



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

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Brad Little, Governor
John H. Tippetts, Director

March 18, 2020

Mr. Mark Gates
Big Lost Ranch Company
5306 Zollinger Road
Mackay, Idaho 83251

RE: Water Quality Certification for Chilly Sinks Bank Stabilization Project (NWW-2020-36-I02)

Dear Mr. Gates:

The Idaho Department of Environmental Quality (DEQ) reviewed your proposed project and issued a draft §401 Water Quality Certification for the project on February 25, 2020 for a 21-day public comment period. DEQ received no comments on the project and the WQC is now final and attached.

Please do not hesitate to contact me with questions or concerns.

Thank you.

Sincerely,

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

Troy Saffle
Regional WQ Manger
Idaho Falls Regional Office

enclosure

c: James Joyner, ACOE
Loren Moore, DEQ (w/o enclosure)



Idaho Department of Environmental Quality Final §401 Water Quality Certification

March 18, 2020

404 Permit Application Number: NWW-2020-36-I02, Chilly Sinks Bank Stabilization Project

Nationwide Permit Number: 13, Bank Stabilization

Applicant/Authorized Agent: Big Lost Ranch Company, Mark Gates

Project Location: N 43.982986 Latitude, W -113.751110 Longitude, north of Mackay, Idaho off Hwy. 93 in Custer County

Receiving Water Body: Big Lost 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.

Based upon its review of the joint application for permit, received on February 3, 2020, 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

The proposed project would involve the discharge of rock and woody debris below the ordinary high water mark of the Big Lost River to stabilize 1,370 linear feet of streambank. Bank erosion and river movement in the project area has impacted streambank stability and increased stream sediment loads as a result. If not addressed through the proposed remediation, the river will have the potential to cut towards a constructed diversion and bypass it (Figure 1), potentially capturing the river in the bypass ditch and changing current streamflow patterns.

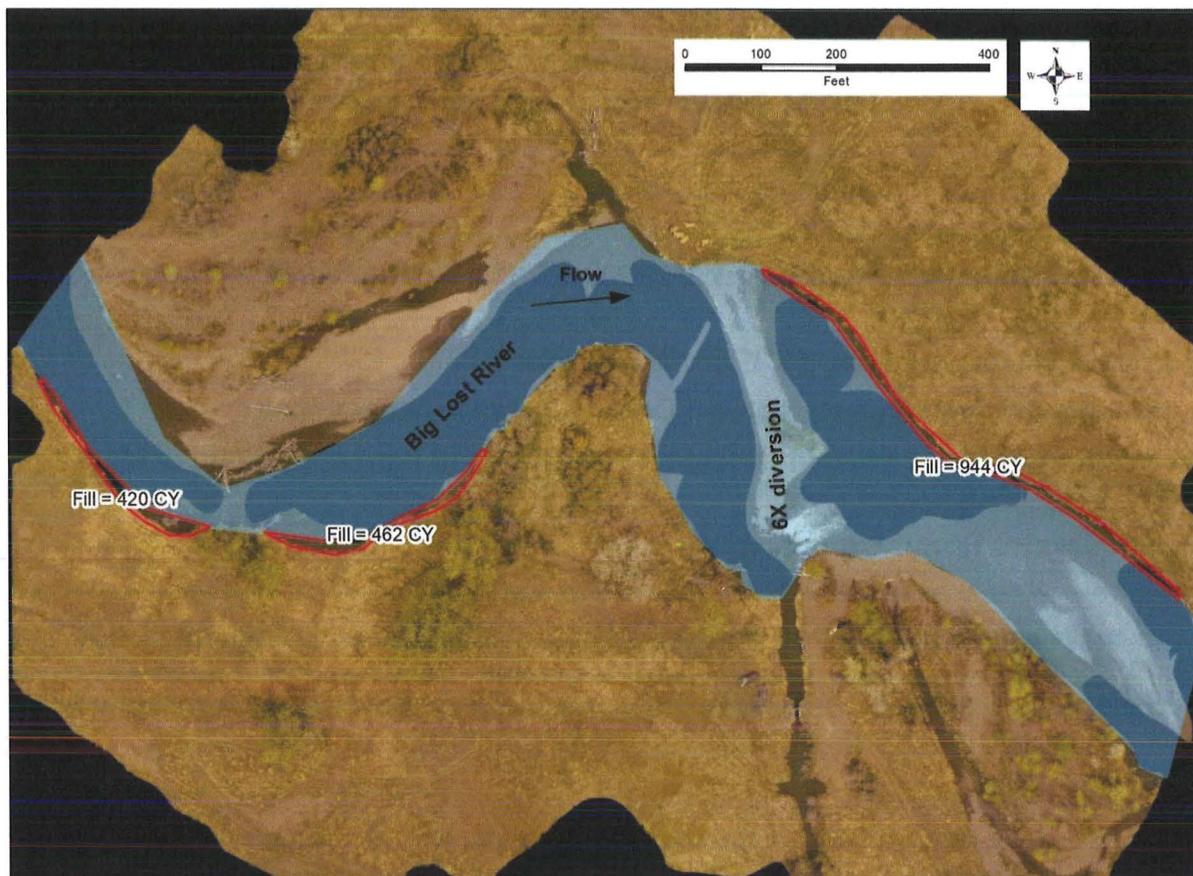


Figure 1. Project area and identified bank stabilization areas (reproduced from permit application supplemental information).

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 Big Lost River within the Big Lost River Subbasin assessment unit (AU) ID17040218SK013_05 (Big Lost River - Jones Creek to Mackay Reservoir). This AU has the following designated beneficial uses: cold water aquatic life, salmonid spawning, primary contact recreation, and domestic water supply. 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 2016 Integrated Report, this AU is not fully supporting one or more of its assessed uses. The cold water aquatic life and salmonid spawning beneficial uses are not fully supported; causes of impairment include sedimentation/siltation and temperature. Therefore, DEQ will provide Tier I protection (IDAPA 58.01.02.051.01) for the aquatic life use.

The contact recreation use is unassessed. DEQ must provide an appropriate level of protection on a case-by-case basis using information available at this time (IDAPA 58.01.02.052.05.b). In the Joint Application, the permittee has agreed to assume the affected water body is high quality water. Therefore, DEQ will provide Tier II protection (IDAPA 58.01.02.051.02) for the contact recreation beneficial use. The only pollutant of concern associated with this project is sediment. However, sediment is not relevant to recreational uses since sediment will not degrade water quality necessary to support recreation uses; it is therefore unnecessary for DEQ to conduct a Tier II analysis.

Protection and Maintenance of Existing Uses (Tier I Protection)

As noted above, 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. 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 existing and designated beneficial uses. In addition, the project will be consistent with the *Big Lost River Subbasin Total Maximum Daily Load Addendum and Five Year Review* (DEQ 2011). Work on the proposed project will happen during the winter low flow period which will minimize the disturbance to any flowing water and maximize exposed banks that the work is proposed to be completed on. Additionally, low flows will further expose an adjacent point bar which will be used for fill material. The section of the Big Lost River the project will occur in typically infiltrates into the streambed before reaching Mackay Reservoir in the winter months. The two upstream areas identified for bank stabilization are within a pool created by the diversion. It is expected that the low water velocities and long retention time of the water in the pools will allow for large amounts of displaced sediment to be retained and settle within the diversion pool. Turbidity will be monitored 600 feet downstream of the project area and work will cease if turbidity approaches 50 nephelometric turbidity units.

Completion of the project will reduce the amount of bank erosion currently occurring. This will be achieved by placing logs and willow clumps along the toe of the eroding bank to anchor the newly constructed streambank. This action will have the subsequent effect of creating enhanced fish habitat. The streambank will be constructed at a 2:1 slope reducing bank undercutting and limiting bank material from falling into the stream. Gravel will be excavated from the channel bottom which will create deep-water habitat for fish and preserve the cross-sectional area of the stream. By enhancing the streambed, water velocities will be reduced which will help in protecting the newly constructed streambank. Revegetation of the newly constructed streambank will be accomplished with the planting of potted cottonwood trees.

The Walla Walla District Idaho Falls Regulatory Office of the U.S. Army Corps of Engineers water quality certification request letter includes special conditions for the permittee stating, "Conduct work that is located below the ordinary high water mark only during the low flow period between July 15 and October 31, this is to reduce turbidity and avoid impacts to mountain whitefish." DEQ agrees with the condition in part, but suggests that work cease prior to September 30. DEQ's Water Body Assessment Guidance (DEQ 2016) indicates that the spawning and egg incubation period for mountain whitefish may begin around October 15. Additionally, the *Geography and Timing of Salmonid Spawning in Idaho* (BioAnalysts 2014) indicates that the general spawning and incubation/emergence period for mountain whitefish could begin around October 1.

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

In addition to the special conditions requested by the U.S. Army Corps of Engineers, DEQ proposes the following conditions to assure that the proposed project will comply with water quality standards.

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. 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.

Turbidity Monitoring and Compliance Requirements

To ensure compliance with Idaho's WQS, required monitoring steps shall include the following:

30. Choose and identify the following locations for each crossing:
 - a. Background location: A relatively undisturbed location unaffected by the construction activity, up-current from the permitted activity; and,
 - b. Compliance location: A location downcurrent from the permitted activity, within any visible plume, at the distance that corresponds to the size of the waterbody where work is taking place as listed on the table below:

Wetted Stream Width	Compliance Distance
Up to 30 feet	50 feet
>30 feet to 100 feet	100 feet
>100 feet to 200 feet	200 feet
>200 feet	300 feet

31. Conduct Compliance Monitoring with a Turbidimeter
 - a. Measure turbidity at both background and compliance locations at the frequency directed in the tables below and record the date, time, location, and turbidity measurements in the daily log. The permittee must also record all controls and practices implemented at the start of the work.
 - b. Turbidity measurements must be representative of stream turbidity when the activity is being conducted. *Measurements cannot be taken during a cessation of activity.*

- c. If the project causes turbidity levels to increase above 50 NTU over background, the permittee must implement additional controls and practices, resume work, and monitor both points again. A description of the additional controls and the date, time, and location where they are implemented must be recorded in the daily log.

Compliance Monitoring With a Turbidimeter

Allowable Exceedance in Turbidity	Action Required at 1st Monitoring Interval	Action Required at 2nd Monitoring Interval
0 to 24 NTU above background	Continue to monitor every 2 hours	Continue to monitor every 2 hours
25 to 49 NTU above background	Continue to monitor every 2 hours	STOP work after 8 hours/24-hour period
25 NTU above background for 10 or more consecutive days	STOP work and follow instructions in 2.c. above	
50 NTU or more above background (first occurrence)	STOP work and follow instructions in 2.c. above	
50 NTU or more above background (second occurrence)	STOP work and follow instructions in 2.c. above and notify DEQ Regional Office	

32. Reporting—Copies of daily logs for turbidity monitoring must be made available to DEQ and other local, state and federal regulatory agencies upon request. The log must include:
- Background NTUs, compliance point NTUs, comparison of the points in NTUs, and location, time, and date for each reading.
 - A narrative discussing all exceedances, controls applied and their effectiveness, subsequent monitoring, work stoppages, and any other actions taken.

In-water Work

33. 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.
34. Construction affecting the bed or banks shall take place only during periods of low flow.
35. Fording of the channel is not permitted. Temporary bridges or other structures shall be built if crossings are necessary.
- 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.
36. Heavy equipment working in wetlands shall be placed on mats or suitably designed pads to prevent damage to the wetlands.
37. Activities in spawning areas must be avoided to the maximum extent practicable.
38. In water work shall only be conducted below the ordinary high water mark during the low flow period between July 15 and October 1, in order to prevent impacts to mountain whitefish populations.

39. Work in waters of the state shall be restricted to areas specified in the application.
40. Measures shall be taken to prevent wet concrete from entering into waters of the state when placed in forms and/or from truck washing.
41. Activities that include constructing and maintaining intake structures must include adequate fish screening devices to prevent fish entrainment or capture.
42. Stranded fish found in dewatered segments should be moved to a location (preferably downstream) with water.
43. To minimize sediment transport, stream channel or stream bank stabilization must be completed prior to returning water to a dewatered segment.

Vegetation Protection and Restoration

44. Disturbance of existing wetlands and native vegetation shall be kept to a minimum.
45. To the maximum extent practical, staging areas and access points should be placed in open, upland areas.
46. Fencing and other barriers should be used to mark the construction areas.
47. Where possible, alternative equipment should be used (e.g., spider hoe or crane).
48. 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.

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 Troy Saffle at 208.528.2650 or via email at troy.saffle@deq.idaho.gov.



Troy Saffle
Regional WQ Manager
Idaho Falls Regional Office

References

- BioAnalysts. (2014). Geography and Timing of Salmonid Spawning in Idaho. BioAnalysts, Inc. Boise, ID. April 25, 2014.
- DEQ. (2016). Water Body Assessment Guidance - 3rd Edition. State of Idaho Department of Environmental Quality. Boise, ID. October 2016.