

## RECORD OF DECISION

### PUGET SOUND NEARSHORE ECOSYSTEM RESTORATION, WASHINGTON

The Final Integrated Feasibility Report and Environmental Impact Statement (IFR/EIS) dated March 2016, for the Puget Sound Nearshore Ecosystem Restoration addresses ecosystem restoration opportunities in the Puget Sound nearshore zone in Washington State. The final recommendation is contained in the report of the Chief of Engineers, dated September 16, 2016. Based on these reports, the reviews by other Federal, State and local agencies, Tribes, input of the public, and the review by my staff, I find the recommended plan to be technically feasible, environmentally justified, cost-effective, and in accordance with environmental statutes and in the public interest.

The Final IFR/EIS, incorporated herein by reference, evaluated alternatives that would restore ecosystem processes, structures, and functions in the study area. The recommended plan is the National Environmental Restoration (NER) plan and includes the following:

- Duckabush River Estuary – Construction of an elevated roadway on a 2,100-foot-long bridge to replace the Highway 101 causeway and bridges across the estuary in a new alignment upstream. Removal of berms along the river and channel excavation at their historical configurations. This will restore 38 acres of floodplain delta and channel migration, and allow significant tidal exchange and distributary channel forming processes in the Duckabush River Estuary.
- Nooksack River Delta – Removal of portions of the Nooksack River's right and left bank dikes, construction of a new setback levee along the right bank, installation of large woody debris structures in the river, a new water control structure (i.e., diversion feature) installed at the confluence of the Lummi and Nooksack Rivers. Regrading the Lummi River channel will reconnect it to Nooksack River flows. On the Lummi River, the plan includes removal of a large segment of berm, construction of a new setback levee along the north bank of the Lummi River, and several road removals and/or relocations. Construction of new bridges or installation of culverts will occur on both rivers. This restores and reconnects 1,807 acres of floodplain habitat, allowing tidal exchange and shoreline complexity.
- North Fork Skagit River Delta – This project includes lowering nearly three miles of levee with several breaches along the south bank for creation of a tidal channel network, constructing a new levee along a road alignment, and lowering nearly one mile of shore armoring on the north bank. The restoration proposal includes levee lowering and excavation of new tidal channels on the eastern portion of the site on the south bank. Replanting will restore a natural riparian corridor along the river of this 256-acre site.
- The Monitoring and Adaptive Management Plan provides a framework for evaluating the effectiveness of proposed restoration actions and outlines adaptive measures if

the project restoration metrics are not met. It includes monitoring to track progress and the triggers for when a new action may be taken to meet restoration objectives.

In addition to a “no action”, three restoration alternatives were evaluated in the Final IFR/EIS – Alternative #2: Restore 11 sites, Alternative #3 – Restore 18 sites, and Alternative #4 – Restore 3 sites. The three alternatives included different scales of activities at up to 18 potential restoration sites identified across Puget Sound that are critical to achieve the planning objectives of the study. Each alternative evaluated a group of potential sites for types of habitat that would be restored and overall potential restoration of functions and processes. Based on the comparison of effects presented in the IFR/EIS, Alternative #3 is the environmentally preferable alternative as it has the greatest net benefits to the biological and physical environment. However, this alternative was cost-prohibitive. Alternative #2 was identified as the tentatively selected plan or agency preferred alternative in the Draft IFR/EIS (October 2013). Alternative #4 was developed after the Draft IFR/EIS as the recommended plan based on public and agency comments and technical and cost considerations identified by the U.S. Army Corps of Engineers (Corps) and the Washington Department of Fish and Wildlife (WDFW) as the non-Federal sponsor. The recommended plan restores large acreages of significant habitat in the study area by removing long reaches of shoreline barriers, fill, and armoring, thereby restoring processes to 2,101 acres of tidally influenced wetlands and river deltas. As part of the Final IFR/EIS, the Corps and WDFW developed a master plan for restoration at 36 critically important sites around the Puget Sound nearshore zone, including the three sites in Alternative #4. The Corps and WDFW developed a tiered implementation approach to study and potentially implement the other 23 sites that were evaluated and listed in Appendix A of the Final IFR/EIS. Each site would undergo a site-specific analysis and environmental compliance prior to being recommended for construction.

All practical means to avoid or minimize adverse environmental effects have been incorporated into the recommended plan. Best management practices (BMPs) as detailed in the IFR/EIS will be implemented. These include measures to protect water quality and minimize greenhouse gas emissions, as well as timing of construction in observance of work windows to avoid and minimize impacts to ESA-listed species and other fish and wildlife. No compensatory mitigation is required.

Pursuant to section 7 of the Endangered Species Act (ESA) of 1973, as amended, the U.S. Fish and Wildlife Service (USFWS) verified in a letter dated February 4, 2016 that the recommended plan complies with the requirements of the Programmatic Biological Opinion for Fish Passage and Restoration Projects (FPRP) issued in 2008 and will not jeopardize the continued existence for species under the jurisdiction of USFWS or adversely modify their critical habitat. For species under the jurisdiction of NMFS, NMFS issued a biological opinion, dated February 11, 2016, that determined that the recommended plan will not jeopardize the continued existence of federally listed species or adversely modify designated critical habitat. All terms and conditions, conservation measures, and reasonable and prudent alternatives and measures resulting from these consultations shall be implemented in order to minimize take of endangered species and avoid jeopardizing the species.

Pursuant to section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, the Corps determined that historic properties may be adversely affected by the recommended plan. The Corps, the Washington State Historic Preservation Officer, Washington Department of Archaeology and Historic Preservation, and the Lummi Nation

entered into a programmatic agreement, dated June 7, 2016. All terms and conditions resulting from the agreement shall be implemented in order to minimize adverse impacts to historic properties.

Pursuant to the Clean Water Act of 1972, as amended, any discharge of dredged or fill material associated with the recommended plan have been found to be compliant with section 404(b)(1) Guidelines (40 CFR 230). The Clean Water Act section 404(b)(1) Guidelines evaluation is found in Appendix J of the IFR/EIS. A water quality certification pursuant to section 401 of the Clean Water Act will be obtained from the Washington State Department of Ecology (WDOE) and from the Lummi Nation prior to construction. In a letter dated January 8, 2016, the WDOE stated their support of the recommended plan, pending confirmation of compliance with water quality standards based on information to be developed during the pre-construction engineering and design phase. In a letter dated November 25, 2014, the Lummi Nation similarly stated their support for the recommended plan and requested the Corps reinstate coordination for a water quality certification based on information to be developed during the Pre-construction Engineering and Design phase. All conditions of each water quality certification will be implemented in order to minimize adverse impacts to water quality.

A determination of consistency with the State of Washington Coastal Zone Management (CZM) program pursuant to the Coastal Zone Management Act (CZMA) of 1972 will be obtained from the WDOE prior to construction. The Corps prepared a Federal CZMA consistency determination and determined the recommended plan is substantively consistent with the enforceable policies of the Washington State CZM program. The Washington State CZM program requires compliance with Clean Water Act section 401, State water quality certification. The Corps will submit the final Federal CZMA consistency determination with the water quality certification request to WDOE with the required information to be developed during the pre-construction engineering and design phase. All conditions of the consistency determination shall be implemented in order to minimize adverse impacts to the coastal zone.

Public review of the draft IFR/EIS was completed on January 8, 2015. All comments submitted were responded to in the Final IFR/EIS. A 30-day waiting period and state and agency review for the Final IFR/EIS were completed on August 15, 2016. Comments from state and Federal agencies did not result in any changes to the Final IFR/EIS.

Technical, environmental, and cost-effective criteria used in the formulation of alternative plans were those specified in the Water Resources Council's 1983 Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies. All applicable laws, executive orders, regulations, and local government plans were considered in evaluation of alternatives. Based on the review of these evaluations, I find that benefits of the recommended plan outweigh the costs and any adverse effects. This Record of Decision completes the National Environmental Policy Act process.

Date

January 19, 2017

Jo-Ellen Darcy  
Assistant Secretary of the Army  
(Civil Works)