



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

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C.L. "Butch" Otter, Governor
John H. Tippetts, Director

November 6, 2017

Dave Mickelsen
Elk Valley Ranch, Inc.
3561 N. Pine Featherville Rd.
Mountain Home, ID 83647

RE: NWW-2006-770-B03 – Bank Stabilization, South Fork Boise River

Dear Mr. Mickelsen,

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.

This certification shall remain in effect until December 31, 2018, at which time construction must be completed.

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 "Aaron Scheff".

Aaron Scheff
Regional Administrator
Boise Regional Office

JRA/am

ec: Christen Marve Griffith, COE, Boise
Don Essig, DEQ State Office
TRIM 2017AKF132



Idaho Department of Environmental Quality Final §401 Water Quality Certification

November 6, 2017

404 Permit Application Number: NWW-2006-770-B03

Applicant/Authorized Agent: Elk Valley Ranch, Inc. Dave Mickelsen

Project Location: Latitude 43°35'05"N, Longitude -115°16'25"W. Two miles south of Featherville in Elmore County, Idaho.

Receiving Water Body: South Fork Boise River

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.

DEQ has evaluated the joint application for permit, received on October 4, 2017; the *Biological Assessment for South Fork Boise River Streambank Protection work near Elk Valley Ranch, Idaho* prepared by Stewart Consulting for SPF Water Engineering; and the *Supplemental Report to Joint Application for Permit* prepared by SPF Water Engineering, LLC. Based upon review of these documents 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.

This certification shall remain in effect until December 31, 2018 at which time construction must be completed.

Project Description

This project is to conduct streambank restoration work along the South Fork of the Boise River to address property damage that occurred during the flooding in spring and early summer of 2017 when very high snowpack melted and resulted in historically high river levels.

The project entails using three bioengineering techniques to stabilize the left, descending riverbank: 1) engineered log bank barbs; 2) engineered log jams; and 3) willow clump plantings. The project will discharge an estimated 428 cubic yards of rock; 50 cubic yards of logs; and

about 85 willow clumps at or below the ordinary high water mark of the South Fork Boise River. Approximately 800 linear feet of severely eroded riverbank will be repaired and an estimated 0.80 acres of open channel impacts are anticipated.

The project also entails removing accredited sediments and debris from an existing overflow channel on a point bar directly across from the bioengineering aspect of the project. Two temporary river fords will be constructed to access the right, descending riverbank.

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 pollutants of concern for this project are sediment and temperature. 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 and temperature.

Receiving Water Body Level of Protection

This project is located on South Fork Boise River within the South Fork Boise Subbasin assessment unit (AU) 17050113SW013_05 (South Fork Boise River–Willow Creek to Anderson Ranch Reservoir). This AU has been designated for cold water aquatic life, salmonid spawning, primary contact recreation and domestic water supply beneficial uses: 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 receiving water body AU is fully supports its assessed uses (IDAPA 58.01.02.052.05.a). As such, DEQ will provide Tier II protection in addition to Tier I for cold water aquatic life (IDAPA 58.01.02.051.02 and 58.01.02.051.01). The contact recreation beneficial use is unassessed. DEQ must provide an appropriate level of protection for the contact recreation use using information available at this time (IDAPA 58.01.02.052.05.c). However, the only pollutants of concern associated with this project are sediment and temperature which are not relevant to recreational uses; therefore, it is unnecessary for DEQ to conduct a Tier II review for contact recreation because this project will not create impacts that could affect the recreation use.

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.

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. 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.

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).

High-Quality Waters (Tier II Protection)

The South Fork Boise River is considered high quality for cold water aquatic life. As such, the water quality relevant to this use must be maintained and protected, unless a lowering of water quality is deemed necessary to accommodate important social or economic development.

To determine whether degradation will occur, DEQ must evaluate how the permit issuance will affect water quality for each pollutant that is relevant to cold water aquatic life uses of the South Fork Boise River (IDAPA 58.01.02.052.06). These pollutants include sediment and temperature.

To ensure this project will cause no degradation to this high quality water, in-water work will be completed during low flow periods, after the bypass-channel has been constructed. This will

avoid unnecessary in-water construction, and avoid interference with normal bull trout migration. The project work window will avoid effect to bull trout migration which is typically July 15 to August 31. Spawning occurs in September and October when water temperatures are below 10 degrees Celsius. Work is estimated to begin after these critical periods for bull trout. Flows will then be shifted away from the east riverbank and revetment work can be performed in relatively dry ground. The west channel restoration will occur first. There will be two temporary ford crossings in approximately 1-foot deep water. Clean local natural rock or timber will be used. The removal of the log jam and gravel blockage of the west channel will take place after restoring the west channel function. Channel finished grades will have a thalweg near the center with deep pools every 100 linear feet to create refuge for migrating fish. This construction sequence will allow the west channel to recapture river flows slowly, minimizing sediment transport and downstream impact. A biologist or other previously approved person will be present when the flows are shifted from the east channel to the west channel to gently “herd” any fish out of the bypassed channel along the east bank by moving up the channel. Sediment curtains or other necessary methods will be used to minimize the intensity and duration of any sediment pulses generated. All excavated material will be disposed at an upland location away from the river. Once flows are diverted away from the east bank, log barbs, root wads and boulder revetments will be installed to stabilize the east bank and move future high energy flows away from the slope toe. These structures and continued bank stabilization will prevent further bank collapse and mass failure. Additionally, these structures will improve aquatic habitat. Very little plant and root growth currently exists along the east bank. This project will use woody willow and cottonwood clumps to establish a root system to reinforce riparian soils and provide canopy cover to the river. Jute mat will be used to protect soils on the streambank and reduce potential erosion until plants are established. These plantings will be closely monitored for the first few seasons and irrigated as needed to ensure longevity. As such, the project complies with IDAPA 58.01.02.051.02 and IDAPA 58.01.02.052.06.

In order to maintain the ambient water quality conditions, permanent erosion and sediment controls must be implemented which will minimize or prevent future sediment contributions from the project area. The provisions in the 404 permit, coupled with the conditions of this certification, ensure that degradation to the South Fork Boise River-Willow Creek to Anderson Ranch Reservoir AU or the South Fork Boise River will not occur. Therefore, DEQ concludes that this project complies with the Tier II provisions of Idaho’s WQS (IDAPA 58.01.02.051.02; 58.01.02.052.06 and 58.01.02.052.08).

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 <http://yosemite.epa.gov/R10/WATER.NSF/NPDES+Permits/Region+I0+CGP+resources>.

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. Turbidity monitoring must be conducted each day during project implementation when project activities may result in turbidity increases above background levels.
29. 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).

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. Temporary crossings must be perpendicular to channels and located in areas with the least impact. The temporary crossings must be supplemented with clean gravel or treated with other mitigation methods at least as effective in reducing impacts. Temporary crossings must be removed as soon as possible after the project is completed or the crossing is no longer needed.
34. Heavy equipment working in wetlands shall be placed on mats or suitably designed pads to prevent damage to the wetlands.
35. Activities in spawning areas must be avoided to the maximum extent practicable.
36. Work in waters of the state shall be restricted to areas specified in the application.
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.


Treated Wood

45. DEQ's *Guidance for the Use of Wood Preservatives and Preserved Wood Products In or Around Aquatic Environments* must be considered when using treated wood materials in the aquatic environment. Within this guidance document DEQ references the *Best Management Practices for the Use of Treated Wood in Aquatic and Wetland Environments*. This document provides recommended guidelines for the production and installation of treated wood products destined for use in sensitive environments.

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 at (208)373-0321 or email at Julia.Achabal@deq.idaho.gov.



Aaron Scheff
Regional Administrator
Boise Regional Office