Trestle Bay Restoration Project
Finding of No Significant Impact

Bonneville Power Administration
DOE/EA-1995
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SUMMARY

Bonneville Power Administration (BPA) announces its environmental findings on partial funding of the Trestle Bay Restoration Project. Implementing the ecosystem restoration project would improve salmonid access to habitat in Trestle Bay, located in Clatsop County, Oregon near River Mile 7 of the Columbia River. It would also improve tidal connection to the Lower Columbia River (LCR) estuary.

The U.S. Army Corps of Engineers, Portland District (Corps), in cooperation with BPA, prepared and issued a document titled Draft Feasibility Report with Integrated Draft Environmental Assessment (EA). The Draft EA evaluated the Proposed Action and the No Action Alternative. The comments received on the Draft EA and responses to the comments are included in the Final Feasibility Study and Environmental Assessment (Final EA).

As a cooperating agency, BPA has adopted the Final EA. Based on the analysis in the EA, BPA has determined that the Proposed Action is not a major federal action significantly affecting the quality of the human environment, within the meaning of the National Environmental Policy Act (NEPA) of 1969 (42 United States Code [USC] 4321 *et seq.*). Therefore, the preparation of an Environmental Impact Statement (EIS) is not required and BPA is issuing this Finding of No Significant Impact (FONSI) for the Proposed Action. On July 8, 2015, the Corps issued its own agency-specific FONSI for the project.

The Final EA specifies the permits required to implement the proposed action would be obtained prior to construction. The EA also confirms that the environmental commitments defined as best management practices are built into the proposed project or result from agency permit conditions to minimize impacts to environmental resources. The non-Federal sponsor, Columbia River Estuary Study Task Force (CREST), is responsible for these commitments and permit conditions which are stipulated in section 7.19 of the Final EA.

PUBLIC AVAILABILITY

This FONSI will be mailed directly to individuals who previously requested it; a notification of availability will be mailed to other potentially affected parties. The Final EA and FONSI, as well as the Corps' FONSI will be posted on BPA's project Website www.bpa.gov/goto/TrestleBay.

BACKGROUND

Section 1135 of the Water Resources Development Act of 1986 authorizes the Corps to modify existing Corps projects to restore the environment. The Corps needs to restore access to viable salmonid habitat in the LCR where habitat has been degraded and fragmented over the last century due to anthropogenic influences. The 2008 Federal Columbia River Power System (FCRPS) Biological Opinion (BiOp) outlines a comprehensive program to mitigate for the effects of development of the FCRPS on fish listed under the Endangered Species Act by improving spawning and rearing habitat to improve survival rates. One of the key methods recommended to the Action Agencies (Corps, BPA, and Bureau of Reclamation) in the FCRPS BiOp is to improve estuarine rearing habitat, such as that at Trestle Bay. Funding part of the jetty removal meets one of BPA's responsibilities under the BiOp.

In its Feasibility Study, the Corps considered a suite of options to improve estuarine rearing habitat by removing segments of the South Jetty structure that crosses Trestle Bay. The options were to remove 900, 450, or 225 linear feet of the jetty. These openings would provide additional passage opportunities within the jetty root. The options were designed to improve tidal flushing of the bay and improve salmonid access to fringe habitat within the bay. The options were also designed so they did not increase the water surface elevations in Trestle Bay. Constructing 900 feet of openings along the South Jetty Root was determined to be the best buy in terms of being cost effective and providing the greatest benefit for the funds spent to plan, design, construct, and maintain a project. This Tentatively Selected Plan became the Proposed Action in the EA.

PROPOSED ACTION

Under the Proposed Action, BPA would provide partial funding to the Corps for improving access to 628 acres of fish habitat in Trestle Bay by removing approximately 900 linear feet of the South Jetty Root. The project would create seven new breaches in the jetty by removing stone down to the existing grade of the river bed. The stone that is removed would be placed on the ends of the breaches or into stable mounds in the river on the north side of the jetty.

Removal is expected to occur during the in-water work period beginning November 1, 2015 and through February 28, 2016. Details of the Proposed Action are presented in Chapter 3 of the EA.

NO ACTION ALTERNATIVE

Under the No Action Alternative, aquatic species would still have limited access to Trestle Bay because the permeable South Jetty Root would still be in place, allowing full exchange of tidal water volume into and out of the bay through circuitous pathways between individual jetty rocks. However, the limited openings available on the jetty root structure and the elevation of those openings would not enable access for aquatic species during the lowest observed tidal water levels. In general, conditions would not appreciably degrade or markedly improve over time. There would still be full tidal circulation, habitat

that currently exists would persist, and sea level rise would not change.

SIGNIFICANCE OF POTENTIAL IMPACTS OF THE PROPOSED ACTION

Chapter 4 of the EA describes the affected environment, the current condition of the project area. This baseline condition was used to evaluate and predict the effects of taking No Action or implementing the Proposed Action. To determine whether the two alternatives have the potential to cause significant environmental effects, the potential impacts of the alternatives on the physical, biological, and human environment were evaluated and are presented in Chapter 5 of the EA. Direct, indirect, and cumulative impacts were considered.

The following discussion provides a summary of the No Action's and Proposed Action's potential impacts and the reasons these impacts would not be significant.

PHYSICAL ENVIRONMENT

There would be no impacts to tidal hydraulics, water quality and sediment quantity, geology and soils, and air quality and noise from either alternative.

- Tidal Hydraulics.
  - No Action – Tidal hydraulics and inundation in the project area would remain unchanged.
  - Proposed Action – Tidal water levels would not change because there is full tidal exchange already occurring through the permeable rock jetty. Two-dimensional hydrodynamic modeling shows that changes in sedimentation patterns caused by changes in current patterns would not unbalance the localized effects of erosion and accretion.
- Water Quality and Sediment Quality.
  - No Action – Water quality and sediment quality would remain unchanged because there is no expected alteration to sediment transport mechanisms (tidal action) or the erosion/deposition rate from storm events. There are no foreseeable changes in sources of contamination to the water column or sediment.
  - Proposed Action – There could be a slight change in the sediment profile within and adjacent to Trestle Bay over time because the additional openings in the jetty would allow for improved sediment and nutrient exchange. However, no additional sediment would be introduced. Since there would be no new sediment and the existing rock that would be removed and sidecast does not contain contaminants, sediment quality would be unchanged. Any temporary increase in turbidity or decrease in water quality from jetty rock removal would not be discernible due to the naturally higher turbidity during the winter construction time. The improved interchange of water between Trestle Bay and the Columbia River could slightly improve water quality.
- Geology and Soils.
  - No Action – Geology and soils would remain unchanged.
  - Proposed Action –Localized minor effects on geology and soils could result from localized, temporary disturbance of the river bed. Project design (opening size and number of openings) would ensure there would be no substantial accretion or erosion of the substrate.
- Air quality and Noise.
  - No Action – Since there would be no impact to air quality and noise from construction, there

would be no change to existing conditions.

- Proposed Action – Any increase in air pollutants from construction equipment would be short term and would not exceed air quality standards. Increased noise levels from the less than one month construction would be minor, localized, and temporary.

BIOLOGICAL ENVIRONMENT

There would be no impacts to aquatic and terrestrial communities, wetlands, aquatic species and marine mammals, wildlife species, or Endangered Species Act-listed species from either alternative.

- Aquatic and Terrestrial Communities.
  - No Action – Naturally occurring successional habitat change would continue and is not expected to greatly alter the overall vegetation quality or quantity. Habitat would remain isolated from the rest of the LCR estuary and inaccessible to fish at low tide.
  - Proposed Action –There are no ground-disturbing activities or changes to water surface elevations that could affect aquatic or terrestrial vegetation. Reconnection to the LCR estuary would provide improved fish access to Trestle Bay, leading to increased productivity that could improve overall habitat and wildlife/aquatic foraging opportunities.
- Wetlands.
  - No Action – Wetlands would remain unchanged in the short term, but could change over time due to natural habitat succession of plant communities in estuarine environments.
  - Proposed Action – Wetlands may naturally evolve over time. However, since there would be no ground disturbing activities, no rock would be placed in wetlands, and there would be no change in water surface elevation, the quantity and composition of wetlands is not expected to change as a result of this project.
- Aquatic Species and Marine Mammals.
  - No Action – Trestle Bay would continue to be limited for salmonid species; there are no anticipated changes in the marine mammal and aquatic species composition.
  - Proposed Action – There may be short-term minor adverse effects on species. Placement of rock material from the South Jetty into the Columbia River adjacent to the jetty could result in localized, temporary displacement of some aquatic species and minor, localized loss of benthic organisms. However, there would be no net gain or loss of shallow water habitat and the newly exposed riverbed would repopulate with benthic invertebrates. The increase in turbidity would be short term (less than three weeks) and may not be discernible since it would occur during the winter when turbidity levels are naturally higher.

    Construction activities could disturb Stellar sea lions or other marine mammals, but it is unlikely the disturbance would rise to a level of harm or harassment because construction is of short duration, the construction barge would be grounded to minimize movement, and the nearest known haul-out for Stellar sea lions is two miles downstream. Overall, the Proposed Action could have a long-term beneficial effect by providing increased access to habitat, improving survivability and population dispersal.
- Wildlife Species.
  - No Action – There would be no change in utilization of Trestle Bay for foraging and roosting.
  - Proposed Action –Wintering birds or other wildlife that roost or forage near the project area may avoid the area or be temporarily disturbed during construction. However, there may be a slight beneficial impact in the long term by improvement in the composition of fish and other aquatic populations in Trestle Bay.

- Endangered Species Act-listed (ESA-listed) Species.
  - No Action – Aquatic access to Trestle Bay would remain limited and the habitat adjacent to the jetty would remain an estuarine embayment. There would be little or no change in the listed-species under the National Marine Fisheries Service's (NMFS) jurisdiction.

    There also would be little or no change to listed species under U.S. Fish and Wildlife Service (USFWS) jurisdiction. Bull Trout access to Trestle bay would remain limited; moreover, Trestle Bay does not provide the type of habitat preferred by bull trout. Sightings of Western snowy plover may increase as the population in the surrounding area increases, and use by streaked horned larks within Trestle Bay would remain unlikely since the bay is continually inundated and does not provide the type of habitat preferred by the species.
  - Proposed Action – There may be short-term minor adverse effects on all Evolutionarily Significant Units of salmonids listed under NMFS' jurisdiction, although Chinook are more likely to use Trestle Bay during their extended rearing time and outmigration in the lower Columbia River. Any potential impact would likely occur during construction. Disturbance of submerged soils would be localized and temporary and the slight increase in turbidity (which could temporarily degrade water quality and disturb adjacent aquatic habitat) would likely be indiscernible since it would occur in winter when turbidity levels are naturally higher. However, although there would likely be short-term minor adverse effects to listed salmonids, the Proposed Action is expected to have long-term benefits due to improved foraging and rearing conditions and increased access to shallow water habitat. The increased habitat availability would improve survivability and population dispersal. Green sturgeon and eulachon are unlikely to be affected since Trestle Bay is not their preferred habitat.

    There would be no change in potential impacts to species listed by USFWS. Trestle Bay does not provide habitat preferred by bull trout and use of the LCR near Trestle Bay is minimal or nonexistent. Only a very small portion of the intertidal zone would be potentially lost at the jetty openings; foraging opportunities for Western snowy plover would not be limited. Streaked horned lark presence within or use of Trestle Bay would remain unlikely since the bay is continually inundated and does not provide preferred habitat.

    The Corps contacted USFWS to discuss the Proposed Action. Based on these discussions, the Corps determined there would be no effect to listed species or their critical habitat under the jurisdiction of USFWS and that ESA consultation was not required.

HUMAN ENVIRONMENT

There would be no impacts to cultural resources or to socioeconomics, land use and recreation from either alternative.

- Cultural Resources.
  - No Action – There would be no direct effect from construction on the South Jetty Root, the only known property eligible for listing in the National Register of Historic Places.
  - Proposed Action – Although the Proposed Action would remove 900 linear feet of the South Jetty root, which is considered an historic property eligible for the National Register of Historic Places, there would still be approximately 7,400 linear feet of jetty intact within Trestle Bay. Also, the segment of jetty which would be removed became obsolete as a

functional jetty soon after it was constructed. Therefore, while the structure is considered

eligible to the National Register for its contribution to regional development and economies, the Proposed Action would not affect the components of the structure which make it eligible.

The Oregon State Historic Preservation Office (SHPO) requested the jetty be recorded as a structure and an archeological site due to its age. (The South Jetty Root was initially constructed from 1886 to 1896 and extended in the early 1900s.) The jetty segment in Trestle Bay was documented only as a structure for this project since the characteristics that make it significant are structural and not archeological. The Corps initiated consultation with the Oregon SHPO on May 15, 2015.

The Corps consulted with the Confederated Tribes of the Grand Ronde, Confederated Tribes of Siletz Indians, Confederated Tribes of Warm Springs, Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes and Bands of the Yakama Nation, the Cowlitz Tribe, and the Nez Perce Tribe. Tribal concerns are not expected since the Clatsop Spit has been created in modern times and the immediate project Area of Potential Effect was substantially disturbed by the construction of the jetty itself.

- Socioeconomics, Land Use, and Recreation.
  - No Action – Socioeconomic resources, land uses and recreation would remain unchanged.
  - Proposed Action – The Proposed Action would have no effect on the socioeconomic landscape, adjacent land uses, or recreation. Project construction would not change uses of an adjacent park, displace homes or businesses, or result in long-term economic changes to nearby communities. Due to inaccessibility and no need for a staging area, there would be no change to recreation.
- Hazardous, Toxic, and Radioactive Waste.
  - No Action – There would be no change to existing conditions.
  - Proposed Action – There are no known sites in the project area. Land uses within the project area would not change as a result of the Proposed Action; therefore no industrial or other high risk used would be enabled and there would be no change to existing conditions.

CLIMATE CHANGE AND SEA LEVEL CHANGE

The planning horizon for the Trestle Bay project is 50 years, extending from the present to the 2060s. The effects of climate change may result in changes in temperature, precipitation, and sea levels in Trestle Bay. The risk associated with impacts from a range of future rates of sea level change (low, intermediate, and high) was evaluated in the EA. Impacts to fringe and shoreline habitats due to sedimentation and rapid successional changes caused by changes in sea level were most likely to occur. Although qualitative assessments indicate that climate change induced rises in sea level were likely to result in distinct physical changes in Trestle Bay, there was not enough accretion rate information or hydraulic modeling capability to quantitatively measure the impact.

- No Action – Annual mean temperatures in the lower Columbia River system are likely to rise 3 to 10 degrees Fahrenheit through the end of the century. Seasonal variations are likely to result in greater summertime warming. Annual precipitation in the Columbia River watershed will likely be the same; however winter and fall will likely be wetter and summer will be drier. Unregulated Columbia River freshets are anticipated to arrive about 4 weeks earlier. Sea level is projected to

change, with tidal elevations ranging from 0.1 feet lower to 1.8 feet higher. Climate change may also alter the complex tidal and hydrologic forces in the estuary. Sea level change would have the potential to impact shoreline habitat within Trestle Bay.

- Proposed Action –Sea level change and its impacts would be the same as for the No Action alternative. It is assumed that any effects climate change might have across the project area during this timeframe would be negligible and effects to any aquatic or terrestrial habitat would be immeasurable when compared to No Action. The project does not exacerbate the potential impacts caused by climate change. Therefore this project does not contribute to the climate change scenario.

CUMULATIVE IMPACT

Cumulative impacts on resources in the project area may result from the impacts of constructing openings in the South Jetty Root together with other past, present, and reasonable foreseeable projects such as residential, commercial, industrial, and other development. The cumulative effects analysis in the EA recognized the Columbia River has been substantially altered from the 1800s by settlement, timber harvest and fishing, agriculture, population growth, and commercial/industrial/residential development. These alterations have resulted in the introduction of non-native species; rivers and streams have been physically altered; and fish and wildlife resources have been impacted by habitat alteration or loss. Changes in public expectations concerning natural resources have led to increased support of stricter environmental regulation. It is unlikely that implementing the proposed project would result in cumulative impacts. In addition, any potential impacts from the Proposed Action would be minimized through the Corps conservation measures. The environmental review and regulatory process requires the project avoid, minimize, and mitigate measurable impacts; and regulatory review results in coordination among the resource agencies.

CORPS FONSI

After reviewing the Trestle Bay Restoration Project Final Feasibility Study and Environmental Assessment, the Corps made a determination that implementing a restoration project improving access to fish habitat in Trestle Bay would not significantly affect the quality of the human environment and that an EIS was not required. The FONSI was issued on July 8, 2015.

DETERMINATION

Based on the information in the EA, as summarized here, BPA determines that the Proposed Action of partially funding the Trestle Bay Restoration Project is not a major federal action significantly affecting the quality of the human environment within the meaning of NEPA (42 USC 4321 *et seq*.). Therefore, an EIS will not be prepared and BPA is issuing this FONSI for the Proposed Action.

Issued in Portland, Oregon

/s/ F. Lorraine Bodi *September 10, 2015*
F. Lorraine Bodi Date
Environment Fish & Wildlife, Vice President