



STATE OF IDAHO  
DEPARTMENT OF  
ENVIRONMENTAL QUALITY

1445 North Orchard • Boise, Idaho 83706 • (208) 373-0550

C.L. "Butch" Otter, Governor  
Toni Hardesty, Director

March 2, 2012

Todd Haynes  
Terna Energy, LLC  
400 Montgomery Street, Suite 1105  
San Francisco, CA 94104

Re: Reference No. NWW-2012-26-B03  
Box Culvert Installation in Cold Springs Creek and Corrugated Metal Pipe Installations in  
Four (4) Unnamed Tributaries to Cold Springs Creek

Dear Mr. Haynes:

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

This certification shall remain in effect until December 31, 2013, at which time construction must be completed.

Please contact me at (208) 373-0550 if you have any questions or further information to present.

Sincerely,

A handwritten signature in black ink, appearing to read "Pete Wagner", with a long, sweeping flourish extending to the right.

Pete Wagner  
Regional Administrator  
Boise Regional Office

Enclosure

c: Jamie Howard, COE, Boise  
Miranda Adams, DEQ State Office  
TRIM 2012AKF2



## Idaho Department of Environmental Quality Final §401 Water Quality Certification

March 1, 2012

**404 Permit Application Number:** NWW 2012-26-B03

**Applicant/Authorized Agent:** Terna Energy/ Todd Haynes

**Project Location:** T5N, R9E, Sections 4 & 5, and T4S, R9E, Sections 32 & 33, Elmore County, Idaho

**Receiving Water Body:** Cold Springs 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.

DEQ has reviewed the facts and the figures presented in the public notice and joint application for permit for the above-referenced activity. DEQ has also reviewed and considered other material and information related to the proposed activity, including but not limited to the following:

- Email correspondence from Linda Erdmann of Power Engineers to DEQ dated January 30, 2012 and January 31, 2012 including revised Drawing Sheets 1 of 5 and 5 of 5 and USGS Map Road Alignment.

Based upon its review and consideration of the information listed above, DEQ certifies that if the permittee(s) comply with the terms and conditions imposed by the above-referenced 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. Unless otherwise authorized by DEQ, this certification is valid until December 31, 2013.

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

Cold Springs Wind Farm is a proposed wind turbine electrical generating facility that will have a total of 10 Siemens 2.3 megawatt turbines, 7 of which are located between Old Oregon Trail Road and Walker Road and 3 on the east side of Walker Road. Construction of the wind farm

will require new access roads, crane walks, crane pads and assembly areas next to the turbine locations. The new access roads will be permanent; the other facilities will be temporary and returned to natural conditions after completion of crane use. The turbine and access road locations were sited to avoid and minimize impacts to waters of the United States, including wetlands. The least impact route was selected for access roads and requires the crossing of five intermittent streams: three of which are unnamed tributaries to Cold Springs Creek, one of which is an unnamed tributary to Ryegrass Creek and one in Cold Springs Creek. These intermittent streams are dry most of the year and flow seasonally from snowmelt from Bennett Mountain to the north. Culverts will be installed in the four unnamed tributaries. A precast concrete bridge will be installed on Cold Springs Creek.

## **Antidegradation Review**

In March 2011, Idaho incorporated new provisions in Idaho Code § 39-3603 addressing antidegradation implementation. At the same time, Idaho adopted antidegradation implementation procedures in the Idaho WQS. DEQ submitted the antidegradation implementation procedures to the US Environmental Protection Agency (EPA) for approval on April 15, 2011. On August 18, 2011, EPA approved the implementation procedures.

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

- Tier 1 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 1 review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.05).
- Tier 2 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; 58.01.02.052.06).
- Tier 3 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; 58.01.02.052.07).

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 (Idaho Code § 39-3603(2)(b)(i)). Any water body not fully supporting its beneficial uses will be provided Tier 1 protection for that use, unless specific circumstances warranting Tier 2 protection are met (Idaho Code § 39-3603(2)(b)(iii)). The most recent federally approved Integrated Report and supporting data are used to determine support status and the tier of protection (Idaho Code § 39-3603(2)(b)).

## **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***

The Cold Springs Creek Wind Farm project proposes to construct a road in the impact areas of Cold Springs Creek and Ryegrass Creek.

There are four structures proposed within the watershed of the Cold Springs assessment unit (AU) 17050101SW014\_03. Uses for this assessment unit have not been designated in Idaho Water Quality Standards (IDAPA58.01.02.140.01). Because the Department presumes most waters of the state will support cold water aquatic life and primary and secondary contact recreation beneficial uses, the Department will apply cold water aquatic life and primary or secondary contact recreation criteria to undesignated water (IDAPA 58.01.02.101.01.a). Therefore, cold water aquatic life, and secondary contact recreation are presumed uses in Cold Springs Creek. This Cold Springs Creek assessment unit (AU) is not fully supporting its cold water aquatic life and salmonid spawning beneficial uses due to excess sediment/siltation. It is included in Category 4a of the Integrated Report (DEQ 2010) meaning it has an EPA approved TMDL for sediment/siltation. This AU is fully supporting its secondary contact recreation use. As such, DEQ will provide Cold Springs Creek Tier 1 protection only for the aquatic life use, and Tier 2 protection in addition to Tier 1 for its recreation beneficial use (Idaho Code §39-3603(2)(b)).

There is one proposed structure located within the watershed of Ryegrass Creek AU 17050101SW015\_02. Uses for this AU have similarly not been designated in Idaho Water Quality Standards; however, cold water aquatic life and secondary contact recreation are presumed uses. Ryegrass Creek is included in Category 2 of the Integrated Report (DEQ 2010). Therefore, DEQ will provide Tier 2 protection in addition to Tier 1 for aquatic life and recreation uses in this AU. (Idaho Code §39-3603(2)(i)).

### ***Protection and Maintenance of Existing Uses (Tier 1 Protection)***

As noted above, a Tier 1 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 designated beneficial uses.

The Cold Springs Creek AU is not fully supporting its cold water aquatic life and salmonid spawning beneficial uses due to excess sediment/siltation; therefore, the receiving waters are not considered high quality for these uses, and DEQ will provide Tier 1 protection.

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. As such, the EPA approved the King Hill – C.J. Strike Reservoir Subbasin Assessment and TMDL. A sediment TMDL was developed for Cold Springs Creek based on achieving an 80% bank stability target. This AU has been given a load allocation to reduce bank erosion by 29%. In stream bank erosion is the primary source of sediment loading in Cold

Springs Creek system. Land management practices contribute to unstable banks in many areas, and the resulting instability has led to sediment delivery to Cold Springs Creek.

DEQ understands that culverts will be placed in unnamed tributaries to Cold Springs Creek and Ryegrass Creek and a precast concrete bridge structure placed over Cold Springs Creek. While these intermittent streams are dry most of the year, the work being planned will cause a disturbance to the creek beds resulting in increased potential for sediment and turbidity when flows return in the spring.

During the construction phase of this project, 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. In addition, the work will be consistent with the applicable TMDL. The work will not negatively affect bank stability, but in fact may improve bank stability. Therefore, the permit ensures that the level of water quality necessary to protect both designated and existing uses is maintained and protected in compliance with IDAPA 58.01.02.051.01, IDAPA 58.01.02.052.05, and 40 CFR § 131.12(a)(1).

### ***High-Quality Waters (Tier 2 Protection)***

The Cold Springs Creek and its tributaries are considered high quality for secondary contact recreation. In addition, the Ryegrass Creek AU is considered high quality for both aquatic life and recreational uses. As such, the water quality relevant to the secondary contact recreation use of Cold Springs Creek and its tributaries and both recreation and aquatic life uses of the tributary to Ryegrass 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 secondary contact recreational use of Cold Springs Creek and its tributaries (IDAPA 58.01.02.052.04). Pollutants relevant to recreational uses include the following: *Escherichia coli*. The only pollutant of concern for this project is sediment. Sediment is not relevant to recreational uses. Therefore, this project will not result in a lowering of water quality with respect to any pollutant relevant to the Tier 2 recreational use protection for these water bodies. Sediment is relevant to the aquatic life use of Ryegrass Creek. As such, project activities on the Ryegrass tributary are not expected to cause an increase in sediment delivery or degradation to the tributary.

As noted above, the applicant will implement, install, maintain, monitor, and adaptively manage 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. Although this project may result in minimal short-term sediment impacts to the water body, DEQ does not expect long-term impacts or degradation to Cold Springs Creek, its

tributaries, or Ryegrass Creek tributaries. Therefore, DEQ concludes this project complies with IDAPA 58.01.02.051.02 and IDAPA 58.01.02.052.06.

## **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 US 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. Because this project disturbs more than 1 acre and there is potential for discharge of stormwater to waters of the US, 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+10+CGP+resources>.

### **Fill Material**

1. Fill material shall be free of organic and easily suspendable fine material. The fill material to be placed shall include clean earth fill, sand, and stone only.

2. 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.
3. Placement of fill material in existing vegetated wetlands shall be minimized to the greatest extent possible.
4. All temporary fills shall be removed in their entirety on or before construction completion.
5. 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***

6. 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 selection of appropriate BMPs.
7. 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.
8. 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.
9. 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.
10. Top elevations of bank stabilization shall be such that adequate freeboard is provided to protect from erosion at 100-year design flood elevation.
11. 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.
12. A BMP inspection and maintenance plan must be developed and implemented. At a minimum, BMPs must be inspected and maintained daily during project implementation.
13. BMP effectiveness shall be monitored during project implementation. BMPs shall be replaced or augmented if they are not effective.
14. All construction debris shall be properly disposed of so it cannot enter waters of the state or cause water quality degradation.
15. Disturbed areas suitable for vegetation shall be seeded or revegetated to prevent subsequent soil erosion.
16. 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.
17. To the extent reasonable and cost-effective, the activity submitted for certification shall be designed to minimize subsequent maintenance.

## **Turbidity**

18. 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.
19. All practical BMPs on disturbed banks and within the waters of the state must be implemented to minimize turbidity during in-water work.
20. 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.
21. Turbidity monitoring must be conducted and recorded as described below. Monitoring must occur each day during project implementation. A properly and regularly calibrated turbidimeter is recommended, but visual observation is acceptable.

A sample or observation must be taken every three hours at a relatively undisturbed area approximately 100 feet up-current from in-water disturbance or discharge to establish background turbidity levels for each monitoring event. Background turbidity, location, date, and time must be recorded prior to monitoring down-current.

Monitoring must occur every hour approximately 100 feet down-current from the in-water disturbance or point of discharge and within any visible plume. The turbidity, location, date, and time must be recorded for each sample or observation.

Results from the compliance point sampling or observations must be compared to the background levels sampled or observed during each monitoring event. If the downstream turbidity exceeds upstream turbidity by 50 nephelometric turbidity units (NTU) or more, *or if a plume is observed*, then the project is causing an exceedance of the WQS. If an exceedance occurs, the applicant must inspect the condition of the project's BMPs. If the BMPs appear to be functioning to their fullest capability, then the applicant must modify the activity (this may include modifying existing BMPs).

22. Turbidity monitoring must be reported. Copies of daily logs for turbidity monitoring must be available to DEQ upon request. The log must include background measurements (in NTUs) or observations; compliance point measurements or observations; comparison of background and compliance point monitoring as a numeric value (in NTUs) or in narrative form; and location, time, and date for each sampling event. The report must describe all exceedances and subsequent actions taken, monitoring, and the effectiveness of the action.

## **In-water Work**

23. 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 US. If this is not practicable, appropriate measures must be taken to ensure disturbance to the waters of the US is minimized.
24. Construction affecting the bed or banks shall take place only during periods of low flow.
25. Fording of the channel is not permitted. Temporary bridges or other structures shall be built if crossings are necessary.

- a. 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.
26. Heavy equipment working in wetlands shall be placed on mats or suitably designed pads to prevent damage to the wetlands.
27. Work in waters of the state shall be restricted to areas specified in the application.
28. 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***

29. Disturbance of existing wetlands and native vegetation shall be kept to a minimum.
30. To the maximum extent practical, staging areas and access points should be placed in open, upland areas.
31. Fencing and other barriers should be used to mark the construction areas.
32. 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***

33. 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***

34. 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.
35. Vegetable-based hydraulic fluid should be used on equipment operating in or directly adjacent to the channel if this fluid is available.
36. 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.
37. Equipment and machinery must be removed from the vicinity of the waters of the state prior to refueling, repair, and/or maintenance.
38. 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.

39. Emergency spill procedures shall be in place and may include a spill response kit (e.g., oil absorbent booms or other equipment).
40. Any spill less than 25 gallons must be cleaned up within 24 hours of the release but does not require reporting to DEQ. If the spill is less than 25 gallons and is not cleaned up within 24 hours, then it becomes a reportable quantity.
41. Any spill greater than or equal to 25 gallons must be cleaned up within 24 hours of the release and reported to DEQ by calling 1-800-632-8000 (Idaho State Communications Center). Any spill equal to or greater than 25 gallons is reportable immediately.
42. Any release that causes a sheen (of any size) in waters of the state must be reported immediately to the National Response Center at 1-800-424-8802 and the Idaho State Communication Center (1-800-632-8000).

### **Culverts**

43. The culverts 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.
44. 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.
45. Culverts shall be sized appropriately to maintain the natural drainage patterns.
46. Rip rap aprons will be field fitted to stream channel to prevent scouring of stream bed and embankments.

### **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 regarding the actions taken in this certification should be directed to Julia Achabal, Boise Regional Office, 208-373-0550, [julia.achabal@deq.idaho.gov](mailto:julia.achabal@deq.idaho.gov).



Pete Wagner  
Regional Administrator  
Boise Regional Office