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DEPARTMENT OF ECOLOGY
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February 28, 2007

Colonel Thomas E. O'Donovan
Department of the Army
Portland District, Corps of Engineers
P.O. Box 2946
Portland, OR 97208-2946

RE: Water Quality Certification for Maintenance Dredging at Mouth of the Columbia River.

Dear Colonel O'Donovan:

On June 12, 2006, 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.

At this time Ecology is issuing the 401 WQC for a one (1) year period. This will allow Ecology and the Corps to review and evaluate the concerns around the Shallow Water site, as well as giving the Corps, EPA and other stockholders time develop a regional sediment management strategy for the Mouth of the Columbia River.

If there are any questions regarding these clarifications, please contact me at 360-407-0271 or Loree' Randall 360-407-6068.

Thank you,

Paula Ehlers

Paula Ehlers, Section Manager
Shorelands and Environmental Assistance Program
Southwest Regional Office

PE:ds

cc: Loree' Randall, Ecology
Alex Cyril, DEQ
Sally Puent, DEQ
Cathy Tortorici, NOAA Fisheries
Dale Blanton, DLCD
Gary Voerman, EPA

IN THE MATTER OF GRANTING A WATER QUALITY CERTIFICATION TO United States, Department of the Army Corps of Engineers, Portland District **in accordance with 33 U.S.C. 1341 (FWPCA § 401), RCW 90.48.120, RCW 90.48.260 and Chapter 173-201A WAC**	)	**Order No. 4128** **Corps No.** NWPOD-CRA-F-06-001 Maintenance dredging of entrance reach of lower Columbia navigation channel with disposal at ocean and river in-water sites.

TO: Colonel Thomas E. O'Donovan
Department of the Army
Portland District, Corps of Engineers
P.O. Box 2946
Portland, OR 97208-2946

On June 12, 2006, 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. NWPOD-CRA-F-06-001 dated July 21, 2006.

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. 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
- Shallow Water Site
- Proposed Benson Beach
- Deepwater Site

AUTHORITIES:

In exercising authority under 33 U.S.C. § 1341, 16 U.S.C. § 1456, RCW 90.48.120, and RCW 90.48.260, Ecology has examined this application pursuant to the following:

1. Conformance with applicable water quality-based, technology-based, and toxic or pretreatment effluent limitations as provided under 33 U.S.C. §1311, 1312, 1313, 1316, and 1317 (FWPCA § 301, 303, 306 and 307);

2. Conformance with the state water quality standards contained in Chapter 173-201A WAC and authorized by 33 U.S.C. §1313 and by Chapter 90.48 RCW and with other applicable state laws; and

3. 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.

WATER QUALITY CERTIFICATION CONDITIONS:

Through issuance of this Order, Ecology certifies that it has reasonable assurance that the activity as proposed and conditioned will be conducted in a manner that will not violate applicable water quality standards and other appropriate requirements of state law. In view of the foregoing and in accordance with 33 U.S.C. §1341, RCW 90.48.120, RCW 90.48.260, and Chapter 173-201A WAC, water quality certification is granted to the Applicant subject to the conditions within this Order.

Certification of this proposal does not authorize the Applicant to exceed applicable state water quality standards (Chapter 173-201A WAC), or sediment quality standards (Chapter 173-204 WAC). Furthermore, nothing in this certification shall absolve the Applicant from liability for contamination and any subsequent cleanup of surface waters, ground waters or sediments occurring as a result of project construction or operations.

A. General Conditions:

1. For purposes of this Order, the term "Applicant" shall mean the U.S. Army Corps of Engineers, and its agents, assignees and contractors.

2. For purposes of this Order, all submittals required by its conditions shall be sent to Ecology's Headquarters to the Federal Permit Coordinator, PO Box 47600, Olympia WA 98504. Any submittals shall reference Order No. 4128 and Corps No. NWPOD-CRA-F-06-001.

3. Work authorized by this Order is limited to the work described in the JARPA received by Ecology on June 12, 2006. The Applicant will be out of compliance with this Order and must reapply with an updated application if the information contained in the JARPA is voided by subsequent changes to the project not authorized by this Order.

4. Within 30 days of receipt of an updated JARPA, Ecology will determine if the revised project requires a new water quality certification and public notice or if a modification to this Order is required.

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

6. Copies of this Order shall be kept on the job site and readily available for reference by Ecology personnel, the project manager, construction managers and lead workers, and state and local government inspectors.

7. The Applicant shall provide access to the dredging and disposal sites upon request by Ecology personnel for site inspections, monitoring, necessary data collection, and/or to ensure that conditions of this Order are being met.

8. Nothing in this Order waives Ecology's authority to issue additional orders if Ecology determines that further actions are necessary to implement the water quality laws of the state. Further, Ecology retains continuing jurisdiction to make modifications hereto through supplemental order, if additional impacts due to project construction or operation are identified (*e.g.*, violations of water quality standards, erosion, etc.), or if additional conditions are necessary to further protect water quality.

9. This Order does not authorize direct, indirect, permanent, or temporary impacts to waters of the state or related aquatic resources, except as specifically provided for in conditions of this Order.

10. Any person who fails to comply with any provision of this Order shall be liable for a penalty of up to ten thousand dollars ($10,000.00) per violation for each day of continuing noncompliance.

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 substances into waters of the State.

2. Hopper Dredging:

   a. 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.

   b. 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 Shallow Water) and at the proposed Benson Beach Site unless the use of a site for MCR dredged materials would result in an unacceptable risk to navigational safety.

2. The use of the Deepwater Site constitutes a wasting of the littoral sand resource, contributes to coastal erosion and impacts beneficial uses. Therefore, the Corps shall only use the proposed Deepwater Site as a contingency site for disposal of MCR dredged materials where

a determination has been made that the use of the other authorized sites would result in unacceptable risk to navigational safety.

3. The Corps shall submit a draft Annual Use Plan (AUP) to Ecology for review and comment 30 days prior to dredging and disposal. The Corps shall include for each proposed disposal 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. The Corps shall prepare and submit a final AUP to Ecology for review and comment two (2) days prior to starting dredging and disposal. Any changes to the AUP during dredging and disposal shall be submitted to Ecology for its review.

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

D. Monitoring and Reporting:

1. 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 (or other approved location information) of actual dumps performed by the dredges. These reports shall be transmitted electronically on a monthly basis and/or be provided to Ecology upon request. A yearly report summarizing this information shall be compiled and submitted to Ecology within three (3) months of the end of the dredging season.

2. Bathymetric surveys at the Shallow Water site and the North Jetty site shall be conducted (a) pre-disposal, (b) twice a month during the dredging season, (if weather and tides present safety problems then a survey should be conducted at least monthly), and (c) once post-disposal. During the dredging season, the survey frequency may be increased, if necessary, to ensure the accumulation thresholds identified in the AUP are not exceeded. These surveys shall be submitted to Ecology within a month upon availability to the Corps. If the Corps posts the information on a web site instead of sending hard copies the Corps shall notify Ecology via email.

3. The Corps shall conduct a post-project wave model analysis to assess the effects of wave amplification at the Shallow Water Site. A comparison of the post-project wave environment to the 1997 baseline condition shall be performed, including a characterization of the wave conditions that may pose navigational hazards. This analysis shall also include an assessment of both Peacock Spit and the Shallow Water Site bathymetry changes that may contribute to wave amplification.

4. If the post-project wave modeling analysis indicates unacceptable mounding as defined by 10 percent wave amplification relative to the 1997 baseline condition at the Shallow Water Site, the Corps shall implement additional actions including monitoring and the issuance of a US Coast Guard Notice to Mariners. Additional monitoring shall consist of bathymetric surveys

of the Shallow Water Site performed every two weeks (as weather and/or safety conditions allow) until mounding is sufficiently dispersed. Additional wave modeling shall be performed to assess the wave environment if mounding is not sufficiently dispersed after one month. Sediment transport modeling and/or other technologies should also be employed to estimate the time frame and/or wave conditions required for mounding to sufficiently disperse so that there is insignificant effect on the local wave environment.

5. The Corps shall continue monitoring and modeling 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 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. Results of the final monitoring and modeling information shall be submitted to Ecology upon availability to the Corps.

6. The Corps, in cooperation with Ecology, and other Washington and Oregon state resource agencies, shall participate in a multi-agency taskforce to develop an integrated dredge material and disposal management plan that includes consideration of 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 resulting coastal erosion.

7. The Corps shall continue to assess potential lethal and sub-lethal impacts to Dungeness crabs from disposal and high levels of suspended sediment. Sampling plans and study proposals shall be submitted to Ecology and WDFW for review and comment. This will provide information to determine appropriate disposal timing to minimize impact to Dungeness crab resources. The Corps shall incorporate the results of this monitoring into the AUP as the final information becomes available.

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:

   i. Cease operations.

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

   iii. 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.

iv. 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 one (1) year 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 June 12, 2006 JARPA 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. Appeal Process:

You have the right to appeal this Order to the Pollution Control Hearings Board. Pursuant to chapter 43.21B RCW, your appeal must be filed with the Pollution Control Hearings Board, and served on the Department of Ecology within thirty (30) days of the date of your receipt of this document.

To appeal this Order, your notice of appeal must contain a copy of the Ecology Order you are appealing.

Your appeal must be filed with:
The Pollution Control Hearings Board
4227 – 6th Avenue SE, Rowe Six, Bldg. 2
PO Box 40903
Lacey, Washington 98504-0903

Your appeal must also be served on:
The Department of Ecology
Appeals Coordinator
P.O. Box 47608
Olympia, Washington 98504-7608.

In addition, please send a copy of your appeal to:
Federal Permit Appeals Coordinator
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

For additional information: Environmental Hearings Office Website: http://www.eho.wa.gov

Your appeal alone will not stay the effectiveness of this Order. Stay requests must be submitted in accordance with RCW 43.21B.320. These procedures are consistent with Ch. 43.21B RCW.

Dated 2·28·07 at Lacey, Washington.

Paula Ehlers

Paula Ehlers, Section Manager
Shorelands and Environmental Assistance Program
Department of Ecology
State of Washington