

DEQ Requests Comments on Proposed Water Quality Certification for Ross Island Sand & Gravel

HOW TO PROVIDE PUBLIC COMMENT

Facility name: Ross Island Lagoon

Permit type: 401 water quality certification

Comments due by: Friday, Nov. 29 at 5 p.m.

Send written comments:

By mail: Haley Teach, Oregon DEQ

700 NE Multnomah Street, Suite 600, Portland, OR

97232

By email: 401publiccomments@deq.oregon.gov

The Oregon Department of Environmental Quality invites the public to provide written comments on a proposed revision of a water quality certification for Ross Island Lagoon, known officially as a Clean Water Act Section 401 water quality certification.

Summary

Ross Island Sand & Gravel proposes to continue to place clean fill within Ross Island Lagoon in accordance with the specifications outlined in the Ross Island Reclamation Plan in Portland.

About the project

Ross Island Sand & Gravel proposes to continue to place "Class A" clean fill in accordance with the Reclamation Plan. Per the 2022 Adaptive Management Plan, measurable objectives are as follows: create 22 acres of riparian/emergent wetland at the southern end of the Ross Island Lagoon, create 14 acres of shallow water habitat at the north, west, and south portion of the lagoon, and develop 123 acres of upland forest habitat.

What does a water quality certification do?

One way DEQ protects Oregon's water quality is by issuing water quality certifications. Section 401 of the Clean Water Act requires federal agencies to obtain a water quality certification from the state if the proposed activity may result in a discharge to surface waters. The certification states that the discharge will comply with applicable sections of the Clean Water Act.

What legal authorities apply?

- Federal Clean Water Act
- Oregon Revised Statutes 468B
- Oregon Administrative Rules Chapter 340, Divisions 041 and 048
- Code of Federal Regulations, Part 121



What happens next?

To submit comments by email to 401publiccomments@deq.oregon.gov or by mail or to:

Haley Teach Oregon DEQ 700 NE Multnomah Street, Suite 600 Portland, OR 97232

DEQ may hold a public hearing on the proposal if one is requested by 10 or more people or an organization representing 10 or more members. DEQ will review and consider all comments received. Following consideration of public comment, the certification may be issued as proposed, modified or denied.

You will be notified of DEQ's final decision if you submit written comments during the comment period. Otherwise, if you would like to receive notification, please contact Haley Teach at haley.teach@deq.oregon.gov.

For more information

Find more information by reviewing draft permit documents attached to this notice, or contact Haley Teach at haley.teach@deq.oregon.gov with questions or to view documents in person at a DEQ office. Sign up to receive information about future 401 certification projects. Visit the Your DEQ Online Help page for more information on how to access public notice documents and submit comments through this platform.

Non-discrimination statement

DEQ does not discriminate on the basis of race, color, national origin, disability, age or sex in administration of its programs or activities. Visit DEQ's Civil Rights and Environmental Justice page.



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October 13, 2022

Randall H. Steed Ross Island Sand & Gravel Co. 6605 SE Lake Road Portland, OR 97222

RE: UPDATED 1999-1500; Ross Island Sand & Gravel 401 Water Quality Certification

The Department of Environmental Quality (DEQ) has reviewed the U.S. Army Corps of Engineers (USACE) Permit application # 1999-01500 (Department of State Lands [DSL] # 09819-RF (RF-26) Modified), pursuant to a request for a Clean Water Act Section 401 Water Quality Certification (WQC) received on October 14, 2021. The project was previously certified on October 13, 2022. This revised WQC incorporates updates to conditions. DEQ's 401 WQC public comment opportunity was circulated from XX to XX.

According to the application, Ross Island Sand & Gravel Co. ("RISG" or "the Applicant") proposes to impact the Willamette River in order to conduct in-water reclamation activities for shallow water habitat, emergent wetland, and riparian habitat. In addition, activities will ensure stable capping of disposal cells in the southern end of the Ross Island Lagoon. The project is located in the Willamette River, in Portland, Multnomah County, Oregon (Sections 10, 11, 14, and 15 / Township 1S / Range 1E).

Project Description: The Applicant proposes to continue to place "Class A" clean fill in accordance with the Reclamation Plan (or as updated and revised) and its DSL and USACE permits until the objectives of the 2002 Reclamation Plan (or a subsequent revised plan) have been achieved. Per the 2022 Adaptive Management Plan, measurable objectives are as follows: create 22 acres of riparian/emergent wetland at the southern end of the Ross Island Lagoon, create 14 acres of shallow water habitat at the north, west, and south portion of the lagoon, and develop 123 acres of upland forest habitat. Placement of fill material aligns with the 2011 Long Term Maintenance, Monitoring, and Contingency Plan objectives, which are to prevent erosion of upland soil into the lagoon, continue to maintain a 3-foot sediment cap over the southern portion of the lagoon, confined aquatic disposal (CAD) cells that contain contaminated material historically placed in the lagoon and enhance slope stability adjacent to caps. 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 conditioned on ongoing long-term monitoring and maintenance.

Fill material is either trucked to a RISG facility where the material is temporarily stockpiled for later transport or barged directly to the Lagoon for placement. Prior to placement, material is tested for metals, polychlorinated biphenyls, pesticides, semivolatile organic compounds, total petroleum hydrocarbons, pH, nutrients, and other potential contaminants that may be present.

RISG performs a visual screening for petroleum impacts to fill material except for material excluded by the Solid Waste Exclusion Plan, such as concrete chunks.

Status of Affected Waters of the State: The Willamette River at river mile 15 is classified as water quality limited under the Federal Clean Water Act with approved Environmental Protection Agency Total Maximum Daily Loads (TMDL) developed for *E.coli*, temperature, and total mercury; and is listed on the Section 303(d) list of impaired water bodies for the following parameters that do not have a TMDL in place: , chlorophyll-a, iron, aldrin, dieldrin, ethylbenzene, DDE (4,4), DDT (4,4), polychlorinated biphenyls, chlordane, dissolved oxygen, biocriteria, harmful algal blooms (HABs), cyanide, and polycyclic aromatic hydrocarbons.

The above listed parameters impair the following beneficial uses in the Willamette River: aesthetic quality, fishing, public domestic water supply, private domestic water supply, water contact recreation, fish and aquatic life, and livestock watering.

Certification Decision: Based on the information provided by the Applicant, 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 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.

GENERAL CONDITIONS

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

Rule: OAR 340-048-0015

Justification: DEQ must be aware of responsible parties to ensure compliance.

Work Authorized: Work authorized by this Order is limited to the work described in the Joint Permit Application signed on September 15, 2021 and additional application materials (hereafter "the permit application materials"), unless otherwise authorized by DEQ. If the project is operated in a manner that's not consistent with the project description contained in the permit application materials, the Applicant is not in compliance with this Order and may be subject to enforcement.

Rule: OAR 340-048-0015

Justification: To ensure the project will comply with water quality standards, DEQ must understand all work involved in the construction and operation of the project.

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

Rule: OAR 340-048-0015

Justification: Certification is required for any license or permit that authorizes an activity that may result in a discharge.

4) **Modification:** Any approved modifications to this certification, including a change of ownership, will incur a Tier 1 fee of \$985 at a minimum. A higher fee may be assessed for complex modifications.

Rule: OAR 340-048-0050

Justification: To ensure the project will comply with water quality standards, DEQ must understand all work involved in the construction and operation of the project.

5) **Change of Ownership:** The Applicant must notify DEQ of any change in ownership or control of this project within 30 days, and obtain DEQ review and approval before undertaking any change to the project that might affect water quality.

Rule: OAR 340-048-0050

Justification: To ensure the project will comply with water quality standards, DEQ must understand all work involved in the construction and operation of the project.

401 WQC on Site: A copy of this 401 Water Quality Certification letter must be kept on the job site and readily available for reference by the Applicant and its contractors and subcontractors, as well as by DEQ, US Army Corps of Engineers, National Marine Fisheries Service, Oregon Department of Fish and Wildlife and other state and local government inspectors.

Rule: OAR 340-012

Justification: All parties must be aware of and comply with the 401 WQC, including on-site contractors.

7) **Project Changes:** DEQ may modify or revoke this certification, in accordance with Oregon Administrative Rules 340-048-0050, if the project changes or project activities are having an adverse impact on state water quality or beneficial uses, or if the Applicant violates any of the conditions of this certification.

Rule: OAR 340-048-0050

Justification: To ensure the project will comply with water quality standards, DEQ must understand all work involved in the construction and operation of the project.

- 8) **Access:** The Applicant and its contractors must allow DEQ access to the project site with or without prior notice, including staging areas, and mitigation sites to monitor compliance with these certification conditions, including:
 - a. Access to any records, logs, and reports that must be kept under the conditions of this certification:
 - b. To inspect best management practices, monitoring or equipment or methods; and
 - c. To collect samples or monitor any discharge of pollutants.

Rule: OAR 340-012

Justification: DEQ must inspect facilities for compliance with all state rules and laws.

9) **Enforcement:** 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.

Rule: OAR 340-012

Justification: If the project is not being constructed or operated as proposed, it may not be consistent with water quality requirements.

10) **Notification to DEQ:** The Applicant must provide pre-construction notification to DEQ 14 days before construction starts. Contact information can be found at the end of the certification.

Rule: OAR 340-012

Justification: DEQ must inspect facilities for compliance with all state rules and laws.

CONSTRUCTION SPECIFIC CONDITIONS

11) **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, unless otherwise authorized by DEQ in writing must:

- a. Maintain an adequate supply of materials necessary to control erosion at the construction site
- b. Prohibit erosion of stockpiles. Deploy compost berms, impervious materials, or other effective methods during rain or when stockpiles are not moved or reshaped for more than 48 hours.
- 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.
- d. Place clean aggregate at all construction entrances, and utilize other best management practices, including, but not limited to truck or wheel washes, when earth-moving equipment is leaving the site and traveling on paved surfaces. Vehicles are prohibited from tracking sediment off site.

Rule: OAR 340-041-0007(8), ORS 468B.050, CWA Section 402, OAR 340-045 Justification: DEQ must ensure that pollution does not enter waterways.

12) **Deleterious waste materials**: The Applicant is prohibited from placing biologically harmful materials and construction debris where they could enter waters of the state, including wetlands (wetlands are waters of the state). This includes, but is not limited to: petroleum products; chemicals; concrete; welding slag and grindings; concrete saw cutting by-products; sandblasted materials; chipped paint; tires; wire; steel posts; asphalt; and waste concrete.

The Applicant must:

- a. Use only clean fill, free of waste and polluted substances;
- b. Employ all practicable controls to prevent discharges of spills of harmful materials to surface or groundwater;
- c. Maintain at the project construction site, and deploy as necessary, an adequate supply of materials needed to contain deleterious materials during a weather event:

- d. Remove all foreign materials, refuse, and waste from the project area; and
- e. Employ general good housekeeping practices at all times.

Rule: OAR 340-041-0007(8), ORS 468B.050, CWA Section 402

Justification: DEQ must ensure that pollution does not enter waterways.

- 13) **Spill Prevention:** The Applicant must have a spill prevention and control plan. The Applicant must fuel, operate, maintain and store vehicles and equipment, and must store construction materials, in areas that will not disturb native habitat directly or result in potential discharges. In general, reasonable precautions and controls must be used to prevent any discharges of petroleum products or other harmful or toxic materials from entering the water as a result of any in-water activities. In addition, the following specific requirements apply:
 - a. Vehicle and motorized equipment staging, cleaning, maintenance, refueling, and fuel storage must take place in a vehicle staging area 150 feet or more from any waters of the state. DEQ may approve in writing exceptions to this distance if all practical 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
 - iii. Equal or greater spill containment and effect avoidance is provided even if staging area is less than 150 feet away from waters of the state.
 - b. If staging areas are within 150 feet of any waters of the state, as allowed under subsection (a)(iii) 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.
 - 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 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 bio-degradable hydraulic fluid.
 - h. A maintenance log documenting equipment maintenance inspections and actions must be kept on-site and available upon request.

Rule: ORS 466.645(1); OAR 340-142-0030(1)(b)(B), OAR 340-041

Justification: DEQ must ensure that pollution does not enter waterways and must be protective of beneficial uses, including fish.

14) Spill & Incident Reporting:

- a. In the event that petroleum products, chemicals, or any other harmful materials are discharged into state waters, or onto land with a potential to enter state waters, the Applicant must report the discharge to the Oregon Emergency Response System (800-452-0311) within 24 hours. 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 operator must immediately: cease operations; take appropriate corrective measures to prevent further environmental damage; collect fish specimens and water samples; and notify DEQ, Oregon Department of Fish and Wildlife and other appropriate regulatory agencies.

Rule: ORS 466.645(1); OAR 340-142-0030(1)(b)(B), OAR 340-041

Justification: DEQ must ensure that pollution does not enter waterways and must be protective of beneficial uses, including fish.

15) **Vegetation Protection and Restoration:**

- a. The Applicant must protect riparian, wetland, and shoreline vegetation in the authorized project area (as defined in the permit application materials) from disturbance through one or more of the following:
 - i. Minimization of project and impact footprint
 - ii. Designation of staging areas and access points in open, upland areas
 - iii. Fencing and other barriers demarcating construction areas
 - iv. Use of alternative equipment (e.g., spider hoe or crane)
- b. If authorized work results in vegetative disturbance and the disturbance has not been accounted for in planned mitigation actions, the Applicant must successfully reestablish vegetation to a degree of function equivalent or better than before the disturbance. The standard for success is 80 percent cover for native plant species. The vegetation must be reestablished by the completion of authorized work and include:
 - i. Restoring 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. Replanting or reseeding each area requiring revegetation before the end of the first planting season following construction
 - iii. Planting 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 re-establish vegetation is prohibited
- v. Herbicides, pesticides and fertilizers must be applied per manufacturer's instructions, and only if necessary for vegetation establishment. If chemical treatment is necessary, the Applicant is responsible for ensuring that pesticide application laws, including with the National Pollutant Discharge Eliminations System 2300-A general permit are met. Please review the information on the following website for more information: https://www.oregon.gov/deg/wg/wgpermits/Pages/Pesticide.aspx
- vi. Minimize soil compaction, especially in areas that are designated for replanting. 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.

Rule: OAR 340-041, OAR 340-012, OAR 340-041-0033

Justification: Riparian, wetland, and shoreline vegetation help ensure excess sediment does not enter a waterway, and helps offset potential temperature impacts. DEQ must ensure that pollution does not enter waterways.

SPECIFIC CONDITIONS FOR RECLAMATION

- 16) **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 17)
 - b. Daily observation of potential harmful algal blooms (Condition 18)
 - c. Analysis of efficacy of the silt curtain and mechanical skimming for HAB Oregon Health Authority advisory (Condition 19)
 - d. Bathymetry (Condition 20)
 - e. Written documentation of any approved exceptions to in-water work windows (Condition 22)
 - f. Turbidity monitoring logs (Condition 23)
 - g. Water quality analytical results (Condition 24 and 25)

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.

Rule: OAR 340-048-0050

Justification: To ensure the project will comply with water quality standards, DEQ must understand all work involved in the construction and operation of the project.

17) **Fill Quality:** In order to avoid or minimize water quality impairments including turbidity, toxics, pH, total dissolved solids, 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 chemical contaminants, nutrients and pH, date of fill event, associated permit numbers for water derived fill, quantity, method of placement, and location of placement and other information as described in the 2022 RISG Fill Evaluation Scope of Work (May 2022 or as subsequently updated), as included in the DSL Permit 09819-RF (RF-26) Modified.
 - 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, May 2018.
 - ii. Batches containing less than 20 percent fines can be considered coarse for purposes of fulfilling the requirements or as subsequently updated.
- b. 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 inwater 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.
- c. 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.
- d. 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.

Rule: OAR 340-048-0050

Justification: To ensure the project will comply with water quality standards, DEQ must understand all work involved in the construction and operation of the project.

Harmful Algal Blooms: On all RISG workdays, visual observations of the Ross Island Lagoon must be made during daylight hours and notification provided to DEQ if any potential harmful algal blooms 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. HABs in the Ross Island Lagoon may also consist of bright green globules. If potential HABs are observed, take a photograph and notify Nathan Reetz at reetz.nathan@deq.oregon.gov, Andrea Matzke at and Stuart Dyer at stuart.w.dyer@oha.oregon.gov within 24 hours.

RISG shall continue to participate in the continued regional work regarding a long-term HABs response and mitigation strategy.

Rule: OAR 340-041-0011

Justification: DEQ must be protective of all water quality standards, including beneficial uses such as fish and aquatic life.

- 19) **HABs Response**: When a recreational use health advisory by Oregon Health Authority (OHA) is issued, the Applicant must install a silt curtain across the opening to the Ross Island lagoon and mechanially skim the algal bloom from the surface of the water using a parachute skimmer.
 - a. Mechanical skimming using a parachute skimmer is to begin once sampling data has confirmed the presence of a HAB.
 - b. Silt curtain installation is to be deployed within 24 hours of a HAB recreational use advisory notice from the OHA.
 - c. Silt curtain is to remain in place, with mechanical skimming, until OHA advisory notice is lifted.
- 20) **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.

Rule: OAR 340-048-0050

Justification: To ensure the project will comply with water quality standards, DEQ must understand all work involved in the construction and operation of the project.

21) 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.

Rule: OAR 340-041-0036. OAR 340-041

Justification: DEQ must ensure that pollution does not enter waterways

SPECIFIC CONDITIONS FOR IN-WATER WORK

22) 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. The Applicant must perform in-water work only within the Oregon Department of Fish and Wildlife preferred time window as specified in the Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources (https://www.dfw.state.or.us/lands/inwater/Oregon%20In-water%20Work%20Guidelines%20January%202022.pdf?msclkid=6c7719e8a6c511eca3ff1bf4749751a8) or as authorized otherwise under a Department of State Lands removal/fill permit. Exceptions to the timing window must be recommended by Oregon Department of Fish and Wildlife and/or the National Marine Fisheries Services as appropriate.

Rule: OAR 340-041-0011

Justification: DEQ must be protective of all water quality standards, including beneficial uses such as fish

and aquatic life.

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 Oregon Department of Fish Wildlife and/or the National Marine Fisheries Service as appropriate.

Rule: OAR 340-041-0016; OAR 340-041-0028

Justification: DEQ must be protective of all water quality standards, including beneficial uses such as fish.

- 23) **Turbidity**: The Applicant must implement best management practices (BMPs) to minimize turbidity during in-water work. Any activity that causes turbidity to exceed 10 percent above natural stream turbidity is prohibited except as specifically noted 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, including while dewatering or work area isolation measures are in place. A properly calibrated turbidimeter is required.
 - 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 Oregon Administrative Rules 340-041-0036, short-term exceedances are allowed as followed:

MONITORING WITH A TURBIDIMETER EVERY 4 HOURS					
TURBIDITY LEVEL	Restrictions to Duration of Activity				
0 to 4 NTU above background	No Restrictions				
5 to 29 NTU above background	Work may continue maximum of 4 Hours. If turbidity remains 5-29 NTU above background, stop work and modify BMPs. Work may resume when NTU is 0-4 above background.				

30 to 49 NTU above background	Work may continue maximum of 2 Hours. If turbidity remains 30-49 NTU above background, stop work and modify BMPs. Work may resume when NTU is 0-4 above background.
50 NTU or more above background	Stop work immediately and inform DEQ.

If an exceedance over the background level occurs, the Applicant must modify the activity and continue to monitor every four hours. If an exceedance over the background level continues after the second monitoring interval, the activity must stop. If, however, turbidity levels return to background at or after second monitoring level due to implementation of best management practices or natural attenuation, work may continue with appropriate monitoring as above.

If an exceedance occurs at: 50 NTU or more over background; 30 NTU over background for four hours; or 5-29 NTU over background for eight hours, the activity must stop immediately for the remainder of that 24-hour period.

c. Reporting:

- Record all turbidity monitoring required by subsections (a) and (b) above in daily logs which must include: calibration documentation; background NTUs; compliance point NTUs; comparison of the points in NTUs; and location; date; time; and tidal stage (if applicable) for each reading.
- ii. Keep records on file for the duration of the permit cycle.
- iii. 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 regulatory agencies including DEQ, USACE, NMFS, USFWS, and ODFW upon request. An example turbidity log is attached to this certification.
- d. Best Management Practices to Minimize In-stream Turbidity: The Applicant must implement the following best management practices, unless accepted in writing by DEQ:
 - i. Sequence/Phasing of work The Applicant must schedule work activities to minimize in-water disturbance and duration of in-water disturbances.
 - ii. Bucket control All in-stream digging passes by excavation machinery and placement of fill in-stream using a bucket must be completed to minimize turbidity. All practical techniques such as employing an experienced equipment operator, not dumping partial or full buckets of material back into the wetted stream, adjusting the volume, speed, or both of the load, or using a closed-lipped environmental bucket must be implemented.
 - iii. Machinery may not be driven into the flowing channel, unless authorized in writing by DEQ.

- iv. 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.
- v. 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.
- vi. Filling activities conducted near shore or anywhere at depths less than -30 feet CRD may be conducted within a weighted silt curtain.

Rule: OAR 340-041-0036, OAR 340-041

Justification: DEQ must ensure that pollution does not enter waterways

- 24) **Seasonal Water Quality Sample Monitoring:** Collect surface water grab samples biweekly from July 1-September 30 from the following locations:
 - a. **Representative Sample**: 300 feet upstream of Ross Island lagoon opening, within Holgate Channel.
 - b. **Compliance Sample:** Downstream of Ross Island Iagoon opening, within Holgate Channel at River Mile 14.5 (DEQ Monitoring Station 35552-ORDEQ).
 - c. **Lagoon Sample**: Within the deepest portion of Ross Island Iagoon (DEQ Monitoring Station 38265-ORDEQ; 45.487, -122.6607), or within an active bloom location.
 - d. Parameters for Testing:
 - i. Chlorophyll by Fluorescence
 - ii. Ammonia
 - iii. Total Phosphorus
 - iv. Total Nitrogen
 - v. Nitrate + Nitrite
 - vi. Temperature
 - vii. Toxicity testing for blue-green algae—microcystin, anatoxin-a, saxitoxin

e. Reporting:

- i. Submit lab reporting results to haley.teach@deq.oregon.gov, with the AQWMS template completed (attached), after every bi-weekly collection.
- ii. Within 24 hours of receiving final analytical results, send HABs toxicity testing results to Nathan Reetz at reetz.nathan@deq.oregon.gov, Andrea Matzke at and Stuart Dyer at stuart.w.dyer@oha.oregon.gov.

Rule: OAR 340-041-0036, OAR 340-041

Justification: DEQ must ensure that pollution does not enter waterways

- 25) **Fill Placement Sample Monitoring**: Collect surface water grab samples within the immediate fill area *during* filling activities.
 - a. When placing fill at depths of less than -40 feet CRD, collect grab samples of water within 2 feet of the planned fill disposal location.

b. Parameters for Testing:

- i. Total Phosphorus
- ii. Total Nitrogen
- iii. pH
- iv. Dissolved Oxygen
- c. Using a properly calibrated pH meter and dissolved oxygen meter, measure and record the pH of each sample.
- d. Compare representative and compliance sample results to determine if the filling activities are altering in the immediate area.
- e. 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.
- f. If any of the dissolved oxygen results are less than 6.5 mg/l, cease placing the fill until levels return to above 6.5 mg/l. Make note of the source of the fill material, and report the results to DEQ within 24 hours.
- g. Annual reporting must include a report of the recorded 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.

Rule: OAR 340-041-0036, OAR 340-041

Justification: DEQ must ensure that pollution does not enter waterways

SPECIFIC CONDITIONS FOR DREDGING

Post-Dredge Notification: Submit dredge and disposal report with figures to DEQ within 60 days of each dredging and disposal event. Include the following items as applicable: debris monitoring results, dredging/disposal dates, disposal location maps, post-dredge sampling data, locations, volumes, acreages, dredge depths, photographs, debris and biological observations, and hydro surveys.

Rule: OAR 340-048-0015

Justification: To ensure the project will comply with water quality standards, DEQ must understand all work involved in the construction and operation of the project.

- 27) **Dredging and Disposal Methods:** The PSET determination provides recommendations regarding the suitability for sediment disposal in water. The Applicant and its contractors must follow these recommendations and the following additional 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.
 - iii. Dredged material disposal may not interfere with navigation.
 - 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:
 - 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.
 - 8) Do not dump partial or full buckets of material back into the wetted stream.
- c. Dredging of holes or sumps below maximum depth and subsequent redistribution of sediment by dredging, dragging, or other means is prohibited.
- d. All anthropogenic debris greater than 1 foot in dimension must be removed from dredged sediments prior to in-water disposal and transported to an appropriate upland disposal site.

Rule: OAR 340-041-0036, OAR 340-041

Justification: DEQ must ensure that pollution does not enter waterways.

Post-Dredge Notification: Submit dredge and disposal report with figures to DEQ within 60 days of each dredging and disposal event. Include the following items as applicable: debris monitoring results, dredging/disposal dates, disposal location maps, post-dredge sampling data, locations, volumes, acreages, dredge depths, photographs, debris and biological observations, and hydro surveys.

Rule: OAR 340-048-0015

Justification: To ensure the project will comply with water quality standards, DEQ must understand all work involved in the construction and operation of the project.

If the Applicant is not satisfied with the conditions contained in this certification, a contested case hearing may be requested in accordance with Oregon Administrative Rule 340-048-0045. Such requests must be made in writing to the DEQ Office of Compliance and Enforcement at 700 NE Multnomah St, Suite 600, Portland Oregon 97232 within 20 days of the mailing of this certification.

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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 Haley Teach at haley.teach@deg.oregon.gov, by phone at 503-229-5051, or at the address on this letterhead.

Sincerely,

Steve Mrazik Water Quality Manager Northwest Region

ec: Trey Fraley, USACE
James Holm, USACE
Melinda Butterfield, DSL
Tim Ruby, DEQ
Craig Jacobs, RISG

State of Oregon DEQ Department of Environmental Quality

401 Water Quality Certification Turbidity Monitoring Report

	Ī							1]						
DSL Project #		Calibration Standard Expiration Date:		*Downstream (Compliance) Point Location:								(Describe any modifications made to BMPs)				
			r Gelex	*Downstream (Latitude:		Longitude:				NOTES	any modification				
USACE Project #		Calibration Standard Type (Circle One) Formazin Solution or Gelex		*Upstream (Background) Point Location:								(Describe				
		Calibrat	Form	ackgroun												
				*Upstream (Ba	Latitude:		Longitude:				body	sheen,				
					NTU (Reading)	NTU (Reading)	NTU (Reading)				Observation of waterbody	Note any plume, sheen, floatables, color				ina locations.
		Turbidimeter Model:			Z	Z	Z		ater Work:		Obse	Tidal Stage				the sampl
		Turbidin			ndard) =	ndard) =	ndard) =		Description of In-Water Work:		Change in	(NTU)				ms showing
				/alues:	NTU (Standard)	NTU (Standard)	NTU (Standard)		In-Water Work End Time: D	_	Downstream Sample	Turbidity (NTU)				samplina for
				Calibration Values:					In-Water Wo		Down	Time				e turbidity
u		ector(s):		Sampling Date:					k Start Time:		Upstream Sample	Turbidity (NTU)				* Include a figure with the turbidity sampling forms showing the sampling locations.
Project Name:		Name of Inspector(s):	Name of Insp						In-Water Work Start Time:		Upst	Time				* Include a

Turbidity: The Applicant must implement appropriate Best Management Practices (BMPs) to minimize turbidity during in-water work. Any activity that causes turbidity to exceed 10% above natural stream turbidity is prohibited except as specifically provided below:

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, including while dewatering or work area isolation measures are in place. A properly calibrated turbidimeter is required unless another monitoring method is proposed and authorized by DEQ.

Representative Background Point: The Applicant must take and record a turbidity measurement every four hours during in-water work at approximately middepth 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

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

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.

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.

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 of the turbidity water quality standard are allowed as shown in the monitoring table shown here.

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

BMPs to Minimize In-stream Turbidity: The Applicant must implement the following BMPs, unless otherwise accepted by DEQ:

- ii. Sequence/Phasing of Work The Applicant must schedule work activities so as to minimize in-water disturbance and duration of in-water disturbances;
- iii. Bucket control All in-stream digging passes by excavation machinery and placement of fill in-stream using a bucket must be completed so as to minimize turbidity. All practicable techniques such as employing an experienced equipment operator, not dumping partial or full buckets of material back into the wetted stream, adjusting the volume, speed, or both of the load, or using a closed-lipped environmental bucket must be implemented;
- iv. The Applicant must limit the number and location of stream-crossing events. Establish temporary crossing sites as necessary in the least sensitive areas and amend these crossing sites with clean gravel or other temporary methods as appropriate;
- v. Machinery may not be driven into the flowing channel, unless authorized by DEQ; and
- vi. Excavated material must be placed so that it is isolated from the water edge or wetlands, and not placed where it could re-enter waters of the state uncontrolled.