



Oregon

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March 21, 2007

Colonel Thomas E. O'Donovan,
District Commander
U.S. Army Corps of Engineers
ATTN: CENWP-PM-E
P.O. Box 2946
Portland, OR 97208-2946

Attn: Sheryl Carrubba, P.E., Operations Manager, Channels and Harbors Project

Subject: **Corps Public Notice NWPOD-CRA-F06-001,
401 for Maintenance Dredging at the Mouth of the Columbia River with
modified timing condition**

Dear Colonel O'Donovan,

This 401 Certification letter replaces that issued on March 2, 2007, which is now considered null and void. On July 21, 2006, the U.S. Army Corps of Engineers, Portland District (USACE) issued a Public Notice notifying interested parties that they planned to continue to perform work in navigable waters of the District. The Public Notice contained a request for renewal of Water Quality Certification from the Oregon Department of Environmental Quality (DEQ), pursuant to Section 401 of the Clean Water Act, and which was previously issued May 1, 2002 with an expiration date of April 30, 2007. Subsequent to the Public Notice, USACE requested renewal of the certification prior to expiration in order to accommodate contracting schedules.

DEQ will continue to evaluate the above request, which contains information not reviewed for the existing certification, and also consider new information recently received regarding disposal areas. During this evaluation period, DEQ extends the existing certification for approximately one year. The original project description and conditions are included below and this extended certification will expire May 31, 2008.

The purpose of the project is to maintain the Mouth of the Columbia River (MCR) Navigation Channel at its Federally authorized depth of -55 and -48 feet Mean Lower Low Water (MLLW) by removing naturally occurring restricting shoals consisting of sedimentary materials. The authorized MCR channel is 2,640-feet wide and extends from deep water at River Mile (RM) -3.00 upstream to RM +3.00. Up to 5-feet of overdredge is routinely performed to ensure adequate depth is maintained between dredge cycles. A total of approximately 4 to 5 million cubic yards (mcy) are anticipated to be removed annually.

The proposed work area is located in Pacific County, Washington, and Clatsop County, Oregon. Section 401 Water Quality Certification and Certification of Consistency with State Coastal Management Program is required from each state.

Disposal of dredged materials is proposed at several approved disposal sites described and mapped in the Public Notice and include:

- The North Jetty Site- this site will accommodate from 100,000 to 500,000 cubic yards (cy) annually.
- Shallow Water Site, or Expanded Site E- A highly erosive site located off the end of the North Jetty. This site has received up to 3.7 mcy in past years. The volume for the currently proposed dredging cycle is unlikely to be that high.
- Expanded Site F- An approved but non-erosive site approximately 3 miles off the end of the jetties along the approach channel. Will be used only until May, 2003, and then only after other sites are filled.
- Benson Beach- A beneficial use demonstration site located in Fort Canby State Park, Pacific County, Washington which will receive materials via a federally funded demonstration project. The amount of material placed in the surf zone is dependent on funding, but is anticipated to be 300,000 cy in 2002.
- Site A- This approved site has limited potential due to mounding but may accept from 100,000 to 500,000 cy annually.
- Deep Water Site- This site is currently undesignated by EPA. When designation is final, the Corps plans to use a limited portion of the site during this permitting cycle. The site will be used only after all other sites have reached capacity.

Two additional beneficial use sites show promise for future use after the Corps District prepares additional evaluation and design. The two are nearshore disposal sites that are anticipated to retain materials within the littoral cell. The Corps will continue to work with the states of Oregon and Washington, resource and regulatory agencies, and stakeholders to develop them.

- South Jetty Site- A newly proposed site just south of the South Jetty in Oregon. Up to 1 mcy could be placed at this site in future years to counteract undermining of the South Jetty and adjacent nearshore coastal erosion. Anticipated placement volumes in future years would be less, and will depend on results of bathymetric analyses.
- Nearshore Placement- Also intended for beneficial use. Placement of dredged materials in the offshore littoral drift at the 40-foot depth contour just north of the North Jetty is anticipated to help minimize on-going erosion of Washington coastal areas.

Dredged sediments proposed for in-water disposal must be sampled and analyzed consistent with the 1998 Dredged Material Evaluation Framework (DMEF). The most recent sampling and analysis of the sediments in the navigation channel at MCR occurred in 1997, and determined that the material proposed for removal is suitable for in-water disposal.

The National Marine Fisheries Service (NMFS) issued a Biological Opinion (BO) on the USACE Columbia River Operation and Maintenance Program on September 15, 1999 including specific non-discretionary terms and conditions. All conditions in this Section 401 Water Quality Certificate are consistent with the binding terms and conditions of the BO.

In response to requests by interested parties and in recognition of the controversial nature of the project, a public hearing was held on Tuesday, February 12, 2002 in Astoria Oregon. The hearing was held jointly by USACE, ODEQ, and the Washington Department of Ecology (WADOE). The US Environmental Protection Agency (EPA) and the Oregon Department of Land Conservation and Development (DLCD) also participated. Concerns expressed by the public through both the Public Hearing process and the submission of written comments, in

order of their relative importance to the commentors include the following: impacts to crabs, salmon or other biological components of the system from disposal; sand management, including beneficial uses for dredged materials, disposal of sediments in the littoral drift, and loss of materials from the estuary; deepwater disposal site controversy; reinstatement of the Ocean Disposal Task Force; mitigation for impacts from disposal; and concern over the Corps use of the "least costly alternative". DEQ has reviewed and considered the comments received. Issues relating to water quality standards are addressed in the conditions of the Water Quality Certification. Attainment of standards assures that beneficial uses are protected. Issues unrelated to water quality must be addressed by other appropriate entities.

The Columbia River is classified as Water Quality Limited under Section 303(d) of the Clean Water Act for the parameters of: pH; Temperature; Total Dissolved Gas; Arsenic; PCB; Polynuclear Aromatic Hydrocarbons (PAHs); and DDT Metabolite (DDE). The US Environmental Protection Agency (EPA) has approved Total Maximum Daily Loads (TMDLs) for the Columbia River for the water quality parameters of 2,3,7,8 TCDD (Dioxin) and Total Dissolved Gas.

The above listed parameters impair the following beneficial uses in the Columbia River: salmonid rearing; anadromous fish passage; resident fish and aquatic life; drinking water; and water contact recreation.

Based on information provided by the applicant, DEQ does not anticipate any long-term violations of State Water Quality Standards, including *Oregon Administrative Rule (OAR) 340-41-004, Antidegradation Policy for Surface Waters*, provided the applicant strictly adheres to the conditions which follow.

CONDITIONS

- 1) **Fish protection/ODFW timing:** As listed species are known to use the project areas at some life stage during all months of the year and in order to protect all beneficial uses in the project areas, in-water dredging and disposal work shall occur within the Oregon Department of Fish and Wildlife's (ODFW) preferred time window, November 1 through February 28, as specified in: Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources, June 2000. However, DEQ recognizes dangerous winter weather conditions at the Mouth of the Columbia River which pose significant safety concerns for project operations during the specified timing window and defers to the National Marine Fisheries Service (NMFS) Biological Opinion (BO) dated March 11, 2005, which allows in-water work at other times in some areas which include Oregon waters, specifically: year round in the federal navigation channel between RM 4.4 – RM 106.5; August 1 through September 30 for in the federal navigation channel between RM 106.5 - RM 123.5; October through May in the lower reach of Oregon Slough; September through October in Baker Bay West Channel and Chinook Channel; and May through November at the Mouth of the Columbia River between RM -3 and RM +3. Otherwise, in-water activities are confined to November 1 through February 28 unless a request for additional exception to the in-water work timing window is reviewed and approved by ODFW and NMFS.

- 2) **Aquatic life movements:** No activity may substantially disrupt the movement of those species of aquatic life indigenous to the water body, including those species that normally migrate through the area. Unobstructed fish passage must be provided for at all times during dredging and disposal activities.
- 3) **Turbidity:** All dredging and disposal of sediments shall be conducted so as to minimize siltation and turbidity in the Columbia River. Turbidity shall not exceed 10% above natural stream turbidities, except where allowed by *OAR 340-41-0036*. This rule states, in part, that: limited duration activities necessary to accommodate essential dredging, and which cause the turbidity standard to be exceeded may be authorized provided all practical turbidity control techniques have been applied and a Section 401 water quality certificate has been granted.

Turbidity shall be measured (or visually assessed) and recorded at a minimum, every two hours, during periods of active dredging and disposal. 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 disturbance 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 a 10 % exceedance of the background level occurs at 900 feet below the project site, modify the activity causing the problem and continue to monitor every two hours. If exceedances occur with two consecutive measurements (two hours apart) stop the activity causing the turbidity until the problem is resolved.

- 4) In order to help control turbidity, hopper and pipeline dredges shall be operated with the intake head at or below the surface of the sediments being removed during all periods of operation. Reverse purging of the intake line shall be kept to an absolute minimum. Should purging be necessary, the intake line shall be raised no more than 3 feet from the bottom. If water is pumped through the dragheads to flush out the hopper dredge bins, the heads shall be at least twenty (20) feet below the water surface.
- 5) **Dredging-**
 - (a) Dredging operations shall be conducted employing Best Management Practices (BMP's) which minimize disturbance or siltation of adjacent habitat or waters.
 - (b) Dredging of holes or sumps below maximum depth and subsequent redistribution of sediment by dredging, dragging, or other means is not authorized.
 - (c) All anthropogenic debris shall be removed from dredged sediments prior to flow lane disposal and transported to an appropriate upland disposal site.
 - (d) Redredging of disposed materials is not authorized by this Water Quality Certification. Should it become necessary to redredge materials from an approved in-water disposal site, the Corps must obtain a site-specific Section 401 Water Quality Certification for each individual dredging activity.

- 6) If the dredging operation causes a water quality problem which results in distressed or dying fish, the operator shall immediately: cease operations; take appropriate corrective measures to prevent further environmental damage; collect fish specimens and water samples; and notify DEQ and the Oregon Department of Fish and Wildlife (ODFW). Additional sampling and analyses may be required by the DEQ before allowing work to resume.
- 7) Petroleum products, chemicals, or other deleterious waste materials shall not be allowed to enter waters of the State.
- 8) Fuel hoses, oil drums, oil or fuel transfer valves and fittings, etc., must undergo frequent inspection for drips or leaks, and shall be maintained in order to prevent spills into State waters.
- 9) In the event of a discharge of oil, fuel, or other chemicals into State waters, or onto land with a potential to enter State waters, shall be reported immediately to the Oregon Emergency Response Service (OERS, 1-800-452-0311). Containment and cleanup must begin immediately and be completed as soon as possible.
- 10) **Disposal of Dredged Material-**
 - (a) It is desirable to retain as much material in the Columbia River littoral cell as possible. Therefore priority must be given to nearshore disposal sites that are considered erosive or dispersive in nature and that have the ability to provide materials to the littoral system.
 - (b) The Deep Water Site may be used only after the Corps has shown through bathymetric evaluation that all other approved sites are filled to capacity, and all other beneficial use options have been exhausted. Capacity in this case is that volume which would result in an unacceptable risk to navigational safety. Disposal of materials in the Deep Water Site is considered "wasting" and should be the absolute last resort.
 - (c) If it becomes necessary to dispose of materials in the Deep Water Site, the disposal method must result in the smallest footprint possible through precision placement of materials.
- 11) **Dredging by Others-** other individuals may be allowed, at the discretion of the Portland District, Corps of Engineers, to dredge commercial grade sediments from the navigation channel. In Oregon waters, all such work by others is subject to the conditions contained in this certification and also must comply with leasing and royalty requirements of the Oregon Division of State Lands.
- 12) **Duration of Water Quality Certification-**
 - (a) This CWA Section 401 Water Quality Certification (WQC) shall remain in effect until May 31, 2008. As a condition of the certification, the Corps District must submit an annual report at the conclusion of each dredging year. The report must include the monitoring reports described in condition 13, and must demonstrate that the project remains consistent with state water quality standards, beneficial uses, emerging surveys, studies, and scientific findings relative to water quality and resource protection at the disposal sites. Certification is contingent upon DEQ review and approval of the annual report.

- (b) DEQ reserves the option to modify, amend or revoke this WQC, as necessary, in the event new information indicates that the dredging or disposal activities are having a significant adverse impact on State water quality or critical fish resources.
- 13) **Monitoring-**
- (a) The Corps must conduct biological baseline studies for any new disposal sites, including the Deep Water Site. These sites must be designed to avoid, minimize, or mitigate for impacts to resources. Sampling design and methodology must be approved in advance by an Oregon resource and regulatory interagency group including DEQ, Department of Land Conservation and Development (DLCD), and ODFW.
 - (b) A dredging and disposal log must be kept detailing daily activities. Entries must include geographic location by GPS coordinates of both dredge and disposal sites, and volume of material disposed per site per day. This information may be transmitted to DEQ via e-mail (cyril.alex@deq.state.or.us) or fax (503-229-6957) on a weekly basis. This information must also be contained in the year-end report submitted after the dredge season to satisfy renewal requirements in condition 12) (a), above.
 - (c) Bathymetric surveys of dredge and disposal sites must also be submitted in the annual report.
- 14) A copy of this WQC letter shall be kept on the job site and readily available for reference by the Corps of Engineers, DEQ personnel, the contractor, and other appropriate state and local government inspectors.
- 15) This WQC is invalid if the project is operated in a manner not consistent with the project description contained in the Public Notice for certification. Failure to comply with the conditions of this certification may subject the applicant to civil penalties or other administrative or judicial actions.
- 16) DEQ requires site access on day of request.
- 17) If you are dissatisfied with the conditions contained in this certification, you may request a hearing before the Environmental Quality Commission. Such request must be made in writing to the Director of DEQ within 20 days of the mailing of this certification.

Recommendations

Based on public input received during the February 12, 2002 Joint Public Hearing held in Astoria Oregon, comments otherwise received from the public, scientific issue papers, and other related materials, DEQ recommends that:

- 1) The Corps immediately re-convene the ocean disposal Task Force mandated in Appendix H of the FEIS for the channel deepening project to provide stakeholders an opportunity for input to the ocean disposal site selection process and sand management strategies.
- 2) Highest priority is given to developing additional nearshore disposal sites for beach nourishment. A recent technical paper by the Oregon Department of Geology and

Mineral Industries (DOGAMI), *Columbia River Littoral Cell- Technical Implications of Channel Deepening and Dredge Disposal* (Allan, J.C., 2002) concluded that it is probable that existing Corps disposal practices are unsustainable because most of the dredged material is disposed of in deep water where it cannot return to the littoral area to nourish Oregon or Washington beaches.

- 3) Additional sediment fate and transport studies be undertaken. The same DOGAMI document concludes that there is a consensus among scientists that a lack of quantitative information regarding patterns of erosion and sedimentation around the mouth of the Columbia River and in the estuary leads to mismanagement of resources.
- 4) Mitigation for impacts of disposal options to critical resources be required. It has long been the policy of the Corps to not mitigate for impacts of ocean disposal of dredged material. The mitigation issue arises frequently from the public and needs attention. It may be an opportune time to re-investigate that policy.
- 5) Updated bathymetric studies of the lower Columbia River estuary be undertaken. The last surveys were done in the 1950's, and new surveys will not only chart the response of the estuary since then but will establish a baseline for future assessment.
- 6) A bi-state partnership with Washington and Oregon be supported by the Corps to study and monitor sediment issues in the Columbia River estuary and littoral systems. DEQ and other agencies in Oregon and Washington are willing to provide expertise to assist the Corps in this endeavor.

The DEQ hereby certifies that this project complies with the Clean Water Act and state water quality standards, if the above conditions and recommendations are implemented.

We believe that a solution to the persistent disposal problems will depend on engaging all of our stakeholders in discussions to establish a long-term comprehensive plan. DEQ commits to continue to assist the Corps and other cooperating agencies in a bi-state effort to develop a long-term regional sediment management program. Please direct any questions about this certification letter to Alexandra Cyril at (503) 229-6030, or by e-mail at cyril.alex@deq.state.or.us.

Sincerely,



Sally Puent
Water Quality Manager
Northwest Region

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cc: Agnes Lut, DEQ
Doris McKillip, USACE
Cathy Tortorici, NMFS
Greg Smith, USFWS
Gary Voerman, EPA
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