

Visual Impact Assessment

Horse Creek Wind Farm

Town of Clayton

Jefferson County, New York

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March 31, 2011

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- Appendix A. Sensitive Sites Table and Viewshed/Sensitive Site Maps
- Appendix B. Photo Log and Field Notes
- Appendix C. Digital Visual Simulations
- Appendix D. Visual Impact Assessment Rating Forms

1.0 Introduction

edr Companies (edr) was retained to prepare a Visual Impact Assessment (VIA) for the proposed Horse Creek Wind Farm (the Project) located in the Town of Clayton, in Jefferson County, New York. The purpose of this VIA is to:

- Describe the appearance of the visible components of the proposed Project.
- Define the visual character of the Project study area.
- Inventory and evaluate existing visual resources and viewer groups.
- Evaluate potential Project visibility within the study area.
- Identify key views for visual assessment.
- Assess the visual impacts associated with the proposed Project.

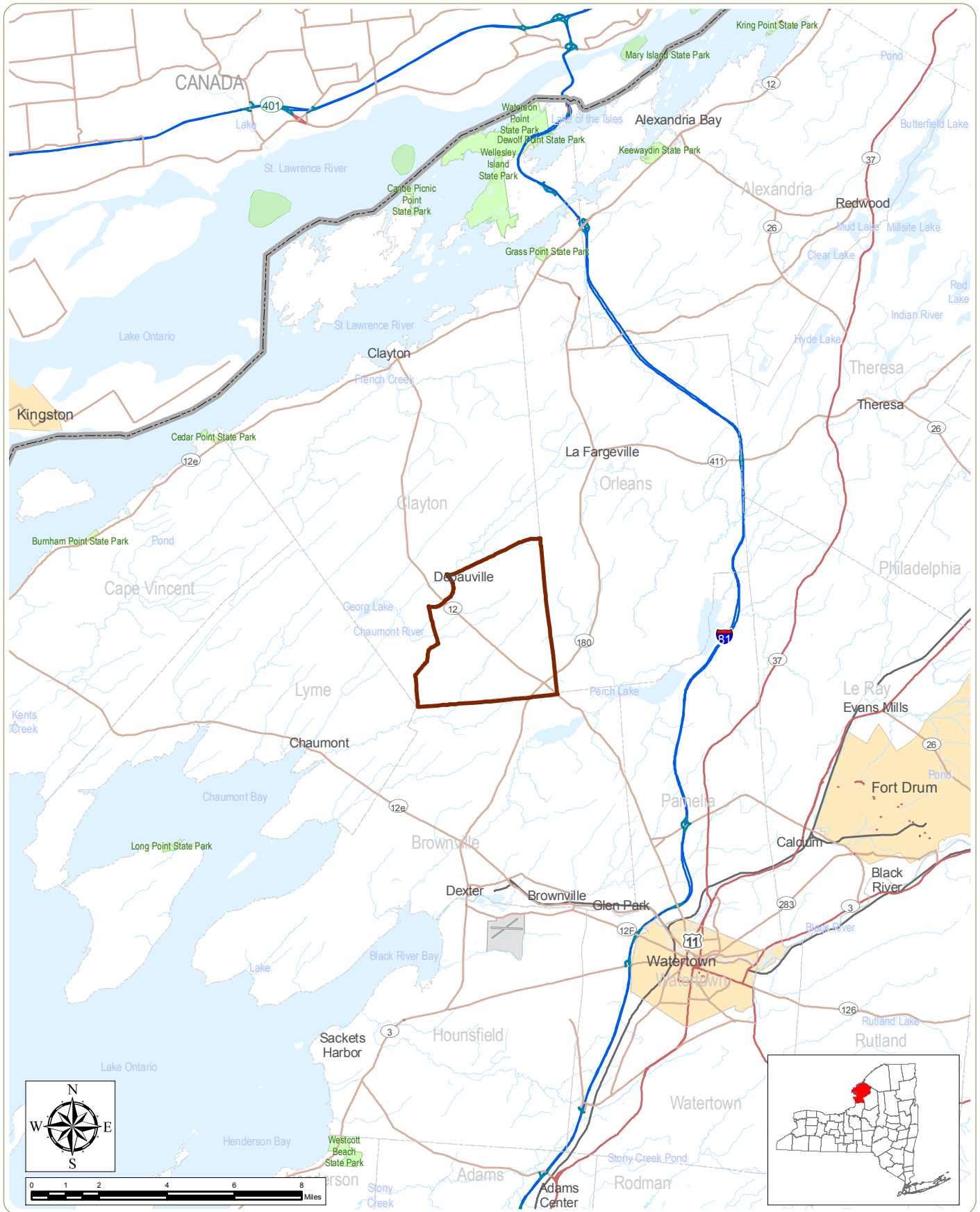
This VIA was prepared under the direct guidance of a registered landscape architect experienced in the preparation of visual impact assessments. It is also consistent with the policies, procedures, and guidelines contained in established visual impact assessment methodologies (see Literature Cited/References section).

2.0 Project Description

2.1 Project Site

The Project site includes approximately 9,450 acres of leased private land in the Town of Clayton, Jefferson County, New York (Figure 1). The Project site is roughly bounded by Killbern Ridge Road to the north, County Route 125 to the south, Depauville Road and Vanalstyne Road to the west, and Herbretch Road and Wilder Road to the east. The site is located approximately 11 miles northwest of the City of Watertown, five miles south-southeast of the Village of Clayton, and approximately three miles northeast of the Village of Chaumont (as measured to the nearest turbine). The Project boundary abuts the town boundaries of Brownville and Lyme between Perch Lake and the Chaumont River.

The Project site is characterized by level to gently-rolling topography with elevations ranging from approximately 280 to 470 feet above mean sea level (amsl). Land use within the Project site is dominated by active and reverting agricultural land, woodlots (including conifer plantations), and wetlands, interspersed with farms and single-family rural residences along the road frontage (see representative photos in Appendix B).



Horse Creek Wind Farm

Town of Clayton - Jefferson County, New York

**Figure 1: Regional Project Location
Visual Impact Assessment**

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Notes: Base Map: ESRI StreetMap North America, 2008.

 Project Site Location



2.2 Proposed Project

The proposed Project evaluated in this VIA is a wind-powered electric generating facility, consisting of 48 wind turbines and associated support facilities (roads, overhead/buried electrical interconnect cable, meteorological towers, substation, and operations and maintenance building). Project configuration/layout is illustrated in Figure 2. The major components of the proposed Project are described below:

2.2.1 Wind Turbines

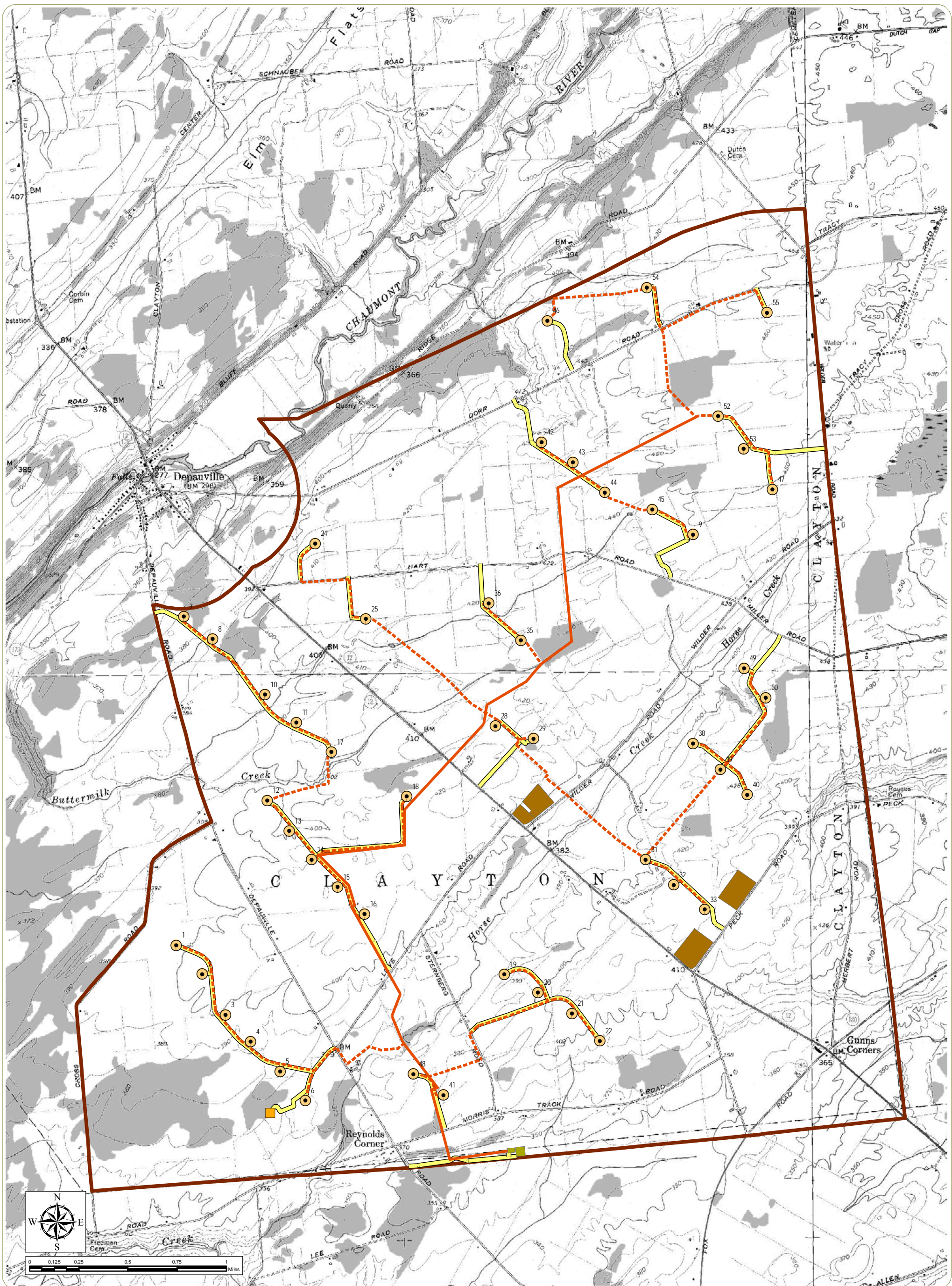
The wind turbines proposed for this Project will be in the 2.0 MW range, (total Project size approximately 96 MW). For the purpose of the VIA, it is assumed that the Gamesa G90 turbine is representative of what will be utilized for the Project in both size and appearance. This turbine on a 100 meter (m) tower is also the tallest model under consideration for the Project, and therefore presents a “worst case” scenario in terms of potential visibility. Each wind turbine consists of three major components; the tower, the nacelle, and the rotor, all of which will be white in color. The height of the tower, or “hub height” (height from foundation to top of tower) will be approximately 328 feet (100 m). The nacelle sits atop the tower, and the rotor hub is mounted to the nacelle. Assuming a 90 m (295-foot) rotor diameter, the total turbine height (i.e., height at the highest blade tip position) will be approximately 476 feet (145 m). A computer model illustrating the appearance of the proposed turbine is shown in Figure 3. Descriptions of each of the turbine components are provided below.

Tower: The towers used for this Project are conical steel structures manufactured in multiple sections. The towers have a base diameter of approximately 13.5 feet and a top diameter of approximately 9.2 feet. Each tower will have an access door and an internal safety ladder to access the nacelle.

Nacelle: The main mechanical components of the wind turbine are housed in the nacelle. These components include the drive train, gearbox, and generator. The nacelle is approximately 28 feet long, 10 feet tall, and 11 feet wide. Attached to the top of approximately half of the nacelles, per specifications of the Federal Aviation Administration (FAA), will be a single aviation warning light. These will be medium intensity flashing red lights (L-864) and operated only at night. For the purposes of this study, it is assumed that the nacelle will include no obvious lettering, logo, or other exterior marking.

Rotor: A rotor assembly is mounted to the nacelle to operate upwind of the tower. Each rotor consists of three composite blades, each approximately 147.5 feet (45 m) in length (total rotor diameter = 295 feet or 90 m). The rotor blades are rotated along their axis or “pitched” to enable them to operate efficiently at varying speeds. The

wind turbines begin generating electricity at wind speeds as low as 3 meters per second (m/s) (6.7 mph) and automatically shut down at wind speeds above 25 m/s (56 mph). The maximum rotor speed is approximately 19 revolutions per minute (rpm).











Horse Creek Wind Farm
Town of Clayton - Jefferson County

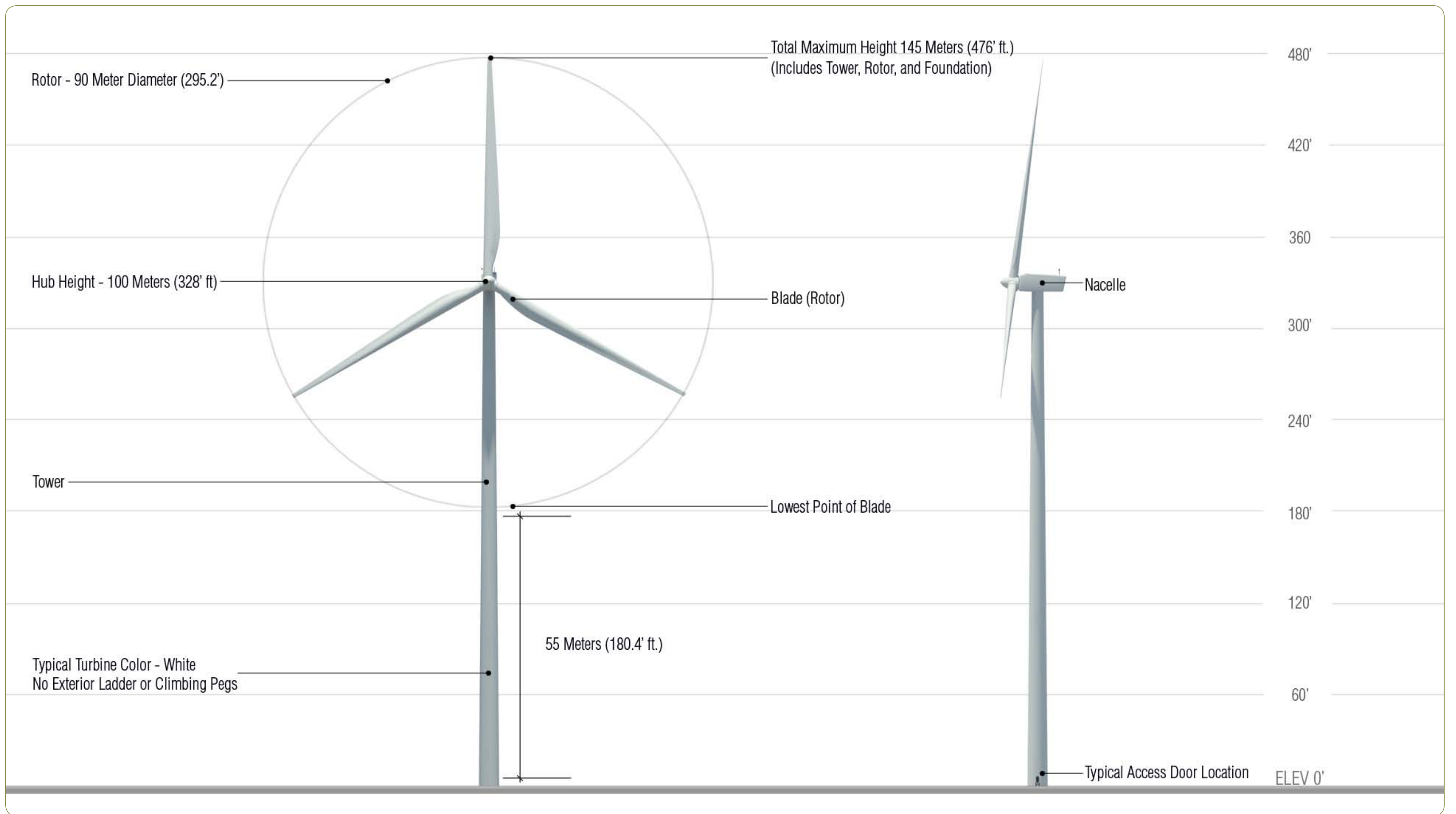
Figure 2: Project Layout
Visual Impact Assessment

March 31, 2011

Notes: Base Map: USGS 1:24,000 Brownville, Clayton, Dexter and LaFargeville Quadrangles.

-  Wind Turbine
-  Wind Measurement Tower
-  Electrical Line (Buried)
-  Electrical Line (Overhead)
-  Access Road
-  Collector/Switching Substation
-  Potential O&M Facility and Construction Laydown Area
-  Project Area





Horse Creek Wind Farm Project

Jefferson County, New York

Figure 3: Computer Model of Proposed Wind Turbine; Gamesa G90

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2.2.2 Electrical System

The proposed Project will have an electrical system that consists of 1) a system of buried 34.5 kilovolt (kV) shielded and insulated cables that will collect power from each wind turbine, 2) overhead 34.5 kV collector lines that will transmit larger amounts of power from the underground collector circuits to the collector substation, 3) a collector substation that will convert the generated electricity from the 34.5 kV voltage level to 115 kV which matches the voltage of the nearby transmission system, and 4) a interconnection switching station located south of County Route 126 and east of Depauville Road in the southern section of the Project site, that interconnects the Project and delivers energy to the existing 115 kV transmission line and regional power grid. Each of these components is described below.

Collection System: A transformer located in the nacelle or adjacent to the base of each turbine raises the voltage of electricity produced by the turbine generator up from roughly 690 volts to the 34.5 kV voltage level of the collection system. From each turbine transformer, the electricity will flow into the collector circuit, which along with the turbine communication cables will run predominately underground (typically along proposed Project access roads). Within the Project site, approximately 16 miles of cable will be installed. The location of proposed collection lines is indicated in Figure 2. Because detailed design information was unavailable regarding above-ground portions of the collection system at the time the VIA was prepared, this component of the Project was not evaluated in this study (currently 5.5 miles of above-ground portions are expected).

Collector Substation: The collector substation will be located south of County Road 126 and east of Depauville Road in the southern section of the Project site. It is the terminus of the collection system, and will transform the voltage of this system from 34.5 kV to 115 kV. The station will be approximately 100 by 200 feet in size and will include 34.5 and 115 kV busses, a transformer, circuit breakers, towers, a control enclosure, and related structures. The collector substation will be enclosed by chain link fencing and will be accessed by a new gravel access road 16 feet in width. The substation control building will require utility service (phone and electrical) that will be run from the nearest existing local utility lines. Because substation design/dimensions are not yet finalized, it is not addressed in this study.

Interconnection Switching Station: An interconnection switching station, to be owned and operated by National Grid, will be located adjacent to the collector substation. It provides the facilities necessary to reliably interconnect the Project to the existing 115 kV transmission line and regional power grid. The switching station will be approximately 250 by 300 feet in size and will include 115 kV busses, circuit breakers, towers, a control enclosure, and related structures. The interconnection switching station will be enclosed by chain link fencing

and will be accessed by a new gravel access road 16 feet in width. Because switching station design/dimensions are not yet finalized, it is not addressed in this study.

2.2.3 Access Roads

The Project site includes an extensive network of existing state, county and local roads. Therefore, wherever it is practical, existing roads will be used to access the proposed Project. However, it is possible that some existing public roads will need to be improved to facilitate Project construction. Although, the location and extent of these public road improvements is currently in planning process, they would generally be temporary (e.g., intersection widening and “jug handles” to accommodate oversized vehicles), and are not anticipated to significantly change the character of the roads. Therefore public road improvements are not evaluated in this study.

In addition to using the existing public roads, the Project will require the construction of new or improved private roads to access individual turbine sites. The proposed location of Project access roads is shown in Figure 2. The total length of access roads required to service all proposed wind turbine locations is approximately 14 miles, the majority of which will be upgrades to existing farm lanes. The roads will be gravel-surfaced and during construction could be up to 50 feet in width. Each road will be individually designed based on site-specific engineering and environmental constraints, therefore as-built road widths may vary. Following construction, Project access roads will be reduced in width to 16-25 feet, and will receive very limited use. These access roads take on the appearance of farm lanes, and generally do not have a significant long-term visual impact. Consequently, the visibility and visual impact of Project access roads, on their own, are not evaluated in this study.

2.2.4 Meteorological Towers

One 328-foot (100 m) tall meteorological tower will be installed to collect wind data and support performance testing of the turbines. The Project Sponsor anticipates that these towers will be galvanized steel structures, with wind monitoring instruments suspended at the end of booms attached perpendicular to the tower. Red aviation warning lights will be mounted at the top of both towers. Meteorological towers typically have limited visibility and visual impact relative to the adjacent turbines. Consequently, this component of the Project is not addressed in this study.

2.2.5 Operations and Maintenance Facility

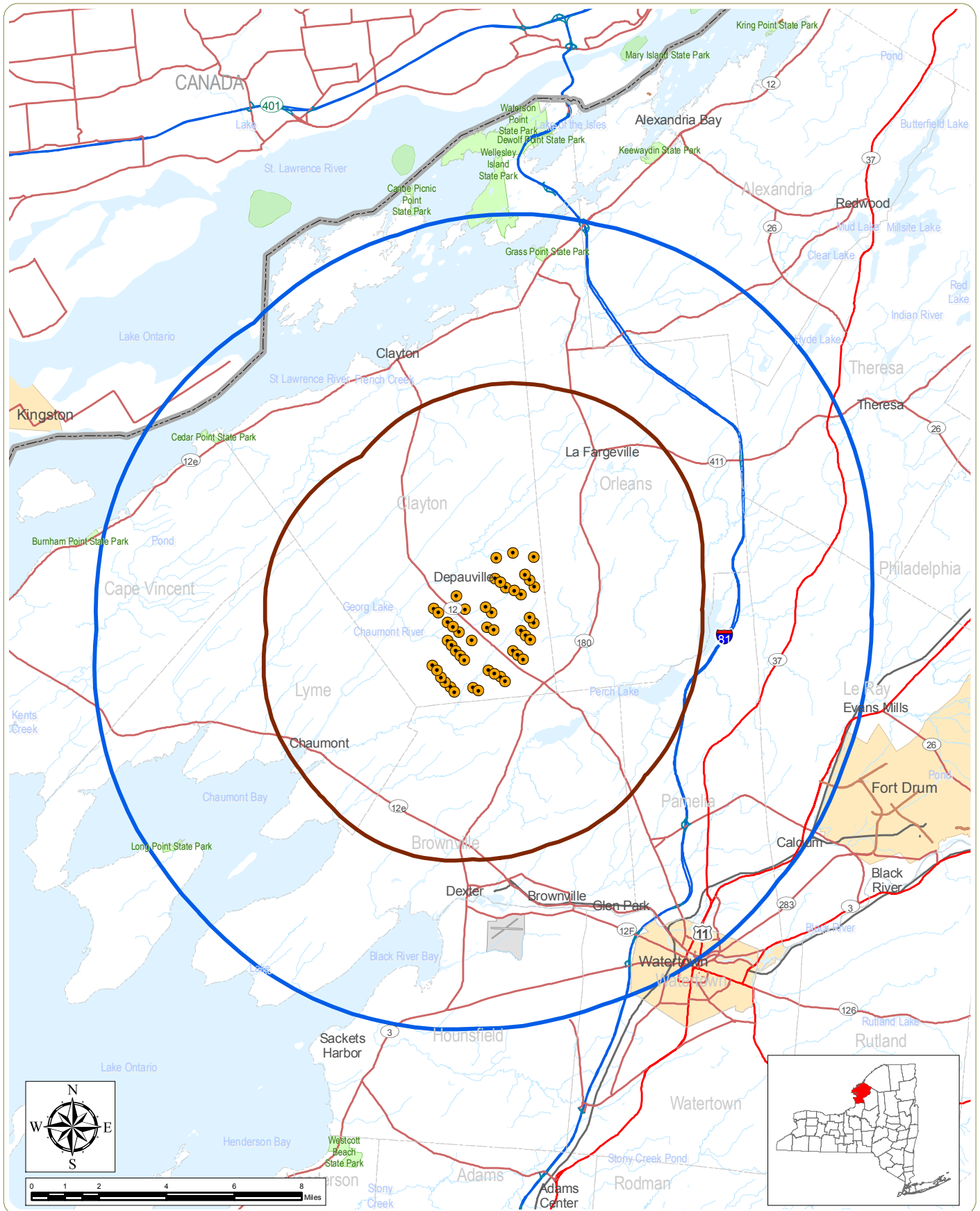
An operations and maintenance (O&M) building will house the command center of the Project’s supervisory control and data acquisition (SCADA) system. A storage yard adjacent to the O&M building will accommodate equipment and

materials necessary to service the Project. Although a final location for the O&M facility has not been determined, the O&M building is anticipated to be up to 6,000 square feet in size. The O&M building and storage yard will utilize up to five acres of land. The Project Sponsor will incorporate motifs and design elements into the construction of the O&M building to ensure that it blends with the area's agricultural landscape. Likewise, if necessary, the Project Sponsor will provide visual screening (e.g. vegetation, berms, etc.) to reduce the visual impact of the associated storage yard. Consequently, the O&M facility should be compatible with the existing landscape, and is not evaluated as part of this study.

3.0 Existing Visual Character

Based on site-specific topographic and land use characteristics, the visual study area for the Project was defined as the area within a 10-mile radius of each of the proposed turbines. The study area includes approximately 437 square miles in Jefferson County, as well as small portions of Lake Ontario, and the St. Lawrence River.¹ This visual study area is illustrated in Figure 4.

¹The 10 mile study area is 439.9 square miles including portions of the Province of Ontario, Canada which are not evaluated in this assessment.






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Figure 4: Visual Study Area Visual Impact Assessment

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Notes: Base Map: ESRI StreetMap North America, 2008.

-  Proposed Wind Turbine
-  5-Mile Radius Study Area
-  10-Mile Radius Study Area



3.1 Physiographic/Visual Setting

3.1.1 Landform and Vegetation

The visual study area is in the Lake Plains physiographic region of New York State (Reschke, 1990). This area is distinguished by shoreline areas, peninsulas, islands, and bays along Lake Ontario and the Saint Lawrence River. Landforms rise gradually from these shoreline areas to the east and southeast until they reach the Tug Hill Plateau, located just beyond the southeastern limits of the 10-mile-radius study area. Elevations within the study area range from approximately 240 to 255 feet above sea level.

Vegetation in the study area is a roughly 80:20 mix of open land (emergent wetland, old field/meadow, successional shrubland and active agricultural fields) and woodlands (forested wetlands and upland deciduous forest). Open fields are primarily grass-dominated hayfields/meadows and pasture interspersed with and bordered by hedgerows and woodlots. Significant blocks of forest (upland and wetland) occur primarily in the areas located east and northeast of the Project site. Forest vegetation is primarily deciduous (oak-hickory and northern hardwoods).

3.1.2 Land Use

Land use within the 10-mile-radius visual study area is dominated by undeveloped land (agricultural, successional, wetland, and wooded), farms, and rural and suburban style residences. Dairy farming and production of hay are the primary agricultural activities. Within five miles of the Project, higher density residential and commercial development is concentrated in the Villages of Clayton and Chaumont and several small settlements including the hamlets of Depauville and LaFargeville. The villages are generally characterized by a main street business district, surrounded by traditional residential neighborhoods, with some commercial frontage development along the outskirts. Hamlets within the study area are relatively small pockets of development within a primarily rural/agricultural landscape. The City of Watertown is located at the southwestern fringe of the 10-mile study area. Outside the areas of concentrated human settlement, commercial/industrial uses within the study area occur along certain portions of state and county highways in the area. These include automobile dealerships, retail/convenience stores, farm suppliers, and equipment yards. Shoreline areas and islands along the northern and western edges of the study area include undeveloped shoreline, waterfront residential properties, and commercial/recreational sites associated with the water. There is evidence of some newer suburban-type residential development in the area; primarily along the existing road frontage, but also in some subdivisions. The visual study area also includes the Perch River Wildlife Management Area (managed by the New York State Department of Environmental Conservation, or NYSDEC) and the Chaumont Barrens Preserve (owned by The Nature Conservancy).

3.1.3 Water Features

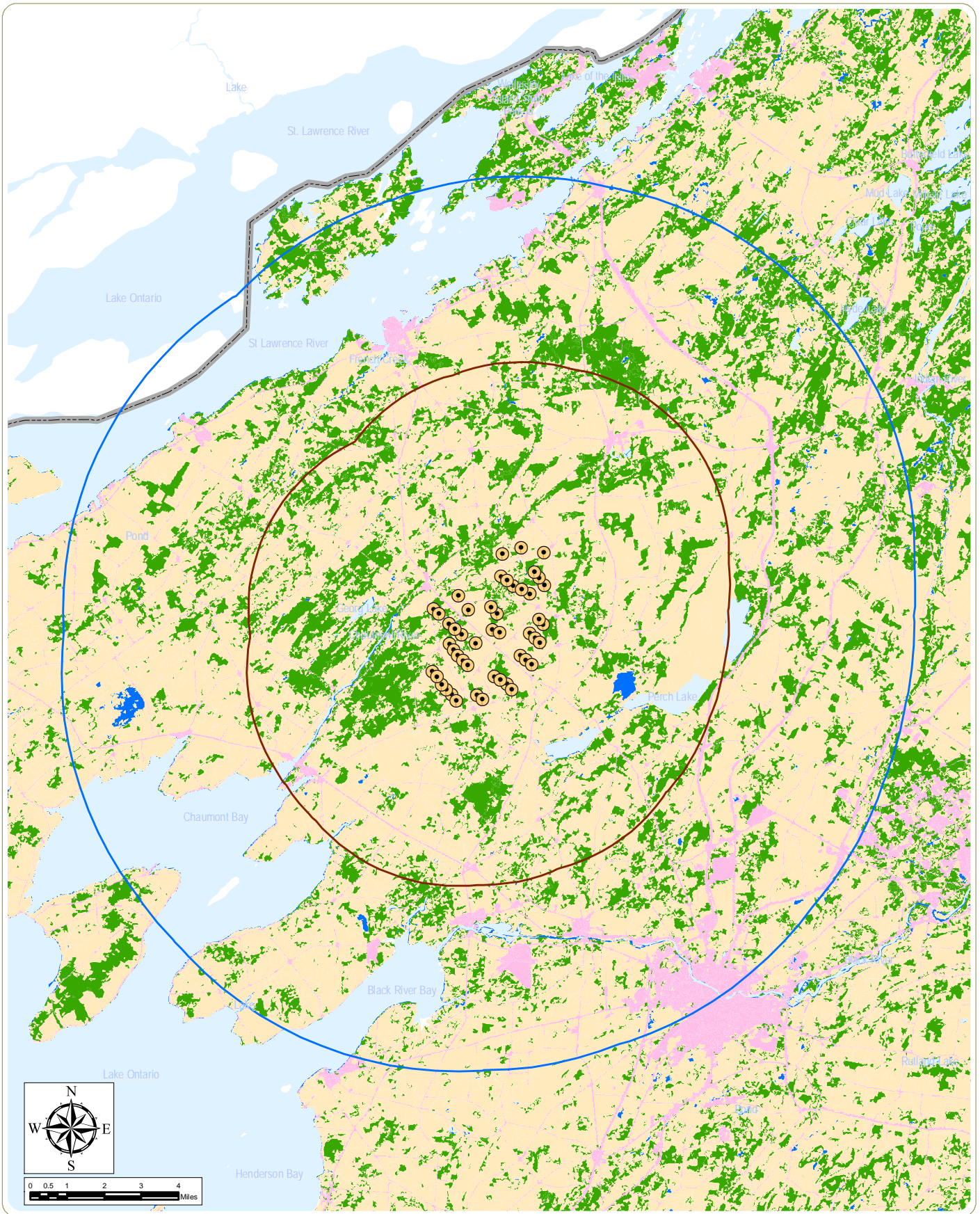
The major water features within the study area are Lake Ontario and the St. Lawrence River, located west and north-northwest (respectively) of the Project site. The shoreline areas along Lake Ontario (including Chaumont Bay and Black River Bay) and the St. Lawrence River are characterized by marsh areas, developed areas (for the most part cottages and seasonal residences), commercial facilities associated with water recreation (e.g., marinas), and a few more concentrated areas of settlement (e.g., the Villages of Chaumont and Clayton). The study area also includes a complex of wetlands within the Perch River Wildlife Management Area (WMA), Dexter Marsh WMA, and the French Creek WMA. Water features within the study area receive recreational use including boating, swimming, fishing, bird watching, and hunting.

3.2 Landscape Similarity Zones

Within the visual study area, five distinct landscape similarity zones (LSZ) were defined. The approximate location of these zones is illustrated in Figure 5, along with representative photos of each. Their general landscape character, use, and potential views to the proposed Project are described below.

3.2.1 Zone 1: Rural Residential/Agricultural Zone

The Rural Residential/Agricultural landscape similarity zone (LSZ) tends to be concentrated in the central portion of the study area. The landscape is characterized by relatively flat topography with a mix of farms and rural residences, open fields, hedgerows, and woodlots. Dominant agricultural uses include dairy farming along with hay production. Due to the presence of open fields, views within this LSZ are more open and long distance than those available in most other zones within the study area. These views typically include a relatively flat foreground landscape, with woodland vegetation in the background, and, in places, framing the view. Views in the Rural Residential/ Agricultural LSZ include widely scattered homes, barns and silos, with livestock and working farm equipment occasionally seen in the fields. Due to the level topography, the abundance of open fields, and the proposed location of turbines within and adjacent to this zone, foreground (0-0.5 mile), mid-ground (0.5-3.5 miles), and background (>3.5 miles) views of the proposed Project will be available from many areas within the Rural Residential/Agricultural zone.



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Figure 5: Landscape Similarity Zones Visual Impact Assessment

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Notes: Base Map: National Land Cover Database data; categories derived by edr.








-  Proposed Wind Turbine
 -  5-Mile Radius Study Area
 -  10-Mile Radius Study Area
- Land Use**
-  Developed
 -  Forest
 -  Open Water
 -  Open/Agriculture





PHOTO 01:
Rural Residential/Agricultural
Zone



PHOTO 02:
Rural Residential/Agricultural
Zone

Horse Creek Wind Farm

Towns of Clayton and Orleans - Jefferson County, New York

Figure 5: Landscape Similarity Zones
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PHOTO 03:
Village/Hamlet Zone



PHOTO 04:
Village/Hamlet Zone

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Towns of Clayton and Orleans - Jefferson County, New York

Figure 5: Landscape Similarity Zones

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PHOTO 05:
Water/Waterfront Zone



PHOTO 06:
Water/Waterfront Zone

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Figure 5: Landscape Similarity Zones

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PHOTO 07:
Forested Zone



PHOTO 08:
Forested Zone

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Figure 5: Landscape Similarity Zones

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PHOTO 09:
Urban/Mixed Use Zone



PHOTO 10:
Urban/Mixed Use Zone

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Towns of Clayton and Orleans - Jefferson County, New York

Figure 5: Landscape Similarity Zones

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3.2.2 Zone 2. Village/Hamlet Zone

This landscape similarity zone includes the Villages of Clayton and Chaumont, and the hamlets of Depauville, Limerick, and LaFargeville. This zone is characterized by low to moderate-density residential and limited commercial development. Vegetation and landform contribute to visual character in the village and hamlet areas, but within the majority of this zone, buildings (typically 1-2 stories tall) and other man-made features dominate the landscape. These features are highly variable in their size, architectural style, and arrangement. Activities within this zone are primarily associated with residential use and local travel, although some small scale commercial businesses and limited agricultural activity also occur in some of the hamlets. Views within this zone are typically focused on the roadways and adjacent structures, although outward views across yards and adjacent fields are also available. Views are most likely from open road corridors and the edges of the Village/Hamlet zone, where housing and vegetation density decrease and therefore screening is reduced. Views from village settings located along the shoreline (e.g., Clayton, Chaumont) typically feature open views of the water but views inland (i.e., toward the Project site) are typically screened (at least partially) by buildings, vegetation, and in some instances intervening topography.

3.2.3 Zone 3. Water/Waterfront Zone

This landscape similarity zone includes areas of open water, large wetlands, and shorelines within the study area. Within five miles of the Project, these sites include a small portion of the Chaumont Bay, the Chaumont River, Lucky Stars Lake, and Perch Lake. All of these water bodies have public access areas for water-based recreational activities including boating, waterfowl hunting, and fishing. The character-defining component of this LSZ is the presence of open water as a dominant foreground element in the view. The open water also provides opportunities for unobstructed views of mid-ground and background features in the surrounding landscape. The recreational use these water bodies receive makes viewer sensitivity to visual quality and visual change in this zone generally high. Along the outer portions of the visual study area, this LSZ is much more extensive/significant, and includes portions of the St. Lawrence River, Lake Ontario (including Black River Bay and Chaumont Bay), and the Black River. Views from the Lake Ontario and St. Lawrence River shorelines are typically oriented toward the water, while views from the surface of these waterbodies typically include numerous developed features, including shoreline homes, boat houses, docks, marinas, water towers, etc.

3.2.4 Zone 4. Forested Zone

Forestland is another major landscape similarity zone within the visual study area. It is characterized by the dominance of successional forest vegetation (mixed deciduous and coniferous tree species), and occurs primarily in the western portion of the visual study area. Views in the Forested zone are typically limited due to the screening provided by overstory trees.

Views are generally restricted to areas where small clearings and road cuts provide breaks in the tree canopy. Where long distance views are available within this zone, they are typically of short duration, limited distance, and/or framed by trees. Land use in this zone includes forestry, low-density residential development, and recreational use (hunting, snowmobiling, etc.). Prime examples of this zone include large tracts of forestland along the Chaumont River corridor, in the western portion of the visual study area in the Chaumont Pine Barrens, and in the Perch River WMA.

3.2.5 Zone 5. Urban/Mixed Use Zone

The urban/mixed use LSZ includes the City of Watertown and adjacent suburban areas, located at the southeastern extent of the 10-mile radius study area. Within the majority of this zone, buildings (typically 2-4 stories tall) and other man-made features dominate the landscape. Buildings within the urban core of Watertown include commercial offices, retail stores, churches and municipal structures. Residential structures surround the central commercial district of the city. These areas feature traditional mid-nineteenth to early-twentieth-century mixed-used buildings, as well as some contemporary infill structures and more recent residential and commercial structures in the outlying suburban areas located northeast of the urban core. The City of Watertown includes areas of dynamic topography that flank the east-to-west course of the Black River. The buildings are organized for the most part along main avenues (state highways) that extend radially from the urban core, with grid-like streets that fill the areas between the avenues. This arrangement generally serves to focus views along the streets and block long distance outward views. In many areas, street and yard trees also help to enclose and screen views within this zone. Any long-distance, outward views that are available will generally be in the outskirts of this zone, and at least partially screened by existing structures and/or street and yard trees. The state highways at the edges of the city are developed for the most part with recent commercial and light industrial facilities. Longer distance views toward the surrounding landscape are available from some major roads (e.g., Interstate 81, NYS Routes 3 and 11) and possibly from the upper interiors of multi-storied downtown buildings.

3.3 Distance Zones

Three distinct distance zones are typically defined in visual studies. Consistent with well-established agency protocols (e.g., Jones and Jones 1977; U.S. Forest Service, 1995), **edr** generally defines these zones as follows:

- *Foreground:* 0 to 0.5 mile. At these distances, a viewer is able to perceive details of an object with clarity. Surface textures, small features, and the full intensity and value of color can be seen on foreground objects.
- *Mid-ground:* 0.5 to 3.5 miles. The mid-ground is usually the predominant distance at which landscapes are seen. At these distances a viewer can perceive individual structures and trees but not in great detail. This is the zone where the parts of the landscape start to join together; individual hills become a range, individual trees merge into a forest, and buildings appear as simple geometric forms. Colors will be clearly distinguishable, but will have a bluish cast and a softer tone than those in the foreground. Contrast in color and texture among landscape elements will also be reduced.
- *Background:* Over 3.5 miles. The background defines the broader regional landscape within which a view occurs. Within this distance zone, the landscape has been simplified; only broad landforms are discernable, and atmospheric conditions often render the landscape an overall bluish color. Texture has generally disappeared and color has flattened, but large patterns of vegetation are discernable. Silhouettes of one land mass set against another and/or the skyline are often the dominant visual characteristics in the background. The background contributes to scenic quality by providing a softened background for foreground and mid-ground features, an attractive vista, or a distant focal point.

3.4 Viewer/User Groups

Three categories of viewer/user groups were identified within the visual study area. These include the following:

3.4.1 Local Residents

Local residents include those who live and work within the visual study area. They generally view the landscape from their yards, homes, local roads and places of employment. Residents are concentrated in and around the City of Watertown, the Villages of Clayton and Chaumont, and hamlets of Depauville, Limerick, and LaFargeville, but occur in relatively low density throughout the visual study area. Other areas of more concentrated residential development occurs in and around Fort Drum and along the shoreline of the St. Lawrence River and Lake Ontario. Except when involved in

local travel, residents are likely to be stationary, and have frequent or prolonged views of the landscape. Local residents may view the landscape from ground level or elevated viewpoints (typically upper floors/stories of homes). Residents' sensitivity to visual quality is variable, however, it is assumed that residents may be very sensitive to changes in particular views that are important to them.

3.4.2 Through-Travelers/Commuters

Commuters and travelers passing through the area view the landscape from motor vehicles on their way to work or other destinations. Commuters and through-travelers are typically moving, have a relatively narrow field of view, and are destination oriented. Drivers on major roads in the area (Interstate Route 81, State Routes 12, 12E, 180, and 411) will generally be focused on the road and traffic conditions, but do have the opportunity to observe roadside scenery. Passengers in moving vehicles will have greater opportunities for prolonged off-road views than will drivers, and accordingly, may have greater perception of changes in the visual environment.

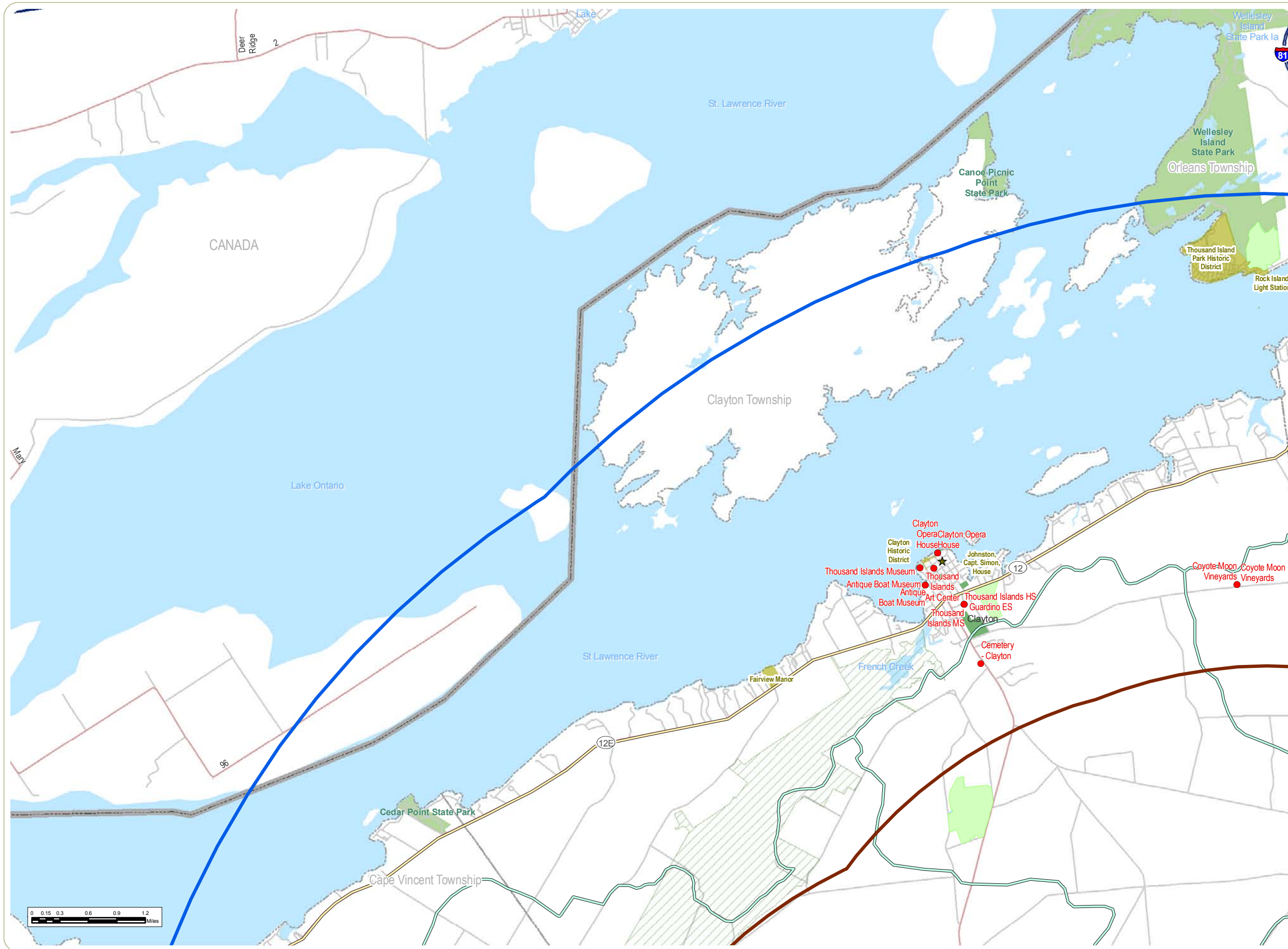
3.4.3 Tourists/Recreational Users

Recreational users and tourists include local residents and out-of-town visitors involved in cultural and recreational activities on waterbodies, at wildlife management areas, along scenic byways, at parks and historic sites, as well as in undeveloped natural settings such as forests and fields. These viewers are concentrated in the recreational facilities/cultural sites located within and adjacent to the visual study area, including the Chaumont Bay, French Creek WMA, Perch River WMA, Great Lakes/Seaway Trail, Chaumont River, Lucky Stars Lake, and numerous historic sites in the Villages of Clayton, Chaumont and the hamlets of LaFargeville and Stone Mills. In the outer portions of the study area, recreational users and tourists are concentrated along the St. Lawrence River and Lake Ontario shoreline, including Wellesley Island and Alexandria Bay. Members of this group may view the landscape from area highways while on their way to these destinations, or from the sites themselves. This group includes birdwatchers, snowmobilers, bicyclists, recreational boaters, hunters, fishermen, and those involved in more passive recreational activities (e.g., picnicking, sight seeing, or walking). Visual quality may or may not be an important part of the recreational experience for these viewers. However, for some, scenery will be a very important part of their experience and in almost all cases enhances the quality of recreational experiences. Recreational users and tourists will often have continuous views of landscape features over relatively long periods of time. However, most recreational viewers and tourists will only view the surrounding landscape from ground-level or water-level vantage points. Open water sites offer open, unobstructed views for many recreational users. Additionally, views from shoreline vacation homes and parks are typically oriented toward the water, but also have opportunities for views towards the Project area.

3.5 Visually Sensitive Resources

The area within five miles of the Project includes several sites that the NYSDEC Visual Policy (NYSDEC, 2000) considers aesthetic resources of statewide significance. These include 23 sites/districts listed on the National Register of Historic Places (seven in the Village of Chaumont, 12 in the hamlet of LaFargeville and immediate vicinity, and four in Stone Mills), a section of the Great Lakes/Seaway Trail National Scenic Byway in the southern portion of the study area, and two State Wildlife Management Areas. Aesthetic resources of statewide significance in the area between five and 10 miles from the Project include an additional 38 structures/districts listed on the National Register of Historic Places (NHRP) (with an additional 10 historic structures/districts occurring in the City of Watertown, just outside the 10-mile radius), seven waterfront State Parks, Coyote Flats State Forest, three State Wildlife Management Areas, the Dexter Marsh National Natural Landmark, and the Olympic Trail Scenic Byway. Within the 10-mile radius visual study area, there are no State Forest Preserve lands, National Wildlife Refuges, National Park Service Lands, designated Wild, Scenic, or Recreational Rivers, designated Scenic Areas of Statewide Significance, designated State or Federal Trails, or designated scenic overlooks (NYSDEC, 2011a; USFWS, 2011; NPS, 2009; National Wild and Scenic Rivers System, 2010; NYSDEC, 2011b; NYSDOS Division of Coastal Resources, 2010; NPS, 2008). Review of existing data also failed to reveal the presence of any State Nature or Historic Preserve Areas or Bond Act Properties purchased under the Exceptional Scenic Beauty or Open Space Category. Beyond these resources of statewide significance, the study area also includes areas that are regionally or locally significant/sensitive, due to the type of land use they receive. These include the Villages of Clayton and Chaumont, hamlets of Depauville, Limerick, and LaFargeville, the Chaumont Bay and River, Lucky Stars Lake, Perch Lake, Interstate 81, and various publicly accessible recreation sites.

Aesthetic resources of statewide or local significance and areas of intensive land use within 10 miles of the proposed Project, are listed in Table A in Appendix A. The location of visually sensitive resources within the visual study area is illustrated in Figure 6, and on the viewshed/sensitive site maps included in Appendix A.



Horse Creek Wind Farm

Town of Clayton
Jefferson County, New York

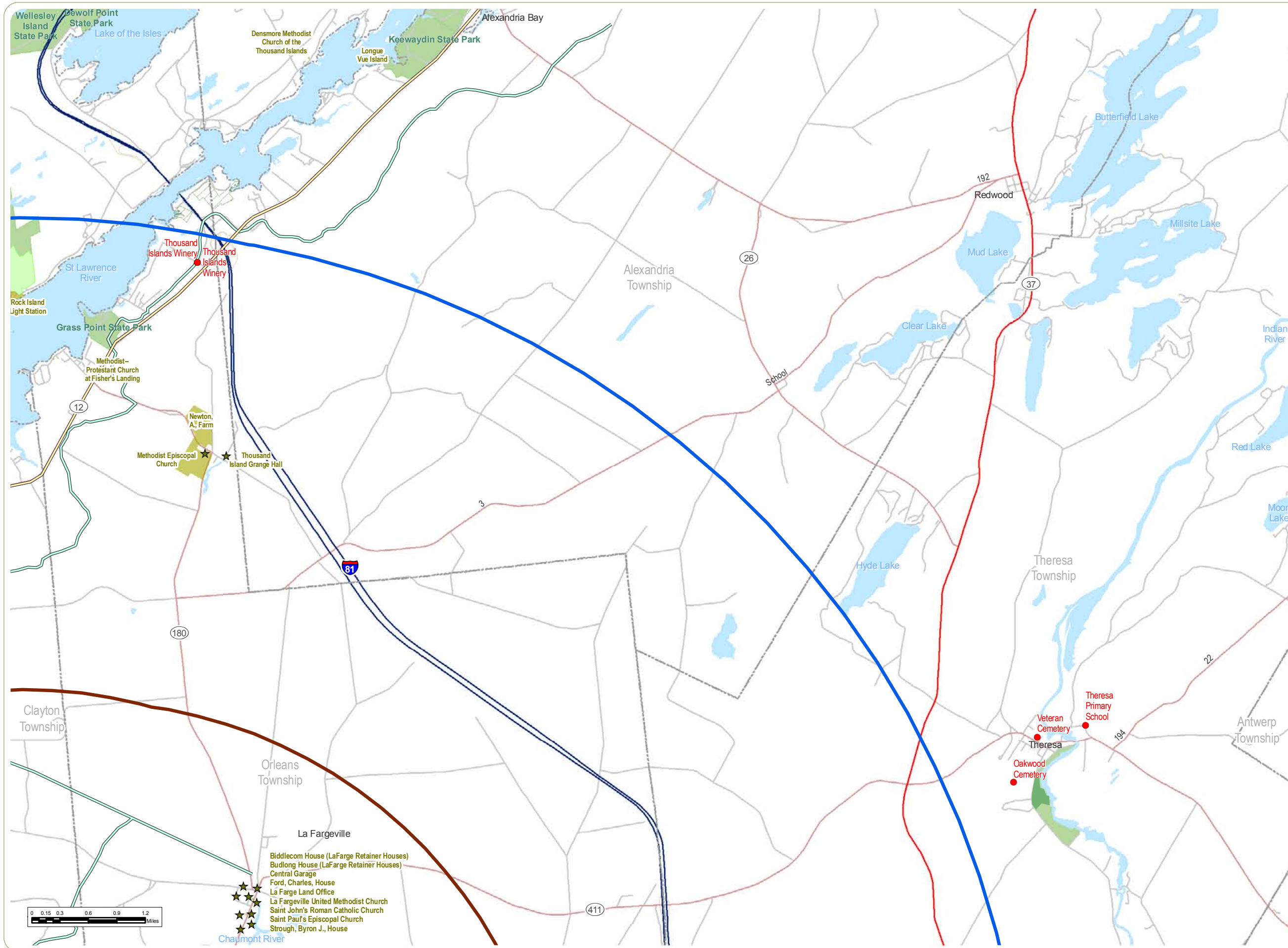
Figure 6: Visually Sensitive Resources Visual Impact Assessment
March 31, 2011

Sheet 1 of 6

- Proposed Wind Turbine
- Sensitive Site
- Historic Point
- Scenic Byway
- Snowmobile Trail
- NYS DEC Lands
- Local Park
- NPS Historic Register-Listed
- Golf Course
- Urban Heritage Area
- Fort Drum Land
- 5-Mile Radius Study Area
- 10-Mile Radius Study Area

Notes:
Base Map: ESRI StreetMap North America, 2008.





Horse Creek Wind Farm

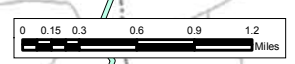
Town of Clayton
Jefferson County, New York

Figure 6: Visually Sensitive Resources
Visual Impact Assessment
March 31, 2011

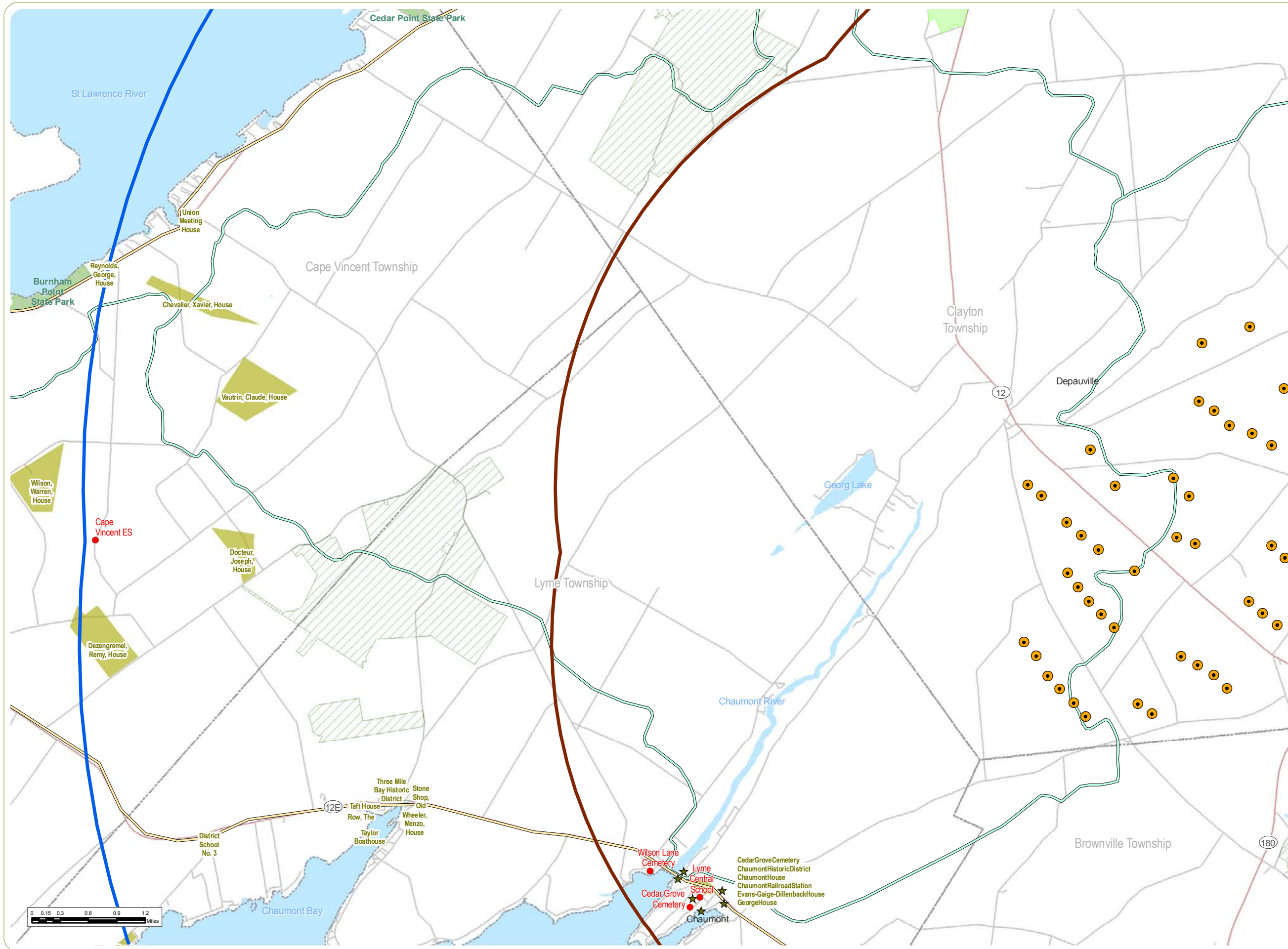
Sheet 2 of 6

- Proposed Wind Turbine
- Sensitive Site
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- Fort Drum Land
- 5-Mile Radius Study Area
- 10-Mile Radius Study Area

Notes:
Base Map: ESRI StreetMap
North America, 2008.



- Biddlecom House (LaFarge Retainer Houses)
- Budlong House (LaFarge Retainer Houses)
- Central Garage
- Ford, Charles, House
- La Farge Land Office
- La Fargeville United Methodist Church
- Saint John's Roman Catholic Church
- Saint Paul's Episcopal Church
- Strough, Byron J., House



Horse Creek Wind Farm

Town of Clayton
Jefferson County, New York

Figure 6: Visually Sensitive Resources Visual Impact Assessment

March 31, 2011

Sheet 3 of 6

- Proposed Wind Turbine
- Sensitive Site
- ★ Historic Point
- Scenic Byway
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- ▨ NYS DEC Lands
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Notes:
Base Map: ESRI StreetMap
North America, 2008.



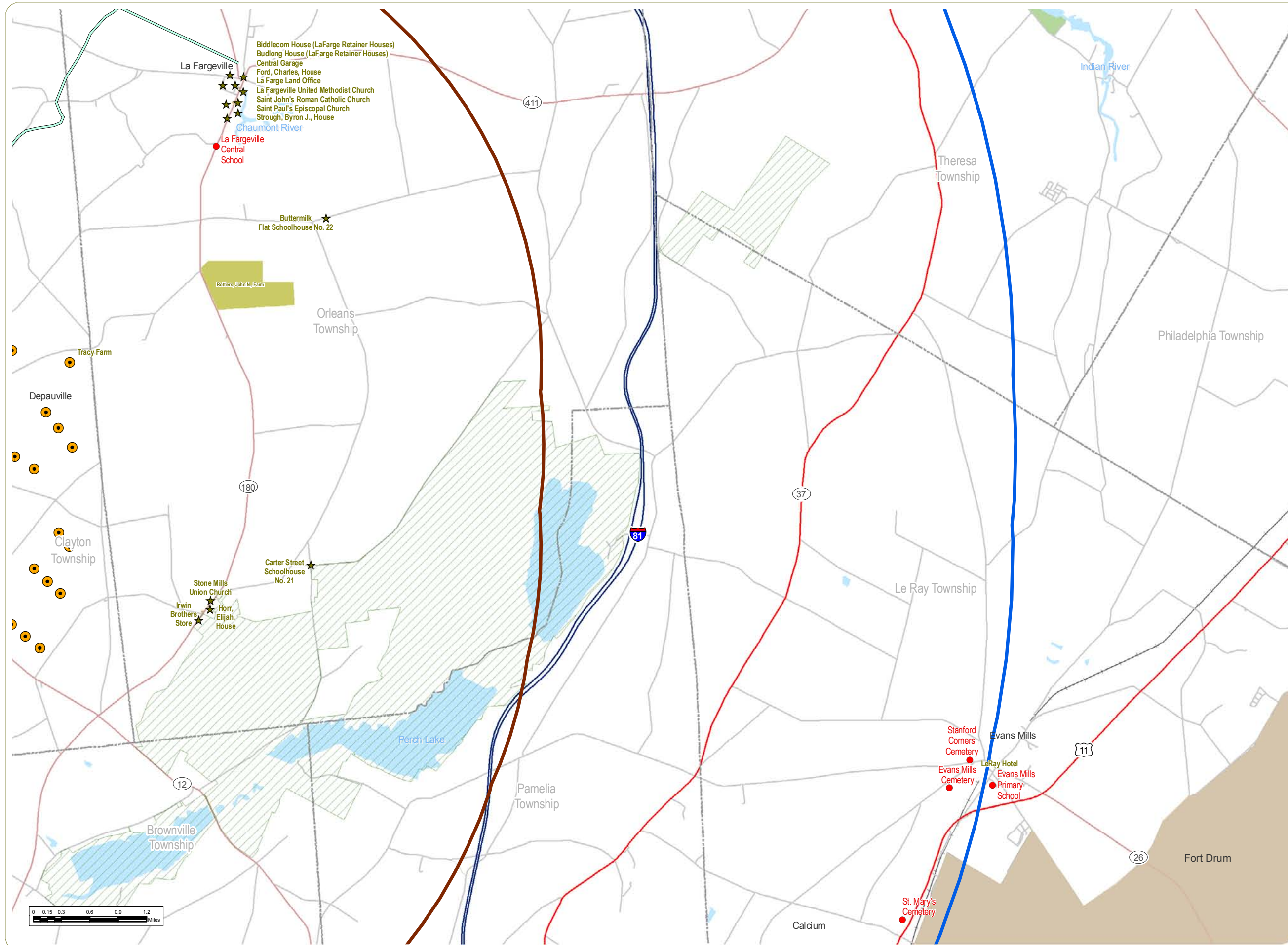
Horse Creek Wind Farm

Town of Clayton
Jefferson County, New York

Figure 6: Visually Sensitive Resources Visual Impact Assessment

March 31, 2011

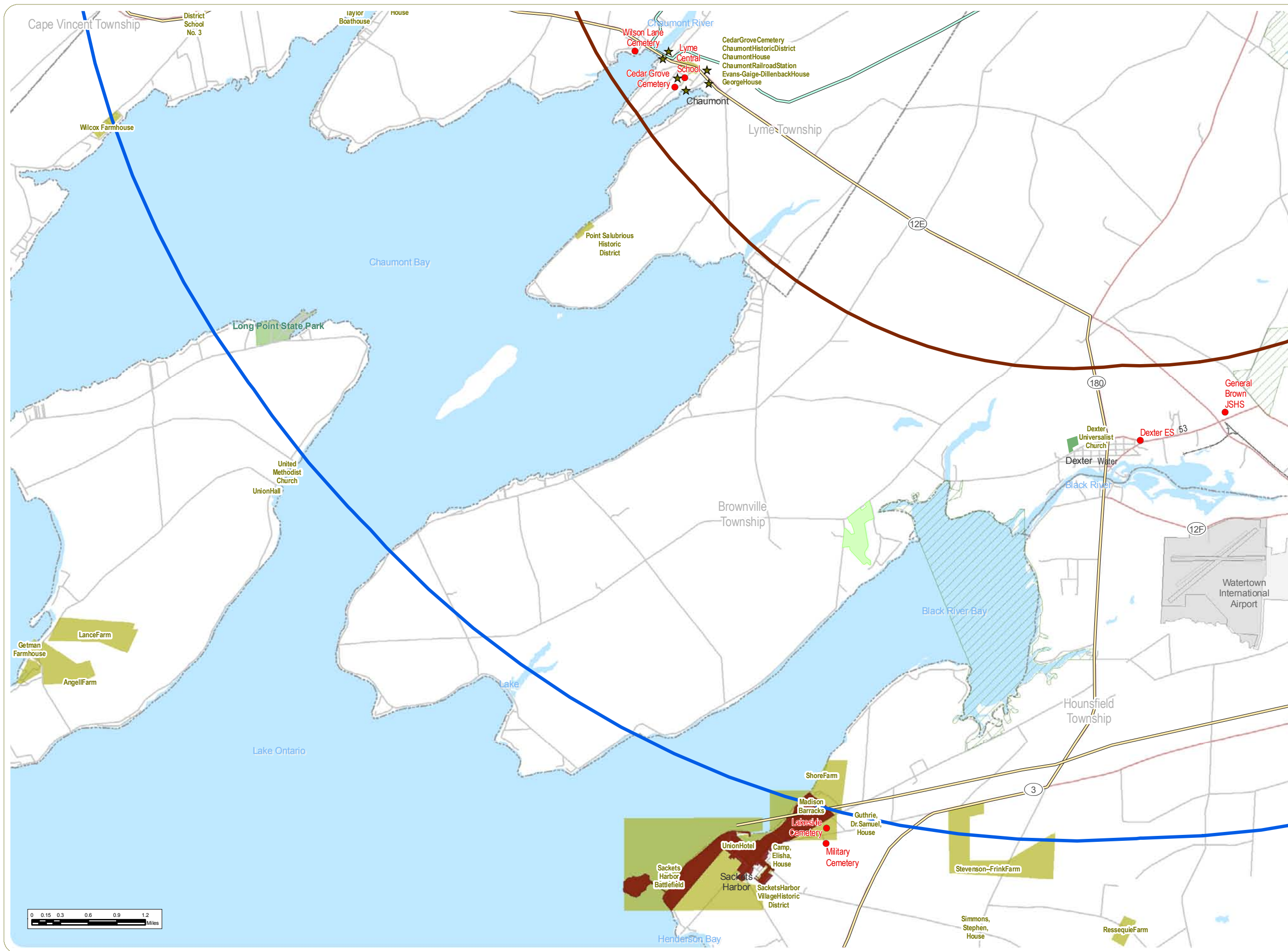
Sheet 4 of 6



- Proposed Wind Turbine
- Sensitive Site
- ★ Historic Point
- Scenic Byway
- Snowmobile Trail
- ▨ NYS DEC Lands
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- ▭ 10-Mile Radius Study Area

Notes:
Base Map: ESRI StreetMap
North America, 2008.





Horse Creek Wind Farm

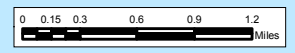
Town of Clayton
Jefferson County, New York

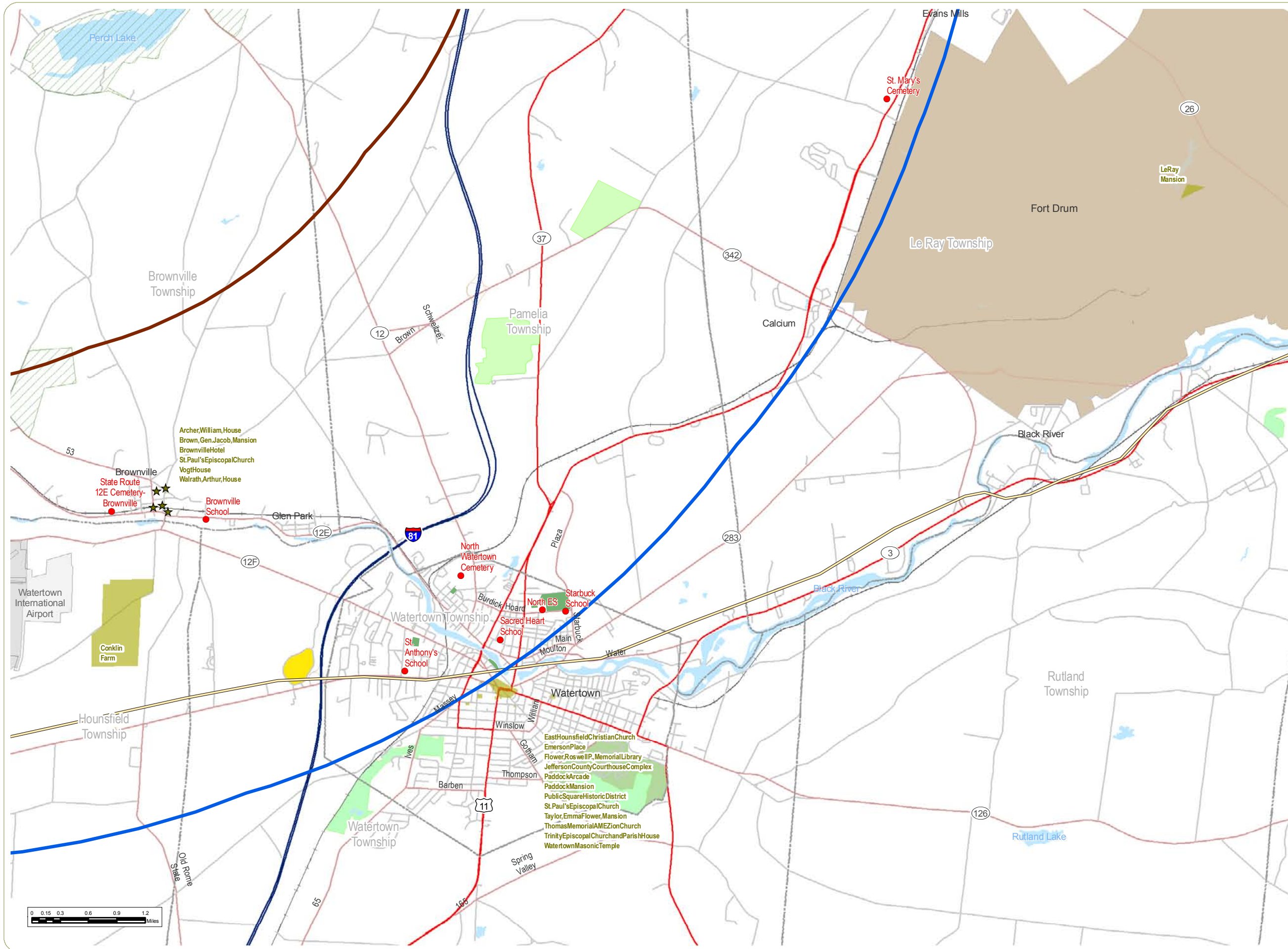
Figure 6: Visually Sensitive Resources Visual Impact Assessment
March 31, 2011

Sheet 5 of 6

- Proposed Wind Turbine
- Sensitive Site
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Notes:
Base Map: ESRI StreetMap North America, 2008.





Horse Creek Wind Farm

Town of Clayton
Jefferson County, New York

Figure 6: Visually Sensitive Resources Visual Impact Assessment

March 31, 2011

Sheet 6 of 6

- Proposed Wind Turbine
- Sensitive Site
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- Fort Drum Land
- 5-Mile Radius Study Area
- 10-Mile Radius Study Area

Notes:
Base Map: ESRI StreetMap
North America, 2008.



4.0 *Visual Impact Assessment Methodology*

The Visual Impact Assessment (VIA) procedures used for this study are consistent with methodologies developed by the U.S. Department of the Interior, Bureau of Land Management (1980), U.S. Department of Agriculture, National Forest Service (1974), the U.S. Department of Transportation, Federal Highway Administration (1981), U.S. Army Corps of Engineers (Smardon, et al., 1988) and the NYS Department of Environmental Conservation (not dated). These procedures are widely accepted as standard visual impact methodology for wind energy projects (CEIWEF, 2007). The specific techniques used to assess potential Project visibility and visual impacts are described in the following section.

4.1 Project Visibility

An analysis of Project visibility was undertaken to identify those locations within the visual study area where there is potential for the proposed wind turbines to be seen from ground-level and water-level vantage points. This analysis included identifying potentially visible areas on viewshed maps and verifying visibility in the field. The methodology employed for each of these assessment techniques is described below.

4.1.1 Viewshed Analysis

Topographic viewshed maps for the Project were prepared using USGS digital elevation model (DEM) data (7.5-minute series), the location and height of all proposed turbines (see Figure 2), and ESRI ArcView® software with the Spatial Analyst extension. Two 10-mile radius topographic viewsheds were mapped, one to illustrate “worst case” daytime visibility (based on a maximum blade tip height of 476 feet, or 145 m, above existing grade) and the other to illustrate potential visibility of turbine lights (based on a nacelle height of 328 feet, or 100 m, above existing grade).

The ArcView program defines the viewshed (using topography only) by reading every cell of the DEM data and assigning a value based upon visibility from observation points throughout the 10-mile study area. The resulting topographic viewshed maps define the maximum area from which any turbine within the completed Project could potentially be seen within the study area during both daytime and nighttime hours (ignoring the screening effects of existing vegetation and structures).

Because the screening provided by vegetation and structures is not considered in this analysis, the topographic viewshed represents a “worst case” assessment of potential Project visibility. Topographic viewshed maps assume that no trees exist, and therefore are very accurate in predicting where visibility will not occur due to topographic interference.

However, they are less accurate in identifying areas from which the Project would actually be visible. Trees and buildings can limit or eliminate visibility in areas indicated as having potential Project visibility in the topographic viewshed analysis.

To supplement the topographic viewshed analysis, a vegetation viewshed was also prepared to illustrate the potential screening provided by forest vegetation. A base vegetation layer was created using the USGS National Land Cover Dataset (NLCD) to identify the mapped location of forestland (including the Deciduous Forest, Evergreen Forest, and Mixed Forest NLCD classifications). Based on standard visual assessment practice, the mapped locations of the forest land was assigned an assumed height of 40 feet and added to the DEM. The viewshed analysis was then re-run, as described above. As with the topographic viewshed analysis, two 10-mile radius vegetation viewsheds were mapped, one to illustrate “worst case” daytime visibility (based on a maximum blade tip height of 476 feet above existing grade) and the other to illustrate potential visibility of turbine lights (based on a nacelle height of 328 feet above existing grade and the conservative assumption that all turbines could be equipped with FAA warning lights). Once the viewshed analysis was completed, the areas covered by the forest vegetation layer were designated as “not visible” on the resulting data layer. Although there are certainly areas of mapped forest that have natural or man-made clearings that provide open outward views, these openings are rare, and the available views would typically be narrow/enclosed and include little of the proposed Project. In most forested areas, views will be well screened by the overhead tree canopy. During the growing season the forest canopy will fully block views of the proposed turbines, and such views will typically be almost completely obscured, or at least significantly screened, even under “leaf-off” conditions.

Because it accounts for the screening provided by mapped forest stands, the vegetation viewshed is a much more accurate representation of potential Project visibility. However, it is important to note that because screening provided by buildings and street/yard trees, as well as characteristics of the proposed turbines that influence visibility (color, narrow profile, distance from viewer, etc.), are not taken consideration in the viewshed analyses, being within the viewshed does not necessarily equate to actual Project visibility.

4.1.2 Field Verification

Visibility of the proposed Project was evaluated in the field on December 10 2006, December 30, 2010 and January 11, 2011. The purpose of this exercise was to identify locations with open views toward the Project site and to obtain photographs for subsequent use in the development of visual simulations. A mix of clear skies and partly cloudy skies resulted in adequate visibility and a representative variety of sky conditions.

Field crews drove public roads and visited public vantage points within the 10-mile radius study area to document points from which the Project would likely be visible. Photos were taken from 191 representative viewpoints using Nikon (D90, and D200) and Canon (EOS 20D) digital SLR cameras. All cameras utilized a focal length between 28 and 35 mm (equivalent to between 45 and 55 mm on a standard 35 mm film camera). This focal length most closely approximates normal human eyesight relative to scale. Viewpoint locations were determined using hand-held global positioning system (GPS) units and high resolution aerial photographs (digital ortho quarter quadrangles). The time and location of each photo were documented on all electronic equipment (cameras, GPS units, etc.) and noted on field maps and data sheets (see Appendix B). Viewpoints photographed during field review generally represented the most open, unobstructed available views toward the Project.

4.2 Project Visual Impact

Beyond evaluating potential Project visibility, the VIA also examined the visual impact of the proposed wind turbines on the aesthetic resources and viewers within the visual study area. This assessment involved creating computer models of the proposed Project turbines and layout, selecting representative viewpoints within the study area, and preparing computer-assisted visual simulations of the proposed Project. These simulations were then evaluated by a panel of three registered landscape architects to determine the type and extent of visual impact resulting from Project construction. Details of the visual impact assessment procedures are described below.

4.2.1 Viewpoint Selection

From the photo documentation conducted during field verification, **edr** selected a total of 10 viewpoints for development of visual simulations. These viewpoints were selected based upon the following criteria:

1. They provide clear, unobstructed views toward the Project site.
2. They illustrate Project visibility from sensitive resources within the visual study area.
3. They illustrate typical views from landscape similarity zones where views of the Project will be available.
4. They illustrate typical views of the proposed Project that will be available to representative viewer/user groups within the visual study area.
5. They illustrate typical views of different numbers of turbines, from a variety of viewer distances, and under different lighting conditions, to illustrate the range of visual change that will occur with the Project in place.

Location of the selected viewpoints is indicated in Figure 9. Locational details and the criteria for selection of each simulation viewpoint are summarized in Table 1, below:

Table 1. Viewpoints Selected for Simulations and Evaluation

Viewpoint Number	Visually Sensitive Resource	LSZ Represented	Viewer Group Represented	Viewing Distance	View Orientation ¹
4	Tracy Farm (NRHP-Listed)	Rural Residential/ Agricultural	Local Residents	0.5 mile	W-SW
10	Hamlet of Depauville, NYS Route 12	Village/Hamlet	Local Residents; Travelers/Commuters	0.9 mile	S
35	Perch River WMA (observation platform)	Rural Residential/ Agricultural	Tourists/Recreational Users; Local Residents	2.9 miles	W
40	Stone Mills Agricultural Museum, Stone Mills Union Church (NRHP-Listed)	Rural Residential/ Agricultural	Tourists/Recreational Users; Local Residents	2.2 miles	W
61	Perch River WMA (ice-fishing access, Perch Lake)	Water/Waterfront	Tourists/Recreational Users	5.7 miles	W
67	NYS Route 12	Rural Residential/ Agricultural	Local Residents; Travelers/Commuters	0.9 mile	E-SE
70	Village of Chaumont, NYS Route 12E, Chaumont River	Water/Waterfront; and Village/Hamlet	Local Residents; Travelers/Commuters	4.5 miles	NE
74	Long Point State Park, Lake Ontario/Chaumont Bay	Water/Waterfront	Tourists/Recreational Users	9.1 miles	NE
102	Wellesley Island, Thousand Island Park Historic District, Saint Lawrence River	Water/Waterfront	Tourists/Recreational Users; Local Residents	9.1 miles	S
110	-	Rural Residential/ Agricultural	Local Residents	2.4 miles	E

¹N = North, S = South, E = East, W = West

4.2.2 Visual Simulations

To show anticipated visual changes associated with the proposed Project, high-resolution computer-enhanced image processing was used to create realistic photographic simulations of the completed turbines from each of the 10 selected viewpoints. The photographic simulations were developed by constructing a three-dimensional computer model of the proposed turbine and turbine layout based on turbine specifications and survey coordinates provided by the Project developer. For the purposes of this analysis, it was assumed that all new turbines would be Gamesa G90 machines (see Figure 3). The next step in this process involved utilizing aerial photographs and GPS data collected in the field to create an AutoCAD Civil 3D 2011® drawing. The two dimensional AutoCAD data was then imported into AutoDesk 3ds MAX 2010® and three-dimensional components (cameras, modeled turbines, etc.) were added. These data were superimposed over photographs from each of the viewpoints, and minor camera changes (height, roll, precise lens setting) made to align all known reference points within the view. This process ensures that Project elements are shown in proportion, perspective, and proper relation to the existing landscape elements in the view. Consequently, the

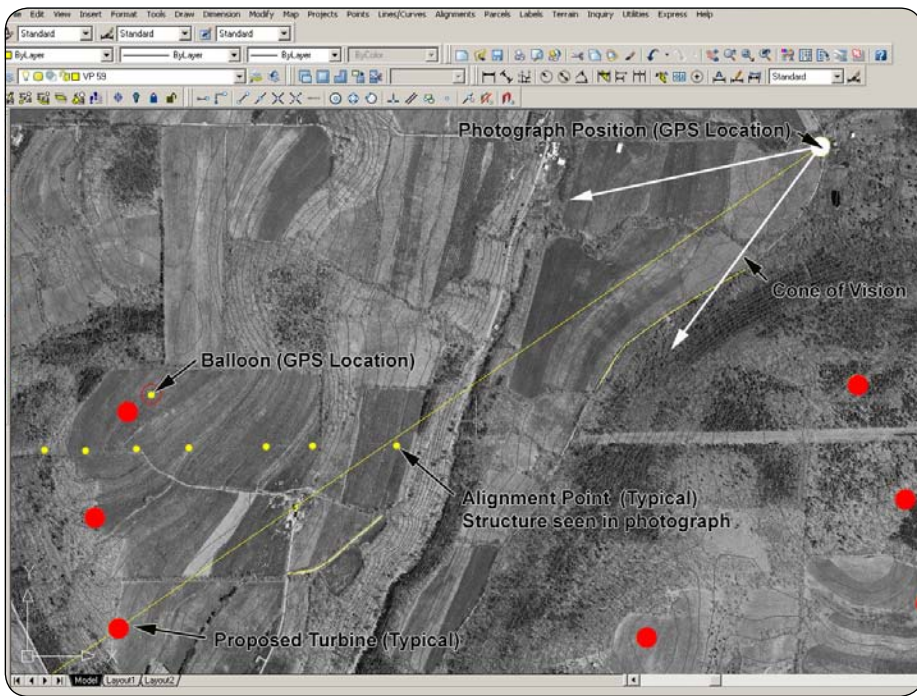
alignment, elevations, dimensions and locations of the proposed structures will be accurate and true in their relationship to other landscape features in the photo. At this point, a “wire frame” model of the facility and known reference points is shown on each of the photographs. The proposed exterior color/finish of the turbines is then added to the model and the appropriate sun angle is simulated based on the specific date, time and location (latitude and longitude) at which each photo was taken. This information allows the computer to accurately illustrate highlights, shading and shadows for each individual turbine shown in the view. All simulations show the turbines with rotors oriented toward the southwest, which is generally the prevailing wind direction in the area. The simulation from Viewpoint 74 was created by stitching together two 50 mm photos; the original photographs provided partial views of the Project, while the composite photo provided a single view of the entire Project (see illustration of methodology in Figure 7).



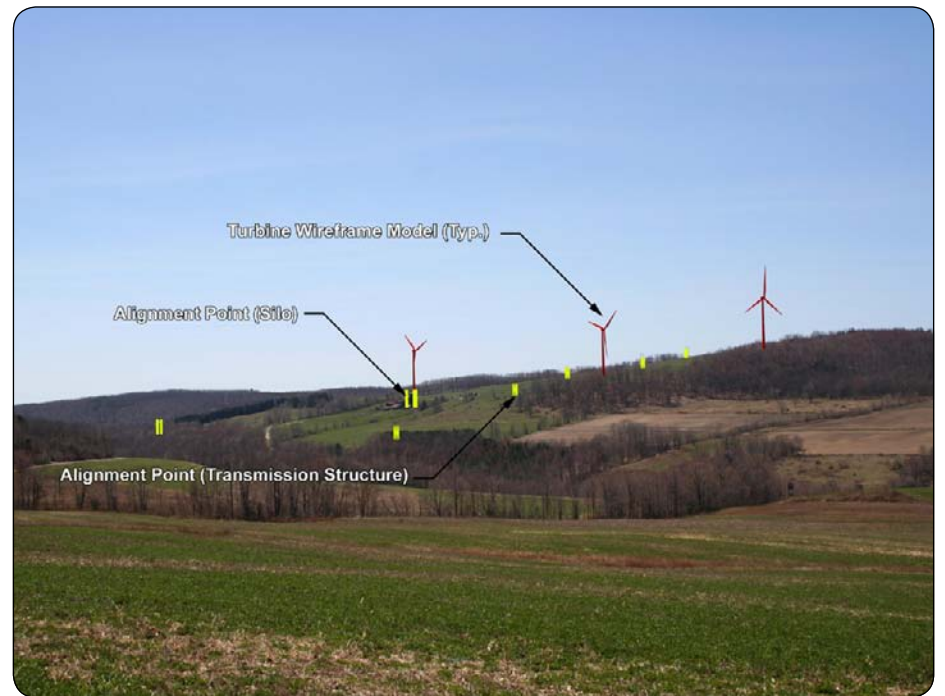
Photos are selected to illustrate typical views of the proposed project that will be available to representative viewer/user groups from the major landscape similarity zones and sensitive sites within the study area.



A three-dimensional computer model of the project is built based on proposed turbine specifications and tower site coordinates.



Aerial photographs and GPS data collected in the field are used to create an AutoCAD Civil 3D 2011© drawing.



These data are superimposed over photographs from each of the viewpoints, and minor camera changes are made to align all known reference points within the view.



A digital terrain model representing the existing topography is also overlaid on the existing photograph to refine camera alignment, and target elevation.



The proposed exterior color/finish of the turbines was then added to the model and the appropriate sun angle is simulated based on the specific date, time and location (latitude and longitude) at which each photo was taken.

4.2.3 Visual Contrast Rating

To evaluate anticipated visual changes associated with the proposed Project, the photographic simulations of the completed Project were compared to photos of existing conditions. These “before” and “after” photographs, identical in every respect except for the Project components shown in the simulated views, were printed in 11 x 17 inch format for every viewpoint selected in the previously described process. A panel of three licensed **edr** landscape architects was then asked to determine the effect of the proposed Project in terms of its contrast with existing components of the landscape. The methodology utilized in this evaluation is a simplified version of the U.S. Bureau of Land Management (BLM) contrast rating methodology (USDI BLM, 1980) that was developed by **edr** in 1999 for use on wind power projects. It involves using a short evaluation form, and a simple numerical rating process. Along with having proven to be accurate in predicting public reaction to wind power projects, this methodology 1) documents the basis for conclusions regarding visual impact, 2) allows for independent review and replication of the evaluation, and 3) allows a large number of viewpoints to be evaluated in a reasonable amount of time without “burn-out” of the evaluator. Landscape, viewer, and Project related factors considered by the landscape architects in their evaluation included the following:

- *Landscape Composition:* The arrangement of objects and voids in the landscape that can be categorized by their spatial arrangement. Basic landscape components include vegetation, landform, water and sky. Some landscape compositions, especially those that are distinctly focal, enclosed, detailed, or feature-oriented, are more vulnerable to modification than panoramic, canopied, or ephemeral landscapes.
- *Form, Line, Color, and Texture:* These are the four major compositional elements that define the perceived visual character of a landscape, as well as a Project. Form refers to the shape of an object that appears unified; often defined by edge, outline, and surrounding space. Line refers to the path the eye follows when perceiving abrupt changes in form, color, or texture; usually evident as the edges of shapes or masses in the landscape. Texture in this context refers to the visual surface characteristics of an object. The extent to which form, line, color, and texture of a project are similar to, or contrast with, these same elements in the existing landscape is a primary determinant of visual impact.
- *Focal Point:* Certain natural or man-made landscape features stand out and are particularly noticeable as a result of their physical characteristics. Focal points often contrast with their surroundings in color, form, scale or texture, and therefore tend to draw a viewer’s attention. Examples include prominent trees, mountains and water features. Cultural features, such as a distinctive barn or steeple can also be focal points. If possible, a

proposed project should not be sited so as to obscure or compete with important existing focal points in the landscape.

- *Order*: Natural landscapes have an underlying order determined by natural processes. Cultural landscapes exhibit order by displaying traditional or logical patterns of land use/development. Elements in the landscape that are inconsistent with this natural order may detract from scenic quality. When a new project is introduced to the landscape, intactness and order are maintained through the repetition of the forms, lines, colors, and textures existing in the surrounding built or natural environment.
- *Scenic or Recreational Value*: Designation as a scenic or recreational resource is an indication that there is broad public consensus on the value of that particular resource. The particular characteristics of the resource that contribute to its scenic or recreational value provide guidance in evaluating a project's visual impact on that resource.
- *Duration of View*: Some views are seen as quick glimpses while driving along a roadway or hiking a trail, while others are seen for a more prolonged period of time. Longer duration views of a project, especially from significant aesthetic resources, have the greatest potential for visual impact.
- *Atmospheric Conditions*: Clouds, precipitation, haze, and other ambient air related conditions, which affect the visibility of an object or objects. These conditions can greatly impact the visibility and contrast of landscape and project components, and the design elements of form, line, color, texture, and scale.
- *Lighting Direction*: Backlighting refers to a viewing situation in which sunlight is coming toward the observer from behind a feature or elements in a scene. Front lighting refers to a situation where the light source is coming from behind the observer and falling directly upon the area being viewed. Side lighting refers to a viewing situation in which sunlight is coming from the side of the observer to a feature or elements in a scene. Lighting direction can have a significant effect on the visibility and contrast of landscape and project elements.
- *Project Scale*: The apparent size of a proposed project in relation to its surroundings can define the compatibility of its scale within the existing landscaping. Perception of project scale is likely to vary depending on the distance from which it is seen and other contextual factors.

- *Spatial Dominance*: The degree to which an object or landscape element occupies space in a landscape, and thus dominates landscape composition from a particular viewpoint.
- *Visual Clutter*: Numerous unrelated built elements occurring within a view can create visual clutter, which adversely impacts scenic quality.
- *Movement*: Moving project components can make them more noticeable, but in the case of wind turbines, have also been shown to also make them appear more functional and visually appealing.

5.0 *Visual Impact Assessment Results*

5.1 Project Visibility

Potential turbine visibility, as indicated by the viewshed analyses, is illustrated in Figure 8 and summarized in Table 2. As indicated by the topographic blade tip analysis, some portion of the proposed Project could potentially be visible in approximately 86% of the 10-mile study area. This "worst case" assessment of potential visibility indicates the area where any portion of any turbine could potentially be seen, without considering the screening effect of existing vegetation and structures. Areas where there is no possibility of seeing the Project are generally limited to narrow valleys, and hillsides and shorelines oriented away from the Project site. Potentially visible areas include the relatively level lands along State Routes 12 and 180, many of the County Routes in and around the Project site (3, 5, 8, 12, 125, 179 and 181), Interstate 81 and the hamlets of Depauville and Lafargeville. As indicated in Appendix A, 71 of the 81 identified aesthetic resources of statewide significance within the 10-mile study area are indicated as having potential views of some portion of the Project (based on blade tip height and topography alone). Aesthetic resources screened from view of the Project by topography alone include portions of the Villages of Brownville, Dexter, and Evans Mills, portions of the St. Lawrence River waterfront between the Villages of Clayton and Cape Vincent, and portions of the Seaway and Olympic Trails. However, this analysis indicates that significant portions of the St. Lawrence River and Lake Ontario could have open, unobstructed views to the Project across the water.

Areas of potential nighttime visibility based on the topographic viewshed analysis (Figure 8, Sheet 2) cover approximately 81% of the 10-mile radius study area, and are indicated in roughly the same locations indicated by the blade tip analysis.

Factoring vegetation into the viewshed analysis significantly reduces potential Project visibility (Figure 8, Sheets 3 and 4). Within a 10-mile radius, vegetation, in combination with topography, will serve to screen the Project from approximately 53% of the area (i.e., 47% visibility). Visibility will generally be most available in open agricultural areas that are concentrated in the central portion of the study area (extending roughly north-south on State Route 12, and east-west on County Route 125). Visibility becomes more scattered in the outlying regions, except on the open water of Lake Ontario and the St. Lawrence River. Forested sites in the west-northwest portion of the study area fall outside the vegetation viewshed, as do wooded slopes and the backsides of hills in the eastern portion of the study area. Vegetation viewshed analysis indicates that 62 (77%) of the identified aesthetic resources of statewide significance within the study area should be at least partially screened by vegetation and topography (see Table A in Appendix A). Areas indicated as being screened include portions of Dexter Marsh, northwestern portions of the City of Watertown, the Villages of Evans Mills, Dexter and Brownville, portions of the Villages of Clayton and Chaumont, the majority of the French Creek WMA,

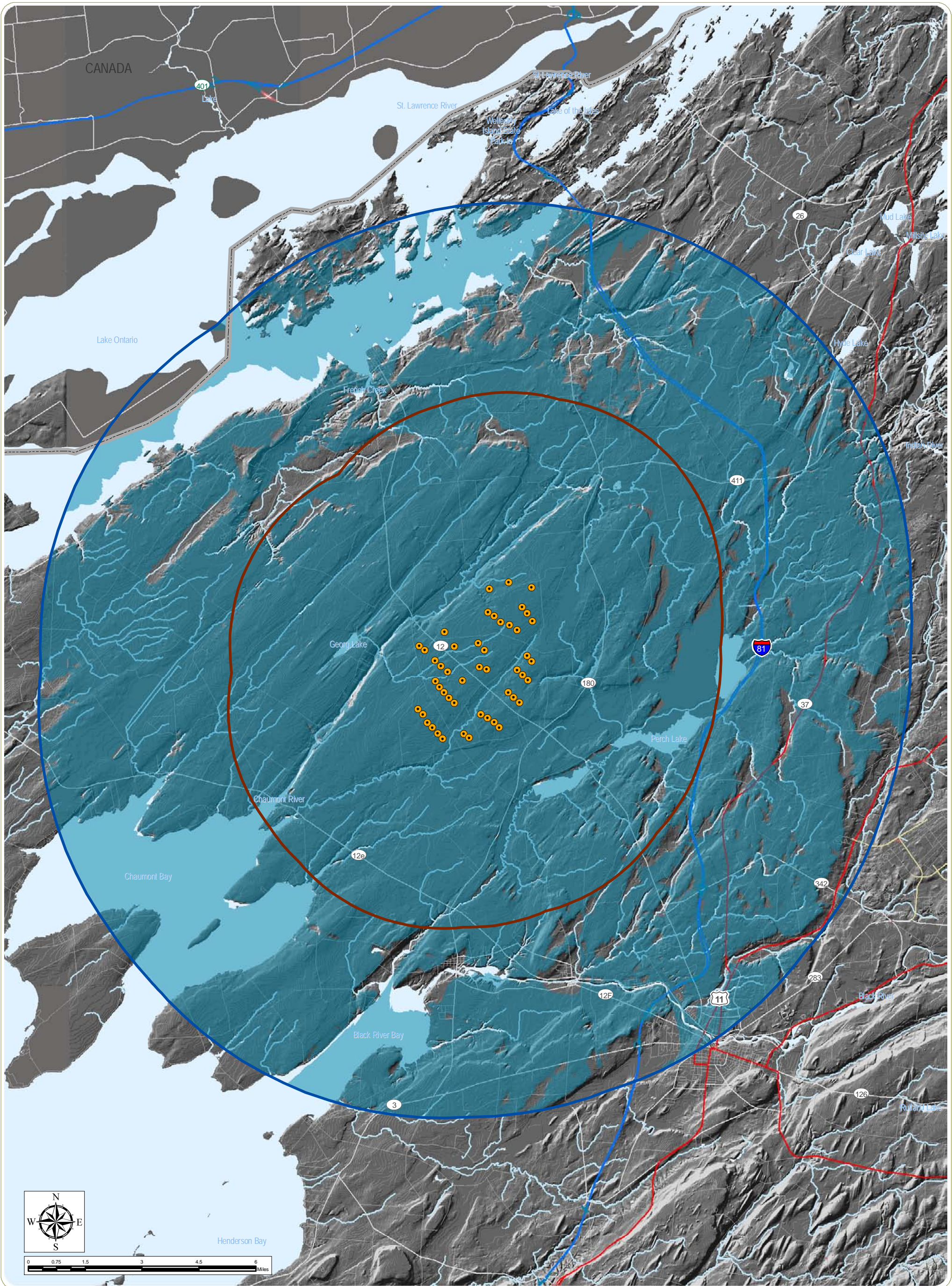
large portions of the Seaway Trail, and significant portions of the southern extent of the St. Lawrence River and Lake Ontario Waterfront. However, some sensitive resources, such as Perch River Wildlife Management Area, Long Point State Park, open waters of Lake Ontario and the St. Lawrence River, Stone Mills Agricultural Museum and several historic homestead sites within the vicinity of Project site are still indicated as having the potential for at least partial visibility of the Project.

As mentioned previously, areas of actual visibility are anticipated to be even more limited than indicated by the vegetation viewshed analysis, due to the slender profile of the turbines (especially the blade, which make up the top 147.5 feet of the turbine), the effects of distance, and screening from hedgerows, street trees and structures, which are not considered in the viewshed analysis.

Table 2. Viewshed Results Summary

Type of Viewshed	10-mile Radius Study Area ¹		
	Total Acres	Visible Acres	% Visible
Blade Tip - Topo Only	279,472	239,834	86%
Nacelle/Lighting - Topo Only	279,472	225,413	81%
Blade Tip - Topo & Vegetation	279,472	130,097	47%
Nacelle/Lighting - Topo & Vegetation	279,472	111,450	40%

¹The Study Area is 437 square miles, excluding Canada



Horse Creek Wind Farm
 Town of Clayton - Jefferson County, New York

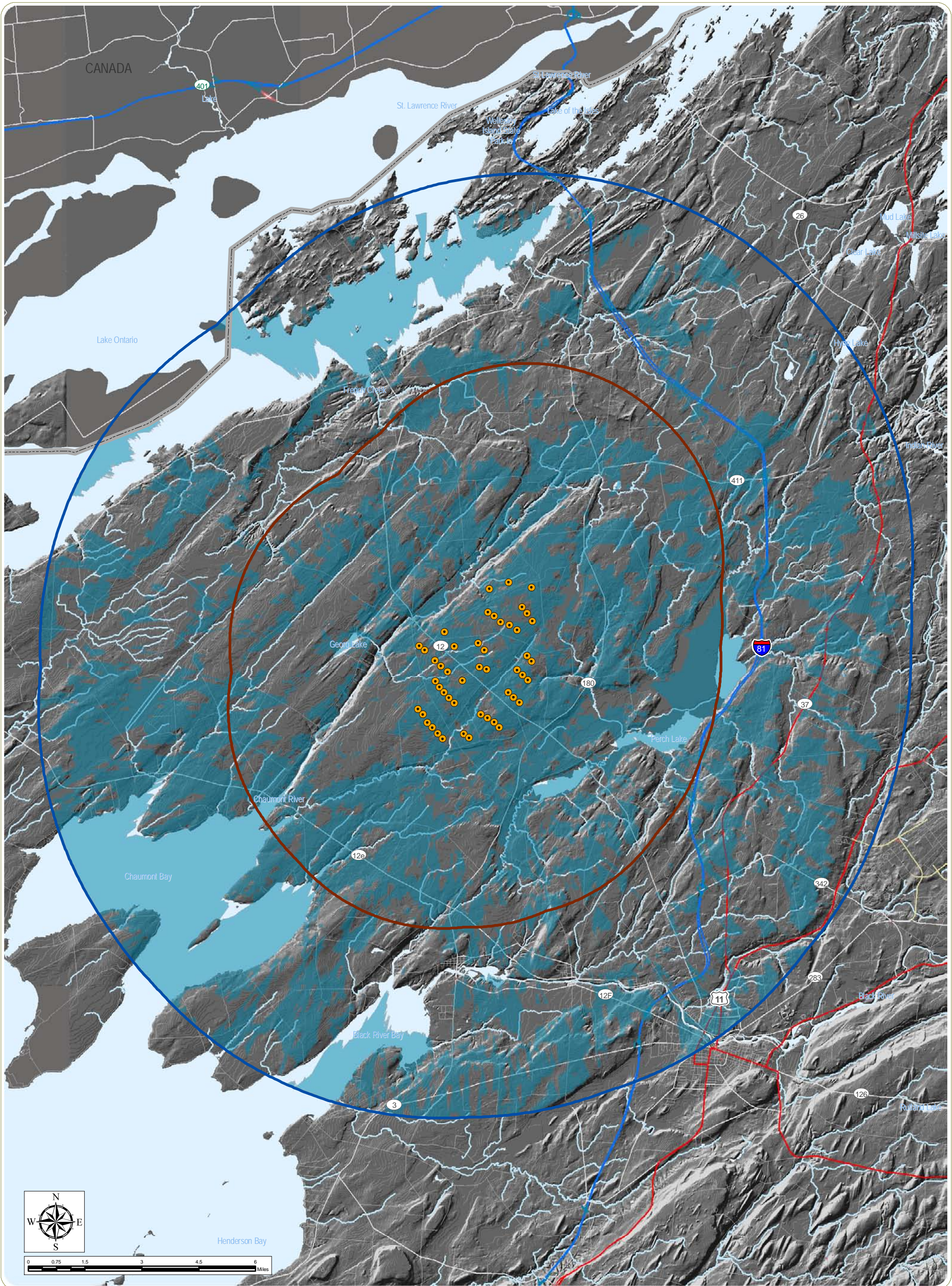
Figure 8: Viewshed Analysis - Topographic Blade-Tip Visibility Visual Impact Assessment

March 31, 2011

Notes: Base Map: Digital Elevation Model with hillshade effect; ESRI StreetMap North America, 2008.

- Proposed Wind Turbine
- 5-Mile Radius Study Area
- 10-Mile Radius Study Area
- Potentially Visible





Horse Creek Wind Farm
 Town of Clayton - Jefferson County, New York

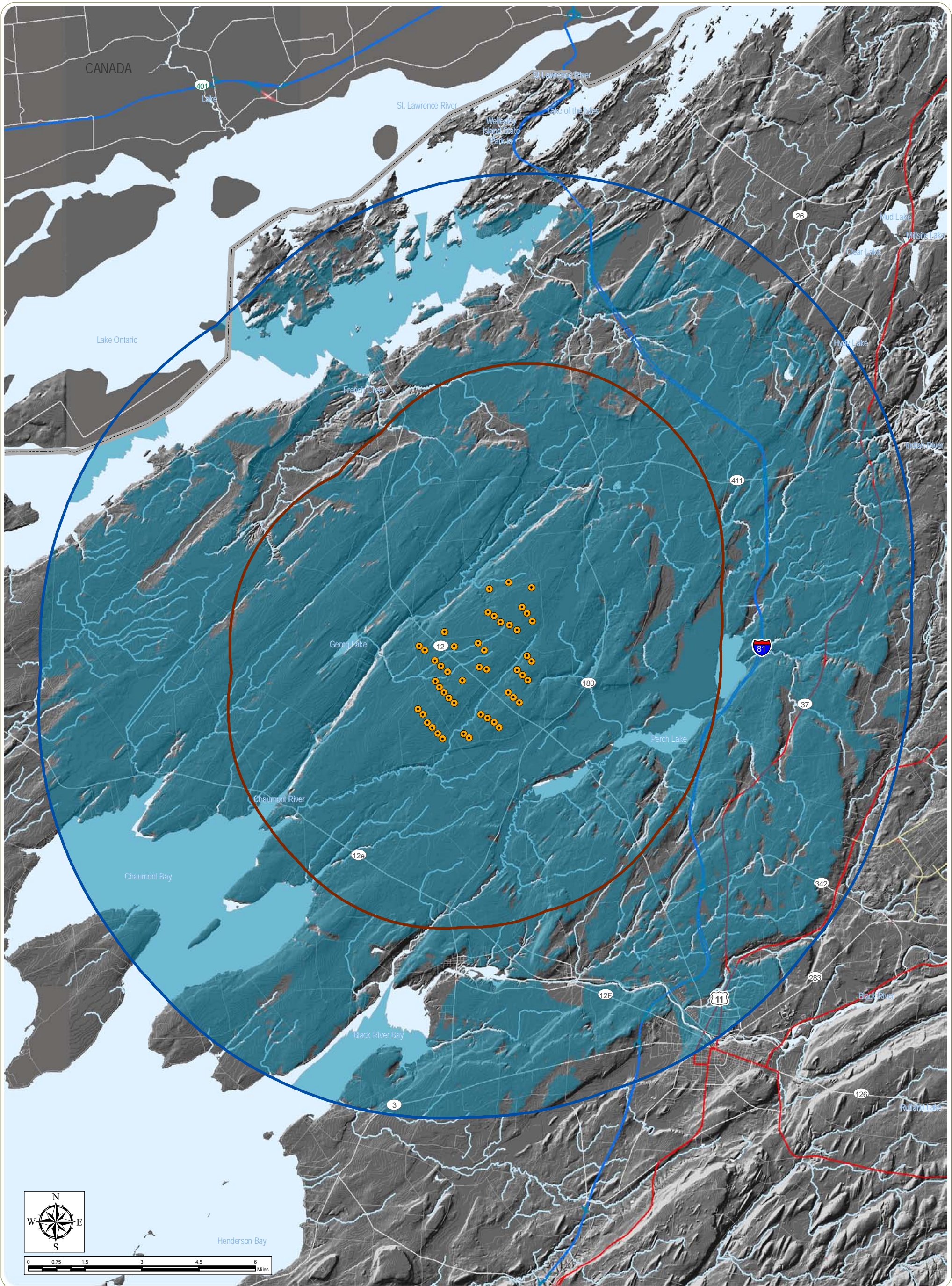
Figure 8: Viewshed Analysis - Vegetation Blade-Tip Visibility
Visual Impact Assessment

March 31, 2011

Notes: Base Map: Digital Elevation Model with hillshade effect; ESRI StreetMap North America, 2008.

- Proposed Wind Turbine
- Potentially Visible
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 Town of Clayton - Jefferson County, New York

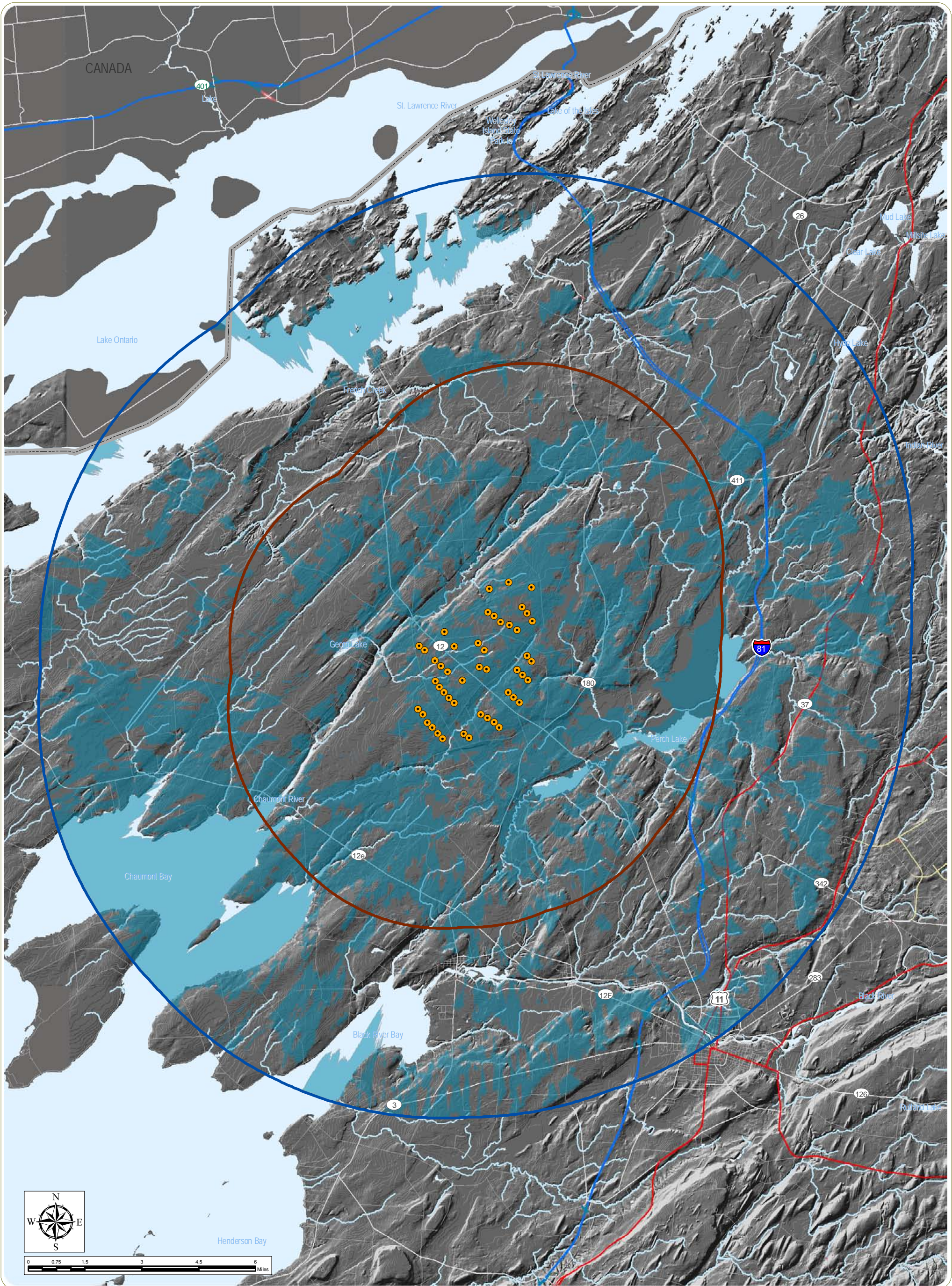
Figure 8: Viewshed Analysis - Topographic FAA Warning Light Visibility Visual Impact Assessment

March 31, 2011

Notes: Base Map: Digital Elevation Model with hillshade effect; ESRI StreetMap North America, 2008.

- Proposed Wind Turbine
- 5-Mile Radius Study Area
- 10-Mile Radius Study Area
- Potentially Visible





Horse Creek Wind Farm
 Town of Clayton - Jefferson County, New York

Figure 8: Viewshed Analysis - Vegetation FAA Warning Light Visibility Visual Impact Assessment

March 31, 2011

Notes: Base Map: Digital Elevation Model with hillshade effect; ESRI StreetMap North America, 2008.

- Proposed Wind Turbine
- 5-Mile Radius Study Area
- 10-Mile Radius Study Area
- Potentially Visible

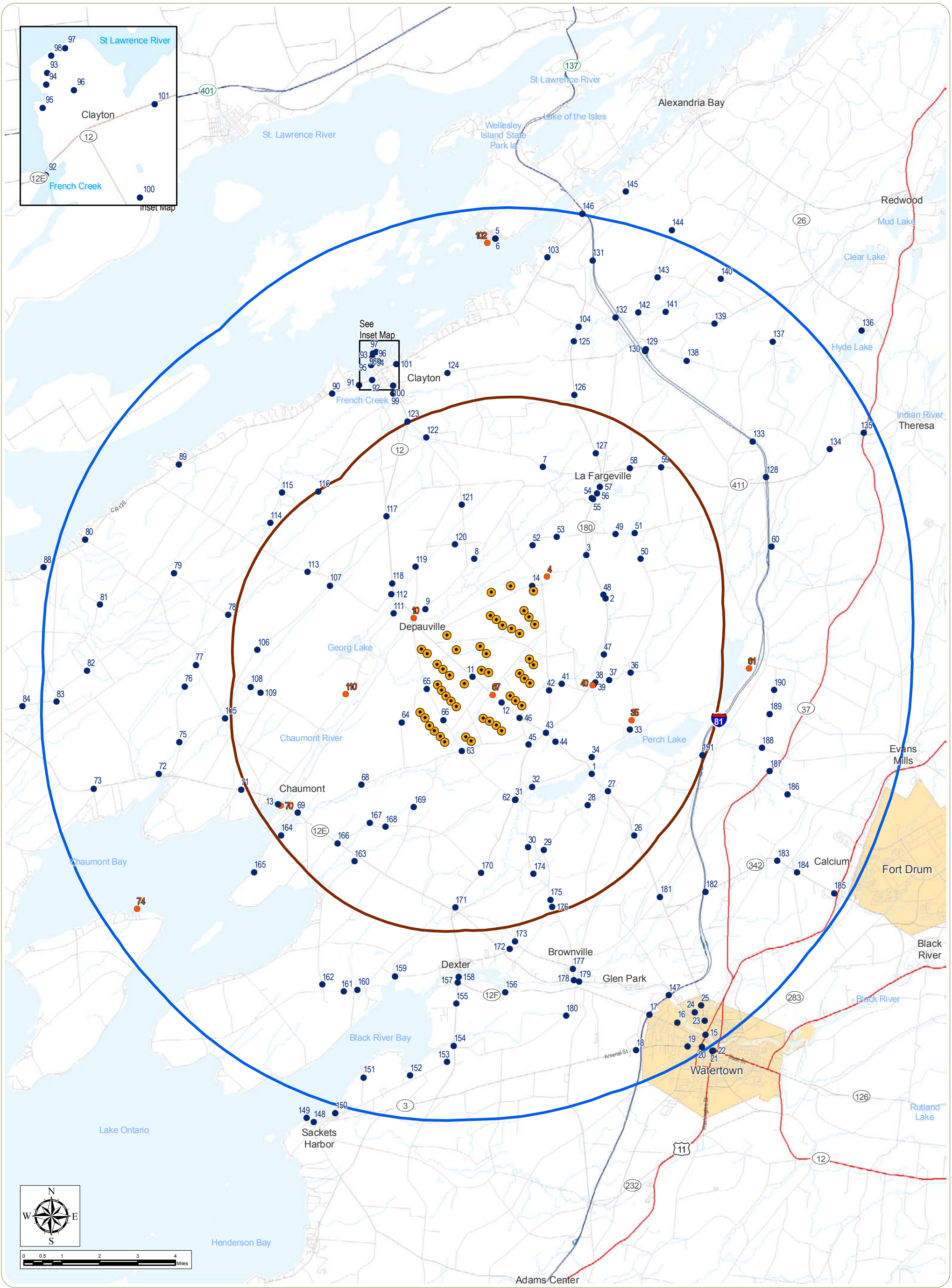


Field review confirmed that actual Project visibility is likely to be more limited than suggested by viewshed mapping. This is due to the fact that screening provided by buildings is significant within more developed areas (villages and hamlets), and trees within the study area provide more extensive and effective screening than assumed in these analyses (e.g., vegetation is more extensive than indicated on the USGS NLCD, and often taller than 40 feet in height). The result is that certain sites/areas where "potential" visibility was indicated by viewshed mapping were actually well screened from views of the proposed Project. Field review confirmed a lack of visibility from areas that were heavily forested, and village centers such as Brownville, Chaumont, Clayton, Dexter and LaFargeville, where buildings and street trees screen the Project. Structures also block outward views from the City of Watertown. Views from Fort Drum are generally screened by topography and vegetation, and views from Sackets Harbor are unlikely, except possibly from some waterfront areas with views to the northeast across open water (limited number of locations). In general, shoreline areas along Lake Ontario and the St. Lawrence River were screened from view of the Project site by trees and a rise to topography along the shoreline. The area with greatest Project visibility occurs within two miles of the proposed turbines, including portions of NYS Routes 12 and 180. However, even in these portions of the study area, hedgerows and trees not indicated on the USGS maps blocked/interrupted views toward the proposed turbines in many areas. Open views (at about 3.5 miles) will also be available from portions of Interstate Route 81. Based on field review at Long Point State Park, some open water areas on Lake Ontario to the southwest have the potential for unscreened views of the Project. These views will be available to recreational boaters, and in many locations will include all of the proposed turbines. However, the impact of these views will be mitigated by distance (in excess of five miles). Views from the St. Lawrence River will be much more limited due to the narrower width of this waterway, the more effective screening provided by shoreline trees and topography, and the greater distance from which the Project will be viewed.

A comprehensive summary of potential Project visibility from sensitive sites is presented in Appendix A.

5.2 Analysis of Existing and Proposed Views

To illustrate anticipated visual changes associated with the proposed Project, photographic simulations of the completed Project from each of the 10 viewpoints indicated in Figure 9 were used to evaluate Project visibility and appearance. Digital images of these simulations are included in Appendix C of this report. Rating panel review of these images, along with photos of the existing view, allowed for comparison of the aesthetic character of each view with and without the proposed Project in place. Results of this evaluation are presented below.



Horse Creek Wind Farm
 Town of Clayton - Jefferson County, New York

Figure 9: Viewpoint Locations
Visual Impact Assessment

March 31, 2011

Notes: Base Map: ESRI StreetMap North America, 2008.

- Proposed Wind Turbine
- Viewpoint Selected for Simulation
- Viewpoint Location
- 5-Mile Radius Study Area
- 10-Mile Radius Study Area



Viewpoint 4 (Figure 10: Sheets 1 and 2)*Existing View*

This view is to the west-southwest from Overbluff Road in the Town of Orleans. The viewpoint is near the NHRP-listed Tracy Farm, approximately 0.5 mile from the nearest turbine that would be visible in this view. The existing view is typical of the Rural Residential/Agricultural LSZ and features a flat agricultural field in the foreground, backed by a horizontal band of trees, rural homes, barns and a utility line (along Haller and Overbluff Roads) in the mid-ground. Additional open fields and woodlots visible in the background strengthen this horizontal line and define the visible horizon in this view. Only the silo of the farm on the right hand side of the view presents a strong vertical element against the sky. The level of topography, dominant gray and brown color palette, and lack of distinctive landscape features results in medium to low scenic quality.

Proposed Project

With the proposed Project in place, 18 turbines are fully or partially visible in the view. Those in the background are substantially screened by trees in the mid-ground hedgerow and background woodlot. Due to their distance from the viewer, these turbines do not appear significantly out of scale with the trees, utility lines, and other existing landscape features. However, the foreground and mid-ground turbines are largely unscreened and present appreciable to strong contrast with the landform, vegetation, and especially the sky, due to their height, vertical line, and unique form/character. Under these lighting conditions, the turbines appear dark against the sky. Clear sky conditions and different sun angle would alter this contrast. The turbines create a perceived change in land use and add new focal points to the landscape which will attract the attention of travelers and local residence. However, one panel member felt the turbines were compatible with the working farm setting and, in combination with existing silo, created an organized composition of built structures in the view.



Horse Creek Wind Farm
Jefferson County, New York
Figure 10: Visual Simulations
March 2011

*Photograph taken December 10, 2006

Viewpoint 4. Representative land-use within the study area.
View to the west-southwest from Overbluff Road, Town of Orleans.

Sheet 1 of 2



Horse Creek Wind Farm
Jefferson County, New York
Figure 10: Visual Simulations
March 2011

*Photograph taken December 10, 2006

Viewpoint 4. Representative land-use within the study area.
View to the west-southwest from Overbluff Road, Town of Orleans.

Sheet 2 of 2

Viewpoint 10 (Figure 11)

Existing View

This viewpoint is located on Route 12 at the edge of the hamlet of Depauville, approximately 0.9 mile from the nearest turbine that would be visible in this view. The existing view to the south features Route 12, which descends into a shallow valley (crossing the Chaumont River) before rising on the opposite side of the valley, and curving out of view. The foreground and mid-ground on either side of the road are dominated by typical village/hamlet structures including a gas station, commercial buildings, churches, and homes, interspersed with trees and lawns. Church steeples provide a focal point and define the area as a traditional rural hamlet. A tree line at the far side of the hamlet defines the visible horizon in this view. Overhead utility lines parallel the road and cross the sky in the foreground.

Proposed Project

With the proposed Project in place, portions of 10 wind turbines can be seen above the mid-ground tree line at the far side of the hamlet area. Half of the turbines are far enough away that only the rotor or blade tips are visible above the trees. The other five are clearly visible above the trees and present appreciable to strong contrast with the existing landform, vegetation, and sky. This contrast is due primarily to the turbines' scale, form, and character. Their color is compatible with the sky and white buildings that dominate the view. Their impact on the sky is lessened by the existing overhead utility lines, and their vertical line is consistent with the utility poles and church steeples visible in this view. However, the turbines' height and novel form contrast with the existing land use and viewer activity typical in a rural hamlet setting. They become new focal points in the view and change the character of the view from a traditional rural hamlet to a more utilitarian landscape. One panel member felt that the number of visible turbines was not overwhelming, and added an element of interest to the view.



Horse Creek Wind Farm
Jefferson County, New York
Figure 11: Visual Simulations
March 2011

*Photograph taken December 10, 2006
Viewpoint 10. Hamlet of Depauville.
View to the south on NYS Route 12, Town of Clayton.



Horse Creek Wind Farm
Jefferson County, New York
Figure 11: Visual Simulations
March 2011

*Photograph taken December 10, 2006
Viewpoint 10. Hamlet of Depauville.
View to the south on NYS Route 12, Town of Clayton.

Viewpoint 35 (Figure 12)*Existing View*

This view to the northwest is from an elevated observation platform overlooking a large marsh at the Perch River Wildlife Management Area. The viewpoint is located approximately 2.9 miles from the nearest turbine that would be visible in this view. The existing view features an expanse of open water (frozen) and emergent wetland vegetation in the foreground, backed by a strong horizontal band of forest vegetation in the mid-ground. Glimpses of more distant vegetation, open fields, and structures can be seen in the background, but the mid-ground tree line generally blocks views of more distant landscape features and defines the visible horizon. The landform is generally flat, the horizon line uniform in height, and the open sky uninterrupted by trees or other tall structures. Scenic quality and viewer sensitivity at this viewpoint are considered medium to high.

Proposed Project

With the proposed Project in place, numerous mid-ground turbines can be seen spanning the view. Because of their distance from the viewer, all of the turbines appear to rise from behind the mid-ground tree line that forms the visible horizon. Elevated viewer position enhances visibility of the turbines and makes them appear more uniform in height. The large number of visible turbines, their vertical line, and unique form, present moderate to strong contrast with the landform, vegetation, water, and especially the sky in this view. Their uniform height and presence across the full view reinforces the horizon line in the landscape and minimizes their visual penetration of the sky. Their light color also minimizes color contrast with the sky. However, their man-made form and movement will create a new focal point that will contrast with the natural/rural character of the view and draw the viewer's attention away from the existing marsh.



VIEWPOINT CONTEXT

Viewer Location



Horse Creek Wind Farm
Jefferson County, New York
Figure 12: Visual Simulations
March 2011

Viewpoint 35. Perch River Wildlife Management Area, Bird Observation Overlook.
View to the west off of Vaadi Road, Town of Clayton.



VIEWPOINT CONTEXT

Viewer Location



Horse Creek Wind Farm
Jefferson County, New York
Figure 12: Visual Simulations
March 2011

Viewpoint 35. Perch River Wildlife Management Area, Bird Observation Overlook.
View to the west off of Vaadi Road, Town of Clayton.

Viewpoint 40 (Figure 13)*Existing View*

This view is from the Stone Mills Union Church on NYS Route 180 in the Town of Clayton. The church is listed on the National Register of Historic Places and is one of several buildings on the Stone Mills Agricultural Museum property. It is approximately 2.2 miles from the nearest turbine that would be visible in this view. The existing view from the front porch of the church features a large tree, flagpole, fences, the adjacent roadway, and overhead utility lines in the immediate foreground. A mix of gently rolling open fields, hedgerows, and woodlots occur on the opposite side of the highway, and extend into the mid-ground of the view. A transmission line structure and distant barns and houses can be seen among the mid-ground trees. The landscape rises gently to a slightly undulating horizontal tree line in the background that defines the visible horizon.

Proposed Project

With the proposed Project in place, two discreet clusters of turbines, and two individual machines, can be seen rising above the tree line on the horizon. The turbines' texture, color, and scale contrast with the existing vegetation and sky is appreciable to strong. Their modern appearance also contrasts with the historic character of the church/museum and the traditionally rural landscape that surrounds it. However, the clustering of the turbines in this view mimics the foreground tree groupings, and helps mitigate their visual impact. Existing trees in the foreground also provide partial screening, and serve to reduce perceived scale contrast. This affect would be even more pronounced during the growing season.



VIEWPOINT CONTEXT



Horse Creek Wind Farm
 Jefferson County, New York
Figure 13: Visual Simulations
 March 2011

Viewpoint 40. Stone Mills Museum/Northern Agricultural Historical Society, Stone Mills Union Church.
 View to the west, NYS Route 180, Town of Clayton.



VIEWPOINT CONTEXT



Horse Creek Wind Farm
 Jefferson County, New York
Figure 13: Visual Simulations
 March 2011

Viewpoint 40. Stone Mills Museum/Northern Agricultural Historical Society, Stone Mills Union Church.
 View to the west, NYS Route 180, Town of Clayton.

Viewpoint 61 (Figure 14)*Existing View*

This viewpoint is located at an ice fishing access to Perch Lake, off of Perch Lake Road in the Town of Clayton. This viewpoint is on the Perch River Wildlife Management Area and is about 5.7 miles from the nearest turbine that would be visible in this view. The existing view is representative of the Water/Waterfront LSZ, and features a broad expanse of snow covered ice with a narrow band of dark forest vegetation on the opposite shoreline. Glimpses of fields and structures among the mid-ground trees suggest a gentle rise in topography beyond the shoreline of the lake, but the skyline is essentially unbroken. The blue-gray color of the snow and sky dominate the view and contrasts with the dark shoreline vegetation. Tracks in the snow and a fallen tree in the foreground add some pattern/texture to the surface of the ice. The lack of variability in topography, vegetation, and color in the landscape result in medium scenic quality.

Proposed Project

With the proposed Project in place, numerous turbines can be seen across the field of view. These turbines are in the background, but due to the rising topography on the opposite shoreline, appear to extend well above the mid-ground tree line that forms the visible horizon. The turbines' white color contrasts with the dark line of vegetation and the dark gray sky at the horizon. The large number of turbines, their density, and their height above the trees also present moderate to strong contrast with the existing vegetation. The turbines' contrast with the landform, water, and sky is limited due to their uniform height (which creates a horizontal band that reflects the existing topography) and their distance from the viewer. Although the turbines change the undeveloped character of the view, their distance from the viewer limits perceived contrast with land use and viewer activity.



Horse Creek Wind Farm
Jefferson County, New York
Figure 14: Visual Simulations
March 2011

Viewpoint 61. Perch River Wildlife Management Area, Ice-Fishing Access.
View to the west off of Perch Lake Road, Town of Clayton.



Horse Creek Wind Farm
Jefferson County, New York
Figure 14: Visual Simulations
March 2011

Viewpoint 61. Perch River Wildlife Management Area, Ice-Fishing Access.
View to the west off of Perch Lake Road, Town of Clayton.

Viewpoint 67 (Figure 15)*Existing View*

This viewpoint is located on NYS Route 12, approximately 0.9 mile from the nearest turbine that would be visible in this view. The view to the east-southeast is characterized by open vegetation (fallow field) in the foreground, backed by an irregular band of shrub and hedgerow vegetation in the mid-ground. The land appears to rise slightly to more solidly forested woodlots in the background. Topography is relatively flat, and the vegetation that comprises the woodlot and hedgerow generally defines the visible horizon. It is representative of views available throughout the Rural Residential/Agricultural LSZ. A house and barn in the mid-ground, and a metal fence in the immediate foreground, are the only man-made elements in this view. Additional rural homes and barns are present in the area, and visible as one looks down the road from this viewpoint. Scenic quality in this view is low to medium due to the lack of topographic and vegetative variety, distinctive focal points, or long distance visibility.

Proposed Project

With the proposed Project in place, five turbines can be seen in the mid-ground of the view. The turbines interrupt the open sky and, because of their proximity to the viewer and the adjacent farm structures, present strong contrast in line, scale, and form. This contrast is most notable with the existing vegetation, landform and land use, all of which are strongly rural and horizontal. However, the turbines' light color minimizes contrast with the sky, and they appear appropriate in a working agricultural setting. Their spacing is also compatible with the existing building density, and they add an element of interest/focal point to the existing view.



VIEWPOINT CONTEXT



Horse Creek Wind Farm
Jefferson County, New York
Figure 15: Visual Simulations
March 2011

Viewpoint 67. Representative land-use within the study area.
View to the east-southeast from NYS Route 12, Town of Clayton.



VIEWPOINT CONTEXT



Horse Creek Wind Farm
Jefferson County, New York
Figure 15: Visual Simulations
March 2011

Viewpoint 67. Representative land-use within the study area.
View to the east-southeast from NYS Route 12, Town of Clayton.

Viewpoint 70 (Figure 16)*Existing View*

This viewpoint is on the Route 12E bridge over the Chaumont River in the Town of Lyme. It is the most open/elevated view in the vicinity of the Village of Chaumont, and is approximately 4.5 miles from the nearest proposed turbine. The existing view is dominated by the broad frozen surface of the Chaumont River. Old bridge piers crossing the river and an overhead utility line are prominent foreground features. The shore of the river is lined with trees interspersed with widely-spaced shoreline homes and a few utility structures. The trees along the river shore, and a more distant woodlot just right of center in the view, define the visible horizon.

Proposed Project

With the proposed Project in place, several turbines can be seen among and above the trees in the right-central portion of the view. The upper portions of some additional turbines can be seen peeking above the treetops further to the left. Screening provided by the trees, along with the turbines' white color and their distance from the viewer, minimize visibility and visual contrast in this view. At this distance, their scale and texture appear consistent with the shoreline trees, and their vertical lines are consistent with those of nearby trees, structures, and utility poles. Although the turbines may be more visible under different sky conditions, they would be more well screened/less visible during the growing season. Under a variety of conditions, their visual contrast with the sky, vegetation, and landform is likely to be minimal.



Horse Creek Wind Farm
Jefferson County, New York
Figure 16: Visual Simulations
March 2011

Viewpoint 70. Chaumont Bay/Village of Chaumont.
View to the northeast from NYS Route 12E over Chaumont River, Town of Lyme.



Horse Creek Wind Farm
Jefferson County, New York
Figure 16: Visual Simulations
March 2011

Viewpoint 70. Chaumont Bay/Village of Chaumont.
View to the northeast from NYS Route 12E over Chaumont River, Town of Lyme.

Viewpoint 74 (Figure 17)*Existing View*

This viewpoint is located at a waterfront campsite at Long Point State Park, approximately 9.1 miles from the nearest proposed turbine. It is also representative of the views that will be available from the open water of Lake Ontario. The existing view across Chaumont Bay features a broad expanse of open water (frozen) with a non-descript horizontal band of trees defining a shoreline in the background. A tree trunk and stones along the shore are visible in the immediate foreground. Due to the ice-covered bay and hazy sky, white and blue-gray are the dominant colors in the view. Scenic quality is relatively high and the location of this viewpoint at a campsite within a state park indicates that viewer sensitivity to visual impact is likely to be high as well.

Proposed Project

With the proposed Project in place, numerous turbines can be seen rising above the tree line in the background. The turbines present strong scale contrast with trees and structures visible along the shoreline. The large number of turbines and lack of screening, along with their vertical line and unique form contrast with the strong horizontal landform and largely undeveloped character of the existing landscape. They also may not be considered compatible with the recreational land use/viewer activity that this site receives. The turbines' white color contrasts with the dark shoreline vegetation, but minimizes contrast with the sky. Turbine visibility and visual impact would likely be greater under different sky conditions (e.g., clear sky and low sun angle) and the nighttime impact of FAA warning lights could be substantial from this viewpoint.



VIEWPOINT CONTEXT



Horse Creek Wind Farm
Jefferson County, New York
Figure 17: Visual Simulations
March 2011

Viewpoint 74. Long Point State Park/Point Peninsula.
View to the northeast across Chaumont Bay, Town of Lyme.



Horse Creek Wind Farm
Jefferson County, New York
Figure 17: Visual Simulations
March 2011

Viewpoint 74. Long Point State Park/Point Peninsula.
View to the northeast across Chaumont Bay, Town of Lyme.

Viewpoint 102 (Figure 18)*Existing View*

This view is from a shoreline pavilion at Thousand Islands Park on Wellesley Island. The viewpoint is within the NRHP-listed Thousand Island Park Historic District, approximately 9.1 miles from the nearest proposed wind turbine. The existing view is to the south across the American narrows of the St. Lawrence River. It is dominated by open water, punctuated by two small islands (Castle Francis Island on the left and Twin Island on the right). The far shoreline of the River is characterized by a uniform horizontal band of trees interspersed with glimpses of shoreline development. Other developed features include a seasonal home and dock on Castle Francis Island, and a distant communication tower, visible against the sky in the background. This viewpoint has high scenic quality and is considered sensitive to visual impact due to its historic and recreational significance.

Proposed Project

With the proposed Project in place, only the blade tips of a few turbines are visible above the treetops on the opposite shoreline. Screening by these trees and the distance of the turbines from the viewer result in very limited Project visibility, and insignificant to minimal contrast with the existing landscape. Even though this viewpoint is considered visually sensitive, the impact of the proposed Project on scenic quality and viewer activity will be minimal.



Horse Creek Wind Farm
Jefferson County, New York
Figure 18: Visual Simulations
March 2011

Viewpoint 102. Thousand Island Park Pier/Wellesley Island.
View to the south across Saint Lawrence River, Town of Orleans.



Horse Creek Wind Farm
 Jefferson County, New York
Figure 18: Visual Simulations
 March 2011

Viewpoint 102. Thousand Island Park Pier/Wellesley Island.
 View to the south across Saint Lawrence River, Town of Orleans.

Viewpoint 110 (Figure 19)*Existing View*

This viewpoint is on Old Town Springs Road in the Town of Lyme, approximately 2.4 miles from the nearest turbine that would be visible in this view. This view to the east is typical of the Rural Residential/Agricultural LSZ. It is dominated by a snow covered fallow field in the foreground that descends to a forested valley (associated with the Chaumont River). The land rises gently on the opposite side of the river and includes a mix of open fields and forest. Houses can be seen through the trees in the mid-ground. The corner of an old barn in the foreground frames the left hand side of the view and provides a distinctive visual focal point.

Proposed Project

With the proposed Project in place, the upper portions of 11 turbines can be seen above the mid-ground treetops that form the visible horizon line. The turbines are evenly spaced and appear dark against the light gray sky. At this distance, and with the partial screening provided by the trees, the turbines present moderate line, form, color, and scale contrast with the vegetation and landform. Their regular spacing contrasts with the irregular pattern of the vegetation and will attract the viewers' eye. However, their consistent spacing and height also tends to reduce color and scale contrast, and prevents them from dominating the view. While the turbines may add an element of interest to the view, the foreground barn and open field remain the dominant landscape features in this view.



Horse Creek Wind Farm
Jefferson County, New York
Figure 19: Visual Simulations
March 2011

Viewpoint 110. Representative land-use within the study area.
View to the east from Old Town Springs Road, Town of Lyme.



Horse Creek Wind Farm
Jefferson County, New York
Figure 19: Visual Simulations
March 2011

Viewpoint 110. Representative land-use within the study area.
View to the east from Old Town Springs Road, Town of Lyme.

5.3 Visual Impact Assessment Rating

A panel of three registered landscape architects (LA) evaluated the visual impact of the proposed Project, as described in the Methodology section of this report. Utilizing 11 x 17-inch digital color prints of the selected representative viewpoints described above, the rating panel members evaluated the before and after views, assigning each view quantitative visual contrast ratings on a scale of 0 (insignificant) to 4 (strong). Each panel member's ratings were averaged to get an overall score for each viewpoint, and these scores were then compiled as a composite average for each viewpoint. Copies of the completed rating forms are included in Appendix D, and the results of this process are summarized below in Table 3.

Table 3. Results of Rating Panel Review of Individual Viewpoints

Viewpoint #	Distance (Nearest Turbine in View)	Landscape Similarity Zone (LSZ)	Individual Overall Scores ¹			Composite Score
			LA 1	LA 2	LA 3	
4	0.5 mile	Rural Residential/Agricultural	0.9	2.0	3.2	2.0
10	0.9 mile	Village/Hamlet	1.5	1.3	3.4	2.1
35	2.9 miles	Rural Residential/Agricultural	1.8	2.3	3.1	2.4
40	2.2 miles	Rural Residential/Agricultural	0.4	1.4	3.7	1.8
61	5.7 miles	Water/Waterfront	0.3	2.5	1.7	1.5
67	0.9 mile	Rural Residential/Agricultural	0.7	2.5	3.8	2.3
70	4.5 miles	Water/Waterfront	0.1	0	0.5	0.2
74	9.1 miles	Water/Waterfront	0.4	2.6	2.8	1.9
102	9.1 miles	Water/Waterfront	0	0	0.2	0.1
110	2.4 miles	Rural Residential/Agricultural	0.5	1.1	2.1	1.2
Average			0.7	1.6	2.5	1.6

¹On a scale of 0 (completely compatible) to 4 (incompatible).

As Table 3 indicates, individual contrast ratings for the 10 selected viewpoints ranged from 0 (insignificant) to 3.8 (strong). Composite scores (i.e., the average of individual rating panel members) ranged from 0.1 to 2.4, with seven viewpoints (70%) received composite scores in the range of 1.5 to 2.4 on the scale of 0 to 4. Scores in this range generally indicate a moderate level of visual contrast. The lowest contrast ratings (under 1.0) were received by Viewpoints 70 and 102. Simulations from these viewpoints were characterized by more distant views (over 4.5 miles) and substantial vegetative screening. These conditions tend to decrease turbine visibility and/or contrast with the existing landscape.

The highest composite contrast ratings were received by Viewpoints 35 and 67. Both of these viewpoints received composite ratings in the range of 2.3 to 2.4 (moderate) on the 0 to 4 scale. In these viewpoints, impact related primarily to the proximity of the turbines to the viewer (under 1.0 mile for Viewpoint 67), or the abundance of turbines within the view (Viewpoint 35). Both of these conditions typically heighten line, form, and scale contrast with the landscape. These

views were also largely unobstructed by vegetation or topography that could provide screening for the turbines. Viewpoints 4, 10, 40, 61, and 74, also received individual contrast ratings of 2.5 or greater from one or more of the rating panel members. In the case of Viewpoints 4, 10, 40, and 61, a single panel member assigned the viewpoint a higher contrast rating (over 2.0), while in the case of Viewpoint 74, higher contrast ratings were received from two panel members. As with Viewpoints 35 and 67, these scores typically related to the number of turbines visible (which can alter perceived land use and create visual clutter), their proximity to the viewer (which accentuates scale contrast), and/or their incompatibility with existing land use and sensitive resources. However, as indicated in Table 3, only three of the viewpoints received a score greater than 2.0 (moderate contrast), and none received a composite score in the range of 3 to 4 (appreciable to strong contrast).

There was a high degree of variability among the panel members' ratings, with the individual members reacting quite differently to individual simulations (see rating forms in Appendix D). Two panel members (LA1 and LA2) rated the Project as having a generally minimal to moderate contrast with the existing landscape, while the third (LA3) generally considered contrast to be more appreciable to strong. This likely reflects individual variability in perception/acceptance of the turbines. A generally positive viewer reaction to wind turbines, with some strong individual variability (based on viewer preference and/or landscape setting), has been observed by **edr** on the currently operating wind power projects in New York State. Similar results have been documented in public opinion/acceptance surveys regarding constructed wind power projects in other locations (Bishop and Proctor, 1994; Gipe, 2003; Warren et al., 2005). Based on rating panel results, this reaction will likely be seen on the Horse Creek Wind Power Project as well.

Nighttime photos from the Fenner Wind Power Project (Figure 20), indicate that nighttime visual impact could occur at certain viewpoints. The contrast of the aviation warning lights with the night sky is strong in most dark, rural settings, and their presence suggests a more commercial/industrial land use. Viewer attention is drawn by the flashing of the lights, and any positive reaction that wind turbines engender (due to their graceful form, association with clean energy, etc.) is lost at night. While not disturbing (or even strongly perceptible) from roads and other public viewpoints, turbine lighting may be perceived negatively by area residents and recreational users who may be able to view these lights from homes, yards, parks, campsites, and waterbodies.



Horse Creek Wind Farm Project
Jefferson County, New York

Figure 20: Representative Evening/Night Photos

6.0 Conclusions

The VIA for the Horse Creek Wind Power Project allows the following conclusions to be drawn:

1. Visibility analyses conducted as part of this VIA indicate that the Project has the potential to be visible from substantial portions of the 10-mile radius study area, especially within the Rural Residential/Agricultural and Water/Waterfront LSZs. However, vegetation viewshed analysis and field review suggest that significant areas (over 53% of the study area) are well screened by forest vegetation and structures. These areas include village centers such as Brownville, Chaumont, Clayton, Dexter, and Lafargeville, where buildings and street trees screen the Project, and the majority of the shoreline of Lake Ontario and the St. Lawrence River. Many areas where potential Project visibility is indicated are over five miles from the nearest proposed turbine. Research suggests that significant visual effects of wind power projects are generally concentrated within 3.5 miles (6 kilometers) of a project site (Eyre, 1995; Bishop, 2002). *edr's* observations on existing wind power projects in New York (e.g., Madison, Fenner, and Maple Ridge Wind Power Projects) indicate that under favorable conditions, views of the wind turbines will likely be available from certain viewpoints well over 10 miles from the Project site. However, visual impact at these distances is typically minimal.
2. Viewshed analysis indicates that the Project could be at least partially visible from the majority of identified aesthetic resources of statewide and local significance within the study area. These include the portions of the hamlet of Depauville and Stone Mills, Stone Mills Agricultural Museum, the Perch River WMA, Long Point State Park, open waters of Lake Ontario and the St. Lawrence River, and several historic homestead sites within the vicinity of the Project site. From other sensitive sites within the study area, including the French Creek WMA, and most areas of concentrated human settlement, the Project will either not be visible or will be significantly screened by foreground vegetation and structures. At least partial screening was documented at the majority of sensitive sites visited during field review.
3. Simulations of the proposed Project, indicate that the visibility and visual impact of the wind turbines will be highly variable, based on landscape setting, extent of natural screening, presence of other man-made features in the view, viewer sensitivity, and distance of the viewer from the Project.
4. Evaluation by a rating panel of landscape architects indicates that the Project's overall contrast with the visual/aesthetic character of the area will generally be moderate. However, based on the panel's scoring and comments, greater levels of contrast can be anticipated where foreground and near mid-ground views of turbines

(i.e., under 1.0 mile) are available, where numerous turbines span the field of view, and/or where the turbines appear out of context/character with the landscape. Conversely, impact is reduced when turbines are partially screened, viewed at greater distances, or seen in the context of a working agricultural landscape. Based on experience with currently operating wind power projects elsewhere, public reaction to the Project is likely to be generally positive, but highly variable based on proximity to the turbines, the affected landscape, and personal attitude of the viewer regarding wind power. High contrast also does not always indicate adverse visual impact. Rating Panel members often indicated that the turbines added an element of interest to the landscape, and as Stanton (1996) notes, although a wind power project is a man-made facility, what it represents "may be seen as a positive addition" to the landscape.

5. Based upon the nighttime photos/observations of existing wind power projects, the red flashing lights on the turbines could result in a nighttime visual impact on certain viewers. The actual significance of this impact from a given viewpoint will depend on how many turbines are visible, what other sources of lighting are present in the view, the extent of screening provided by structures and trees, and nighttime viewer activity/sensitivity. However, night lighting could be somewhat distracting and have an adverse effect on rural residents and recreational users that currently experience (or expect) dark nighttime skies. It should be noted that nighttime visibility/visual impact will be reduced due to 1) FAA lighting guidelines (FAA, 2005) which typically result in aviation warning lights on only about one third to one half the turbines, 2) the abundance of woodlots and hedgerows that screen portions of the Project from many locations, and 3) the concentration of residences in villages, hamlets, and along highways where existing lights already compromise dark skies and compete for the viewer's attention.
6. The analyses included in this study indicate that the Project will generally not be visible from most locations within the various villages and hamlets (the Villages of Chaumont, Clayton, and Brownville; the hamlet of LaFargeville; the City of Watertown) where structures listed or potentially eligible for listing on the National Register of Historic Places are concentrated. Views of the Project from these areas will generally be fully or partially screened by structures and trees. However, given the occurrence of potentially NRHP-eligible structures within the visual study area, views of turbines from some historic structures/sites are possible. The simulations prepared for this VIA (see Viewpoints 4 and 40) are representative of worst case views that could be available from historic structures within the 10 mile-radius study area.
7. Mitigation options are limited, given the nature of the Project and its siting criteria (very tall structures typically located in open fields). However, in accordance with DEC Program Policy (NYSDEC, 2000), various mitigation measures were considered. These included the following:

-
- A. Professional Design. All turbines will have uniform design, speed, color, height and rotor diameter. Towers will include no exterior ladders or catwalks. The placement of any advertising devices (including commercial advertising, conspicuous lettering, or logos identifying the Project owner or turbine manufacturer) on the turbines will be prohibited.
- B. Screening. Due do the height of individual turbines and the geographic extent of the proposed Project, screening of individual turbines with earthen berms, fences, or planted vegetation will generally not be effective in reducing Project visibility or visual impact. However, selective off-site planting could be effective in screening views from some historic sites in the area (see Viewpoint 40 as an example). A visual mitigation planting fund could be established to screen views of the Project from NHRP-listed or eligible historic sites within the study area.
- C. Relocation. Again, because of the extent of the Project, the number of individual turbines, and the variety of viewpoints from which the Project can be seen, turbine relocation will generally not significantly alter visual impact. Where visible from sensitive resources within the study area, multiple turbines will typically be visible, and relocation of individual machines would have little effect on overall visual impact. Throughout the study area, views of the Project are highly variable and include different turbines at different vantage points. Therefore, turbine relocation would generally not be effective in mitigating visual impacts. Additionally, the Project layout has been designed in compliance with all required set-backs from roads and residences. Options for relocation of individual Project components are constrained by compliance with setback requirements.
- D. Camouflage. The white/off white color of wind turbines (as mandated by the FAA) generally minimizes contrast with the sky under most conditions. This is demonstrated by simulations prepared under a variety of sky conditions. Consequently it is recommended that this color be utilized on the Horse Creek Project. The size and movement of the turbines prevents more extensive camouflage from being a viable mitigation alternative (i.e., they cannot be made to look like anything else). Neilson (1996) notes that efforts to camouflage or hide wind farms generally fail, while Stanton (1996) feels that such efforts are inappropriate. She believes that wind turbine siting "is about honestly portraying a form in direct relation to its function and our culture; by compromising this relationship, a negative image of attempted camouflage can occur." Other components of the Project have been designed to minimize contrast with the existing agricultural character in the Project area. These measures will include the design of the Project operations and maintenance building, which although not yet designed will reflect the vernacular architecture of the area (i.e., the building will resemble an agricultural

- structure). Additionally, new road construction will be minimized by utilizing existing farm lanes wherever possible.
- E. **Low Profile.** A significant reduction in turbine height is not possible without significantly decreasing power generation. To off-set this decrease, additional turbines would be necessary. There is not adequate land under lease to accommodate a significant number of additional turbines, and a higher number of shorter turbines would not necessarily decrease Project visual impact. In fact, several studies have concluded that people tend to prefer fewer larger turbines to a greater number of smaller ones (Thayer and Freeman, 1987; van de Wardt and Staats, 1988). The visual impact of the electrical collection system is being minimized by placing the majority of the collection system underground. The final locations of poles and pole design is not yet determined. However, based upon overhead line routing, these poles will be obscured from many viewpoints within the Project area by trees or other vegetation. Overhead poles will for the most part be sited at the back or sides of parcels to reduce their visibility from adjacent roads or houses. Additionally, poles are anticipated to be single pole wood structures.
- F. **Downsizing.** Reducing the number of turbines could reduce visual impact from certain viewpoints, but from most locations within the study area where numerous turbines are visible, the visual impact of the Project would change only marginally. Additionally, a dramatic reduction in turbine number (e.g., reduction by 50%) would significantly reduce the socioeconomic benefits of the Project and reduce the Project's ability to assist the State in meeting State energy policies objectives and goals.
- G. **Alternate Technologies.** Alternate technologies for power generation would have different, and perhaps more significant, visual impacts than wind power. Alternative utility-scale wind power technologies (e.g., vertical axis turbines), that could reduce visual impacts, do not currently exist.
- H. **Nonspecular Materials.** Non-reflective paints and finishes will be used on the wind turbines to minimize reflected glare. Nonspecular conductor will be used on the above-ground sections of the electrical collection system.
- I. **Lighting.** Turbine lighting will be kept to the minimum allowable by the FAA. Medium intensity red strobes will be used at night, rather than white strobes or steady burning red lights. Fixtures with a narrow beam path will be considered as a means of minimizing the visibility/intensity of FAA warning lights at ground-level vantage points. Lighting at the substation will be kept to a minimum, and tuned on only as needed, either by switch or motion

detector. Full cut-off fixtures will be utilized to the extent practicable (consistent with safety and security requirements).

- J. Maintenance. The turbines and turbine sites will be maintained to ensure that they are clean, attractive, and operating efficiently. Research and anecdotal reports indicate that viewers find wind turbines more appealing when the rotors are turning (Stanton, 1996). In addition, the Project developer will establish a decommissioning fund to ensure that if the Project goes out of service and is not repowered/redeveloped, all visible above-ground components will be removed.
- K. Offsets. Correction of an existing aesthetic problem within the viewshed is a viable mitigation strategy for wind power projects that result in significant adverse visual impact. Historic structure restoration/maintenance activities could be undertaken to off-set potential visual impacts on cultural resources.

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Appendix A

Sensitive Sites Table

Appendix A, Table 1. Project Visibility from Sensitive Sites

Visually Sensitive Resource ¹	Location	VP Number ²	Distance (miles) from Nearest Turbine ³	Project Visibility ⁴		
				Viewshed ⁵		Field Review/ Simulation
				Topography	Vegetation	
Resources of Statewide Significance						
National or State Register of Historic Places, National Register Eligible						
Tracy Farm	East Side Wilder Road; South of jct. Overbluff Road, La Fargeville vicinity	4,14	0.3	V	V	V
Irwin Brothers Store	NY 180, Stone Mills	39,40	1.5	V	V	V
Horr, Elijah, House	NY 180, Stone Mills	39, 40	1.6	V	PV	V
Stone Mills Union Church	NY 180 near jct. with Carter St., Stone Mills	39, 40	1.6	V	PV	V
Rottiers, John N., Farm	NY 180, La Fargeville vicinity	3	1.7	V	PV	V
Carter Street Schoolhouse No. 21	Dog Hill Road at Carter Street, Stone Mills vicinity	36	2.5	V	V	PV
Saint John's Roman Catholic Church	Main Street (NY 180), La Fargeville	56	3.1	V	PV	NV
Buttermilk Flat Schoolhouse No. 22	Buttermilk Flat Road; East of Carter Street Road, La Fargeville vicinity	51	3.1	V	V	PV
La Fargeville United Methodist Church	Main Street, La Fargeville	57	3.2	V	PV	NV
Saint Paul's Episcopal Church	Main Street, La Fargeville	57	3.2	V	PV	NV
Biddlecom House (LaFarge Retainer Houses)	Main Street (NY 180); East side, LaFargeville	57	3.3	V	PV	NV
Budlong House (LaFarge Retainer Houses)	Main Street (NY 180); East side, LaFargeville	57	3.3	V	PV	NV
Ford, Charles, House	Ford Street, La Fargeville	-	3.3	V	V	
La Farge Land Office	Southwest corner of Main and Mill Streets, La Fargeville	-	3.4	PV	PV	
Strough, Byron J., House	Clayton Street; South side; West of junction NY 411, La Fargeville	-	3.5	V	V	
Central Garage	Clayton Street, La Fargeville	-	3.5	V	V	
Chaumont Railroad Station	Main St., Chaumont	69	4.1	V	PV	PV
Chaumont Historic District	Along Main St., roughly between Washington and Church Sts., Chaumont	69	4.2	V	PV	PV
Chaumont Grange Hall and Dairymen's League Building	Main St., Chaumont	69	4.2	PV	PV	PV
Evans--Gauge--Dillenback House	Evans Rd., Chaumont	-	4.3	V	V	
Cedar Grove Cemetery	Washington St., Chaumont	-	4.4	NV	NV	NV
Chaumont House	Main St., Chaumont	-	4.4	V	PV	
George House	Washington St., Chaumont	-	4.4	V	V	
Dexter Universalist Church	Brown and Kirby Streets, Dexter	-	5.9	NV	NV	NV
Point Salubrious Historic District	Point Salubrious Rd., Chaumont	165	6.1	V	PV	NV
Brown, Gen. Jacob, Mansion	Brown Blvd., Brownville	177	6.6	NV	NV	NV
St. Paul's Church (Episcopal)	210 Washington Street, Brownville	-	6.7	NV	NV	NV
Stone Shop, Old	Main St., Three Mile Bay, Chaumont	-	6.8	V	V	PV
Three Mile Bay Historic District	Jct. of Church and Depot Sts., Three Mile Bay, Chaumont	-	6.8	V	V	PV
Brownville Hotel	Brown Blvd. and W. Main St., Brownville	178	6.8	NV	NV	NV
Walrath, Arthur, House	114 Corner Pike, Brownville	-	6.8	NV	NV	NV
Archer, William, House	112 Washington St., Brownville	-	6.8	NV	NV	NV
Wheeler, Menzo, House	Main and Depot Sts., Chaumont	-	6.8	V	V	
Fairview Manor	38289 NY 12E, Clayton vicinity	-	6.8	PV	PV	
Vogt House	110 Main St., Brownville	179	6.9	NV	NV	NV
Clayton Historic District (Boundary Increase)	James Street; west side; and Riverside Drive, Clayton	93,98	6.9	PV	PV	NV
Taylor Boathouse	Bay View Dr., Three Mile Bay, Chaumont	-	7.0	V	V	
Johnston, Capt. Simon, House	507 Riverside Dr., Clayton	98	7.0	V	V	NV

Visually Sensitive Resource ¹	Location	VP Number ²	Distance (miles) from Nearest Turbine ³	Project Visibility ⁴		
				Viewshed ⁵		Field Review/ Simulation
				Topography	Vegetation	
Clayton Historic District	203--215 & 200--326 James St., 500--544 & 507--537 Riverside Dr., Clayton	93	7.0	V	V	NV
Taft House	Main St., Three Mile Bay, Chaumont	-	7.1	V	V	
Row, The	Main St. at Shaver Creek, Three Mile Bay, Chaumont	-	7.2	V	V	
Conklin Farm	Evans Rd., Hounsfield	180	7.4	V	PV	PV
Newton, A., Farm	NY 180; North and South Sides, Omar	-	7.5	PV	PV	
Thousand Island Grange Hall	Gore Road, Omar	-	7.7	V	PV	NV
Methodist Episcopal Church	NY 180, Omar	-	7.8	PV	PV	
Vautrin, Claude, House	Mason Rd., Cape Vincent	81	7.8	V	PV	PV
Docteur, Joseph, House	Rosiere Rd., Cape Vincent	82	8.2	V	PV	PV
Chevalier, Xavier, House	Gosier Rd., Cape Vincent	-	8.3	V	PV	
Methodist--Protestant Church at Fisher's Landing	Reed Point Road, Fisher's Landing	-	8.5	V	NV	
Rock Island Light Station	N of Fishers Landing on Rock Island, Fishers Landing	5,6	8.8	PV	PV	PV
District School No. 3	Jct. NY 3 and County Rd. 57, Putnam Corners, Chaumont	73	8.8	V	V	V
East Hounsfield Christian Church	NY 3, Hounsfield	-	8.9	V	PV	
Thousand Island Park Historic District	S tip of Wellesley Island, Orleans	5,6,102	9.1	PV	PV	PV
Union Meeting House	Millens Bay Rd., Cape Vincent	80	9.3	V	V	V
Dezengremel, Remy, House	Rosiere Rd., Cape Vincent	84	9.4	PV	PV	PV
Thomas Memorial AME Zion Church	715 Morrison Street, Watertown	23	9.4	V	V	NV
Shore Farm	Military Rd., E of Mill Creek, Hounsfield	-	9.5	NV	PV	
Stevenson--Frink Farm	Salt Point Rd., Hounsfield	-	9.6	V	PV	
Madison Barracks	Military Rd., Sackets Harbor	150	9.8	PV	PV	PV
Wilcox Farmhouse	Carrying Place Rd., Three Mile Bay	-	9.9	V	V	
Jefferson County Courthouse Complex	SE corner of Arsenal and Sherman Sts., Watertown	20,21	10.0	V	V	NV
State Parks						
Chaumont Boat Launch Marine Facility	Town of Lyme	-	4.7	V	PV	
Cedar Point State Park	Town of Cape Vincent	89	8.0	PV	PV	PV
Grass Point State Park	Town of Orleans	103	8.6	PV	PV	NV
Rock Island Lighthouse State Park	Town of /Saint Lawrence River	5,6	8.7	PV	PV	PV
Long Point State Park	Town of Lyme	74	9.0	V	V	V
Wellesley Island State Park	Town of Orleans	5,6,102	9.2	PV	PV	PV
Urban Cultural Parks/Heritage Areas						
Sackets Harbor Heritage Area	Town of Hounsfield	148-150	9.9	PV	PV	PV
State Forest						
Coyote Flats State Forest	Towns of Le Ray, Theresa	60	6.4	PV	PV	PV
State Forest Preserve						
None		-				
State Recreation Areas						
Lake Ontario Waterway Access	Town of Lyme	-	6.7	PV	PV	
State Wildlife Management Areas						
Perch River WMA	Towns of Brownville, Orleans, Pamela	32,34,35,61	1.3	PV	PV	V
Brownville WMA	Town of Brownville	173	4.8	PV	PV	PV
French Creek WMA	Town of Clayton	90,91,114,115	5.0	PV	PV	PV
Ashland Flats WMA	Towns of Cape Vincent, Lyme	75,76,77	5.5	PV	PV	PV
Dexter Marsh WMA	Towns of Brownville, Hounsfield	152,154,159	6.3	PV	PV	PV
National Wildlife Refuges						
None		-				
State Unique Areas						

Visually Sensitive Resource ¹	Location	VP Number ²	Distance (miles) from Nearest Turbine ³	Project Visibility ⁴		
				Viewshed ⁵		Field Review/ Simulation
				Topography	Vegetation	
None		-				
National Natural Landmarks						
Dexter Marsh NNL	Towns of Brownville, Hounsfield	152,159	6.3	PV	PV	PV
National Park Service Lands						
None		-				
National or State Wild, Scenic, or Recreational Rivers						
Black River (National Rivers Inventory)	Dexter Dam to U.S. 11 Bridge in Watertown	15,147	6.0	PV	PV	PV
National or State Scenic Byway						
Great Lakes- Seaway Trail National Scenic Byway	Towns of Alexandria, Brownville, Cape Vincent, Clayton, Henderson, Hounsfield, Lyme, Orleans	13,69,70,73,85,86,88,90-92,101,103,145,154,155,157,158,166	3.8	PV	PV	PV
Olympic Trail Scenic Byway	Towns of Champion, Hounsfield, Le Ray, Pamela, Rutland, Watertown, Wilna, and City of Watertown	18,19	8.7	PV	PV	PV
Scenic Areas of Statewide Significance						
None		-				
State or Federal Designated Trails						
None		-				
Adirondack Park Scenic Vistas						
None		-				
State Nature and Historic Preserve Areas						
None		-				
Palisades Park						
N/A		-				
Bond Act Properties for Exceptional Beauty or Open Space						
None		-				
Local Resources						
Critical Environmental Areas						
None		-				
Areas of Intensive Land Use (City, Village, Hamlet)						
Hamlet of Depauville		9,10,111,112	0.0	PV	PV	PV
Hamlet of La Fargeville		54-58	2.0	PV	PV	PV
Village of Chamont		13,69-70	3.4	PV	PV	PV
Village of Dexter		157-159	5.6	PV	PV	PV
Village of Clayton		91-101	5.6	PV	PV	PV
Village of Brownville		177-179	6.1	PV	PV	PV
Village of Glen Park		-	6.9	PV	PV	
Hamlet of Calcium		185	8.2	PV	PV	PV
City of Watertown		15-25	8.3	PV	PV	PV
Village of Evans Mills		-	9.4	PV	PV	
Fort Drum		-	9.7	PV	NV	NV
Village of Sackets Harbor		148-150	9.9	PV	PV	PV
Locally Important Resources (schools, hospitals, etc.)						
Schools and Colleges						
La Fargeville Central School	20503 Sunrise Ave, La Fargeville	-	2.8	V	V	
Lyme Central School	11868 Academy St, Chaumont	-	4.4	V	V	

Visually Sensitive Resource ¹	Location	VP Number ²	Distance (miles) from Nearest Turbine ³	Project Visibility ⁴		
				Viewshed ⁵		Field Review/ Simulation
				Topography	Vegetation	
General Brown JSHS	17643 Cemetery Rd, Dexter	172	5.6	V	NV	NV
Dexter ES	415 East Grove St, Dexter	-	5.8	V	V	
Guardino ES	600 High St, Clayton	-	6.4	V	V	
Thousand Islands HS	Sand Bay Rd, Clayton	-	6.4	V	V	
Thousand Islands MS	Sand Bay Rd, Clayton	-	6.4	V	V	
Brownville School	275 E Main St, Brownville	-	7.1	V	NV	
Jefferson Community College	Coffeen St., Watertown	-	8.4	V	V	
St. Anthony's School	Bellew Ave., Watertown	-	9.5	NV	NV	
Sacred Heart School	Lynde St., Watertown	-	9.7	V	V	
North ES	171 E Hoard St, Watertown	-	9.7	V	NV	
Cape Vincent ES	410 S Esselstyne, Cape Vincent	-	9.9	V	NV	
Starbuck School	430 E Hoard St, Watertown	-	9.9	V	V	
Hospitals						
None		-				
Airports						
Watertown International Airport	Town of Hounsfield	156	6.7	PV	PV	PV
Other						
Coyote Moon Vineyards	17371 CR 3, Clayton	-	5.9	V	V	V
Antique Boat Museum	750 Mary Street, Clayton	95	6.8	V	V	NV
Thousand Islands Art Center	John St., Clayton	-	6.9	V	V	
Thousand Islands Museum	Riverside Dr., Clayton	94	7.0	V	V	NV
Clayton Opera House	403 Riverside Avenue, Clayton	97	7.0	NV	NV	NV
Thousand Islands Winery	43298 Seaway Avenue	-	9.7	V	NV	
Recreation Resources						
Lakes and Rivers						
Chaumont River	Towns of Clayton, Lyme, Orleans	13,70	0.5	PV	PV	PV
Georg Lake	Town of Clayton	-	1.6	PV	PV	
Perch Lake	Towns of Brownville, Orleans, Pamela	1,32,61	1.8	PV	PV	PV
Perch River	Towns of Brownville, Orleans, Pamela	-	1.8	PV	PV	PV
Chaumont Bay	Towns of Brownville, Lyme	13,70,74	4.2	PV	PV	PV
Black River Bay	Towns of Brownville, Hounsfield	148,148,152,159	5.4	PV	PV	PV
Black River	Towns of Brownville, Hounsfield, Pamela, Watertown, Watertown	15,147,158	6.0	PV	PV	PV
French Creek	Town of Clayton	92	6.0	PV	PV	PV
St Lawrence River	Towns of Alexandria, Cape Vincent, Clayton, Orleans	5,6,102	6.5	PV	PV	PV
Lake Ontario	Towns of Brownville, Cape Vincent, Ellisburg, Henderson, Hounsfield, Lyme	74	9.0	PV	PV	
Hyde Lake	Town of Theresa	136	10.0	PV	NV	NV
Golf Courses						
C-Way Golf Club	Town of Clayton	-	4.2	PV	PV	
Clayton Country Club	Village of Clayton	101	6.1	PV	PV	PV
Rustic Golf and Country Club	Town of Brownville	160	6.7	PV	PV	PV
Willowbrook Golf Club	Town of Pamela	-	7.1	PV	PV	
Highland Meadows Golf and Country Club	Town of Pamela	-	7.1	PV	PV	
Wellesley Island State Park Golf Course	Wellesley Island State Park	-	9.2	PV	PV	
Local Parks						
Dexter Memorial Field	CR 59, Dexter	-	5.7	PV	PV	
Recreation Park	Eastline Rd., Clayton	100	6.1	PV	PV	NV

Visually Sensitive Resource ¹	Location	VP Number ²	Distance (miles) from Nearest Turbine ³	Project Visibility ⁴		
				Viewshed ⁵		Field Review/ Simulation
				Topography	Vegetation	
Playground	Graves St., Clayton	96	6.6	PV	PV	PV
Village Square Park	Park Cir., Clayton	-	6.8	V	V	
Frink Park	Riverside Dr., Clayton	97	7.0	PV	PV	NV
Ninth Ward Playground	City of Watertown	24	9.0	NV	NV	NV
Kostyk Field	City of Watertown	-	9.2	PV	PV	
Adams Rec. Field and Flynn Pool	City of Watertown	-	9.6	PV	PV	
Veterans Memorial Riverwalk Park	Watertown	-	9.8	PV	PV	
Snowmobile Trails						
Thousand Islands Club Snowmobile Trail	Towns of Alexandria, Brownville, Cape Vincent, Clayton, Lyme, Orleans	66	0.0	PV	PV	PV
Cemeteries						
New Cedar Grove Cemetery	Chaumont	71	4.5	V	V	PV
Wilson Lane Cemetery	Chaumont	-	4.6	V	V	
Cemetery - Clayton	Clayton	-	5.8	NV	NV	NV
State Route 12E Cemetery- Brownville	SR 12E, Brownville	-	6.7	NV	NV	NV
North Watertown Cemetery	Watertown	25	8.9	NV	NV	NV
St. Mary's Cemetery	Town of Le Ray	-	9.6	NV	NV	NV
Evans Mills Cemetery	Evans Mills	-	9.6	NV	NV	NV
Stanford Corners Cemetery	Evans Mills	-	9.8	NV	NV	NV
Transportation Corridors						
State Route 12	Towns of Alexandria, Brownville, Clayton, Orleans, Pamela, Watertown	15,20,26,27,43,44,46,67,117,118,123,145,181	0.3	PV	PV	PV
State Route 180	Towns of Brownville, Clayton, Hounsfield, Orleans	31,43,47,48,62,104,125-127,155,157,158,170,171	0.9	PV	PV	PV
State Route 411	Towns of Orleans, Theresa	58,59,134,135	3.5	PV	PV	PV
State Route 12e	Towns of Brownville, Cape Vincent, Clayton, Lyme, Pamela, Watertown	69,70,157,163,166	3.8	PV	PV	PV
Interstate 81	Towns of Adams, Alexandria, Ellisburg, Hounsfield, Le Ray, Orleans, Pamela, Theresa, Watertown	17,18,128-133,147,182,191	4.8	PV	PV	PV
County Route 53	Town of Brownville	-	5.6	PV	PV	
State Route 37	Towns of Le Ray, Pamela, Theresa	135,187	6.1	PV	PV	PV
County Route 3	Towns of Alexandria, Orleans	-	6.2	PV	PV	
State Route 342	Towns of Le Ray, Pamela	182-185	6.4	PV	PV	PV
State Route 12f	Towns of Hounsfield, Watertown, City of Watertown	17,156,157	6.4	PV	PV	PV
County Route 54	Town of Brownville	30,31,174-175	6.5	NV	NV	PV
County Route 13	Town of Alexandria	-	6.9	NV	NV	
US Highway 11	Towns of Le Ray, Pamela, Watertown	15,20,185	8.8	PV	PV	PV
State Route 3	Towns of Ellisburg, Henderson, Hounsfield, Watertown, City of Watertown	18-20,124,139	8.9	PV	PV	PV
State Route 26	Towns of Philadelphia, Theresa	-	9.6	PV	PV	

¹ Resource located within 10 miles of nearest turbine, as indicated.

² If no viewpoint (VP) number is indicated, no photo was obtained during fieldwork. (Pertains to resources of statewide significance only)

³ For large areas and linear sites, approximate distance to the nearest turbine was measured from the respective areas closest point.

⁴ Project visibility is indicated as follows: V=Visible, PV=Partly Visible, NV=Not Visible, U=Undetermined. A "-" is indicated when previous analysis eliminated potential visibility.

⁵ Does not take into account screening provided by structures and street trees.

On Enclosed CD:

Appendix A

Sensitive Sites Table and Viewshed/Sensitive Site Maps

Appendix B

Photo Log and Field Notes

Appendix C

Digital Visual Simulations

Appendix D

Visual Impact Assessment Rating Forms

Appendix A, Table 1. Project Visibility from Sensitive Sites

Visually Sensitive Resource ¹	Location	VP Number ²	Distance (miles) from Nearest Turbine ³	Project Visibility ⁴		
				Viewshed ⁵		Field Review/ Simulation
				Topography	Vegetation	
Resources of Statewide Significance						
National or State Register of Historic Places, National Register Eligible						
Tracy Farm	East Side Wilder Road; South of jct. Overbluff Road, La Fargeville vicinity	4,14	0.3	V	V	V
Irwin Brothers Store	NY 180, Stone Mills	39,40	1.5	V	V	V
Horr, Elijah, House	NY 180, Stone Mills	39, 40	1.6	V	PV	V
Stone Mills Union Church	NY 180 near jct. with Carter St., Stone Mills	39, 40	1.6	V	PV	V
Rottiers, John N., Farm	NY 180, La Fargeville vicinity	3	1.7	V	PV	V
Carter Street Schoolhouse No. 21	Dog Hill Road at Carter Street, Stone Mills vicinity	36	2.5	V	V	PV
Saint John's Roman Catholic Church	Main Street (NY 180), La Fargeville	56	3.1	V	PV	NV
Buttermilk Flat Schoolhouse No. 22	Buttermilk Flat Road; East of Carter Street Road, La Fargeville vicinity	51	3.1	V	V	PV
La Fargeville United Methodist Church	Main Street, La Fargeville	57	3.2	V	PV	NV
Saint Paul's Episcopal Church	Main Street, La Fargeville	57	3.2	V	PV	NV
Biddlecom House (LaFarge Retainer Houses)	Main Street (NY 180); East side, LaFargeville	57	3.3	V	PV	NV
Budlong House (LaFarge Retainer Houses)	Main Street (NY 180); East side, LaFargeville	57	3.3	V	PV	NV
Ford, Charles, House	Ford Street, La Fargeville	-	3.3	V	V	
La Farge Land Office	Southwest corner of Main and Mill Streets, La Fargeville	-	3.4	PV	PV	
Strough, Byron J., House	Clayton Street; South side; West of junction NY 411, La Fargeville	-	3.5	V	V	
Central Garage	Clayton Street, La Fargeville	-	3.5	V	V	
Chaumont Railroad Station	Main St., Chaumont	69	4.1	V	PV	PV
Chaumont Historic District	Along Main St., roughly between Washington and Church Sts., Chaumont	69	4.2	V	PV	PV
Chaumont Grange Hall and Dairymen's League Building	Main St., Chaumont	69	4.2	PV	PV	PV
Evans--Gauge--Dillenback House	Evans Rd., Chaumont	-	4.3	V	V	
Cedar Grove Cemetery	Washington St., Chaumont	-	4.4	NV	NV	NV
Chaumont House	Main St., Chaumont	-	4.4	V	PV	
George House	Washington St., Chaumont	-	4.4	V	V	
Dexter Universalist Church	Brown and Kirby Streets, Dexter	-	5.9	NV	NV	NV
Point Salubrious Historic District	Point Salubrious Rd., Chaumont	165	6.1	V	PV	NV
Brown, Gen. Jacob, Mansion	Brown Blvd., Brownville	177	6.6	NV	NV	NV
St. Paul's Church (Episcopal)	210 Washington Street, Brownville	-	6.7	NV	NV	NV
Stone Shop, Old	Main St., Three Mile Bay, Chaumont	-	6.8	V	V	PV
Three Mile Bay Historic District	Jct. of Church and Depot Sts., Three Mile Bay, Chaumont	-	6.8	V	V	PV
Brownville Hotel	Brown Blvd. and W. Main St., Brownville	178	6.8	NV	NV	NV
Walrath, Arthur, House	114 Corner Pike, Brownville	-	6.8	NV	NV	NV
Archer, William, House	112 Washington St., Brownville	-	6.8	NV	NV	NV
Wheeler, Menzo, House	Main and Depot Sts., Chaumont	-	6.8	V	V	
Fairview Manor	38289 NY 12E, Clayton vicinity	-	6.8	PV	PV	
Vogt House	110 Main St., Brownville	179	6.9	NV	NV	NV
Clayton Historic District (Boundary Increase)	James Street; west side; and Riverside Drive, Clayton	93,98	6.9	PV	PV	NV
Taylor Boathouse	Bay View Dr., Three Mile Bay, Chaumont	-	7.0	V	V	
Johnston, Capt. Simon, House	507 Riverside Dr., Clayton	98	7.0	V	V	NV

Visually Sensitive Resource ¹	Location	VP Number ²	Distance (miles) from Nearest Turbine ³	Project Visibility ⁴		
				Viewshed ⁵		Field Review/ Simulation
				Topography	Vegetation	
Clayton Historic District	203--215 & 200--326 James St., 500--544 & 507--537 Riverside Dr., Clayton	93	7.0	V	V	NV
Taft House	Main St., Three Mile Bay, Chaumont	-	7.1	V	V	
Row, The	Main St. at Shaver Creek, Three Mile Bay, Chaumont	-	7.2	V	V	
Conklin Farm	Evans Rd., Hounsfield	180	7.4	V	PV	PV
Newton, A., Farm	NY 180; North and South Sides, Omar	-	7.5	PV	PV	
Thousand Island Grange Hall	Gore Road, Omar	-	7.7	V	PV	NV
Methodist Episcopal Church	NY 180, Omar	-	7.8	PV	PV	
Vautrin, Claude, House	Mason Rd., Cape Vincent	81	7.8	V	PV	PV
Docteur, Joseph, House	Rosiere Rd., Cape Vincent	82	8.2	V	PV	PV
Chevalier, Xavier, House	Gosier Rd., Cape Vincent	-	8.3	V	PV	
Methodist--Protestant Church at Fisher's Landing	Reed Point Road, Fisher's Landing	-	8.5	V	NV	
Rock Island Light Station	N of Fishers Landing on Rock Island, Fishers Landing	5,6	8.8	PV	PV	PV
District School No. 3	Jct. NY 3 and County Rd. 57, Putnam Corners, Chaumont	73	8.8	V	V	V
East Hounsfield Christian Church	NY 3, Hounsfield	-	8.9	V	PV	
Thousand Island Park Historic District	S tip of Wellesley Island, Orleans	5,6,102	9.1	PV	PV	PV
Union Meeting House	Millens Bay Rd., Cape Vincent	80	9.3	V	V	V
Dezengremel, Remy, House	Rosiere Rd., Cape Vincent	84	9.4	PV	PV	PV
Thomas Memorial AME Zion Church	715 Morrison Street, Watertown	23	9.4	V	V	NV
Shore Farm	Military Rd., E of Mill Creek, Hounsfield	-	9.5	NV	PV	
Stevenson--Frink Farm	Salt Point Rd., Hounsfield	-	9.6	V	PV	
Madison Barracks	Military Rd., Sackets Harbor	150	9.8	PV	PV	PV
Wilcox Farmhouse	Carrying Place Rd., Three Mile Bay	-	9.9	V	V	
Jefferson County Courthouse Complex	SE corner of Arsenal and Sherman Sts., Watertown	20,21	10.0	V	V	NV
State Parks						
Chaumont Boat Launch Marine Facility	Town of Lyme	-	4.7	V	PV	
Cedar Point State Park	Town of Cape Vincent	89	8.0	PV	PV	PV
Grass Point State Park	Town of Orleans	103	8.6	PV	PV	NV
Rock Island Lighthouse State Park	Town of /Saint Lawrence River	5,6	8.7	PV	PV	PV
Long Point State Park	Town of Lyme	74	9.0	V	V	V
Wellesley Island State Park	Town of Orleans	5,6,102	9.2	PV	PV	PV
Urban Cultural Parks/Heritage Areas						
Sackets Harbor Heritage Area	Town of Hounsfield	148-150	9.9	PV	PV	PV
State Forest						
Coyote Flats State Forest	Towns of Le Ray, Theresa	60	6.4	PV	PV	PV
State Forest Preserve						
None		-				
State Recreation Areas						
Lake Ontario Waterway Access	Town of Lyme	-	6.7	PV	PV	
State Wildlife Management Areas						
Perch River WMA	Towns of Brownville, Orleans, Pamela	32,34,35,61	1.3	PV	PV	V
Brownville WMA	Town of Brownville	173	4.8	PV	PV	PV
French Creek WMA	Town of Clayton	90,91,114,115	5.0	PV	PV	PV
Ashland Flats WMA	Towns of Cape Vincent, Lyme	75,76,77	5.5	PV	PV	PV
Dexter Marsh WMA	Towns of Brownville, Hounsfield	152,154,159	6.3	PV	PV	PV
National Wildlife Refuges						
None		-				
State Unique Areas						

Visually Sensitive Resource ¹	Location	VP Number ²	Distance (miles) from Nearest Turbine ³	Project Visibility ⁴		
				Viewshed ⁵		Field Review/ Simulation
				Topography	Vegetation	
None		-				
National Natural Landmarks						
Dexter Marsh NNL	Towns of Brownville, Hounsfield	152,159	6.3	PV	PV	PV
National Park Service Lands						
None		-				
National or State Wild, Scenic, or Recreational Rivers						
Black River (National Rivers Inventory)	Dexter Dam to U.S. 11 Bridge in Watertown	15,147	6.0	PV	PV	PV
National or State Scenic Byway						
Great Lakes- Seaway Trail National Scenic Byway	Towns of Alexandria, Brownville, Cape Vincent, Clayton, Henderson, Hounsfield, Lyme, Orleans	13,69,70,73,85,86,88,90-92,101,103,145,154,155,157,158,166	3.8	PV	PV	PV
Olympic Trail Scenic Byway	Towns of Champion, Hounsfield, Le Ray, Pamela, Rutland, Watertown, Wilna, and City of Watertown	18,19	8.7	PV	PV	PV
Scenic Areas of Statewide Significance						
None		-				
State or Federal Designated Trails						
None		-				
Adirondack Park Scenic Vistas						
None		-				
State Nature and Historic Preserve Areas						
None		-				
Palisades Park						
N/A		-				
Bond Act Properties for Exceptional Beauty or Open Space						
None		-				
Local Resources						
Critical Environmental Areas						
None		-				
Areas of Intensive Land Use (City, Village, Hamlet)						
Hamlet of Depauville		9,10,111,112	0.0	PV	PV	PV
Hamlet of La Fargeville		54-58	2.0	PV	PV	PV
Village of Chaumont		13,69-70	3.4	PV	PV	PV
Village of Dexter		157-159	5.6	PV	PV	PV
Village of Clayton		91-101	5.6	PV	PV	PV
Village of Brownville		177-179	6.1	PV	PV	PV
Village of Glen Park		-	6.9	PV	PV	
Hamlet of Calcium		185	8.2	PV	PV	PV
City of Watertown		15-25	8.3	PV	PV	PV
Village of Evans Mills		-	9.4	PV	PV	
Fort Drum		-	9.7	PV	NV	NV
Village of Sackets Harbor		148-150	9.9	PV	PV	PV
Locally Important Resources (schools, hospitals, etc.)						
Schools and Colleges						
La Fargeville Central School	20503 Sunrise Ave, La Fargeville	-	2.8	V	V	
Lyme Central School	11868 Academy St, Chaumont	-	4.4	V	V	

Visually Sensitive Resource ¹	Location	VP Number ²	Distance (miles) from Nearest Turbine ³	Project Visibility ⁴		
				Viewshed ⁵		Field Review/ Simulation
				Topography	Vegetation	
General Brown JSHS	17643 Cemetery Rd, Dexter	172	5.6	V	NV	NV
Dexter ES	415 East Grove St, Dexter	-	5.8	V	V	
Guardino ES	600 High St, Clayton	-	6.4	V	V	
Thousand Islands HS	Sand Bay Rd, Clayton	-	6.4	V	V	
Thousand Islands MS	Sand Bay Rd, Clayton	-	6.4	V	V	
Brownville School	275 E Main St, Brownville	-	7.1	V	NV	
Jefferson Community College	Coffeen St., Watertown	-	8.4	V	V	
St. Anthony's School	Bellew Ave., Watertown	-	9.5	NV	NV	
Sacred Heart School	Lynde St., Watertown	-	9.7	V	V	
North ES	171 E Hoard St, Watertown	-	9.7	V	NV	
Cape Vincent ES	410 S Esselstyne, Cape Vincent	-	9.9	V	NV	
Starbuck School	430 E Hoard St, Watertown	-	9.9	V	V	
Hospitals						
None		-				
Airports						
Watertown International Airport	Town of Hounsfield	156	6.7	PV	PV	PV
Other						
Coyote Moon Vineyards	17371 CR 3, Clayton	-	5.9	V	V	V
Antique Boat Museum	750 Mary Street, Clayton	95	6.8	V	V	NV
Thousand Islands Art Center	John St., Clayton	-	6.9	V	V	
Thousand Islands Museum	Riverside Dr., Clayton	94	7.0	V	V	NV
Clayton Opera House	403 Riverside Avenue, Clayton	97	7.0	NV	NV	NV
Thousand Islands Winery	43298 Seaway Avenue	-	9.7	V	NV	
Recreation Resources						
Lakes and Rivers						
Chaumont River	Towns of Clayton, Lyme, Orleans	13,70	0.5	PV	PV	PV
Georg Lake	Town of Clayton	-	1.6	PV	PV	
Perch Lake	Towns of Brownville, Orleans, Pamela	1,32,61	1.8	PV	PV	PV
Perch River	Towns of Brownville, Orleans, Pamela	-	1.8	PV	PV	PV
Chaumont Bay	Towns of Brownville, Lyme	13,70,74	4.2	PV	PV	PV
Black River Bay	Towns of Brownville, Hounsfield	148,148,152,159	5.4	PV	PV	PV
Black River	Towns of Brownville, Hounsfield, Pamela, Watertown, Watertown	15,147,158	6.0	PV	PV	PV
French Creek	Town of Clayton	92	6.0	PV	PV	PV
St Lawrence River	Towns of Alexandria, Cape Vincent, Clayton, Orleans	5,6,102	6.5	PV	PV	PV
Lake Ontario	Towns of Brownville, Cape Vincent, Ellisburg, Henderson, Hounsfield, Lyme	74	9.0	PV	PV	
Hyde Lake	Town of Theresa	136	10.0	PV	NV	NV
Golf Courses						
C-Way Golf Club	Town of Clayton	-	4.2	PV	PV	
Clayton Country Club	Village of Clayton	101	6.1	PV	PV	PV
Rustic Golf and Country Club	Town of Brownville	160	6.7	PV	PV	PV
Willowbrook Golf Club	Town of Pamela	-	7.1	PV	PV	
Highland Meadows Golf and Country Club	Town of Pamela	-	7.1	PV	PV	
Wellesley Island State Park Golf Course	Wellesley Island State Park	-	9.2	PV	PV	
Local Parks						
Dexter Memorial Field	CR 59, Dexter	-	5.7	PV	PV	
Recreation Park	Eastline Rd., Clayton	100	6.1	PV	PV	NV

Visually Sensitive Resource ¹	Location	VP Number ²	Distance (miles) from Nearest Turbine ³	Project Visibility ⁴		
				Viewshed ⁵		Field Review/ Simulation
				Topography	Vegetation	
Playground	Graves St., Clayton	96	6.6	PV	PV	PV
Village Square Park	Park Cir., Clayton	-	6.8	V	V	
Frink Park	Riverside Dr., Clayton	97	7.0	PV	PV	NV
Ninth Ward Playground	City of Watertown	24	9.0	NV	NV	NV
Kostyk Field	City of Watertown	-	9.2	PV	PV	
Adams Rec. Field and Flynn Pool	City of Watertown	-	9.6	PV	PV	
Veterans Memorial Riverwalk Park	Watertown	-	9.8	PV	PV	
Snowmobile Trails						
Thousand Islands Club Snowmobile Trail	Towns of Alexandria, Brownville, Cape Vincent, Clayton, Lyme, Orleans	66	0.0	PV	PV	PV
Cemeteries						
New Cedar Grove Cemetery	Chaumont	71	4.5	V	V	PV
Wilson Lane Cemetery	Chaumont	-	4.6	V	V	
Cemetery - Clayton	Clayton	-	5.8	NV	NV	NV
State Route 12E Cemetery- Brownville	SR 12E, Brownville	-	6.7	NV	NV	NV
North Watertown Cemetery	Watertown	25	8.9	NV	NV	NV
St. Mary's Cemetery	Town of Le Ray	-	9.6	NV	NV	NV
Evans Mills Cemetery	Evans Mills	-	9.6	NV	NV	NV
Stanford Corners Cemetery	Evans Mills	-	9.8	NV	NV	NV
Transportation Corridors						
State Route 12	Towns of Alexandria, Brownville, Clayton, Orleans, Pamela, Watertown	15,20,26,27,43,44,46,67,117,118,123,145,181	0.3	PV	PV	PV
State Route 180	Towns of Brownville, Clayton, Hounsfield, Orleans	31,43,47,48,62,104,125-127,155,157,158,170,171	0.9	PV	PV	PV
State Route 411	Towns of Orleans, Theresa	58,59,134,135	3.5	PV	PV	PV
State Route 12e	Towns of Brownville, Cape Vincent, Clayton, Lyme, Pamela, Watertown	69,70,157,163,166	3.8	PV	PV	PV
Interstate 81	Towns of Adams, Alexandria, Ellisburg, Hounsfield, Le Ray, Orleans, Pamela, Theresa, Watertown	17,18,128-133,147,182,191	4.8	PV	PV	PV
County Route 53	Town of Brownville	-	5.6	PV	PV	
State Route 37	Towns of Le Ray, Pamela, Theresa	135,187	6.1	PV	PV	PV
County Route 3	Towns of Alexandria, Orleans	-	6.2	PV	PV	
State Route 342	Towns of Le Ray, Pamela	182-185	6.4	PV	PV	PV
State Route 12f	Towns of Hounsfield, Watertown, City of Watertown	17,156,157	6.4	PV	PV	PV
County Route 54	Town of Brownville	30,31,174-175	6.5	NV	NV	PV
County Route 13	Town of Alexandria	-	6.9	NV	NV	
US Highway 11	Towns of Le Ray, Pamela, Watertown	15,20,185	8.8	PV	PV	PV
State Route 3	Towns of Ellisburg, Henderson, Hounsfield, Watertown, City of Watertown	18-20,124,139	8.9	PV	PV	PV
State Route 26	Towns of Philadelphia, Theresa	-	9.6	PV	PV	

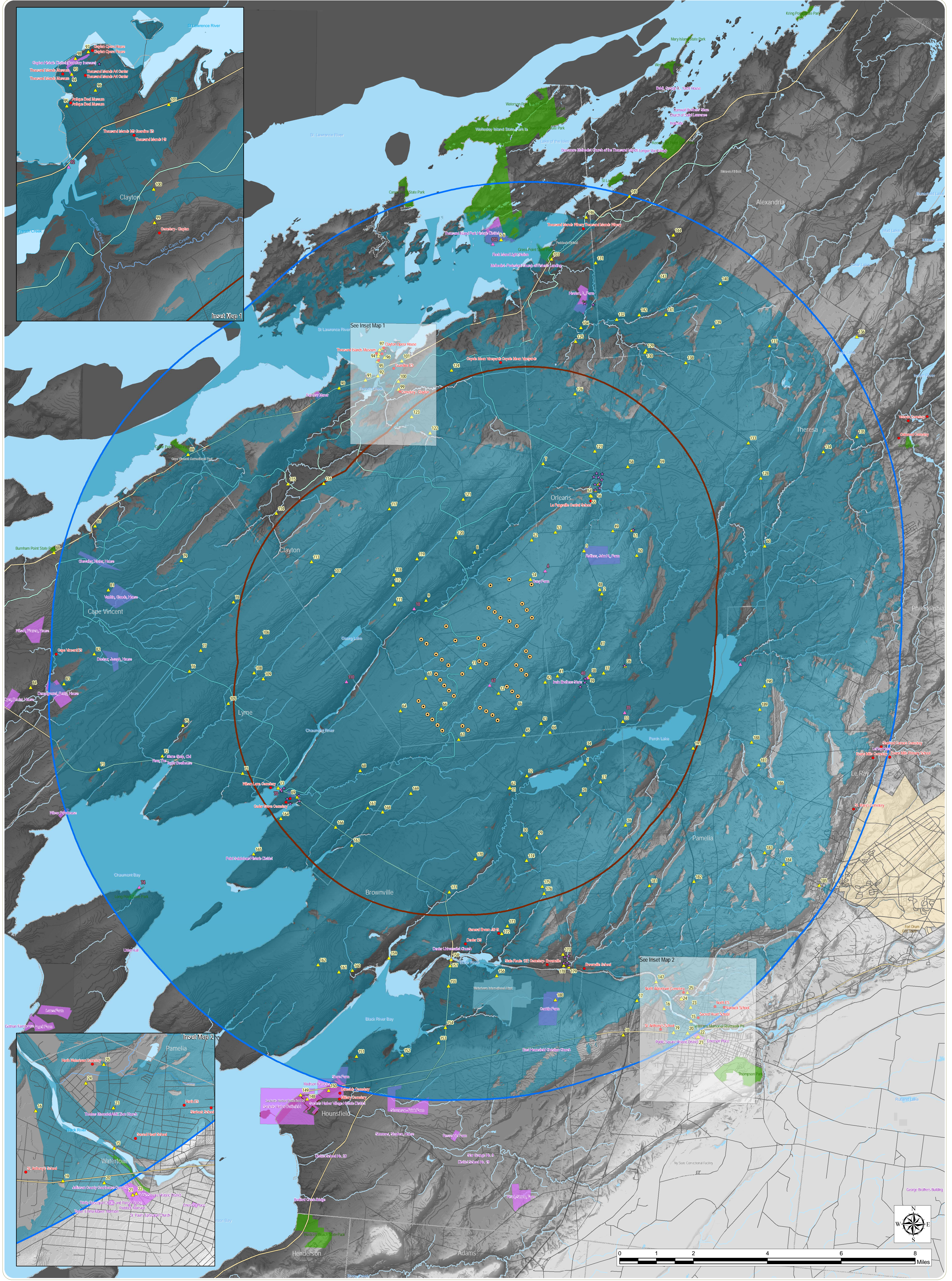
¹ Resource located within 10 miles of nearest turbine, as indicated.

² If no viewpoint (VP) number is indicated, no photo was obtained during fieldwork. (Pertains to resources of statewide significance only)

³ For large areas and linear sites, approximate distance to the nearest turbine was measured from the respective areas closest point.

⁴ Project visibility is indicated as follows: V=Visible, PV=Partly Visible, NV=Not Visible, U=Undetermined. A "-" is indicated when previous analysis eliminated potential visibility.

⁵ Does not take into account screening provided by structures and street trees.



Horse Creek Wind Farm

Towns of Clayton and Orleans - Jefferson County, New York

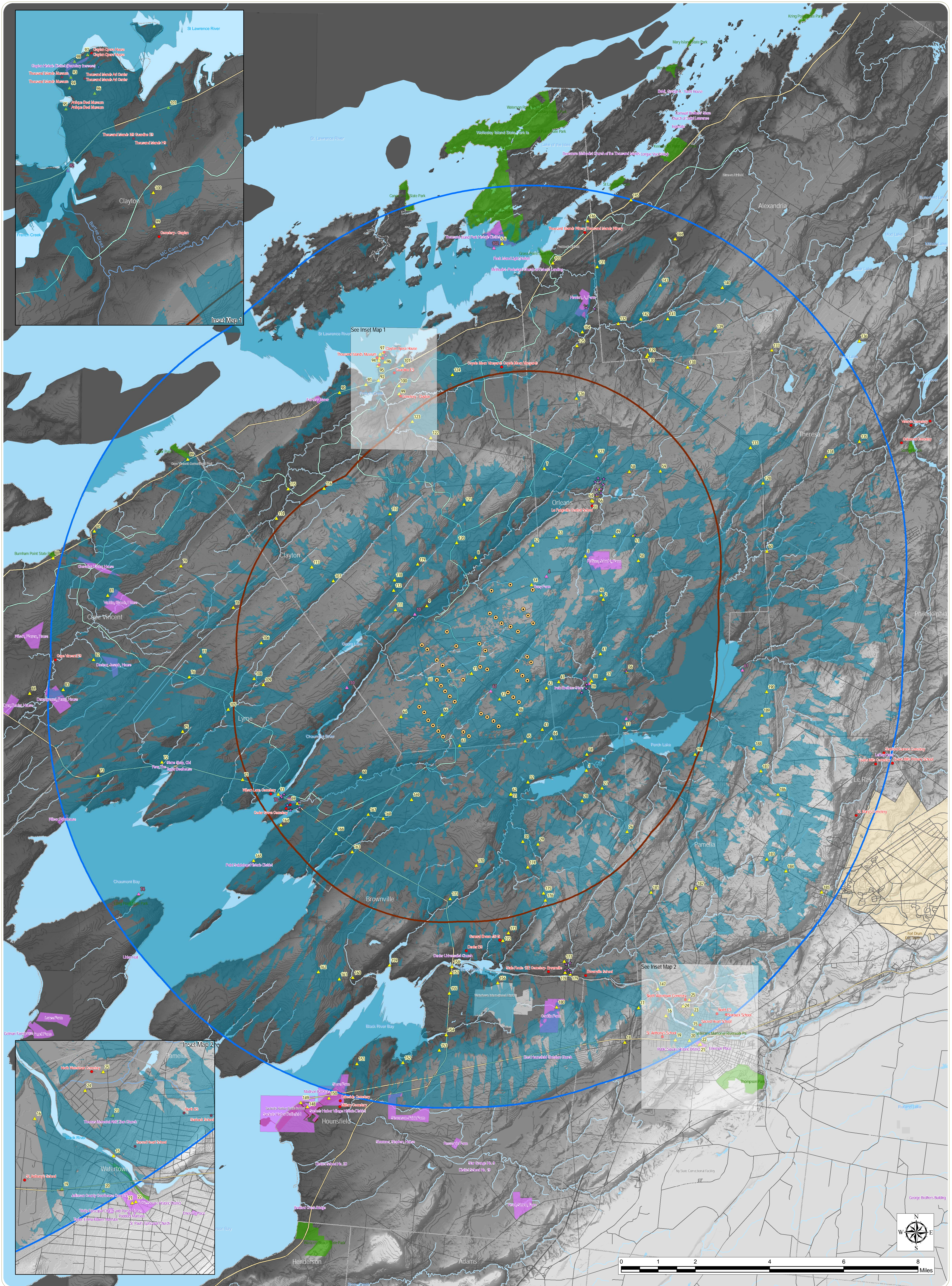
**Appendix A: Sensitive Sites with Viewpoint Locations
Blade-Tip Topographic Viewshed**

Notes: Base Map: Digital Elevation Model data with hillshade effect; StreetMap North America, 2008.

- Wind Turbine
- ▲ Viewpoint Location
- ▲ Viewpoint Selected for Simulation
- ★ Historic Point
- Sensitive Site
- Scenic Byway
- Snowmobile Trail
- ▨ NYSDEC Land
- ▨ National Register of Historic Places Listing
- ▨ Urban Heritage Area
- ▨ Fort Drum Lands
- ▨ Township Boundary
- ▨ 5-Mile Radius Study Area
- ▨ 10-Mile Radius Study Area
- ▨ Potentially Visible



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Horse Creek Wind Farm

Towns of Clayton and Orleans - Jefferson County, New York

Appendix A: Sensitive Sites with Viewpoint Locations Blade-Tip Vegetation Viewshed

Notes: Base Map: Digital Elevation Model data with hillshade effect; StreetMap North America, 2008.

- Wind Turbine
- ▲ Viewpoint Location
- ▲ Viewpoint Selected for Simulation
- ★ Historic Point
- Sensitive Site
- Scenic Byway
- Snowmobile Trail
- NYSDEC Land
- National Register of Historic Places Listing
- Urban Heritage Area
- Fort Drum Lands
- Township Boundary
- 5-Mile Radius Study Area
- 10-Mile Radius Study Area
- Potentially Visible



VIEWPOINT 1:



VIEWPOINT 2:



VIEWPOINT 3:



VIEWPOINT 4:





VIEWPOINT 5:



VIEWPOINT 6:

VIEWPOINT 7:



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VIEWPOINT 155:



VIEWPOINT 156:



VIEWPOINT 157:



VIEWPOINT 158:



VIEWPOINT 159:



VIEWPOINT 160:



VIEWPOINT 161:



VIEWPOINT 162:



VIEWPOINT 163:



VIEWPOINT 164:





VIEWPOINT 165:



VIEWPOINT 166:

VIEWPOINT 167:



VIEWPOINT 168:





VIEWPOINT 169:



VIEWPOINT 170:

VIEWPOINT 171:



VIEWPOINT 172:





VIEWPOINT 173:



VIEWPOINT 174:

VIEWPOINT 175:



VIEWPOINT 176:





VIEWPOINT 177:



VIEWPOINT 178:



VIEWPOINT 179:



VIEWPOINT 180:



VIEWPOINT 181:



VIEWPOINT 182:



VIEWPOINT 183:



VIEWPOINT 184:

VIEWPOINT 185:



VIEWPOINT 186:



VIEWPOINT 187:



VIEWPOINT 188:



VIEWPOINT 189:



VIEWPOINT 190:



VIEWPOINT 191:







Horse Creek Wind Farm
Jefferson County, New York
Appendix C: Visual Simulations
January 2011

*Photograph taken December 10, 2006

Viewpoint 4. Representative land-use within the study area.
View to the west-southwest from Overbluff Road, Town of Orleans.

Sheet 2 of 2







Horse Creek Wind Farm
Jefferson County, New York
Appendix C: Visual Simulations
January 2011

*Photograph taken December 10, 2006
Viewpoint 10. Hamlet of Depauville.
View to the south on NYS Route 12, Town of Clayton.



Horse Creek Wind Farm
Jefferson County, New York
Appendix C: Visual Simulations
January 2011

Viewpoint 35. Perch River Wildlife Management Area, Bird Observation Overlook.
View to the west off of Vaadi Road, Town of Clayton.



Horse Creek Wind Farm
Jefferson County, New York
Appendix C: Visual Simulations
January 2011

Viewpoint 35. Perch River Wildlife Management Area, Bird Observation Overlook.
View to the west off of Vaadi Road, Town of Clayton.



VIEWPOINT CONTEXT



Horse Creek Wind Farm

Jefferson County, New York

Appendix C: Visual Simulations

January 2011

Viewpoint 40. Stone Mills Museum/Northern Agricultural Historical Society, Stone Mills Union Church.
View to the west, NYS Route 180, Town of Clayton.



VIEWPOINT CONTEXT



Horse Creek Wind Farm
 Jefferson County, New York
Appendix C: Visual Simulations
 January 2011

Viewpoint 40. Stone Mills Museum/Northern Agricultural Historical Society, Stone Mills Union Church.
 View to the west, NYS Route 180, Town of Clayton.







VIEWPOINT CONTEXT



Horse Creek Wind Farm
Jefferson County, New York
Appendix C: Visual Simulations
January 2011

Viewpoint 67. Representative land-use within the study area.
View to the east-southeast from NYS Route 12, Town of Clayton.



Horse Creek Wind Farm
Jefferson County, New York
Appendix C: Visual Simulations
January 2011

Viewpoint 67. Representative land-use within the study area.
View to the east-southeast from NYS Route 12, Town of Clayton.







VIEWPOINT CONTEXT



Horse Creek Wind Farm

Jefferson County, New York

Appendix C: Visual Simulations

January 2011

Viewpoint 74. Long Point State Park/Point Peninsula.
View to the northeast across Chaumont Bay, Town of Lyme.



Horse Creek Wind Farm
Jefferson County, New York
Appendix C: Visual Simulations
January 2011

Viewpoint 74. Long Point State Park/Point Peninsula.
View to the northeast across Chaumont Bay, Town of Lyme.



Horse Creek Wind Farm
Jefferson County, New York
Appendix C: Visual Simulations
January 2011

Viewpoint 102. Thousand Island Park Pier/Wellesley Island.
View to the south across Saint Lawrence River, Town of Orleans.



VIEWPOINT CONTEXT



MAGNIFICATION 2X





Horse Creek Wind Farm
Jefferson County, New York
Appendix C: Visual Simulations
January 2011

Viewpoint 110. Representative land-use within the study area.
View to the east from Old Town Springs Road, Town of Lyme.

Sheet 1 of 2



Horse Creek Wind Farm
Jefferson County, New York
Appendix C: Visual Simulations
January 2011

Viewpoint 110. Representative land-use within the study area.
View to the east from Old Town Springs Road, Town of Lyme.

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: Jo Anne Gagliano (LA 1)	Date: 1/17/11	VP#: 4

VIEWPOINT DESCRIPTION: please describe this view in your own words

This view contains an agricultural field in the foreground, a farm building complex in the mid-ground and a hillside rising in the background. An overhead power line + hedgerow of trees moves horizontally across the view.

SCENIC QUALITY: please rate existing scenic quality low, medium or high medium

VIEWER TYPE: check as many as apply.

Resident Traveler Recreational Other

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	0	no change
Vegetation	.5	The turbines scale make the vegetation appear slightly shorter.
Land Use	0	No change
Water	NA	-
Sky	3.5	The open sky is interrupted by vertical turbines. The openness makes them obvious.
Viewer Activity	.5	The traveler will notice the turbines, but it would not impact the activity other than catch some attention.
TOTAL	4.5	
AVERAGE	0.9	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

The turbines may appear darker here with Gray Skies

Perceived effect on scenic quality / viewer enjoyment: The turbines are contrasting to the existing view, but the scale of them alongside the barn silo is appropriate and creates a composition of built structures in the view (instead of a single Bldg complex in openness). The turbines working connotation fits with working farm setting.

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: JoAnne Gagliano (LA1)	Date: 1/17/11	VP#: 10

VIEWPOINT DESCRIPTION: please describe this view in your own words

This viewpoint consists of a roadway through a hamlet that includes structures such as houses, gas station, churches, businesses, utility poles + overhead wires. The roadway, which divides the view, crosses low point over a waterway, then rises up hill.

SCENIC QUALITY: please rate existing scenic quality low, medium or high medium

VIEWER TYPE: check as many as apply.

Resident Traveler Recreational Other

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	0	no change
Vegetation	0.5	The turbines scale makes the vegetation appear slightly shorter.
Land Use	2	The wind turbines effect the residential character as residents may not desire to see turbines
Water	0	no change
Sky	3.5	The sky is interrupted by turbines that are higher than tall steeples + structures
Viewer Activity	3.0	The traveler or resident view will be over shadowed by turbines which compete with hamlet/neighborhood feel.
TOTAL	9	
AVERAGE	1.5	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

none

Perceived effect on scenic quality / viewer enjoyment: The turbines

effect the perception of this being a small town hamlet to live + work in by casting a more industrial / production first impression on the area. The turbines also overpower the steeples which were the most significant feature.

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: JoAnne Gagliano (LA 1)	Date: 1/17/11	VP#: 35

VIEWPOINT DESCRIPTION: please describe this view in your own words

This view consists of a panoramic view of a marsh with wet vegetation + water in foreground, woods in mid ground and a rising hillside covered with agricultural fields, forest and structures.

SCENIC QUALITY: please rate existing scenic quality low, medium or high high

VIEWER TYPE: check as many as apply.

Resident Traveler Recreational Other

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	1	The layers of turbines and their height reflects the levels of landform/elevation in the distance
Vegetation	0	No change
Land Use	3	Large quantity of turbines changes character of environment for bird observers
Water	0	No change
Sky	3	The open sky is interrupted by the quantity of vertical elements
Viewer Activity	3.5	The turbines change the viewers perspective from essentially natural for wildlife to man-made.
TOTAL	10.5	
AVERAGE	1.8	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

None

Perceived effect on scenic quality / viewer enjoyment: The turbines contrast with the Natural Environment and appear inappropriate due to the bird ^{or waterfowl} watching recreation and perceived impact on flight. The fact that the entire view has a background of the turbines breaking the horizon it becomes the most significant feature in view.

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: Jo Anne Gagliano (LA 1)	Date: 1/17/11	VP#: 40

VIEWPOINT DESCRIPTION: please describe this view in your own words

This view overlooking the churches front yard, the roadway and agricultural fields. Hedgerows and utility lines cross the view. The topography rises in the distance.

SCENIC QUALITY: please rate existing scenic quality low, medium or high - medium

VIEWER TYPE: check as many as apply,

Resident Traveler Recreational Other

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	0	no change
Vegetation	.5	The sharp/crisp forms of the turbines contrast with the fine textures of the tree branches.
Land Use	0	no change
Water	NA	-
Sky	1	The sky is somewhat interrupted by a cluster of turbines as they break horizon line.
Viewer Activity	.5	There is a character change with addition of the turbines from a historic standpoint, leaving museum.
TOTAL	2	
AVERAGE	0.4	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

Leaves on trees may further screen turbines

Perceived effect on scenic quality / viewer enjoyment: The cluster

alignment helps mitigate effect as three clusters are screened by vegetation and the one group of three turbines happen to fall above the utility poles which establish a vertical line. The cluster of turbines mimics the foreground tree groupings.

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: JoAnne Gagliano (LA 1)	Date: 1/17/11	VP#: 61

VIEWPOINT DESCRIPTION: please describe this view in your own words

This panoramic view contains a frozen water body surrounded by forest. There are no elements that break the top of tree line in the blue sky.

SCENIC QUALITY: please rate existing scenic quality low, medium or high high

VIEWER TYPE: check as many as apply.

Resident Traveler Recreational Other _____

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	.5	The line of turbines is consistent in elevation, reflecting the ridge topography.
Vegetation	0	no change
Land Use	.5	The undeveloped character is changed with turbines for fishing recreation
Water	0	no change
Sky	.5	The quantity of turbines breaking the line of tree tops contrast with the horizontal tree line.
Viewer Activity	.5	The turbines will attract users eye since there are not many built structures to view.
TOTAL	2	
AVERAGE	0.3	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

Hazy winter conditions may reduce visibility

Perceived effect on scenic quality / viewer enjoyment: The regular locations or rhythm of the turbines make them

significant in a visually serene setting.

The distance does help them to take a background position

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: Jo Anne Gagliano (LA1)	Date: 1/17/11	VP#: 67

VIEWPOINT DESCRIPTION: please describe this view in your own words

The view consists of an open meadowland in foreground, a barn complex in mid ground and a wooded background.

SCENIC QUALITY: please rate existing scenic quality low, medium or high medium

VIEWER TYPE: check as many as apply.

Resident Traveler Recreational Other

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	0	no change
Vegetation	0	no change
Land Use	0	no change
Water	NA	-
Sky	3	The turbines interrupt the open sky and overshadow structures.
Viewer Activity	.5	The turbines will be noticed and catch the attention of driver.
TOTAL	3.5	
AVERAGE	0.7	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

none

Perceived effect on scenic quality / viewer enjoyment: The turbines are

appropriate in a farm setting. The spacing of turbines is compatible with the building density pattern. A scenic composition is set up in this view

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: JoAnne Gagliano (LA 1)	Date: 1/17/11	VP#: 70

VIEWPOINT DESCRIPTION: please describe this view in your own words

The view is composed of a frozen river with homes along it's sides. Original bridge supports still exist in water. A horizontal power line over hangs the river.

SCENIC QUALITY: please rate existing scenic quality low, medium or high medium

VIEWER TYPE: check as many as apply.

Resident Traveler Recreational Other

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	0	no change
Vegetation	0	no change
Land Use	0	no change
Water	0	no change
Sky	.5	Turbines barely show above tree line.
Viewer Activity	0	no change
TOTAL	.5	
AVERAGE	0.1	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

Leaves on trees may screen further.

Perceived effect on scenic quality / viewer enjoyment: Turbines are hardly visible. The line of the turbines mimic trees at a distance and have a similar texture. The turbines fade into trees.

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: Jo Anne Gagliano (LA 1)	Date: 1/17/11	VP#: 74

VIEWPOINT DESCRIPTION: please describe this view in your own words

The view consists of a rocky shoreline, a single tree, a frozen water body and a hazy wooded horizonline. Blue sky + blue reflection on the water creates a bright view point.

SCENIC QUALITY: please rate existing scenic quality low, medium or high high

VIEWER TYPE: check as many as apply.

Resident Traveler Recreational Other

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	0	No change
Vegetation	-0.5	The turbines are vertical and sharp in contrast to the irregular, densely massed woods.
Land Use	0.5	Due to the large quantity of turbines the character of the environment will change.
Water	0.5	The shoreline appears closer since the line of turbines acts as background stopping the eye.
Sky	0.5	The turbines are minimally visible due to sky color.
Viewer Activity	0.5	The viewers perspective of the serene place may change and viewer may not choose this park anymore.
TOTAL	2.5	
AVERAGE	0.4	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

Hazy conditions may obscure view of turbines

Perceived effect on scenic quality / viewer enjoyment: Even though the turbines are not prominent the quantity and unscreened view can make them inappropriate for the character.

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: JoAnne Gagliano (LA 1)	Date: 1/17/11	VP#: 102

VIEWPOINT DESCRIPTION: please describe this view in your own words

The view consists of the river foreground, islands in the mid ground and a vegetated shoreline that includes buildings and a tall tower.

SCENIC QUALITY: please rate existing scenic quality low, medium or high high

VIEWER TYPE: check as many as apply

Resident Traveler Recreational Other

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	0	no change
Vegetation	0	no change
Land Use	0	no change
Water	0	no change
Sky	0	no change
Viewer Activity	0	no change
TOTAL	0	
AVERAGE	0	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

Leaves on trees may provide more screening

Perceived effect on scenic quality / viewer enjoyment: The tips of blades show slightly above trees however much less significant than tall vertical tower that is visible

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)

Rating Panel Member: Jo Anne Gagliano (LA 1) Date: 1/17/11 VP#: 110

VIEWPOINT DESCRIPTION: please describe this view in your own words

This view consists of an old barn & openfield in foreground a wooded creek in midground and rising hillside with vegetation in background

SCENIC QUALITY: please rate existing scenic quality low, medium or high medium

VIEWER TYPE: check as many as apply.

- Resident Traveler Recreational Other

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	1	The level line of turbines on the ridge reflect the views topography
Vegetation	0	no change
Land Use	0	no change
Water	0	no change
Sky	2	The turbines interrupt the sky with a repetitive rhythm.
Viewer Activity	0	no change
TOTAL	3	
AVERAGE	0.5	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

leaves on trees may screen some of the turbine

Perceived effect on scenic quality / viewer enjoyment: The turbines are too regular in contrast w/ the organic vegetation patterns. The consistent or constant line attracts the eye.

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: Rob Seeley (LAZ)	Date: 1/17/11	VP#: 4

VIEWPOINT DESCRIPTION: *please describe this view in your own words*

Roadside view across an open ag field toward a farmstead including a house, 2 barns, and 2 silos; a few other residences visible; overhead utility poles are visible in the distance; view of the sky is very open, trees visible in the background

SCENIC QUALITY: *please rate existing scenic quality low, medium or high* _____ *low*

VIEWER TYPE: *check as many as apply.*

Resident Traveler Recreational Other _____

CONTRAST RATING: *Rate the level of contrast between the proposed structures and the existing view.*

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	2	Landform is generally flat; neither hurts or helps visual impact of towers
Vegetation	2	Background trees are compatible in form and scale with towers; foreground trees are not as compatible.
Land Use	1	The towers have minor impacts to the farming activities and are of financial benefit to the land owners.
Water	na	
Sky	3	The towers closest to the viewpoint strongly disrupt the skyline; the distant towers blend into the treeline.
Viewer Activity	2	Travelers are not negatively impacted; residents will experience a strong visual impact due to the quantity of towers in this viewpoint and the scale compared to ex trees & bldgs.
TOTAL	10	
AVERAGE	2.0	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

 Perceived effect on scenic quality / viewer enjoyment: visual impact is strong in the Foreground due to the Quantity and scale reducing the already low scenic quality.

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: Rob Seeley (LAZ)	Date: 1-17-11	VP#: 10

VIEWPOINT DESCRIPTION: *please describe this view in your own words*

View travelling through a small hamlet; some commercial properties visible; 2 churches are prominent in the center of the view; high density of overhead utility lines and poles visible; many buildings are partially obscured by vegetation.

SCENIC QUALITY: *please rate existing scenic quality low, medium or high* medium

VIEWER TYPE: *check as many as apply.*

Resident Traveler Recreational Other

CONTRAST RATING: *Rate the level of contrast between the proposed structures and the existing view.*

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	2	Towers appear to be at a higher elevation thereby accentuating their scale.
Vegetation	1.5	The strong treeline on the horizon is helping to obscure a high percentage of the structures.
Land Use	1.5	Compatible with the activity typically associated with a village/main street setting
Water	na	
Sky	1.5	Towers do disrupt the horizon line, but are no more objectionable than the abundance of overhead lines and poles in the view.
Viewer Activity	0	No negative impact...actually adds interest to the view.
TOTAL	6.5	
AVERAGE	1.3	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

Perceived effect on scenic quality / viewer enjoyment: _____

Adds interest to the views of the hamlet...low quantity of towers visible is not too

Overwhelming. White structures are compatible with the white bldgs in the view.

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong



Visual Impact Rating Form

Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: Rob Seeley (LAZ)	Date: 1-17-11	VP#: 35

VIEWPOINT DESCRIPTION: please describe this view in your own words

View is across an open wetland/marsh area; farms and houses are visible in the distance; strong horizon line with very open views to the sky.

SCENIC QUALITY: please rate existing scenic quality low, medium or high high

VIEWER TYPE: check as many as apply.

Resident Traveler Recreational Other

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	3	Flat landform does not help to obscure views of towers
Vegetation	3	Vegetation is too low and out of scale with towers
Land Use	3	Towers contrast with the nature observation area.
Water	1	Does not contrast with water.
Sky	3	Skyline is interrupted by towers. A high qty of towers are visible.
Viewer Activity	1	Bird watching and nature walks would not be impacted.
TOTAL	14	
AVERAGE	2.3	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

snow on the ground is compatible w structures

Perceived effect on scenic quality / viewer enjoyment: _____

Due to the high amount of structures visible here, it does detract from the inherent natural Views of this area. However, activities are not impacted negatively.

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: Rob Seeley (LA 2)	Date: 1-17-11	VP#: 40

VIEWPOINT DESCRIPTION: please describe this view in your own words

View is from a historic site looking out across a road toward ag fields separated by hedgerows; oh utility lines visible in foreground and in the distance;

SCENIC QUALITY: please rate existing scenic quality low, medium or high _____ low

VIEWER TYPE: check as many as apply.

Resident Traveler Recreational Other _____

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	2	The rolling landform seems to obscure the views of some of the towers and accentuate others.
Vegetation	1.5	The vegetation helps to screen views of the towers...effect would be greater if leaves on trees.
Land Use	1	The use of the historic site is contrasting with towers, but the impact is inconsequential.
Water	na	
Sky	1.5	The skyline is interrupted by the towers but is not overwhelming due to the groupings of towers...if they were more spread out the impact would be more distracting.
Viewer Activity	1	Modern towers on the horizon conflicts with museum, but does not greatly impact activity. Provides an interesting dichotomy...
TOTAL	7	
AVERAGE	1.4	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

no leaves

Perceived effect on scenic quality / viewer enjoyment: _____

Scenic quality is not negatively impacted...towers are compatible with existing Overhead utility poles in the view.

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong



Visual Impact Rating Form

Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: Rob Seeley (LAZ)	Date: 1-17-11	VP#: 61

VIEWPOINT DESCRIPTION: please describe this view in your own words

View across open water area from ice fishing access point; very open view toward opposite shoreline; strong horizon line visible

SCENIC QUALITY: please rate existing scenic quality low, medium or high medium

VIEWER TYPE: check as many as apply.

Resident Traveler Recreational Other

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	3	The towers are located on a ridgeline on the opposite shoreline; their scale is accentuated by their elevation
Vegetation	4	Towers are not compatible with vegetation
Land Use	2	Towers are not compatible with land use, but impact is minimal.
Water	2.5	The high density of towers in this view is distracting and detracts from the view across the water.
Sky	2.5	The towers are disrupting the skyline, but is not a high impact due to the distance from the vp...the perceived scale is reduced.
Viewer Activity	1	The viewer activities are not impacted, but the sense of nature is slightly reduced by the high-tech towers in view.
TOTAL	15	
AVERAGE	2.5	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

snow

Perceived effect on scenic quality / viewer enjoyment: _____

Scenic quality is reduced by the high quantity of towers visible.

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong



Visual Impact Rating Form

Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: Rob Seeley (LA2)	Date: 1-18-11	VP#: 67

VIEWPOINT DESCRIPTION: please describe this view in your own words

View from a state highway looking across an open field towards a farm and house; skyline is strong in this view.

SCENIC QUALITY: please rate existing scenic quality low, medium or high low

VIEWER TYPE: check as many as apply.

Resident Traveler Recreational Other

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	4	Very flat landform does not help to conceal the towers.
Vegetation	3.5	The scale of the towers overtakes the vegetation. Lack of foreground vegetation leaves towers exposed to the viewer.
Land Use	1	The towers are compatible with the ag use...may cause minor inconvenience.
Water	na.	
Sky	4	Towers dominate the horizon, but provide added interest to the landscape.
Viewer Activity	0	Towers provide interest to the view.
TOTAL	12.5	
AVERAGE	2.5	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

snow reduces contrast of towers with the landscape

Perceived effect on scenic quality / viewer enjoyment:

The contrast is high, but impact to scenic quality is low.

Contrast Rating Score Chart

- 0 Insignificant
- 0.5
- 1 Minimal
- 1.5
- 2 Moderate
- 2.5
- 3 Appreciable
- 3.5
- 4 Strong



Visual Impact Rating Form

Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: Rob Seeley (LA 2)	Date: 1-17-11	VP#: 70

VIEWPOINT DESCRIPTION: please describe this view in your own words

View up the Chaumont River toward a residential area; the skyline is strong in this view on the far riverbank;

SCENIC QUALITY: please rate existing scenic quality low, medium or high medium

VIEWER TYPE: check as many as apply.

Resident Traveler Recreational Other _____

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	0	Towers are perceived to be lower than or equal to the height of the treeline, helping to reduce their visibility.
Vegetation	0	Towers are obscured by vegetation. Towers are compatible with form of trees. When trees are in season, leaves would further conceal towers.
Land Use	0	No impact.
Water	0	No impact.
Sky	0	No impact; towers are barely visible.
Viewer Activity	0	No impact.
TOTAL	0	
AVERAGE	0	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

When the trees leaf out, they towers will be even less noticeable.

Perceived effect on scenic quality / viewer enjoyment: _____

No impact on scenic quality.

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: Rob Seeley (LA2)	Date: 1-18-11	VP#: 74

VIEWPOINT DESCRIPTION: please describe this view in your own words

View from a campground looking out across the water toward the distant shoreline.

SCENIC QUALITY: please rate existing scenic quality low, medium or high high

VIEWER TYPE: check as many as apply.

Resident Traveler Recreational Other

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	4	Towers appear to be on a ridgeline higher than viewer which increases their visibility.
Vegetation	4	The vegetation is out of scale with the structures.
Land Use	2	The towers contrast with the natural setting of the campground, however, this contrast is minimized by the distance to the towers.
Water	2	Same as above...the distance from the water to the towers reduces the perceived conflict of technology vs nature.
Sky	2	The towers interrupt the skyline, but the scale is reduced by the distance.
Viewer Activity	1.5	Viewer activity is not impacted...towers create interest without overwhelming the view.
TOTAL	16.5	
AVERAGE	2.6	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

Snow and sky conditions give a white overtone to the photo which matches the color of the towers. This reduces the perceived contrast.

Perceived effect on scenic quality / viewer enjoyment: _____

The perceived effect is moderate/minimal...the towers are interesting to see at this distance.

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: Rob Seeley (LA 2)	Date: 1-18-11	VP#: 102

VIEWPOINT DESCRIPTION: *please describe this view in your own words*

Beautiful view from a public recreation pavilion across the river toward an island and the shoreline to the south; very open view of sky and horizon. High recreation activity area.

SCENIC QUALITY: *please rate existing scenic quality low, medium or high* _____ high _____

VIEWER TYPE: *check as many as apply.*

Resident Traveler Recreational Other _____

CONTRAST RATING: *Rate the level of contrast between the proposed structures and the existing view.*

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	0	Towers are almost entirely below treeline.
Vegetation	0	Vegetation screens out the towers; blades are barely noticeable along the strong horizon line.
Land Use	0	Land use is not impacted.
Water	0	Water use is not impacted.
Sky	0	Blades do interrupt horizon, but impact is insignificant due to distance from view and screening by trees.
Viewer Activity	0	No impact.
TOTAL	0	
AVERAGE	0	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

Perceived effect on scenic quality / viewer enjoyment: _____

The minimal views of the blades over the distant treeline do not impact the scenic quality.

The towers are approx. 9 miles away and are barely noticeably.

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: Rob Seeley (LA 2)	Date: 1-18-11	VP#: 110

VIEWPOINT DESCRIPTION: *please describe this view in your own words*

View across an open field toward a treeline in a valley with another open lot beyond. A dilapidated barn is visible in the foreground.

SCENIC QUALITY: *please rate existing scenic quality low, medium or high* low

VIEWER TYPE: *check as many as apply.*

Resident Traveler Recreational Other

CONTRAST RATING: *Rate the level of contrast between the proposed structures and the existing view.*

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	2	Towers appear to be on a distant ridgeline;
Vegetation	2	Treeline obscures views of the structures; form is compatible.
Land Use	0	No impact
Water	na	
Sky	1.5	Towers do slightly interrupt the skyline, but are somewhat compatible with the form of the trees.
Viewer Activity	0	No impact.
TOTAL	5.5	
AVERAGE	1.1	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

gray sky; snow cover

Perceived effect on scenic quality / viewer enjoyment: _____

Minimal impact on scenic quality. Provides interest.

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: D. Brackett (LA3)	Date: 1.16.11	VP#: 4

VIEWPOINT DESCRIPTION: please describe this view in your own words

Winter view of Rural agricultural country. Land is basically flat; foreground is either crop field or mowed meadow. Foreground colors are green to brown with dark gray background (forest). Sky is gray & cloudy. There are 2 or 3 residential buildings & a barn in the mid-ground.

SCENIC QUALITY: please rate existing scenic quality low, medium or high low

VIEWER TYPE: check as many as apply.

Resident Traveler Recreational Other _____

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	3.5 3.5	Color compatible with existing colors; form, scale & character are significantly contrast with existing land. Scale & vertical form are the major contrast.
Vegetation	4 4	Color is compatible in winter view; scale, form & character significantly contrast with existing vegetation.
Land Use	1	There is minimal impact with the rural ag. land use.
Water	NA	
Sky	4	Color is compatible w/ this winter sky; scale, form & character dominate the sky and horizon.
Viewer Activity	3.5	The scale & form along with character of these structures will attract the attention of the traveler; a resident may get "used" to seeing them.
TOTAL	16	
AVERAGE	3.2	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

Sunny/blue sky would cause the even more impact.

Perceived effect on scenic quality / viewer enjoyment: _____

since scenic quality is low, the impact is minimal

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: <u>D. Brackett (LA 3)</u>	Date: <u>1.16.11</u>	VP#: <u>10</u>

VIEWPOINT DESCRIPTION: please describe this view in your own words

Winter scene of a small village. Structures are generally white to gray in color. There are 2 churches in the view. A stream or river divides the village structures about in half in this view. Sky is gray (cloudy); Horizon is flat although there is a slight grade down to the stream and then back up again. There are several utility poles & wires in the view.

SCENIC QUALITY: please rate existing scenic quality low, medium or high medium

VIEWER TYPE: check as many as apply.

Resident Traveler Recreational Other

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	3	Color is compatible; Scale & character are a significant contrast; form is a contrast but amount of existing utility poles & the church steeple reduce the impact.
Vegetation	4	Color, form, scale & character all contrast with vegetation
Land Use	3	Color, form, scale & character all contrast with land use. However, the existing utility poles do as well, but are generally accepted.
Water	NA	
Sky	3	Color is compatible with this winter (gray) sky; form, scale & character contrast with sky.
Viewer Activity	4	color, form, scale & character all contrast with viewer activity.
TOTAL	17	
AVERAGE	3.4	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

bright blue sky would make contrast greater.

Perceived effect on scenic quality / viewer enjoyment: _____

There is a moderate impact on scenic quality. If utility poles & wires were not in the view the impact would be greater.

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: <u>Doug Brackett (LA3)</u>	Date: <u>1.16.11</u>	VP#: <u>35</u>

VIEWPOINT DESCRIPTION: please describe this view in your own words

winter scene of frozen lake (wild life management area). Brown wetland vegetation in foreground; lake in mid-ground w/ woods behind; beyond woods are ag. structures w/ trees & some open fields on horizon; Sky is hazy at horizon & blue above that. Land is flat with a gentle rise to the horizon. Horizon is flat.

SCENIC QUALITY: please rate existing scenic quality low, medium or high medium

VIEWER TYPE: check as many as apply.

Resident Traveler Recreational Other _____

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	3.5	color, form, scale & character is makes significant impact w/ landform
Vegetation	4.0	color, form, scale & character " " impact on vegetation
Land Use	2.5	color acceptable. form, scale & character have some impact on land use
Water	2.0	moderate impact - too far from water to be a significant impact.
Sky	3.0	color provides little impact; scale, form & character do provide impact since structures are on the horizon
Viewer Activity	3.5	Birds probably not effected by structures but viewers would probably expect this area to be "natural" structures are not natural.
TOTAL	18.5	
AVERAGE	3.1	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

Cloudier day would probably reduce the impact

Perceived effect on scenic quality / viewer enjoyment: _____

there would be a moderate to appreciable impact on scenic quality because the viewer would not expect to observe the structures in this view.

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: <u>D. Brackett (LA 3)</u>	Date: <u>1.16.11</u>	VP#: <u>40</u>

VIEWPOINT DESCRIPTION: please describe this view in your own words

View from an historic bldg - rural, undeveloped land with transmission line in mid-ground. Mix of open fields & woods with wooded hedge rows. Road in foreground with over head wires. Colors are light brown to dark gray. Scene is a winter view with hazy sky above the horizon & blue sky above that. Horizon is flat.

SCENIC QUALITY: please rate existing scenic quality low, medium or high medium

VIEWER TYPE: check as many as apply.

Resident Traveler Recreational Other one interested in historic bldgs.

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	3	color compatible w/ snow on ground; scale, form & character not compatible w/ landform
Vegetation	4	color is not compatible with vegetation form, scale & character are
Land Use	4	structures are not compatible with a church or historic bldg.
Water	NA	
Sky	3.5	Structures are on horizon and other than the color, which could be compatible, the structures are a strong contrast with the sky
Viewer Activity	4	A person visiting this historic bldg would not expect to observe wind turbines.
TOTAL	18.5	
AVERAGE	3.7	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

cloudier day & a summer day would result in less impact

Perceived effect on scenic quality / viewer enjoyment: _____

scenic quality will be impacted significantly

Contrast Rating Score Chart

- 0 Insignificant
- 0.5
- 1 Minimal
- 1.5
- 2 Moderate
- 2.5
- 3 Appreciable
- 3.5
- 4 Strong

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: <u>D. Brackett (LA3)</u>	Date: <u>1.16.11</u>	VP#: <u>61</u>

VIEWPOINT DESCRIPTION: please describe this view in your own words

View across Poreh Lake @ ice fishing access. Lake is frozen and far shore is wooded. The horizon is flat. Sky is dark blue to gray. Woods are dark gray (almost black). Lake is snow covered.

SCENIC QUALITY: please rate existing scenic quality low, medium or high low to medium

VIEWER TYPE: check as many as apply.

Resident Traveler Recreational Other

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	1.5	Because of distance causing limited view
Vegetation	2.5	turbines tower over vegetation, but distance causes limited view.
Land Use	1.5	little impact because of distant view.
Water	1.5	" " " " " "
Sky	1.5	" " " " " "
Viewer Activity	1.5	" " " " " "
TOTAL	10	
AVERAGE	1.7	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

Sky condition

Perceived effect on scenic quality / viewer enjoyment:

minimal because of distant view.

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: D. Brackett (LA3)	Date: 1.16.11	VP#: 67

VIEWPOINT DESCRIPTION: please describe this view in your own words

Winter view of rural ag land with intermitten wetlands. Ag. structures and residence in mid-ground & wood lands in back ground. Colors are light brown to dark gray. Land form is flat. Sky is hazy.

SCENIC QUALITY: please rate existing scenic quality low, medium or high medium

VIEWER TYPE: check as many as apply.

Resident Traveler Recreational Other

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	4	Vertical form & modern character & over whelming scale cause strong contrast
Vegetation	4	same as above
Land Use	4	same as above
Water	NA	
Sky	3.5	color is some what compatable otherwise same as above
Viewer Activity	3.5	same as above
TOTAL	19	
AVERAGE	3.8	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

blue sky & sun would make even more contrast

Perceived effect on scenic quality / viewer enjoyment: - strong

the scale of the turbines & character cause the impact.

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: <u>D. Brackett (LA3)</u>	Date: <u>1.16.11</u>	VP#: <u>70</u>

VIEWPOINT DESCRIPTION: please describe this view in your own words

View up chaumont River from bridge. River wide, with residences on both shores (not dense concentration). River is frozen & trees come to the shore line ~~and~~ ^{except} where residences are located. Vegetation is light gray to dark green. Sky is hazy.

SCENIC QUALITY: please rate existing scenic quality low, medium or high medium

VIEWER TYPE: check as many as apply.

Resident Traveler Recreational Other _____

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	<u>0.5</u>	<u>turbines hardly visible</u>
Vegetation	<u>0.5</u>	<u>" " "</u>
Land Use	<u>0.5</u>	<u>" " "</u>
Water	<u>0.5</u>	<u>" " "</u>
Sky	<u>0.5</u>	<u>" " "</u>
Viewer Activity	<u>0.5</u>	<u>" " "</u>
TOTAL	<u>3</u>	
AVERAGE	<u>0.5</u>	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

dark blue sky & sun might cause structures to be more visible

Perceived effect on scenic quality / viewer enjoyment: minimal

because they are hardly visible.

Contrast Rating Score Chart

- 0 Insignificant
- 0.5
- 1 Minimal
- 1.5
- 2 Moderate
- 2.5
- 3 Appreciable
- 3.5
- 4 Strong

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: D. Brackett (LA 3)	Date: 1.17.11	VP#: 74

VIEWPOINT DESCRIPTION: please describe this view in your own words

Winter view across Chaumont Bay. Snow and ice on most if not all of bay. Shore line across bay is non-descript. Horizon is flat. Colors are white, blue & blue/gray.

SCENIC QUALITY: please rate existing scenic quality low, medium or high medium to high (in summer, may be high).

VIEWER TYPE: check as many as apply

- Resident Traveler Recreational Other

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	2	density of structures creates another horizontal character that is consistent with the horizon's water ice line
Vegetation	4	scale, color & form & character contrast with vegetation
Land Use	3	At this time of year (winter) the contrast is minimal. However during summer there is a contrast with the land use.
Water	2	horizontal form of the mass of structures is and their color are consistent with the bay (at least during winter).
Sky	2.5	color is consistent with general colors & would be even more consistent during cloudy conditions.
Viewer Activity	3	This will not effect many of the activities related to camping and water sports. However it will impact the view (one of the reasons one would choose this camp site).
TOTAL	16.5	
AVERAGE	2.8	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

summer time view could result in greater contrast; cloudy condition will result in less contrast.

Perceived effect on scenic quality / viewer enjoyment:

Moderate to Appreciable The distance keeps this view from being more significantly impacted.

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: <u>D. Brackett</u>	Date: <u>1.17.11</u>	VP#: <u>102</u>

VIEWPOINT DESCRIPTION: please describe this view in your own words

View of small island in St. Lawrence River from a high used pier. Far shore-line is vegetated and dark gray in color. The horizon is flat with what looks like a cell tower rising noticeably above the vegetation. Predominant colors are blue to gray with some white clouds.

SCENIC QUALITY: please rate existing scenic quality low, medium or high high

VIEWER TYPE: check as many as apply.

Resident Traveler Recreational Other Vacationer

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	0	structures almost not visible.
Vegetation	0	" " " "
Land Use	0.5	since the land use is scenic and one would spend extended time viewing this scene, there is a <u>little</u> impact
Water	0	structures almost not visible
Sky	0	" " " "
Viewer Activity	0.5	same as for land use.
TOTAL	1	
AVERAGE	0.2	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):

I don't believe different conditions would impact the view.

Perceived effect on scenic quality / viewer enjoyment: _____

Insignificant.

Structures not visible enough to impact the view

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong

Visual Impact Rating Form



Project: Horse Creek Wind (edr Project #05030)		
Rating Panel Member: <u>D. Brackett (LAS)</u>	Date: <u>1/7/11</u>	VP#: <u>110</u>

VIEWPOINT DESCRIPTION: please describe this view in your own words

Winter scene of rural ag land. Open field in foreground with woods in background. Also looks like open field between woods in background. Predominant colors are white & dark gray. Land form seems to drop down in the mid-ground (probably to a stream) and the back up again in the back ground. Horizon is basically flat.

SCENIC QUALITY: please rate existing scenic quality low, medium or high medium

VIEWER TYPE: check as many as apply.

Resident Traveler Recreational? Other

CONTRAST RATING: Rate the level of contrast between the proposed structures and the existing view.

Component	SCORE	DESCRIPTION OF CONTRAST
Landform	2.5	structures not above horizon & frequency seems very consistent therefore the contrast is lessened.
Vegetation	2.0	Color & form consistent with vegetation character & scale are in contrast
Land Use	2.0	since There is a contrast, but it is not in your face
Water	NA	
Sky	2.0	Color consistent with sky but a blue sky would cause greater contrast.
Viewer Activity	2.0	The consistency of the spacing diminishes the impact.
TOTAL	10.5	
AVERAGE	2.1	

Variable factors that may have influenced rating (atmospheric conditions, season, etc.):
Summer & fall vegetation would probably create a greater contrast; Blue sky would also create more contrast.

Perceived effect on scenic quality / viewer enjoyment: moderate
definitely visible but color, scale & frequency of
spacing seem compatible in this view.

0	Insignificant
0.5	
1	Minimal
1.5	
2	Moderate
2.5	
3	Appreciable
3.5	
4	Strong