



STATE OF NEW YORK
DEPARTMENT OF AGRICULTURE AND MARKETS
10B Airline Drive
Albany, New York 12235

*Division of Agricultural Protection
and Development Services
518-457-7076
Fax. 518-457-2716*

January 18, 2006

Sandor Fox, Chairman
Town of Cohocton Planning Board
15 South Main Street
Cohocton, New York 14826

RE: UPC Proposed 82 MW Wind Power Project

Dear Chairman Fox:

I received a copy of your letter concerning the lead agency and State Environmental Quality Review (SEQR) for the above mentioned project. The Department has observed the construction of three wind farms in New York and has identified several impacts to the agricultural resources that can occur as the result of such projects. Below are the Department's comments concerning the agricultural impacts, for consideration during the Town's review of this project.

There are two types of agricultural impacts that result from the construction of wind farms on agricultural land. One impact is the permanent loss of productive land as a result of the installation of the access roads, turbine towers, and facilities needed for the interconnection between the wind farm and an existing electric transmission line. The other impact is the damage to the soil resources in areas disturbed during construction. Both of these impacts can be minimized with proper planning and communication.

The proper siting of the access roads and towers can significantly reduce the amount of land permanently lost from production as a result of this type of project. Constructing a permanent access road through the center of the field can significantly reduce the efficiency of the farm tillage and harvest operations. Generally, locating the roads and tower sites along the edge of fields results in the least amount of productive land being lost.

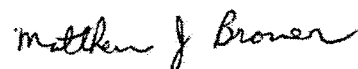
Loss of productive farmland can also occur at the point of connection between the wind farm and the electric transmission line. Good communication is needed between the Department, the project sponsor, the landowner, and the utility company concerning the transmission line interconnection. All parties need to fully understand the type and location of all facilities required for the interconnection.

Another concern is the potential for permanent damage to the soil resource in areas disturbed during construction. Below are a few comments concerning the protection of the soil resource in agricultural fields.

1. Since the depth of the topsoil layer is generally quite shallow in New York, it is critical to protect this layer in order to achieve maximum crop production. The Department recommends stripping and stockpiling the topsoil from any areas disturbed by construction including along access roads, around tower sites, and any other areas where excavation is necessary. Following construction, the topsoil must be graded to the original depth. It is important for the project sponsor to negotiate adequate work space with the landowner in order to allow for proper protection of the topsoil resource.
2. The Department has observed that projects of this nature cause considerable compaction to the topsoil and subsoil layers. If not properly mitigated, the compaction can significantly reduce crop production for a number of years. The Department recommends deep soil tillage in agricultural areas during restoration.
3. Many of the soils in the areas where wind farms have been constructed or are proposed, are shallow to bedrock and/or have a high concentration of rock in the subsoil. Extensive excavation in these types of soils can result in a higher than normal concentration of rock in the upper subsoil and topsoil layer. If not properly removed, this rock concentration can create difficulties for the farm operator for many years.
4. Changes in the natural surface and subsurface drainage patterns have also been observed at the existing wind farms. These changes can occur as a result of the construction of the access roads, as well as from other excavation. Drainage impacts need to be considered during the planning and construction phases and need to be properly mitigated during the restoration phase.

I have enclosed a copy of the Department's *Guidelines for Agricultural Mitigation for Windpower Projects* for your information. Proper implementation of these guidelines will help to minimize the impacts to the agricultural resources. The Planning Board should consider requiring the applicant to follow these guidelines as a condition of their special use permit. If you have any questions, feel free to contact me at (518) 457-2713.

Sincerely,



Matthew J. Brower
Agricultural Resource Specialist

Enclosure

cc: Chris Swartley, UPC Wind Management LLC
Jeff Parker, Steuben Co. Soil and Water Conservation District

**NEW YORK STATE
DEPARTMENT OF AGRICULTURE AND MARKETS**

**Guidelines for
Agricultural Mitigation for Windpower Projects**

The following recommendations and guidelines shall apply to construction areas for wind power construction projects located in County adopted, State certified agricultural districts. The project sponsor is encouraged to coordinate with the New York State Department of Agriculture and Markets (Ag. and Markets) to develop an appropriate schedule for milestone inspections to assure that the goals of these guidelines are being met. For larger projects, the project sponsor shall hire an Environmental Monitor to oversee the construction and restoration in agricultural fields.

Siting Recommendations/Goals

Minimize impacts to normal farming operations by locating structures along field edges and in nonagricultural areas where possible.

Locate access roads, which cross agricultural fields, along ridge tops where possible to eliminate the need for cut and fill and reduce the risk of creating drainage problems.

Avoid dividing larger fields into smaller fields, which are more difficult to farm, by locating access roads along the edge of agricultural fields and in nonagricultural areas where possible.

All existing drainage and erosion control structures such as diversions, ditches, and tile lines shall be avoided or appropriate measures taken to maintain the design and effectiveness of the existing structures. Any structures disturbed during construction shall be repaired to as close to original condition as possible, as soon as possible, unless such structures are to be eliminated based on a new design.

Construction Guidelines

The surface of access roads constructed through agricultural fields shall be level with the adjacent field surface.

Where necessary, culverts and waterbars shall be installed to maintain natural drainage patterns.

All topsoil must be stripped from agricultural areas used for vehicle and equipment traffic and parking. All vehicle and equipment traffic and parking shall be limited to the access road and/or designated work areas such as tower sites and laydown areas. No vehicles or equipment will be allowed outside the work area without prior approval from the landowner and, when applicable, the Environmental Monitor.

Topsoil from work areas (tower sites, parking areas, "open-cut" electric cable trenches, along access roads) shall be stockpiled separate from other excavated material (rock and/or subsoil). At least 50 feet of temporary workspace is needed along "open-cut" electric cable trenches for proper topsoil segregation. All topsoil will be stockpiled immediately adjacent to the area where stripped/removed and shall be used for restoration on that particular site. Topsoil stockpile areas shall be clearly designated in the field and on the on-site "working set" of construction drawings.

In cropland, hayland and improved pasture a minimum depth of forty-eight inches of cover will be required for all buried electric cables. In unimproved grazing areas and land permanently devoted to pasture, a minimum depth of thirty-six inches of cover will be required. In areas where the depth of soil over bedrock ranges from zero to forty-eight inches, the electric cables shall be buried entirely below the top of the bedrock or at the depth specified for the particular land use whichever is less. At no time will the depth of cover be less than twenty-four inches below the soil surface.

All excess subsoil and rock shall be removed from the site. On site disposal of such material may be allowed if approved by the landowner and, when applicable, the Environmental Monitor, with appropriate consideration given to any possible agricultural or environmental impacts.*

In pasture areas, work areas will be fenced to prevent livestock access, consistent with landowner agreements.

All pieces of wire, bolts, and other unused metal objects will be picked up and properly disposed of as soon as practical after the unloading and packing of turbine components so that these objects will not be mixed with any topsoil.*

Excess concrete will not be buried or left on the surface in active agricultural areas. Concrete trucks will be washed outside of active agricultural areas.*

Restoration Guidelines

Following construction, all disturbed agricultural areas will be decompacted to a depth of 18 inches with a deep ripper or heavy-duty chisel plow. In areas where the topsoil was stripped, soil decompaction shall be conducted prior to topsoil replacement. Following decompaction, all rocks 4 inches and larger in size will be removed from the surface of the subsoil prior to replacement of the topsoil. The topsoil will be replaced to original depth and the original contours will be reestablished where possible. All rocks 4 inches and larger shall be removed from the surface of the topsoil. Subsoil decompaction and topsoil replacement should be avoided after October 1, unless approved on a site-specific basis by the landowner in consultation with Ag. and Markets. All parties involved should be cognizant that areas restored after October 1st may not obtain sufficient growth to prevent erosion over the winter months. If areas are to be restored after October 1st, some provision should be made to restore any eroded areas in the springtime, to establish proper growth.

All access roads will be regraded to allow for farm equipment crossing and to restore original surface drainage patterns, or other drainage pattern incorporated into the design.

All restored agricultural areas shall be seeded with the seed mix specified by the landowner, in order to maintain consistency with the surrounding areas.

All surface or subsurface drainage structures damaged during construction shall be repaired to as close to preconstruction conditions as possible, unless said structures are to be removed as part of the project design.

Following restoration, all construction debris will be removed from the site.

(*Any permits necessary for disposal under local, State and/or federal laws and regulations must be obtained by the contractor, with the cooperation of the landowner when required.)

Two Year Monitoring and Remediation

The Project Sponsor will provide a monitoring and remediation period of no less than two years immediately following the completion of initial restoration. The two year period allows for the effects of climatic cycles such as frost action, precipitation and growing seasons to occur, from which various monitoring determinations can be made. The monitoring and remediation phase will be used to identify any remaining agricultural impacts associated with construction that are in need of mitigation and to implement the follow-up restoration.

General conditions to be monitored include topsoil thickness, relative content of rock and large stones, trench settling, crop production, drainage and repair of severed fences, etc. Impacts will be identified through on site monitoring of all agricultural areas impacted by construction and through contact with respective farmland operators and the Department of Agriculture and Markets.

Topsoil deficiency and trench settling shall be mitigated with imported topsoil that is consistent with the quality of topsoil on the affected site. Excessive amounts of rock and oversized stone material will be determined by a visual inspection of disturbed areas as compared to portions of the same field located outside the construction area. All excess rocks and large stones will be removed and disposed of by the Project Sponsor.

When the subsequent crop productivity within affected areas is less than that of the adjacent unaffected agricultural land, the Project Sponsor as well as other appropriate parties, will help to determine the appropriate rehabilitation measures to be implemented. Because conditions which require remediation may not be noticeable at or shortly after the completion of construction, the signing of a release form prior to the end of the remediation period will not obviate the Project Sponsor's responsibility to fully redress all project impacts.

Subsoil compaction shall be tested using an appropriate soil penetrometer or other soil compaction measuring device. Compaction tests will be made for each soil type identified on the affected agricultural fields. The subsoil compaction test results within the affected area will be compared with those of the adjacent unaffected portion of the farm field/soil unit. Where representative subsoil density of the affected area exceeds the representative subsoil density of the unaffected areas, additional shattering of the soil profile will be performed using the appropriate equipment. Deep shattering will be applied during periods of relatively low soil moisture to ensure the desired mitigation and to prevent additional subsoil compaction. Oversized stone/rock material which is uplifted to the surface as a result of the deep shattering will be removed.

STEBEN COUNTY SOIL & WATER CONSERVATION DISTRICT
415 WEST MORRIS STREET
BATH, NEW YORK 14810
(607) 776-7398, EXT. 3

Memo

Date: February 2, 2006
To: Brian Schwabenbauer
From: Jeffrey Parker
RE: DEIS Statement for Proposed Wind Facility – Cohocton

The Steuben County Soil & Water Conservation District would like to comment on impacts to soils during construction of wind tower facility.

While the soils in the proposed area may not pose any major engineering constraints we still have to focus on the impacts of construction on agricultural lands and the impacts of changes in drainage patterns in both ag and non-ag situations.

Generally our topsoil layer is shallow and needs to be protected during construction. Our subsoil also generally has a fragipan layer which inhibit's vertical drainage thru the soil profile. When trenching occurs this drainage pattern can change and create wet areas where they had not existed before because water now follows the disturbed trench area. This causes more problems in ag areas as opposed to non-ag areas depending on land use.

The District believes that you will have to follow recommendations established by Ag & Markets thru their guidelines of mitigation for Wind Power projects. Please refer to the enclosed copy.

Once site specific plans for construction are developed, the District will assist Ag & Markets on ag land impacts with a full in-depth review for recommendation to protect the ag soil and drainage mitigation. We know from experience it will be needed.

Due to our soil drainage patterns being lateral rather than vertical in the soil profile care must be taken during access road construction to not alter existing drainage conditions and cause impacts of excess runoff to our town & county highway system.

Memo

In the past, we have experienced new access roadway construction actually direct surface water flow to existing town & county roadway system and cause excessive road ditch erosion or culvert over topping due to increased runoff. I am sure this area will be addressed thru future application of the new states SPDES permit for construction. This permit will also be needed for construction activities of this nature. This permit will address sediment and erosion control, water quality and water quantity. The District and Department of Environmental Conservation are generally the reviewing agencies.

As you can see, we cannot make a general statement on soils being acceptable for such a project. There remain too many variables. I can generally say that the soil in this area will be impacted, and drainage patterns can change without careful planning. Also be certain that without special sediment & erosion control practices installed, there will be an erosion problem on the soils in the project area.

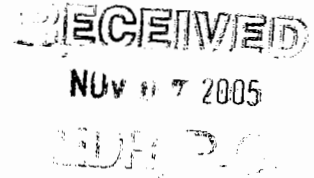
If you have any questions, please feel free to call me at (607) 776-7398, Ext. 3.

New York State Department of Environmental Conservation
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program
625 Broadway, 5th floor, Albany, New York 12233-4757
Phone: (518) 402-8935 • **FAX:** (518) 402-8925
Website: www.dec.state.ny.



November 3, 2005

Brian Schwabenbauer
Environmental Design & Research
238 West Division St
Syracuse, NY 13204



Dear Mr. Schwabenbauer:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to an Environmental Assessment for the proposed Cohocton Wind Power Project #05-005, area as indicated on the map you provided, located in the Towns of Avoca, Cohocton and Prattsburgh, Steuben County.

Enclosed is a report of rare or state-listed animals and plants, significant natural communities, and other significant habitats, which our databases indicate occur, or may occur, on your site or in the immediate vicinity of your site. The information contained in this report is considered sensitive and may not be released to the public without permission from the New York Natural Heritage Program.

PLEASE NOTE: For Windpower Projects, we report all records found within the project boundary and any avian records that may be located within a 10-mile buffer of the project boundary. We also report Indiana bat hibernaculum that may be located within a 40-mile buffer of the project boundary.

The presence of rare species may result in this project requiring additional permits, permit conditions, or review. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, at the enclosed address.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our databases. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. This information should not be substituted for on-site surveys that may be required for environmental impact assessment.

Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information

Sincerely,

Betty Ketcham
Betty A. Ketcham, Information Services
NY Natural Heritage Program

cc: Reg. 8, Wildlife Mgr.
Mark Wothal, Bureau of Habitat, 4th floor, Albany
Peter Nye, Endangered Species Unit, 5th floor, Albany
Jack Nasca, Environmental Permits, 4th floor, Albany

Natural Heritage Report on Rare Species and Ecological Communities



NY Natural Heritage Program, NYS DEC, 625 Broadway, 5th Floor,
Albany, NY 12233-4757
(518) 402-8935

* Location displayed on map

Avian records found within a 12 mile radius of project site

-This report contains **SENSITIVE** information that may not be released to the public without permission from the NY Natural Heritage Program.

-Refer to the User's Guide for explanations of codes, ranks and fields.

-Location maps for certain species and communities may not be provided if 1) the species is vulnerable to disturbance, 2) the location and/or extent is not precisely known, and/or 3) the location and/or extent is too large to display.

BIRDS

X	<i>Ardea herodias</i>			Office Use
	Great Blue Heron	NY Legal Status: Protected	NYS Rank: S5; Demonstrably secure	9358
		Federal Listing:	Global Rank: G5; Demonstrably secure	SL
		Last Report: 1981-04-22	EO Rank: Good	
		County: Steuben		
		Town: Wheeler		
		Location:		
		Directions:		
		General Quality and Habitat:		

X	<i>Haliaeetus leucocephalus</i>			Office Use
	Bald Eagle	NY Legal Status: Threatened	NYS Rank: S2S3B,S2N; Imperiled	2510
		Federal Listing: Threatened	Global Rank: G4; Apparently secure	
		Last Report: **	EO Rank: **	ESU
		County: Ontario, Yates		
		Town: Italy, Middlesex, South Bristol		
		Location:		
		Directions:		
		General Quality and Habitat: **For information on the population at this location and management considerations, please contact the NYS DEC Regional Wildlife Manager or NYS DEC Endangered Species Unit at 518-402-8859.		

X	<i>Haliaeetus leucocephalus</i>			Office Use
	Bald Eagle	NY Legal Status: Threatened	NYS Rank: S2S3B,S2N; Imperiled	9949
		Federal Listing: Threatened	Global Rank: G4; Apparently secure	
		Last Report: **	EO Rank: **	ESU
		County: Ontario, Yates		
		Town: Middlesex, Italy, South Bristol		
		Location:		
		Directions:		
		General Quality and Habitat: **For information on the population at this location and management considerations, please contact the NYS DEC Regional Wildlife Manager or NYS DEC Endangered Species Unit at 518-402-8859.		



Avian records found within a 12 mile radius of project site

BIRDS

Haliaeetus leucocephalus

Office Use

* Bald Eagle NY Legal Status: Threatened NYS Rank: S2S3B,S2N; Imperiled 6405
 Federal Listing: Threatened Global Rank: G4; Apparently secure
 Last Report: ** EO Rank: ** ESU
 County: Livingston
 Town: Springwater, Conesus
 Location:
 Directions:

General Quality and Habitat: **For information on the population at this location and management considerations, please contact the NYS DEC Regional Wildlife Manager or NYS DEC Endangered Species Unit at 518-402-8859.

Spizella pallida

Office Use

* Clay-colored Sparrow NY Legal Status: Protected NYS Rank: S2; Imperiled 1194
 Federal Listing: Global Rank: G5; Demonstrably secure
 Last Report: 2000-07-08 EO Rank: Extant
 County: Steuben
 Town: Avoca
 Location:
 Directions:

General Quality and Habitat: A christmas tree farm with overgrown weeds. The tree heights varied from 3 to 10 feet.

OTHER

* Waterfowl Winter Concentration Area Office Use 7865
 NY Legal Status: Unlisted NYS Rank: S3S4; Vulnerable
 Federal Listing: Global Rank: GNR; Not ranked
 Last Report: 1995-01-28 EO Rank: Excellent
 County: Yates, Steuben
 Town: Urbana, Barrington, Wayne, Milo, Jerusalem, Pulteney
 Location:
 Directions:
 General Quality and Habitat:

* Waterfowl Winter Concentration Area Office Use 2290
 NY Legal Status: Unlisted NYS Rank: S3S4; Vulnerable
 Federal Listing: Global Rank: GNR; Not ranked
 Last Report: 1995-01-28 EO Rank: Excellent
 County: Yates, Ontario
 Town: Canandaigua, South Bristol, Middlesex, Italy, Gorham, City Of Canandaigua
 Location:
 Directions:
 General Quality and Habitat:



Avian records found within a 12 mile radius of project site

OTHER

Waterfowl Winter Concentration Area

Office Use

NY Legal Status: Unlisted

NYS Rank: S3S4; Vulnerable

8344

Federal Listing:

Global Rank: GNR; Not ranked

S

Last Report: 1977-PRE

EO Rank: Historical, no recent information

County: Livingston

Town: Groveland, Mount Morris, West Sparta, Sparta, North Dansville

Location:

Directions:

**General Quality
and Habitat:**

8 Records Processed