STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

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April 23, 2003

REGISTERED MAIL

Colonel Richard W. Hobernicht
Portland District
U.S. Army Corps of Engineers
P.O. Box 2946
Portland, OR 97208-2946

Dear Colonel Hobernicht:

RE: Coastal Zone Management and Section 401 Water Quality Certification/Modification for the Corps Public Notice
NWPOP-CRA-F03-001, Maintenance Dredging at Mouth of the Columbia River

The Washington State Department of Ecology (Ecology) has reviewed the above referenced public notice in accordance with all pertinent rules and regulations. The activity proposed in the public notice is the continuation of maintenance dredging of the entrance reach of the mainstem navigation channel of the lower Columbia River by the United States Army Corps of Engineers (Corps) and the disposal of the approximately four (4) to five (5) million cubic yards of resulting dredged material (the MCR Project). Dredging is to be conducted by a hopper dredge. Dredged material is to be disposed of at in-water sites as well as a beach nourishment sites. The Corps' public notice included the standard dredging depths, volumes, and areas at the mouth of the Columbia River to be dredged and announced that the following disposal sites would be used in 2003: North Jetty, Expanded Site E, Deepwater Site, Benson Beach, and Site A. Of these sites, the Deepwater, has not seen previous use for disposal.

Coastal Zone Management Program:

Ecology has reviewed the proposed MCR Project with respect to the Federal Consistency requirements of Washington State's Coastal Zone Management Program (CZMP). Ecology's role in the federal consistency process is to agree or disagree with the Corps' determination that dredging and disposal at the MCR Project is consistent with the enforceable policies of the CZMP.

Ecology has reviewed various aspects of the MCR Project over the years. The agency's focus at this point in time is not with determining whether maintenance dredging at the mouth of the Columbia River can or should occur. The MCR Project and a number of the disposal sites have previously been determined to be consistent with Ecology's CZMP. These sites include North Jetty, Expanded Site E, Benson Beach, Site A, and EPA designated 102 Site F.

Based upon review of the Corps public notice and other documentation provided by the Corps, public comments received during the public hearing held on February 5, 2003, or otherwise submitted to Ecology, and input from coastal program partner agencies, Ecology has reached the following decision:

1. Maintenance of the river entrance – Ecology has determined that the maintenance of the river clearly remains in the public interest considering the on-going importance of navigation to the Columbia River region and the notorious dangers of crossing the Columbia River bar.

2. The Deepwater Site - Ecology does not have an enforceable policy to regulate the disposal into the site, therefore a consistency determination is not required for disposal at this site.

This letter is issued pursuant to 15 C.F.R part 930. If the Corps does not agree with the above determination this letter shall be treated as an objection pursuant to the applicable subpart and notify, pursuant to Sec 930.

Section 401 Water Quality Certification/Modification:

On behalf of the State of Washington, Ecology certifies under Section 401 of the Clean Water Act, 33 U.S.C. § 1341, that there is a reasonable assurance the activity proposed in the public notice will be conducted in a manner that will not violate applicable State water quality standards. This water quality certification, with modification, is subject to the conditions contained in the enclosed Order and may be appealed by following the procedures described in the Order.

If you have any questions about this letter or the Order, please call Loree Randall at (360) 407-6068.

Sincerely,

Gordon White
Program Manager
Shorelands and Environmental Assistance Program

cc: Eric Braun, Corps of Engineers
John Malek, EPA
Tom Melville, DEQ
Russell Harding, DEQ
Carol Jolly, Governor's Office
Mike Desimone, Pacific County
David Kaiser, OCRM
Public Participant
Christine Valentine, Oregon's DLCD

DEPARTMENT OF ECOLOGY

In the Matter of Granting a Water	)	**ORDER No. 03SEAHQ-5489**
Quality Certification/Modification to:	)	(Corps No. NWPOP-CRA-F03-001)
United States, Department of the Army	)	Maintenance dredging of entrance reach
Corps of Engineers, Portland District	)	of lower Columbia navigation channel
In Accordance with 33 U.S.C. 1341	)	w/ disposal at ocean and river in-water sites.
[CWA § 401], RCW 90.48.260, and	)	
WAC 173-201A	)	

TO: Colonel Richard W. Hobernicht
Department of the Army
Portland District, Corps of Engineers
P.O. Box 2946
Portland, OR 97208-2946

On January 8, 2003, the United States, Department of the Army, Corps of Engineers, Portland District (Corps) submitted a request to the State of Washington, Department of Ecology (Ecology) for a water quality certification pursuant to § 401 of the Clean Water Act (CWA), 33 U.S.C. § 1341 (CWA § 401) for the above-referenced project. The request for certification was made available for public review and comment by inclusion in Corps Public Notice No. NWPOP-CRA-F03-001 dated January 6, 2003.

In exercising its authority under CWA § 401 and RCW 90.48.260, Ecology has evaluated this application pursuant to the following:

1. Conformance with the state water quality standards set forth in Chapter 173-201A WAC as authorized by 33 U.S.C. § 1313 and by Chapter 90.48 RCW, and with other appropriate requirements of state law; and

2. Conformance with the provision of using all known, available and reasonable methods to prevent and control pollution of state waters as required by RCW 90.48.010.

I. Project Description.

The proposed project involves the annual maintenance dredging of the entrance reach of the lower Columbia River navigation channel (MCR dredging) from river mile (RM) -3.0 to RM +3.0. The Columbia River is a Class "A" water the beneficial and characteristic uses of which are defined in WAC 173-201A-030(2). An average volume of four (4) to five (5) million cubic yards of sediment is dredged every year from shoals that reoccur at several locations in the entrance reach. The entrance reach is to be dredged to the authorized depth of -55 and -48 feet CRD (plus up to 5 feet of over-depth dredging) and authorized width of 2640 feet. Dredging is to be done entirely by hopper dredge, as it is

the only type of dredge that can work safely in the extreme wave and current conditions that can occur at the mouth of the Columbia River.

Dredged material is proposed to be disposed of at one or more of the following in-water disposal sites:

- North Jetty Site
- Expanded Site E
- Benson Beach
- EPA designated 102 Site F
- Site A
- Deepwater Site

II. Water Quality Certification Conditions. In view of the foregoing and in accordance with CWA § 401, 90.48.260 RCW and Chapter 173-201A WAC, a combined CWA § 401 certification/short-term water quality modification is granted to the Corps subject to the following conditions:

A. Short-term Modification to Water Quality Criteria.

1. The maintenance dredging of the lower Columbia River navigation channel may result in the temporary exceedance of certain state water quality criteria or special conditions specified in Chapter 173-201A WAC. Pursuant to WAC 173-201A-110, Ecology may grant a "Short-term Modification" to allow for such exceedances of the criteria on a short-term basis when necessary or to otherwise protect the public interest. Ecology finds that maintaining the navigation channel is an activity essential for the safe and efficient movement of large commercial vessels to upriver ports. In granting the following modifications, Ecology finds that supporting information clearly indicates the granting of dilution zones would not have a reasonable potential to: (1) cause a loss of sensitive or important habitat; (2) substantially interfere with the existing or characteristic uses of the lower Columbia River; (3) result in damage to the ecosystem; or (4) adversely affect public health.

   The reach of the lower Columbia River where the project will take place is classified as Class A waters; thus, Class A water quality standards of WAC 173-201A-030(2) apply, except as specifically modified by this Order. Temporary dilution zones, or mixing zones, are authorized for dredging and/or disposal to allow for temporary exceedances of certain water quality standards as a result of disturbing in-place sediments. Within the dilution zones, except as noted, water quality criteria are modified as follows:

a. **Turbidity.** Class A water quality standards for turbidity are waived within the specified dilution zones in Condition III.B.2. (a) provided the turbidity plumes that result do not exceed 15% of the width of the river.

b. **Dissolved Oxygen.** Class A water quality standards for dissolved oxygen are waived within the specified dilution zones, provided that total dissolved oxygen levels are not caused to drop below 6.0 mg/L.

2. **Duration of Short-term Modification.** Pursuant to WAC 173-201A-110, a modification of the water quality criteria (such as turbidity) within a dilution zone is intended for short-term periods of time, *such as for hours or days rather than weeks or months*. No degradation of water quality is allowed if such degradation is found to significantly interfere with or become injurious to characteristic water uses or cause long-term harm to the environment of the lower Columbia River. The maintenance of the entrance reach occurs over a period of three (3) to four (4) months every year. In this case, Ecology finds that the effects of maintenance dredging are short-term in that dredging/disposal occurs at discrete and separate shoal locations (the entire channel does not need annual dredging) and that dredging at each shoal location is completed in a matter of days.

B. Dredging.

1. Dredging operations shall be conducted in a manner that minimizes the disturbance or siltation of adjacent waters and prevents the accidental discharge of petroleum products, chemicals or other toxic or deleterious substance into waters of the State.

2. **Hopper Dredging:**

a. **Dilution Zone.** The following dilution zone for Hopper Dredging with bin overflow is authorized: 300 feet radially and 900 feet downcurrent from the point of dredging.

b. Hopper dredges shall be operated with the intake at or below the surface of the sediments being removed during all periods of operation. Reverse purging of the intake line shall be held to an absolute minimum. Should purging be necessary, the intake line shall be raised no more than three (3) feet above the bottom.

c. The dragheads on a hopper dredge shall be lowered to at least

twenty (20) feet below the surface of the river if water is pumped through the dragheads to flush out the hopper bins.

C. Disposal of Dredged Material.

1. In order to maximize retention of sand in the littoral system for beneficial uses, dredged materials shall be placed within existing disposal sites (North Jetty, and Expanded Site E) and at the proposed Benson Beach Site unless the collective use of these sites for MCR dredging materials would result in an unacceptable risk to navigational safety. In addition, use of these sites enhances the potential contribution of dredged sediments to the littoral system. Secondary priority shall be given to Site A and EPA designated 102 Site F.

2. The use of the proposed Deepwater Site would constitute a wasting of the littoral sand resource, contribute to coastal erosion and impact beneficial uses. Therefore, the Corps shall only use the proposed Deepwater Site as a contingency site for disposal of MCR dredging materials where a determination has been made that collective use of the other authorized sites would result in unacceptable risk to navigational safety.

3. Prior to the start of each dredging season, the Corps shall provide to Ecology a consolidated list of each disposal site proposed, disposal site use criteria (*e.g.*, site use priority, preferred locations, timing restrictions, disposal schedule for alternating between sites). The Corps shall also include for each proposed site a section detailing proposed thresholds (*e.g.*, maximum accumulation, weather conditions, coordination protocols, time of year, etc.) with anticipated management responses if any given threshold is likely to be or has been reached. This information shall be detailed in a final Annual Use Plan (AUP) and submitted to Ecology for review and comment. The Corps shall update the AUP throughout the project, as needed, to address new information or changing circumstances. Any such changes shall be submitted to Ecology for its review.

4. The management protocol for each site shall ensure that mounding does not occur, which triggers the need for re-dredging and resultant impacts to beneficial uses. In the MMP submitted to Ecology for review and comment, the Corps shall identify the model that it will utilize for measurement of wave height and shall set forth its justification for the use of the model selected.

D. Monitoring and Reporting.

1. For all new disposal sites proposed to be used, the Corps shall conduct

biological baseline studies. Sampling methodology employed shall be reviewed by Ecology and WDFW. These sites shall be designed, operated, and located to avoid and minimize resource impacts.

2. Daily records shall be generated detailing the amount of material dumped, the geographic locations given to the dredges for disposal areas and the GPS coordinates of actual dumps performed by the dredges. These reports shall be faxed (360/407-6904) or transmitted electronically on a weekly basis and/or provided to Ecology upon request. A yearly report summarizing this information shall be compiled and submitted to Ecology at the same time the Corps issues it Public Notice seeking CWA § 401 certification for its annual maintenance dredging operations.

3. Bathymetric surveys at Expanded Site E and the North Jetty shall be conducted (a) pre-disposal, (b) at least monthly during the dredging season, and (c) once post-disposal. During the dredging season, the survey frequency may be increased, if necessary, to ensure the accumulation threshold identified in the MMP are not exceeded. These surveys shall be sent to Ecology immediately upon availability to the Corps.

4. The Corps shall continue to assess potential lethal and sub-lethal impacts to Dungeness crabs from dredging, disposal and high levels of suspended sediment. Sampling plans and study proposals shall be submitted to Ecology and WDFW for review and comment. The sampling plan and proposals shall be designed to collect sufficient data to characterize crab population density, distribution and movements of crab throughout the year, and climate variables (particularly high and low spring freshet) at the dredging and disposal sites. This will provide information to determine appropriate dredging and disposal timing to minimize impact to Dungeness crab resources. The Corps shall incorporate the results of this monitoring into a strategy to avoid, minimize, and mitigate impacts to Dungeness crab as information becomes available. This strategy shall be developed jointly with Ecology and WDFW. Ecology also recommends that the State of Oregon participate in the development of the strategy.

5. Prior to dredging, the Corps shall develop a monitoring and modeling program. The monitoring and modeling plan shall be designed to determine sand dispersal (direction, rate and pathways) from in-water disposal sites to ensure that water quality and the beneficial uses of the State are protected. The monitoring and modeling plan should make use of previously collected data and modeling results as well as more frequent and larger area bathymetric surveys and new monitoring technologies to measure waves, currents, and bottom suspended sediment concentration. Modeling efforts should include wave transformation, sediment transport,

dredged material fate, and morphology change. The plan shall be submitted to Ecology for review and comment.

6. The Corps, in cooperation with Ecology, and other Washington and Oregon state resource agencies, shall sponsor an independent multidisciplinary taskforce to develop an integrative dredge material and disposal management plan for the maintenance dredging of the mouth of the Columbia River. This plan should address the impacts to beneficial uses, including Dungeness crab, caused by the annual maintenance dredging and disposal. The plan should also include a strategy to optimize the management and beneficial use of sand dredged from the mouth of the Columbia River, particularly as it relates to the loss of sand in the littoral system and coastal erosion.

7. Turbidity shall be measured (or visually assessed) and recorded at a minimum of every two (2) hours during periods of active disposal and dewatering. The designated person attending the monitoring equipment shall be responsible for notifying the project foreman of any exceedance of the turbidity standard. Turbidity shall be monitored during in-water work. Monitoring points shall be 100 feet upstream (representative background), 900 feet downstream, and at the discharge point. A turbidimeter is recommended, however, visual gauging of turbidity is acceptable. Visible project-related turbidity at 900 feet below the discharge point is considered to be an exceedance of the standard. If an exceedance of 5NTU over background turbidity when the background turbidity is 50 NTU or less, or have more than a ten (10) percent increase in turbidity when the background turbidity is more than 50 NTU, occurs at 900 feet below the project site, the Corps shall modify the activity causing the problem and continue to monitor every two hours. If exceedances occur with two (2) consecutive measurements (two (2) hours apart), the Corps shall stop the activity causing the turbidity until the problem is resolved.

E. Emergency and/or Contingency Measures.

1. If dredging/disposal operations are found not to be in compliance with the provisions of this Order, or result in conditions causing distressed or dying fish, the operator shall immediately take the following actions:

   a. Cease operations.

   b. Assess the cause of the water quality problem and take appropriate measures to correct the problem and/or prevent further environmental damage.

   c. In the event of finding distressed or dying fish, the operator shall collect fish specimens and water samples in the affected area and, within the first hour of such conditions, make every effort to have the water samples analyzed for dissolved oxygen and total sulfides. Ecology may require such sampling and analyses before allowing the work to resume.

   d. Notify Ecology and WDFW of the nature of the problem, any actions taken to correct the problem, and any proposed changes in operations to prevent further problems.

F. Spill Prevention and Control.

1. Any discharge of oil, fuel, or chemicals into state waters, or onto land with a potential for entry into state waters, is prohibited.

2. Fuel hoses, oil drums, oil or fuel transfer valves and fittings, etc., shall be checked regularly for drips or leaks, and shall be maintained and stored properly to prevent spills into state waters. Proper security shall be maintained to prevent vandalism.

3. In the event of a discharge of oil, fuel, or chemicals into state waters, or onto land with a potential for entry into state waters, containment and cleanup efforts shall begin immediately and be completed as soon as possible, taking precedence over normal work. Cleanup shall include proper disposal of any spilled substances and used cleanup materials.

4. Spills into state waters, spills onto land with a potential for entry into state waters, or other significant water quality impacts, shall be reported immediately to Ecology's Southwest Regional Office at (360) 407-6300 (a 24-hour phone number).

G. Duration of Water Quality Certification.

1. This Water Quality Certification shall remain in effect for a period of four years from date of issuance. However, Ecology reserves the right to reassess the terms of this Water Quality Certification and amend or revoke, as necessary, in the event that:

   a. New sources of potential contamination are discharged or otherwise stand to significantly affect the quality of sediments dredged from the entrance reach of the lower Columbia River navigation channel; or

   b. New information indicates that dredging and/or disposal activities are having a significant adverse impact on water quality or characteristic uses of the lower Columbia River.

2. This CWA § 401 Certification does not apply to any re-dredging of the disposal sites for which the Corps has requested certification through its December 2001 public notice for the MCR Project. If such re-dredging is required, the Corps shall seek a separate CWA § 401 certification from Ecology.

H. Notification

The Corps or its designated contractor shall notify Ecology at least fourteen (14) days prior to the scheduled start of dredging in any year. Ecology's contact for this Water Quality Certification is Loree' Randall, (360) 407-6068.

I. Other Requirements.

1. Copies of this Order shall be kept on the job site and readily available for reference by the Corps, Ecology personnel, the contractor, and other appropriate state and local government inspectors.

2. Ecology retains jurisdiction to make modifications hereto through supplemental order, if it appears necessary to protect the public interest during the construction and monitoring of this project.

3. This Order does not exempt and is provisional upon compliance with other statutes and codes administered by federal, state, and local agencies.

J. **Penalties.** Failure to comply with this Order may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce the terms of this Order.

K. **Appeal Process.** Any person aggrieved by this Order may obtain review thereof by appeal. The applicant can appeal up to 30 days after receipt of the permit, and all others can appeal up to 30 days from the postmarked date of the permit. The appeal shall be sent to the Washington Pollution Control Hearings Board, P.O. Box 40903, Olympia, WA 98504-0903.

Concurrently, a copy of the appeal shall be sent to the Department of Ecology, Enforcement Section, P.O. Box 47600, Olympia WA 98504-7600 and the Department of Ecology SEA Program Attn: Loree' Randall. These procedures are consistent with the provisions of Chapter 43.21B RCW and the rules and regulations adopted thereunder.

Dated April 23, 2003 at Lacey, Washington

Gordon White

Gordon White, Program Manager
Shorelands and Environmental Assistance Program
Department of Ecology