



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, NORTHWESTERN DIVISION
PO BOX 2870
PORTLAND OR 97208-2870

RECORD OF DECISION

**GRAYS HARBOR, WASHINGTON
NAVIGATION IMPROVEMENT PROJECT**

Based on the analysis in the Grays Harbor, Washington Navigation Improvement Project General Investigation Feasibility Study Final Limited Reevaluation Report (LRR) and Integrated Final Supplemental Environmental Impact Statement (SEIS) dated June 2014, reviews by other Federal, State and local agencies, Tribes, input of the public, and the review by my staff, I find the recommended plan in the subject report technically feasible, environmentally justified, cost effective, and in accordance with environmental statutes and the public interest.

The recommended plan is Alternative 3, deepening the channel to -38 feet Mean Lower Low Water (MLLW). Alternative 3, based on the economic and environmental analysis conducted for the reevaluation, is the plan that maximizes net benefits for National Economic Development (NED). The Non-Federal sponsor supports the recommended plan, which deepens the channel to the original legislatively authorized dimensions and does not require additional congressional authorization.

PROJECT PURPOSE: The purpose of the action to deepen the navigation channel is to reduce navigation transportation costs for the existing and projected future traffic of deep-draft vessels, and improve efficiency and reliability of navigation to and from Grays Harbor over the 50-year period of analysis as feasible and economically justified, within the parameters of the navigation channel as legislatively authorized.

The navigation channel is used by deep-draft ocean-going vessels to safely reach and leave the Port of Grays Harbor (Port). Currently, the inner harbor reaches of the navigation channel are limited by depth and are inadequate to accommodate the largest deep-draft vessels utilizing the Port for a sufficient period of the tide cycle. The proposed action is needed to address the following problem: as a result of the current channel depth of -36 feet MLLW and the narrow tidal windows, deep-draft vessels calling at Grays Harbor have to be partially loaded or experience tidal delays due to insufficient channel depth. The Port of Grays Harbor has requested deepening the channel to the legislatively authorized depth to better accommodate current vessel traffic for existing Port tenants and commodities.

PERTINENT INFORMATION: Planning studies for the Navigation Improvement Project to deepen the channel began in 1957. An Interim Feasibility Report/Environmental Impact Statement (FR/EIS) was completed in September 1982 and approved in May 1985. During the interim, biological assessments and impact mitigation studies were

developed focusing on salmon and Dungeness crab. The 1982 FR/EIS evaluated deepening and widening the channel to a depth of –38 feet MLLW in most reaches. Post-authorization engineering, environmental and economic studies, reflected in a General Design Memorandum (GDM) of February 1989, resulted in a determination that only a channel depth of –36 feet MLLW from the bar to Cow Point and –32 MLLW feet from Cow Point to Cosmopolis were justified (that economic analysis was based on timber industry and log vessels that, at that time, would not benefit from a channel depth of –38 feet MLLW). The Corps deepened the channel in 1990, in accordance with the 1989 GDM.

An Environmental Impact Statement Supplement (EISS) was completed in 1989, which evaluated the impacts of deepening the channel to –36 MLLW, addressed the design refinements reflected in the GDM, as well as the environmental studies previously conducted, and assessed the impacts of dredging and disposal on biological communities, water quality, and commercially significant fish and shellfish resources. This EISS supplanted a portion of the analysis contained in the 1982 FR/EIS. A separate Environmental Assessment (EA) and Finding of No Significant Impact were developed in 1990 to determine suitability of dredged material for unconfined open water disposal, and to specifically address concerns over potentially harmful contaminants in Grays Harbor sediments. Information and insights gained from these analyses were compiled in the 1990 Record of Decision which concluded the National Environmental Policy Act process. EAs that tiered from the 1989 EISS were completed most recently in April 2001, December 2005, October 2006, and September 2011, with the latter EA addressing impacts of navigation channel operation and maintenance through Fiscal Year (FY) 2018. These documents addressed impacts arising from annual dredging required to maintain the pertinent reaches of the channel at –36 feet MLLW, taking into consideration factors including compliance with the 1998 interagency agreement on Corps treatment of Dungeness crab impacts. The 2011 EA has since been supplemented to address utilization of clamshell dredging in the Outer Crossover Reach (previously exclusively hopper-dredged) to reduce entrainment and mortality of Dungeness crab and other species.

Sediment sampling and evaluation for open water disposal under the guidelines of the Dredged Material Management Program (DMMP) administered by the Corps, Environmental Protection Agency, Washington Department of Ecology, and Washington Department of Natural Resources took place throughout this process. Ongoing sediment sampling and analysis of the Federal navigation channel occurs as specified in the *Dredged Material Evaluation and Disposal Procedures User Manual*, dated 2013.

The June 2014 SEIS assesses the incremental effects of deepening the channel to its legislatively authorized depth in its present alignment, and it updates the 1982 EIS and 1989 EISS with the description of effects that are expected to result from subsequent maintenance of the channel, as modified through the changes in channel design. This 2014 SEIS now comprises the updated basis from which that Fiscal Year 2012-18 maintenance dredging EA is tiered.

A distinction has been drawn between the numbers of vessels expected to traverse the channel once deepened, as reflected in the SEIS, vice the figures reflected in the LRR and its Appendix A (Economics). The most likely growth rates reflected in the 2009 Marine Cargo Forecast, prepared for the Washington Public Ports Association and the Washington State Department of Transportation, were used to develop the economic modeling reflected in the Economic Appendix to the LRR, and are used throughout the LRR so as to be conservative in the commodity forecast for the Port. As a result, the projection of expected economic benefits of project implementation are not inflated or overstated. In the SEIS, on the other hand, optimistic growth rates, although unlikely, in volume of commodities transiting the Port were applied to form a basis for projection of the potential environmental impacts associated with this project. This analysis resulted in a projected increase of 51 vessel calls per year attributable to the implementation of Alternative 3. The economically optimistic “high growth” figures therefore reflect an environmentally conservative evaluation, because by premising a larger number of vessel calls a greater extent and intensity of potential environmental impacts is acknowledged and assessed in the SEIS.

Alternatives Considered But Eliminated Early From Detailed Analysis: Preliminary alternatives which were eliminated early in the analysis included discontinuing maintenance dredging of the Grays Harbor navigation channel, dredging beyond the –38 feet MLLW authorized project, and completing a major realignment of the navigation channel. By discontinuing maintenance dredging of the navigation channel, natural shoaling and accumulation of sediments would worsen conditions for marine traffic by reducing the depths of the channel and restricting use by large ocean-going vessels. It would not alleviate present restrictions, would aggravate the existing problem, and would require congressional deauthorization of the navigation project. Dredging beyond -38 ft MLLW was not previously authorized and has not been requested by the Non-Federal Sponsor. It is therefore beyond the scope of the study and would require new authorization of greater channel depths. The consideration of major realignments potentially could reduce shoaling and need for annual maintenance. However, a major realignment outside the current authorized project footprint is outside the scope of the study analysis.

ALTERNATIVES CONSIDERED IN REACHING THE DECISION: In addition to the No Action Alternative (Alternative 1), the LRR/SEIS evaluated two channel deepening alternatives to reduce navigation transportation costs for the existing and projected future traffic of deep-draft vessels, and improve efficiency and reliability of navigation to and from Grays Harbor. The two action alternatives selected for detailed analysis would deepen approximately 14.5 miles of the 27.5-mile federal navigation channel. Channel deepening would occur from the South Reach upstream to Cow Point Reach adjacent to the Port of Grays Harbor Terminal 4.

Alternative 1 (No Action Alternative)—Continue Channel Maintenance of –36 Feet MLLW: The No Action Alternative provides the baseline conditions for comparing the potential effects of the two action alternatives. Under Alternative 1, the Corps would continue the current practice of maintenance dredging of the navigation channel to a depth of –36 feet MLLW, and placement of the dredged material at a variety of open-water, beach nourishment, and upland beneficial use sites.

Alternative 2—Deepen Channel to -37 Feet MLLW: Annual maintenance dredging to -36 feet MLLW would be required to be performed in the same year as the deepening construction dredging to a depth of -37 feet MLLW. Following deepening, the channel would thereafter be maintained at the new design depth of -37 feet. Dredged material placement under Alternative 2 would differ from Alternative 1 in that the Point Chehalis aquatic site would be shifted 1,000 feet to the north-northwest during the construction year, 13,500 cubic yards of unsuitable material would be transported and disposed in a confined upland location, and any material deposited at the Point Chehalis Revetment Extension mitigation site would be hydraulically pumped via marine pipeline.

Alternative 3—Deepen Channel to -38 Feet MLLW: Alternative 3 will deepen relevant reaches of the navigation channel an additional two feet, compared to baseline conditions (Alternative 1), to a depth of -38 feet MLLW. Following deepening, the channel will thereafter be maintained at the new design depth of -38 feet MLLW. Approximately 22,400 cubic yards of sediment that will be dredged during construction of Alternative 3 from the Cow Point Dredged Material Management Subunit 32a are unsuitable for open-water disposal. This material will be dredged via clamshell bucket, transported to a dock via walled barge with filtered scuppers to eliminate loss of sediment, transferred dockside to trucks and transported to an upland disposal site slated to be located at the former City of Hoquiam wastewater treatment lagoon for permanent disposal. Suitable dredged material will be placed at the following existing placement locations: the South Jetty dispersive placement site, the Half Moon Bay and South Jetty nearshore beneficial use sites, and upland at the Point Chehalis Revetment Extension mitigation site. As a result of a site capacity analysis, the Corps will institute a 1,000-foot north-northwestern shift in the Point Chehalis aquatic placement site. This placement site shift will not increase the size of the Point Chehalis Site and will be a temporary one-time shift to accommodate the volumes of material to be placed during the construction year by taking advantage of deeper water and more dispersive hydrodynamics. The site will be shifted back after the construction year's activities of deepening are completed. All other aspects of the construction and subsequent maintenance dredging, including scheduled work periods, types of equipment employed, and methods of dredged material placement, will be implemented in the same manner as described in Alternative 1, with the additional exceptions that a second clamshell dredge will be employed in the inner harbor reaches, any material deposited at the Point Chehalis Revetment Extension mitigation site would be hydraulically pumped via marine pipeline and a long-reach excavator may be necessary to break up firm dredged material in the Cow Point Reach for removal by a clamshell dredge.

Initial deepening of the channel by 2 feet will require excavation (and placement) of an additional 1.972 million cubic yards of sediment, to be removed in the same dredging season as the present 2.09 million cubic yards of annual maintenance dredging estimated in the 2011 EA, for a total construction year volume of 4.062 million cubic yards. Subsequent annual maintenance volumes are estimated to increase by 107,000 cubic yards over Alternative 1 levels. This represents an increase in annual maintenance dredging volumes of 5% to maintain the channel at -38 feet MLLW.

A detailed description of the alternatives and discussion of the basis for and choice of these alternatives are presented in Chapter 2.0 of the SEIS.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE: Based on the comparison of effects presented in the SEIS, Alternative 1 (No Action/Continuation of maintenance dredging to –36 ft MLLW) is the Environmentally Preferable Alternative because it is estimated to have, among the three alternatives considered, the least adverse effect on the biological and physical environment. The primary difference would be a comparatively lower level of dredging and disposal activities, and a corresponding lesser degree of impacts on fish and wildlife including Dungeness crab, air emissions and greenhouse gases. This environmentally preferable alternative, however, would not reduce navigation transportation costs and thus would not meet the project's purpose.

REASONS FOR SELECTION OF THE RECOMMENDED PLAN: The deepening of the navigation channel by two additional feet to –38 feet MLLW and other alternatives brought forward for full evaluation have been described and evaluated in the EIS. Based upon the review of the alternatives and their environmental consequences described in the SEIS, and in consideration of environmental regulations, the Corps adopts Alternative 3, the proposed action, as the agency's selected alternative. The Corps arrived at this decision while taking technical, economic, and agency statutory mission and authority considerations into account, as discussed in greater detail in the SEIS. In making this decision, the Corps has also considered its trust responsibilities to Native American Tribes and has concluded that its determination is consistent with its trust responsibilities.

The environmental analyses presented in the SEIS determined that the effects of the proposed action on the quality of the human environment, over and above the effects of continuing execution of the present management regime of annual maintenance dredging as evaluated in prior NEPA documentation, would be minor. With Alternative 1, the navigation channel would be maintained in its existing condition, and tidal delays and light loading of ships would continue. Alternative 1 does not meet the proposed action's purpose, and therefore was not recommended.

Alternative 3 will have a slightly greater effect on the natural environment compared to Alternative 2 because the navigation channel will be dredged to a greater depth. Alternative 3 will remove a greater volume of material during the initial deepening of the channel, which could have potentially greater effects on invertebrates, fish and wildlife, and water quality. In addition, Alternative 3 will require the use of two clamshell dredges during dredging of the inner channel reaches, compared to the use of one clamshell dredge under Alternative 2, to allow for a larger volume of material to be dredged during the same in-water work window. The use of two dredges as opposed to one will result in a marginally greater effect on air quality, noise, artificial lighting, and greenhouse gas (GHG) emissions. Similarly, an anticipated increase of 51 annual deep-draft vessel transits attributable to implementation of Alternative 3 will generate a small increase in air quality, noise, artificial lighting, and GHG-emission effects, as compared with the smaller increase in annual transits attributable to Alternative 2.

Alternative 3, however, will also have a greater benefit to the human environment compared to Alternative 2. Deepening the navigation channel will alleviate tidal delays and light loading of the current vessel fleet, which is currently caused by insufficient

channel depths at all tidal stages. Because Alternative 3 will be deepening the navigation channel to its legislatively authorized depth of –38 feet MLLW, compared to –37 feet MLLW under Alternative 2, greater benefits will be achieved under Alternative 3, such as increasing the cost efficiencies of transporting goods in and out of Grays Harbor.

Based on the information presented in the SEIS, Alternative 3 is the recommended plan because it best meets the project objective of reducing navigation transportation costs for the existing and projected future traffic of deep-draft vessels, and improving efficiency and reliability of navigation to and from Grays Harbor as feasible and economically justified, within the parameters of the navigation channel as legislatively authorized. Alternative 1 (No Action Alternative) would not deepen the navigation channel and would continue to constrain maritime operations, resulting in protracted tidally influenced delays to arrival and departures, as well as light loading of ships, and thus would not meet the purpose and need for the project. Alternative 2 would not dredge the navigation channel deep enough to provide the most efficient marine transportation in Grays Harbor within the parameters of the navigation channel as legislatively authorized, and would also perpetuate tidal delays and constraints on maritime operations by continuing to a lesser extent the practice of light loading.

Although Alternative 3 will have a marginally greater adverse effect on the environment, the environmental consequences analysis presented in these SEIS determined that the effects of Alternative 3 will be minor or not adverse and appropriate mitigation measures will be implemented to reduce potential environmental impacts.

THE TREATY FISHING RIGHT, TRIBAL COORDINATION, ENVIRONMENTAL COMPLIANCE, AND MITIGATION: The Draft SEIS for this project was published on February 7, 2014 for public review, with the comment period extended to April 8, 2014 at request of members of the public. A community workshop followed circulation of the Draft SEIS on February 27, 2014. Concerns received through public and agency comments included issues regarding scientific basis of the analysis conducted, procedures followed, and assessment of economic impacts of the proposal, as well as expressions of preference for different alternatives. Specific comments were addressed with detailed responses and included in Appendix G of the Final LRR and SEIS. The Final LRR and SEIS were revised as appropriate in light of public and agency comments received. The notice of availability of the Final SEIS was published on July 11, 2014.

The Quinault Indian Nation (QIN) submitted a letter dated June 4, 2014, co-addressed to the Washington State Department of Ecology and the Corps. Portions of the letter registered concerns over the State's then-pending issuance of a Water Quality Certification under Section 401 of the Clean Water Act (CWA); other portions expressed concerns regarding implementation of the proposed action, generally. Many of the topics addressed in the letter of June 4, 2014 were previously raised in the QIN letter of April 9, 2014 commenting on the Draft LRR and Draft SEIS. The responses to those reiterated concerns thus are reflected in the document and the Appendix G of the LRR.

These restated areas of concern include impacts on fishing rights through increased vessel traffic, the cost-benefit ratio of the project and its calculation method, and the effects of introduction of crude oil by rail. The three topics raised in the most recent QIN letter but covered extensively in the document include:

- potential impacts to wetlands adjacent to Grays Harbor
- potential impacts of placing unsuitable material at the former City of Hoquiam wastewater treatment lagoon
- the impacts of channel deepening on hydrodynamics within Grays Harbor

As reflected in section 9.15 of the SEIS and Appendix D, the CWA Section 404(b)(1) Evaluation, project implementation will generate no loss or degradation of wetlands bordering on the Grays Harbor estuary. The topic regarding the upland placement of dredged material determined unsuitable for unconfined aquatic disposal, slated to be placed at the former City of Hoquiam wastewater treatment lagoon, has been previously addressed at Response to Comment 10-11 in Appendix G to the LRR. The QIN's June 4, 2014 letter also raises concerns that dredging to additional depth would alter hydrodynamic forces within Grays Harbor, to the detriment of aquatic species and natural topographic features within the estuary. The expected incremental effects on Grays Harbor geomorphology and sediment transport dynamics, as well as shoreline erosion effects of ship wakes attributable to implementation of Alternative 3, are fully addressed in section 4.2.5 of the SEIS.

The new issues raised in this most recent QIN letter include the following:

- potential impacts to treaty fishing rights through a risk of oil spill
- a CWA compliance mixing zone of 600 feet
- disruption to tribal inner harbor treaty fisheries as a result of dredging activities and
- the need for a cultural resources survey

The increased risk of adverse effects on treaty fishing rights due to oil spill as a result of incremental vessel transits is minor because the Port would experience fewer than one additional transit per week as a result of project implementation. Increased risk of spills arising independently from the development of Port of Grays Harbor marine terminals is addressed in section 6.2.1 of the Final SEIS.

According to the Water Quality Certification issued by the Washington Department of Ecology for this project, the point of compliance when dredging suitable material is along a radius of 600 feet from the activity potentially causing elevated turbidity conditions. Wave activity and current directions in Grays Harbor are highly dynamic and can cause sample readings in the immediate vicinity of the dredging operations to show an exceedance even in natural background conditions not caused by dredging operations. Requiring water quality samples to be collected at multiple points that are 600 feet down-current from the dredging activity allows for better reliability in detection

of whether there is an exceedance attributable to dredging activities or if the observed turbidity is caused by naturally dynamic conditions in the harbor. Moreover, specifying a water quality sampling location within smaller than a 600-foot mixing zone generates an unsupportable level of risk to the safety of the water quality sampling team operating a small sampling vessel in the vicinity of active hydraulic and mechanical dredging equipment.

For many years the Corps has coordinated with the Tribe on its Grays Harbor navigation channel dredging operations that coincide with QIN fisheries activities, immediately prior to each dredging event. These coordination efforts have consistently satisfied tribal officials that treaty fishing rights will not be adversely affected by Federal dredging in Grays Harbor. Towards this end, Seattle District officials have had conversations with tribal officials on June 5 and August 8, 2014. The Corps plans to continue the same coordination process as has been used in the past and is confident that both the construction year and the subsequent annual maintenance will be appropriately coordinated so as to avoid negative impacts on treaty-protected fisheries.

The Corps conducted cultural resources surveys in 1980 and 1989 that included the navigation channel and disposal sites, and a side-scan sonar survey of the navigation channel. These surveys, surveys conducted by third parties, and their findings are all reflected in section 3.6 of the Final SEIS. Coordination efforts with the State Historical Preservation Office and tribes including the QIN are detailed in section 4.6 and 9.11 of the Final Supplemental EIS.

Coordination and appropriate consultation was conducted with Federal and State Agencies and Tribes on the preferred plan in the draft and final SEIS. A supplemental biological evaluation was submitted to National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) for consultation under the Endangered Species Act (ESA). No species or critical habitat were determined likely to be adversely affected by the proposed action. The NMFS provided concurrence on June 5, 2014 and USFWS on June 11, 2014. The letter from the NMFS concurring with the finding that project implementation is not likely to adversely affect species listed under the ESA requires monitoring for the presence of larval eulachon. The Corps is in the midst of an ongoing program to sample and analyze for presence of larval eulachon in the Grays Harbor estuary. The Corps will reinstate ESA consultation as necessary in light of the results of this monitoring effort.

The Magnuson–Stevens Fishery Conservation and Management Act requires consultation with NMFS regarding actions that may adversely affect Essential Fish Habitat (EFH). An EFH determination concluded EFH is not likely to be adversely affected by the proposed action. The NMFS concurred that the conservation measures that the Corps included as part of the proposed action to address ESA concerns were also adequate to avoid, minimize, or otherwise offset potential impacts to the EFH on June 5, 2014.

The Corps has determined a finding of no historic properties affected under the National Historic Preservation Act. The Washington State Historic Preservation Office has concurred with this finding in a letter dated May 28, 2013.

The Corps prepared a Coastal Zone Management Act Consistency Determination for the proposed action and established that the proposed action is consistent to the maximum extent practicable with the enforceable State policies approved pursuant to the Act. The State has not responded to the submission of this consistency determination. Pursuant to 15 CFR 930.41(a) and 33 CFR 336.1(b)(9)(iv), the Corps has presumed Department of Ecology concurrence that the proposed action is consistent with the enforceable provisions of the Washington Coastal Zone Management Program.

In accordance with the CWA, the Corps has prepared a 404(b)(1) evaluation to document findings regarding the proposed action pursuant to Section 404 of the CWA. The Corps requested certification under CWA Section 401 from the Washington Department of Ecology. The Corps received a Section 401 water quality certification from Ecology for the proposed action and will abide by the conditions of the certification pertaining to discharges of dredged material into waters of the U.S., to ensure compliance with state water quality standards.

All practical means to avoid or minimize adverse environmental effects have been incorporated into the recommended plan. The following avoidance and minimization actions presently undertaken during annual maintenance dredging will be continued by incorporating them into implementation of the Navigation Improvement Project: timing of dredging in relevant reaches, and timing/selection of placement sites utilized, to avoid and reduce impacts to ESA-listed species, Dungeness crab, and target species of importance to Native Americans; maximization of use of clamshell dredge equipment in the inner harbor and Outer Crossover reaches to reduce entrainment; nearshore and upland beneficial reuse of dredged material at the South Beach and Half Moon Bay placement sites to help maintain stable beach profiles; and continued implementation of the 1998 Revised Interagency Crab Mitigation Strategy Agreement and, consistent with the U.S. Fish and Wildlife Service conservation recommendation, continued coordination with the interagency Crab Mitigation Strategy Working Group to identify any available improvements to the Dredge Impact Model and the process of assessing dredging effects, as well as efficacious mitigation of adverse dredging impacts to Dungeness crab populations. The Corps will also implement the following avoidance and minimization measures in implementing the selected plan: 22,400 cubic yards of material deemed unsuitable for unconfined aquatic disposal will be permanently removed from the marine ecosystem and placed in an upland location using the best-available equipment and methodologies.

SUMMARY

In the LRR and SEIS, the Corps has considered the objectives of the proposed action and has analyzed a reasonable range of alternatives that adequately address the objectives of the proposed action, and the extent to which the impacts of the action could be mitigated. The Corps has also considered public and agency comments received during the SEIS review period. In balancing the projected effects of the various alternatives presented in the SEIS and the public interest, Alternative 3 is the selected plan. Alternative 3 reflects implementation of all reasonable, practicable means to avoid, minimize, or compensate for environmental harm from the action. All applicable laws, regulations, and local government plans were considered in evaluation of these alternatives. In summary, I find that the selected plan represents the course of action that, on the balance, best serves the public interest. This Record of Decision completes the procedural requirements of the National Environmental Policy Act.

29 AUG 2014

Date



JOHN S. KEM
BG, USA
Commanding