



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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June 13, 2006

REGISTERED MAIL
RB 252 973 930 US

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

RE: First Amendment to Section 401 Water Quality Certification Order No. 2529 for the Maintenance dredging of the lower Columbia River between river miles (RM) 3 and 192.

Dear Mr. Willis:

Enclosed is Order No. 2529. This is the first amendment of Order No. 2529. The purpose of this amendment is to respond to the January 12, 2006, U.S. Army Corps of Engineers (Corps) request for modifications to the 401 water quality certification (WQC) for the above project issued on June 6, 2005. The Washington Department of Ecology (Ecology) has prepared this amendment to modify some conditions regarding dredging two side channels and monitoring requirements with associated safety issues as brought to our attention by the Corps.

If you have any questions concerning the content of the document, please call me at 360-407-0271 or Loree' Randall at 360-407-6068.

Sincerely,

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

PE:LR:dn
Enclosure



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

IN THE MATTER OF Granting a Water)	Order No. 2529
Quality Certification/Modification to:)	FIRST AMENDMENT
Portland District Corps of Engineers)	Maintenance dredging of the lower
In Accordance with 33 U.S.C. 1341)	Columbia River navigation channel to
FWPCA § 401], RCW 90.48.260, RCW)	maintain the current authorized depths
90.48.120 and WAC 173-201A)	between RM 3 and RM 192
WAC 173-201A)	

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

Order No. 2529, dated June 6, 2005, is hereby amended as follows:

1. Condition II. E. is added:
II.E. Dredging in the Chinook Channel and Baker Bay shall occur only with the preferred time window, September and October of any given year.
2. Conditions III. Water Quality Monitoring and IV. Reporting that reads:
 - A. Turbidity monitoring with an appropriately and regularly calibrated turbidimeter shall be conducted and recorded as described below:
 1. Monitoring shall occur each day during daylight hours when dredging and disposal is being conducted.
 2. Samples shall be taken within the water column at 10 and 20 feet from the surface of the river, or other depths approved in writing by Ecology. Other depths that Ecology may approve must be representative of the levels of turbidity at the depth range used by cold water fish.
 3. Samples must be taken every four hours at least 300 feet upcurrent from dredging operations, upland return water discharge locations or beach nourishment sites to establish background turbidity levels for each monitoring cycle. Background turbidity in NTU, location, depths, and time must be recorded prior to monitoring downcurrent.
 4. For dredging operations, upland return water discharges or beach nourishment sites samples must be taken every four hours at least 300 feet downcurrent from the point of discharge and no more than 150 feet laterally from the vessel. Turbidity in NTU, location, depths, and time must be recorded.

5. For in-water disposal operations samples must be taken once a day during daylight hours. Monitoring shall be conducted as described A.2 and A.3, plus
 - a. Samples must be taken every four hours at least 300 feet downcurrent of the last discharge point (location of last pumping or after the doors have been closed) and no more than 150 feet laterally from the point of discharge. Turbidity in NTU, location, depths, and time must be recorded.
6. If the turbidity measurements taken at a 300 foot station for dredging or disposal are greater than 5 NTU over background where the background is less than 50 NTU, or if more than a 10 percent increase in turbidity when the background turbidity is more than 50 NTU, occurs, the Corps is required to modify or stop the activity causing the problem and continue to monitor every two hours until the levels return to background. At that point the Corps can resume sampling every 4 hours.

B. Dissolved oxygen levels shall be measured with an appropriately and regularly calibrated meter and recorded as described below:

1. During dredging of a side channel monitoring shall occur each day during daylight hours when dredging is being conducted.
2. Samples shall be taken within the water column at 10 and 20 feet from the surface of the river, or other depths approved in writing by Ecology. Other depths that Ecology may approve must be representative of the levels of turbidity at the depth range used by cold water fish.
3. Samples must be taken every four hours at least 300 feet upcurrent from dredging operations. Dissolved oxygen levels, location, depths, and time must be recorded prior to monitoring downcurrent.
4. Samples during dredging operations must be taken 300 feet downcurrent from the point of discharge (bucket, cutterhead, or draghead, whichever is being used). Dissolved oxygen levels, location, depths, and time must be recorded.
5. If dissolved oxygen levels fall below 6.0 mg/l, the Corps is required to modify or stop the activity causing the problem and continue to monitor every two hours until the levels return above 6.0 mg/l. At that point the Corps can resume sampling every four hours.

- C. The designated person attending the monitoring equipment shall be responsible for immediately notifying the project foreman if the turbidity measurement exceeds the standards and if the dissolved oxygen levels fall below 6.0 mg/l.

IV. Reporting

- A. The Corps shall submit a monthly monitoring report, highlighting any exceedances to Ecology. 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.
- B. The Corps shall compile and submit an annual report to Ecology 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.

Are deleted and replaced as follows:

III. Water Quality Monitoring

- A.1 Monitoring:** The Corps shall develop and implement a Water Quality Sampling and Monitoring Plan for dredging and disposal. **The Water Quality Sampling and Monitoring Plan shall be submitted to Ecology for review and approval at least 60 days before dredging and disposal is scheduled to begin.** (An expedited submittal and review of the plan will be coordinated for the dredging season beginning in June 2006.) Ecology may require changes and modifications to the plan. The plan shall include the following minimum requirements:

- a. Locations of samples: Locations of water quality sampling sites shall be identified and described in the plan. At a minimum, sampling shall take place within any visible plumes at the following points:
 - i. Dredging and flowlane disposal activities- Up current (background) and 900 feet downcurrent from the point of discharge (bucket, cutterhead, or draghead) and no more than 150 feet laterally from the vessel.
 - ii. Other disposal activities (upland and beach nourishment) - Up current (background) and 300 feet down current from the discharge point.
 - iii. Depth - The Corps shall identify a depth between 10 and 20 feet, or at mid-depth if in shallow areas less than 10 feet in depth, to collect all the samples.
- b. Number/Timing of samples: Samples shall be collected during daylight hours when dredging and disposal is being conducted as described below:
 - i. Active Dredging - once a day during a flood tide and once a day during an ebb tide.
 - ii. Flowlane Disposal - once a day during a flood tide and once a day during an ebb tide during a disposal activity.
 - iii. Upland Disposal and Beach Nourishment- For each disposal event, every two hours on the first day of discharge and then every four hours thereafter until discharge cease.
 - iv. Background turbidity in NTU, location, tidal stage, and time must be recorded prior to monitoring downcurrent.
- c. Parameters to be sampled: The following parameters shall be monitored:
 - i. Turbidity during dredging and disposal anywhere that active dredging and disposal is occurring.
 - ii. Dissolved Oxygen shall be monitored during active dredging of the following areas outside the bounds of the 600-foot wide navigation channel: side channels and the outside edges of the authorized 100-foot wide overwidth where sloughing may occur.
- d. Compliance:
 - i. Turbidity must be measured and recorded as described above during periods of active dredging, disposal, and dewatering of upland

facilities during daylight hours. Results should be compared to the background sample taken during that monitoring event. If a 5 NTU or greater exceedance over the background level occurs at a compliance point in the plume within Washington waters, modify the activity and continue to monitor at two hour intervals. If, during the second monitoring interval, levels of turbidity exceed 5 NTU over the background level where background is less than 50 NTU, or 10% over the background level where background is greater than 50 NTU, the Corps shall modify the activity until the turbidity levels return to background.

- ii. If dissolved oxygen levels are measured below 6.5 mg/l, the activity should be modified and monitoring frequency shall increase. 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.
- e. Equipment: Sampling for turbidity and dissolved oxygen is to be accomplished using a turbidimeter and a dissolved oxygen meter which are properly and regularly calibrated according to the operator's manual. Quality assurance and control procedures, as well as accuracy of the instrument, shall be identified in the Water Quality Sampling and Monitoring Plan.
- f. Reporting: During the dredging season the Corps shall submit a monthly monitoring report to Ecology. The monthly reports should include:
- i. monitoring locations;
 - ii. background levels of turbidity and dissolved oxygen (when applicable);
 - iii. turbidity measurements at required intervals and depths;
 - iv. dissolved oxygen levels at required intervals and depths (when applicable);
 - v. when/if the activity is modified or stopped as a result of exceedances of levels of turbidity and/or dissolved oxygen;
 - vi. 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;
 - vii. what BMPs were used to bring the levels into compliance; and,
 - viii. when the activity began again.

- g. Annual Report: The Corps shall compile and submit an annual report to Ecology no more than 90 days after the dredging season ends. The annual report shall include:
- i. locations dredging occurred;
 - ii. amounts of material dredged in all locations;
 - iii. disposal locations;
 - iv. summary of turbidity monitoring, including exceedances;
 - v. descriptions of upland disposal locations during operations, including BMPs employed and effectiveness of those BMPs; and,
 - vi. summary of results from dissolved oxygen monitoring.
- h. Restricted Visibility: During periods of restricted visibility that could cause an unsafe condition, the Corps may postpone required turbidity and dissolved oxygen compliance monitoring until conditions improve if confirmation is made by a third party, such as the Coast Guard Watch Stander or the National Weather Service, that the visibility in the area to be monitored is considered to be restricted and is unsafe to conduct the required monitoring. If monitoring is postponed due to restricted visibility and unsafe conditions, the weather condition (fog, mist, heavy rainstorm, etc), time of determination, and verification route must be recorded. Regular monitoring must resume once the visibility resumes to safe levels.

No other condition or requirement of Order No. 2529 is hereby affected by this amendment.

You have the right to appeal this amendment 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 amendment, your notice of appeal must contain a copy of the Ecology amendment you are appealing.

Your appeal must be filed with:

The Pollution Control Hearings Board
4224 - 6th Avenue SE, Rowe Six, Bldg. 2
P.O. 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:

Loree' Randall
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 this 13 day of JUNE, 2006 at Lacey, Washington



Paula Ehlers, Section Manager
Shorelands and Environmental Assistance Program
Department of Ecology – Southwest Regional Office