Geronimo Wind Energy

Meeting Agenda

January 11, 2011

Introductions

Project Updates/Status

Overview of Wildlife Issues

DNR Heritage Program Letter- December 22, 2008

1) DNR recommends a minimum ¼ mile setback from all WMAs for all wind turbines.
2) DNR requests contacting the Area Wildlife Manager, Fred Bengtson, to discuss any concerns he may have about turbines being sited near WMAs
3) DNR recommends contacting the USFWS regarding WPAs in the area.
4) DNR strongly recommends pre- and post-construction avian monitoring. Cumulative impact assessment should also address the issue of avian mortality.
5) DNR requests a copy of the native prairie protection and management plan.
6) DNR recommends consideration of alternate locations for the proposed wind farm.

USFWS Letter- October 23, 2009

1) USFWS recommends that impacts to streams and wetlands be avoided, and buffers surrounding these streams be preserved.
2) USFWS recommends monitoring should be conducted to assess the daily movement patterns of any species of raptor, ground nesting grassland bird, and ground nesting shorebirds whose nest is located within the proposed project site or within two miles of the proposed project site.
    a. During the incubation and rearing stage, the location of adult birds should be tracked for at least 4 hours twice per week until consistent activity patterns are established. These monitoring dates will be determined based upon identified species within two miles of the project boundary. Alternate monitoring strategies that assess the degree to which nesting birds utilize the proposed project site will be considered. Information collected will be used to document how frequently the birds enter the proposed project site, and this information can be utilized during micro-siting to minimize substantial risks to birds within close proximity of the project site.
3) USFWS recommends that any bald eagles observed during the recommended survey work be noted, including direction of flight, frequency, and foraging areas being utilized.
4) If turbines are proposed in the southeast corner of the project site, USFWS strongly recommends that observation surveys be completed to determine bird species that may be

moving through the area during spring and fall migration, and bird species that may be in the area during the summer.

5) USFWS recommends observational bird surveys for the entire Black Oak project site to document species, direction of flight, and height of flight to document birds moving through the project site from one WPA to another. The USFWS wants the applicant to utilize this data to assist them in micrositing the individual turbines.
6) USFWS recommends a habitat survey throughout the project site for upland sandpiper, marbled godwit, and sandhill crane.
7) USFWS recommends that no turbines be located within ¼ mile of Conservation Reserve Program, Wetland Reserve Program, or other similar federally- or state-funded restoration projects.
8) USFWS generally recommends a minimum setback distance of ½ mile from WPAs.
9) USFWS recommends GWE and consultants conduct rigorous assessments of bird and bat use of the area before preliminary siting of specific turbines.
    a. Recommend developing a protocol for bird/bat surveys, with specific consideration given to the potential for occurrence of the marbled godwit within the project area.
    b. Recommend mobile, horizontally- and vertically-scanning radar studies. Recommend radar be employed for 24 hours a day, 7 days a week during migration, and at a minimum from dawn to dusk during the breeding period. Use information to inform project design and minimize potential mortality associated with the project.
    c. Recommend installation of two AnaBat SDI detectors per meteorological tower to be used within the project area.
10) USFWS recommends project be monitored post-construction to determine impacts to migratory birds and bats, for a minimum of 3 years.
    a. Service recommends post-construction mortality studies be conducted by an independent 3rd party contractor with expertise in bird/bat mortality monitoring.

<u>DNR Ecological Services Letter- July 6, 2010</u>

1) DNR recommends a ½ mile setback from all WMA's, semipermanent wetlands, and all other protected habitats (e.g., ReInvest in Minnesota easements) for all turbines.
2) DNR recommended a thorough vegetative and avian assessment to characterize the quality of a wet prairie noted by DNR staff in the NW ¼ and N ½, SW ¼ of Section 11, Raymond Township if turbines are proposed in the area.
3) DNR recommends springtime wetland and waterbird surveys be conducted where NWI maps indicate potential wetlands in order to get an accurate depiction of seasonal waterbird use of the area.
4) DNR recommends the applicant review literature about mitigating impacts on bats by using electromagnetic fields.
5) DNR recommends an updated Natural Heritage Database search.
6) DNR's Section of Wildlife recommends the following

a. Minimize lighting on tops of turbines, and avoid continuous lighting at night in order to minimize impacts to migrating birds during inclement weather and fog.
b. Install transmission lines underground. If aboveground transmission lines are used, large swan diverters should be installed on lines at rivers/stream crossings and where line crosses or comes close to wetlands, lakes and associated travel corridors, as well as 500 feet on either side of a crossing.

7) DNR recommends one full year of pre-application and 2 full years of post-construction avian and bat surveys be conducted to adequately assess the year-around use of semi-permanent and seasonal wetlands on the site.
8) DNR recommends the applicant do strategic siting of turbines in consultation with DNR field staff to avoid wetland, rivers, lakes, and permanently protected habitats.