Oregon
Kate Brown, Governor

Department of Environmental Quality
Northwest Region
700 NE Multnomah Street, Suite 600
Portland, OR 97232
(503) 229-5263
FAX (503) 229-6945
TTY 711

February 21, 2017

ATTN: A. Charles Steinwandel
Ross Island Sand and Gravel
PO Box 82249
Portland, OR 97282

RE: 1999-01500; Ross Island Sand and Gravel 401 Water Quality Certification

The Department of Environmental Quality (DEQ) has reviewed the application pursuant to a request for a Clean Water Act Section 401 Water Quality Certification (WQC) received on November 16, 2015 (U.S. Army Corps of Engineers (USACE) Permit #1999-01500 and Department of State Lands [DSL] #RF-26 Modified). DEQ circulated a 401 WQC public comment opportunity on February 5, 2016 and DEQ received several water quality comments. Comments covered topics such as harmful algal blooms, the definition of 'flowing waters', turbidity monitoring, erosion control requirements, spill prevention requirements, fill placement, vegetation protection and restoration, and reporting frequency. All comments were considered in making this final 401 WQC decision.

According to the application, Ross Island Sand & Gravel (RISG or "the Applicant") proposes to impact waters to place clean fill material within the Ross Island Lagoon to reclaim areas that were historically mined by RISG for sand and gravel aggregate. In addition, this 401 WQC authorizes maintenance dredging in the barge berth area. The project is located at the Ross Island complex (comprised of Ross Island, Hardtack Island, Toe Island, and East Island) amid the Willamette River at approximately river mile 15, in the city of Portland, Multnomah County, Oregon (Sections 10, 11, 14, 15, T1S/R1E).

Project Background:
RISG began mining material from Ross Island Lagoon in 1926 for commercial aggregate. During 1926 and 1927, RISG constructed an earthen dike that joined Ross and Hardtack Island. RISG ceased mining Ross Island Lagoon in 2001. RISG continues to process sand and gravel aggregate from a mine in Washington at its facility on Hardtack Island.

A Reclamation Plan for Ross Island was adopted in 1979 and updated in 2002. The Reclamation Plan includes placing fill material within Ross Island Lagoon. RISG received a No Further Action determination from DEQ's Clean Up program in 2011, confirming completion of upland and in-water remedial actions pursuant to DEQ Consent Order No. WMCVC-NWR-99-09. A Long-Term Maintenance, Monitoring and Contingency Plan requires RISG to maintain and monitor remedial action areas and submit an Annual Monitoring and Maintenance Report to DEQ.

Project Description: RISG proposes to continue to place "Class A" clean fill in accordance with the 2002 Reclamation Plan and its existing DSL and USACE permits, until the objectives of

the 2002 Reclamation Plan have been achieved. Measurable objectives of this Plan are as follows: to create 22 acres of riparian/emergent wetland at the southern end of the Ross Island Lagoon; to create 14 acres of shallow water habitat at the north, west, and south portions of the lagoon; and to protect 118 acres of upland forest habitat, which is currently eroding along Ross Island Lagoon. Placement of fill material aligns with the Long Term Maintenance, Monitoring, and Contingency Plan objectives, which are to continue to protect confined aquatic disposal (CAD) cells that contain contaminated material historically placed in the lagoon and enhance slope stability adjacent to the CAD cells.

Fill material is either directly barged to Ross Island Lagoon or trucked to and temporarily stockpiled at RISG's Albina Facility on the east bank of the Willamette near river mile 11, prior to being barged to the Ross Island Lagoon. Cured concrete rubble is placed using a front end loader to dispose material over the side of the barge; other material is placed using a front end loader and a tremie tube.

Prior to placement, material is tested for metals, polychlorinated biphenyls, pesticides, total petroleum hydrocarbons, and other potential contaminants that may be present. RISG performs field screening for pH and petroleum hydrocarbons of fill material except for material excluded by the Solid Waste Exclusion Plan, such as concrete chunks.

Since 2002, RISG has placed more fill material in the Ross Island Lagoon than the 2002 Reclamation Plan originally estimated would be necessary to create the desired habitat. However, the 2002 Reclamation Plan underestimated the volume of material needed to create the desired habitat. RISG estimates an additional 470,000 cubic yards of clean fill is needed to achieve the objectives of the 2002 Reclamation Plan and plans to place the majority of this material within the next five years, depending upon availability. Once sufficient fill has been placed such that the elevations are suitable for the creation of emergent wetland and riparian habitat, RISG will restore and plant these areas. RISG plans to continue to plant upland and riparian areas and continue invasive species control measures, in collaboration with the City of Portland.

RISG proposes additional work as part of this WQC; RISG proposes to dredge up to 5,000 cubic yards of sand and gravel annually in the vicinity of RISG's processing facility on Hardtack Island in order to maintain the necessary depth for the operation of barges at the berths. The material proposed to be dredged is clean fill from Avery Pit in Washington's Klickitat County that inadvertently spills while being transferred to and from the barges at RISG's processing facility.

Status of Affected Waters of the State: The Willamette River is classified as water quality limited under the federal Clean Water Act. The Willamette River is on the Section 303(d) list of impaired water bodies for aldrin, biological criteria, chlordane, cyanide, DDE, DDT, dieldrin, hexachlorobenzene, iron, manganese, polychlorinated biphenyls, pentrachlorophenol, polynuclear aromatic hydrocarbons, and chlorophyll a; and has Environmental Protection Agency (EPA) approved Total Maximum Daily Loads (TMDLs) that have been developed for dioxin, mercury, temperature, and *E. coli.*

The above listed parameters impair the following beneficial uses in the Willamette River: public domestic water supply, private domestic water supply, fishing, fish & aquatic life, and water contact recreation. Other beneficial uses in the Willamette River include industrial water supply,

irrigation, livestock watering, wildlife & hunting, boating, aesthetic quality, hydropower, and commercial navigation & transportation.

Certification Decision: Based on the information provided by the Applicant and the USACE, DEQ is reasonably assured that implementation of the project will be consistent with applicable provisions of Sections 301, 302, 303, 306, and 307 of the federal Clean Water Act, state water quality standards set forth in Oregon Administrative Rules (OAR) Chapter 340 Division 41, and other appropriate requirements of state law, provided the following conditions are incorporated into the USACE permit and strictly adhered to by the Applicant.

401 WQC GENERAL CONDITIONS

1) **Responsible parties:** This 401 WQC applies to the Applicant. The Applicant is responsible for the work of its contractors and sub-contractors, as well as any other entity that performs work related to this 401 WQC.

2) **Work Authorized:** Work authorized by this 401 WQC is limited to the work described in the Joint Permit Application signed June 30, 2016 and additional application materials, unless otherwise authorized by DEQ. If the project is operated in a manner not consistent with the project description contained in the permit application materials, the Applicant is not in compliance with this 401 WQC and may be subject to enforcement.

3) **Duration of Certificate:** This 401 WQC for impacts to waters, including dredge and fill activities, is valid for five years from the date of its issuance. A new or modified 401 WQC must be requested prior to any modification of the USACE 404 permit.

4) A copy of this 401 WQC letter must be kept on the job site and readily available for reference by the Applicant or its contractors, as well as by DEQ, USACE, National Marine Fisheries Service (NMFS), Oregon Department of Fish and Wildlife (ODFW), and other appropriate state and local government inspectors.

5) **Modification:** Any approved modifications to this 401 WQC will incur a Tier 1 fee of $985 at a minimum. Complex modifications may be charged a higher fee.

6) The Applicant must notify DEQ of any change in ownership or control of this project and obtain DEQ review and approval before undertaking any change to the project that might affect water quality.

7) DEQ may modify or revoke this 401 WQC, in accordance with OAR 340-048-0050, if the project changes or project activities are having an adverse impact on state water quality or beneficial uses.

8) The Applicant and its contractors must allow DEQ access to the project site and staging areas to monitor compliance with these 401 WQC conditions, including the following:

    a. Access to any records, logs, and reports that must be kept under the conditions of this 401 WQC;
    b. To inspect best management practices (BMPs), monitoring or operational equipment or methods; and
    c. To collect samples or monitor any discharge of pollutants.

9) Failure of any person or entity to comply with this Order may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce its terms.

CONSTRUCTION SPECIFIC CONDITIONS

10) **Erosion Control:** During construction, erosion control measures must be implemented to prevent or control movement of soil into waters of the state. The Applicant has obtained NDPES 1200-C permit No. 118889 and must comply with this permit and any renewals or modifications to this permit. In addition, the Applicant must do the following, unless otherwise authorized by DEQ in writing:

    a. Maintain an adequate supply of materials necessary to control erosion at the project construction site.

    b. Deploy compost berms, impervious materials, or other effective methods during rain events or when stockpiles are not moved or reshaped at the end of each day as needed based on weather conditions. Erosion of stockpiles is prohibited.

    c. Use removable pads or mats to prevent soil compaction at all construction access points through, and staging areas in, riparian or wetland areas to prevent soil compaction, unless otherwise authorized by DEQ.

11) **Deleterious waste materials:** The Applicant is prohibited from placing biologically harmful materials and construction debris including, but not limited to petroleum products, chemicals, cement cured less than 24 hours, welding slag and grindings, sandblasted materials, chipped paint, tires, wire, steel posts, and asphalt where such materials could enter waters of the state, including wetlands (wetlands are waters of the state). The Applicant must do the following:

    a. Cure concrete, cement, or grout for at least 24 hours prior to any contact with flowing waters;
    b. Use only clean fill, free of waste and polluted substances;
    c. Employ all practicable controls to prevent discharges of spills of deleterious materials to surface or ground water;
    d. Maintain at the project construction site, and deploy as necessary, an adequate supply of materials needed to contain deleterious materials during a weather event;
    e. Remove all foreign materials, refuse, and waste from the project area; and
    f. Employ general good housekeeping practices at all times.

12) **Spill Prevention:** The Applicant must fuel, operate, maintain and store vehicles, and must store construction materials, in areas that will not disturb habitat either directly or due to potential discharges. In addition, the following specific requirements apply:

    a. Vehicle staging, cleaning, maintenance, refueling, and fuel storage must take place in a vehicle staging area placed 150 feet or more from any waters of the state. An exception to this distance may be authorized upon written approval by

DEQ if all practicable prevention measures are employed and this distance is not possible because of any of the following site conditions:

i. Physical constraints that make this distance not feasible (e.g., steep slopes, rock outcroppings);
ii. Natural resource features would be degraded as a result of this setback; or
iii. Equal or greater spill containment and effect avoidance is provided even if staging area is less than 150 feet of any waters of the state.

b. If staging areas are within 150 feet of any waters of the state, as allowed under subsection (a) of this condition, full containment of potential contaminants must be provided to prevent soil and water contamination, as appropriate.

c. All vehicles operated within 150 feet of any waters of the state must be inspected daily for fluid leaks before leaving the vehicle staging area. Any leaks detected in the vehicle staging area must be repaired before the vehicle resumes operation. If any leak is detected during operation, the vehicle must be removed from the water and repaired prior to re-entering the water.

d. Before operations begin and as often as necessary during operation, equipment must be steam cleaned (or undergo an approved equivalent cleaning) until all visible external oil, grease, mud, and other visible contaminants are removed if the equipment will be used below the bank of a waterbody.

e. All stationary power equipment (e.g., generators, cranes, stationary drilling equipment) operated within 150 feet of any waters of the state must be covered by an absorbent mat to prevent leaks, unless other suitable containment is provided to prevent potential spills from entering any waters of the state.

f. An adequate supply of materials (such as straw matting/bales, geotextiles, booms, diapers, and other absorbent materials) needed to contain spills must be maintained at the project construction site and deployed as necessary.

g. All equipment operated in state waters must use biodegradable hydraulic fluid.

h. A maintenance log documenting equipment maintenance inspections and actions must be kept on-site and available upon request.

13) **Spill & Incident Reporting:**

a. 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 Applicant must promptly report the discharge to the Oregon Emergency Response System (OERS, 1-800-452-0311). The Applicant must immediately begin containment and complete cleanup as soon as possible.

b. If the project operations cause a water quality problem which results in distressed or dying fish, the Applicant must immediately do the following: cease operations; take appropriate corrective measures to prevent further environmental damage;

collect fish specimens and water samples; and notify DEQ, ODFW and other appropriate regulatory agencies.

14) **Vegetation Protection and Restoration:**

a. The Applicant must protect riparian, wetland, and shoreline vegetation in the authorized project area from disturbance through one or more of the following:
   i. Designation of staging areas and access points in open, upland areas;
   ii. Fencing and other barriers demarcating construction areas; and/or
   iii. Use of alternative equipment (e.g., spider hoe or crane).

b. If authorized work results in vegetative disturbance that has not been accounted for in the Plan, the Applicant must successfully reestablish vegetation to a degree of function equivalent or better than before the disturbance. The standard for success is 80% cover for native plant species. The vegetation must be reestablished by the completion of authorized work and include the following:
   i. Restore damaged streambanks to a natural slope, pattern, and profile suitable for establishment of permanent woody vegetation, unless precluded by pre-project conditions (e.g., a natural rock wall).
   ii. Replant or reseed each area requiring revegetation before the end of the first planting season following construction.
   iii. Plant disturbed areas with native plants and trees in all cases except where the use of non-native plant materials may be essential for erosion control.
   iv. The use of invasive species to reestablish vegetation is prohibited.
   v. Herbicides, pesticides and fertilizers must be applied per manufacturer's instructions, and only if neccesary for vegetation establishment.
      1. Unless otherwise approved in writing by DEQ, applying surface fertilizer within stormwater treatment facilities or within 50 feet of any stream channel is prohibited.
      2. Other than spot application to cut stems, no herbicides are allowed within stormwater treatment facilites or within 150 feet of waters of the state. Mechanical, hand, or other methods may be used to control weeds and unwanted vegetation within stormwater treatment facilites or within 150 feet of waters of the state.
      3. No pesticides may be used within stormwater treatment facilities or within 150 feet of waters of the state.
   vi. Install wildlife-friendly fencing as necessary to prevent access to revegetated sites by livestock or unauthorized persons.
   vii. Minimize soil compaction, especially in areas that are designated to be replanted. If soils are compacted, decompact staging areas and work construction areas prior to replanting. Leave topsoil when possible. Chip materials from clear and grub operation and spread on soil surface, unless cleared areas contained invasive species.

SPECIFIC CONDITIONS FOR RECLAMATION

15) **Reporting:** By February 28th of each year for the duration of this 401 WQC, RISG must submit the following:

a. Log of fill quality and quantity (Condition 16)

b. Daily observation of potential harmful algal blooms (Condition 17)
c. Bathymetry (Condition 18)
d. Written documentation of any approved exceptions to in-water work windows (Condition 20)
e. Turbidity monitoring logs (Condition 22)
f. pH monitoring logs (Condition 23)

Reporting required by the above noted conditions of this 401 WQC may be incorporated into Annual Reports prepared to document the progress of reclamation for DSL and DEQ, provided DEQ's 401 program receives a distinct copy of the report. Alternatively, all information required may be submitted to the 401 program separately from the Annual Report submitted to DSL.

16) **Fill Quality:** In order to avoid or minimize water quality impairments including turbidity, toxics, pH, and dissolved oxygen, RISG must be knowledgeable of the content of material placed in the lagoon. Ideally, fill placed in water will be representative of native materials and/or suitable for stable bottom elevation gain. Substrate content becomes more important as elevations suitable for shallow water and wetland and riparian habitats are reached.

a. A record of each fill event must be maintained by RISG that includes generator name, source material, type of material, pre-screening for toxics and pH, date of fill event, associated permit numbers for water derived fill, quantity and location of placement and other information as described in the RISG Fill Evaluation Scope of Work (May 29, 2003), as included as Appendix C of the DSL Permit 9819-RF (RF-26) Modified May 25, 2016.
    i. Grain size composition of batches of potential fill material may be determined following the protocols in section 5.1 of the Sediment Evaluation Framework for the Pacific Northwest, July 2016.
    ii. Batches containing less than 20% fines can be considered coarse for purposes of fulfilling the requirements of Conditions 20 and 22d.

b. Pre-screen for total phosphorus for all fill events and total nitrogen for fill other than gravel or cured concrete rubble.

c. RISG must demonstrate compliance with DEQ Solid Waste rules and the Fill Evaluation Scope of Work (attached to the DSL Permit) as to appropriateness of fill for placement in or near water. This may include the following:
    i. Conforming to DEQ Cleanup input and recommendations on fill quality information presented in the Annual Reports;
    ii. Obtaining approval from DEQ Cleanup regarding fill material prior to in-water placement; or
    iii. Obtaining DEQ Solid Waste determination of clean fill or Solid Waste Letters of Authorization, either of which may entail additional physical and chemical analysis.

d. Fill placed in-water at elevations above approximately -20 feet Columbia River Datum (CRD) must be well-graded and suitable for establishment of shallow water and wetland and riparian habitats.

e. Annual reporting must include a log of fill quality and quantity. While chemical quality has been tracked and reported in the Annual Reports, physical quality must also be included as lagoon bottom elevations approach -20 feet CRD and to justify fill placement without a tremie tube at depths greater than -40 feet CRD.

17) **Harmful Algal Blooms:** On all RISG work days, take a visual observation of the Ross Island Lagoon between 11:00 am and 2:00 pm and note in a log if any potential harmful algal blooms (HABs) are observed. Signs of HABs include a thick bluish-green or pea green appearance on the water that is often described as scummy or streaky. If potential HABs are observed, take a photograph and notify Aaron Borisenko at Borisenko.Aaron@deq.state.or.us, Andrea Matzke at Matzke.Andrea@deq.state.or.us and Rebecca Hillwig at rebecca.hillwig@state.or.us as soon as possible that day, unless otherwise specified by DEQ.

18) **Bathymetric Surveys:** The applicant must provide DEQ with two consecutive bathymetric surveys that would bracket the fill period being documented with differences in elevation highlighted. Changes to bathymetry/topography related to site filling should be identified on maps and discussed in a report that can be integrated into the Annual Reports required by DEQ's Cleanup program and DSL's permit.

19) **Water Pollution Control Facilities Permit Compliance:** The Applicant must comply with the active Water Pollution Control Facilities Permit No. 101782 and any subsequent renewals or modifications to the WPCF permit. The WPCF permit prohibits placing settling pond spoils and other waste solids from the processing facility into Ross Island Lagoon. The Applicant is therefore prohibited from placing settling pond spoils or other waste solids from its processing facility into Ross Island Lagoon unless a modified or new WPCF authorizes the proposed activity.

SPECIFIC CONDITIONS FOR IN-STREAM WORK

20) **Fish protection/ Oregon Department of Fish and Wildlife timing:**

a. In-water placement of fill at depths of -40 feet CRD or greater may occur year round, provided a tremie tube is employed or material is documented in the log as being coarse.

b. All in-water work at depths of less than -40 feet CRD is allowed only within the ODFW preferred time window as specified in the *Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources* or as authorized otherwise under a Department of State Lands removal/fill permit.

c. Exceptions to the timing window must be recommended by ODFW and/or NMFS as appropriate.

21) **Aquatic life movements:** Any activity that may disrupt the movement of aquatic life living in the water body, including those species that normally migrate through the area, is prohibited. The Applicant must provide unobstructed fish passage at all times during any authorized activity. Exceptions must be reviewed and recommended by ODFW and/or NMFS as appropriate.

22) **Turbidity:** The Applicant must implement best management practices (BMPs) on disturbed banks and within the stream to minimize turbidity during in-water work. Any activity that causes turbidity to exceed 10% above natural stream turbidities is prohibited except as specifically provided below:

a. **Monitoring:** Turbidity monitoring must be conducted and recorded as described below. Monitoring must occur at four hour intervals each day during daylight hours when in-water work is being conducted. An appropriately calibrated turbidimeter is required taking measurements at approximately mid-depth below the surface of the water and above the channel bottom at the compliance and background distances. The same turbidimeter must be used at both the background and compliance points. Monitoring intervals shall be every four hours during dredging, material placement, or other work below ordinary high water (OHW).

i. Representative Background Point: The Applicant must take and record a turbidity measurement every four hours during in-water work at approximately mid-depth in Holgate Slough in the vicinity of East Island, upcurrent from in-water distrubance and well beyond the potential influence of in-water work within the lagoon, in order to establish background turbidity levels. The background turbidity, location, date, tidal stage, and time must be recorded immediately prior to monitoring downcurrent at the compliance point described below.

ii. Compliance Point: A sample must be taken at start of work and at four hour intervals thereafter, at approximately mid depth in Holgate Slough, approximately 300 feet downcurrent from the outlet of the lagoon, and within any visible plume. The turbidity, location, date, tidal stage, and time must be recorded for each measurement.

b. **Compliance:** The Applicant must compare turbidity monitoring results from the compliance points to the representative background levels taken during each four-hour monitoring interval. Pursuant to OAR 340-041-0036, short term exceedances are allowed as follows:

MONITORING WITH A TURBIDIMETER *EVERY 4 HOURS*	
TURBIDITY LEVEL	***Restrictions to Duration of Activity***
0 to 5 NTU above background	No Restrictions
5 to 29 NTU above background	Work may continue for a maximum of 4 hours. If turbidity remains 5-29 NTU above background, stop work and modify BMPs. Work may resume when NTU is 0-5 above background.
30 to 49 NTU above background	Modify BMPs and increase monitoring to 2 hours. If turbidity remains 30-49 NTU above background, stop work. Work may resume when NTU is 0-5 above background.
50 NTU or more above background	Stop work immediately and inform DEQ

c. **Reporting:** The Applicant must record all turbidity monitoring required by subsections (a) and (b) above in daily logs. The daily logs must include calibration documentation, background NTUs, compliance point NTUs, comparison of the points in NTUs, location, date, time, and tidal stage for each reading. Additionally, a narrative must be prepared discussing all exceedances with subsequent monitoring, actions taken, and the effectiveness of the actions. The Applicant must make available copies of daily logs for turbidity monitoring to DEQ, USACE, NMFS, USFWS, and ODFW upon request.

d. **BMPs to Minimize In-stream Turbidity:** The Applicants must implement the following BMPs, unless otherwise accepted in writing by DEQ:
   i. Without isolation or containment measures in place, in-water fill placement of fine material (grain size analysis of 20% fines or greater) must be conducted using tremie tubes, and if an exceedance occurs, tremie tubes must be equipped with vertical velocity dampers.
   ii. Filling activities involving coarse materials in water depths less than -40 feet CRD may be conducted without a tremie tube, however, if exceedances occur equipment operators must employ adaptive management including
      1. Adjust volume, speed, or both of load placement;
      2. Use a clamshell or closed-lipped bucket; or
      3. Deploy a weighted silt curtain or other containment method.
   iii. Filling activities conducted near shore or anywhere at depths less than -30 feet CRD may be conducted within a weighted silt curtain.

23) **pH Monitoring:** When placing fill consisting of crushed concrete, bentonite, or other materials which may tend to increase or decrease pH levels in water, pH must be monitored as follows:

a. Collect grab samples of surface water within the immediate fill area and at the mouth of the lagoon during filling activities. Additionally, when placing at depths of less than -40 feet CRD, either
   i. Collect grab samples of water within 2 feet of the fill disposal location when at depths of less than -40 feet CRD or
   ii. Conduct pH testing of the material in advance of placement.

b. Using a properly calibrated pH meter, measure and record the pH of each sample.

c. Compare the results to determine if the filling activities are altering pH in the immediate area.

d. If any of the pH results are less than 6.5 or greater than 8.5, cease placing the fill, make note of the source of the fill material, and report the results to DEQ within 24 hours.

e. Annual reporting must include a report of the recorded pH readings including type and source of fill material, dates and times of readings, calibration confirmation, and narrative as to actions taken when pH is altered inside or

outside (or both) of the lagoon. The report could consist of a statement and documentation confirming that no placement of fill with the potential to alter pH occurred, such that pH monitoring was not required.

SPECIFIC CONDITIONS FOR DREDGING

24) **Dredging and Disposal Methods:** The Applicant and its contractors must abide by the following conditions:

a. Suitable for Unconfined In-Water Disposal
   i. Disposal locations are confined to those proposed in the application.
   ii. Dredging method is limited to the method proposed in the application, unless otherwise authorized by DEQ.

b. The Applicant or its contractors must employ the following techniques to minimize sediment disturbance and distribution through the water column.
   i. Sequence or phase work activities to minimize the extent and duration of in-water disturbances.
   ii. Employ an experienced equipment operator.
   iii. Implement bucket control techniques, such as the following:
      1) Do not overfill the bucket.
      2) Close the bucket as slowly as possible on the bottom.
      3) Pause before hoisting the bucket off of the bottom to allow any overage to settle near the bottom.
      4) Hoist load very slowly.
      5) If dewatering is permissible, pause bucket at water surface to minimize distance of discharge.
      6) "Slam" open the bucket after material is dumped on a barge to dislodge any additional material that is potentially clinging to the bucket.
      7) Ensure that all material has dumped into the barge from the bucket before returning for another bite.

If the Applicant is dissatisfied with the conditions contained in this 401 WQC, a contested case hearing may be requested in accordance with OAR 340-048-0045. Such request must be made in writing to the DEQ Office of Compliance and Enforcement at 811 SW 6th Avenue, Portland Oregon 97204 within 20 days of the mailing of this 401 WQC.

The DEQ hereby certifies this project in accordance with the Clean Water Act and state rules, with the above conditions. If you have any questions, please contact Amy Simpson at simpson.amy@deq.state.or.us, by phone at 503 229-5051, or at the address on this letterhead.

Sincerely,

Steve Mrazik
Water Quality Manager
Northwest Region

RISG 401 Water Quality Certification

ec: Jaimee Davis, USACE
Melinda Butterfield, DSL
Aaron Courtney, Stoel Rives LLP
Craig Jacobs, RISG