demonstrate consistency, it should refer to the section above in this template.

SMPs, when adopted or approved by Ecology, are authorized as regulations for implementing the policies of the SMA per RCW 90.58.100. Therefore, federal agencies may choose to follow the relevant SMP(s) that pertains to their proposal as a method of demonstrating consistency with the SMA. In doing so, the Federal Agency must be sure to address the following elements:

- *Which SMP was utilized to address the proposal*
- *Which environmental designation the proposed activity falls under and which associated management policies and regulations apply*
- *Critical areas protections standards*
- *Public access requirements*
- *Vegetation conservation standards*
- *A discussion of how the proposal is consistent with the relevant SMP policies, allowed uses, shoreline modifications and specific bulk or dimensional standards such as buffers that apply*

34. Specify which SMP was utilized to demonstrate the proposal's consistency with the SMA to (e.g. Pacific County SMP).
    Pacific County Shoreline Master Program

35. Demonstrate how the proposal is consistent with each of the preferred uses identified in the SMP, including those that are specific to activities within a "shoreline of statewide significance" (see Question 3).

USACE Response:

- *The maintenance dredging will be restricted to previously authorized locations, depths, and widths.*
- *Dredging shall be the minimum necessary to accomplish the proposed use.*
- *The maintenance dredging and dredge material disposal will be done in a manner (section A.1) that avoids or minimizes significant ecological or ecosystem impacts.*
- *Dredging and dredge disposal operations will be located and conducted in a manner (section A.1) that will minimize interference with navigation, fishing, and other existing shoreline uses.*
- *Dredging operations will conform to the operating standards on any Federal and state permits required for such operations.*
- *Erosion, sedimentation, increased flood hazard, and other undesirable changes in circulation will be avoided using BMPs (Appendix C), minimization and avoidance measures, and the operating standards on Federal and state permits. Tidal marshes, tidal flats, and other wetlands will not be adversely affected.*
- *The timing of dredging and dredged material disposal in aquatic areas will minimize interference with commercial and recreational fishing activities and will occur in approved in-water work windows (16 July to 30 September for Palix River and Bay Center, 16 July to 15 February for Tokeland and 16 July to 1 February for Nahcotta).*
- *Dredging and dredged material disposal will occur during periods of adequate river flow during the approved in-water work window. Dredging and dredge disposal will be scheduled to minimize impacts to biological productivity by working in the approved in-water work windows (16 July to 30 September for Palix River and Bay Center, 16 July to 15 February for Tokeland and 16 July to 1 February for Nahcotta).*
- *As per USACE's Clean Water Act Section 404 (b)(1) analysis, dredge disposal will not result in significant or ongoing adverse impacts to shoreline ecological or ecosystem functions and processes.*
- *Disposal material has been identified and evaluated through an approved USACE Dredge Material Management Program.*
- *In-water disposal in the Willapa Bay flow lanes is specifically designed to supplement the Columbia River Littoral Cell to compensate for a truncated sediment supply from the Columbia River.*
- *The sediment size and chemical characteristics of the material proposed for in-water disposal is substantially the same as the substrate in the disposal area.*
- *No adverse impacts to existing navigation are expected to occur during dredge disposal. In-water dredge material disposal will not result in wave amplification of more than ten (10) percent in the coastal environments commonly used for navigation unless it is*

determined by qualified professionals independent of regulatory agencies that such disposal will not negatively impact navigation.

- ***Dredge disposal will be conducted so that interference with sport and commercial fishing is avoided or minimized.***
- ***In-water dredge disposal in the flow lane will avoid and minimize effects to benthic productivity. While benthic and epibenthic prey species are temporarily displaced by the dredging and open-water disposal, populations are expected to recover shortly (within months to one year) after dredging activities are completed (Parametrix 1994, 1991; Romberg et al. 1995; Dernie et al. 2003; Vivan et al. 2009).***

36. Describe which shoreline environmental designation(s) this project falls under according to the specific local SMP and how the proposal is consistent with the corresponding policies and regulations.

    USACE Response: Willapa Bay is designated as a shoreline of statewide significance. The proposed maintenance dredging project will implement BMPs (Appendix C) and occur during approved in-water work windows to avoid potential impacts to fish and wildlife such as salmonids and forage fish.

37. Demonstrate how the proposal meets the general goals, policies, and regulations that apply throughout the shoreline jurisdiction. This analysis should address:
    - Archaeological and historic resources
    - Critical areas
    - Flood hazard areas
    - Public access
    - Shoreline vegetation conservation
    - Water quality, storm water and nonpoint pollution
38. Identify critical areas located within or near the proposed activity and provide an analysis of whether the activity has the potential to impact a critical area. Be specific.

    USACE Response: Areas with native eelgrass are environmentally important to fish and wildlife species. It is estimated that native eelgrass occupies between 15,146 and 21,316 acres in Willapa Bay (Dumbauld and McCoy 2015). The proposed project will remove about 27,000 square feet (about 0.6 acres) of native eelgrass that occurs in the footprints of the three federally authorized navigation channels (USACE 2021). This eelgrass is in the navigation channels because USACE has not dredged the channels for over 20 years. The removed eelgrass is not expected to grow back in the navigation channels with regular maintenance. Within a maintained navigation channel dredge footprint, seagrasses are not likely to be found because a clamshell dredge operation physically removes or buries vegetation. Also, within the navigation channels, vegetation such as eelgrass will be affected by vessel wakes, vessels anchoring close to shore

or directly over vegetation, or transiting in shallow waters, and at mooring locations (Sagerman 2020).

39. Explain how the proposal will result in "no net loss" of shoreline ecological functions through application of the mitigation sequence and resulting compensatory mitigation, if applicable. ***Work will occur on shorelines; however, the work is not expected to affect shoreline ecological functions as all work will follow BMPs, avoidance and minimization measures (i.e., in-water work will be limited to the in-water work window for each dredge location [16 July to 30 September for Palix River and Bay Center, 16 July to 15 February for Tokeland and 16 July to 1 February for Nahcotta]), and all Federal/state/local permits.***

40. Identify which uses are being proposed and describe how it is consistent with the policies and regulations related to each applicable shoreline use addressed in the local SMP (be specific and detailed). These uses include:
    - Agriculture
    - Aquaculture
    - Boating facilities
    - Commercial development
    - Forest practices
    - Industry
    - In-stream structural uses
    - Mining
    - Recreational development
    - Residential development
    - Transportation and parking
    - Utilities

    USACE Response: The uses that the proposed maintenance project will improve is boating facilities, industry (shellfish and fishing), public access and recreational opportunities to publicly owned areas of the shorelines. The proposed project will have some short-term interruptions to unfettered public access while the dredging and disposal actions were occurring; however, these interruptions will be temporary, localized, and will only occur once every 4 or 5 years, depending upon the rate of shoaling in the channels. Maintaining the navigability of the Federal navigation channels will provide long-term benefits to the socioeconomic conditions of the area by maintaining access through Willapa Bay. Deep-draft-ocean vessels will be able to continue using Willapa Bay for shipping goods to and from the West Coast.

41. Identify which (if any) shoreline modifications are being proposed and demonstrate how they are consistent with the policies and regulations related to each applicable shoreline modification addressed in the local SMP (be specific and detailed). These include:

- Shoreline stabilization
- Piers and docks
- Fills
- Breakwaters, jetties, groins and weirs
- Beach and dunes management
- Dredging and dredge material disposal
- Shoreline habitat and natural systems enhancement projects

USACE Response: Dredging and dredge material disposal is being proposed. The proposed maintenance dredging will occur within the footprints of federally authorized navigation channels and the open-water disposal will occur in the Willapa Bay flow lanes.

42. Address any other relevant components of the SMP not identified in Questions 34-41 and demonstrate how the proposed activity is consistent.

C.4 Ocean Resources Management Act

1. Does the ORMA apply to the proposed activity, as identified in Section B.4?

   USACE Response: Yes. ORMA applies to the proposed project.

General Planning and Project Review Criteria

2. Demonstrate that there is a **significant local, state, or national need** for the proposed activity [RCW 43.143.030(2)(a)].

   USACE Response: Maintenance dredging of the Federal navigation channel will have a favorable economic impact on the area. Commercial vessels will be able to continue operating and this will benefit the local industrial and commercial base in Willapa Bay. The proposed action supports Executive Order 13921 of May 7, 2020 (85 FR 28471) because the dredging action will allow commercial shellfish vessels to continue to navigate in Willapa Bay, providing direct and indirect beneficial effects on the local, state, and national economy. Indirect benefits may accrue in the area through increases in business activity, employment, property values, and tax revenues. Other benefits for the commercial fishing and tourism industries are also expected to occur.

3. Demonstrate that there is **no reasonable alternative** to meet the public need for the proposed use or activity [RCW 43.143.030(2)(b)].

   USACE Response: USACE Response: RCW 43.143.030(2)(b) states "There is no reasonable alternative to meet the public need for the proposed use or activity." Since this project involves existing Federally authorized navigation channels, no alternative locations have been considered.

   WAC 173-26-360(7)(d) states "The alternatives considered to meet a public need for a proposed use should be commensurate with the need for the proposed use. For example, if there is a demonstrated national need for a proposed use, then national alternatives should be considered."

   Under the No-Action Alternative sediment will continue to accumulate in the navigation features at Bay Center, Tokeland, and Nahcotta. If deposition continued unimpeded, it would reduce oceangoing vessel traffic to marine facilities at three sites. Eventually, enough sediment would accumulate that the navigation channels would no longer be navigable, making the marine facilities at Bay Center, Tokeland, and Nahcotta unusable, resulting in impacts on recreation and the local economy. This would not meet the needs of the regional economy.

Questions 4-6 are intended to capture the potential impacts on Washington's coastal uses and resources. Responses to Questions 4-6 must incorporate the requirements related to characterizing and mitigating impacts (see subsections below).

Furthermore, the Federal Agency must address all components within each of Questions 4-6. If the Federal Agency believes a component is not applicable, please state so.

CHARACTERIZING IMPACTS

For each impact to Washington uses and resources, provide the following details:

1. Type of impact: direct, indirect and/or cumulative
    - The following are examples taken from Ecology's State Environmental Policy Act (SEPA) Handbook:
        - Direct impact: a new residential development may propose to place fill in a wetland in order to construct a road.
        - Indirect impact: the road will encourage increased development in the area because of increased access.
        - Cumulative impact: increased runoff and contaminants from the development would be added to the volumes and levels of contamination from similar developments surrounding the wetland.
2. Duration of impact: short term, long-term, and temporary:
    - Temporary impacts can include short-term impacts, such as those associated with construction, or if the effects will occur for a limited time during operation.
    - Long-term impacts are more permanent, such as the environmental effects of altering habitat for development (e.g. runoff from a newly built road).
3. Severity of impact (scale and size)
    - For example, vessel traffic analyses should evaluate not just the increase in the number of vessel transits, but the geographic area covered, and the scale and size of vessels being used compared with current conditions.
4. Likelihood of impact to occur
    - This should include the potential for a temporary or long-term impact to occur, as well as the probability of a disaster to occur and the potential impacts from such a disaster.

Further, in identifying potential impacts, Federal Agencies should consult the Marine Spatial Plan for Washington's Pacific Coast which provides baseline descriptive data and analytical reports, including spatial maps in the online mapping application. Other resources include Ecology's Coastal Atlas and NOAA's Ocean Reports, both of which provide various layers of spatial mapping data.

MITIGATING IMPACTS

Once impacts are identified, include information on how each impact will be mitigated. The sequence of actions described in WAC 197-11-768 should be used as an order of preference in evaluating steps to avoid and minimize adverse impacts [WAC 173-26-360(7)(e)]. These actions are written as follows:

- "Mitigation" means:

  (1) Avoiding the impact altogether by not taking a certain action or parts of an action;

  (2) Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts;

(3) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
(4) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;
(5) Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and/or
(6) Monitoring the impact and taking appropriate corrective measures.

The Federal Agency must describe all reasonable mitigation steps taken – either required by other permits, plans, and authorizations or taken voluntarily by the applicant – to avoid and minimize adverse environmental and socioeconomic impacts. Mitigation should be commensurate with expected adverse impacts [WAC 173-26-360(7)(g)]. The Federal Agency should consider all of the proposal's potential adverse impacts regardless of whether those impacts are generated on land or in the water. Pre-proposal environmental baseline inventories and assessments and monitoring of ocean uses should be required when little is known about the effects on marine and estuarine ecosystems, renewable resource uses, and coastal communities or the technology involved is likely to change [WAC 173-26-360(7)(v)]. Finally, while many of these mitigation steps might already be satisfied by specific permits or authorizations, the necessary information must be provided in this analysis to address this criterion.

4. What are the **potential impacts from siting and location; construction; design and operations; ocean use services; and/or probable disasters** such as explosions or spills [WAC 173-26-360(7) (j), (m), (n), (o), (q), (r), and (u)]? When describing impacts be sure to be explicit about the type of impact (direct, indirect, or cumulative); the duration of the impacts (short-term, long-term, or temporary); the severity of the impact (size and scale); and the likelihood of the impact to occur. Additionally, provide information on how each of these impacts will be avoided, minimized, or mitigated.

   USACE Response: Below, the short-term, long-term, and temporary impacts of the activity are listed.

   - ***Siting/Location: Willapa Bay is in Pacific County in southwest Washington State, between the mouth of the Columbia River and Grays Harbor (Figure 1). The project site includes the entrance channels and mooring basins (composed of boat basins and access lanes to boat basins) for Tokeland, Nahcotta, and Bay Center, as well as disposal areas at Cape Shoalwater and a South Channel Site.***
     - ***Short-term impacts - Vessels may need to navigate around the dredging operation while in operation, but this will be a temporary disruption to marine traffic.***
     - ***Long-term impacts: channels dredged to their authorized depth will allow the safe passage of vessels in the channels.***
     - ***Temporary impacts: Temporary impacts will mirror short-term impacts.***
   - ***Construction: Each project feature (Tokeland, Nahcotta, and Bay Center) may be dredged up to four times between FY 2023 and FY 2038 using mechanical dredging (i.e., clamshell dredging). USACE***

estimates 45 to 135 days of dredging per event, depending on the amount of shoaling, conditions in Willapa Bay, and the distance to accessible disposal sites.

- ***Short-term impacts: Tugboats, bottom-dump scows, skiff, and a clamshell dredge will be present in navigation channels. short-term adverse impacts associated with implementing the Federal action would include 1) a temporary increase in air emissions during each maintenance cycle, 2) a temporary increase in turbidity at the dredging and placement sites, 3) a disturbance of vegetation (if present) in the navigation channels, and 4) a temporary disruption of the water column and benthic community in the navigation channels and disposal sites with each maintenance event. 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.***
- ***Long term impacts: Periodic dredging and disposal of dredged materials (one event every 5 years) would likely result in habitats with altered /or reduced benthic invertebrate population structures compared to undisturbed areas. Benthic communities in the project area would likely adapt to the dredging cycle disturbance and be 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 is not expected to substantially affect the broader estuarine community and biodiversity surrounding the project area.***
- ***Temporary impacts: Temporary impacts will mirror short-term impacts.***

- ***Design and Operations: USACE proposes to resume maintenance dredging (i.e., clamshell dredging) to maintain the authorized dimensions of the Tokeland, Bay Center, and Nahcotta federally authorized navigation channels.***
  - ***Short-term impacts: Short-term impacts include 1) a temporary increase in air emissions during each maintenance cycle, 2) a temporary increase in turbidity at the dredging and placement sites, 3) a disturbance of vegetation in the navigation channels, and 4) a temporary disruption of the water column and benthic community in the navigation channels and disposal sites with each maintenance event.***
  - ***Long-term impacts: There are no anticipated long-term impacts from design and operations.***
  - ***Temporary impacts: Temporary impacts will mirror short term impacts.***

- ***Ocean Use Services: This project will ensure that vessel traffic in the Federal navigation channels continues effectively by dredging the channels to their authorized depth.***
    - ***Short-term impacts: There will be no short-term impacts to ocean use services.***
    - ***Long-term impacts: The long-term impacts of the Willapa Bay Federal Navigation Maintenance project are improved and continued vessel navigation through the Federal navigation channels. This will also support Federal projects and the economy of the region.***
    - ***Temporary impacts: There will be no temporary impacts to ocean use services.***
- ***Probable Disasters: geologically hazardous area and is at a high risk of tsunami flooding.***
    - ***Short-term impacts: During the construction and staging period, the impacts of a disaster could potentially displace or inundate dredging equipment, and this could result in damage to equipment and pollution.***
    - ***Long-term impacts: A tsunami flooding event may result in sediment being moved into the navigation channels and boat basins requiring additional dredging.***
    - ***Temporary impacts: Temporary impacts will mirror short term impacts.***

5. Address **ecological concerns** related to environmental preserves, parks, and recreation areas; fishing grounds; critical and sensitive habitats; periods of critical oceanographic processes; species migration routes; and water quality [WAC 173-26-360(7) (j), (k), (m), (n), (t), and (u)].

    USACE Response:
    - ***General location:***
        - ***Willapa Bay serves as habitat for a variety of commercially, recreationally, and ecologically important groundfish, forage fish, and salmon species during all or part of their life histories. Groundfish are rockfish, flatfish, or other bottom-dwelling (demersal) fishes. Five salmon species are known to use Willapa Bay's rivers and creeks for foraging or spawning while juvenile salmon use the estuary as nursery habitat. Groundfish, herring, surf smelt, and salmonids are mobile and will likely leave or avoid the immediate project area during operations reducing potential for entrainment. Demersal fish, such as sand lance and juvenile flatfish, are most likely to be entrained. Entrainment could be highest with juvenile English sole, while juvenile starry flounder are less likely to be entrained because their densities are lowest in areas associated with the project (Rooper et al. 2006). Increased turbidity could have harmful effects on fish and their***

eggs and larvae. Clogged or damaged gill tissue reduces gas exchange, potentially leading to suffocation. Most fish exposed to increased turbidity are mobile and will likely leave the area, reducing their exposure. Avoidance of the area could result in minor disruptions of foraging and migration.

- ***The project area is home to many bird species. Roughly 257 species have been documented at the Willapa Bay National Wildlife Refuge (USFWS 2017). Several mammal species have been documented or could potentially occur in the project area. These include the gray whale, harbor porpoise, harbor seal, California sea lion, Steller sea lion, northern fur seal, river otter, and several bat species. The presence and operation of dredging equipment, tugboats, and barges will increase human activity and noise levels in the area, potentially disturbing wildlife that may be in the immediate vicinity of the project. Dredging and in-water disposal of dredged sediment will result in increased turbidity and suspended sediment that will reduce water quality. Species most likely to be affected are waterbirds and shorebirds, harbor porpoises, and harbor seals. Other species discussed in this section occur in low numbers and densities in Willapa Bay or are not likely to be found with the project footprint and are less likely to be exposed to this stressor.***
- ***The Willapa Bay National Wildlife Refuge is located in the southern portion of Willapa Bay. No dredging operations are proposed near the refuge.***
- ***Willapa Bay provides habitat for Dungeness crab, Pacific oyster, and manila clam populations, which are important recreational and commercial seafood species. There more than 200 Washington coastal commercial Dungeness crab license holders (WDFW 2019). The coastal commercial Dungeness crab fishery uses Tokeland as one of its four main ports for landing. Many of the private tidal flats around Willapa Bay are managed as oyster mariculture sites. Pacific and Grays Harbor Counties have two-thirds of the oyster industry in Washington (Conway 1991). The proposed action will benefit the commercial and recreational fishers as it will provide access between the marinas and the bay.***

- ***Habitat:***
  - ***Environmentally critical and sensitive habitats such as breeding, spawning, nursery, foraging areas, and wetlands are present in Willapa Bay. The Willapa Bay National Wildlife Refuge provides wildlife habitat for a wide variety of wildlife. No dredging operations will occur near the refuge.***
  - ***Willapa Bay is described as a coastal-plain estuary connected to a highly active eastern boundary ocean, the northern reach of the California Current System (Hickey 1989). The dredging operations will only temporarily affect marine biota with increased turbidity.***

In addition, the dredging operations will only occur within the federally authorized navigation channels and open-water disposal sites.

- ***To minimize environmental impacts during construction and maintenance activities, USACE would incorporate BMPs outlined in Appendix C.***

- ***Species:***
  - ***Green and white sturgeon both feed in Willapa Bay. The Southern Distinct Population Segment (DPS) of North American green sturgeon is listed as threatened under the ESA and critical habitat is designated in the project area. The action area is generally along the margins of the bay and disposal sites are small in relation to the wide bay. Throughout the duration of the project there will be sufficient space for the safe passage of sturgeon as migration paths will be maintained within the estuarine habitat as well as between estuarine and riverine or marine habitats.***
  - ***The Southern DPS of eulachon was listed as threatened under the ESA in 2010. There is no critical habitat designated for eulachon within the proposed action area. Maintenance dredging could disrupt normal behavior patterns of usage of the bay as foraging habitat. However, potential effects are discountable due to the low likelihood ESA-listed eulachon will be present during the approved in-water work windows (16 July to 30 September for Palix River and Bay Center, 16 July to 15 February for Tokeland and 16 July to 1 February for Nahcotta). Similarly, any potential effects from entrainment or water quality impacts are unlikely due to the small number of fish present, their ability to avoid dredge equipment, and the temporary nature of effects.***
  - ***The coastal/Puget Sound bull trout DPS is listed as threatened under the ESA and no critical habitat has been designated in the project area. Bull trout are extremely rare within the Willapa Basin with no record of observation in more than 15 years. In the highly unlikely event that bull trout are present in the action area, risk of entrainment during clamshell dredging is low and impacts of noise and water quality would be minimal. Any fish that are present would be of an age class that is very mobile and could easily avoid impact and injury. Potential effects are considered discountable due to the extreme unlikelihood of bull trout presence.***
  - ***Lower Columbia River Chinook salmon evolutionary significant unit (ESU) and the Upper Willamette River Chinook salmon ESU are listed under ESA. No critical habitat is designated for either species. There are no natal streams for ESA-listed salmon in Willapa Bay. Small numbers of the Lower Columbia River Chinook salmon ESU are known to use the bay for foraging and avoiding predators during their migration from the river to marine feeding***

areas (Casillas 2009; NMFS 2016). The proposed project is not likely to interfere with any migration patterns and any potential effect to prey resources will be minor and temporary. Potential effects are discountable due to the low likelihood of presence of ESA-listed salmon, and the small scope and duration of water quality, underwater noise, or prey resource impacts.

- ***The Southern Resident Killer Whale (SRKW) is Federally listed as endangered and critical habitat is designated in the project area for the species. Due to the extremely low likelihood for presence of SRKW within the action area, the ability of this mobile species to quickly leave the affected area, and the discountable effects to SRKW prey species, the overall effects of dredging activities will be insignificant.***

- ***Water quality [WAC 173-26-360(7)(t)]:***
  - ***Water quality effects would not be considered significant because they would be confined to a small area surrounding the work being performed and would not extend beyond the short time required for dredging and disposal. Any insignificant effects would be controlled through the use of BMPs (Appendix C) and verified by following the WQC, including a water quality monitoring plan.***

6. Address **socioeconomic concerns** related to short- and long-term economic and social costs and benefits to communities; historically or culturally significant sites; coastal uses such as aquaculture, tourism, navigation, recreation, and fishing; public infrastructure and services; and existing water-dependent businesses [WAC 173-26-360(7) (l), (p), (r), (s), and (t)].

USACE Response:

- ***General:***
  - ***The proposed project will have important socioeconomic benefits for towns and communities around Willapa Bay and in southwestern Washington. Maintaining the navigability of Willapa Bay will preserve the socioeconomic conditions of the area by maintaining access through Willapa Bay. Deep-draft-ocean vessels will be able to continue using Willapa Bay for shipping goods to and from the West Coast.***
  - ***The proposed project will directly and indirectly have beneficial effects on the local, state, and national economy. Indirect benefits may accrue in the area through increases in business activity, employment, property values, and tax revenues. Other benefits for the commercial fishing and tourism industries will also be expected to occur.***
- ***Sites:***

a. *There are no cultural resources located within the project area's area of potential effect (APE), and USACE has determined a finding of No Historic Properties Affected.*

- *Coastal uses:*
  a. *Several shellfish growing areas and harvest sites are near the navigation features at Bay Center, Tokeland, and Nahcotta; only one growing area and none of the harvest sites are near the disposal sites at Cape Shoalwater and South Channel.*
  b. *During the time dredging will occur, there will be temporary effects on recreation in Willapa Bay. For safety reasons, recreational boaters and anglers will be required to avoid the immediate area of the barges used for dredging and disposal. However, that safety zone will be quite small relative to remaining available area of Willapa Bay and will be enforced only during operations. The dredging and disposal operations will be coordinated to allow for access to and use of the marinas, basins, and channels at Bay Center, Tokeland, and Nahcotta. The proposed project will maintain the current usage patterns regarding recreation opportunities at the various recreation sites around the bay. Dredging is not expected to affect shellfish harvest at recreational beaches.*
- *Community:*
  a. *Dredging activities will be visible from the shore during recreation on land and could be considered by some to be an industrial interruption to the views. However, the dredges will be operating over a relatively short timeframe (about 45 days at each dredge site), so the impact will be short-term. Dredge operations will occur offshore near developed marine facilities, so the presence of the crane and barges will not be a substantial degradation of the local aesthetics. Lights operating on the dredge will temporarily increase ambient lighting levels at night in the immediate vicinity of the dredge, but the lights are not expected to adversely affect recreation or scenic views beyond the immediate vicinity of the dredge operation. In-air noise levels are expected to be minimal, limited in space and time.*
- *Coastal economy:*
  a. *The proposed project will have important socioeconomic benefits for towns and communities around Willapa Bay and in southwestern Washington. Maintaining the navigability of Willapa Bay will preserve the socioeconomic conditions of the area by maintaining access through Willapa Bay.*
  b. *There may be short-term effects on crabs, oysters, and clams from dredged sediment drifting to shellfish growing areas and harvest sites that are the closest to the dredge sites. However, those effects would be outweighed by the long-term economic benefit of maintaining navigability for commercial and*

recreational vessels. Dredge material disposal would not affect any of the harvest sites.

7. If applicable, describe any **compensation** provided to mitigate adverse impacts to coastal resources or uses. If this is not applicable to the proposal, explain why.

USACE Response: 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. USACE will implement several avoidance and minimization measures (listed under section 5) to ensure impacts are no greater than minimal, short-term effects.

8. Explain why there will be no likely **long-term significant adverse impacts** to coastal or marine resources or uses [RCW 43.143.030(2)(c)].

USACE Response: The proposed episodes of maintenance dredging and dredged material disposal in Willapa Bay would cause a temporary effect on biological functions. Impacts include loss of eelgrass in the navigation channels, potentially adverse effects on ESA-listed marine species (southern DPS eulachon, southern DPS green sturgeon, lower Columbia River Chinook salmon, upper Willamette River Chinook salmon, Columbia River chum salmon, and bull trout) and minor, temporary loss of benthic invertebrates. Because impacts of the proposed action would be temporary or short-term, they are unlikely to contribute to cumulative effects. Impacts on ESA-listed species would be limited to low numbers of fish and would be minimized by conducting activities within the approved in-water work windows of 16 July to 30 September for Palix River and Bay Center, 16 July to 15 February for Tokeland and 16 July to 1 February for Nahcotta when listed species are less likely to be present in the project area, and by implementing BMPs.

Any vegetation including native eelgrass that has grown within the authorized channels would be removed. A 2021 survey for eelgrass presence in the navigation channels indicates approximately 27,000 square feet (0.6 acres) of native eelgrass could be affected. This amount of affected native eelgrass is small when compared to the total estimated presence of the plant in Willapa Bay (between 15,146 and 21,316 acres; Dumbauld and McCoy 2015). The removed eelgrass is not expected to grow back in the navigation channels with regular maintenance. Combined with past dredging and development, and the limited amount of anticipated future alterations in Willapa Bay, the effects of the preferred alternative would not result in significant cumulative effects on any resource.

Specific Ocean Use Standards

If the Federal Agency chose to address the enforceable policies of the SMA by demonstrating consistency with the local SMP, it is possible that this questions in this section (#9-14) have already been addressed. If specific ocean use standards have already been addressed through the SMP analysis, please briefly explain (add references to previous question responses if needed).

9. Does this project include any **ocean mining activities**, as defined in WAC 173-26-360(9)?

   USACE Response: No. The proposed project does not include ocean-mining activities.

   9.1 Describe how mining activities are located and operated to avoid detrimental effects on ground fishing or other renewable resource uses [WAC 173-26-360(9)(a)].
   9.2 Describe how mining activities are located and operated to avoid detrimental effects on beach erosion or accretion processes [WAC 173-26-360(9)(b)].
   9.3 Describe how the proposed action has considered habitat recovery rates in the review of permits for seafloor mining [WAC 173-26-360(9)(c)].
10. Does this project include any **energy production activities**, as defined in WAC 173-26-360(10)?

    USACE Response: No. The proposed project does not include energy production activities.

    Describe how mining activities are located and operated to avoid detrimental effects on ground fishing or other renewable resource uses [WAC 173-26-360(9)(a)].
    10.1 Describe how the proposed actions related to energy producing uses affect upwelling, and other oceanographic and ecosystem processes [WAC 173-26-360(10)(b)].
    10.2 Describe how the proposed action is consistent with WAC 173-26-360(10)(c), which states that any associated energy distribution facilities and lines should be located in existing utility rights of way and corridors whenever feasible, rather than creating new corridors that would be detrimental to the aesthetic qualities of the shoreline area.
11. Does this project include any **ocean disposal**, as defined in WAC 173-26-360(11)?

    USACE Response: Yes. The proposed project includes open-water disposal.

    If no, skip to Question 12. If yes, continue to Question 11.1.

11.1 Describe how the storage, loading, transporting, and disposal of materials will be done in conformance with local, state, and federal requirements for protection of the environment [WAC 173-26-360(11)(a)].

USACE Response: Storage, loading, transporting, and disposal of materials will be completed implementing the BMPs outlined in Appendix C. USACE is working to obtain a Section 401 water quality certification from Ecology and has also prepared a Section 404(b)(1) evaluation and public interest review. 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 that the proposed action meets the Federal Standard.

11.2 Describe how ocean disposal will only take place in sites that have been approved by the Washington Department of Ecology, the Washington Department of Natural Resources, the United States Environmental Protection Agency, and the United States Army Corps of Engineers as appropriate [WAC 173-26-360(11)(b)].

USACE Response: USACE is substantively consistent with the enforceable polices of the Pacific County Shoreline Master Program and provided documentation of this through a consistency determination submitted to Ecology.

11.3 Describe how ocean disposal sites are located and designed to prevent, avoid, and minimize adverse impacts on environmentally critical and sensitive habitats, coastal resources and uses, or loss of opportunities for mineral resource development. (Ocean disposal sites for which the primary purpose is habitat enhancement may be located in a wider variety of habitats, but the general intent of the guidelines should still be met). [WAC 173-26-360(11)(c)].

USACE Response: Dredged material would be disposed at either or both local Cape Shoalwater and South Channel open water disposal locations (Figure 1). Both sites are dispersive, elliptical, subtidal/estuarine sites within Willapa Bay flowlanes. Aquatic disposal of dredged material in Willapa Bay's flowlane (a natural channel within Willapa Bay with high volume and velocity of water movement) allows natural dispersal of sediments in the least costly manner.

12. Does this project include any **transportation activities**, as defined in WAC 173-26-360(12)?

USACE Response: No. the proposed project does not include any transportation activities.

If no, skip to Question 13. If yes, continue to Question 12.1.

12.1 Describe the impact transportation uses will have on renewable resource activities such as fishing and on environmentally critical and sensitive habitat areas, environmental and scientific preserves, and sanctuaries [WAC 173-26-360(12)(a)].

12.2 Describe how the project is consistent with WAC 173-26-360(12)(b), which states that when feasible, hazardous materials such as oil, gas, explosives and chemicals, should not be transported through highly productive commercial, tribal, or recreational fishing areas. (If no such feasible route exists, the routes used should pose the least environmental risk.)

12.3 Describe how transportation uses are located or routed to avoid habitat areas of endangered or threatened species, environmentally critical and sensitive habitats, migration routes of marine species and birds, marine sanctuaries and environmental or scientific preserves to the maximum extent feasible [WAC 173-26-360(12)(c)].

13. Does this project include any **ocean research activities**, as defined in WAC 173-26-360(13)?

USACE Response: No. The proposed project does not include ocean research activities.

13.1 Describe how ocean research activities will coordinate with other ocean uses occurring in the same area to minimize potential conflicts [WAC 173-26-360(13)(a)].

13.2 Describe how ocean research are located and operated in a manner that minimizes intrusion into or disturbance of the coastal waters environment consistent with the purposes of the research and the intent of the general ocean use guidelines [WAC 173-26-360(13)(c)].

13.3 Describe how ocean research will be completed or discontinued in a manner that restores the environment to its original condition to the maximum extent feasible, consistent with the purposes of the research [WAC 173-26-360(13)(d)].

13.4 Describe how the project is consistent with WAC 173-26-360(13)(e), which states that public dissemination of ocean research findings should be encouraged.

14. Does this project include any **ocean salvage activities**, as defined in WAC 173-26-360(14)?

USACE Response: No. The proposed project does not include any ocean salvage activities.

14.1 Describe how any nonemergency marine salvage and historic shipwreck salvage activities will be conducted in a manner that minimizes adverse impacts to the coastal waters environment and renewable resource uses such as fishing [WAC 173-26-360(14)(a)].

14.2 Describe how any nonemergency marine salvage and historic shipwreck salvage activities will not be conducted in areas of cultural or historic

significance unless part of a scientific effort sanctioned by appropriate governmental agencies [WAC 173-26-360(14)(b)]..

C.5 Marine Spatial Plan for Washington's Pacific Coast

1. Does the MSP apply to the proposed activity, as identified in Section B.5? ***Yes***
   If no, skip to Section D. If yes, continue to Question 2 and complete the following analysis to determine whether the activity is consistent with the enforceable policies of the MSP.

Important, Sensitive, and Unique Areas (ISUs)

2. Does the proposed project specifically occur in or potentially impact an Important, Sensitive, and Unique Areas (ISUs), according to the ISU definitions outlined in Section 4.3.3.1.a-d. of the MSP, p. 4-24? ***Yes***

   If no, skip to Question 3. If yes, address Questions 2.1-2.6 to demonstrate consistency with the ISU protection standards outlined in Section 4.3.3.3, p. 4-23 to 4-26.

   2.1. Does the project specifically occur in or potentially impact any of the ecological or historic, cultural, and infrastructure ISUs designated in Section 4.3.3.2.(a-b) or Maps 59-74 in Appendix A of the MSP?

   USACE Response: Yes. Coastal estuaries such as Willapa Bay are important ecological areas and are heavily used by existing uses and their associated infrastructure. While estuaries themselves are not designated as an ISU, many ISUs occur within estuaries.

   2.1.1. Specify your response to Question 2.1.

   USACE Response: Willapa Bay is home to critical saltwater habitats and Priority Habitats and Species, such as spawning and juvenile rearing areas, aquatic habitats (e.g., eelgrass, kelp, mudflats, and shellfish beds), state-listed or candidate species, vulnerable aggregations, and species of commercial, recreational, or Tribal importance.

   2.2. Describe how the project will not degrade ecosystem function and integrity associated with ISUs, including, but not limited to: direct habitat damage, burial of habitat, habitat erosion, and reduction in biological diversity.

   USACE Response: The proposed maintenance project will not degrade ecosystem function or integrity associated with ISUs as the project activities will stay within the Federally authorized project footprint and employ BMPs (Appendix C). Further, the proposed Federal action will be short in duration (45 to 135 days depending upon conditions in Willapa Bay) and temporary (occurring once every 5 years depending upon the rate of shoaling) and localized to specific project boundaries. Direct impacts include a temporary increase in turbidity at the dredging and placement sites, a disturbance of vegetation in the navigation channels, and a temporary disruption of the water column and benthic community in

the navigation channels and disposal sites with each maintenance event. These impacts will be localized to the navigational channels and disposal sites and temporary in nature. The benthic community in the navigation channels and the disposal sites will be impacted. 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.

Areas proposed for periodic dredging and disposal of dredged materials will likely result in habitats with altered or reduced benthic invertebrate population structures compared to undisturbed areas. Benthic communities in the project area will likely adapt to the dredging cycle disturbance and be 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). However, the temporary loss and shift in community structure of the benthic invertebrates will not substantially affect the broader estuarine community and biodiversity surrounding the project area

Invertebrate communities are likely to recover within the navigation channels due to the infrequency of dredging events (about once every 5 years). More frequent disruptions at either the channels or disposal areas could alter the benthic invertebrate community so that it would be unable to reach a full climax condition, persisting primarily as an invertebrate community composed of opportunistic, short lived, organisms.

2.3. Describe how the project will not degrade living marine organisms associated with ISUs, including, but not limited to: abundance, individual growth, density, species diversity, and species behavior.

USACE Response: There will be some effects to water quality in the immediate vicinity of the active dredge and during dredge material disposal. Any effects to water quality will be short lived and small in scale. Effects to aquatic wildlife will be minimized by working during times of the year when ecologically important aquatic species (including ESA-listed species) will not be in the area or in low abundance, and using a mechanical/clamshell dredge, which has low entrainment. A disruption of the benthic community in the navigation channels and the disposal sites will occur. Slow moving or non-motile fish, wildlife, invertebrates, and plant (aquatic and terrestrial) species could potentially be entrained in the materials during dredging or smothered during placement of the disposal materials. Benthic invertebrate communities are likely to recover within the navigation channels due to the infrequency of dredging events (about once every 5years).

2.4. Describe how the project will not have any direct impacts to historic, cultural, of fixed-infrastructure ISUs from dredging, drilling, dumping, or filling.

USACE Response: The proposed action would have no effect on cultural resources. There are no cultural resources located within the area of potential effect (APE), and USACE has determined a finding of No Historic Properties Affected.
Native American Tribes that may be affected by the proposed action include the Chinook Indian Nation, the Confederated Tribes of the Grand Ronde, the Shoalwater Bay Tribe, the Chehalis Indian Tribe and the Quinault Indian Tribe. None of these Tribes have treaty-reserved hunting or gathering rights that extend to Willapa Bay or Point Chehalis, and there are no designated usual and accustomed fishing locations adjacent to Willapa Bay or Point Chehalis.

2.5. Describe how the project will not cause any alteration, destruction, or defacement of historic, archaeological, or cultural artifacts.

USACE Response: The proposed action will not affect access to usual and accustomed fishing and gathering areas as there are none in the area. The proposed action will not cause the degradation of fish runs in usual and accustomed fishing grounds or with fishing activities or shellfish harvesting and habitat as work will occur in approved in-water work windows (16 July to 30 September for Palix River and Bay Center, 16 July to 15 February for Tokeland and 16 July to 1 February for Nahcotta). Advance notice to the Tribes of any proposed work will occur so the proposed action will not impair the Treaty Tribes' ability to meet moderate living needs.

The proposed action would have no effect on cultural resources. USACE consulted with the Washington State Historic Preservation Office (SHPO), the Confederated Tribes of the Chehalis Reservation, Confederated Tribes of the Grand Ronde Community of Oregon, Quinault Indian Nation, Shoalwater Bay Indian Tribe of the Shoalwater Bay Indian Reservation, and the Chinook Indian Nation (non-federally recognized) under Section 106 of the National Historic Preservation Act (NHPA). On August 10, 2022, the SHPO Area of Potential Effect (APE) letter describing the project and its area of potential effect (APE) was submitted. SHPO did not respond within 30 days, therefore USACE proceeded to the next step as described in 36 CFR §800(c)(4). On December 8, 2023, the Tribal letters were sent with a description of the project, and requesting knowledge and concerns regarding properties which may be of religious or cultural significance to affected Tribes. On December 12, 2023, the Confederated Tribes of the Grand Ronde Indian Community of Oregon sent a comment deferring to the Chinook Indian Nation. On December 27, 2023, USACE submitted its Determination and Findings of No Historic Properties Affected in a letter to

SHPO. SHPO responded and concurred with USACE's determination on January 2, 2024, with the stipulation for an unanticipated discovery plan.

2.6. Describe how the project will not have any direct impacts from the placement or maintenance of new, temporary, or permanent structures in areas with existing infrastructure or historic, archaeological, cultural artifacts.

USACE Response: Not applicable. The proposed dredging project with open-water disposal will not be maintaining a new, temporary, or permanent structure in the marine environment.

Fisheries Use Protection Standards

3. Describe how the project will avoid adverse social and economic impacts to fishing through proposed project location, design, construction, and operation, such as avoiding heavily used fishing areas. Where adverse impacts to fishing cannot be reasonably avoided, demonstrate how the project will minimize impacts.

   USACE Response: The timing of the proposed discharge operations will minimize the potential for adverse effects to animal populations, particularly juvenile salmonids and forage fish species. Changes to habitat conditions such as substrate will have temporary effects to organisms but will not result in the establishment of undesirable predators or invasive species as dredged material is anticipated to be carried out through the flow lane.

   The dredging project will be coordinated with the local Indian Tribes that have usual and accustomed fishing rights in each project area (Chinook Indian Nation, Confederated Tribes of the Grand Ronde, Shoalwater Bay Tribe, Chehalis Indian Tribe, Quinault Indian Nation, and the Confederated Tribes of the Chehalis Reservation) prior to the start of dredging. The project will also provide some benefits to the shellfish and fishing industries by maintaining an open navigation for their vessels.

4. Describe how the project will minimize the number of and size of anchors, how structures will be spaced for greater compatibility with existing uses, and/or how cables will be buried in the seafloor through the shoreline.

   USACE Response: Not applicable. No cables will be buried in the seafloor. The proposed project is a dredging operation with open-water disposal.

5. Describe how the project will minimize the risk of entangling fishing gear from new structures installed in the seafloor or placed in the water.

   USACE Response: The proposed maintenance project will be limited to the navigation channels' specific authorized dimensions and would be executed within the authority for the project. No new structures will be installed, dredge

material will be disposed in flow-lanes for dispersal. Fishing gear is not permitted in navigation channels.

6. Describe how the project will minimize the displacement of fishers from traditional fishing areas, and the related impact on the travel distance, routing, and navigation safety in order to fish in alternative areas.

   USACE Response: The proposed project will not displace any fishers from traditional fishing areas. The dredging projects will be coordinated with the local Indian Tribes that have usual and accustomed fishing rights in each project area (Chinook Indian Nation, Confederated Tribes of the Grand Ronde, Shoalwater Bay Tribe, Chehalis Indian Tribe, Quinault Indian Nation, and the Confederated Tribes of the Chehalis Reservation) prior to the start of dredging.

7. Describe how the project will minimize the compression of fishing effort caused by the reduction in the areas normally accessible to fishers.

   USACE Response: The proposed project involves maintenance dredging and open-water disposal. The project will not reduce the area available for commercial and recreational fishing. If there are any interruptions to fishing activities, then these interruptions will be temporary, localized, and short in duration. The proposed project will benefit the fleet by maintaining open navigation.

8. Describe how the project will minimize the economic impact resulting from the reduction in area available for commercial and recreational fishing for the affected sectors and ports.

   USACE Response: The proposed project involves maintenance dredging and open-water disposal. The project will not reduce any area available for commercial and recreational fishing.

9. Describe how the project will limit the number and size of projects/activities located in an area to minimize the impact on a particular port, sector, or fishery.

   USACE Response: Each project feature may be dredged up to four times between FY 2023 and FY 2038 depending on the rate of shoaling. Estimates suggest that the rate of shoaling would require dredging once every 5 years. Dredging would occur during the approved in-water work windows of 16 July to 30 September for Palix River and Bay Center, 16 July to 15 February for Tokeland and 16 July to 1 February for Nahcotta. USACE would coordinate with Tribes prior to each dredging event to avoid potential impacts to Tribal fishery operations. USACE estimates 45 to 135 days of dredging per event depending upon the amount of shoaling, conditions in Willapa Bay, and the distance to accessible disposal sites.

10. Describe how the project will consider the distribution of projects/activities and their cumulative effects.

    USACE Response: USACE prepared an Environmental Assessment (EA) for the proposed project that described the past, current, and future actions that may affect the environment in and near the project area. The EA also described the impacts of the preferred alternative (Alternative 2) that could contribute to cumulative impacts and the resulting cumulative effects.

    The communities around Willapa Bay may undergo new residential and commercial development and/or agriculture and aquaculture may be expanded. However, Pacific County has no ongoing or planned projects along the shoreline or within Willapa Bay that would contribute to cumulative effects (J. Sayce, Port Manager, pers. comm., October 30, 2023). As the human population increases, vessel traffic is also likely to increase. Willapa Bay will likely undergo potential repair and maintenance of jetties, breakwaters, revetments, and other shoreline features.

    The proposed episodes of maintenance dredging and dredged material disposal in Willapa Bay would cause a temporary effect on biological functions; loss of eelgrass in the navigation channels; potentially adverse effects on ESA-listed marine species (southern DPS eulachon, southern DPS green sturgeon, lower Columbia River Chinook salmon, upper Willamette River Chinook salmon, Columbia River chum salmon, and bull trout); and minor, temporary loss of benthic invertebrates. Because impacts of the proposed action would be temporary or short-term, they are unlikely to contribute to cumulative effects.

11. Describe how the project will incorporate other reasonable and relevant considerations as determined by the fisheries consultation process and specific of the proposed project.

    USACE Response: USACE coordinates with the local Native American Tribes and the state and Federal resource agencies to assure there are no greater than minimal effects to fish and wildlife resources.

D. STATEMENT OF CONSISTENCY

Provide a brief statement indicating whether the proposed activity is consistent with the enforceable policies of Washington's CZMP to the maximum extent practicable, as per **15 CFR Part 930.39(a)**.

Based on the above evaluation, we have determined that the actions proposed in the Willapa Bay Federal Navigation Channel Maintenance Dredging are consistent with the enforceable policies of the approved coastal zone management programs of Washington, including the enforceable policies as specified in the local planning documents for Pacific County that are incorporated in the approved programs. The action is, therefore, consistent with the State of Washington's Coastal Zone Management Program to the maximum extent practicable.

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Vanessa E. Pepi
Chief, Planning, Environmental,
and Cultural Resources Branch

Date: August 14, 2024

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F. APPENDICES

DRAFT Water Quality Monitoring Plan: Mechanical Dredging

Willapa Channels Federal Navigation Project

Tokeland, Bay Center, and Nahcotta, WA

Maintenance Dredging and Disposal FY2023-2038

13 August 2024

Constituents Monitored:

The Willapa Channels Maintenance Dredging and Disposal project requires monitoring of the following water quality parameters within the three Federal navigation channels (Tokeland, Bay Center, and Nahcotta) pursuant to Water Quality Certification (WQC) #XXXXX (date), Public Notice of Application CENWS-PMP-YY-#### Willapa Channels Federal Navigation Channel Maintenance Dredging and Disposal, WA (date), Coastal Zone Management Act Consistency (date), and WAC 173-201A-210:

- Turbidity applicable criteria:
  - Point of Compliance (POC) is 400 feet down-current of the maximum swing radius of the dredge plant (pending Washington Department of Ecology [WA Ecology] approval of extended area of mixing request).
  - Turbidity criteria at the POC is 5 nephelometric turbidity units (NTU) over background when the background is 50 NTU or less, or a 10 percent increase in turbidity when the background turbidity is more than 50 NTU.
  - Visual turbidity anywhere at or past the POC from the dredging activity and/or during disposal activity at the disposal sites shall be considered a possible exceedance of the standard and shall be verified through measured turbidity sampling.

Frequency of Monitoring:

- Instrument-measured monitoring shall be conducted for a minimum of the first five (5) consecutive days of dredging at each of the three project locations. If an exceedance is reported, then the five (5) consective days of instrument monitoring shall restart.
- The contractor's dredging equipment shall operate for at least one (1) hour prior to the collection of turbidity readings to ensure readings and observations are representative of water quality conditions during active operations.
- The contractor's water quality monitoring shall 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's water quality monitoring sampling times shall be at least two (2) hours apart, to the extent these times adequately reflect periods of active dredging and occur during daylight hours.

- The contractor shall monitor for turbidity, instrument-measured and visual, during daily dredging and disposal activities and during daylight hours as follows:
  - Collect and record readings (i.e., near surface, mid-depth, and near bottom) twice daily at each of the sampling locations, including one (1) up-current and three (3) down-current locations for the first five (5) consecutive days of dredging (assuming no exceedances).
  - Record any visible turbidity down-current of the POC and at each sampling point at which an instrument measurement is taken for the first five (5) consecutive days of the dredging, assuming no exceedances..
  - Collect and record readings once a day along a transect across the navigation channel at the POC the first five (5) consecutive days of dredging, assuming no exceedances.
  - Record visible turbidity within the disposal area for every disposal action during daylight hours the first five (5) consecutive days of dredging and disposal, assuming no exceedances.
  - No monitoring shall occur before sunrise or after sunset unless authorized by the U.S. Army Corps of Engineers (USACE).
- On days when instrument monitoring is conducted, the contractor shall send the monitoring report to USACE daily, within 24 hours of completion of monitoring activity.
  - If there are no exceedances in water quality within the first five (5) consecutive days, the contractor shall discontinue instrument monitoring, unless otherwise directed by USACE (if required by WA Ecology).
  - If there are exceedances in water quality within the first five (5) consecutive days, the contractor shall continue monitoring following the steps listed in "Exceedances and Exceedance Protocol" until five (5) consecutive days of no exceedances are achieved.
- The contractor shall continue to monitor and document visual turbidity daily at the dredging POC and the disposal site POC during every disposal event each day the dredge is in operation (daylight hours only). At any point, if visual monitoring indicates a turbidity plume, the contractor shall collect instrument readings to verify whether an exceedance has occurred. If an exceedance is verified through instrument monitoring, the exceedance protocol listed in the "Exceedences and Exceedance Protocol" section below shall be followed.

Sampling Approach:

- The contractor shall establish water quality conditions according to the following:
  - The contractor shall verify the calibration of the turbidity meter and calibrate as necessary with standardized samples prior to the start of each day's monitoring, per the manufacturer's specifications.
  - The contractor shall measure turbidity with a turbidity meter (HydroLab or similar), starting at least one (1) hour after the dredging equipment has been

operating, to ensure readings and observations are reflective of conditions during active operations.

- The contractor shall collect readings at each sampling point within the water strata:
  - near the surface (~ 2 feet below)
  - mid-depth
  - near the bottom (~2 feet above)

❖ The contractor shall compare water quality readings taken at the POC to background levels within the water column strata (i.e., surface level at points of compliance compared to surface level at background stations) to determine compliance with constituent standards.

❖ The contractor shall visually observe turbidity during daylight hours beyond the POC and record the findings at the same time the turbidity levels are measured.

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

Monitoring Locations:

❖ The mixing area POC for turbidity during dredging is 400 feet down-current of the maximum swing radius of the dredge plant and will move as the dredging progresses.

❖ The contractor shall establish Monitoring Points at:

- Measured Background: A minimum of 400 feet up-current from the dredging.
- Measured down-current Early Warning – a 200-foot radius down-current of the maximum swing radius of the dredge plant.
- Measured down-current POC – a 400-foot radius down-current of the maximum swing radius of the dredge plant.
- Visual down-current of POC – visual turbidity observed at or beyond a 400-foot radius of the maximum swing radius of the dredge plant shall be recorded at the same time the turbidity levels are measured.

❖ The contractor shall establish channel transect Monitoring Points across the navigation channel located at the POC. This transect shall be:

- Located at a minimum of three (3) points spaced roughly equidistant across the navigation channel
- Composed of three (3) readings within the water strata; 1) just below the surface (~ 2 feet below), 2) mid- depth, and 3) near the bottom (~2 feet above).

❖ The contractor shall observe and record visible 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.

Elevations at the Early Warning and Extended Point Locations

- If measurements taken at the Early Warning location show recorded turbidity is greater than the applicable turbidity criteria, that sample is recorded as an ELEVATION. Assuming dredging continues, the contractor shall continue to monitor per the protocol below:
  - Review existing best management practices (BMPs), including, but not limited to:
    - ✓ Check the seal on the bucket, remove any obstructions, repair/replace bucket if point of closure does not fully close
    - ✓ Only fill to bucket's capacity – do not overfill bucket
    - ✓ Slow the speed of lifts from bottom to surface and swing from surface to barge
    - ✓ Do not allow water in barge to excessively overtop
  - Evaluate potential new BMPs.

Exceedances and Exceedance Protocol

- If measurements taken at the POC or in the disposal site show recorded turbidity greater than the applicable turbidity criteria, that sample is recorded as an EXCEEDANCE. Assuming dredging continues, the contractor shall continue to monitor per the exceedance protocol below:
  - *Step 1: Verification of the problem*
    - If monitoring indicates an exceedance, the contractor shall collect, within ten (10) minutes of the initial reading, another series of readings (~ 2 feet below), mid-depth, and near the bottom (~2 feet above) in the same location.
    - If the exceedance still exists, the contractor shall photograph conditions at the POC and then collect another series of readings at the up-current background station to determine if the exceedance is caused by the dredging and disposal or by a change in background conditions (for example due to a heavy rainfall event).
    - The contractor shall notify USACE by telephone within 30 minutes of a measured confirmed exceedance.
    - USACE shall direct the contractor to implement BMPs, as appropriate and applicable, to reduce turbidity. Example BMPs include, but are not limited to:
      - ✓ Check the seal on the bucket, remove any obstructions, repair/replace bucket if point of closure does not fully close
      - ✓ Do not overfill bucket – only fill to bucket's capacity
      - ✓ Slow speed of lifts from bottom to surface and swing from surface to barge
      - ✓ Do not allow water in barge to excessively overtop
  - *Step 2: Increased monitoring*

- The contractor shall collect another reading no more than one (1) hour after the exceedance is recorded to determine whether the dredging operation has been altered to reduce the exceedance to within acceptable limits.
- The down-current extent of the plume should also be determined and identified.
- If this second reading, taken one (1) hour later, still shows an exceedance, the contractor shall immediately notify USACE by telephone that there is still a measured exceedance.
- USACE shall direct the contractor to implement all feasible measures to reduce turbidity.
- The contractor shall collect a third reading, taken no more than two (2) hours after the first exceedance is measured.
- Contractor shall notify USACE that a reportable exceedance occurred, the reason for the exceedance, as well as BMPs implemented to minimize observed turbidity and planned to prevent future reoccurrence, and provide documentation from the incident to USACE to forward to WA Ecology. Based on WA Ecology's response, the Contracting Officer may order the contractor to stop dredging until compliance is achieved.

o *Step 3a: Continued sampling until compliance is achieved, assuming dredging continues*

- Once a reportable exceedance is confirmed and reported, monitor every two (2) hours until sunset or until two (2) consecutive readings do not exceed standards.
- Return to twice per day for five (5) consecutive days if no further exceedance.
- USACE shall direct the contractor to take all measures possible to reduce turbidity.
- The contractor shall resume the normal schedule of water quality monitoring as per specific requirements above ("Frequency of Monitoring" section) until directed by USACE to cease monitoring.
- If compliance cannot be achieved, the Contracting Officer may order the contractor to stop dredging until compliance is achieved.

o *Step 3b: Continued sampling until compliance is achieved, assuming dredging has been stopped.*

- After the contractor has stopped dredging, the contractor shall collect readings at hourly intervals until sunset and resume the following morning until water quality levels return to background.
- Once compliance has again been achieved, the Contracting Officer shall direct the contractor to resume dredging.
- USACE shall provide monitoring data to WA Ecology and notify WA Ecology that dredging has resumed.

- Once dredging has resumed, the contractor shall return to monitoring twice a day until five (5) consecutive days of no exceedances of water quality monitoring is achieved.
- The contractor shall continue the normal schedule of water quality monitoring as per specific requirements above ("Frequency of Monitoring" section) until directed by USACE to cease monitoring.

Reporting:

- ❖ USACE shall report exceedances, including potential causes and BMPs implemented to prevent reoccurrence, or dredging shutdowns to WA Ecology by telephone and email as soon as is practicable, but within 24 hrs.
- ❖ The contractor shall document any dredging shutdowns due to water quality exceedances with an Incident Report, which will be transmitted to USACE by email within 24 hours of the exceedance. The contractor shall note the shutdown in the daily QC report submitted via email and through the Resident Management System (RMS)..
- ❖ The Incident Report will 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, steps taken to prevent reoccurance, and summary of how the exceedance was resolved following the above protocol.
- ❖ USACE shall send the Incident Report to WA Ecology within five (5) days of the exceedance.
- ❖ WA Ecology will require the restart of the five (5) consecutive days of instrument-measured turbidity monitoring, which shall be the responsibility of the contractor, until compliance is achieved for five (5) consecutive days. The contractor shall send these daily reports to USACE, and USACE will send them to WA Ecology.
- ❖ USACE shall send the daily water quality reports (visual or measured) to WA Ecology monthly.
- ❖ Within 60 days of the completion of dredging and disposal activities, USACE shall submit a summary report of the turbidity results to WA Ecology.

Responsibility and Communication Plan:

- ❖ USACE will coordinate with the dredging contractor.
- ❖ USACE will oversee turbidity monitoring conducted by the contractor.
- ❖ The contractor will monitor water quality in accordance with the Contractor Water Quality Monitoring Plan.
- ❖ The contractor will provide a water quality monitoring report and data to USACE, as directed.
- ❖ The contractor will notify USACE within 30 minutes of a confirmed exceedance and follow required notifications per the exceedance protocols.

- USACE is responsible for coordinating with WA Ecology and submitting the water quality monitoring reports and data provided by the contractor.
- USACE is responsible to provide any changes to the WQMP to Ecology so the changes can be reviewed and approved prior to implementation.
- USACE will notify WA Ecology within 24 hours if an exceedance occurs.
- USACE Points of Contact for turbidity monitoring will be Elizabeth Chien, Project Manager (206/433-6119 or 206/316-3968), and Katherine Cousins, Environmental Coordinator (206/514-1173).
- The WA Ecology Point of Contacts are Laura Inouye, Federal Permit Coordinator, (360/515-8213), laura.inouye@ecy.wa.gov and Brook Swensen, Aquatic Permit Specialist (564/999-1749), bswe461@ecy.wa.gov.

Official reporting of any incidents are to be sent to both the WA Ecology Point of Contact AND to the fednotification@ecy.wa.gov inbox.

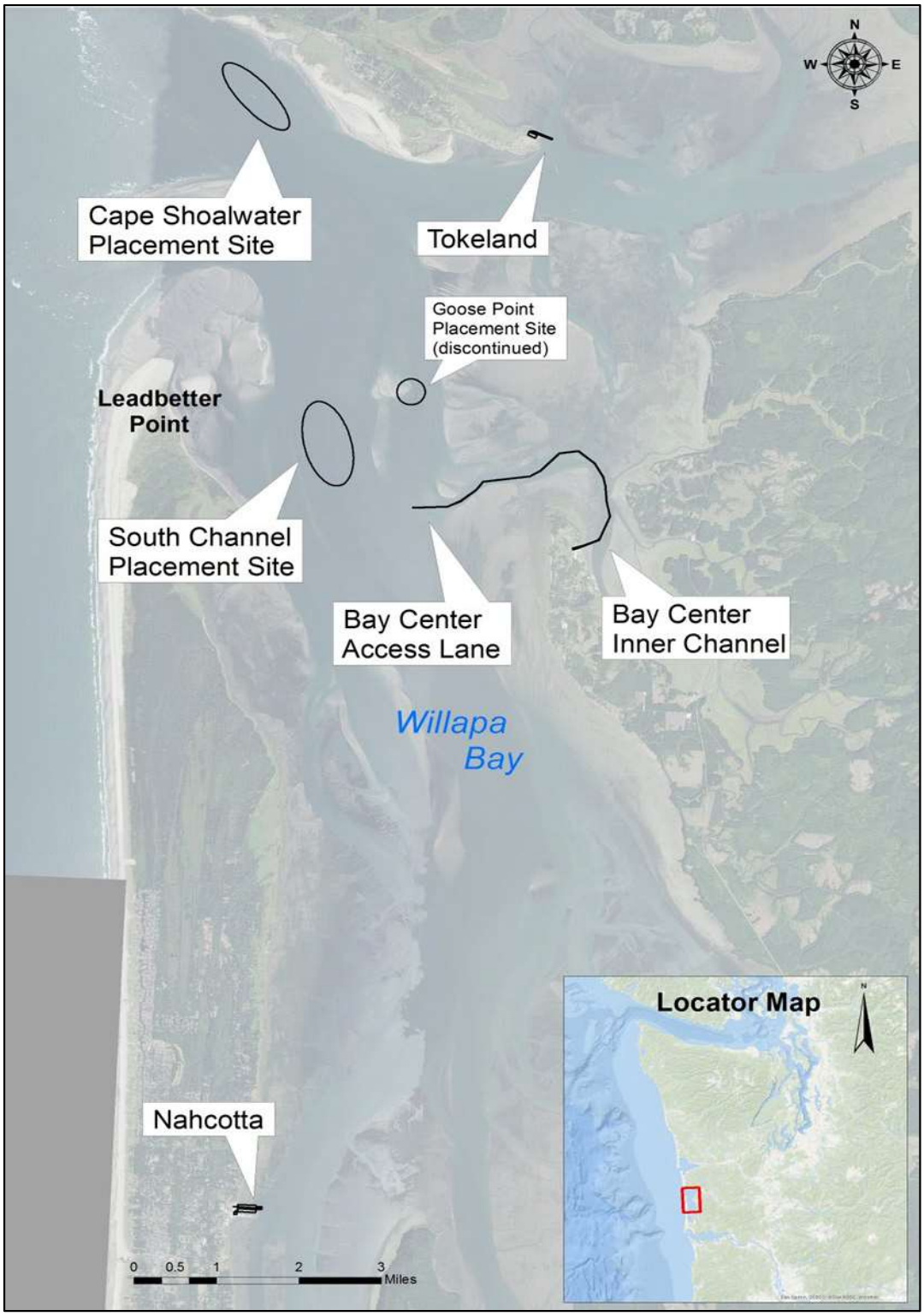

Figure 1. Dredging and disposal sites for maintenance of Federal navigation channels in Willapa Bay, Washington.

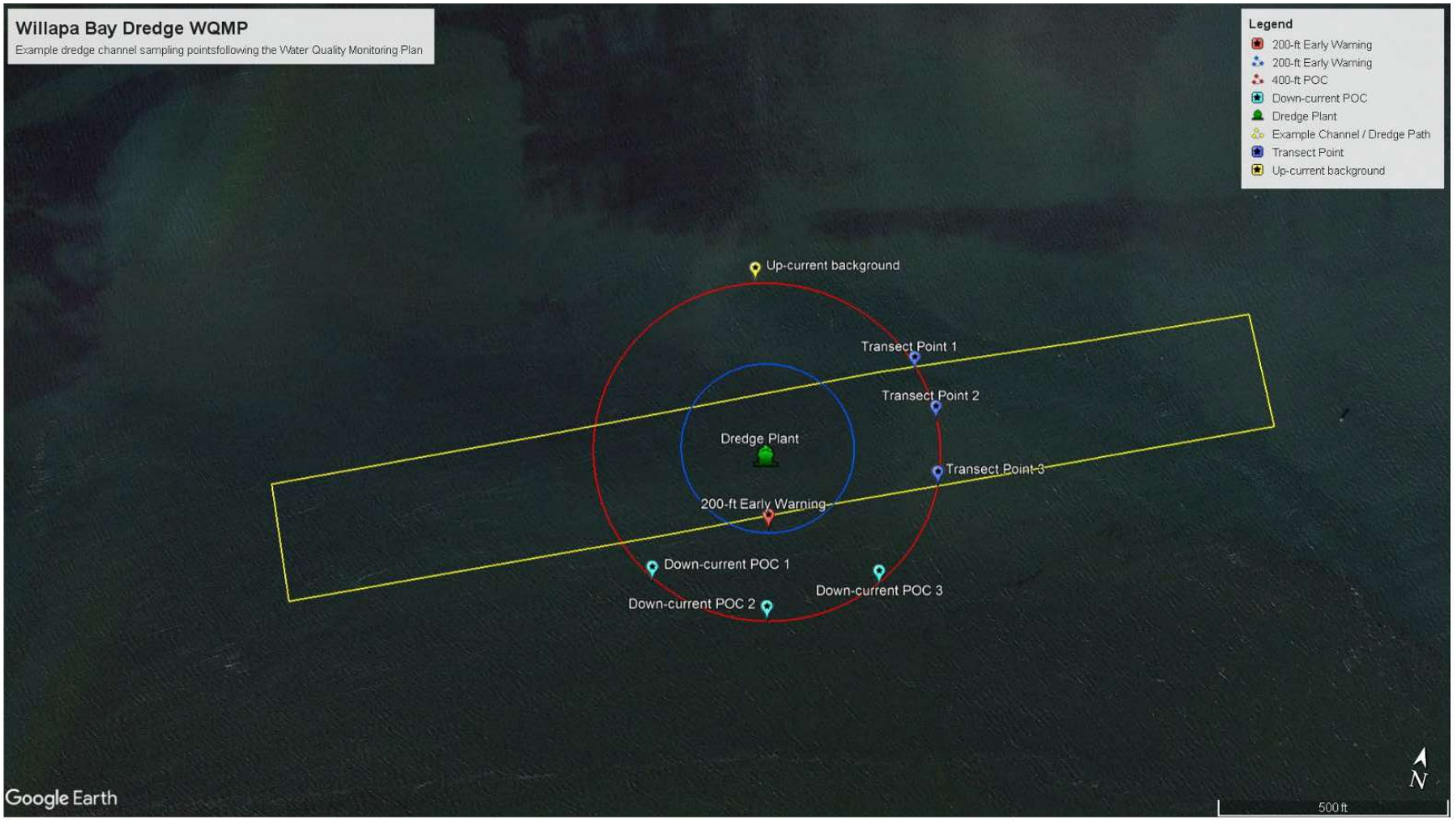

Figure 2. Representative example of sampling points in relation to dredge plant operation in the navigation channel with dredging underway. Up-current and down-current positions will change with the tide.

Appendix B - Clean Water Act Section 404 (b)(1) Analysis

Final Environmental Assessment
and Clean Water Act, Section 404 Public Interest Review
Willapa Bay Federal Navigation Project Maintenance Dredging
FY2023-FY2038

Appendix A
Finding of No Significant Impact (FONSI)/Clean Water Act Section 404 Statement of Findings (SOF)

Clean Water Act Section 404 (b)(1) Analysis
Willapa Bay Federal Navigation Project Maintenance Dredging FY2023-FY2038
Willapa Bay, Pacific County, Washington
Substantive Compliance for Clean Water Act Section 404(b)(1) Evaluation

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:

4. Bay Center
   c. Entrance Channel and Mooring Basin Access Lane: An entrance channel 40 feet wide and 3,600 feet long, and an access lane into the boat basin to the authorized depth of 10 feet below Mean Lower Low Water (MLLW) plus an additional 2 feet of allowable overdepth and 2 feet of advanced maintenance. An estimated 67,000 cubic yards (cy) of accumulated sediment would be dredged per event.

   d. Palix River Access Lane: A channel 40 feet wide and about 3,600 feet long, to the authorized depth of 10 feet below MLLW. An estimated 55,000 cy of accumulated sediment would be dredged from shoals shallower than 10 feet below MLLW per event. However, this amount has the potential to change between dredge events due to the dynamic nature of the Palix River at its confluence with Willapa Bay. The Palix River thalweg can change position resulting in shifting shoals along the river and at the river's entrance. An access lane would follow the Palix River thalweg between the bay and to the Bay Center Federal navigation channel. Only shoals within that thalweg would need to be dredged to allow for safe transit of dredge, scows, and tugboats from Bay Center to the disposal sites. For this reason, a specific alignment of the access lane would be based on conditions and shoals higher than 10 below feet MLLW prior to the time of dredging for any given dredging event.

5. Tokeland Entrance Channel: An entrance channel 100 feet wide and 600 feet long, to an authorized depth of 15 feet below MLLW plus an additional 2 feet of allowable overdepth and 2 feet of advanced maintenance. An estimated 53,000 cy of accumulated sediment would be dredged per event.

6. Nahcotta Entrance Channel and Mooring Basin Access Lane: An entrance channel 200 feet wide and 350 feet long, and a wider mooring basin access lane approximately 1,210 feet long and 275 feet wide, to an authorized depth of -10

feet MLLW plus 2 feet of advance maintenance and 2 feet of allowable overdepth. An estimated 155,000 cy of accumulated sediment would be dredged per event.

USACE estimates that 330,000 cy of material would be moved during each dredging event. USACE anticipates that the sites would be dredged up to four times over a period of 7 years (Fiscal Year [FY] 2023-FY2038) depending on the rate of shoaling. Estimates suggest that the rate of shoaling would require dredging once every 5 years. Dredged material would be placed at two dispersive sites (Cape Shoalwater and South Channel) within deep waters of Willapa Bay. The disposal sites are within primary flow lanes where currents are strongest and would carry material along natural sediment transport paths.

The work would be done by contracted commercial dredging companies with oversight by USACE. Dredging would occur during the approved in water work windows of 16 July to 30 September for the Palix River Access Lane and Bay Center, 16 July to 15 February for Tokeland, and 16 July to 1 February for Nahcotta. USACE would coordinate with Tribes prior to each dredging event to avoid potential impacts to Tribal fishery operations. USACE estimates 45 to 135 days of dredging per event depending upon the amount of shoaling, conditions in Willapa Bay, and the distance to accessible disposal sites.

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)].

Description of the Proposed Discharge

USACE proposes to dispose of up to 330,000 cy of sediments from three authorized Willapa Bay Federal navigation channels (Bay Center, Tokeland and Nahcotta) as part of routine maintenance. Dredging is anticipated to be required four times during a 7-year period (FY2023-FY2038). The dredged material (predominantly silt) would be disposed at either or both local Cape Shoalwater and South Channel open water disposal locations. Both sites are dispersive, elliptical, subtidal estuarine sites within Willapa Bay flowlanes. The Cape Shoalwater site encompasses 275.5 acres. Its dimensions are 2,000 by 6,000 feet, with water depths greater than 50 feet. The South Channel site is 3,000 by 6,000 feet (413.2 acres) with a similar depth range as the Cape Shoalwater site. Transport distance between dredge areas and the two disposal sites is approximately 3 miles, or 2.6 nautical miles for Tokeland to Cape Shoalwater and Bay Center to South Channel, and 14 miles, or 12 nautical miles for Nahcotta to South Channel.

A Suitability Determination for unconfined open water disposal as determined by the Dredged Material Management Program (DMMP) agencies (USACE, Washington State Departments of Ecology and Natural Resources, and the U.S. Environmental Protection

Agency) was recorded February 2021. The DMMP found all material suitable for unconfined open water/flow-lane disposal.

Project Need

Shoaling of riverborne and tidal sediments that reduce navigation channel depth necessitates maintenance dredging. The rate of sediment accretion in each channel requires removal approximately once every 5 years to maintain adequate depth for safe navigation.

Project Purpose

The purpose of the action is to provide for safe passage of marine traffic by maintaining the channels to the authorized depth of -10 feet MLLW plus 2 feet of allowable overdepth. Allowing the shoaling to continue would reduce navigation options, impacting local commercial and Tribal fishers and associated regional businesses (e.g., seafood markets and restaurants). Therefore, the purpose of the proposed project is for USACE to resume maintenance dredging for the Willapa Bay Federal Navigation Project.

Availability of Environmentally Acceptable Practicable Alternatives to Meet the Project Purpose

The alternatives evaluated for this project were as follows:

Alternative 1 (No Action)

The No Action Alternative is analyzed as the future without-project conditions for comparison with the action alternatives. If USACE takes no action to clear shoaling sediment from the navigation channels, there would be continued and increasing risk to commercial and recreational vessels. Commercial vessels may have to run additional, smaller loads to convey the same quantity of goods leading to inefficiencies and harm to the local and regional economies. Eventually, access may become unavailable, impacting businesses and the greater community. This alternative would not meet the project purpose and need but is carried forward for evaluation purposes.

Alternative 2 – Dredging Federal Navigation Channels in Willapa Bay with Open Water Disposal

USACE proposes to conduct routing maintenance dredging of accumulated sediments from the Tokeland, Bay Center, and Nahcotta Federally authorized navigation channels. Additionally, a temporary access channel would be dredged in order to reach the Bay Center channel. The project consists of removing up to 330,000 cy of material cumulatively from the sites, up to four times from FY2023 to FY2038. The project includes 2 feet of allowable overdepth and an additional 2 feet of advance maintenance. The temporary access channel does not include overdepth or advance maintenance and would be dredged to maximum depth of 10 feet below MLLW.

Work consists of clamshell dredging with buckets holding 5-25 cy. Buckets would place dredged material on a bottom-dump barge, which hold approximately 2,000 to 2,500 cy, for disposal at either the Cape Shoalwater or South Channel disposal site. USACE may shift the precise location of the disposal sites as the dynamic nature of Willapa Bay may alter the alignment of deep flow-lanes. Dredging would occur during the approved in water work windows of 16 July to 30 September for the Palix River Access Lane and Bay Center, 16 July to 15 February for Tokeland and 16 July to 1 February for Nahcotta. USACE estimates 45 to 135 days of dredging per event depending upon the amount of shoaling, conditions in Willapa Bay, and the distance to accessible disposal sites.

Findings. USACE rejected Alternative 1 because it would not meet the project purpose and need. Alternative 2 is the Federal standard, meaning the least costly alternative, at the most practicable location, consistent with sound engineering practices that meets environmental standards established by the CWA 404(b)(1) evaluation process.

Significant Degradation, either Individually or Cumulatively, of the Aquatic Environment

a. Effects on Ecosystem Function. Habitat in navigation channels and disposal sites would be disturbed by dredging and the disposal of dredge material. Dredging would temporarily reduce the populations of the benthic and epibenthic invertebrate community through removal of the substrate and smothering as suspended sediments settle out of the water column. Invertebrate prey for fish would be temporarily reduced within the navigation channels. While benthic and epibenthic prey species are temporarily displaced, populations are expected to recover shortly (within months to one year) after dredging activities are completed. Adjacent undisturbed intertidal habitat along the edges of the dredged areas would continue to provide an established source of benthic and epibenthic invertebrates to colonize the newly disturbed subtidal substrate. Since new invertebrate communities would recolonize the dredging area, USACE expects no long-term loss of biological productivity or prey base for juvenile salmonids or demersal fish.

USACE conducted an eelgrass survey in the summer 2021 within all proposed dredging and disposal areas. Approximately 27,000 square feet, or just over half an acre of eelgrass has become established within the channels and would be removed during dredging. Generally, the eelgrass within the dredging areas is patchy and heavily disturbed by vessel traffic and shellfishery operations. The areas outside the channels contain mature, continuous beds and would be temporarily subject to a minor increase in turbidity. The turbidity would not impact the survival of the beds and temporary impacts to growth are likely to be less than measurable.

USACE assessed potential effects from dredging and open water disposal and determined that they would generally be localized to previously disturbed areas, short in duration, and minor in spatial scope. Effects of dredging and disposal operations on salmonids, forage fish, and benthic organisms would be reduced or avoided through implementation of timing restrictions and established USACE dredging best

management practices (BMPs), and mobile organisms are expected to be able to avoid entrainment.

b. Effects on Recreational, Aesthetic, Historical, and Economic Values. USACE expects no significant adverse effects on recreation, aesthetics, historical properties, or the economy. Improved access through navigation channels is likely to benefit recreational and economic opportunities for the region.

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.

Appropriate and Practicable Measures to Minimize Potential Harm to the Aquatic Ecosystem

a. Impact Avoidance and Minimization Measures. *The avoidance measures include the timing of in water work and the use of BMPs. USACE would adhere to the in-water work windows as discussed with biologists from WDFW and the Services. This limits work to 16 July through 15 February for disposal at Cape Shoalwater and South Channel Sites. Dredging of the Palix River Access Lane and Bay Center would be completed by 30 September to avoid migrating chum salmon, and Nahcotta channel would be completed by 1 February to avoid impacting herring spawning. Avoiding dredging in the springtime also prevents introducing turbidity into eelgrass beds during a more sensitive time of year.*

b. Compensatory Mitigation. USACE is not authorized to mitigate for impacts associated with maintaining these Federally authorized navigation channels. USACE is preparing an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) that concludes that the action would not result in significant impacts to the human environment. A Biological Assessment (BA) was prepared per the Endangered Species Act (ESA) that determined the action "may affect but is not likely to adversely affect" affect bull trout, lower Columbia River Chinook salmon, Willamette River Chinook salmon, Columbia River chum salmon, Pacific eulachon, North American green sturgeon, and the southern resident killer whale (SRKW). USACE determined that there would be no effect to the critical habitat for the green sturgeon and SRKW because the proposed action would produce only temporary turbidity, noise, and disturbance near areas where the species may be migrating and/or foraging. USACE further determined that there would be no effect to the marbled murrelet, streaked horned lark, yellow-billed cuckoo, western snowy plover, short-tailed albatross, and Oregon silverspot butterfly.

Findings. USACE has determined that all appropriate and practicable measures have been taken to minimize potential harm. USACE selected the alternative that would cost less and still be consistent with engineering and environmental requirements while meeting the project need, Alternative 2.

Other Factors in the Public Interest

a. Fish and Wildlife. USACE is coordinating with state and Federal agencies to assure careful consideration of fish and wildlife resources. USACE prepared a BA to assess potential effects of dredging and disposal on ESA protected species. As stated above, this document concluded the action would have no effect on six ESA-listed species and "may affect, but is not likely to adversely affect" eight ESA-listed species. NMFS replied on 20 November 2023 (NMFS No. WCRO-2023-02148) and concurred with USACEs' conclusions that the proposed action is not likely to adversely affect Lower Columbia River and Willamette River Chinook salmon, Columbia River chum salmon, Pacific Eulachon, Southern DPS green sturgeon, and SRKW, or the critical habitat for DPS green sturgeon. NMFS also concurred with USACE that that the Federal Action may affect but is not likely to adversely affect the sunflower sea star because the scarcity of these species suggests that exposure to project effects would be discountable. The USFWS replied on 19 March 2024 (FWS/R1/2022-0012255) and concurred with USACE's conclusions that the proposed action may affect but is not likely to adversely affect bull trout. These documents would conclude the consultation under Section 7 of the ESA for aquatic disposal of sediments dredged for the proposed action.

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

c. Historical and Cultural Resources. Since the proposed dredging is confined to the removal of recently deposited sediments, primarily within the previously dredged channel width and depth boundaries (with the exception of the Bay Center access channel), no submerged cultural resources would be affected by the project.

d. Activities Affecting Coastal Zones. USACE is substantively consistent with the enforceable polices of the Pacific County Shoreline Master Program and provided documentation of this consistency determination to Ecology on [date xx].

e. Environmental Benefits. USACE has not identified any substantial environmental benefits of the proposed maintenance dredging action.

f. 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 disposal sites are located in open water, with plenty of room on either side of the disposal vessels, so impacts to vessel traffic should be minimal. Dredging would occur up to 24 hours per day and disposal would occur intermittently as it travels between the dredge location and disposal site. The action would have an overall benefit for navigation by returning the Federal navigation channels to their authorized depths.

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

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 Cape Shoalwater and South Channel disposal sites are open water dispersive sites within the highly dynamic Willapa Bay system. Tidal and riverine currents push waves of sand and shell hash along the bottom of the bay, while silts and clays either settle in calm mudflats or are carried directly out to the Pacific Ocean. Dredged material particles are mostly finer than the sand and shell hash substrate within the disposal sites and are likely to be moved quickly through the system. Changes to the character of the disposal sites' substrate would be short-lived as the dynamic nature of the system would widely disperse fine sediments outside of Willapa Bay.

2. Suspended particulates/turbidity [230.21] Discharge of dredged material would cause a temporary increase in turbidity and suspended particulate levels in the water column, particularly in near-bottom waters. The particle sizes of the dredge material are quite variable across the sites, with 5 to 86 percent of the total composed of fine material (silt and clay). This 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 disposal operations would be minimal (confined to the areas in the immediate vicinity of the disposal sites) and of short duration (currents would disperse any suspended material within hours of disposal).

3. Water [230.22] No significant water quality effects are anticipated. During disposal operations, a localized turbidity plume may persist for a short period during the descent of dredged material through the water column. A minor reduction in dissolved oxygen may be associated with this plume, primarily during disposal of silty sediments. Because disposal operations consist of a series of instantaneous, discrete discharges over the dredging schedule, any water quality effects should be short lived (hours) and localized. All of the sediments have been tested and approved for open water disposal under the guidelines of the Dredged Material Management Program (DMMP) administered by USACE, U.S. Environmental Protection Agency, Ecology, and Washington Department of Natural Resources.

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.

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.

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 the proposed disposal sites. USACE determined that the preferred alternative "may affect but is not likely to adversely affect" affect bull trout, lower Columbia River Chinook salmon, Willamette River Chinook salmon, Columbia River chum salmon, Pacific eulachon, North American green sturgeon, and the SRKW. USACE further determined that there would be no effect to the marbled murrelet, streaked horned lark, yellow-billed cuckoo, western snowy plover, short-tailed albatross, and Oregon silverspot butterfly. The NMFS replied on 20 November 2023 (NMFS No. WCRO-2023-02148) and concurred with USACEs' determinations. The NMFS also concurred with USACE that that the Federal Action may affect but is not likely to adversely affect the sunflower sea star because the scarcity of these species suggests that exposure to project effects would be discountable. The USFWS replied on March 19, 2024 (FWS/R1/2022-0012255) and concurred with USACE's conclusions that the proposed action may affect but is not likely to adversely affect bull trout.

2. Aquatic Food Web [230.31] The proposed action is not expected to have a substantial effect on the benthic organisms as the strong currents through the disposal sites limit organisms' opportunities to establish populations. Turbidity associated with disposal operations may interfere with feeding and respiratory mechanisms of benthic, epibenthic, and planktonic invertebrates. Some small number of sessile invertebrates at the disposal site would suffer mortality from disposal of dredged material. Several studies have found that benthic infauna recolonize disposal sites quickly (several months), but that they may never reach mature equilibrium because of the frequent burying of organisms during disposal of dredged material. More mobile epibenthic organisms are expected to escape the immediate area without significant injury. Potential effects of disposal operations on salmonids and forage fish would be reduced and/or avoided by conducting work during approved in water work windows. Overall, impacts to fish and invertebrates would be minor, temporary, and localized.

3. Wildlife [230.32] Noise associated with placement operations can affect bird and marine mammals in the project area; however, Willapa Bay is already subject to substantial vessel noise and the increase may not be perceptible to wildlife. The effects of intermittent sound during disposal and transport could result in displacement of animals, but not injury. Dumping of dredged material occurs over a brief period (minutes) up to a couple of times per day. Increases in turbidity associated with dredged material placement could reduce visibility, thereby reducing foraging success for any animals in the immediate area. Any reduction in availability of food would be localized and expected to subside rapidly upon completion of disposal. USACE does not expect a long-term alteration to the abundance and distribution of wildlife.

Potential Impacts on Special Aquatic Sites [Subpart E]:

1. Sanctuaries and Refuges [230.40] The Willapa National Wildlife Refuge occupies portions of the shorelines and uplands around Willapa Bay. The South Channel disposal site is approximately 2 miles east of the Refuge on Leadbetter Point and Grassy Island. No effects from the disposal of dredged material are anticipated at this distance.

2. Wetlands [230.41] Dredged material would be disposed of in deep waters of Willapa Bay, away from any wetland areas. The project would not alter the inundation patterns of wetlands in the project vicinity.

3. Mudflats [230.42] Intertidal mudflats occur around the dredging footprint, while disposal sites are sand and shell hash. Water circulation patterns would not be altered and no impacts to mudflats are anticipated.

4. Vegetated Shallows [230.43] Disposal sites are in deep (about -40 to -100 feet MLLW) unvegetated sites. Water circulation would not be altered by the disposal. Temporary increases in turbidity or release of nutrients would not alter the site, as conditions do not support the establishment of vegetation.

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] The project is not anticipated to affect recreational or commercial fisheries. Dredged material has been tested and found suitable for open water disposal.

3. Water Related Recreation [230.52] The presence of the tugboat and disposal barge would not pose an obstruction or have an appreciable effect on recreational vessel traffic. The disposal sites are not located in areas of recreational swimming activities.

4. Aesthetics [230.53] Disposal operations would not change the appearance of the project area. Localized, temporary increases in noise, lighting, and turbidity would occur while equipment is operating, but are not expected to be significant.

5. Parks, National and Historical Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves [230.54] Outside of the refuge noted at Leadbetter point, there are no marine protected areas or preserves at or near the disposal sites proposed for use in this project.

Evaluation and Testing [Subpart G]:

1. General evaluation of dredged or fill material [230.60] The material to be disposed is predominantly fine material (silt). The areas to be dredged have been tested in accordance with DMMP guidelines and all material was found suitable for open water disposal.

2. Chemical, biological, and physical evaluation and testing [230.61] Sediment sampling occurred within the navigation channel in August 2020 to determine suitability of sediments for open water disposal. Chemical concentrations in all dredge prism composite samples were below the DMMP marine screening levels. The DMMP agencies have concluded that all characterized material from Tokeland, Bay Center, and Nahcotta Federal project sub-areas and the Bay Center access channel are suitable for unconfined open water or flow-lane disposal in Willapa Bay. These results may also be used to support additional maintenance dredging within the characterized dredging prisms and the appropriate recency period if there are no significant changes to the project scope or new contaminant sources identified.

The sediment to be exposed by dredging must either meet the State of Washington Sediment Management Standards or the State's Antidegradation Standard as outlined by DMMP guidance. Concentrations of all DMMP chemicals of concern were below the DMMP screening levels, and there is no reason to believe that a new exposed surface would be contaminated relative to the overlying materials; therefore, this project is in compliance with the State of Washington Antidegradation Standard.

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. Flow lanes within Willapa Bay have historically been used for disposal of dredged material as this follows the natural sediment transport pattern of the bay. The location and timing of the discharge has been planned to minimize effects to organisms using the estuarine habitat.

2. Actions Concerning the Material to be Discharged [230.71] No treatment substances nor chemical flocculates would be added to the materials before disposal.

3. Actions Controlling the Material After Discharge [230.72] The dredged material would not be controlled following discharge at the disposal sites.

4. Actions Affecting the Method of Dispersion [230.73] The disposal sites have been selected to use currents and sediment transport patterns to predict the direction of dispersion of 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] The timing of the proposed discharge operations would minimize the potential for adverse effects to animal populations, particularly juvenile salmonids and forage fish species. Changes to habitat conditions such as substrate would have temporary effects to organisms but would not result in the establishment of undesirable predators or invasive species as dredged material is anticipated to be carried out through the flow lane.

7. Actions affecting human use [230.76] The discharge would not result in damage to aesthetic 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 assure 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 Washington State Department of Ecology 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 (SHPO), and other parties and has determined that no historic properties would be affected by the planned undertaking (in a letter dated 2 January 2024, the Washington SHPO concurred with this determination). 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 maintenance work 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)] Not Applicable.

8. Activities Affecting Coastal Zones [320.4(h)] The proposed work complies with the shoreline use regulations specified in the Pacific County Shoreline Master Program, which was most recently revised in 2023.

9. Activities in Marine Sanctuaries [320.4(i)] Not applicable.

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

a. National Environmental Policy Act. An Environmental Assessment (EA) has been prepared 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 submitted a BA for the proposed maintenance dredging in Willapa Bay to NMFS and USFWS. USACE determined that the proposed action "may affect but is not likely to adversely affect" affect bull trout, lower Columbia River Chinook salmon, Willamette River Chinook salmon, Columbia River chum salmon, Pacific eulachon, North American green sturgeon, and the SRKW. USACE determined there would be no effect for all other species that could occur in the area. The NMFS replied on 20 November 2023 (NMFS No. WCRO-2023-02148) and concurred with USACEs' determinations. In addition, the NMFS concurred with USACE that that the Federal Action may affect but is not likely to adversely affect the sunflower sea star because the scarcity of these species suggests that exposure to project effects would be discountable. The USFWS replied on 19 March 2024 (FWS/R1/2022-0012255) and concurred with USACE's conclusions that the proposed action may affect but is not likely to adversely affect bull trout.

c. Clean Water Act. USACE must demonstrate compliance with the substantive requirements of the Clean Water Act. This document records the USACE's evaluation and findings regarding this project pursuant to Section 404 of the Act. USACE would provide a Joint Aquatic Resources form and other supporting documents as the basis for requesting a Section 401 Water Quality Certification from the Washington State Department of Ecology. USACE would 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. The USACE has prepared a Coastal Zone Management Act Consistency Determination for the Willapa Bay Federal navigation channel maintenance project. This evaluation established that the proposed work complies with the policies, general conditions, and general activities specified in the Pacific County Shoreline Management Master Plan to the maximum extent practicable. The proposed action is thus considered consistent with the State of Washington Shoreline Management Program.

e. Marine Protection, Research, and Sanctuaries Act. This project does not include the dumping of dredged material into the territorial sea of the U.S. The open water disposal sites are located within the coastal waters. Additionally, the

dumping would not unreasonably degrade or endanger human health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities.

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 reviewed the proposed action and conducted an analysis in accordance with Section 106 of the NHPA's implementing regulations at 36 C.F.R.§ 800. USACE does not anticipate impacts to cultural resources. On 27 December 2023, USACE submitted its Determination and Findings of No Historic Properties Affected in a letter to SHPO. SHPO responded and concurred with USACEs' determination on 2 January 2024, with the stipulation for an unanticipated discovery plan.

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 (FWCA) Report is not required for the proposed disposal 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 purpose of this project is to return navigation channels to their authorized depth, which would improve safe navigation within Willapa Bay.
16. **Environmental benefits [320.4(p)]** No substantial benefits to the environment have been identified as part of this proposed work.
17. **Economics [320.4(q)]** The economic benefits of the proposed action are important to the local and regional economies. USACE has determined that this project is economically justified.
18. **Mitigation [320.4(r)]** Potential effects of disposal operations would be avoided and minimized through implementation of approved in water work windows and BMPs. No compensatory mitigation is authorized for the project.

Appendix C - Best Management Practices for Impact Avoidance and Minimization

To 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 for each dredge location (July 16 to September 30 for Palix River and Bay Center, July 16 to February 15 for Tokeland, July 16 to February 1 for Nahcotta), which would avoid peak movement of salmonids and spawning forage fish.
b. Project will be limited to specific authorized dimensions and would be executed within the authority for the project.
c. Maintenance dredging will be conducted based on the results of site-specific hydrographic condition surveys conducted for each dredging event.
d. A clamshell dredge will be used to minimize the possibility of entraining or otherwise harming federally-listed species.
e. A suitability determination will be issued for the sediment disposal at open water sites following DMMP protocols for sediment disposal and places material at the appropriate designated disposal sites.
f. The dredging projects will be coordinated with the local Indian Tribes Chinook Indian Nation, Confederated Tribes of the Grand Ronde Community of Oregon, Shoalwater Bay Indian Tribe of the Shoalwater Bay Indian Reservation, Quinault Indian Nation, and the Confederated Tribes of the Chehalis Reservation) prior to the start of dredging.
g. Clamshell dredging operations will be conducted in a manner that minimizes spillage of sediments from the dredge bucket and transport barge.
h. Clamshell buckets will be raised and lowered through the water column at a slow rate to minimize turbidity increases if monitoring results indicate it is needed to avoid an exceedance.
i. Once the material is removed, the material will not be dumped back into the water except into an appropriate disposal site.
j. Barges used to transport the dredged material to the disposal or transfer sites will not be filled beyond 80 percent of their capacity and would completely contain the dredged material.
k. 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.
l. Equipment used near and in the water will be cleaned prior to operations.
m. The contractor will take care to prevent any petroleum products, chemicals, or other toxic or deleterious materials from construction equipment and vehicles from entering the water.