

## **EXECUTIVE SUMMARY FOR THE FINAL SUPPLEMENTAL INTEGRATED FEASIBILITY REPORT AND ENVIRONMENTAL IMPACT STATEMENT**

The Columbia River Channel Improvements Project was originally presented in the August 1999 *Final Integrated Feasibility Report for Channel Improvements and Environmental Impact Statement* (1999 Final IFR/EIS). The U.S. Army Corps of Engineers, Portland District (Corps), with the cooperation of the lower Columbia River Ports (Portland, and St. Helens in Oregon; Kalama, Longview, Vancouver, and Woodland in Washington) completed the 5-year IFR/EIS process in August 1999. The U.S. Environmental Protection Agency (USEPA), Region 10, is a cooperating agency for this project.

This Final Supplemental EIS (SEIS) supplements the 1999 Final IFR/EIS. The scope of the 1999 Final IFR/EIS included the following actions: 1) improvements to the navigation channel for the Columbia and Willamette Rivers; 2) ecosystem restoration features; and 3) the long-term disposal needs for continued maintenance of the Mouth of Columbia River (MCR) project, maintenance of the existing 40-foot channel, and the disposal requirements for construction and maintenance of the proposed channel improvement alternatives. The Corps is the federal agency with primary responsibility for navigation improvements and ecosystem restoration actions. The USEPA is the federal agency responsible for designating ocean disposal sites necessary to address long-term disposal needs. The USEPA expects to initiate formal rulemaking on the Shallow Water and Deep Water Sites in February 2003, with the designations becoming effective by summer 2003.

A SEIS typically focuses on project changes and/or new information. To understand the scope of this Final SEIS, it may be helpful to explain how this document is intended to address changes in the proposed action and new information for each of the three types of actions that were the subject of the 1999 Final IFR/EIS.

Navigation channel improvements. The Final SEIS reflects the decision to defer action on deepening the Willamette River until after USEPA decisions have been made regarding the clean up of the parts of the river listed as a Superfund site. The Final SEIS, therefore, focuses on the Columbia River; impacts regarding the Willamette River are discussed to a lesser extent in Section 6.12. With regards to new information, much of the new information presented in the Final SEIS pertains to impacts of deepening the Columbia River, hereafter referred to as the channel improvements project.

Restoration projects. The Final SEIS reflects the incorporation of five new restoration features and analyzes the environmental impacts associated with implementing these features. The new restoration features result in a minor change to long-term disposal needs.

Long-term disposal needs for MCR and channel improvements projects. The Final SEIS discusses revisions to upland disposal sites for the channel improvements project that resulted from the consultation process with NOAA Fisheries. In addition, implementation of the proposed restoration features at the Lois Mott embayment and Millar Pillar are anticipated to significantly reduce the need for ocean disposal of river channel material. The

Final SEIS addresses this change in the disposal plan. Because the channel improvement project amounted to only a small fraction of sediments proposed for ocean disposal as analyzed in the 1999 Final IFR/EIS, the use of this material for ecosystem restoration, while significant in the context of the Corps' decision regarding the channel improvement project, does not fundamentally change the need for or sizing of the ocean disposal sites selected in the 1999 Final IFR/EIS. The Final SEIS also presents new baseline information collected for the ocean disposal sites selected in the 1999 Final IFR/EIS; however, the Final SEIS has less new information regarding this action than the other two actions discussed above.

The purposes of this Final SEIS are to document additional information, environmental analyses, and project modifications resulting from consultation of the project under Section 7 of the Endangered Species Act; to update the disposal plan; to update the project economics; and to comply with National Environmental Policy Act (NEPA) requirements and with the Washington State Environmental Policy Act (SEPA). Several additional ecosystem restoration features and evaluation actions are proposed for implementation to benefit the recovery of listed salmonids and other fish and wildlife resources, to avoid impacts to marine resources at the Deep Water Site, and to retain sand in the estuary. Creating the Lois Island restoration feature during construction will use sand that would have been disposed of in the ocean. Under the revised plan, no ocean disposal is proposed during construction and the first 20 years of maintenance. Construction volumes were updated using 2001-2002 hydrographic survey data. Other items updated include a reduction in rock excavation; utility relocations; additional information for crab, smelt, sturgeon, and fish stranding gained from data collection conducted with the federal and state resource agencies; additional information on sediment transport and consistency with coastal programs; and modification to some of the upland disposal sites to avoid impacts to resources and habitat. Project economics are reexamined to evaluate the sensitivity of the fleet and commodity forecasts, and changes to shipping operations in the Portland area.

Although the lower Willamette River was originally addressed in the 1999 Final IFR/EIS, and included in the Congressional authorization, this portion is not addressed in detail in the Final SEIS. The project features for the lower Willamette River have been deferred at this time and will be reevaluated in a subsequent NEPA document after resolution of cleanup issues associated with its being named to the federal National Priorities List by USEPA under the Comprehensive Environmental Response, Compensation, and Liability Act.

In December 1999, NOAA Fisheries (National Marine Fisheries Service) issued a 'No Jeopardy' Biological Opinion on the expected impacts to salmonids, and the U.S. Fish and Wildlife Service (USFWS) completed its 'No Jeopardy' Biological Opinion on the potential impacts to wildlife and plant species. In August 2000, NOAA Fisheries withdrew their opinion citing the availability of new information regarding impacts to bathymetry (water depths) and flow on estuarine habitat, and resuspension of contaminants. However, the USFWS Biological Opinion remains valid. Because a Biological Opinion meeting ESA requirements for listed salmonids must be in place before the project can proceed, the Corps and NOAA Fisheries began a consultation process to resolve the issues; the USFWS also reentered the process for two aquatic species, coastal cutthroat trout and bull trout.

In February 2001, Sustainable Ecosystems Institute (SEI) was hired to facilitate a series of workshops and guide participants to possible solutions for environmental concerns based on the best available scientific knowledge. The Corps, NOAA Fisheries, and USFWS jointly agreed to use SEI's experience to help resolve the issues. The SEI process included formal and informal review of scientific materials by SEI staff and an independent panel of seven scientific experts. This process included five workshops from March to August 2001, which were open to the public, to review the science underlying the project. It also included ad hoc meetings between panelists and project managers and agency scientists, as well as a questionnaire completed by all the panelists. Based on their comprehensive discussion of all relevant issues (numeric and conceptual modeling, fisheries, sediment and water quality, and monitoring and adaptive management), the panel determined that the knowledge base is adequate to resolve environmental concerns through the consultation process.

Outcomes of the SEI workshops and informal discussions among the agencies provided input for the new Biological Assessment (BA) prepared by the Corps in response to the NOAA Fisheries request to reinitiate consultation on listed species potentially affected by the project. This BA (Corps 2001) also addressed two Distinct Population Segments (DPS) for two fish species under the purview of the USFWS. The new BA addresses 13 evolutionary significant units (ESU; a distinctive group of Pacific salmon or steelhead) including 12 listed ESUs, 1 listed DPS, 1 DPS proposed for listing, and 1 candidate ESU. Thirteen ESUs were evaluated during the previous consultation process. The following were considered during preparation of the 2001 BA: SEI workshop materials, information, and summaries; numerical and conceptual modeling; salmonid biological requirements; NOAA Fisheries December 1999 Biological Opinion and administrative record; NOAA Fisheries new information; and other existing and new information.

In January 2002, the Corps submitted the BA (Corps 2001) to the NOAA Fisheries and USFWS. The 2001 BA included actions associated with dredging and deepening, including compliance measures to minimize incidental take of listed species; monitoring actions to ensure deepening and disposal have minimal effects on listed fish and their habitats; and adaptive management to respond to impacts discovered through the monitoring program. The BA also included ecosystem restoration features and evaluation actions involving numerous proposals to improve existing habitat conditions in the lower Columbia River and estuary, and evaluation activities to increase knowledge of the river and estuary ecosystem.

On May 20, 2002, NOAA Fisheries and the USFWS transmitted their final Biological Opinions to the Corps. These opinions determined that the channel improvement project, including dredging, disposal, monitoring, adaptive management, evaluation, and ecosystem restoration is not likely to jeopardize the continued existence of 13 listed and one proposed fish species, bald eagles, or Columbian white-tailed deer. The additional project features or actions would not affect other species addressed in the 1999 BA for the channel improvement project. In addition, the NOAA Fisheries concurred that the project is not likely to adversely affect Steller sea lions.

Several other steps remain before project construction would begin. The Washington Department of Ecology and the Oregon Department of Environmental Quality must issue Section 401 Water Quality certifications under the Clean Water Act, and the Washington Department of Ecology and Oregon Department of Land Conservation and Development must evaluate the proposed action for consistency under the Coastal Zone Management Act (CZMA). Both states initially denied Section 401 certification and CZMA consistency in 2000. Since then, the Corps and Sponsor Ports have met repeatedly with officials from Washington and Oregon to understand and work to address the issues identified by the agencies. The Corps has applied for 401 Certification and has submitted CZMA Consistency Determinations. Coordination between the Corps and these state agencies is ongoing.

This Final SEIS also includes an updated benefit-cost analysis for the project. The updated analysis was conducted between January and June 2002, and focuses on confirming what are the benefits and costs of the 43-foot channel. Each of the inputs to the benefit and cost calculations were reviewed and updated using the most current data available.

In August 2002, the Corps convened two technical review teams to evaluate the reasonableness of the economic analysis. An open and transparent technical review of the costs and the benefits was conducted. The technical review process was facilitated by a neutral, non-profit organization. The technical review process resulted in a published assessment of the Corps' economic analysis, responses to which are incorporated in this Final SEIS. The Corps consideration of the technical review has been included in the Final SEIS and also is available on the Corps' website (<https://www.nwp.usace.army.mil/>).