

**ENVIRONMENTAL ASSESSMENT
MAINTENANCE DREDGING AT THE MOUTH OF THE COLUMBIA RIVER
NEW DISPOSAL SITE
OREGON-WASHINGTON**

Introduction

The MCR deep-draft navigation project consists of a 1/2-mile wide navigation channel extending for about 6 miles through a jettied entrance between the Columbia River and the Pacific Ocean. The channel was deepened to its present depths in 1984. The northerly 2,000 feet of the channel is maintained at 55 feet (plus 5 feet for over dredging), and the southerly 640 feet is maintained at 48 feet (plus 5 feet for over dredging). In its present configuration, the entrance channel has required annual dredging of 4-5 million cubic yards of fine to medium-grained sand to maintain the authorized depths.

Current MCR ocean dredged material disposal sites (ODMDS) A, B, E and F have been used in their original EPA-designated site dimensions since 1977 and in their expanded site dimensions under Section 103 of the Marine Protection, Research and Sanctuaries Act (MPRSA) since 1993 (sites A, B, F) and 1997 (site E). The site expansions were determined necessary, as original site configurations proved inadequate for the large quantity of material dredged from the channel. Portland District and EPA Region 10 (EPA) considered site expansion to be prudent management action to provide the needed capacity and minimize hazards related to wave amplification caused by mounding of dredged material. These site expansions were considered temporary until long-term ODMDS site selection and designation could be accomplished through EPA. The site selection process was further addressed in conjunction with the 1999 Columbia River Channel Improvement Study/EIS. A proposed new ODMDS, called the Deepwater Site, was identified in this study and recommended, along with the Expanded Site E (Shallow Water Site), by EPA for formal rulemaking as a designated ODMDS. Although technically not an ocean disposal site, the North Jetty Site has been used for maintenance of the MCR channel since 1999 to protect the jetty from undermining.

The Public Notice for this action dated 21 December 2001, described the Deep Water Site as a proposed disposal option to be used under Corps authority found in Section 103 of the MPRSA as an interim measure prior to EPA final designation. The Corps has removed consideration of this site under Section 103 authority. However, comments made during the Public Notice process related to the Deep Water Site are addressed in this EA.

Dredging of the MCR navigation channel was addressed in the 1983 EIS for deepening and subsequent maintenance (USACE, 1983). Since that time, each public notice issued for maintenance of the entrance channel has included a determination that a new EIS is not required and that environmental assessments would be prepared to address any new action not previously addressed in the 1983 EIS such as revisions to disposal sites. Dredging practices have essentially remained the same since that time. New information since preparation of the EIS related to dredging has arisen from concerns over possible entrainment of Dungeness crabs, salmon and other fish species during the dredging operation. To address these concerns, entrainment studies were conducted by Portland District (Larson, 1993). The studies concluded that high numbers of

young crabs (<50mm) were entrained at times during dredging at MCR but that survival rates through the pump and hopper are high. Mortality of crabs relocated to disposal sites is less known but is expected to be low compared to natural mortality rates. Studies of salmon entrainment (Larson & Moehl, 1990) have demonstrated that migrating juvenile and adult salmon are not entrained since the dragheads are at or slightly below the bottom surface. Salmon and steelhead listings under the Endangered Species Act has also occurred since preparation of the 1983 EIS. Compliance under this Act has been obtained for MCR maintenance in a Biological Opinion issued by the National Marine Fisheries Service in September, 1999.

Four disposal sites not previously used were proposed in Public Notice NWPOP-CRA-F02-001 to be used in combination with three existing ocean disposal sites; Expanded Site E, Expanded F, and Site A and the North Jetty Site, for placement of material from maintenance dredging of the MCR channel. Two of the proposed sites, Benson Beach and Nearshore, are considered "demonstration" sites to determine their effectiveness in reducing erosion of sand beaches at these locations. Use of these sites would help address concerns expressed by the State of Washington to maintain sand supplies within the littoral system. Placement of material at the South Jetty Site was proposed to replace sand that has eroded near the south jetty and thereby prevent potential undermining of the jetty.

Use of existing ODMDS A, Expanded F, Expanded Site E, and the North Jetty Site has been addressed under previous Environmental Assessments and NEPA documentation for these sites, along with other required Section 103 Evaluations, Section 404 Evaluations and Coastal Zone (CZM) Consistency Determinations have been completed. These documents can be found on the following Portland District website: www.nwp.usace.army.mil/issues/mcr. Continued use of these sites is determined by considerations outlined in site management and monitoring plans. The States of Oregon and Washington have been requested to review these documents for CZM concurrence and/or 401 Certification. Expanded Site E was evaluated in the Final Integrated Feasibility Report for Channel Improvements and Environmental Impact Statement, Columbia and Lower Willamette River Federal Navigation Channel, August 1999. The MPRSA Section 103 Evaluation and Coastal Zone Consistency determination for use of the site is attached to this document. EPA Region 10 has concurred that the site is suitable for disposal of MCR channel maintenance dredged material. The State of Oregon concurrence with Coastal Zone Consistency has been requested.

Based on comments received in response to the Public Notice, Portland District has determined that the Nearshore site and South Jetty Site will not be used at this time so that additional evaluation and design work may be performed. The Corps will continue to work with Federal and state resource agencies and other stakeholders to develop or modify these sites and may propose to use them in the future under a separate public notice. Therefore, this Environmental Assessment addresses only the proposed use of the nourishment site at Benson Beach.

Purpose and Need

Placement of dredged material at Benson Beach would be for the purpose of determining feasibility; costs and effectiveness of this alternative in maintaining the MCR dredged material in the littoral system and reducing erosion at the site. If effective, placement of dredged material

at Benson Beach could help reduce the need for ocean disposal in the future. The State of Washington and local governments have expressed the need for conducting this demonstration project to address beach erosion concerns.

Proposed Action and Alternatives

The following disposal action is proposed, in conjunction with the use of existing ODMDS A, Expanded F and Expanded Site E and the North Jetty Site, for maintenance dredging of 4-5 million cubic yards annually from the MCR Federal navigation channel. The dredging season begins as early as May and ends as late as October.

Benson Beach. This proposed site is within the surf zone of Benson Beach in Fort Canby State Park, north of the north jetty. Placement of dredged material at this site would be considered a demonstration project to determine its feasibility as a long-term disposal alternative that contributes sand to the littoral system. Dredged material could be pumped from the contract hopper dredge via pipeline to the beach. This is expected to occur from a location near the north jetty. Use of an anchored buoy or barge will be necessary for connecting the hopper dredge to the pipeline. Alternative pumping locations, such as directly offshore from the disposal site, may be considered if pump-ashore from the hopper dredge at this location is not successful or is found not to be cost effective. The pipeline discharge would be at about the Mean Higher High Water line and the fill would be extended out into the surf zone as the material accumulates. This disposal operation is expected to take 2 to 3 weeks. The quantity of material placed at the site would depend on actual costs and the availability of funds. Initial estimates indicate up to 100,000 cubic yards may be placed here for the demonstration action. The intent is to place the maximum quantity possible in order to discern benefits and adequately determine effectiveness at offsetting erosion. Use of the Benson Beach Site is proposed for the 2002 dredging season, and, depending upon the results from this initial disposal action will be evaluated for use in future dredging seasons.

Affected Environment

Physical and biological resources of the Columbia River offshore area have been investigated since the mid 1970's, including recent site monitoring and evaluation studies conducted by the Corps for ocean disposal sites. Information from these studies is included in the 1999 Columbia River Channel Improvements EIS. This information has been applied to the evaluation of the proposed disposal site with reference to the studies.

The area off the mouth of the Columbia River is a productive biological environment that is influenced by a variety of complex physical processes. The major short-term processes affecting the area are tides and secondly, local winds and currents. River flow also has a major seasonal impact on the area. The nearshore area where the Benson Beach Site is located is subjected to high current and wave energy and populated by biological organisms adapted to this high energy environment.

The Benson Beach Site is located immediately north of the north jetty within the active surf zone between MLLW and MHHW. The pipeline to this site would extend from the estuary, over the north jetty and along the north side of the jetty for a distance of about 1/2 mile. Habitat along the proposed pipeline alignment is primarily bare sand with scattered dune grasses and driftwood. If the alternative pump ashore method is implemented, a pipeline would extend about 1.5 miles along the ocean bottom from the offshore hopper dredge location.

Bottom sediment at the proposed site is primarily sand containing little or no silt or organic material. No rock or other unusual bottom features exist within the site (USACE, 1999). Most fines and organic material have been eroded from Benson Beach, leaving coarser-grained sands, rock and shell fragments. According to Washington Dept. of Fish and Wildlife (WDFW), the ongoing erosion at the Benson Beach location severely limits the potential for colonization by benthic and epibenthic organisms (Burkle, 2000).

A variety of anadromous and resident fish occur within the Columbia River offshore area. Occurrence of adult migratory species in the offshore area is correlated primarily with their period of upstream migration. Juvenile migratory species are present following their migration out of the estuary. Resident species occur throughout the year with many using the estuary as a rearing and nursery area. Species present include various flatfish, rockfish and other demersal species (USACE, 1999). Field reconnaissance at Benson Beach found evidence of clam populations, including razor clams and Dungeness crabs present within the area to be affected by disposal. WDFW has stated that the Benson Beach area is too unstable to be a productive razor clam bed, juvenile rockfish, flatfish, or lingcod settling or rearing area, or baitfish spawning area. For the same reason, Dungeness crab is rarely, if ever, found in the surf zone on this beach (Burkle, 2000).

Almost all of the Columbia River offshore area experiences some type of commercial fishing activity. The major fisheries are for, bottom fish, salmon, crab, and other species of shellfish. Crab fishing occurs from December to September with the majority of the catch occurring early in the season. Most crab fishing occurs north of the Columbia River mouth at depths ranging from 25 to 250 feet msl. Dungeness crab population numbers are subject to large cyclic fluctuations in abundance. Catch records for the fishery are generally believed to represent actual population fluctuations. Modeling studies by Higgins et al (1997) has shown that small scale environmental changes, such as delay in the onshore currents in the Spring by a short period of time, can dramatically impact survival of young of the year crab but have no effect on adults and older juveniles inshore. Bottom fishing by trawl for flatfish, rockfish and pink shrimp occurs year-round throughout the entire offshore area, primarily at depths offshore from disposal sites. Commercial and recreational salmon fishing occurs over much of the offshore area. Fishing seasons and quotas are set by the Pacific Fisheries Management Council (USACE, 1999).

Marine mammals known to occur in the Columbia River offshore area include gray whale, dolphins, porpoises, sea lions and harbor seals. Most cetacean species observed by Green et al. (1991) occurred in slope (600 to 6000-foot depths) or offshore waters. Harbor porpoises and Gray whales were prevalent in shelf waters less than 600 feet deep. Pinniped species likely to occur in the vicinity of the proposed disposal sites are harbor seal and California and northern sea lion. No rookeries occur within the area (Bonnell et al., 1989).

Four species of marine turtles, loggerhead, green, Pacific ridley and Pacific leatherback, have been recorded from strandings along the Oregon and Washington coastline. They were typically associated with warmer waters that occur over the Pacific slope waters during summer (Green et al., 1991).

Pelagic birds are extremely numerous off the Columbia River including gulls, auklets, common murre, fulmars, phalaropes and kittiwakes. Briggs, et al. (1992) found that seabird populations were most densely concentrated over the continental shelf (less than 600 feet in depth). Brown pelicans typically occur from late spring to mid-fall along the Oregon and Washington coast. Concentrations of this species develop at the mouth of the Columbia River at the South Jetty and East Sand Island-Baker Bay. This species forages in nearshore waters of the Pacific Ocean and estuarine waters of the Columbia River (Briggs, et. al., 1992). Three species of cormorants occur in the Columbia River estuary and forage in nearshore Pacific Ocean waters, the estuary or upriver. Pelagic and Brandt's cormorants nest on the cliffs of Cape Disappointment (USACE, 1999). Three species of terns occur in the Columbia River or over nearshore waters. Caspian terns are present from April to September and have established large colonies on islands within the estuary. Common and Arctic terns occur off the Oregon and Washington coasts from April to September (USACE, 1999). Shorebirds found on coastal beaches at MCR include western sandpipers, sanderlings, dunlins, least sandpipers and semi-palmated plovers.

Federally listed threatened and endangered species which may occur in the Columbia River offshore area include 15 wildlife species and several stocks of salmon and steelhead. Wildlife species potentially affected by the disposal actions include: blue, finback, sei, right, hump-backed and sperm whales; northern (Steller) sea lion; Columbian white-tailed deer; loggerhead and Pacific leatherback sea turtles; brown pelican; marbled murrelet; western snowy plover; bald eagle; Oregon silverspot butterfly. Adults and juveniles of the listed salmonid stocks are present in the lower river year-round. Biological Assessments have been prepared to address the likely presence of these species within the Columbia River estuary and offshore area and potential effects of the proposed disposal actions.

Environmental Effects

Material placed at Benson Beach would be rapidly redistributed by wave action, likely moving material offshore and alongshore. The presence of an anchored buoy or barge, and pipeline in the vicinity of the North Jetty or at another offshore location would result in very minor and temporary impacts to benthic and demersal organisms within those areas. Anchor placement would have a minor effect relative to the dynamic wave and current activity at these locations. Pipeline placement at either location would result in some disturbance to aquatic and terrestrial organisms. Most of this disturbance would be short-term displacement of the organisms along the length of the pipeline during the disposal operation. Some crushing of benthic organisms on the seafloor would be assumed. Pumping to the beach from an offshore location could potentially result in conflicts with crab fishing and gear. Impacts to crab in the immediate surf zone would be minimal. Some minor discharges of dredged material may occur from the

pipeline connections. All of these effects would be short term and populations would fully recover following the disposal operation.

The physical and chemical characteristics of the dredged sediments placed at Benson Beach would be similar to existing bottom sediments at the site, i.e., fine to medium grained marine sands with chemical constituents below levels of concern. Based on the guidelines outlined in the 1998 Lower Columbia River Dredged Material Evaluation Framework, the dredged material is excluded from further testing based on grain size and % total volatile solids. Little turbidity is expected from disposal of these sediments. Some visible short-term change in turbidity would likely be observable within the surf zone at the Benson Beach site as sand is re-suspended.

Benthic organisms within the site would be subjected to burial. Some benthic organisms would not likely survive burial from the disposal action while others would re-establish within the disposal area. Survival rates for organisms at Benson Beach would likely be higher since they are adapted to a higher energy environment. Demersal fish and shellfish would either avoid the disposal activity or, for the most part, recover from burial. Studies conducted by Chang and Levings (1978) and Corps of Engineers (1998) on crab and flatfish burial from dredged material disposal conclude that test dumps had no apparent adverse effects on flatfish but resulted in some adverse effects on crabs. The tests resulted in no obvious physical damage such as cracked carapaces or detached legs. Most crabs emerged to the surface following the test dumps. All crabs that remained buried under deposited sand (3) were found dead after 72 to 96 hours. The cause of death was not apparent from the tests. These studies were conducted under limited conditions, i.e., small buckets or tanks, and are not conclusive relative to burial response under actual disposal conditions in the open sea. Portland District biologists believe that survival rates from disposal in the open sea would be high (USACE, 1999).

In general, dredged material disposal involves negligible risk to marine mammals. Marine mammals tend to avoid human activities; therefore the probability of an animal present during disposal actions is unlikely (USACE, 1999). The disposal actions would also have negligible effects on marine mammal prey species. Roffe and Mate (1984) studied the feeding habits of pinnipeds in the Rogue River, Oregon estuary. It was determined that the sea lions fed most heavily on Pacific lamprey. It was determined that the factor that most affected feeding habits was proximity to the mouth of the river.

Impacts of disposal operations over a wider area on pelagic birds are expected to be minor with potential short-term effects on some of their food sources. Disposal operations at Benson Beach would displace shorebird and gull foraging for a short period. The dredged material would likely provide additional food sources for these species following the disposal operation.

Biological Assessments have been prepared to address the potential effects on listed species from the proposed action. Preliminarily, Portland District biologists have determined that use of the proposed disposal sites would have no effect or not likely adversely affect listed species or their habitats. See attached Biological Assessments.

Cultural resources potentially affected by the proposed actions include shipwrecks and the Fort Canby State Park and National Historic Site. Disposal site evaluations have concluded that

shipwrecks or remnants do not occur at these locations (USACE, 1999). Disposal of dredged material at Benson Beach, including placement of pipeline, placement of temporary construction fencing and the dredged material discharge would have a short-term aesthetic impact in the vicinity of the site. Recreational use at Benson Beach and on the north jetty would be reduced during and shortly following the disposal activity. Reducing erosion at the site could potentially improve the value of the beach for recreational use.

Coordination

A Public Notice addressing the proposed action was distributed for 30-day public review on 21 Dec. 2001. Review comments were requested from Federal, State, and local agencies and groups, including:

- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- National Marine Fisheries Service
- Oregon Department of Environmental Quality
- Oregon Department of Fish and Wildlife
- Oregon Department of Parks and Recreation
- Oregon Division of State Lands
- Oregon State Historic Preservation Office
- Washington Department of Ecology
- Washington Department of Natural Resources
- Washington State Historic Preservation Office
- Lower Columbia River Port Districts
- CREST
- Pacific County
- Columbia River Crab Fishermen's Association
- CDOG

A public hearing, jointly sponsored by the Corps of Engineers and the States of Oregon and Washington, was held on 12 February 2002 in Astoria, Oregon. Several of the above agencies, groups and interested public were in attendance and commented on the proposed action. The comment letters received in response to the public notice, and public hearing transcript are part of the public record for this action. The following is a summary of comments from these letters and the public hearing and the Portland District response to these comments.

CORRESPONDENCE

EPA Region 10

General: Significant inter-agency coordinated has been conducted between Corps, EPA and other Federal agencies.

Port of Portland, Port of Vancouver, Port of Kalama, Port of Longview

Comments: All commented on the importance of maintaining the channel to the regional economy and the need for continued maintenance. They also expressed support for use of dredged material for “beach nourishment” purposes, particularly at Benson Beach.

Response: Comments noted.

Port of Ilwaco

Comments: Expressed three major concerns: safety for mariners; best for the environment; preserves local economy.

Response: Navigation safety is an important consideration for the Corps of Engineers in all of our actions. This includes selection and use of disposal sites, in close cooperation with the US Environmental Protection Agency. The site management and monitoring plans developed for the ocean disposal sites will help mitigate mounding effects. The offshore studies conducted over the past several years by the Corps and EPA have evaluated the effects of disposal on a variety of marine organisms including Dungeness crab. The disposal sites were selected based on these evaluations to minimize effects on marine resources and conflicts with commercial fishing activities.

Columbia River Steamship Operators Association

Comments: Expressed the importance of continued channel maintenance to continued viability of region in international trade and jobs directly affected by reliable dredging of the channel.

Response: Comments noted.

Columbia River Bar Pilots

Comments: Safety of crossing bar is crucial and delay or reduced maintenance dredging would compromise the bar pilots ability to move ships safely and efficiently. Also concerned for safety of fishing fleet.

Response: Comments noted.

Comment: Concern for use of Site F as potentially leading to conflicts between the dredges and incoming ships. Also concerned about potential for significant mounding at the site.

Response: Use of Site F would be limited to the 2002 dredging season with limited quantities placed at the site to avoid mounding. Dredges will coordinate their actions with other vessels and Columbia River Bar Pilots to minimize potential conflicts.

U.S. Fish and Wildlife Service

Comments: Reviewed plans to dredge the MCR channel with no action to be taken by the Service due to limited funding and staff. Outlined requirements under the Endangered Species Act.

Response: Comments noted.

Oregon Dept. of Fish and Wildlife

Comments: Raised concerns over proposed new sites described in the Public Notice such as the South Jetty Site. Requested extension of the comment period from 30 to 90 days. Requested additional information applied to the selection of proposed sites.

Response: New sites such as the South Jetty Site have been removed from consideration until further site evaluation is completed. The overall review timeframe for this action was 104 days.

David Mascarenas

Comments: Protect rearing areas for crabbing, oyster growing and other harvested aquatic species to protect the economy of coastal communities. Supports disposal on Benson Beach

Response: The proposed disposal sites contain no known rearing areas for oysters. Crabs are present within the entire oceanic area offshore of the Mouth of the Columbia River. They are not dependent upon any particular limited area such as the disposal sites for rearing habitat or

survival. Disposal site selection was based on minimizing impacts on marine resources and commercial fishing activity, including crab harvesting. We are proposing to use Benson Beach as a demonstration disposal site to determine the long-term feasibility, costs and effectiveness of this site as an alternative, which could reduce the need for ocean disposal. If it is successful, and additional funding is provided or costs are comparable to other alternatives, placement at Benson Beach could continue in future years.

Columbia River Crab Fisherman's Association (CRCFA) (12-31-2001 and 2-22- 2002)

Comment: Request additional information.

Response: Additional information was made available for review during the comment period at the Portland District Office, at the CREST office in Astoria and on the Portland District website. The comment period was extended to allow time to review those documents that were not available at the time the Public Notice was issued. New information will continue to be shared with the public, as it becomes available.

Comment: Reasonable timeframe for commenting on the Public Notice.

Response: Normal public notice review timeframes for a maintenance activity established by regulation is 30 days. See 33 CFR Parts 335-338. The review timeframe made available for this action was 104 days.

Comment: The Corps must move forward with an EIS for the MCR project addressing the proposed sites.

Response: The Environmental Impact Statement prepared in 1983 adequately addresses the requirements under the National Environmental Policy Act for maintenance of the MCR entrance channel to its currently authorized depth. That document described and evaluated the ocean sites to be used for disposal of dredged material from channel maintenance. Concurrently, the Environmental Protection Agency (EPA) conducted formal rulemaking and prepared an Environmental Impact Statement to designate the sites. The size of these sites proved inadequate over time for the quantities dredged. The Corps expanded the sites under its Section 103 authority, with EPA concurrence, in 1993 and 1997 to provide adequate disposal capacity. In 1997, the Environmental Impact Statement for Columbia River Channel Improvements (CRCIS) was scoped to include investigation of the Columbia River offshore area for ocean disposal sites to adequately meet the anticipated disposal needs. This included the requirements for anticipated quantities from the proposed deepening of the Columbia River 40-foot channel and maintenance of the MCR entrance channel and 40-foot channel. The EPA was a cooperating agency in preparation of the EIS and intends to conduct formal rulemaking this year to formally propose designation of new ocean disposal sites at MCR.

Comment: Site Management and Monitoring Plan.

Response: The MCR ocean dredged material disposal site management and monitoring plan draft by the Corps and EPA and made available for public comment during this review process.

Comment: Navigation safety Issues.

Response: The Corps and EPA recognize the concerns for navigation safety and it will continue to be an important consideration in management of ocean dredged material disposal sites.

Comment: System of Checks and Balances, Standardized Protocol and Quality Assurance.

Response: Portland District and EPA are evaluating site management and monitoring actions based on recommendations of the Review Team and other parties, and will continue to coordinate management practices.

Comment: Sharing of information.

Response: See first response above.

Comment: Discontinue implementation of Interim Sites Under 103 Authority.

Response: The Corps and EPA have been working with other agencies and the stakeholders for about 10 years to identify suitable ocean dredged material disposal sites to replace the designated sites, which do not have capacity to safely accommodate disposal requirements at MCR. This has been a long and challenging process given the many interests and concerns that need to be addressed. New sites have been selected and used by the Corps under the 103 authority, with EPA approval; in order to allow continued maintenance of the Federal navigation channel in a safe manner. Selection and use of these sites follows the same criteria used for site designation by EPA under Section 102.

Comment: Mitigation.

Response: The Corps and EPA have avoided and minimized impacts in the selection of disposal sites to the extent practicable.

Comment: Ocean Disposal Task Force.

Response: The Portland District recognizes the need for continued involvement with state, Federal and local stakeholders in continuing information exchange and refinement of a task force process for effectively addressing all user concerns. The Corps envisions a collaborative effort with a broad scope encompassing flexible methodology. District staff have met with Oregon department of Land Conservation and Development's office for Issue Resolution to discuss approaches. Additionally, on-going discussion with EPA and DOE will increase as the task force process evolves.

Comment: Coastal Zone Management Consistency.

Response: The Corps has prepared CZM consistency determinations for the proposed maintenance dredging and received concurrence from the States of Oregon and Washington.

Northwest Environmental Advocates

Comment: Supported CRCFA request for access to information, extension of time for public comments, and an Environmental Impact Statement.

Response: See first response to CRCFA comments.

Columbia Deepening Opposition Group (CDOG), with Ocean Advocates, Clean Ocean Action, Coast Alliance and Friends of the Earth

Comment: ...the Public notice is framed as a “done deal” - i.e. a description of the District’s “plans to perform work.” There is no mention of a decision yet to be made or, for that matter, permits yet to be granted.

Response: The language used in the Public Notice is taken directly from language established under Federal Regulation, particularly 33 CFR Parts 335-338, Final Rule for Operation and Maintenance of Army Corps of Engineers Civil Works projects involving the Discharge of Dredged Material into Waters of the U.S., or Ocean Waters. Maintenance of Federal projects, such as the Mouth of the Columbia River, has already been determined by Congress to be in the public interest. The Corps analysis for maintenance of the MCR channel therefore is directed at evaluation of how the work can most reasonably be accomplished in compliance with applicable environmental laws and regulations, and minimizing associated impacts, rather than a basic decision of whether the work should proceed.

Comment: ...it is essential that the public be part of the decision-making process regarding the designation and use of ocean disposal sites as prescribed in section 103 of the MPRSA.

Response: Beginning with the 1983 EIS prepared for deepening and maintenance of the MCR entrance channel, ocean disposal site evaluations have been conducted in compliance with the Marine Protection, Research and Sanctuaries Act (MPRSA) and included public coordination. The Environmental Protection Agency concurrently issued formal rulemaking and prepared an Environmental Impact Statement for designation of the selected sites. Over time, the size of these sites proved inadequate for the quantities dredged from maintenance of the entrance channel. Interim site expansions were implemented in 1993 and 1997, with EPA approval, to provide disposal capacity. The Environmental Impact Statement for Columbia River Channel Improvements (CRCIS) was scoped to include investigation of the Columbia River offshore area for ocean disposal sites to adequately meet the needs for anticipated quantities from deepening the Columbia River channel and maintenance of the MCR entrance channel. EPA was a cooperating agency in the preparation of this EIS. The Corps and EPA conducted a site selection process that involved agencies, stakeholders and the public to identify sites to propose for designation. Over this entire timeframe spanning nearly 20 years (1983-2002), numerous public notices, public meetings, workshops, draft and final NEPA document reviews and public and agency review meetings have been conducted to address the issues related to maintenance of the MCR project.

Comment: Both the hearing and public notices refer primarily to section 103 and Regulation 33 CFR (parts 335-338).

Response: Section 103 of the MPRSA provides the authority, with EPA concurrence, for the Corps to select and use sites when suitable EPA designated sites are not available. The selection and use of these sites are evaluated using the criteria (5 general and 11 specific criteria) established under Section 102 of the Act for site designation. All of the proposed ocean disposal sites in the public notice have been evaluated using these criteria and have received EPA concurrence. EPA intends to proceed with formal designation of the Expanded Site E and Deep Water Site this year.

Comment: (Appendix H, Vol. 1 of the CRCIS) examines the designation of disposal sites in the context of the Columbia River Deepening Project.

Response: The Purpose and Need statement of the CRCIS/EIS, the Need statement in Appendix H, and the Section 103 Evaluation contained in Exhibit D of the Main Report all clearly state that the ocean disposal site evaluations include evaluation of dredged material from the MCR channel maintenance. The location and size of the selected Expanded Site E and Deep Water Site are based primarily on MCR maintenance needs but clearly acknowledge that additional material could come from the deepening and maintenance of the lower river channel. These documents propose EPA designation of the sites. The Corps received formal concurrence with our request for EPA approval for use of the sites until formal rulemaking for designation is completed.

Comment: We believe the absence of an Environmental Assessment is a breach of procedure prescribed in 40 CFR.

Response: The referenced section applies to EPA site designation process. EPA intends to adopt the 1999 CRCIS/EIS as their site designation EIS for formal rulemaking.

Comment: Perhaps the most important breach of the MPRSA is the requirement mentioned on page 9 of the Public Notice that “ the least costly alternative, consistent with sound guidelines on ocean disposal criteria, will be designated the federal standard for the project.”

Response: The Federal regulation, 33 CFR Parts 209 and 335-338, governing Corps navigation project maintenance, defines the Federal standard as “ The dredged material disposal alternative or alternatives identified by the Corps which represent the least costly alternatives consistent with sound engineering practices and meeting the environmental standards established by the 404 (b)(1) process or ocean dumping criteria.” Therefore, costs are to be considered by the Corps in maintaining projects and disposal sites and actions must comply with applicable environmental laws.

Comment: The Public Notice suggests that EPA’s ongoing designation process for the two ocean dumping sites... should argue in favor of the Corps’ temporary designation of these disposal sites...

Response: The sites were identified through a long site selection process that included agencies, stakeholders and the public as sites, which minimized conflicts with other uses of the ocean. The Public Notice states that the Corps would use the sites under the authority of Section 103 of the MPRSA if EPA could not designate them in time for the 2002 dredging season. As previously stated, this provision of the MPRSA allowing the Corps selection and use of sites has been applied to Expanded Site E.

Comment: We do not believe that the two sites proposed for temporary designation for this dredging project have been adequately reviewed in the context of the criteria in Regulation 40 CFR part 228.

Response: The sites have been reviewed for disposal of dredged material from maintenance of the MCR entrance channel using the general and specific criteria for site selection in Part 228. The EPA has concurred with the use of these sites. The issues you have raised regarding these criteria have been taken into account during the evaluation process and subsequent review by agencies and public stakeholders. The Deep Water Site is not being considered at this time under Section 103, MPRSA authority.

Comment: Re: Beneficial use.

Response: The Portland District seeks beneficial uses of dredged material whenever feasible, and several of the alternatives proposed in the public notice are beneficial uses. These sites will be the first priority for use. When beneficial use of dredged material costs significantly more than other available alternatives, or could impair the ability to maintain the navigation channel (e.g. increased haul distance/time requirement) the Corps can use them only if there is a cost-sharing sponsor or additional funding is provided. The Benson Beach demonstration project is intended to determine the feasibility, costs and effectiveness of this alternative as a beneficial use of dredged material at the MCR. This is possible because additional funds were appropriated by Congress and were contributed by the Port of Kalama to cover the expected costs above in-water disposal.

Comment: Re: Cost-benefit assessment.

Response: We acknowledge the potential benefit from placement of dredged material at Benson Beach. However, in addition to keeping costs at a reasonable level, our primary concern is to assure that the navigation channel can be adequately maintained within the allowable dredging season. The demonstration project will help answer questions as to engineering feasibility, timeliness of disposal activity, site capacity, public acceptability, environmental effects and costs. Similar benefits may be achievable at lower costs and using less time through other alternative disposal methods.

Downsizing the navigation project is not compatible with providing safe navigation for commercial shipping traffic.

Comment: Re: Essential fish habitat consultation.

Response: Essential fish habitat consultation has been conducted with National Marine Fisheries Service.

Columbia Riverkeeper (Brent Foster)

Comment: An Environmental Impact Statement must be prepared for the proposed project.

Response: An Environmental Impact Statement was prepared in 1983 for the Current MCR entrance channel project and its maintenance. Environmental assessments were prepared jointly by the Corps and EPA for expansion of sites in 1993 and 1997. The 1999 Columbia River Integrated Channel Improvement Study and Environmental Impact Statement addressed the ocean disposal requirements for both the proposed channel deepening and MCR entrance channel maintenance. This Environmental Assessment prepared for current MCR entrance channel maintenance references those documents and identifies those alternative actions not previously addressed. The “new” alternative identified is the disposal of dredged material at Benson Beach as a demonstration project.

Comment: What actions does the Corps intend to consider in its cumulative effects evaluation?

Response: The limited proposed actions are the type of actions normally requiring an Environmental Assessment as described in both 33 CFR Parts 335-338, Discharge of Dredged Material into Waters of the U.S. or Ocean Waters; Operation and Maintenance; Final Rule, and

33 CFR Parts 230 and 325 Environmental Quality: Procedures for Implementing the National Environmental Policy Act; Final Rule. Also, see response to comments from CDOG.

Comment: Does the Corps acknowledge that use of the Deep water site for disposal of sediment generated from the Columbia River deepening project would have a significant environmental effect?

Response: The use of the EPA's proposed Deep Water site was evaluated within the context of the entire offshore area. Based on the EIS and Ocean Disposal Site Designation Work Group process, it was determined to be one of the locations that would least impact important resources and uses of the ocean. Other ocean disposal options would potentially have equal or greater impacts to fisheries.

Comment: Does the Corps acknowledge that the use of the Deep Water site as a temporary disposal site as is now being proposed would make it any more likely that the Deep Water site would be designated by EPA as a permanent disposal site?

Response: The Corps does not intend on using the Deep Water Site under its authority found in Section 103 of MPRSA. The Corps understands that the EPA is currently reviewing this site for designation.

Comment: Re: Several comments/questions on the potential effects of ballast water discharge and introduction of exotic species.

Response: Release of ballast water is not relevant to disposal site alternatives.

Comment: The Corps should consider an alternative entirely based on disposal for beneficial beach nourishment.

Response: There are no identified beneficial use alternatives that have the capacity to meet the entire disposal needs associated with the MCR project. Several beneficial use alternatives are included in the public notice and are receiving first priority for use. The Benson Beach demonstration project is being pursued with funds provided by Congress and contributed by the Port of Kalama, and is intended to address the feasibility, costs, and impacts of this option.

Comment: The project as proposed would not comply with the Endangered Species Act.

Response: Biological Assessments prepared for this action concluded that MCR channel maintenance would not likely adversely affect listed species. This determination has been coordinated with National Marine Fisheries Service and U.S. Fish and Wildlife Service. They have concurred.

Comment: The project EIS should demonstrate that the project would comply with state and federal Clean Water Act requirements.

Response: Section 404 (b)(1) Evaluations have been prepared for all actions occurring or proposed in state waters in compliance with the Act. State review of the actions and Water Quality Certifications have been received.

Comment: The proposed project does not appear to comply with the Marine Protection, Research and Sanctuaries Act or the Coastal Zone Management Act.

Response: See responses to CDOG comments.

Pacific County

Comment: Temporary designation of the Deep Water Site

Response: Section 103 of the MPRSA provides the authority, with EPA concurrence, for the Corps to select and use sites when suitable EPA designated sites are not available. Although selection and use of the proposed Deep Water Site has been evaluated the Corps does not intend to temporarily use the site at this time.

Comment: Re: CZM consistency

Response: A Coastal Zone Management Act Consistency Determination has been prepared and submitted to the States of Washington and Oregon. Both states have provided conditional concurrence with the consistency determination.

Comment: Benson Beach Demonstration Project

Response: The demonstration project will help establish the feasibility of using Benson Beach as one of the disposal alternatives for MCR dredged material. If it is successful, and additional funding is provided or costs are comparable to other alternatives, placement at Benson Beach could continue in future years.

Comment: Management of Site E

Response: A management and monitoring plan is under development for this site. Management and monitoring of the site includes ongoing coordination with affected agencies and users.

Comment: Near Shore Disposal sites

Response: We have withdrawn the near shore disposal options from consideration at this time.

Comment: Ocean Disposal Task Force

Response: See response to Columbia River Crab Fishermen Association regarding this issue.

Comment: Beneficial Uses

Response: The Benson Beach demonstration project is intended to identify the feasibility, costs, impacts and effectiveness of using Benson Beach as a beneficial use disposal site. If it is successful, and additional funding is provided or costs are comparable to other alternatives, placement at Benson Beach could continue in future years.

Comment: Least Cost Alternative

Response: The Federal regulation, 33 CFR Parts 209 and 335-338, governing Corps navigation project maintenance, defines the Federal standard as “ The dredged material disposal alternative or alternatives identified by the Corps which represent the least costly alternatives consistent with sound engineering practices and meeting the environmental standards established by the 404 (b)(1) process or ocean dumping criteria.” The Federal standard requires that costs are to be considered as part of determining the public interest. The process of disposal site selection has, and will continue to seek ways to avoid or minimize impacts to local resources and uses.

Columbia River Estuary Study Taskforce (CREST)

Comment: Public Notice not adequate to establish temporary site.

Response: The Corps prefers to wait until the site is designated by EPA before using it.

Comment: Beneficial Uses and Benson Beach

Response: The Benson Beach demonstration project is intended to identify the feasibility, costs, impacts and effectiveness of using Benson Beach as a beneficial use disposal site. If it is successful, and additional funding is provided or costs are comparable to other alternatives, placement at Benson Beach could continue in future years.

Comment: Reinstate Ocean Disposal Taskforce

Response: See response to Columbia River Crab Fishermen Association.

Comment: Deep Water Site Designation

Response: The EPA has stated their intent to proceed with the review and evaluation of the Deep Water Site and Expanded Site E.

PUBLIC HEARING TESTIMONY

Columbia Riverkeeper (Robert Warren)

Comment: Concern regarding better understanding of ecosystem structure and function of the "Columbia River Plume".

Response: We have discussed this issue with National Marine Fisheries Service in relation to the channel deepening study. No specific information has been identified to date, which would warrant additional studies of offshore ecosystem structure and function in relation to either channel deepening or MCR maintenance.

Pacific County

Comment: Temporary designation of the Deep Water Site

Response: See CREST comments above.

Comment: Re CZM consistency

Response: A Coastal Zone Management Act Consistency Determination has been prepared and submitted to the State of Washington. This CZM Consistency Determination addresses the applicable provisions of the Pacific County Shoreline Master Program.

Comment: Benson Beach Demonstration Project

Response: The demonstration project will help establish the feasibility of beach nourishment as one of the disposal alternatives for MCR dredged material.

Comment: Management of Site E

Response: A management and monitoring plan is being developed for this site.

Comment: Near Shore Disposal sites

Response: Although we have withdrawn the near-shore disposal options from consideration at this time, we may want to reconsider their potential use at a later date.

Comment: Ocean Disposal Task Force

Response: Portland District intends to convene the task force prior to the dredging season to provide information and obtain feedback on the 2002 disposal plan. This would include a more detailed estimate of quantity of material to be dredged, capacities at the proposed disposal sites and estimated disposal at each site, information on the exact location of disposal within the sites, and timing and sequence of disposal within each site. The task force would also be informed of the results of benthic and trawl studies at the Deepwater Site.

Comment: Beneficial Uses

Response: The Benson Beach demonstration project is intended to identify the feasibility of beach nourishment as a beneficial use. If it is successful, then we feel that this could help offset local coastal erosion problems.

Comment: Least Cost Alternative

Response: The Federal regulation, 33 CFR Parts 209 and 335-338, governing Corps navigation project maintenance, defines the Federal standard as “ The dredged material disposal alternative or alternatives identified by the Corps which represent the least costly alternatives consistent with sound engineering practices and meeting the environmental standards established by the 404 (b)(1) process or ocean dumping criteria.” The Federal standard requires that costs are to be considered as part of determining the public interest. The process of disposal site selection has, and will continue to seek ways to avoid or minimize impacts to local resources and uses.

CREST (Matt Van Ness)

Comment: Expressed concern that use of the Deepwater Site has not received State CZM concurrence or Water Quality Certification.

Response: The Deepwater Site would not be used until all applicable State and Federal requirements are met. Since the Deepwater Site is not within the Territorial Waters of the States, Water Quality Certifications would not apply.

Comment: Expressed need to reinstate the Ocean Disposal Task Force.

Response: See response to Pacific County.

Dick Sheldon

Comment: Concern for contamination of oysters and other shellfish in Willapa Bay.

Response: MCR dredged material consists of recently deposited marine sands. There is no reason to believe that this material contains any contaminants of concern.

Comment: Concern for boater safety in the vicinity of Site E.

Response: Disposal at Site E will continue to be monitored to assure mounding does not occur, however, the inherent risks of navigating in the vicinity of the mouth of the Columbia River are well documented.

Rick Mock, David Isaacs

Comments: Concern for contaminants in dredged material.

Response: Since the dredged material is recently accumulated marine sands, there is no reason to believe that contaminants of concern would be present.

OTHER CORRESPONDENCE

The following state and federal agency letters were also received. They will be responded to by separate correspondence as appropriate.

Oregon Department of Land Conservation and Development, April 4 2002
CZM Consistency concurrence with conditions.

Oregon Department of Environmental Quality, May 1, 2002
401 Water Quality Certification with conditions.

Washington State Parks, April 11 2002
Approval for placement of sand at Benson Beach with conditions

Washington Department of Ecology, April 22 2002
CZM Consistency concurrence and 401 Water Quality Certification with conditions.

USEPA, April 8 2002
Concur with use of sites under 103, with conditions

Consultation Requirements

a. Clean Water Act of 1977, as amended: Section 401 Water Quality Certifications have been received from the affected states for past disposal actions at the North Jetty Site as well as ocean disposal sites within the limits of the Territorial Sea (Site A, Shallow Water Site). Water Quality Certification issued for the North Jetty Site extends through the 2004 dredging season. Water Quality Certifications were requested for continued use of Site A and Shallow Water Site. In compliance with the Clean Water Act, a Section 404(b)(1) Evaluation was prepared for disposal at the Benson Beach site and State water quality certification requested from the State of Washington concurrent with the Public Notice issued for this action. Water quality certification was received from the States of Oregon and Washington with conditions. See attached letters.

b. Coastal Zone Management Act: Maintenance of the MCR channel, including use of existing disposal sites, has been evaluated for consistency with state and local plans. The States

of Oregon and Washington have concurred with the consistency determinations. The consistency process was initiated for use of the Deepwater Site but was completed pending resolution of management and monitoring issues. The proposed disposal of MCR dredged material within the smaller area of the Deepwater Site and at Benson Beach has been evaluated for consistency with State and local coastal management plans. Concurrence, with conditions, has been obtained from the States of Oregon and Washington. See attached letters.

c. Endangered Species Act of 1973, as amended: Compliance with this Act has been obtained for maintenance of the MCR channel and ocean disposal actions, including use of the North Jetty Site, through previous consultation. A determination was made that maintenance of the channel and disposal at these sites would not affect species listed as threatened or endangered under this Act. New Biological Assessments have been prepared to address potential project related effects on listed species for currently propose actions. These assessments have concluded with a determination of no effect or not likely to adversely affect listed species from the proposed action. The U.S. Fish and Wildlife Service and National Marine Fisheries Service have concurred with these findings.

d. Fish and Wildlife Coordination Act: The proposed action is being coordinated with U.S. Fish and Wildlife Service, National Marine Fisheries Service and Oregon and Washington Department of Fish and Wildlife.

e. Marine Protection, Research, and Sanctuaries Act of 1972, as amended: All applicable ocean disposal sites have been reviewed. EPA is reviewing the Expanded Site E and the Deep Water Site under Section 102 of the Act for future use.

f. Magnuson-Stevens Act: An Essential Fish Habitat evaluation has been prepared for the Columbia River offshore area. This evaluation has been coordinated with the National Marine Fisheries Service.

g. Cultural Resources Acts: The results of cultural resource evaluation will be coordinated with the Oregon and Washington State Historic Preservation Offices.

h. Executive Order 11988, Flood Plain Management, 24 May 1977: The proposed repair would not affect the existing flood plain nor encourage further development in the flood plain.

i. Executive Order 11990, Protection of Wetlands: No effect

j. Analysis of Impacts on Prime and Unique Farmlands: No effect.

k. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA). The location of the proposed work is not within or near the boundaries of any site designated by EPA or the State of Oregon for a response action under CERCLA nor is it part of a National Priority List site under CERCLA.

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