Tillamook County Department of Community Development
1510-B Third Street. Tillamook, OR 97141 | Tel: 503-842-3408 Fax: 503-842-1819
www.co.tillamook.or.us

PLANNING APPLICATION

OFFICE USE ONLY
Date Stamp
☐Approved ☐Denied
Received by:
Receipt #:
Fees:
Permit No: 851-___-_____-PLNG

Applicant ☐ *(Check Box if Same as Property Owner)*

Note: The Corps owns one of four parcels in the staging and construction area. The remaining three parcels are owned by Tillamook County.

Name: USACE – Portland District Phone: 503-808-4389

Address: 333 SW 1st Avenue

City: Portland State: OR Zip: 97204

Email: Christopher.m.page@usace.army.mil

Property Owner

Name: Tillamook County Phone:

Address: 201 Laurel Avenue

City: Tillamook State: OR Zip: 97141

Email:

Request: Please sign the LUCS form confirming that proposed Tillamook South Jetty Repairs are compatible with local land use provisions. The Corps will submit the signed LUCS with its application for Water Quality Certification from the State.

Type I

- ☐ Beach and Dune Hazard Report Review
- ☐ Extension of Time Review
- ☐ Final Plat Approval
- ☐ Geologic Hazard Report Review
- ☒ Land Use Compatibility Statement
- ☐ Land Use Verification Letter
- ☐ Preliminary Plat Time Extension
- ☐ Replacement Dwelling in Resource Zone
- ☐ Review for Dwelling in Resource Zone

Location:

Site Address: Tillamook South Jetty

Township	Range	Section	Tax Lot(s)
1N	10W	1N10000005790 (Federal) 1N10000005780 (County) 1N10290000100 (County) 1N1031D000100 (County)	

Clerk's Instrument #: _____

Authorization

This permit application does not assure permit approval. The applicant and/or property owner shall be responsible for obtaining any other necessary federal, state, and local permits. The applicant verifies that the information submitted is complete, accurate, and consistent with other information submitted with this application.

Property Owner Signature (Required) Date

Applicant Signature 2 June 2022 Date

US Army Corps
of Engineers ®
Portland District

LAND USE COMPATIBILITY STATEMENT: SUPPLEMENTAL MATERIALS

TILLAMOOK SOUTH JETTY REPAIRS

U.S. Army Corps of Engineers
Portland District, Portland, OR

MAY 2022

TABLE OF CONTENTS

1. Description of the Activity

1.1 Introduction

Tillamook Bay is located on the Oregon Coast near the city of Garibaldi in Tillamook County, Oregon, approximately 47 miles south of the confluence of the Columbia River with the Pacific Ocean (Figure 1). It provides a harbor to a water-dependent economy for local communities and the state and is an important biological resource as the third largest bay in Oregon.

The U.S. Army Corps of Engineers, Portland District (the Corps) originally constructed, and currently maintains, two jetties at the entrance of Tillamook Bay – the North and South Jetty –which allow for reliable navigation into and out of the bay. The Corps completed a Major Maintenance Report (MMR) in 2003 to document long-term damage to both jetties and to provide a design for necessary repairs. Repairs to the North Jetty began in January 2022. Repairs to the South Jetty are a separate construction project and necessary to stabilize the structure. Ocean wave conditions over the ebb tidal shoal are hazardous due to remnant jetty stones that lie adjacent to the natural channel.

1.2 Project Purpose and Need

The purpose of the Proposed Action is to restore the structural integrity of the Tillamook South Jetty and improve the function of the navigation channel. This action is needed to prevent further deterioration of the navigation channel. The South Jetty has a total length that is approximately 1,050 feet shorter than the authorized footprint (Figure 2), and the head is severely damaged with an estimated recession rate of ~28 feet per year. As with the North Jetty, there has also been erosion of the jetty trunk. Under the Proposed Action, repair activities would consist of two main components at the South Jetty: trunk repairs and construction of a 100-foot cap to repair the South Jetty head.

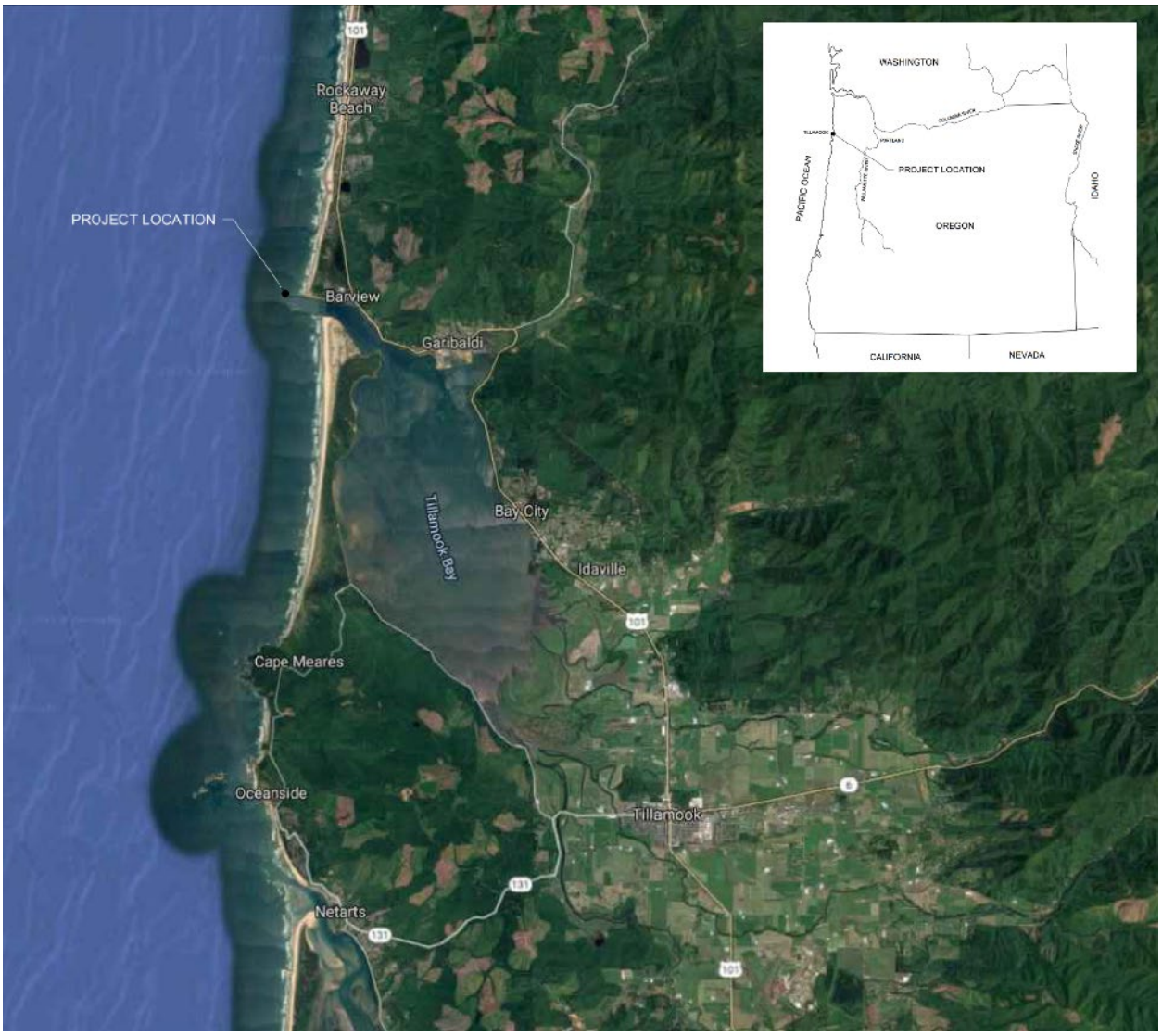

Figure 1. Project Vicinity

Figure 2. Existing Condition of the Tillamook South Jetty Head

1.3 Project Overview

Tillamook South Jetty repairs include rock placement at the South Jetty head and trunk. Related construction activities include construction of a temporary MOF near Kincheloe Point; channel dredging to maintain access to MOF; minor improvements to Bayocean Dike Road; and utilization of two upland staging and stockpiling areas (Figure 3). The full size of the MOF (including access dredging) would be 3.6 acres, with additional upland impacts estimated at 3.7 acres. The Contractor will ultimately decide on the means and methods for construction, within the constraints outlined above. Given uncertainty about which features will be implemented to facilitate site access, this application assumes a temporary MOF, which requires pile driving, would be constructed to accommodate barge operations. All temporary features will be removed upon project completion, with areas restored to pre-construction conditions.

Specific Location:

Barview, Tillamook County, Oregon.
Tillamook Bay, River Mile 1
Section(s) 18 of Township 1N, Range 10W
Latitude: 45. 565500 Longitude: -123.948983

Construction start date is planned for Fall 2022 and the repair work would take approximately two consecutive construction seasons to finish.

Figure 3. Proposed Action Elements

1.4 Project Elements

1.4.1 South Jetty Repairs

The majority of jetty repairs would occur from STA 70+00 westward. Additional repairs to the jetty trunk between Stations 43+00 and 49+00 are also planned. The jetty cap will be from STA 77+00 to 77+75 to elevation +18 feet NAVD88. Final jetty head stationing at the South Jetty would be 77+75. From the final head station centerline, the end of the jetty will be built out in a 20-foot radius to elevation +18 feet NAVD88. The crest width of the jetty cap would be 40 feet. The crest width of the jetty trunk would be 30 feet with a target crest elevation of +18 feet NAVD88 (Figure 4). The average stone density would be approximately 176 lbs/ft3, and the total quantity of stone required for the Proposed Action is estimated at 31,000 cubic yards (~76,000 tons) at the South Jetty.

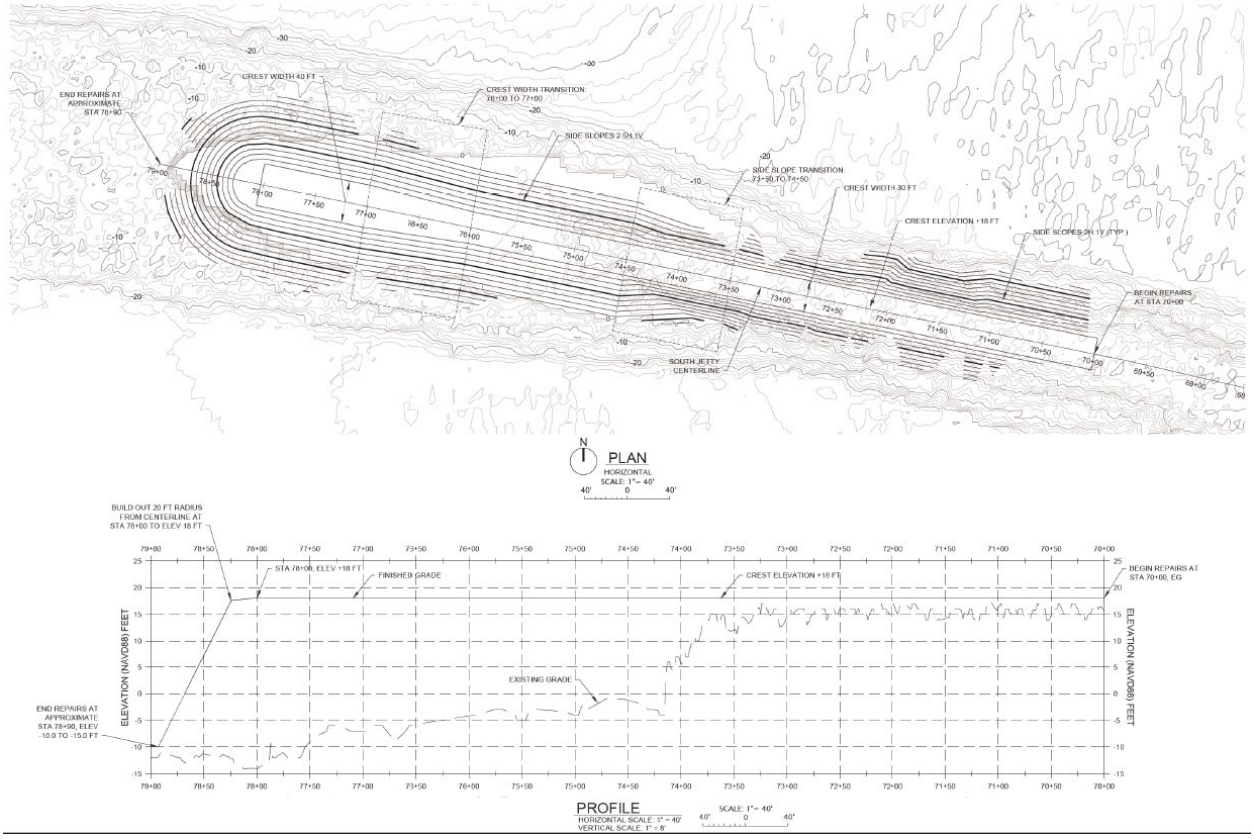

Figure 4. Plan View of Tillamook South Jetty

1.4.2 Site Access and Haul Roads

The South Jetty will be accessed via the water, by a propelled barge (or similar watercraft), or through county lands using existing roads. Ocean barging is anticipated to be the primary method of material and equipment transport to the site. Bayocean Dike Road (Figure 3) would only be used for workers and smaller construction vehicles to access staging areas and work sites. Prior to construction, this road would be improved to facilitate the necessary level of construction traffic. Specific details and locations of road improvement actions would depend on the condition of the road at the start of construction, but would likely include scraping/grading, gravel placement, and compaction. Turnouts would be constructed, as needed along the eastern side of the road to minimize encroachment upon existing wetlands. Some removal of vegetation adjacent to the road could be necessary, and vegetation removal would be minimized to the maximum extent practicable. All road improvements and turnouts would avoid wetlands and Waters of the U.S. to the maximum extent practicable, and only minimal maintenance of weedy and encroaching vegetation would be necessary. Should contractors be unable to maintain a 50-foot buffer, silt fencing, straw waddles, hardened or other temporary barriers will be installed to prevent unintentional wetland fill.

1.4.3 Staging

Jetty repairs and associated construction elements require areas for equipment and supply staging and storage, parking areas, access roads, scales, general yard requirements, and jetty stone stockpile areas. There would be one primary staging area adjacent to the South Jetty trunk and a smaller staging area near the MOF (Figure 4).

The up to 27 acres identified for staging at the South Jetty are undeveloped, consisting of sparsely vegetated sand. This area may be cleared of vegetation and graded by pushing the sand to create a level surface. Excess sand moved from the area could be formed into berms around the perimeter of the staging area, as feasible. Following grading, the staging area could then be stabilized with gravel to provide a base that can support the jetty stone. The specifics of permissible work within Designated Critical Habitat (DCH) for western snowy plover (WSP) will be coordinated with U.S. Fish and Wildlife Service (USFWS). At a minimum, all gravel, rock, and otherwise non-sand materials placed within the WSP critical habitat boundary beyond any existing roads would be fully removed upon project completion. A haul road would likely be constructed through the center of the South Jetty storage area. A berm may also be built from on-site material along the existing jetty root alignment and along the eastern edge of the storage area to prevent a water runnel along the low portion of the jetty toe. Any mature trees and wetlands within storage areas to be protected and avoided in order to preserve cultural resources or prevent unauthorized fill activities will be flagged or otherwise marked with a 50-ft buffer.

1.4.4 Temporary Material Offloading Facility

A temporary MOF is needed to transfer jetty rock from barges to shore at the South Jetty. The MOF provides moorage for barges and a structure for crane support. The preferred location of the MOF is on the south side of Kincheloe Point, on the site of a former MOF staging area, as shown in Figure 3. Detailed design of the MOF would be completed closer to the time of construction. The discussion in this section is based on general assumptions about likely design elements.

Construction of the MOF would result in temporary effects to aquatic and upland habitat. While precise impacts would not be known until the MOF has been designed, based on an MOF built for a similar project (The Coos Bay North Jetty Maintenance project), it is estimated that temporary impacts below the high tide line (HTL) would be limited to 0.14 acres. The full extent of the MOF and associated access dredging would be approximately 3.6 acres, with an additional 3.7 acres of upland disturbance associated with the MOF staging area.

In order to allow fully loaded barges to access the MOF, dredging would occur prior to the construction of the platform. Based on the conditions at the preferred MOF location, it is conservatively estimated that no more than 5,000 cubic yards of material would be dredged. The barge route from the main channel to the MOF will be sited to avoid potential adverse indirect effects to eelgrass to the maximum extent practicable (Figure 5). Measures outlined under Section 3 of this document will further minimize potential indirect effects to eelgrass.

1.4.5 Post-Construction Site Restoration

Following completion of the South Jetty repairs, all equipment, construction materials, gravel, rock, and otherwise not sand materials will be removed from the ~20-acre primary staging area. The 20 acres will be graded as flat as possible and left free of vegetation. No seeding will occur at this site and will be allowed to grow vegetation naturally. There are three areas adjacent to and towards the west (ocean side) of the 20-acre staging area that will be bladed to improve habitat for WSP (See Figure 6). The three areas were once prime habitat for WSP but have over time has changed to tall dune areas with dense dune grass. The Corps is in active ESA consultation with USFWS and the total area identified for habitat improvement within WSP DCH has yet to be determined.

Most of the gravel haul road will be left in place. The Corps is in consultation with USFWS and the ultimate fate of material placed to restore the road washout area through WSP DCH has yet to be determined.

At the MOF, the platform would be removed once jetty repairs are complete and the MOF is no longer needed. All pilings (e.g., steel sheets, pipe piles, and H-piles) would be removed and any rock or other non-sand fill material placed in water would be removed. Small rock and gravel removed from the MOF site would be place along Bayocean Dike Road or the haul road between the MOF and South Jetty (outside of WSP critical habitat) to add to their stability and improve road surfaces. The upland storage area associated with the MOF will be left in a flat and graded condition. Chain-linked fencing would be installed around any storage area(s) for longer-term use and fencing maintained to deter predators from establishing in the interstitial rock spaces.

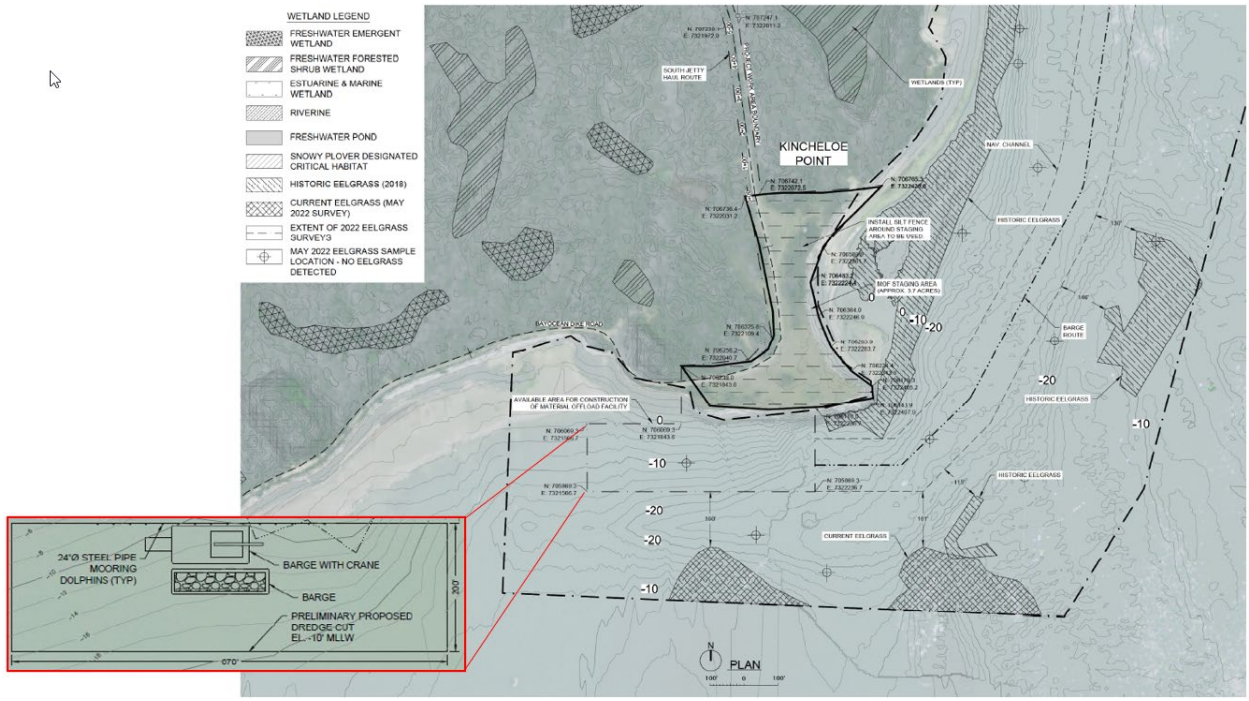

Figure 5. Tillamook South Jetty Material Offload Facility

2. Construction Timeline and Duration

The Corps anticipates commencing work in Fall 2022, with pile driving for the MOF starting between November 2022 and February 2023. Pending jetty construction progress, deconstruction of the MOF is not anticipated to commence any earlier than November 2024.

Construction activities would be limited by the following timing considerations:

- Stone, gravel, and equipment delivery adjacent to Western snowy plover (WSP) habitat will adhere to any terms and conditions included in the final USFWS Biological Opinion (BiOp) to minimize potential take of this species, currently listed as threatened under the Endangered Species Act (ESA).
- Barge delivery of jetty stone and equipment to the MOF would occur year-around, if possible, but would most likely occur April through October when sea conditions are less severe.
- Transportation and delivery of armor stone from the MOF Staging Area to the South Jetty could occur year-round.
- The placement of jetty stone could occur year-round. This is unlikely given winter safety concerns. Using a placement rate of approximately 800 tons/day, stone placement at the South Jetty would take just under 150 working days. Winter weather conditions would likely result in most of the work being completed between April 1 to October 15. Work at the more exposed jetty sections (i.e., the head) would likely occur between June 1 and October 15. Work would extend as long as possible to minimize the length of construction, but may be limited, as described, due to safety concerns.
- Other in-water and shoreline work elements (e.g., MOF-related construction) will be coordinated with NMFS and USFWS to minimize potential impacts to listed and protected species, while accounting for site conditions that may limit construction during certain timeframes.
- In-water construction would consist of placing stone in the footprint of the originally constructed South Jetty and construction of a temporary barge offload facility
    - Pile installation to construct the MOF would take no longer than 1 month. Deconstruction of the temporary MOF is estimated to take fewer days and again, persist for no longer than a month.
    - The maximum duration of in-water pile-driving work is approximately 2 months total over the life of the project

3. Conservation Measures

Conservation measures and best management practices (BMPs) for the Proposed Action avoid and minimize the potential for adverse effects to physical and biological resources.

3.1 Upland Work

- Conservation measures and BMPs to reduce the environmental footprint and to avoid and minimize impacts on upland areas and significant cultural resources would be incorporated in the Proposed Action design and would be implemented during construction. The following conservation measures and BMPs would be implemented during construction in upland areas as needed.
- Staging areas, stockpiles, and most of the MOF would remain above the Mean Higher High Water (MHHW) mark and would be sited to minimize adverse effects to wetlands, habitats identified as having higher ecological value, and any locations identified as having significant cultural resources. Silt fencing and other hardened temporary barriers will be placed to protect wetlands, as appropriate, when a 50-foot barrier cannot be maintained.
- There will be no widening of Bayocean Dike Road and roadway improvements would be limited to turnouts (up to 15-foot width and 50-foot length) to accommodate safe passage of vehicles, and potential gravel placement and grading to improve surface conditions where needed. There is no proposed permanent fill of wetlands along roadways and turnouts are sited to avoid these areas to the maximum extent practicable. Hardened wetland protection measures would be installed on both sides of the road in cases where the roadway has abutting wetlands on both sides. Roadway improvements would also avoid any locations identified as having significant cultural resources. Turnouts were placed where wetlands and significant cultural resources are not present. The MOF would be used to transport larger vehicles and equipment that cannot use Bayocean Dike Road due to width constraints.
- Ground disturbance and removal of native vegetation, especially trees and shrubs, would be kept to a minimum, as feasible.
- Before alteration of the Action Area, the project boundaries would be flagged. Sensitive resource areas, including areas below MHHW, any nearby wetlands (i.e., next to the access road, staging area, and MOF), trees to be protected, significant cultural resource locations, and sensitive plover habitat would be flagged. Construction or silt fencing, or something functionally equivalent, would encircle much of the construction areas, staging area, and MOF. Plover habitat along the western edge of the primary South Jetty storage area would be clearly marked and avoided.
- Temporary erosion controls would be in place before any alteration of the site. With the exception of WSP DCH, disturbed areas would be seeded and/or covered with coir fabric at the completion of ground disturbance to provide immediate erosion control. Erosion control materials (e.g., silt fence, straw bales) would remain on-site at all times during active construction and disturbance activities. If needed, these measures would be maintained on-site until permanent ground cover or site landscaping is established, and reasonable likelihood of erosion has passed. When permanent ground cover and landscaping is established, temporary erosion prevention and sediment control

measures, pollution control measures, and turbidity monitoring equipment would be removed from the site, unless otherwise directed.

- An Erosion and Sediment Control Plan (ESCP) would outline facilities and BMPs that would be implemented and installed prior to any ground-disturbing activities on the project site, including mobilization. These erosion controls would prevent pollution caused by surveying or construction operations and ensure sediment-laden water do not leave the project site, enter Tillamook Bay, or impact aquatic and terrestrial wildlife.
- Training would be provided to construction workers and equipment operators on the identification of weeds to be avoided.
- All construction material sources used for supplies of sand, gravel, rock, and mulch would be certified as weed-free prior to transport or use.
- Certified weed-free straw or fiber roll logs would be used for sediment containment.
- All vehicles would be completely washed (or blown clean using an air compressor) and inspected for weed seeds and plant parts prior to mobilization onto the job site or after entering weed-infested areas of the job site.
- All revegetation materials (i.e., soil components and mulches) would be obtained from non-weed infested sources. Seed procured for the project would be certified as noxious weed-free with a weed content of 0.05 percent or less.
- Site revegetation will use plant materials with a high likelihood of survival and consist of regionally native species.

3.2 In-water or Near-water Work

- Prior to the commencement of construction operations, the Corps would coordinate the work schedule with the local port, the U.S. Coast Guard (USCG), and Tillamook County.
- Dredging for the MOF and placement of material for the MOF would occur between July 15 and March 15 to avoid the peak timing for juvenile coho salmon outmigration.
- The designated MOF areawas sited to avoid direct impacts to eelgrass during dredging and/or construction.
- Only mechanical dredging would be permissible, and dredges would be operated to limit dredge spillover.
- The scope and duration of dredging would be limited to the minimum area and amount of time needed to achieve project purposes.
- Placement of jetty stone could occur year-round. However, winter weather conditions would likely result in most of the work being completed between April 1 and October 15, with work at the more exposed jetty sections likely occurring between June 1 and October 15. Work would extend as long into the fall as possible to maximize the length of the construction period but may

be limited due to safety concerns.

- Other in-water and shoreline work elements (MOF-related construction [i.e., pile driving] and eventual removal) would be completed between July 1 and August 31 or the regular in-water work window for Tillamook Bay (November 1 to February 15), consistent with the NMFS ESA coordination for this project.

- To minimize water turbidity and the potential for entrainment of organisms during dredging for the MOF, the clamshell bucket or head of the dredge would remain on the bottom to the greatest extent possible and only be raised 3 feet off the bottom when necessary for dredge operations.

- If the Captain or crew operating the vessels observes any kind of sheen or other indication of contaminants, they would immediately stop their activities and notify the USCG and the Corps environmental staff to determine the appropriate action.

- Contractors will not release any trash, garbage, oil, grease, chemicals, or other contaminants into the waterway. Spill prevention measures shall be in place prior to and during construction activities.

- The Corps works to meet state water quality standards. Water turbidity - no more than10% cumulative increase in natural stream turbidities may be allowed, as measured relative to a control point immediately upstream of the turbidity causing activity. However, limited duration activities necessary to address an emergency or to accommodate essential dredging, construction, or other legitimate activities and which cause the standard to be exceeded may occur provided all practicable turbidity control techniques have been applied. See Oregon Administrative Rules (OAR) 340-041-0036. For jetty work activities, turbidity levels will be monitored via visual observations to identify any adverse detectable change in water quality. A hand-held turbidity meter will be deployed and used during MOF dredging and fill activities.

3.3 Emergency Response

In the event of an emergency response, a Corps Government Quality Assurance Representative will be on-site or available by phone at all times throughout construction. Emergency erosion/pollution control equipment and BMPs will be maintained onsite at all times; Corps staff will conduct inspections and ensure that a supply of sediment control materials (e.g., silt fence, straw bales), hazardous material containment booms, and spill containment booms are available and accessible to facilitate the cleanup of hazardous material spills, if necessary. In the event of spill or leak, appropriate response and reporting requirements will be implemented per state and federal requirements.

3.4 Hazardous Material

A description of any regulated or hazardous products or materials to be used for the Proposed Action, including procedures for inventory, storage, handling, and monitoring, will be kept on-site. Regulated or hazardous products will be appropriately stored according to the manufacturer’s directions and regulatory requirements. Fuels or toxic materials associated with

equipment will not be stored or transferred near the water, unless in a confined container. Equipment will be fueled and lubricated only in designated refueling areas at least 150 feet away from the MHHW, except in a confined barge or when in-place via the Wiggins fast fuel system, or an equivalent.

3.5 Spill Containment and Control

A spill prevention and control plan (SPCP) describing spill containment and control procedures will be kept on-site, and include notification to proper authorities, specific cleanup and disposal instructions for different products, quick response containment and cleanup measures that will be available on the site, including a supply of sediment control materials, proposed methods for disposal of spilled materials, and employee training for spill containment. Generators, cranes, and any other stationary power equipment operated within 150 feet MHHW will be maintained as necessary to prevent leaks and spills from entering the water. Vehicles/equipment will be inspected daily for fluid leaks and cleaned as needed before leaving staging and storage area for operation within 150 feet of MHHW. Any leaks discovered will be repaired before the vehicle/equipment resumes service. Equipment used below MHHW will be cleaned before leaving the staging area, as often as necessary to remain grease-free.

4. Oregon Statewide Planning Goals and the Tillamook County Comprehensive Plan

Goals and policies regarding the use and conservation of land and resources in Tillamook County are set forth in the Tillamook County Comprehensive Plan (TCCP) and consistent with Statewide Planning Goals (SWPG) set to protect land and water resources throughout the state. While the Corps' primary goal is to demonstrate the Proposed Action's compatibility with local policies with a direct nexus to water quality, we also outline (in **blue** text) compatibility with additional land use policies that may be applicable to the action.

4.1 SWPG and TCCP Goal 6 – Air, Water and Land Resources Quality

TCCP/SWPG Goal 6 is *"To maintain and improve the quality of the air, water and land resources of the state."*

The TCCP (Tillamook County, 2006a) identifies the following policies under the more broadly specified goal above. We outline the polices, categorized by resource area, and address proposed measures to be implemented as part of the Project that are compatible with stated polices. Many of the listed County policies are not applicable to the Proposed Action and will not be addressed in this compatibility determination.

Air Quality

a. Tillamook County shall include in its land use standards and regulations requirements that federal and state air quality standards be met.

The Proposed Action would result in the release of criteria pollutants from operation of construction equipment. Dust levels could increase temporarily from construction activities but would not result in

substantial increases in regional pollutant levels. Given the windy coastal climate, any increases in dust and emissions are not likely to result in significant adverse effects on local air quality.

The Corps used the EPA Diesel Emissions Quantifier tool to estimate the emissions associated with construction activities. To estimate the maximum level of diesel emissions, we assumed all equipment (i.e., mechanical excavator, crane, and dump trucks) were used simultaneously and continuously for 10-hour days, 5 days a week, for the construction window (approximately June-October). This resulted in estimated emissions of 568lbs of nitrogen oxide (NOx), 4lbs of particulate matter greater than 2.5 microns (PM2.5), 154lbs of hydrocarbons (HC), 232lbs of carbon monoxide, and 970,000lbs of carbon dioxide (CO2) annually. The above numbers for diesel emissions are overestimations based on a "worst case" scenario. Even with the wide assumptions, the level of diesel emissions is likely much lower when compared with the emissions from traffic along highway 101 and various marine vessels traveling in and out of the boat basin daily. The Proposed Action represents work that has been undertaken in the past and has not prevented the area from meeting National Ambient Air Quality Standards (NAAQS).

The Proposed Action Area is not located in a Nonattainment or Maintenance Area. Emissions that would occur from construction equipment during and after construction are expected to be short term and minor. All equipment would be required to meet State emission standards, and any low-level noise pollution emitted during proposed activities would be temporary and localized.

b. Tillamook County shall continue to encourage expansion of employment opportunity and new economic growth in industries offering a minimum of adverse impact on air quality.

This policy is not applicable to the Proposed Action.

Water Quality

Coliform Bacteria Levels

a. Tillamook County supports the voluntary compliance procedure through which agricultural producers can realistically be expected to meet state and national water quality goals. This procedure depends on the selection and implementation of Best Management Practices (BMPs) to solve water quality problems. A BMP is an agronomic, management or structural practice which, when used singly or in combination with other BMPs as a component of a farm water quality plan, will provide the minimum essential treatment needed to solve site-specific water quality problems. These BMPs were developed in the Tillamook Bay Drainage Plan for confinement areas, field applications and water course areas, taking into account floodplains, soils and proximity to water courses.
b. Tillamook County shall appoint a representative to serve on the agricultural pollution abatement program Evaluation Committee.
c. Tillamook County recognizes the responsibility of the Tillamook County Soil and Water Conservation district to implement a mandatory program phase if necessary, based on the recommendations of the Evaluation Committee.
d. Tillamook County encourages the continued expansion and improvement of sewage treatment facilities to serve communities within urban growth boundaries.

These policies pertaining to bacteria levels are not applicable to the Proposed Action.

Sediment Levels

a. The County supports sediment reduction as an appropriate objective for maintaining agricultural and forest land productivity, fish and estuarine production and water quality for all uses.
b. The County supports the Tillamook Bay Drainage Basin Agricultural Non-point Source Pollution Abatement Plan as a method for decreasing sediment-caused pollution problems in Tillamook Bay from agricultural lands.
c. The County generally supports the program outlined in the Tillamook Bay Sedimentation Study to achieve a 40% sediment reduction, provided that the program nearly achieving a positive cost-benefit ratio continues to be supported by up-dated economic analysis.
d. The County encourages the Soil Conservation Service in cooperation with other agencies to conduct a base-line study of sedimentation in the Nehalem basin.

Proposed site preparation, construction, and site restoration activities have the potential to cause temporary effects to water quality. Activities proposed are consistent with those described under Nationwide Permit #3 for Maintenance and, similar to other jetty projects, the Corps anticipates receiving concurrence from ODEQ prior to construction contract award. The ODEQ State 401 Water Quality Certification (WQC) will typically include general certification conditions that Corps contractors must adhere to. A Construction Stormwater General Permit (i.e., 1200-C permit) is required for upland construction activities that will disturb more than one acre and may discharge to surface waters. The Corps contractor will obtain this permit prior to initiating ground disturbance work and conditions of that permit will be adhered to during construction activities. The Corps would also require its contractor to provide an ESCP that includes measures to minimize impacts to water quality from staging, construction, and restoration activities.

For all proposed activities, the risk of adverse water quality impacts would be minimized through the implementation of appropriate construction BMPs as detailed under Chapter 3 of this document. With the spill plan and BMPs in place, impacts to water quality under the Proposed Action are anticipated to be minimal.

Water Temperature

- The County shall regulate the removal of riparian vegetation as the best means of improving or maintaining water temperature levels for beneficial uses of surface waters.

No riparian vegetation removal is proposed as part of proposed South Jetty repairs.

Deficient Streamflows

- The County shall support the program of the State Water Policy Review Board and the Department of Water Resources in setting and maintaining minimum flow levels for streams in Tillamook County.

This policy is not applicable to the Proposed Action.

<u>Solid Waste Disposal</u>

a. Tillamook County will continue to operate its sanitary landfill facility in accordance with state and federal standards to dispose of solid waste in the County.
b. Recycling of materials and resources will continue to be encouraged by the County as part of its solid waste disposal program.
c. Establishment of a steam electric power generating facility utilizing burnable material at the County's sanitary landfill facility shall be pursued by the county if found to be practical and economically feasible.

These policies pertaining to bacteria levels are not applicable to the Proposed Action.

Noise Control

- Tillamook County shall continue to support and cooperate with state and federal programs of noise control.

In-air Noise

Construction equipment (excluding pile drivers) such as tugs and overland vehicles related to the Proposed Action could produce in-air sound levels up to 86 dBA (WSDOT 2018) and increase surrounding in-air sound levels. The loudest anticipated in-air noise levels would occur during pile driving and could reach approximately 110 dBA for any necessary impact pile driving (WSDOT 2018). Pile driving to construct the MOF is anticipated to take up to 18 days over the course of a month. Deconstruction of the temporary MOF upon completion of the proposed jetty repair is estimated to take an additional 13 days, with comparable levels of in-air noise generated. This would be a temporary increase in in-air sound, which would attenuate to estimated ambient levels (70 dBA) within approximately 1 mile.

During periods of poor visibility, foghorns are mandated aids to navigation, which produce an omnidirectional intermittent sound to warn approaching vessels of a barge's location during periods of poor visibility. The foghorn must meet USCG requirements and can reach levels of about 84 to 120 dBA (FTA 2006). In-air sound from a barge's foghorn can be quite loud and could disturb local residents during placement activities. The Corps has received complaints in the past. These disturbances are temporary and are necessary to protect the safety of other boaters within the Proposed Action Area and Corps barge crew during in-water activities.

In-water Noise

Project activities would result in increases in underwater noise levels associated with dredging, barge and other vessel movement, and placement of stone beneath the water line. The primary underwater noise source would likely be the installation of piles for the temporary off-loading platform. Pile driving noise would be intermittent and could temporarily disturb marine mammals. A vibratory driver is the preferred means for pile installation to minimize potential adverse effects to marine mammals and fish. However, impact driving may be required for steel pipe piles if vibratory means prove infeasible. For any impact driving, a confined bubble curtain will be used to reduce in-water sound. Estimated in-water sound pressure levels will vary by pile type as follows: up to 177 dBpeak for vibratory driving steel sheets (NZ, AZ, PZ, or SCZ type); up to 165 dBpeak for vibratory driving H-piles; approximately 161 dBRMS for vibratory driving steel pipe piles; and up to 198 dBpeak for impact driving pipe piles. Deconstruction of the temporary MOF would include only vibratory pile

removal with similar levels of in-water noise, but over fewer days. Underwater noise from placement of stone on the South Jetty is expected to be similar to ambient noise associated with the marine surf. Increases in underwater noise associated with project activities would occur intermittently during the 2-year active construction period and would return to baseline levels following the completion of the project.

4.2 SWPG and TCCP Goal 16 – Estuarine Resources

SWPG Goal 16 is *"To recognize and protect the unique environmental, economic, and social values of each estuary and associated wetlands; and to protect, maintain, where appropriate develop, and where appropriate restore the long-term environmental, economic, and social values, diversity and benefits of Oregon's estuaries."*

In Tillamook County, Goal 16 is largely met through the Tillamook County Comprehensive Plan (TCCP). Goal 16 of the TCCP (Tillamook County, 2006b) reiterates the goal of the SWPG. The area between the Tillamook jetties falls within the EC2 (Estuary Conservation2) Management Unit. The TCCP classified this as an area needed for recreational and aesthetic uses. The channel itself is recognized as a feeding and passage area for seals, birds, fish and crabs. Jetty construction is listed as a historical alteration. The TCCP recognizes the navigational interests and public access to the water facilitated by the jetties, with some public use of the South Jetty by way of Bayocean Dike Road. Construction of the Tillamook South Jetty is listed in the TCCP as a historical alteration that led to the accretion of sand at the northern tip of Kinchloe Point that has ultimately created tide flats north and west of the Point (i.e., part of the 5EN (Estuary Natural) Management Unit). The jetties were also instrumental to creating the intertidal flats and marsh areas of Management Unit 1EN.

Jetty maintenance is also crucial to the federally authorized navigation channel which represents a significant portion of the area in the Development management units. The Tillamook Dredged Material Disposal Plan outlined in the TCCP acknowledges that jetty restoration work has significantly decreased the dredging needs in the entrance channel.

In summary, The Corps' maintenance of the Tillamook jetties ensures that the uses and functions articulated in the TCCP are retained and is also consistent with Goal 16 of the SWPG.

4.3 SWPG and TCCP Goal 17 – Coastal Shorelands

SWPG Goal 17 is *"To conserve, protect, where appropriate, develop and where appropriate restore the resources and benefits of all coastal shorelands, recognizing their value for protection and maintenance of water quality, fish and wildlife habitat, water-dependent uses, economic resources and recreation and aesthetics. The management of these shoreland areas shall be compatible with the characteristics of the adjacent coastal waters; and to reduce the hazard to human life and property, and the adverse effects upon water quality and fish and wildlife habitat, resulting from the use and enjoyment of Oregon's coastal shorelands."*

The purpose of the proposed Project is to protect water-dependent uses and economic resources, and to minimize adverse effects to navigation. Four basic industries were referenced under Goal 17 (Coastal Shorelands) of the TCCP (Tillamook County, 2006c): timber and wood-processing; cheese manufacturing and related dairy industry; recreation and tourism; and marine food production. Safe navigation and transport through the Tillamook entrance channel is essential to most of these industries. The channel

functionality, adjacent shoreline habitats, and dredging needs are all affected by the jetty structures. Maintenance and repair of the South Jetty is critical to keeping the river open and to sustaining important navigation components of the local and state economy.

4.4 SWPG and TCCP Goal 18 – Beaches and Dunes

SWPG Goal 18 is *"To conserve, protect, where appropriate develop, and where appropriate restore the resources and benefits of coastal beach and dune areas; and to reduce the hazard to human life and property from natural or man-induced actions associated with these areas."*

South Jetty repairs proposed as part of this action will help stabilize, and possibly even accrete more sand along the shoreline north of the jetty. These benefits are consistent with the goals outlined in Goal 18, as rehabilitating the jetty structure would conserve and protect coastal beach and dune areas that are important for wildlife and support recreational opportunities.

Construction access and staging planned for the area directly adjacent to the South Jetty is consistent with Goal 18 of the SWPG and TCCP (Tillamook County, 2006d). The draft EA to be completed for this work will include a consideration of potential adverse effects onsite and in adjacent areas; stabilization; implementing methods to minimize effects to surrounding areas; and potential hazards. The BMPs outlined in Chapter 3 of this document outline specific measures demonstrating consistency with these policies. In addition, no permanent buildings, foredune breaching, or sand removal is proposed as part of South Jetty repairs, consistent with TCCP Goal 18, Sections 2.4f, 2.4g, and 3.3b. There will be some grading to facilitate storage and staging adjacent to the South. However, staging areas will be restored to pre-construction conditions or improved for Western snowy plover once repairs are completed.

Section 4.4f under Goal 18 of the TCCP prohibits shorefront protective structures from restricting public access. However, the jetties are navigational aids that are not intended for public use due to significant safety concerns. With regard to public beach access, construction activities will prohibit public access to the staging/stockpiling areas that may currently be used for temporary parking by the public. Fencing and signage would be posted to restrict access around construction areas and minimize risks to public safety while repairs are underway.

4.5 SWPG and TCCP Goal 19 – Ocean Resources

SWPG Goal 19 is "*To conserve marine resources and ecological functions for the purpose of providing long-term ecological, economic, and social value and benefits to future generations."*

This goal requires that agencies determine the impact of proposed projects or actions. Paragraph 1(c) of Goal 19 states that agencies shall

- *Protect and encourage the beneficial uses of ocean resources— such as navigation, food production, recreation, aesthetic enjoyment, and uses of the seafloor—provided that such activities do not adversely affect the resources protected in subsection 1., avoid, to the extent possible, adverse effects on or operational conflicts with other ocean uses and activities;*
- *Comply with applicable requirements of the Oregon Territorial Sea Plan.*

According to the provisions of Goal 19 and the Oregon Territorial Sea Plan, decisions to take action are to be preceded by an inventory completed to understand potential effects of the Project on ocean resources. State and federal agencies are also required to develop "appropriate contingency plans and emergency

procedures to be followed in the event that the approved activity results in conditions that threaten to damage the marine or estuarine environment, resources, or uses."

Repair of the Tillamook South Jetty supports continued navigation into the area within and around Tillamook Bay. Commercial and recreational fishing is supported by reliable access and navigation into the Garibaldi marina, as are other waterfront-based economies (e.g., import and export, water-based tourism, ship and boat yards, etc.).

Proposed work is not anticipated to substantially affect the quality of the physical or biological environment, including coastal processes, hydrology, water quality, aquatic habitat and species, land management and use, and cultural and historic resources. The Corps will also minimize potential effects to water quality that could adversely affect ESA-listed fish by adhering to terms and conditions specified in the 2012 NMFS BiOp (SLOPES IV No. 2011/05585). Given these conservation measures and related constraints, repair of the Tillamook South Jetty will be consistent with Goal 19.

5. Tillamook County Land Use Ordinance

The County adopted the Tillamook County Land Use Ordinance (LUO) of 1981, which dictates certain land use provision and governs how zoning laws are implemented within the county. The following sections address how proposed repairs to the Tillamook South Jetty are consistent with local plans, policies, and goals. The Tillamook LUO (Tillamook County, 2015) provides further details about the estuary land use zones. Estuarine zones in Tillamook County include EN (Estuary Natural), ECA (Estuary Conservation Aquaculture), EC1 (Estuary Conservation 1), EC2 (Estuary Conservation 2), and ED (Estuary Development). The LUO identifies the following four general uses that area permitted in all estuarine zones, in order of decreasing priority:

a) Uses which maintain the integrity of the estuarine ecosystem.

b) Water-dependent uses requiring an estuarine location, as consistent with the overall Oregon Estuarine Classification.

c) Water-related uses which do not degrade or reduce the natural estuarine resources and values.

d) Non-dependent, non-related uses which do not alter, reduce or degrade the estuarine resources and values.

As discussed earlier, the Tillamook jetties likely fall within the EN zone, but their initial construction has led to the creation of new estuarine lands and uses considered under EC and ED. Maintenance of the jetty structures supports most of the uses articulated above as a precursor to safe navigation that is often required to facilitate water-dependent uses such as commercial and recreational fishing; and also as a feature of the main channel that indirectly supports and stabilizes adjacent habitats. The Corps has determined that Tillamook jetty repairs are consistent, to the maximum extent practicable, with the enforceable local policies.

6. Summary

The maintenance and repair of the Tillamook South Jetty is critical to keeping the bay open, sustaining important navigation components of the local and state economy. Proposed construction activities are compatible with local land use policies and pose no long-term adverse effects to water quality.

7. References

Corps (U.S. Army Corps of Engineers). (2003). *Tillamook North and South Jetties, Major Maintenance Report*. Garibaldi, Oregon. Portland District. December.

Department of Land Conservation and Development. (2019). *Territorial Sea Plan*. Retrieved August 21, 2021, from Oregon Ocean Information: https://www.oregonocean.info/index.php/ocean-documents/planning/territorial-sea-plan2

FTA (Federal Transit Administration). 2006. Transit Noise and Vibration Impact Assessment. FTA-VA-90-1003-06. May.

OCMP. (2021, August 21). *Enforceable Policies*. Retrieved from Oregon Coastal Management Program: https://www.oregon.gov/lcd/OCMP/Pages/Enforceable-Policies.aspx

Tillamook County. (2006a). *Goal 6 Air, Water and Land Resources Quality*. Retrieved August 21, 2021, from Tillamook County Comprehensive Plan: https://www.co.tillamook.or.us/sites/default/files/fileattachments/community_development/page/8832/goal_6_air_water_land.pdf

Tillamook County. (2006b). *Goal 16 Estuarine Resources*. Retrieved August 21, 2021, from Tillamook County Comprehensive Plan: https://www.co.tillamook.or.us/sites/default/files/fileattachments/community_development/page/8832/16estuarine_res_goal_16_complete1.pdf

Tillamook County. (2006c). *Goal 17 Coastal Shorelands Element*. Retrieved August 21, 2021, from Tillamook County Comprehensive Plan: https://www.co.tillamook.or.us/sites/default/files/fileattachments/community_development/page/8832/goal_17.pdf

Tillamook County. (2006d). *Goal 18 Beaches and Dunes Elements*. Retrieved August 21, 2021, from Tillamook County Comprehensive Plan: https://www.co.tillamook.or.us/sites/default/files/fileattachments/community_development/page/8832/goal_18_scan.pdf

Tillamook County. (2015). *Tillamook County Land Use Ordinance*. Retrieved August 21, 2021, from https://www.co.tillamook.or.us/commdev/page/land-use-ordinance-luo-zoning-ordinance

WSDOT (Washington State Department of Transportation). 2018. BA Manual, Chapter 7.0: Construction Noise Impact Assessment. Last accessed January 27, 2022 at: https://wsdot.wa.gov/sites/default/files/2021-10/Env-FW-BA_ManualCH07.pdf