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Memorandum

To: Kingdom Community Wind 6216-INDC Project File

From: Andres Torizzo, CPESC, CPSWQ

Date: 3/3/2011

Re: Draft Permit 6216-INDC Comments

Watershed Consulting Associates, LLC (WCA) has prepared the following comments based a technical review of the draft permit 6216-INDC for construction stormwater discharges from the Kingdom Community Wind Project in Lowell, Vermont. These comments have been prepared on behalf of the following municipalities, nonprofit organizations and landowners:

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Comment #1 – Concurrent Disturbance Authorization

The concurrent disturbance authorization is not sufficiently protective to prevent impact from construction stormwater discharges to project receiving waters. The draft permit authorizes between 7 and 14 acres of concurrent disturbance depending on which portion of the site is being worked on. 2 acres is recommended as an appropriate concurrent disturbance limit for this project, based on the following:

- The project is on the high end of the risk scale, meaning that based on a combination of uncontrollable site conditions and controllable construction management and site design decisions, the site has a high risk to potentially impact receiving waters. Controllable management measures including reducing the concurrent limit of disturbance to 2 acres should be utilized to reduce the project risk score to the maximum extent possible, to make the construction project less risky for impacting receiving waters.

- The construction project is located in a high-elevation, steep, headwater area underlain by thin erodible soils. The mapped soil group covering the majority of the upper reaches of the site, the Hogback-Rawsonville complex, is classified as having a very severe erosion hazard. It will be challenging to control erosion and sedimentation, and to manage BMP installation and maintenance on this project in the best of conditions. It will be extremely difficult or impossible to completely stabilize over 7 acres of disturbed land in the event of a sudden, high-intensity precipitation event, common in mountainous areas of Vermont during summertime months.

- Over 7 acres of unstabilized land with poor infiltration capability will allow for a significant amount of runoff to be generated during a high-intensity precipitation event, that will more easily overwhelm sediment traps and perimeter control BMPs, as compared to a site where stabilization has been more frequently implemented. It is likely that runoff would be leaving the construction site at multiple locations, and it would be much more difficult to visually monitor and sample these discharges.

- Two acres of land could be much more easily managed by work crews. In the event of an impending precipitation or melt event, BMPs could more easily be inspected and repaired as compared to a site with greater exposed area.

Comment #2 – Initial Stabilization Authorization

The initial period of disturbance prior to stabilization, authorized by the draft permit is 10 days or 12 days, depending on the portion of the site being worked on. A 7 day standard is recommended, based on the following:

- A 7 day standard is a risk mitigation factor in the Appendix A Risk Scoring Analysis. Providing stabilization within 7 days instead of 10 or 12 days is a construction management option that will lessen the risk of the construction project impacting receiving waters, as the possibility of a disturbed site being exposed to a precipitation event will be reduced.

Comment #3 – Stream Buffers

Mandatory 50' buffers should be required on the project, to preserve stream shading and habitat, and to preserve vegetation that is providing bank stability. The project currently provides buffers in some locations, although the buffer width is variable. In some locations, there is no buffer to streams from the project, or the stream has been directly impacted.

- Providing 50' stream buffers is a risk mitigation factor in the Appendix A Risk Scoring Analysis. A project that does not maintain 50' buffers is considered to be a higher risk. Given that the project is already on the upper end of the overall risk scale, all controllable risk factors should be mitigated, and therefore, 50' buffers should be provided throughout the project.

Comment #4 - Sheet C-131, Note 1, Temporary and Final Stabilization Notes

The Plan specifies temporary or permanent stabilization within 14 days of initial disturbance. This is contrary to the limits specified in Section H.3. of the Draft Permit.