STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
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July 15, 2015

U.S Army Corps of Engineers
Portland District
Attn: Joyce Casey
P.O. Box 2946
Portland, OR 97208-2946

RE: Third Amendment to 401 Water Quality Certification Order #9765 for U.S. Army Corps of Engineers (Corps), Columbia River Operations and Maintenance (O&M) dredging and disposal from river mile (RM) 3 and 145, including some side-channel dredging in Washington

Dear Ms. Casey:

Enclosed is the third amendment to Water Quality Certification Order # 9765, issued on February 19, 2013, for the above project.

The Corps submitted a JARPA request on May 26, 2015 for shoreline placement at existing Rice Island dredged material placement site, river mile (RM) 21.

The purpose of the amendment is to authorize the Rice Island dredged material placement site, river mile (RM) 21.

If you have any questions, please contact Loree' Randall at 360-407-6068. The enclosed Amendment may be appealed by following the procedures described in the Amendment.

Sincerely,

Brenden McFarland, Section Manager
Shorelands and Environmental Assistance Program
Headquarters Office – Ecology
State of Washington

by certified mail 7010 2780 0000 2503 4065

e-cc: U.S. Army Corps of Engineers
Loree' Randall-Ecology HQ
Rick Mraz, Ecology SWRO
ecyrefedpermits@ecy.wa.gov

IN THE MATTER OF GRANTING A WATER QUALITY CERTIFICATION TO: **Portland District Corps of Engineers** In accordance with 33U.S.C. 1341 (FWPCA §401), RCW 90.48.120, RCW 90.48.260 and Chapter 173-201A WAC	)))))))	**ORDER #9765, Third Amendment** Columbia River Operations and Maintenance (O&M) dredging and disposal from river mile (RM) 3 and 145, including some side channel dredging.

TO: U.S Army Corps of Engineers
Portland District
Attn: Joyce Casey
P.O. Box 2946
Portland, OR 97208-2946

On February 19, 2013 the Washington Department of Ecology (Ecology) issued a 401 Water Quality Certification to the Army Corps of Engineers for the above-referenced project pursuant to the provisions of 33 U.S.C. 1341 (FWPCA § 401).

Ecology received a request on May 26, 2015 to add Rice Island dredged material placement site at river mile (RM) 21.

Administrative Order No. 9765 dated February 19, 2013 is hereby amended as follows:

On page 2 the following language is added to authorize shoreline disposal at Rice Island (RM 21).

4. Shoreline Placement

- In addition to the shoreline placement locations identified within the original project proposal Rice Island Dredged Material Placement Site at River Mile 21 is authorized.

No other conditions or requirements of the above-mentioned order are affected by this amendment.

The Department of Ecology retains continuing jurisdiction to make modifications hereto through supplemental order, if it appears necessary to further protect the public interest.

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

YOUR RIGHT TO APPEAL

You have a right to appeal this Order to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do all of the following within 30 days of the date of receipt of this Order:

- File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this Order on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

ADDRESS AND LOCATION INFORMATION

Street Addresses	Mailing Addresses
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503 **Pollution Control Hearings Board** 1111 Israel RD SW STE 301 Tumwater, WA 98501	**Department of Ecology** Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608 **Pollution Control Hearings Board** PO Box 40903 Olympia, WA 98504-0903

Loree Randlett — July 15, 2015

Brenden McFarland, Section Manager — Date
Shorelands and Environmental Assistance Program
Headquarters Office – Ecology
State of Washington

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DEPARTMENT OF ECOLOGY

In the Matter of Granting a Water Quality Certification to: Portland District Corps of Engineers In Accordance with 33 U.S.C. 1341 [FWPCA § 401], RCW 90.48.260, RCW 90.48.120 and WAC 173-201A	)))))))	**ORDER No. # 9765** Columbia River Operations and Maintenance (O&M) dredging and disposal from river mile (RM) 3 and 145, including some side-channel dredging.

TO: U.S. Army Corps of Engineers
Attn: Joyce Casey
P.O. Box 2946
Portland, OR 97208-2946

On November 1, 2012, the Portland District Corps of Engineers (Corps) submitted a request for a 401 water quality certification (401 Certification) from the State of Washington Department of Ecology (Ecology) pursuant to the provisions of 33 U.S.C. 1341 (FWPCA § 401). The Corps request is to continue Operations and Maintenance Dredging (O&M) of Columbia River Federal Navigation Channel between River Miles (RM) 3 to 145.

The proposed projects involves the on-going maintenance dredging of the Columbia River to the federally approved depth of 43-foot between Columbia River mile (CRM) 3.0 to CRM 145. The project also includes dredging various side channels along the river to their federally approved depths.

The dredging and disposal of sediment will occur in both Oregon and Washington. This 401 Certification only authorizes the dredging and disposal of sediment within Washington's waters.

1. Maintenance Dredging

   - RM 3.0 to 106.5 – Maintenance dredging will occur to a depth of -48 feet (-43 feet with up to 5 feet of advanced maintenance depth) and overwidth dredging of up to 100 feet in selected high volume shoal areas.
   - RM 106.5 to 145 - Maintenance dredging to a depth of -19 feet (-17 feet with up to 2 feet of advanced maintenance depth) and up to 100 feet of over-width dredging where needed.

2. Side-channels

   - Baker Bay West Channel dredging to -18 feet and overwidth where needed
   - Chinook Channel dredging to -12 feet and overwidth where needed
   - Skamokawa Creek dredging to -8.5 feet and overwidth where needed
   - ~~Wahkiakum Ferry/Westport Slough dredging to -12 feet and overwidth where needed~~
   - Wahkiakum Ferry dredging to -11 feet and overwidth where needed

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- Old Mouth Cowlitz river dredging to -10 feet and overwidth where needed

3. Sump Construction and Maintenance Dredging

- Puget Island Sump-Dredge to a depth of 44 ft.

4. Shoreline Placement

- In addition to the shoreline placement locations identified within the original project proposal Rice Island Dredged Material Placement Site at River Mile 21 is authorized.

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, 302, 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.

Ecology reserves the option to reassess the terms of this Order and amend or revoke, as necessary, in the event that:

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1. new sources of potential contamination are discharged or otherwise stand to significantly affect the quality of sediments dredged from the lower Columbia River navigation channel; or,

2. 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.

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.

I. Duration of Certification

A. This 401 Certification shall become effective on February 19, 2013, and expires on February 18, 2018.

B. Ecology is also rescinding Order numbers 5652 and any associated amendments effective February 19, 2013.

II. In-Water Work Windows

A. In-water work is subject to fishery closure windows within the National Marine Fisheries Service (NMFS) 2012 Biological Opinion (2012 BiOp).

III. Water Quality Monitoring

A. The Corps shall implement the water quality monitoring per the Water Quality Sampling and Monitoring Plan (Plan) prepared by the Corps, dated December 11, 2012. Any changes to this Plan shall be submitted to Ecology for review and approval. Following Ecology's approval the Corps shall comply with the approved, updated Plan.

B. The Corps shall submit the Water Quality Monitoring Reports to Ecology upon request.

C. The Corps shall submit an annual monitoring report to Ecology. The report must include:
   i. monitoring locations;
   ii. background levels of turbidity;
   iii. turbidity measurements at required intervals and depths;
   iv. when/if the dredging or disposal was modified or stopped as a result of exceedances of levels of turbidity;

v. what actions were taken to modify the dredging or disposal if the turbidity were exceeded and/or how long the activity was stopped;
vi. what BMPs were implemented to bring the turbidity levels into compliance; and
vii. when the activity began again.

D. If monitoring results demonstrate that the applicable water quality standards or project performance standards are not being met, Ecology may require additional monitoring.

IV. Dredging

The Corps shall conduct its dredging activities according to the following conditions:

A. The following general condition applies to all dredging activities between Columbia River Mile (CRM) 3 and CRM 145:

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.

B. The following specific conditions apply to the specific dredging activity or the area of the river being dredged:

1. Clamshell Dredging:

a. Mixing Zone: 900 feet downcurrent from the point of dredging and no more than 150 feet laterally from the vessel.
b. Each pass of a clamshell bucket shall be complete with no material once in the bucket returned to the water.
c. No dumping of partial or full buckets of material back into the project area is allowed.
d. Control the volume, speed, or both of digging passes to minimize siltation.
e. Large debris picked up by a clamshell dredge shall be removed from the dredged sediments prior to disposal at a flowlane disposal sites. Large debris includes old pilings or sinker logs [longer then three feet or greater than one foot in diameter], tree stumps, and man-made materials such as scrap metals, car bodies, broken concrete or asphalt and the like.

2. Hopper and Pipeline Dredging:

a. Mixing Zone for Hopper and Pipeline Dredging: 900 feet downcurrent

from the point of dredging and no more than 150 feet laterally from the vessel.

b. Hopper and pipeline dredges shall be operated with the intake at or below the surface of the sediments being removed during all periods of operation.

c. Reverse purging of the intake line shall be held to an absolute minimum.

d. 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.

V. Dredged Material Disposal

The Corps is proposing to dispose of the dredged material at a combination of the following sites: [1] in-water sites, such as re-handling and flowlane sites located in or near the mainstem reaches of the river; [2] shoreline or beach nourishment sites, and [3] upland sites.

A. The Corps shall continue to develop and implement a regional sediment management (RSM) program that encompasses this project as well as other Columbia River navigation projects. Highest priority shall be given to placing dredged material at sites that have been identified by state and federal resource agencies as utilizing the material beneficially. When available for use, the Corps shall fully integrate these beneficial use sites into this project.

B. A qualitative assessment of sediments is necessary to determine the suitability of sediments for the disposal options resulting in discharges to waters of the State (of Washington). For this project, the disposal options include flowlane, beach nourishment, and upland disposal. The disposal options that will result in discharges of effluent to waters of the state include beach nourishment and upland disposal.

1. All dredge material from the side channels shall be tested for contaminant concentrations before dredging to help determine the appropriate disposal methods.

a. The sampling and analysis plan for each side channel shall be submitted to Ecology for review and approval no less than 90 days prior to a planned dredging event.

b. Testing results shall be provided to Ecology for review and approval prior to dredging.

C. **Flowlane Disposal:**

The following conditions apply to disposal of dredged material in the flowlane of the Columbia River:

1. Mixing Zone for disposal by hopper, bottom dump scow, or down spout: 900 feet downcurrent from the point of discharge and no more than 150 feet laterally from the vessel.

2. Disposal of material shall be conducted in a manner that prevents mounding of the disposed material.

3. Flowlane disposal by a hopper dredge or a bottom dump scow is approved provided the disposal sites are located:

   a. waterward of the minus 20-foot contour, Columbia River Datum (CRD); and,
   b. to the greatest extent practicable, flowlane disposal sites shall be selected so that disposal material (i) disperses into or immediately adjacent to the mainstem navigational channel; (ii) 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 (iii) is not likely to cause a significant adverse alteration of bottom habitats critical to the life history of white sturgeon.

4. Ecology will consider the use of alternative methods for flowlane disposal, such as a flat-topped barge unloaded by a small earth mover. However, the use of an alternative disposal method shall require special review and approval by Ecology under this Order prior to usage.

5. Flowlane sites may be used for the disposal of sediments dredged by pipeline provided the dredged material is discharged through a downspout that is lowered at least 20 feet into the water column.

D. **Shoreline Disposal by Pipeline Dredge:**

The following conditions apply to pipeline dredging operations that involve the unconfined or partially confined disposal of dredged material on or immediately adjacent to the shoreline. Historically, this manner of disposal has been used primarily for erosion control, such as to protect property or structures, to nourish actively eroding beaches, and to fill fish stranding sites. Shoreline disposal may also be done to enhance, restore or create various riverine habitat features such as a spit or lagoon.

Beach nourishment is the most common shoreline disposal activity and is done by pumping a slurry of sand and water directly onto an actively eroding beach. The sand

settles out on the beach while the turbid water or runoff flows back into the river.

1. Mixing Zone: 900 feet downcurrent from the discharge point.

2. Shoreline disposal operations, and particularly beach nourishment, may result in the placement of dredged material waterward of the ordinary high water mark. In such cases, the disposal site shall be regraded to an approximate slope of 10 to 15 percent, with no swales.

3. Impacts to riparian vegetation at shoreline disposal sites shall be avoided or minimized whenever possible.

4. Erosion control measures shall be carried out to prevent the wind erosion of dredged material back into the channel.

E. **Upland Disposal by Pipeline Dredge:**

The following conditions apply to pipeline operations that pump dredged material to an upland site or confined disposal facility (CDF). Typically, a CDF consists of the following design features: [1] Earthen dikes that form the perimeter of the facility. [2] A weir structure that provides flow control and retention of the solid fraction of dredged material. [3] An outlet structure that conveys the turbid water fraction of dredged material [effluent] to a single point of discharge. The point of discharge may be a nearby surface water, wetland or bare ground.

1. Mixing Zone [for Single-point Effluent Discharge]: 300 feet downcurrent of the point of discharge.

2. CDF Design and Operation. The following "best management practices" pertain to the design and operation of a CDF:

   a. The CDF should be designed to provide the maximum practical degree of solids retention during operation, and for the entire life of the site.
   b. The outfall should be located so as to provide the maximum amount of dilution or dispersion of the effluent and to minimize any potential scour or erosion effects to more sensitive aquatic resources such as small tributaries and sloughs, shallow tide flats, and wetlands.

   c. To the greatest extent practicable, CDF sites shall be stabilized to prevent significant offsite erosion of the dredged material by either water or wind transport.

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VI. Wetland and Wildlife Mitigation

A. The mitigation sites shall be developed as described in the Columbia River Channel Improvement Project Supplemental Evaluation, August 2008.

B. The Cottonwood Island mitigation site shall employ the specific construction and maintenance elements, as described in the Statement of Work – Columbia River Channel Improvement – Mitigation Cottonwood Island Riparian Restoration (Corps document number W9127N-09-C-0046).

C. The Woodland Bottoms- Chumbley mitigation site shall employ specific construction and maintenance elements, as described in the Statement of Work – Columbia River Channel Improvement – Mitigation – Woodland Bottoms, Chumbley Riparian Restoration (Corps document number W9127N-09-C-0014).

D. The Corps shall monitor all mitigation sites for a period of 10 years after construction. A minimum of five monitoring events are required within that period, e.g. years 1, 3, 5, 7, 10.

VII. Reporting

A. 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 and disposal occurred;
- amounts of material dredged and disposed of in all locations;
- descriptions of upland disposal and beach nourishment locations, including BMPs employed and effectiveness of those BMPs at these sites;
- and annual turbidity monitoring, including explanation of exceedances, s described in Condition III.C, of this Order.

VIII. Emergency and/or Contingency Measures

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

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

2. In the event of finding distressed or dying fish, the Corps 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.

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

X. Spill Prevention and Control

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

B. 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.

C. 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.

D. 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).

XI. Notification

A. The Corps or their designated contractor shall notify Ecology 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 Order in any given year. The Ecology person to contact is Loree' Randall at (360) 407-6068.

XII. Other Requirements

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A. Other individuals are allowed, at the discretion of the Corps, to dredge commercial grade sediments from the navigation channel. In Washington waters, all such work by others is subject to the conditions contained in this Order.

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

C. 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.

XIII. 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.