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

September 26, 2012

**404 Permit Application Number:** NWW-2012-481-B03 / High Mesa Wind Farm Project

**Applicant/Authorized Agent:** Mr. Richard Free (High Mesa) / Ms. Barb Neary (ARCADIS)

**Project Location:** Section 16 & 21, Township 06 South, Range 12 East in Elmore & Twin Falls counties, Idaho

**Receiving Water Body:** Unnamed Tributary to Cassia Creek

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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: a site visit of the project conducted on September 14, 2012; site plans and specifications for their SWPPP erosion control plan and culvert placement; and a review of BLM GIS land coverage of the soils for the Unnamed Tributary to Cassia Gulch.

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.

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 is to construct a wind farm with 19 wind turbines (11 of which will be located in Elmore County and the remaining 8 in Twin Falls County, so as to supplement traditional electrical power generation projects. The project includes the discharge of an estimated 1,912 cubic yards of native dirt fill material and 12 cubic yards of angular rock (riprap) into four (4), unnamed ephemeral stream channels and one (1) unnamed intermittent stream

channel; which are all considered waters of the United States. The project will impact a total estimated 19,100 square feet of open channel of ephemeral and intermittent streams; and involves the construction of a total of five (5) culverted road crossings (one intermittent stream culverted road crossing; four ephemeral culverted road crossings; and one intermittent stream buried utility line crossing).

## **Antidegradation Review**

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 58.01.02.052.07).
- **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; 58.01.02.052.08).
- **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; 58.01.02.052.09).

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 1 protection for that use, unless specific circumstances warranting Tier 2 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***

The High Mesa Wind Farm Project is located within the assessment unit (AU) ID17040212SK003\_03 (Cassia Gulch – source to mouth). The project itself resides in two counties (Twin Falls and Elmore) in areas with various unnamed gulches (tributaries) which discharge to Cassia Gulch through an unnamed main gulch. The Cassia Gulch AU and its tributaries have no beneficial uses designated or assessed, and there is currently no existing water quality data (i.e. *E. coli*, sediment, nutrients) from DEQ or other state and federal agencies

because of the ephemeral/episodic nature of the AU. There is also no biological/habitat data for similar reasons. Consequently, the AU associated with these water bodies is included in Category 3 (Unassessed Waters) of DEQ's 2010 Integrated Report.

What has been determined from various state and federal agency site visits is that the effected water bodies are ephemeral streams subject to flows during stormwater events and snow melt runoff. DEQ's site visit of September 14, 2012 indicates that (1) the unnamed main gulch within the project boundaries is more episodic than ephemeral due to the absence of a defined stream channel (bed) or defined streambanks; and (2) that similar vegetation exists within the ephemeral/episodic area as well as in the uplands; and this was confirmed by BLM ARC GIS vegetation hydrography (JFO\_2011\_ExistingVeg\_Clipped for the BLM Jarbidge Field Office).

Cassia Gulch ultimately discharges to the Snake River AU ID17040212SK001\_07 (Snake River: Lower Salmon Falls to Clover Creek). Although this Snake River AU is designated for cold water aquatic life and primary contact recreation due to elevated levels of total phosphorus (TP), total suspended solids (TSS), fecal coliform (*E. coli*) and other flow regime alterations; these designations are not appropriate for ephemeral gulches due to the nature of the hydrology. Therefore, DEQ will apply Tier 1 protections only to these water bodies.

### ***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.

Although the unnamed main gulch and Cassia Gulch are not listed as water quality impaired streams, and the approved Upper Snake Rock TMDL (DEQ 1997; 2000; 2005) has been prepared for streams that may have TSS as a pollutant of concern, the proposed project will be constructed to meet TMDL standards with appropriate best management practices to retard erosional sediments (as TSS) from discharging into the unnamed main gulch and Cassia Gulch.

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. In addition, the project will be consistent with the Upper Snake Rock TMDL through implementation of appropriate BMP's that have been selected by the authorized agent and applicant that are specific for this project site.

As previously noted, there is no available information indicating the presence of any beneficial uses for Cassia Gulch or its tributaries; 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 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 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. If 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***

1. Sediment resulting from this activity must be mitigated to prevent violations of the turbidity standard as stipulated under the Idaho WQS (IDAPA 58.01.02.250.02.e). Any violation of this standard must be reported to the DEQ regional office immediately.
2. 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.
3. 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.
4. 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.
5. 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.
6. Top elevations of bank stabilization shall be such that adequate freeboard is provided to protect from erosion at 100-year design flood elevation.
7. 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.
8. A BMP inspection and maintenance plan must be developed and implemented. At a minimum, BMPs must be inspected and maintained daily during project implementation.
9. BMP effectiveness shall be monitored during project implementation. BMPs shall be replaced or augmented if they are not effective.
10. All construction debris shall be properly disposed of so it cannot enter waters of the state or cause water quality degradation.
11. Disturbed areas suitable for vegetation shall be seeded or revegetated to prevent subsequent soil erosion.
12. 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.
13. To the extent reasonable and cost-effective, the activity submitted for certification shall be designed to minimize subsequent maintenance.

14. 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***

1. All practical BMPs on disturbed banks and within the waters of the state must be implemented to minimize turbidity during in-water work.
2. Containment measures such as silt curtains, geotextile fabrics, and silt fences must be implemented and properly maintained to minimize in-stream sediment suspension and resulting turbidity.

### ***Pollutants/Toxics***

1. 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***

1. Disturbance of existing wetlands and native vegetation shall be kept to a minimum.
2. To the maximum extent practical, staging areas and access points should be placed in open, upland areas.
3. Fencing and other barriers should be used to mark the construction areas.
4. Where possible, alternative equipment should be used (e.g., spider hoe or crane).
5. 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***

1. 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***

1. 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.

2. Vegetable-based hydraulic fluid should be used on equipment operating in or directly adjacent to the channel if this fluid is available.
3. 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.
4. Equipment and machinery must be removed from the vicinity of the waters of the state prior to refueling, repair, and/or maintenance.
5. 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.
6. Emergency spill procedures shall be in place and may include a spill response kit (e.g., oil absorbent booms or other equipment).
7. Spills of petroleum products must be cleaned up immediately in accordance with the WQS, IDAPA 58.01.02.851.04.
  - a. 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.
  - b. 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.
  - c. Any release that causes 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***

1. 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.
2. The culvert shall be installed such that it does not impede fish passage.
3. 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.
4. Culverts shall be sized appropriately to maintain the natural drainage patterns.

### ***Treated Wood***

1. Any use of treated wood materials in the aquatic environment must be conducted in accordance with DEQ's "Guidance for the Use of Wood Preservatives and Preserved Wood Products In or Around Aquatic Environments." This guidance is available online at [http://www.deq.idaho.gov/media/488795-wood\\_products\\_guidance\\_final.pdf](http://www.deq.idaho.gov/media/488795-wood_products_guidance_final.pdf).

## 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 Dr. Balthasar Buhidar, Regional Water Quality Manager, Twin Falls Regional Office, (208) 736-2190 or at [Balthasar.buhidar@deq.idaho.gov](mailto:Balthasar.buhidar@deq.idaho.gov).

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Bill Allred

Regional Administrator

Twin Falls Regional Office