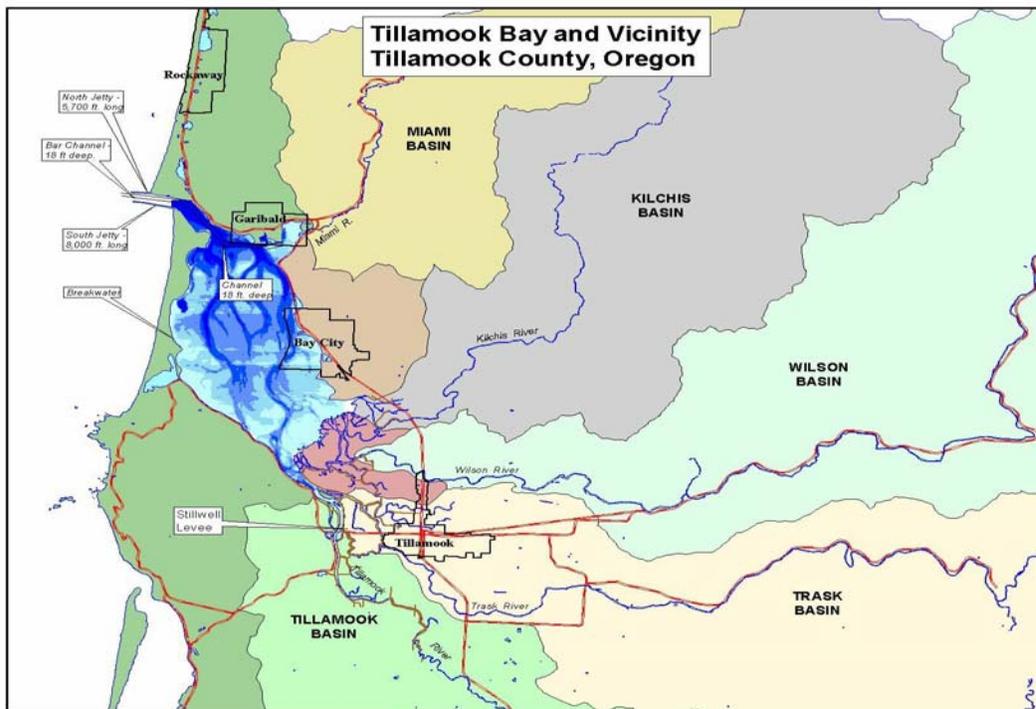


**SUPPLEMENT TO THE
TILLAMOOK MAJOR MAINTENANCE STUDY
ENVIRONMENTAL ASSESSMENT
TILLAMOOK COUNTY, OREGON**

1. Introduction

Tillamook Bay is located on the Oregon Coast about 47 miles south of the confluence of the Columbia River with the Pacific Ocean (Figure 1). It is a tidal estuary approximately six miles long, north to south, and a maximum of three miles wide. The total area of the bay is approximately 12 square miles at high water and has a tidal prism of 48,000 acre-feet. Five major rivers, the Kilchis, Wilson, Trask, Tillamook, and Miami, all flow into Tillamook Bay.

Figure 1: Location of Tillamook Bay Jetties, Bayview, Oregon.



The Tillamook project consists of jetties located to the north and south of Tillamook Bay (Figure 2). The north jetty was authorized in 1912 and completed in 1917, with the latest repair occurring at the head in 1991. According to field measurements, taken in 2007, the structure has experienced deterioration and has a loss of approximately 466 feet from the authorized end of the project. The south jetty was authorized in 1965 and built in three stages starting in 1969 and completed in 1979, with no repairs since that time. According to field measurements taken in 2007, the structure has currently lost almost 800 feet from the end of the jetty.

Figure 2: North and South Jetties at mouth of Tillamook Bay.



A Major Maintenance Study was conducted in 2003 and an environmental assessment was prepared to assess the impacts of the five primary areas of concern at the Tillamook project (USACE 2004). Since that time, the Corps constructed a north jetty revetment to protect the sand dune and jetty root from erosion. The revetment improves both the structural stability of the entire jetty and increases the life expectancy between future maintenance and repairs.

A discussion of the Tillamook jetties and the surrounding environment can be found in the following U.S. Army Corps of Engineers documents:

- a. Operation and Maintenance of Jetties and Dredging Projects in Tillamook Estuary, Oregon, Final EIS, December 1975.
- b. Extension of Tillamook South Jetty, Tillamook Bay, Oregon, Final EIS, January 1978.
- c. Environmental Assessment: Repair of North Jetty at Tillamook Bay, Tillamook County, Oregon, December 1990.
- d. Quality Plan for Draft Tillamook Major Maintenance Study. June 2002.
- e. U.S. Army Corps of Engineers Portland District. Tillamook North and South Jetties, Garibaldi, Oregon, Major Maintenance Report. December 2003.
- f. Final Environmental Assessment, Tillamook Major Maintenance Study, Tillamook County, Oregon, May 2004.

2. Purpose and Need

The purpose of the proposed action is to procure and deliver rock to a storage area located to the north and adjacent to the north jetty. This stone will be used to cap the north jetty when funding becomes available. The capping is necessary to prevent further deterioration and subsequent loss

of the jetty head. The north jetty has lost an estimated 84 feet of length since 2007. Continued deterioration of the jetty head could destabilize the navigation project at Tillamook (USACE 2003).

3. Proposed Action

This environmental assessment addresses changes to the proposed action since completion of the previous environmental assessment in 2004. The original environmental assessment proposed barging jetty stone to the project for capping of the north jetty. Due to funding and timing, it is now being proposed to truck and temporarily store jetty stone adjacent to the jetty until funding is available to cap the jetty. Other portions of the proposed action; (1) jetty cap repair of the north jetty, (2) jetty cap repair of the south jetty, and (3) critical and routine trunk repairs of the north and south jetty, that remain unchanged are not addressed in this environmental assessment, but are incorporated by reference.

The Portland District plans to procure and deliver jetty stone to a storage area adjacent to the jetty root and will prioritize work to cap the north and south jetty heads and repair the trunks of the north and south jetty, subject to future availability of funding. This proposed alternative addresses the areas of greatest concern in terms of structural stability.

The construction of the stabilizing cap for the Tillamook North Jetty will have two contract actions. First, the procurement and delivery contract will be for development of quarry stone and delivery to the jetty site. The stone will be stored until additional funds become available for placement. The second contract will be for additional procurement of cap stone, if needed, and to place the stone onto the jetty to stabilize the jetty head. It is estimated that the capping will occur in 2011.

Approximately 34,000 tons of up to 32 ton each of jetty stone will be trucked through the Barview Jetty County Campground and Park via the county road between September 15, 2008 and April 30, 2009. The county road will be used to bring in the trucks for movement of the jetty stone, transportation of construction material, and employee use during the project timeframe. Prior to the start of the project, the contractor will document the condition of the road and will be responsible for repairing the road to its pre-construction condition upon completion of the construction work.

The storage and staging area is approximately five acres in size and will be located adjacent to the north of the jetty root and immediately east of the existing US Coast Guard tower. Some scattered and displaced jetty stones are located throughout the storage area and will be moved to the jetty toe prior to grading of the site. Vegetation removal and grading will be necessary to prepare the site for stone storage. The preliminary storage area and layout are shown in Figure 3. Material from the storage area will be used to level and fill the low area along the toe of the jetty to an elevation of +13 feet Mean Lower Low Water (MLLW). A 20-foot wide haul road will be constructed through the center of the storage area. A five-foot wide berm may be built from on-site material and will be placed 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. Mature trees

and a wetland are located adjacent to the northeast of the storage area and will be protected and avoided.

Figure 3: Proposed Layout of Storage Area.

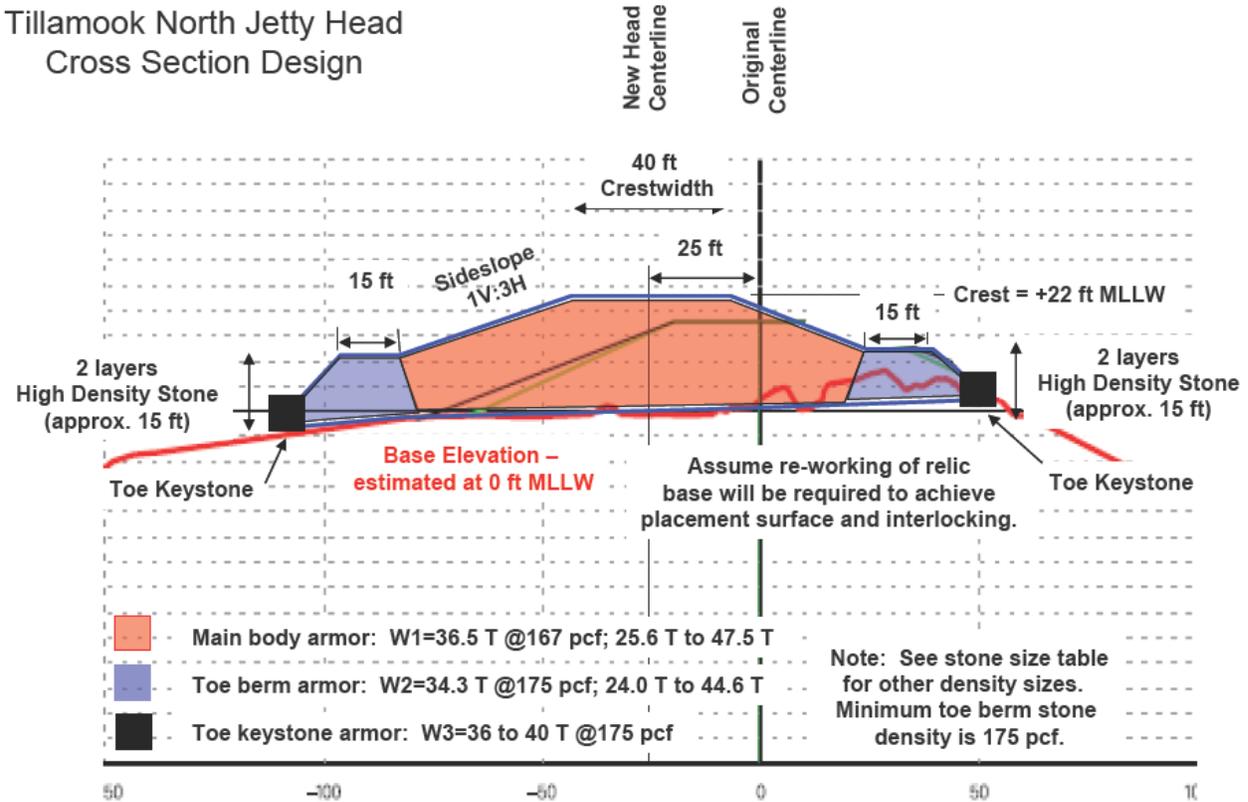


Jetty stones will be organized within the storage area by weight and stored from largest to smallest. Stones will be stockpiled in rows with aisles between the rows to allow equipment movement. Equipment and construction materials will be stored in a temporary staging area adjacent to the root. Upon completion of stone delivery, the staging area will be removed and a temporary perimeter fence will be erected to encompass the storage area and prevent access to the stones. Onsite equipment for the procurement and delivery contract will likely include an excavator and/or crane, loader, a dozer, and heavy-haul highway trucks. Equipment for the cap contract will likely include an excavator and/or crane, fuel truck, and off-highway trucks.

Jetty capping will occur when funding becomes available, anticipated to be 2011. The proposed action is to place a cap extending 100-feet from the end of the jetty, to be determined at the time of construction. Construction will occur during the summer and fall months and actual construction will occur over two to four months. The cap will lie within the existing jetty footprint over a relic base estimated to have an elevation of 0 feet MLLW. Some reworking of the relic base will be required during construction. Based on the expected future recession of the jetty, stone will be placed between stations 50+50 to 53+50 to repair the trunk, bullnose, and head of the jetty. The crest width of the jetty cap will vary from 30 to 40 feet wide with the cap

centerline being offset toward the channel by 25 feet to make maximum use of the existing relic base. This offset accomplishes three items: 1.) minimizes stone required for construction, 2.) allows construction on a stable base, and 3.) minimizes the maximum depth of construction (-15 feet MLLW). The approximate crest elevation will vary between +18 feet MLLW and +22 feet MLLW (figure 4).

Figure 4: Tillamook North Jetty Head Cross Section Design.



Stone will be placed on the jetty one at a time using a large excavator or crane situated on top of the jetty. Placement of the stone will range from approximately 500 to 1,000 tons per day. The placement operation will require the construction of a jetty haul road along the jetty crest. Road rock may be placed and spread over the crest of the jetty using a loader or dozer operation. The crane or excavator will place rock via a truck that transports rock from the staging area. The jetty access parking lot, located adjacent to the west of the USCG tower, will be closed during the stone placement operations. A fence will be erected to prohibit public access to the construction area and signs will be posted indicating that public access is not allowed.

4. Affected Environment

The storage area is located within the Barview Jetty County Campground and Park and bounded by paved roads to the north and east, the north jetty to the south, and the USCG tower and parking lot to the west. The area is characterized by a flat sandy beach approximately 80 feet wide and adjacent to the north jetty, and an approximately 10 feet tall sand dune covered by

native vegetation. A wetland and a mature cluster of trees are located in the northeastern corner of the site and will not be impacted by the proposed action.

The storage area will be cleared and graded prior to placement of jetty stone. Removed vegetation will be disposed offsite by the contractor. Existing on-site material will be used to grade the storage area. A haul road will be constructed of a base and leveling course to form a trucking loop from the existing road to the east of the site to the existing road north of the site. The parking lot and associated facilities to the west of the storage area will be avoided.

A temporary staging area will be established prior to the start of the project and will be removed upon the completion of delivery operations. A second temporary staging area may be established in the parking lot to the west of the storage area during future jetty capping activities.

Trucking jetty stone through the Barview Jetty County Campground and Park may affect recreation activities at the park. Approximately 1,000 truckloads of jetty stone will be delivered to the storage area via public roads. The work will take place over a period of seven months during the fall, winter, and spring months. During stone delivery operations, the public will be restricted from accessing the storage area and the portion of the north jetty adjacent to the storage area.

5. Environmental Effects

Some short-term loss of habitat will occur due to clearing and grading of the storage area. The site will be restored, to the extent necessary, upon completion of the capping project. Site restoration will be coordinated with Tillamook County and may include removal of the haul road, regrading of on-site material, and/or replacement of native plantings.

The proposed activity is expected to have minimal effects on wildlife in the area. Avoidance of the area may occur throughout the construction period as a result of the increased activities and noise, but all species would be expected to return following project completion. The work will be conducted during the months of September through March. No adverse affects on any listed/candidate threatened or endangered species are anticipated.

While the public use of paved roads through the campground and park will not be restricted, the public will be affected by the truck traffic through the park. According to the Tillamook County Parks Department, campgrounds at the Barview Jetty Campground and Park are approximately 90% full during July and August. The campgrounds stay full on the weekends through mid-October. Usage drops during the winter months and picks back up on the weekends in March or April each year (personal communication, Harvey Tinnes, Tillamook County, April 23, 2008).

Placement of the rock storage area near the base of the north jetty will deter foot traffic in the vicinity of the jetty. The construction of a temporary perimeter fence around the storage area will affect recreation by preventing public access to the storage area for three years, or longer if funding for capping is not available in 2011. It is not expected that construction equipment will impact commercial and fishing boat operations using the county park east storage area or the parking lot that is located to the west of the storage area.

Because the contractor will determine the quarry to be used for jetty stone, the route taken for road travel will not be known until the contract is awarded. The contractor will, however, be required to comply with all state and local regulations pertaining to the use of those roads.

A temporary staging area will be established within the rock storage area and will be removed upon the completion of delivery operations. Impacts to the construction staging area are anticipated to be minimal. The area is nearly devoid of vegetation and as a result would not require significant preparation. The site will be restored, to the extent necessary, following project completion.

Public access to the north jetty and adjacent parking lot will be closed during the north jetty capping placement. Capping operations will affect recreation by limiting access to the jetty and temporarily decreasing the amount of parking spaces available to the public at the jetty root during the two to four months of construction activities. Additional environmental effects of the capping project are described in the 2004 environmental assessment.

6. Coordination

This Environmental Assessment (EA) is being issued for a 30-day public review. Comments are requested from the following:

U.S. Fish and Wildlife Service
National Marine Fisheries Service
Environmental Protection Agency
Confederated Tribes of the Grand Ronde Community of Oregon
Siletz Tribal Council
Oregon State Historic Preservation Office
Oregon Department of Land Conservation and Development
Oregon Department of State Lands
Oregon Department of Fish and Wildlife
Oregon Department of Parks and Recreation
City of Tillamook
Tillamook County
Port of Garibaldi
United States Coast Guard

8. Consultation Requirements

a. **Clean Water Act of 1977 (33 U.S.C.):** A Section 401 water quality certificate was issued to the Corps for the proposed project by the Oregon Department of Environmental Quality (DEQ) in July 2004 and expires in July 2009. The proposed changes to the project description that are described in this environmental assessment do not warrant a new water quality certificate. A new water quality certificate will be requested prior to jetty capping.

The storage area will be over one acre in size and therefore a National Pollutant Discharge Elimination System (NPDES) Erosion and Sediment Control Plan (ESCP) will be required.

b. **Coastal Zone Management Act of 1972, as amended:** A consistency determination for the proposed project was prepared and submitted to the Oregon Department of Land Conservation and Development (DLCD) for concurrence in April 2004. The changes to the proposed action have been discussed with the DLCD who confirmed that a new consistency determination is not warranted at this time.

c. **Endangered Species Act of 1973, as amended:** Biological Assessments (BAs) were prepared for the proposed project in 2004. Determinations were made that the proposed action may affect, but is not likely to adversely affect any listed or candidate species. The BAs were submitted to the National Marine Fisheries Service (NMFS) and the U. S. Fish and Wildlife Service (USFWS) and concurrences were received. The proposed changes to the project description do not warrant reconsultation with the agencies.

d. **Fish and Wildlife Coordination Act:** In compliance with this act, the proposed action has been coordinated with the USFWS, NMFS, the Oregon Department of Fish and Wildlife (ODFW). A Fish and Wildlife Coordination Act Report is not required for operations and maintenance work.

e. **Magnuson-Stevens Fishery Conservation and Management Act.** An Essential Fish Habitat (EFH) assessment was completed and submitted to NMFS with the BA in 2004. The proposed changes to the project description do not warrant reconsultation with NMFS.

f. **Marine Protection, Research, and Sanctuaries Act of 1972, as amended:** The proposed action does not involve the transportation of dredged material for the purpose of ocean disposal; therefore, this act does not apply.

g. **The National Historic Preservation Act of 1966, as amended through 2000:** Coordination with Oregon State Historic Preservation Office (OSHP), per Section 106 and 110 of the National Historic Preservation Act will be undertaken. Coordination will involve providing the OSHP with appropriate background information to indicate that the project will have no affect on significant cultural resources.

h. **Executive Order 11988, Flood Plain Management, 24 May 1977:** The proposed project would not encourage development in or alter any flood plain areas.

i. **Executive Order 11990, Protection of Wetlands, 24 May 1977:** No wetlands would be affected by this project.

j. **Analysis of Impacts on Prime and Unique Farmlands, CEQ Memorandum 1976:** No prime or unique farmlands exist within the project area.

k. **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA).** No hazardous, toxic and radioactive waste (HTRW) is known to occur in the proposed project vicinity. Presence of HTRW will be responded to within the requirements of the law and USACE regulations and guidance.

References

U.S. Army Corps of Engineers, Portland District. 2003. Major Maintenance Report: Tillamook North and South Jetties, Garibaldi, OR.

U.S. Army Corps of Engineers, Portland District. 2004. Biological Assessment for Coho Salmon and EFH for the Tillamook Major Maintenance Study, Tillamook County, Oregon.

U.S. Army Corps of Engineers, Portland District. 2004. Biological Assessment for Bald Eagles, Western Snowy Plovers, Brown Pelicans, Marbled Murrelets, Columbian White-tailed Deer and Oregon Silverspot Butterfly for the Tillamook Major Maintenance Study, Tillamook County, Oregon.