



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

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Governor Brad Little
Director John H. Tippetts

June 6, 2019

Jason Brinkman
Idaho Transportation Department – District 3
8150 W. Chinden Blvd.
Boise, Idaho 83714

RE: Reference No. NWW-2017-00421 – Idaho Transportation Department Mason Creek
Culvert Replacement

Dear Mr. Brinkman:

The Department of Environmental Quality (DEQ) has considered water quality certification for construction related to the referenced project. DEQ is issuing the attached 401 Water Quality Certification subject to the terms and conditions contained therein.

If you have any questions or further information to present please contact Julia Achabal at (208) 373-0321, or via email at Julia.Achabal@deq.idaho.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "A. Scheff".

Aaron Scheff
Regional Administrator
Boise Regional Office

JRA/am

cc: Shane Skaar, COE, Boise
Loren Moore, DEQ State Office
TRIM 2019AKF52



Idaho Department of Environmental Quality Final §401 Water Quality Certification

June 6, 2019

404 Permit Application Number: NWW-2017-00421, Mason Creek Culvert

Nationwide Permit Number: 14 Linear Transportation

Applicant/Authorized Agent: Idaho Transportation Department

Project Location: Latitude 43.599361°N, longitude -116.55806°W, in Canyon County, in Nampa, Idaho.

Receiving Water Body: Mason Creek

Pursuant to the provisions of Section 401(a)(1) of the Federal Water Pollution Control Act (Clean Water Act), as amended; 33 U.S.C. Section 1341(a)(1); and Idaho Code §§ 39-101 et seq. and 39-3601 et seq., the Idaho Department of Environmental Quality (DEQ) has authority to review activities receiving Section 404 dredge and fill permits and issue water quality certification decisions.

Based upon its review of the joint application for permit, received on April 22, 2019, DEQ certifies that if the permittee complies with the terms and conditions imposed by the permit along with the conditions set forth in this water quality certification, then there is reasonable assurance the activity will comply with the applicable requirements of Sections 301, 302, 303, 306, and 307 of the Clean Water Act, the Idaho Water Quality Standards (WQS) (IDAPA 58.01.02), and other appropriate water quality requirements of state law.

This certification does not constitute authorization of the permitted activities by any other state or federal agency or private person or entity. This certification does not excuse the permit holder from the obligation to obtain any other necessary approvals, authorizations, or permits.

Project Description

This project will replace an existing, undersized culvert that is at the end of its useful service. A new precast box culvert (12' width by 13' high by 218' long) will be placed with inlet and outlet armored using riprap and gabion baskets. The project area will be kept dry using a coffer dam and bypass piping system.

Antidegradation Review

The WQS contain an antidegradation policy providing three levels of protection to water bodies in Idaho (IDAPA 58.01.02.051).

- Tier I Protection. The first level of protection applies to all water bodies subject to Clean Water Act jurisdiction and ensures that existing uses of a water body and the level of water quality necessary to protect those existing uses will be maintained and protected (IDAPA 58.01.02.051.01; 58.01.02.052.01). Additionally, a Tier I review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.07).
- Tier II Protection. The second level of protection applies to those water bodies considered high quality and ensures that no lowering of water quality will be allowed unless deemed necessary to accommodate important economic or social development (IDAPA 58.01.02.051.02; 58.01.02.052.08).
- Tier III Protection. The third level of protection applies to water bodies that have been designated outstanding resource waters and requires that activities not cause a lowering of water quality (IDAPA 58.01.02.051.03; 58.01.02.052.09).

DEQ is employing a water body by water body approach to implementing Idaho's antidegradation policy. This approach means that any water body fully supporting its beneficial uses will be considered high quality (IDAPA 58.01.02.052.05.a). Any water body not fully supporting its beneficial uses will be provided Tier I protection for that use, unless specific circumstances warranting Tier II protection are met (IDAPA 58.01.02.052.05.c). The most recent federally approved Integrated Report and supporting data are used to determine support status and the tier of protection (IDAPA 58.01.02.052.05).

Pollutants of Concern

The primary pollutant of concern for this project is sediment. As part of the Section 401 water quality certification, DEQ is requiring the applicant comply with various conditions to protect water quality and to meet Idaho WQS, including the water quality criteria applicable to sediment.

Receiving Water Body Level of Protection

This project is located on Mason Creek within the Lower Boise Subbasin assessment unit (AU) 17050114SW006_02 (Mason Creek – entire watershed). This AU has the following designated and presumed beneficial uses: secondary contact recreation and cold water aquatic life respectively. In addition to these uses, all waters of the state are protected for agricultural and industrial water supply, wildlife habitat, and aesthetics (IDAPA 58.01.02.100).

According to DEQ's 2014 Integrated Report, this AU is not fully supporting one or more of its assessed uses. The aquatic life use in this receiving water body AU is not fully supported due to cause unknown-nutrient suspected, Chlorpyrifos, Malathion, sediment/siltation and water temperature. The contact recreation beneficial use is also not fully supported due to *Escherichia coli*. As such, DEQ will provide Tier I protection for both the aquatic life and contact recreation uses (IDAPA 58.01.02.051.01).

The only pollutant of concern associated with this project is sediment. However, sediment is not relevant to recreational uses. project activities will not result in a lowering of water quality with respect to recreational beneficial use support.

Protection and Maintenance of Existing Uses (Tier I Protection)

A Tier I review is performed for all new or reissued permits or licenses, applies to all waters subject to the jurisdiction of the Clean Water Act, and requires demonstration that existing uses and the level of water quality necessary to protect existing uses shall be maintained and protected. The numeric and narrative criteria in the WQS are set at levels that ensure protection of existing and designated beneficial uses.

Water bodies not supporting existing or designated beneficial uses must be identified as water quality limited, and a total maximum daily load (TMDL) must be prepared for those pollutants causing impairment. Once a TMDL is developed, discharges of causative pollutants shall be consistent with the allocations in the TMDL (IDAPA 58.01.02.055.05). Prior to the development of the TMDL, the WQS require the application of the antidegradation policy and implementation provisions to maintain and protect uses (IDAPA 58.01.02.055.04).

During the construction phase, the applicant will implement, install, maintain, monitor, and adaptively manage best management practices (BMPs) directed toward reducing erosion and minimizing turbidity levels in receiving water bodies downstream of the project. In addition, permanent erosion and sediment controls will be implemented, which will minimize or prevent future sediment contributions from the project area. Specifically, this project will route water around the project area to keep the work area isolated and water free of fines. If ground water, if encountered, will be pumped into a settling basin to allow sediment to settle before water is released back into the creek. All disturbed areas will be hydro-seed and native vegetation will be planted to stabilize exposed soils.

As long as the project is conducted in accordance with the provisions of the project plans, Section 404 permit, and conditions of this certification, then there is reasonable assurance the project will comply with the state's numeric and narrative criteria. These criteria are set at levels that protect and maintain designated and existing beneficial uses. In addition, the project will be consistent with the *Lower Boise River TMDL 2015 Total Phosphorus Addendum* and the *Lower Boise River TMDL 2015 Sediment and Bacteria Addendum* (DEQ 2015). This project will be consistent with the objectives in the TMDLs by using best management practices during project construction that will prevent sediment and potential phosphorus discharge to Mason Creek.

There is no available information indicating the presence of any existing beneficial uses aside from those that are already designated and discussed above; therefore, the permit ensures that the level of water quality necessary to protect both existing and designated uses is maintained and protected in compliance with the Tier I provisions of Idaho's WQS (IDAPA 58.01.02.051.01 and 58.01.02.052.07).

Conditions Necessary to Ensure Compliance with Water Quality Standards or Other Appropriate Water Quality Requirements of State Law

General Conditions

1. This certification is conditioned upon the requirement that any modification (e.g., change in BMPs, work windows, etc.) of the permitted activity shall first be provided to DEQ for

- review to determine compliance with Idaho WQS and to provide additional certification pursuant to Section 401. Such modifications may not be implemented until DEQ has determined whether additional certification is necessary.
2. DEQ reserves the right to modify, amend, or revoke this certification if DEQ determines that, due to changes in relevant circumstances—including without limitation, changes in project activities, the characteristics of the receiving water bodies, or state WQS—there is no longer reasonable assurance of compliance with WQS or other appropriate requirements of state law.
 3. If ownership of the project changes, the certification holder shall notify DEQ, in writing, upon transferring this ownership or responsibility for compliance with these conditions to another person or party. The new owner/operator shall request, in writing, the transfer of this water quality certification to his/her name.
 4. A copy of this certification must be kept on the job site and readily available for review by any contractor working on the project and any federal, state, or local government personnel.
 5. Project areas shall be clearly identified in the field prior to initiating land-disturbing activities to ensure avoidance of impacts to waters of the state beyond project footprints.
 6. The applicant shall provide access to the project site and all mitigation sites upon request by DEQ personnel for site inspections, monitoring, and/or to ensure that conditions of this certification are being met.
 7. The applicant is responsible for all work done by contractors and must ensure the contractors are informed of and follow all the conditions described in this certification and the Section 404 permit.
 8. If this project disturbs more than 1 acre and there is potential for discharge of stormwater to waters of the state, coverage under the EPA Stormwater Construction General Permit *must* be obtained. More information can be found at <https://www.epa.gov/npdes-permits/stormwater-discharges-construction-activities-region-10>.

Fill Material

9. Fill material subject to suspension shall be free of easily suspended fine material. The fill material to be placed shall be clean material only.
10. Fill material shall not be placed in a location or in a manner that impairs surface or subsurface water flow into or out of any wetland area.
11. Placement of fill material in existing vegetated wetlands shall be minimized to the greatest extent possible.
12. All temporary fills shall be removed in their entirety on or before construction completion.
13. Excavated or staged fill material must be placed so it is isolated from the water edge or wetlands and not placed where it could re-enter waters of the state uncontrolled.

Erosion and Sediment Control

14. BMPs for sediment and erosion control suitable to prevent exceedances of state WQS shall be selected and installed before starting construction at the site. One resource that may be used in evaluating appropriate BMPs is DEQ's *Catalog of Stormwater Best Management Practices for Idaho Cities and Counties*, available online at <http://www.deq.idaho.gov/media/494058-entire.pdf>. Other resources may also be used for selecting appropriate BMPs.
15. One of the first construction activities shall be placing permanent and/or temporary erosion and sediment control measures around the perimeter of the project or initial work areas to protect the project water resources.
16. Permanent erosion and sediment control measures shall be installed in a manner that will provide long-term sediment and erosion control to prevent excess sediment from entering waters of the state.
17. Permanent erosion and sediment control measures shall be installed at the earliest practicable time consistent with good construction practices and shall be maintained as necessary throughout project operation.
18. Top elevations of bank stabilization shall be such that adequate freeboard is provided to protect from erosion at 100-year design flood elevation.
19. Structural fill or bank protection shall consist of materials that are placed and maintained to withstand predictable high flows in the waters of the state.
20. A BMP inspection and maintenance plan must be developed and implemented. At a minimum, BMPs must be inspected and maintained daily during project implementation.
21. BMP effectiveness shall be monitored during project implementation. BMPs shall be replaced or augmented if they are not effective.
22. All construction debris shall be properly disposed of so it cannot enter waters of the state or cause water quality degradation.
23. Disturbed areas suitable for vegetation shall be seeded or revegetated to prevent subsequent soil erosion.
24. Maximum fill slopes shall be such that material is structurally stable once placed and does not slough into the stream channel during construction, during periods prior to revegetation, or after vegetation is established.
25. To the extent reasonable and cost-effective, the activity submitted for certification shall be designed to minimize subsequent maintenance.
26. Sediment from disturbed areas or able to be tracked by vehicles onto pavement must not be allowed to leave the site in amounts that would reasonably be expected to enter waters of the state. Placement of clean aggregate at all construction entrances or exits and other BMPs such as truck or wheel washes, if needed, must be used when earth-moving equipment will be leaving the site and traveling on paved surfaces.

Turbidity

27. Sediment resulting from this activity must be mitigated to prevent violations of the turbidity standard as stipulated under the Idaho WQS (IDAPA 58.01.02). *Any violation of this standard must be reported to the DEQ regional office immediately.*
28. All practical BMPs on disturbed banks and within the waters of the state must be implemented to minimize turbidity. Visual observation is acceptable to determine whether BMPs are functioning properly. If a plume is observed, the project may be causing an exceedance of WQS and the permittee must inspect the condition of the projects BMPs. If the BMPs appear to be functioning to their fullest capability, then the permittee must modify the activity or implement additional BMPs (this may also include modifying existing BMPs).
29. Turbidity monitoring must be conducted each day during project implementation when project activities may result in turbidity increases above background levels. If the downstream turbidity exceeds upstream turbidity by fifty (50) nephelometric turbidity units (NTU) or more, or more than twenty-five (25) NTU for more than ten (10) consecutive days, the project is causing an exceedance of the WQS. If an exceedance occurs, the permittee must inspect the condition of the projects BMPs.
30. Containment measures such as silt curtains, geotextile fabrics, and silt fences must be implemented and properly maintained to minimize instream sediment suspension and resulting turbidity.

In-water Work

31. Work in open water is to be kept at a minimum and only when necessary. Equipment shall work from an upland site to minimize disturbance of waters of the state. If this is not practicable, appropriate measures must be taken to ensure disturbance to the waters of the state is minimized.
32. Construction affecting the bed or banks shall take place only during periods of low flow.
33. Work in waters of the state shall be restricted to areas specified in the application.
34. Measures shall be taken to prevent wet concrete from entering into waters of the state when placed in forms and/or from truck washing.
35. Activities that include constructing and maintaining intake structures must include adequate fish screening devices to prevent fish entrainment or capture.
36. Stranded fish found in dewatered segments should be moved to a location (preferably downstream) with water.
37. To minimize sediment transport, stream channel or stream bank stabilization must be completed prior to returning water to a dewatered segment.

Pollutants/Toxics

38. The use of chemicals such as soil stabilizers, dust palliatives, sterilants, growth inhibitors, fertilizers, and deicing salts during construction and operation should be limited to the best estimate of optimum application rates. All reasonable measures shall be taken to avoid excess application and introduction of chemicals into waters of the state.

Vegetation Protection and Restoration

39. Disturbance of existing wetlands and native vegetation shall be kept to a minimum.
40. To the maximum extent practical, staging areas and access points should be placed in open, upland areas.
41. Fencing and other barriers should be used to mark the construction areas.
42. Where possible, alternative equipment should be used (e.g., spider hoe or crane).
43. If authorized work results in unavoidable vegetative disturbance, riparian and wetland vegetation shall be successfully reestablished to function for water quality benefit at pre-project levels or improved at the completion of authorized work.

Dredge Material Management

44. Upland disposal of dredged material must be done in a manner that prevents the material from re-entering waters of the state.

Management of Hazardous or Deleterious Materials

45. Petroleum products and hazardous, toxic, and/or deleterious materials shall not be stored, disposed of, or accumulated adjacent to or in the immediate vicinity of waters of the state. Adequate measures and controls must be in place to ensure that those materials will not enter waters of the state as a result of high water, precipitation runoff, wind, storage facility failure, accidents in operation, or unauthorized third-party activities.
46. Vegetable-based hydraulic fluid should be used on equipment operating in or directly adjacent to the channel if this fluid is available.
47. Daily inspections of all fluid systems on equipment to be used in or near waters of the state shall be done to ensure no leaks or potential leaks exist prior to equipment use. A log book of these inspections shall be kept on site and provided to DEQ upon request.
48. Equipment and machinery must be removed from the vicinity of the waters of the state prior to refueling, repair, and/or maintenance.
49. Equipment and machinery shall be steam cleaned of oils and grease in an upland location or staging area with appropriate wastewater controls and treatment prior to entering a water of the state. Any wastewater or wash water must not be allowed to enter a water of the state.
50. Emergency spill procedures shall be in place and may include a spill response kit (e.g., oil absorbent booms or other equipment).
51. In accordance with IDAPA 58.01.02.850, in the event of an unauthorized release of hazardous material to state waters or to land such that there is a likelihood that it will enter state waters, the responsible persons in charge must
 - a. Make every reasonable effort to abate and stop a continuing spill.
 - b. Make every reasonable effort to contain spilled material in such a manner that it will not reach surface or ground waters of the state.
 - c. Call 911 if immediate assistance is required to control, contain, or clean up the spill. If no assistance is needed in cleaning up the spill, contact the appropriate DEQ

- regional office during normal working hours or Idaho State Communications Center after normal working hours (1-800-632-8000). If the spilled volume is above federal reportable quantities, contact the National Response Center (1-800-424-8802).
- Boise Regional Office: 208-373-0550 / 888-800-3480
- d. Collect, remove, and dispose of the spilled material in a manner approved by DEQ.

Culverts

52. To prevent road surface and culvert bedding material from entering a stream, culvert crossings must include best management practices to retain road base and culvert bedding material. Examples of best management practices include, but are not limited to, parapets, wing walls, inlet and outlet rock armoring, compaction, suitable bedding material, anti-seep barriers such as bentonite clay, or other acceptable roadway retention systems.
53. The culvert shall not constrict the stream channel and shall not be angled such that the outflow is directed toward the stream bank. The culvert's flow line shall match the existing stream invert at its entrance and exit. Adequate grade control shall be installed to prevent channel down cutting or excessive deposition from occurring.
54. The culvert shall be installed such that it does not impede fish passage.
55. The culvert outflow shall be armored with riprap to provide erosion control. This riprap will be clean, angular, dense rock that is free of fines and resistant to aquatic decomposition.
56. Culverts shall be sized appropriately to maintain the natural drainage patterns.

Right to Appeal Final Certification

The final Section 401 Water Quality Certification may be appealed by submitting a petition to initiate a contested case, pursuant to Idaho Code § 39-107(5) and the "Rules of Administrative Procedure before the Board of Environmental Quality" (IDAPA 58.01.23), within 35 days of the date of the final certification.

Questions or comments regarding the actions taken in this certification should be directed to Julia Achabal, Boise Regional Office, 208-373-0321 or email at Julia.Achabal@deq.idaho.gov.



Aaron Scheff

Regional Administrator
Boise Regional Office