STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

May 24, 2010

U.S. Army Corps of Engineers
Portland District, Environmental Resources Branch
ATTN: Joyce Casey, Chief
P.O. Box 2946
Portland, OR 97208

RE: Water Quality Certification Order No. **7729,** Corps Project No. CENWP-PM-E-10-05; for the Mount St. Helen's (MSH) Grade Building Structures Pilot Project; North Fork Toutle River, Cowlitz County, Washington

Dear Ms. Casey:

On March 29, 2010, the Portland District Army Corps of Engineers submitted a Joint Aquatic Resource Permit Application (JARPA) to the Department of Ecology (Ecology) for a Section 401 Water Quality Certification (401 Certification) under the federal Clean Water Act for the proposed MSH Grade Building Structures Pilot Project. The project proposes to construct a series of Grade Building Structures (GBS) within the sediment plain of the North Fork of the Toutle River approximately two miles upstream from the Sediment Retention Structure (SRS) in Cowlitz County. The purpose of these structures is to help manage the sediment from the eroding debris avalanche from Mount St. Helens by reducing downstream sediment transport and increasing the sediment retention within the sediment plain. Small creeks that form a braided system will be diverted into a single main channel to increase the capacity of the main channel to carry water through the SRS. The results of this pilot project will help determine the effectiveness of these structures as a long term tool for sediment management. The U.S. Army Corps of Engineers issued a Joint Public Notice for the Draft Environmental Assessment and 401 Water Quality Certification for the proposed project pursuant on March 23, 2010.

On behalf of the State of Washington, Ecology certifies that the work described in the JARPA and the public notice complies with applicable provisions of Sections 301, 302, 303, 306, and 307 of the Clean Water Act, as amended, and applicable state laws. This certification is subject to the conditions contained in the enclosed Order.

If you have any questions, please contact Lori Ochoa at (360) 407-6926. The enclosed Order may be appealed by following the procedures described in the Order.

Sincerely,

Perry J Lund, Unit Manager
Shorelands and Environmental Assistance Program
Southwest Regional Office

Enclosure

By Certified Mail 7009 1410 0002 4420 2680

cc: Marci Johnson, Corps of Engineers, Portland District
Dannette Guy, Corps of Engineers, Seattle District
Mike Wojtowicz, Cowlitz County
Steve West, WDFW

e-cc: ECY RE FED PERMITS
Loree' Randall, Ecology/HQ
Mark Cline, Ecology/SWRO SEA
Craig Graber, Ecology/SWRO WQ
Tom Loranger, Ecology/SWRO WR
Lori Ochoa, Ecology/SWRO SEA

IN THE MATTER OF GRANTING A WATER QUALITY CERTIFICATION TO The U.S. 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 # 7729** Mount St. Helens Grade Building Structures Pilot Project, North Fork Toutle River, Cowlitz County, Washington.

TO: The U.S. Army Corps of Engineers
Portland District, Environmental Resources Branch
ATTN: Ms. Joyce Casey, Chief
CENWP-PM-E
P.O. Box 2946
Portland, Oregon 97208-2946

On March 29, 2010, the Portland District of the U.S. Army Corps of Engineers submitted a Joint Aquatic Resource Permit Application (JARPA) to the Department of Ecology (Ecology) requesting a Section 401 Water Quality Certification. A Joint Public Notice regarding the request was distributed by the Corps of Engineers for the above-referenced project pursuant to the provisions of Chapter 173-225 WAC on March 23, 2010.

The proposed pilot project will take place within the sediment plain of the North Fork of the Toutle River approximately two miles upstream of the sediment Retention Structure (SRS) near St. Helens, Cowlitz County, Washington; SW 1/4 of NW 14 Section 23, Township 10 North, Range 2 East; WRIA 26, Cowltiz Watershed.

After the eruption of Mount Saint Helens in 1980, approximately three billion cubic yards of earth material was released in a massive landslide that has since been eroding into the Toutle-Cowlitz River System. In an effort to reduce the amount of sediment being released into the system, a series of studies were conducted to introduce a solution for trapping sediment in the upper valley of the Toutle River. The Grade Building Structures (GBS) concept was proposed as one of several potential measures for managing the sediment that is being transported through the North Fork of the Toutle River, the mainstem of the Toutle River, and into the lower 20 miles of the Cowlitz River system.

This pilot project proposes to construct a series of GBS on the North Fork of the Toutle River, upstream from the SRS to reduce sediment transport and increase sediment retention in the sediment plain. Small creeks that form a braided system will be diverted into a single main channel to increase the capacity of the main channel to carry water through the SRS.

The GBS will consist of a combination of timber pile structures, a geotextile tube barrier, and natural woody debris placed and/or attached to the structures to behave as a natural log jam and

add large-scale roughness to the system. The goal is for islands to form around these structures. Construction activities that will occur within the project area include: site access, staging, stockpiling of materials, and installation of the GBS.

The results of this pilot project will help determine the effectiveness of the GBS to trap and retain sediment within the sediment plain and if this measure can be applied as a long-term tool for sediment management.

AUTHORITIES:

In exercising authority under 33 U.S.C. § 1341, 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 Chapter 173-200 WAC and Chapter 173-201A WAC, water quality certification is granted to the Applicant subject to the conditions within this Order.

A. General Conditions:

1. For purposes of this Order, the term "Applicant" shall mean the Portland District of 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 Southwest Regional Office Attn: Federal Permit Coordinator, P.O. Box 47775, Olympia, WA 98504-7775 or by e-mail to loch461@ecy.wa.gov. Any submittals shall reference Order No. 7729.

3. Work authorized by this Order is limited to the work described in the JARPA received by Ecology on March 29, 2010.

4. 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.

5. 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.

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

7. The Applicant shall provide access to the project site and all mitigation 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, downstream 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. Water Quality Conditions:

1. This Order does not authorize temporary exceedances of water quality standards beyond the limits established in WAC 173-201A-200(1)(e)(i).
2. The Applicant shall prepare and submit a Water Quality Monitoring and Protection Plan (WQMPP) to Ecology's Southwest Regional Office Federal Permit Coordinator for review and approval at least ten (10) days prior to beginning in-water work. At a minimum, the WQMPP shall include:

a. The name(s) and phone number(s) of the person responsible for on-site monitoring and reporting.

b. The BMP's and procedures to be used to protect water quality during all in-water work activities.

c. A map or location with the monitoring location identified.

d. An in-water work Contingency Plan.

3. Turbidity shall be assessed and recorded at a minimum of every four (4) hours during daylight hours when in-water activities are being conducted. Monitoring points shall be at the point of compliance as specified in WAC 173-201A-200(1)(e)(i), which allows a 300 feet temporary area of mixing downstream from the in-water activities. The Applicant must visually monitor (and photo document) the water for any visual signs of turbidity at the point of compliance.

   a. For this project, the following is considered to be an exceedance of the water quality turbidity standard:

      i. If project-related turbidity is visible 300 feet downstream from the in-water activity.

4. If water quality exceedances are observed outside of the point of compliance, work shall cease immediately and the Applicant or the contractor shall assess the cause of the water quality problem and take immediate action to stop, contain, correct the problem and/or prevent further water quality turbidity exceedances. If an exceedance occurs, the Applicant shall follow the protocols and notification procedures below:

   a. Notification of exceedances that are detected through water quality monitoring shall be made to Ecology within 24 hours of occurrence. Notification shall be made per Condition A2 above. The Applicant shall, at a minimum, provide Ecology with the following information:

      i. A description of the nature and cause of non-compliance, including the quantity and quality of any unauthorized discharges;

      ii. The period of non-compliance, including exact dates, duration, and times and/or the anticipated time when the Applicant will return to compliance; and,

      iii. The steps taken, or to be taken, to reduce, eliminate, and prevent recurrence of the non-compliance.

      iv. In addition, within five (5) days after notification of an exceedance, the Applicant shall submit a written report to Ecology that describes the nature of the violation, corrective action taken and/or planned, steps to be taken to prevent a recurrence, photographs, and any other pertinent information.

5. Monitoring results shall be submitted weekly to Ecology's Southwest Regional Office Federal Permit Coordinator, per Condition A.2 above.

6. Mitigation and/or additional monitoring may be required if water quality standards are not met.

C. Timing Requirements:

1. This Order is valid until all compliance requirements in this document have been met.

D. Notification Requirements:

1. The Applicant shall provide written notification (FAX, e-mail or mail) to Ecology's Southwest Regional Office Federal Project Coordinator in accordance with condition A.2 above for the following activities:

   a. At least ten (10) days prior to the pre-construction meeting
   b. At least ten (10) days prior to the onset of any work on site
   c. At least ten (10) days prior to the onset of in-water work
   d. Immediately following a violation of the state water quality standards or any condition of this Order.
   e. Within fourteen (14) days after completion of construction.

NOTE: These notifications shall include the Applicant's name, project name, project location, the number of this Order, contact and contact's phone number.

E. Construction Conditions:

General Construction Conditions:

1. During construction, the Corps shall comply with all stormwater requirements within the General Construction Stormwater NPDES permit issued by EPA for this project.

2. All work in and near the water shall be done so as to minimize turbidity, erosion, and other water quality impacts.

3. No petroleum products, chemicals, or other toxic or deleterious materials shall be allowed to enter waters of the state.

4. All debris or deleterious material resulting from construction shall be properly contained and disposed of at an approved upland location so that it cannot enter waters of the state.

5. All work within the project limits shall be clearly marked/staked prior to construction. Clearing limits, travel corridors and stockpile sites shall be clearly marked. Sensitive areas and buffers that are to be protected from disturbance shall be marked so as to be clearly visible to equipment operators. All project staff shall be trained to recognize

construction fencing or flagging that identifies sensitive area boundaries. Equipment shall enter and operate within the marked clearing limits corridors and stockpile areas.

6. All equipment used below the ordinary high water line shall utilize bio-degradable hydraulic fluid.

7. Appropriate Best Management Practices (BMP's) shall be implemented to minimize track-out during construction.
8. Erosion and sediment control devices (filter or silt fences, etc.) and other BMP's intended to trap sediment on site shall be in place before starting project construction and shall be maintained throughout construction until the site is stabilized.
9. Turbid water generated from construction activities, including turbid dewatering water, shall not be discharged directly into waters of the state. Clean dewatering water that has been tested and confirmed to meet water quality standards may be discharged directly to waters of the state.
10. Turbid water shall be routed to an upland location to allow removal of fine sediment and other contaminants. The discharge outfall method shall be designed and operated so as not to cause erosion or scour in state waters, banks, or vegetation.

Equipment Staging and Maintenance:

11. A back flushing or closed system will be used to fuel machinery and equipment.
12. Fuel hoses, oil drums, oil or fuel transfer valves and fittings, etc. shall be checked daily for drips or leaks, and shall be maintained and stored properly to prevent spills into waters of the state. All vehicles and equipment shall be inspected daily for fluid leaks before leaving the staging area.
13. Machinery and equipment used during construction shall be serviced, fueled, and maintained in a confined area in order to prevent contamination to waters of the state. Fueling areas will be provided with adequate spill containment.
14. A protective, impermeable layer (such as Mats or "diapers",) shall be used underneath all machinery, vehicles, and/or equipment during refueling and overnight storage to prevent contamination to groundwater.
15. Wash water containing oils, grease, or other hazardous materials resulting from wash down of equipment shall be contained for proper disposal, and shall not be discharged into waters of the state. The Applicant shall establish a separate contained area for washing down vehicles and equipment, which does not have any possibility of draining to surface waters and wetlands.
16. Parking of vehicles for construction personnel within the sediment plain will be kept to a minimum.
17. All staging areas and access roads created within the sediment plain shall be restored to its natural condition upon completion of construction.

Channel Construction and Diversion:

18. The stream diversion system shall be of sufficient size and shall be designed and operated so as not to cause erosion in or along the water
19. All new channel construction shall be conducted in the dry or in isolation from stream flow. The stream diversion system shall be designed and operated so as not to cause erosion in the stream channel or on the banks of the waterbody in which the work is being conducted.
20. All channel stabilization work and materials shall be in place prior to introducing the stream flow into the new channel.
21. Re-introduction of water into the new channel shall be done gradually and at a rate not higher than the normal stream flow in order to minimize the mobilization of sediments and fines into downstream waters.

Pile Structures and Pile Driving:

22. Piling structures shall be made of untreated wood.
23. Pilings shall be installed using a vibratory hammer and/or an impact hammer.

F. Post Construction Monitoring and Reporting:

1. A Post Construction Monitoring and Maintenance Plan shall be prepared and submitted to Ecology for review and approval in accordance with condition A.2. above.

2. Results of post construction monitoring shall be submitted to Ecology's Southwest Regional Office Federal Project Coordinator in accordance with condition A.2. above.

G. Emergency/Contingency Measures:

1. The Applicant shall develop a spill prevention and containment plan for this project, and shall have spill cleanup materials and an emergency call list available on site.
2. Any work that is out of compliance with the provisions of this Order, or conditions causing distressed or dying fish, or any discharge of oil, fuel, or chemicals into state waters, including wetlands, or onto land with a potential for entry into state waters, is prohibited. If these occur, the Applicant or operator shall immediately take the following actions:
   a. Cease operations that are causing the compliance problem.
   b. Assess the cause of the water quality problem and take appropriate measures to correct the problem and/or prevent further environmental damage.
   c. In the event of finding distressed or dying fish, the applicant shall collect fish specimens and water samples in the affected area within the first hour of the event. These samples shall be held in refrigeration or on ice until the applicant is instructed by Ecology on what to do with them. Ecology may require analyses of these samples before allowing the work to resume.

d. 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 material and used cleanup materials.

e. Immediately notify Ecology's Southwest Regional Spill Response Office at (360) 407-6300 and the Washington State Department of Fish and Wildlife of the nature of the problem, any actions taken to correct the problem, and any proposed changes in operations to prevent further problems.

3. 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, including wetlands.

4. If at any time during work the proponent finds buried chemical containers, such as drums, or any unusual conditions indicating disposal of chemicals, the proponent shall immediately notify Ecology's Southwest Regional Spill Response Office at 360 407-6300.

H. Appeal Process:

You have a right to appeal this Order. To appeal this you must:

- File your appeal with the Pollution Control Hearings Board within 30 days of the "date of receipt" of this document. Filing means actual receipt by the Board during regular office hours
- Serve your appeal on the Department of Ecology within 30 days of the "date of receipt" of this document. Service may be accomplished by any of the procedures identified in WAC 371-08-305(10). "Date of receipt" is defined at RCW 43.21B.001(2).

Be sure to do the following:

- Include a copy of this document that you are appealing with your Notice of Appeal.
- Serve and file your appeal in paper form; electronic copies are not accepted.

1. To file your appeal with the Pollution Control Hearings Board

Mail appeal to:		Deliver your appeal in person to:
The Pollution Control Hearings Board PO Box 40903 Olympia, WA 98504-0903	OR	The Pollution Control Hearings Board 4224 – 6th Ave SE Rowe Six, Bldg 2 Lacey, WA 98503

2. To serve your appeal on the Department of Ecology

Mail appeal to:		Deliver your appeal in person to:
The Department of Ecology Appeals Coordinator P.O. Box 47608 Olympia, WA 98504-7608	OR	The Department of Ecology Appeals Coordinator 300 Desmond Dr SE Lacey, WA 98503

3. And send a copy of your appeal to:

Lori Ochoa
Department of Ecology
Southwest Regional Office
P.O. Box 47775
Olympia, WA 98504-7775

For additional information visit the Environmental Hearings Office Website: http://www.eho.wa.gov
To find laws and agency rules visit the Washington State Legislature Website:
http://www1.leg.wa.gov/CodeReviser

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 24 day of MAY, 2010, at Lacey, Washington.

Perry J Lund, Unit Supervisor
Shorelands and Environmental Assistance Program
Department of Ecology
State of Washington