Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
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May 26, 2004

Robert E. Willis
Chief, Environmental Resource Branch
U.S. Army Corps of Engineers
P.O. Box 2946
Portland, OR 97208-2946

Dear Mr. Willis:

The Department of Environmental Quality (DEQ) has reviewed the U.S. Army Corps of Engineers (USACE) request for water quality certification (WQC), contained in a Public Notice issued January 21, 2005, Reference Number NWPOP-CLA-F05-001 *Maintenance Dredging of Columbia River and Side Channels (River Miles 3-192).* The USACE Portland District proposes to perform work in navigable waters located in the states of Oregon and Washington under Provisions of Section 404 of the Clean Water Act of 1977 and in accordance with Regulation 33 CFR parts 335-338.

Project Description: Project elements include dredging by hopper, pipeline, and clamshell dredges; in-water (flowlane) disposal; beach nourishment at identified locations; and upland disposal at approved locations. The purpose of the project is to maintain Columbia River mainstem and side channels to their federally authorized depths by periodically removing restricting shoals consisting of naturally occurring sedimentary material. A depth up to five feet of advanced maintenance dredging will be conducted in the 40-foot federal navigational channel and up to two feet of advance maintenance dredging will be conducted in all other channels. At identified high volume shoal areas in the 40-foot channel advanced width maintenance dredging may occur up to 100 feet.

Location: The project area located in Oregon and Washington includes the Columbia River main ship channel, from River Mile (RM) 3 through 106.5 (including the downstream entrance to Oregon Slough), the barge channel from RM 106.5 through 192, and various side channels along the Columbia River. The side channels located in Oregon that are included in this project are: Skipanon Channel; Hammond Boat Basin; Wahkiakum Ferry/ Westport Slough; and the upstream end of the Oregon Slough.

The upland disposal locations in Oregon that may be used for this project include: Miller Sand Spit, RM 23.5; Pillar Rock Island, RM 27.2; Welch Island, RM 34.0; Tenasillahe Island, RM 38.36; Fort James Property, RM 42.9; Jones Beach, RM 46.8; Crims Island, RM 57.0; Lord Island, RM 63.5; Dibblee Point, RM 64.8; Sandy Island, RM 75.8; Morse Bros. Site, RM 82.6; Sand Island, RM 86.2; and Hayden Island, RM 105.0.

The Columbia River is classified as Water Quality Limited under Section 303(d) of the Federal Clean Water Act for the parameters of: pH (Spring); Temperature (Summer); Total Dissolved Gas (Year Around); Arsenic; PCB; Polynuclear Aromatic Hydrocarbons (PAHs); and DDT Metabolite (DDE).

The Skipanon River is classified as Water Quality Limited under section 303(d) of the Federal Clean Water Act for the parameter of dissolved oxygen.

The Columbia River supports salmonid rearing and anadromous fish passage.

The Environmental Protection Agency has approved Total Maximum Daily Loads for the Columbia River for the water quality parameters of 2,3,7,8 TCDD (Dioxin) and Total Dissolved Gas.

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) **Effective Dates**: This WQC becomes effective on June 6, 2005 and expires on June 23, 2008.

2) **In-water work windows**:

   a) Dredging in the Columbia River from RM 106.5 to 125.3 shall occur only between August 1 and September 30 of any given year.

   b) Dredging in the described side channels and in any shallow water areas (less than 20 feet) shall occur only within the Oregon Department of Fish and Wildlife's (ODFW) preferred time window, November 1 to February 28, described in: *Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources.*

   c) All dredging in the Columbia River navigation channel up to RM 106.5 may occur at any given time during the year.

3) **Sediment Characterization**: Sediments from the 40-foot Columbia River Federal navigation channel have been determined to be suitable for unconfined in-water disposal by the Regional Management Team (RMT).

   A sampling and analysis plan (SAP), in accordance with the Dredge Material Evaluation Framework (DMEF) Lower Columbia River Management Area (1998), shall be submitted to the RMT no less than 60 days prior to a planned dredging event for the listed side channels.

   If sediment in any of the listed side channels is determined to be unsuitable for unconfined in-water disposal by the RMT, the USACE must coordinate with DEQ's Land Quality Division. DEQ will make a determination of whether upland disposal of those sediments would trigger solid waste disposal permitting requirements. The USACE must then obtain a solid waste permit exemption (clean fill determination) under OAR 340-093-0080, appropriate permitting requirements under OAR 340-093-0050, or a letter of authorization under OAR 340-093-0060 prior to dredging and subsequent disposal. The USACE may also be required to obtain additional approvals from DEQ if return water from an upland disposal facility is proposed as part of the project.

4) **Dredging Operations:** Dredging operations shall be conducted employing BMP's that minimize disturbance or siltation to adjacent habitat or waters. 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 20 feet below the water surface.

If a bucket dredge of any type is used all digging passes of the bucket shall be completed without any material, once in the bucket, being returned to the wetted area. No dumping of partial or full buckets of material back into the project area will be allowed. No dredging of holes or sumps below maximum depth and subsequent redistribution of sediment by dredging, dragging, or other means will be allowed. All large anthropogenic debris shall be removed from dredged sediments prior to flow lane disposal and transported to an appropriate disposal site.

5) **Turbidity**: All dredging and disposal of sediments shall be conducted so as to minimize siltation and turbidity in the project area. Turbidity shall not exceed 10% above natural stream turbidities, except where allowed by OAR 340-041-0036. 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.

6) **Monitoring**: Turbidity monitoring shall be conducted and recorded as described below. Monitoring shall occur each day during daylight hours when dredging and disposal is being conducted. An appropriately and regularly calibrated turbitmeter should be used. An initial sample must be taken every four hours at least 300 feet upcurrent from dredging or disposal operations at depths of 10 and 20 feet from the surface of the river in the water column to establish background turbidity levels for each monitoring cycle. Background turbidity in NTU, location, depths, and time must be recorded prior to monitoring downcurrent.

Dredging operations: Monitoring shall occur every four hours 300 feet downcurrent from the point of discharge (bucket, cutterhead, or draghead) and no more than 150 feet laterally from the vessel. Samples shall be taken within the water column at 10 and 20 feet from the surface of the river, or other depths representative of the levels of turbidity at the depth range used by cold water fish agreed upon in writing by DEQ. The turbidity in NTU, location, depths, tidal stage, and time must be recorded for each sample.

Flowlane Disposal: Monitoring shall occur once a day during a disposal event. Monitoring shall take place 300 feet downcurrenct of the last point of discharge and no more than 150 feet laterally from the point of discharge. Samples shall be taken in the water column at 10 and 20 feet from the surface of the river, or other depths representative of the levels of turbidity at the depth range used by cold water fish agreed upon in writing by DEQ. The turbidity in NTU, location, depths, tidal stage, and time must be recorded for each sample.

Beach Nourishment: Monitoring shall occur every four hours, 300 feet downcurrent and150 feet laterally from the point of discharge and 300 feet downcurrent in the mid-point of the visible plume laterally from the point of discharge. The required samples should be taken at mid-depth in the water column. The turbidity in NTU, location (including RM), tidal stage, depths of samples taken, time, and approximate width and length of any visible plume must be recorded for each sample. If a visible plume exists, at least one photo capturing the length and width of the plume to the best degree possible shall be taken the first day of disposal and every other day until the activity is completed and included in the annual monitoring report.

Upland Disposal Sites: Monitoring shall occur at the point of discharge and 300 feet from the point of discharge at all upland disposal sites every two hours the first day of discharge and every four hours each day afterwards until return water discharges cease. Samples shall be taken in the water column at 10 and 20 feet from the surface of the river, or other depths representative of the levels of turbidity at the depth range used by cold water fish agreed upon in writing by DEQ. The turbidity in NTU, location (including RM), tidal stage, depths, and time must be recorded for each sample.

7) **Compliance**: Turbidity must be measured and recorded as described above during periods of active dredging, disposal, and dewatering of upland facilities during daylight hours. If multiple depths within the water column are required to be sampled, those numbers should be averaged and compared to the background sample taken during that monitoring interval. If a 10% exceedance over the background level occurs, modify the activity and continue to monitor every two hours. If the levels of turbidity exceed 5 NTU over background where the background is less than 50 NTU, or 10% over background where the background is above 50 NTU during the second monitoring interval, the activity should stop until the turbidity levels return to background. At that point, sampling should resume to every four hours.

8) **Upland disposal sites:** Upland disposal sites shall be large enough to accommodate the quantity of material and water to be placed there in order to allow adequate settling. Best Management Practices (BMPs) shall be employed to reduce turbidity levels from the upland disposal locations to the maximum extent practicable. Use filter bags, sediment fences, silt curtains, leave strips or berms, or other measures sufficient to prevent movement of spoils. These measures shall be inspected and maintained daily to ensure their proper function.

The following information must be recorded and submitted to DEQ as part of the annual monitoring report:

- size of the discharge pipe;
- depth of the river at the end of the pipe;
- volume of water piped into the upland site;
- volume of water discharged at peak discharge rate;
- photographs that fully capture the upland site, discharge pipe and any visual plume during operation; and,
- BMPs employed and a summary of the effectiveness of those BMPs.

9) **In-Water Disposal:** Flowlane disposal sites shall be selected so that the material disposed: disperses into or immediately adjacent to the mainstream navigational

channel; is not likely to cause significantly increased shoaling in downstream side channels or to shoreline facilities such as docks, wharfs, vessel slips and marinas; and, is not likely to cause significant adverse alteration of bottom habitats critical to the life history of white sturgeon.

Flowlane disposal of sediment in areas supporting populations of Dungeness crab shall be limited to times of least crab abundance. Flowlane disposal is not allowed between RM 3 and RM 7 between July 1st and December 31st in any given year.

No in-water disposal may occur between RM's 35 and 75 during the peak eulachon (smelt) outmigration between the 8th and 20th weeks of the year within the identified spawning areas.

10) **Dissolved Oxygen:** Dissolved Oxygen shall be monitored during all dredging and in-water disposal activities in the listed side channels. A background sample must be taken 300 feet upcurrent from the activity at 10 and 20 feet in the water column, or at mid-depth if the depth of the river is less than 10 or 20 feet, from the surface of the river to establish background levels of dissolved oxygen prior to the collection of the compliance samples downcurrent. Samples shall be taken and recorded every four hours, 300 feet downcurrent from the point of discharge, at 10 and 20 feet in the water column from the waters surface. If dissolved oxygen levels are measured below 6.5 mg/l, the activity should be modified and monitoring shall then occur at two hour intervals. If the level of dissolved oxygen falls below 6.0 mg/l, the activity must be stopped until the levels return above 6.0 mg/l. The results of the monitoring shall be submitted to DEQ in the monthly monitoring reports and annual monitoring report.

11) **Reporting:** The USACE shall submit a monthly monitoring report to DEQ. The monthly reports should include:

- monitoring locations;
- background levels of turbidity and dissolved oxygen (when applicable);
- turbidity measurements at required intervals and depths;
- dissolved oxygen levels at required intervals and depths (when applicable);
- when/if the activity is modified or stopped as a result of exceedances of levels of turbidity and/or dissolved oxygen;
- what actions were taken to modify the activities if the turbidity or dissolved; oxygen levels were exceeded and/or how long the activity was stopped;
- what BMPs were used to bring the levels into compliance; and,
- when the activity began again.

The USACE shall compile and submit an annual report to DEQ no more than 90 days after the dredging season ends. The annual report shall include:

- locations dredging occurred;
- amounts of material dredged in all locations;
- disposal locations;
- summary of turbidity monitoring, including exceedances;
- descriptions of upland disposal locations during operations, including BMPs employed and effectiveness of those BMPs; and,
- summary of results from dissolved oxygen monitoring.

12) **Regional Sediment Management Program:** The USACE shall continue to develop a regional sediment management (RSM) program that encompasses the maintenance of this project as well as other Columbia River navigation projects. Highest priority shall be given to placing dredged material at nearshore sites that have been shown to be highly erosive. When available for use, the USACE shall fully integrate these sites into this project.

13) **Notification:** The USACE shall notify DEQ at least 14 days prior to the preconstruction meeting in any given year, at least 14 days prior to the scheduled start of dredging in any given year, and upon completion of dredging and disposal operations covered by this WQC in any given year.

14) **Dredging by Others:** Other individuals are allowed, at the discretion of the USACE, 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 WQC.

15) 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).

16) Fuel hoses, oil drums, oil or fuel transfer valves and fittings, etc., shall be checked regularly for drips or leaks, and shall be maintained in order to prevent spills into State waters.

17) In the event that petroleum products, chemicals, or any other deleterious materials are discharged into state waters, or onto land with a potential to enter state waters, the discharge shall be promptly reported to the Oregon Emergency Response Service (OERS, 1-800-452-0311). Containment and cleanup must begin immediately and be completed as soon as possible.

18) A copy of this WQC letter shall be kept on the job site and readily available for reference by the USACE DEQ personnel, the contractor, and other appropriate state and local government inspectors.

19) 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.

20) DEQ requires site access upon request.

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. You may also request written information about alternative dispute resolution services under Oregon Revised Statute 183.502, including mediation or any other collaborative problem-solving process.

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

The applicant shall notify the DEQ of any change in the ownership, scope, or construction methods of the project subsequent to certification. If you have any questions, please contact Christine Svetkovich at 503.229.5046.

Sincerely,

Robert Baumgartner, Program Manager
Program Policy and Project Assistance Section
Water Quality Division

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