

Section 8 Historic Sites

1.0 INTRODUCTION

Evergreen Wind Power II, LLC (Evergreen II) conducted historic architecture, Euroamerican archaeological, and historic archaeological investigations of the Oakfield Wind Project Amendment (Project) area to determine what impact the Project might have on these historic resources. Reports of these investigations are included as Appendices 8-1, 8-2, and 8-3. The reports were developed in two parts, the main report and an addendum when turbines were added to the design in T4R3 WELS. Both the main reports and their addenda have been provided to the Maine Historic Preservation Commission (MHPC) for their review. Review comments received from MHPC to date are included in Appendix 8-4.

1.1 HISTORIC ARCHITECTURE SURVEY

The historic architectural survey was conducted in accordance with the requirements of Section 106 of the National Historic Preservation Act of 1966. The survey of historic resources within the five-mile Area of Potential Effect (APE) evaluated 142 previously unevaluated historic resources. There were no new National Register properties identified.

An additional three properties were identified within the APE that have resources that are potentially eligible for listing on the National Register of Historic Places, all four to six miles from the project. The report concludes that the setting and qualities of significance for these properties are not adversely affected by the project.

In the original Oakfield Project, MHPC determined that there was no adverse effect to the two identified National Register properties, the Oakfield Grange and the Oakfield Station. MHPC did find an adverse effect from the project in the area of the Dyer Brook Agricultural District and the Little Farm in Dyer Brook. Evergreen II agreed to mitigate that effect by conducting a Multiple Properties Documentation Form for agricultural properties within the APE. This amendment will reduce potential visual impact to all of these properties by reducing the number of turbines in the original project area, the area nearest these resources, from 34 turbines to 25 turbines.

1.2 EUROAMERICAN ARCHAEOLOGY SURVEY

The survey for Euroamerican historic resources evaluated cartographic information and field investigations to identify likely locations of historic structures. Most of the Project area was determined to have low sensitivity for Euroamerican archaeology. Twenty-one total sites were identified near the Project area; none are directly affected by the Project. The report recommends cautionary fencing where the Project is located near one resource, the L. Sprague Farmstead off South Oakfield Road. That protective fencing is incorporated into the project design.

1.3 PREHISTORIC ARCHAEOLOGICAL SURVEY

Documentary research and field surveys did not reveal any pre-historic archaeological resources. The report concludes that the amended Project area, like the original project area, is of low archaeological sensitivity.

Appendix 8-1

REPORT

**HISTORIC ARCHITECTURAL RECONNAISSANCE SURVEY
OAKFIELD WIND PROJECT AMENDMENT**

**Oakfield, Dyer Brook, Smyrna Center, Smyrna Mills, Merrill,
Linneus, New Limerick and T4R3 WELS
Aroostook County, Maine**

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SUMMARY

Name of Survey: Oakfield Wind Project Amendment Architectural
Reconnaissance Survey

Location: Oakfield and T4R3 WELS, Aroostook County, Maine

Sponsoring Agency or Group: Evergreen Wind Power II, LLC

Survey Dates: October 21 to October 24, 2008, December 1 to
December 4, 2008, November 17, 2009 to November 19,
2009, and November 4 and 5, 2010

Name of Surveyor: PAL, Inc.
210 Lonsdale Avenue
Pawtucket, RI 02860

Level of Survey: Reconnaissance

Area Surveyed: An 8-mile radius from the project area location equal to
a 183, 416 acre area.

Areas of Potential Effect: Oakfield Wind Project Amendment Direct Impact:
3590.70 acres
Oakfield Wind Project Amendment Indirect Impact:
112,301 acres

Number of Buildings Surveyed: The Oakfield Wind Project Amendment Architectural
Reconnaissance Survey identified an additional 83
properties containing 142 individual resources.

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INTRODUCTION

This report presents the results of a historic architectural reconnaissance level survey conducted for the amended Oakfield Wind Project (Figure 1, hereinafter referred to as the “Project”). In 2008-2009 PAL conducted a survey of the original Project as part of Evergreen Wind Power II, LLC’s (Evergreen II) environmental permit application to the Maine Department of Environmental Protection (DEP) in accordance with the Maine Site Location of Development Law, 38 M.S.R.R. §§481.490 and its implementing regulations 06-096 CMR 371-377. That application was approved and is now being amended. In August 2010 a historic architecture reconnaissance survey report was submitted to the Maine Historic Preservation Commission (MHPC) for review. Since that time the Project has been amended to relocate additional turbines to the south of the original path. The information contained herein combines results of the original and additional surveys conducted for the Project.

Project Description

On January 21, 2010, the Maine Department of Environmental Protection approved the application of Evergreen Wind Power II, LLC (Evergreen II) to construct and operate the 51 megawatt (MW) Oakfield Wind Project in Oakfield (DEP#L-24572-24-A-N/L-24572-TF-B-N). The Oakfield Wind Project is being amended to change the turbine types from General Electric (GE) 1.5 MW turbines to Vestas V-112 3.0 MW turbines; increase the total number of turbines from 34 to 50 and the installed capacity from 51 MW to 150 MW; and add a new substation and point of electrical interconnection with the electrical grid, which in turn involves construction of a new generator lead transmission line (collectively the “Revised Oakfield Wind Project”). For administrative reasons, the changes to the Oakfield Wind Project are the subject of two separate amendment applications. This application by Evergreen II addresses the changes to the generating facilities (the “Project”), and a companion amendment application by Maine GenLead, LLC, addresses the new generator lead. The resource impacts associated with the Project and the new generator lead are being considered cumulatively.

This application by Evergreen II for the *Revised Oakfield Wind Project* amends the original Oakfield Wind Project as follows:

- change the approved turbines in the original project area from 34 GE 1.5-MW with a 77-meter rotor diameter and an 80 meter tower, to 25 Vestas V-112 3.0-MW turbines, with a 112-meter rotor diameter and an 84 meter tower;
- add temporary and permanent met tower locations;
- change turbine pad size, turbine locations, road widths, and some road locations;
- eliminate the northern substation;
- add 25 Vestas V-112 3.0-MW turbines in new project areas;
- add a new substation location; and
- change the point of electrical interconnection.

This amendment would increase the size of the Oakfield Wind Project to 50 turbines with a potential generating capacity of 150 MW. Figure 1 shows the complete Project area with revised turbine locations and additional turbines. The GE turbines would have been 389 feet tall, fully extended; the Vestas turbines will be 459 feet tall, fully extended. The Project would be located in the Town of Oakfield and T4R3 WELS. The Revised Oakfield Wind Project would reduce the number of turbines on the Oakfield Hills mountain range to 25 and locate 25 turbines on unnamed mountain range in Oakfield and T4R3 WELS.

Electricity generated by the turbines would be collected from the turbines at 34.5 kilovolts (kV), and “stepped up” to 115 kV at the proposed substation on South Oakfield Road. The northern substation approved as part of the original project would not be constructed. From the substation located on South Oakfield Road, electricity would be transmitted by the Maine GenLead transmission line to the Keene Road Substation in Chester where it would tie into the existing Bangor Hydro Electric system.

Project Location and Setting

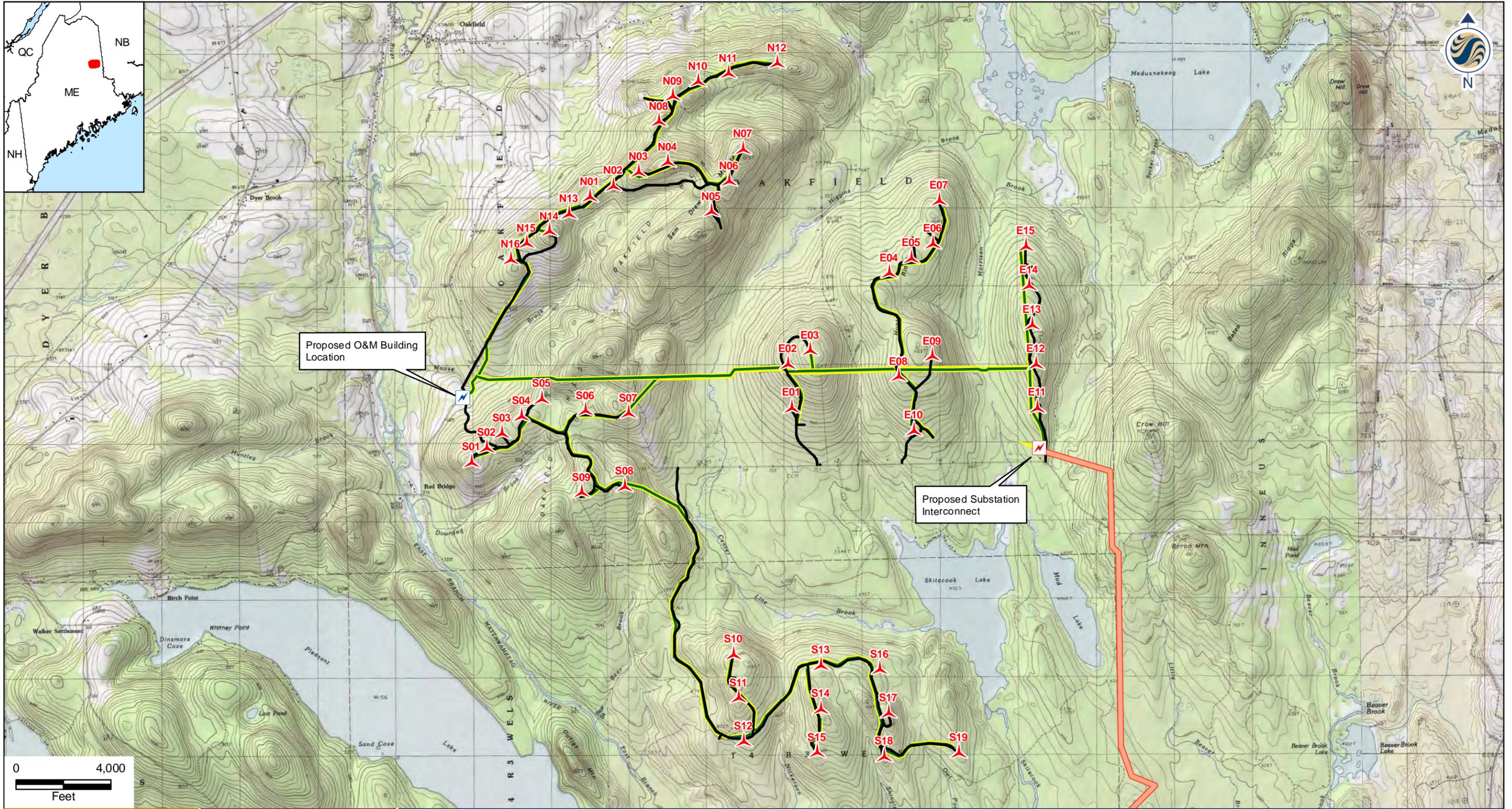
The Oakfield Wind Project Amendment is located in northeastern Aroostook County, Maine. The current Project plans locate the turbines on the Oakfield Hills mountain range, Hunt Ridge, and an unnamed mountain ridge between Hunt Ridge and Bates Ridge. The area surrounding the Project includes the towns of Oakfield, Dyer Brook, Smyrna Center, Smyrna Mills, Merrill, Linneus, New Limerick and T4R3 WELS. It is composed of a rural landscape defined by large expanses of dense deciduous forest, winding rivers, freshwater lakes, and an undulating rocky terrain formed by clusters of mountains. North of the Project site, the area is defined by Pervere Ridge and large areas of cleared land. East of the Project, major defining features include Bates Ridge and Byron Mountain. South of the Project are a number of lakes including Skitacook Lake, Pleasant Lake, and Mattawankeag Lake. Other large bodies include Meduxnekeag Lake located to the north and east of the Project location. To the west of the Project, the area is relatively flat, with large cleared areas for farming.

Development in the area is primarily concentrated to the north and west of the Project site and is mostly organized in compact village centers near former railroad lines and along linear automobile routes. The primary road network consists of Interstate 95, and State Routes 2 and 212. In this section of Maine, Interstate 95 primarily runs on a northeast-southwest diagonal. State Route 2 follows roughly the same path as Interstate 95 and connects the towns of Island Falls, Dyer Brook and Smyrna Mills. Between Island Falls and Dyer Brook, Route 2 is locally known as Dyer Brook Road and between Dyer Brook and Smyrna Mills it is known as Silver Ridge Road. Route 212 runs on a northeast-southwest diagonal from Smyrna Mills. South of Smyrna Mills it turns into Oakfield Smyrna Road and runs into Oakfield center. Extending east from the center of Oakfield is Main Street, which past Thompson Settlement Road becomes Ridge Road. Thompson Settlement Road runs north-south and connects Ridge Road and South Road. In the eastern section of the surrounding area, Route 2A is the major road. It travels north-south and connects Houlton (outside the Project area) with Linneus and points farther south. In the area south of the Project site there are numerous unpaved trails and private roads.

The former Bangor and Aroostook Railroad runs through the northeastern section of the study area. The Bangor and Aroostook Railroad carried passengers from 1912 until 1961 when passenger service was eliminated. The line also carried freight, mainly potatoes and other agricultural products. The tracks run through Dyer Brook to Oakfield, where they split into tracks heading north to Smyrna Mills and a line that runs northeast. Also in Oakfield there is a large railyard with multiple tracks.

Methodology

The methodology for the architectural reconnaissance survey was designed to identify all aboveground historic properties, including districts, buildings, structures, objects, and sites within the Project APE that are listed, or eligible for listing in the National Register of Historic Places (National Register). The survey was conducted in accordance with the standards and guidelines established in the Secretary of the Interior’s *Standards and Guidelines for Archaeology and Historic Preservation*, as amended (48 FR 44716), the MHPC’s *Above Ground Cultural Resources Survey Manual, Guidelines for Identification: Architecture and Cultural Landscapes, Section 106 Specific* (MHPC 2006), the National Park Service’s (NPS) *National Register Bulletin No. 24, Guidelines for Local Survey: A Basis for Preservation Planning*



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- Legend**
-  Proposed Turbine (Vestas 50)
 -  Proposed 115kv Transmission Corridor
 -  Proposed Collector Corridor
 -  Proposed Access Roads

Client/Project
 Evergreen Wind Power II, LLC
 Oakfield Wind Project Amendment
 Oakfield, Maine

Figure No.
 1

Title
 Summit Project Development Area
 May 2011

195600518

(NPS 1985), and the NPS's *National Register Bulletin No. 15, How to Apply the National Register Criteria for Evaluation* (NPS 1997).

Prior to beginning the survey fieldwork, PAL conducted research to identify properties within 10 miles of the Project that are listed or eligible for listing in the National Register or have been recorded as part of the MHPC's Maine State Survey Program. PAL initiated this search by using the National Register Information System (NRIS), an on-line database maintained by the NPS. Following the NRIS search, PAL conducted a visit to the MHPC to review and obtain copies of the National Register forms, relevant town files, and inventory forms for the properties. The National Register eligibility status of each surveyed property was noted if the property had been previously evaluated for listing in the National Register.

Fieldwork for the original reconnaissance survey was conducted by two PAL architectural historians from October 21 to October 24, 2008 and December 1 to December 4, 2008. Additional fieldwork and research was performed from July 6 to July 10, 2009 to respond to comments provided by the MHPC (letter dated April 15, 2009). Fieldwork for the expanded area was performed from November 17, 2009 to November 19, 2009. Fieldwork for the turbines located to the south of the original project was conducted on November 4 and 5, 2010. A majority of the properties in the area were surveyed by PAL for the Oakfield Wind Project; these properties were not re-photographed for this report.

The fieldwork involved the identification of all properties within the APE that were at least 50 years old or included in previous inventories. Information regarding the viewsheds from recorded properties toward the Project area was noted during the fieldwork. Each identified property was photographed with black-and-white film using a 35mm SLR camera for documentation purposes and with a high-resolution digital camera, which provided additional visual information referenced during the creation of the survey report. Data regarding the current condition and significant characteristics of each resource was recorded, and the information on the inventory forms for previously surveyed properties was verified. In compliance with the MHPC's survey methodology, unique sets of information were collected for individual buildings, barns, and farmsteads. All identified properties were mapped in the field on USGS base maps or detailed aerial images. Site plans depicting farmsteads or other complexes with multiple resources were hand drawn on survey forms.

PAL drove all accessible public roads within the study area, including unmarked, navigable gravel/dirt trails. All properties that met the criteria for inclusion in the survey and were visible from public rights-of-way were recorded. To ensure that no properties were overlooked, PAL made notes on the base maps during the survey, indicating which roads had been covered and which buildings were less than 50 years old. For roads that were gated or otherwise clearly marked as private, topographic maps and aerial images were used to verify the presence or absence of existing structures. Historical topographic maps and atlases were then used to determine whether any of these inaccessible properties contained resources at least 50 years old.

PAL entered the survey data into a database following the completion of the fieldwork. The database was then used to generate MHPC reconnaissance-level survey inventory forms for each of the surveyed properties. Based on the condition, integrity, materials, approximate age, design, and setting of the identified resources observed in the field, PAL made a preliminary assessment regarding the potential National Register eligibility of each property. The preliminary eligibility evaluation of each property and an assessment of potential effects of the Project on properties evaluated as potentially eligible are included in the Recommendations section of this report.

SURVEY BOUNDARIES

The Oakfield Wind Project Amendment Architectural Reconnaissance survey area included an 8-mile radius surrounding the proposed summit development. This 8-mile area was based on the Maine Wind Energy Act (35-A MRSA § 3401) and its specific regulations which provides that determinations of effect on scenic resources, including historic properties, of national or state significance, shall consider whether the wind project will cause unreasonable adverse effects. During the fieldwork for the architectural reconnaissance survey, PAL drove the entire 8-mile survey area and determined that many locations within the 8-mile area would be blocked by existing topography. The field observations, the preliminary viewshed map (Figure 2) and current USGS maps were used to refine the limits of the study area and to develop the indirect APE (described below).

Area of Potential Effect

The APE is defined in regulations governing Section 106 of the National Historic Preservation Act as the “geographic area or areas within which an undertaking may directly or indirectly cause changes in the character of or use of historic properties, if any such properties exist” (36 CFR 800.1(d)). Typically there are multiple APEs since effects to historic properties can be caused by either a physical taking (direct impacts) or by the introduction of environmental impacts (indirect impacts). The direct impact APE is the geographic area in which properties would be affected by construction activities, including a property taking or physical modification of a historic property. The indirect impact APE consists of a larger area where visual, auditory, pollution, vibration, and/or other types of environmental impacts, might affect the qualities for which a historic property is eligible for or listed in the National Register.

The direct impact APE for the Oakfield Wind Project Amendment is an approximately 3,591-acre area that includes the proposed wind turbine complex, construction laydown areas, access roads, and the power collection system including a substation and maintenance building (Figure 2).

For the reconnaissance survey, potential indirect effects on historic properties were determined to be visual or auditory in nature. As such, the indirect effects APE includes all locations where impacts might be caused by noise resulting from the turbines and locations within 8 miles of the Project where the turbines might be visible. Potential noise impacts will occur in a far smaller area than potential visual impacts, so the extent of the indirect effects APE was determined by potential visual effects. In order to determine the locations where the constructed Project might be visible, PAL drove all accessible roads within an 8-mile radius of the turbine locations. PAL indicated on the survey base map which roads did and did not have views of the Project site. Many roads north of the Project site where not publically accessible, this was also marked on the survey base map. Based on field observations and a comparison with the viewshed analysis map, the indirect effects APE was determined to be an irregularly shaped area, approximately 112,301 acres in size, extending at least 5 miles and up to 8 miles from the turbine locations (see Figure 2). Excluded areas between 5 and 8 miles are those that have no potential view of the Project due to visual obstructions caused by intervening topography or vegetation.

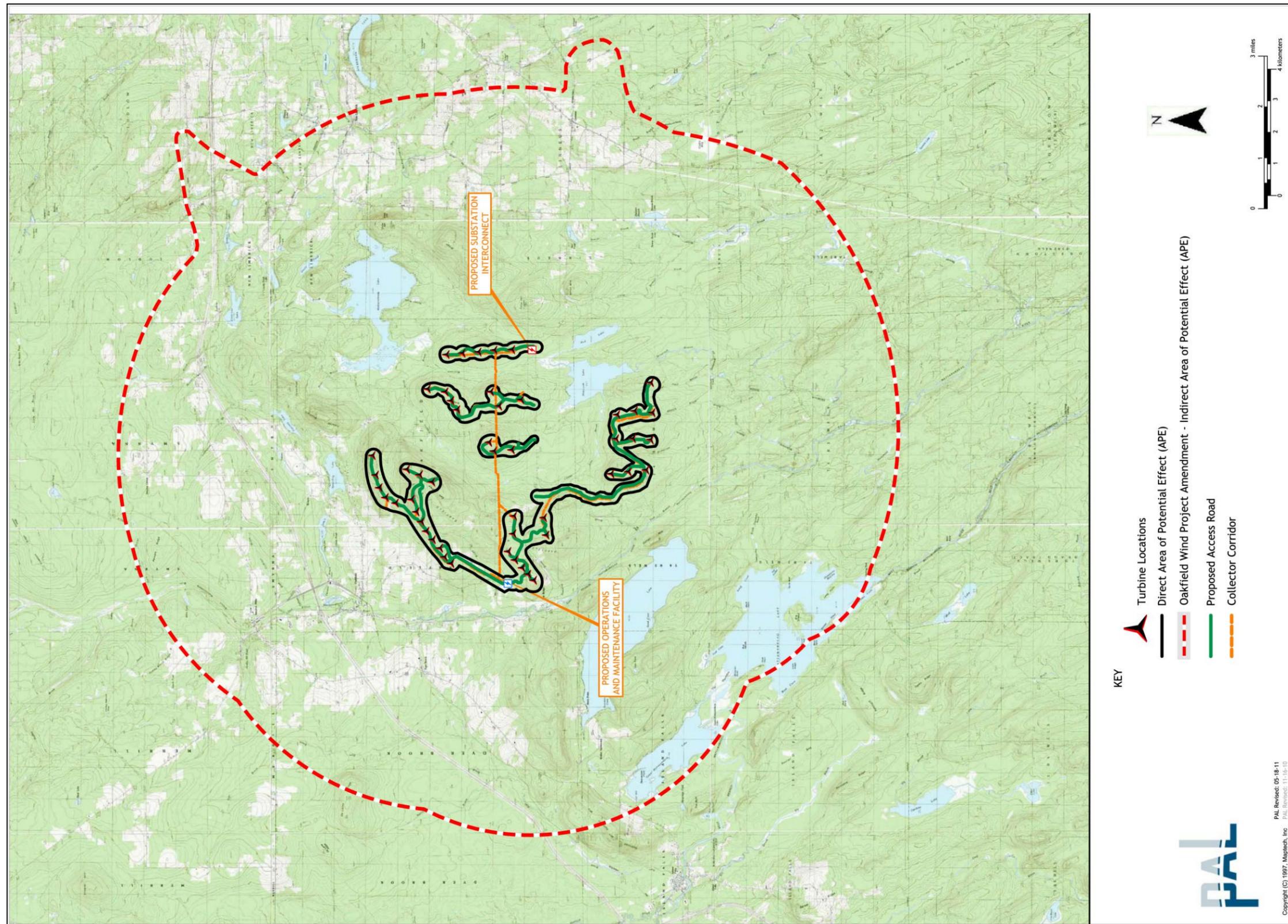


Figure 2. Oakfield Wind Project Amendment Areas of Potential Effect.

SURVEY RESULTS

Previously Surveyed Properties Listed in or Determined Eligible for Listing in the National Register

The survey research performed for the Oakfield Wind Project identified two properties in the indirect APE that are listed in the National Register: the Oakfield Station and the Oakfield Grange #414, both located in Oakfield center (Figure 3, Table 1). Copies of the National Register documentation for the two listed properties are included in Appendix A. The MHPC has previously evaluated four properties in the APE as potentially eligible for listing in the National Register (Table 1). As part of their review of the original Oakfield Wind Project, the MHPC evaluated 11 properties and one area as potentially eligible for listing in the National Register (MHPC letter, September 30, 2009). As part of their review of the Oakfield Wind Project Amendment, the MHPC evaluated three properties as potentially eligible for listing in the National Register (MHPC letter, September 16, 2010 and November 10, 2010). All of the properties listed in or determined eligible for listing in the National Register are described below, summarized in Table 1, and mapped on Figure 3.

Oakfield Station, Oakfield

The Oakfield Station is located at the terminus of Station Road, adjacent to the former Bangor and Aroostook (B&A) Railroad tracks in Oakfield. The building opened in 1912 and served as a passenger station until 1961 when passenger service was eliminated on this line (Mohney 1987). The Oakfield Station is significant under National Register Criterion A in the area of Transportation for its association with the development of the B&A Railroad and under Criterion C as a distinctive and intact example of an early rural train station. In 1986, it was donated to the Oakfield Historical Society and it currently houses the Oakfield Railroad Museum.

Oakfield Grange #414, 89 Ridge Road, Oakfield

The Oakfield Grange #414, located at 89 Ridge Road, Oakfield, is a large vernacular building constructed in 1906. The Oakfield Grange is significant under Criterion A for its association with Oakfield's early agricultural, social, political, and entertainment-oriented history (Mitchell 2006). The Oakfield Grange #414 was constructed by members of the Patron's of Husbandry who organized in 1903. The Oakfield Grange #414 served as a social and political center not only for members of the Patron's of Husbandry, but for the entire Oakfield community. Though it is largely unused, the Oakfield Grange #414 is in relatively good condition.

Herbert Tarbell House, 3491 Route 2, Merrill

The Herbert Tarbell House (MHPC# 277-0012) is located at 3491 Route 2, Merrill. It was constructed in 1914 by Herbert Tarbell and designed in the Colonial Revival style. Herbert Tarbell was the son of J.E. Tarbell who owned and operated a large general store in Smyrna Mills that Herbert later managed. The Herbert Tarbell House is square in plan with a one-story, full-width attached porch. It is topped with a front gable roof with intersecting gables on either side and a chimney on the ridge line. The house is clad in wood shingles and is in good condition.

Table 1. Properties Listed in or Evaluated as Potentially Eligible for Listing in the National Register within the Oakfield Wind II Project APE.

| MHPC No./Survey Map No. | Survey Map Name | Property Name | Address | National Register Status |
|-------------------------|---|---|---|--|
| N/A | N/A | Oakfield Station | Station Street, Oakfield | National Register Listed |
| 321-0028 | N/A | Oakfield Grange #414 | 89 Ridge Road, Oakfield | National Register Listed |
| 132-0005 | Oakfield Quad | Little Farm / Mary Berry Farm | 1397 Silver Ridge Road, Route 2, Dyer Brook | Evaluated by the MHPC as Potentially Eligible for listing in the National Register |
| Area A. | Oakfield Wind Survey Base Map | Dyer Brook Agricultural District | Dyer Brook | Evaluated by the MHPC as Potentially Eligible for listing in the National Register |
| 277-0004 | Smyrna Mills Quad | Farmstead | 341 Route 212, Merrill | Evaluated by the MHPC as Potentially Eligible for listing in the National Register |
| 277-0012 | 6462.10-Segment 9 | Herbert Tarbell House | 3491 Route 2, Merrill | Evaluated by the MHPC as Potentially Eligible for listing in the National Register |
| 277-0013 | 6462.10-Segment 9 | Perley Tarbell House | 3480 Route 2, Merrill | Evaluated by the MHPC as Potentially Eligible for listing in the National Register |
| 277-0017 | 6462.10-Segment 9 | Residence | 20 Route 212, Merrill | Evaluated by the MHPC as Potentially Eligible for listing in the National Register |
| 277-0018 | 6462.10-Segment 9 | Lincoln School | West side of Route 212 approx. 0.10 miles north of Route 2, Merrill | Evaluated by the MHPC as Potentially Eligible for listing in the National Register |
| 48 | Oakfield Wind Survey Base Map | Gazebo | 10 Main Street, Oakfield | Evaluated by the MHPC as Potentially Eligible for listing in the National Register |
| 87 | Oakfield Wind Survey Base Map | Residence | 118 Ridge Road, Oakfield | Evaluated by the MHPC as Potentially Eligible for listing in the National Register |
| 321-0008a | Oakfield Quad | Barn | 28 Moore's Road, Oakfield | Evaluated by the MHPC as Potentially Eligible for listing in the National Register |
| 120-122 | Oakfield Wind Survey Base Map | Potato Storage Facility | Terminus of Station Road, Smyrna Mills | Evaluated by the MHPC as Potentially Eligible for listing in the National Register |
| 130 | Oakfield Wind Survey Base Map | Church | 3411 Silver Ridge Road, Smyrna Mills | Evaluated by the MHPC as Potentially Eligible for listing in the National Register |
| 133.1 | Oakfield Wind Survey Base Map | Bangor & Aroostook Railroad Freight House | 3428R Silver Ridge Road, Smyrna | Evaluated by the MHPC as Potentially Eligible for listing in the National Register |
| 396-0009 | Ludlow Quad | Barn | 219 Timoney Lake Road, Smyrna | Evaluated by the MHPC as Potentially Eligible for listing in the National Register |
| 301-0001 | Oakfield Wind Project Amendment Survey Base Map | Shakaree Deer Farm | 17 Cunliffe Road, New Limerick | Evaluated by the MHPC as Potentially Eligible for listing in the National Register |
| 301-0018 | Oakfield Wind Project Amendment Survey Base Map | Shaw Homestead | 678 Drews Lake Road, New Limerick | Evaluated by the MHPC as Potentially Eligible for listing in the National Register |
| 191.3 | Oakfield Wind Project Amendment Survey Base Map | Barn | 377 New Limerick Road, Linneus | Evaluated by the MHPC as Potentially Eligible for listing in the National Register |

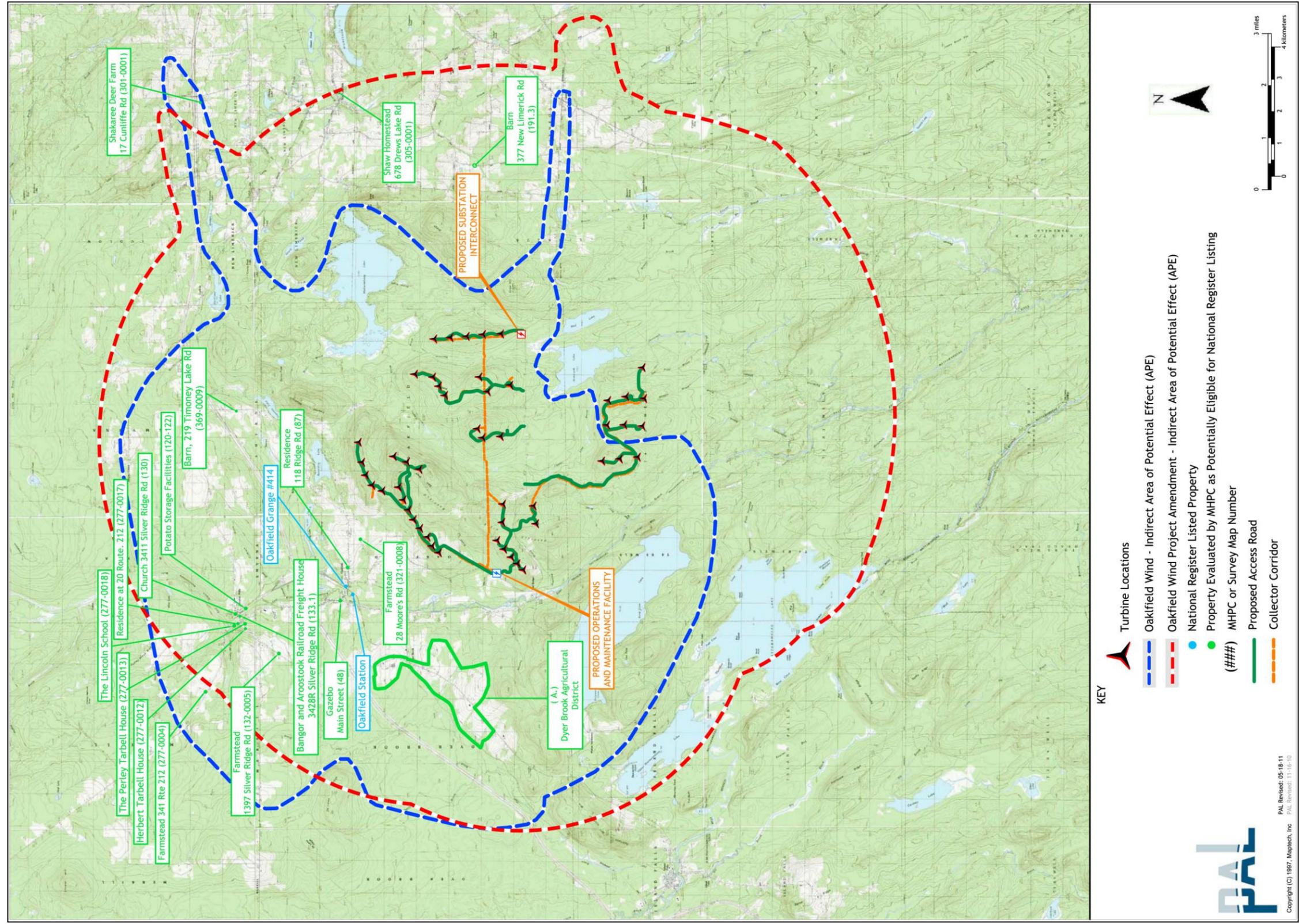


Figure 3. Properties within the Oakfield Wind Project Amendment APE that are Listed in or Evaluated Eligible for Listing in the National Register.

Perley Tarbell House, 3480 Route 2, Merrill

The Perley Tarbell House (MHPC# 277-0013) is located at 3480 Route 2, Merrill, and was constructed by Perley Tarbell in 1914. Perley Tarbell was the son of J.E. Tarbell, who owned and operated a large general store in Smyrna Mills. This two-and-one-half story house was designed in the Colonial Revival style and features a hipped roof with a front hipped gable and a one-story, full-width attached porch. The porch is supported by four slender columns and has a low, simple railing on the roof. The house is clad in clapboard, has an asphalt roof and an interior chimney. The house is well maintained and in good condition.

Residence, 20 Route 212, Merrill

The residence at 20 Route 212 (MHPC# 277-0017) was constructed ca. 1920 in the Arts and Crafts style. It is sited on cleared land on a large hill. This one-and-one-half story house has a steeply pitched gable side roof with a large dormer, a one-story, full-width porch and a stone exterior chimney. The house is clad in wood shingle and vinyl. The roof has deeply overhanging eaves that are supported by large, square brackets. A small ell of similar design is attached to the east elevation; it has a large picture window and a deeply recessed entrance. An additional ell has been constructed onto the east elevation of the small ell. Overall, the house is well maintained and in good condition.

Lincoln School, Route 212, Merrill

The Lincoln School (MHPC# 277-0018) is located on the west side of Route 212, approximately 0.10 miles north of the intersection with Route 2 in Merrill. The Lincoln School was constructed in 1910 to serve grades 1–4 in Merrill. The building is currently vacant and in poor condition, however it is the only remaining school building in Merrill.

The Dyer Brook Agricultural District, Silver Ridge Road/Dyer Brook Road/Route 2, Dyer Brook

The Dyer Brook Agricultural District (Survey Map No. A) is a linear corridor approximately 2.3 miles in length located along either side of Silver Ridge Road/Dyer Brook Road/Route 2. Within the boundaries of this potential district are 18 properties representing the development of Dyer Brook including the five farmsteads at 470 Dyer Brook Road (MHPC No. 132-0009), 500 Dyer Brook Road (MHPC No. 132-0010), 532 Dyer Brook Road (MHPC No. 132-0011), 600 Dyer Brook Road (MHPC No. 132-0012), and 717 Dyer Brook Road (MHPC No. 132-0013). It also includes the residences at 700 Dyer Brook Road (Survey Map No. 22), 773 Dyer Brook Road (Survey Map No. 23), 901 Dyer Brook Road (Survey Map No. 31), 951 Silver Ridge Road (Survey Map No. 32.1), the residence and barn at 815 Dyer Brook Road (Survey Map No. 25), the residence and outbuilding at 825 Dyer Brook Road (Survey Map No. 27). Other contributing properties include the Dyer Brook Cemetery and related building (Survey Map Nos. 24, 24.1), the former Dyer Brook General Store (Survey Map No. 26), the Bridge over the former Bangor and Aroostook Railroad tracks (Survey Map No. 28), the potato house at the intersection of Dyer Brook Road and Keith Brook Road (Survey Map No. 29), the Dyer Brook Town Hall (Survey Map No. 30), the barn at 911 Silver Ridge Road (MHPC No. 132-0001), and the Church at 950 Silver Ridge Road (Survey Map No. 32). The Dyer Brook Agricultural District is evaluated as potentially eligible for listing in the National Register at the local level under Criteria A and C. Under Criterion A it is significant for its association with the development of a small, agricultural community in southern Aroostook county. Under Criterion C the district is significant for its collection of rural buildings including farmsteads, residences, a structure for the trackside storage of potatoes, a former general store, a church, and a civic building.

Farmstead, 341 Route 212, Merrill

The Farmstead at 341 Route 212, Merrill (MHPC No. 277-0004) is evaluated eligible for listing in the National Register under Criteria A and C at the local level in the areas of community development and architecture as an example of a late-nineteenth- to early-twentieth-century farmstead in Aroostook County. It is sited on the north and south sides of the Route 212 surrounded by open fields. The property includes a ca. 1880 Gothic Revival style residence, a ca. 1900 English barn connected to the house, a detached ca. 1860 New England barn, a ca. 1900 New England barn connected to the ca. 1860 barn, and a detached ca. 1900 barn that are all located on the north side of the road. A detached ca. 1880 English barn with a ca. 1880 English connected barn are located on the south side of the road.

United Methodist Church, 3411 Silver Ridge Road, Smyrna

The United Methodist Church at 3411 Silver Ridge Road, Smyrna (Survey Map No. 130) is evaluated eligible for listing in the National Register under Criteria A and C at the local level in the areas of community development and architecture as an example of an early-twentieth-century religious structure in Aroostook County. The church is a rectangular, one-and-one-half story, three bay by four bay, Gothic Revival style building. It is clad in wood shingles and is topped with an asphalt shingle gable front roof. The foundation is not visible. A tower with a pyramidal roof is located on the east elevation. A brick chimney is located on the roof. The building has decorative pointed arch windows on the facade and side elevations. Other decorative features include gable returns and an entablature that wraps around the building. A stone monument dedicated to the veterans of World War I and World War II is located at the top of a small hill on the property.

Oakfield Gazebo, 10 Main Street, Oakfield

The Oakfield Gazebo at 10 Main Street, Oakfield (Survey Map No. 48) is evaluated eligible for listing in the National Register under Criteria A and C at the local level in the areas of community development and architecture as an example of a late-nineteenth- to early-twentieth-century civic structure in Aroostook County. The two-story, one-bay, octagonal-shaped gazebo was constructed ca. 1900. It has clapboard siding and a conical roof with asphalt shingles. The foundation is not visible. The first story is used for the sale of concessions while the second story houses the bandstand.

Residence, 118 Ridge Road, Oakfield

The residence at 118 Ridge Road, Oakfield (Survey Map No. 87) is evaluated eligible for listing in the National Register under Criteria A and C at the local level in the areas of community development and architecture as an example of a late-nineteenth-century residential structure in Aroostook County. The Queen Anne residence, constructed ca. 1880, is irregular in plan, two-and-one-half stories in height, and three bays wide. It is clad in wood shingles and vinyl siding and is topped by an asphalt shingled compound roof. The foundation is not visible. A brick chimney is located on the interior of the roof. On the facade is a one-story wrap-around porch that terminates at the two-story bay window on the southeast (side) elevation. A non-historic garage is attached to the rear of the residence.

Barn, 28 Moore's Road, Oakfield

The barn at 28 Moore's Road, Oakfield (MHPC No. 321-0008a) is evaluated eligible for listing in the National Register under Criteria A and C at the local level in the areas of community development and architecture as an example of a late-nineteenth-century barn in Aroostook County. The ca. 1880 detached, Greek Revival style, New England barn is one-and-one-half stories in height and one bay wide. It is clad in clapboards and is topped with a gable front roof covered in corrugated metal sheets. The

foundation is not visible. On the facade is a pair of board and batten doors with cross braces. A loft door and windows are placed below the gable. A full-length one-story shed is attached to the side elevation.

Bangor and Aroostook Railroad Freight House 3428R Silver Ridge Road, Smyrna

The freight house at 3428R Silver Ridge Road, Smyrna (Survey Map No. 133.1) is evaluated eligible for listing in the National Register under Criteria A and C in the areas of community development and architecture as an example of late-nineteenth-century freight house associated with the Bangor and Aroostook Railroad. It is a rectangular, one-story, one bay by four bays wide, gabled side building constructed ca. 1896. It is clad in clapboard siding. The roof is covered with asphalt shingles and has deep overhangs. The foundation is not visible. The facade and south elevation each have a pair of board and batten loading bay doors. The original loading platform was removed from the facade and south elevation, most likely when the building was moved to its current location in the early 1980s.

Barn, 219 Timoney Lake Road, Smyrna

The barn at 219 Timoney Lake Road, Smyrna (MHPC No. 369-0009) is evaluated eligible for listing in the National Register under Criteria C at the local level in the area of architecture as an example of a late-nineteenth-century barn in Aroostook County. It is a ca. 1880, one-and-one-half story, two-bay, gable front New England barn. The roof and walls are clad in asphalt shingles. The foundation is not visible. On the facade is a pair of board and batten doors on a rolling track with a transom and a single garage door. A one-story lean-to addition is located on the side elevation. It also has a board and batten door on a rolling track.

Potato Storage Facilities, Station Road, Smyrna

The Potato Storage Facilities on Station Road, Smyrna (Survey Map Nos. 120, 121, and 122) are evaluated eligible for listing in the National Register under Criteria A at the local level in the area of community development for their association with the storage and shipping of potatoes, the most important agricultural product of the area. The three buildings were among a group of potato houses constructed to cater to the Bangor and Aroostook Railroad's transportation of potatoes. Two of the facilities are adjacent to each other. The first (Survey Map No. 121) is a rectangular, one-and-one-half story, two-bay by one-bay building with a gambrel roof. The building is clad in corrugated steel sheets. A sliding loading bay door is located on one of the long sides and four large doors cover an entire short side of the building. The other (Survey Map No. 122) is a rectangular, one-and-one-half story, two-bay by one-bay building with a gambrel roof constructed ca. 1920. It is clad in a combination of asbestos shingles and aluminum siding. A sliding loading bay door is located on the facade. Both buildings have corrugated metal roofs and their foundations are not visible. The third (Survey Map No. 120) is a rectangular, one-and-one-half story, two-bay by four-bay, gable front building constructed ca. 1925 for C. Morris. It is clad in pressed metal and asbestos shingles and topped with a metal roof. The roof also has three shed roof dormers. The foundation is not visible.

Little Farm/Mary Betty Farm, 1397 Silver Ridge Road, Smyrna

The farmstead at 1397 Silver Ridge Road, Smyrna (MHPC No. 132-0005) is evaluated eligible for listing in the National Register under Criteria C in the areas of architecture as an example of a late-nineteenth-century farmstead in Aroostook County. The property includes three buildings sited close to the road and surrounded by open fields. The house (132-0005a) is an Italianate style, two-and-one-half story, two-bay by four-bay building constructed ca. 1860. It is clad in clapboard and topped by an asphalt shingled gable front roof with deep overhangs and gable returns. Two brick chimneys are located on the ridge line. Located on the facade are a two-story bay window and a wrap-around porch that extends to the southwest

elevation. One ca. 1880 barn (132-0005b) is located southwest of the house. It is rectangular in plan, one-and-one-half stories in height and a single bay wide. It is clad in wood shingles with a gable front roof. On the facade is a sliding board and batten door. The other ca. 1880 barn (132-0005c) is located northeast of the house. It is rectangular in form, one-and-one-half-stories in height and two bays wide. It has a combination of clapboards and vertical board siding with a gable front roof. All of the buildings have asphalt shingled roofs.

Shaw Homestead, 678 Drews Lake Road, New Limerick

The Shaw Homestead (MPHC No. 301-0018), 678 Drews Lake Road, New Limerick, is evaluated as individually eligible for listing in the National Register at the local level under Criteria A and C in the areas of community development and architecture. The property faces north and is located approximately 5 miles west of the turbines in the expanded area. Under Criterion A, the property is potentially significant for its association with the Shaw family, father Charles and son Willis, early settlers who constructed a sawmill and tannery on the south branch of the Meduxnekeag Stream. They built their homestead on the adjacent lot. Willis Shaw operated the business, owned a general store, and held numerous positions in the community including Postmaster, Justice of the Peace, and Selectman (Smith n.d.:4–5). Under Criterion C the property is potentially eligible as an intact and well preserved Italianate style villa with three connected barns and one gazebo. The house is two stories in height, three large bays wide and two bays deep, with a metal hipped roof, clapboard siding, and a high granite foundation. The outer two bays of the facade have double-height bay windows. On the east elevation is a tower topped with a conical roof. A two-story ell projects from the north (rear) elevation. Connected to it is a carriage house, a hay barn, and a stable. A small gazebo is also located on the property. The Shaw Homestead retains its integrity of location, design, setting, materials, workmanship, feeling and association as an elaborate, late-nineteenth century Italianate villa with connected outbuildings.

Shakaree Deer Farmstead, 17 Cunliffe Road, New Limerick

The Shakaree Deer Farmstead (MHPC No. 301-0001), 17 Cunliffe Road, New Limerick is evaluated as individually eligible for listing in the National Register at the local level under Criterion C in the area of architecture (Photograph 2). The farmstead property is located approximately 6 miles west of the turbines in the expanded area. It contains a vernacular, two-and-one-half story residence and a large one-and-one-half story barn. The house has a large side-ell and a one-story attached porch. The New England-style, gable-front barn is “T-shaped” with a large side ell. It is clad in wood shingles and topped with a steeply pitched front gable roof. A cupola sits on the ridge line. A wood sliding door topped with a four-light transom is located on the central bay. The Shakaree Deer Farmstead retains its integrity of location, design, materials, workmanship, and association as an early-twentieth century rural farmstead. The historic setting is compromised by the insertion of modern, temporary residences in the immediate surroundings.

Barn, 377 New Limerick Road, Linneus

The barn at 377 New Limerick Road, Linneus (Survey Map No. 191.3) is evaluated eligible for listing in the National Register at the local level under Criterion C in the area of architecture. The barn is one-and-one-half stories in height, three bays wide with an asphalt-shingle gambrel roof and is covered in wood shingles. According to the MHPC determination “it is a representative example of its type, period and method of construction, and retains sufficient integrity to merit listing in the National Register” (MHPC letter, November 10, 2010).

Previously Inventoried Properties

The Oakfield Wind Project survey identified 93 properties with 98 individual resources within the indirect APE which were previously documented with MHPC inventory forms (Figure 4, Back Pocket and Table B-1, Appendix B). The Oakfield Wind Project Amendment survey identified an additional eight properties with 12 individual resources within the expanded indirect APE that were previously documented with MHPC inventory forms (see Figure 4 and Table B-2, Appendix B). There are no previously inventoried in the expanded APE for the turbines located to the south of the original Project.

These resources are primarily residential buildings or barn/agricultural buildings. The majority of these resources have been assigned MHPC Inventory numbers and most of them have either not been evaluated by the MHPC or have been evaluated by the MHPC as ineligible for National Register listing. The majority of the residential buildings were identified in 2004 for the Maine Department of Transportation (MDOT) Project number #6462.10. The majority of the agricultural properties were identified as part of a reconnaissance survey of agricultural properties in Southern and Central Aroostook County conducted in 1999.

All of the previously documented properties were revisited and photographed by the PAL survey team to determine if any changes had occurred. Minor changes to these properties are indicated on the survey forms. The survey revealed that nine properties were either demolished or unable to be located based on the location information included on the inventory form, or not visible from the roadway.

The barn/agricultural buildings that were previously surveyed in 1999 were recorded using Historic Building/Structure Survey Forms. PAL resurveyed these properties and recorded the properties using Historic Barn/Agricultural Structure Survey Forms, where appropriate. Additionally, Historic Farmstead Survey Forms were completed for properties where a barn/agricultural building was identified, but other farmstead elements were also present.

There are two structures within the indirect APE that have been evaluated by the MHPC as part of a statewide bridge survey performed by the MDOT's Environmental Office. These two bridges, Bridge #3504 and #2898, are located in Oakfield and have been evaluated as not eligible for listing in the National Register.

The barn on the Farmstead at 1114 Town Line Road, Merrill, was evaluated in 2005 by the MHPC and was evaluated as not eligible for National Register listing. The residence on this property was not previously recorded; a new Historic Building/Structure Survey Form for the residence and a Continuation sheet documenting the entire farmstead were created.

Properties Identified During the Historic Architectural Reconnaissance Survey

Number of Buildings/Structures Recorded and Property Types

The reconnaissance survey of the Oakfield Wind Project indirect impact APE identified 148 properties with 167 individual resources that were at least 50 years old and retained a portion of their original physical appearance (see Figure 4). These resources include 117 residences, 17 barns/outbuildings, 12 cemeteries, 8 civic/social/religious buildings, 6 commercial buildings, and 7 transportation-related structures. Table C-1, which summarizes the properties surveyed by PAL for the Oakfield Wind Project, is located in Appendix C. Copies of the reconnaissance level MHPC inventory forms are attached to this report.

The reconnaissance survey performed in November 2010 for the additional turbines to the south of the original Project did not identify any new properties.

The reconnaissance survey performed for the Oakfield Wind Project Amendment identified 83 properties containing 142 individual resources that were at least 50 years old and retained a portion of their original physical appearance (see Figure 5). These resources include 74 residences, 64 barns/outbuildings, three bridges, one commercial building, and one cemetery. Table C-2, which summarizes the properties surveyed by PAL for the Oakfield Wind Project Amendment, is located in Appendix C. Copies of the reconnaissance level MHPC inventory forms are attached to this report.

The surveyed buildings range in date from approximately the mid-nineteenth century through the mid-twentieth century. Most of the residences identified as meeting the survey criteria are mid-nineteenth- to early-twentieth-century vernacular farmhouses and single-family detached residences of one-and-one-half to two stories in height and with a variety of historic and modern alterations. Typical alterations include window and door replacement, vinyl siding, the addition of rear or side ells, and enclosure or reorientation of original porches. While mostly vernacular in style, there are a number of residences designed in the Greek Revival, Italianate and Colonial Revival styles. Civic and institutional structures surveyed include a town hall and a fire station. Commercial buildings include a small store and campgrounds. The APE also includes several small, informal, nineteenth-century cemeteries.

RECOMMENDATIONS

National Register Evaluation

All properties identified during the survey were evaluated in accordance with the National Register Criteria for Evaluation. The criteria are defined by the NPS as follows:

Properties eligible for inclusion in the National Register are those whose qualities of significance in American history, architecture, archaeology, engineering, and culture are present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association; and

- A. that are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. that are associated with the lives of persons significant in our past; or
- C. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. that have yielded, or may be likely to yield information important in prehistory or history.

The majority of the properties identified during the survey were evaluated as ineligible for listing in the National Register either individually or as contributing resources within a historic district. In general, the individual properties evaluated as ineligible for the National Register are common, vernacular structures that lack architectural significance or apparent significant historical associations. A large number of the properties have lost architectural integrity due to alterations and/or additions, removal of original architectural ornament, replacement of original materials, and replacement of original windows and doors.

There are no properties listed or evaluated eligible for listing in the National Register in the area surveyed for the additional turbines to the south of the original Project.

ASSESSMENT OF PROJECT EFFECTS

The Oakfield Wind Project Amendment is located in an area recently designated by the state for expedited permitting and is therefore subject to review under the Maine Legislature's recently enacted standards specific to wind power projects located within the expedited permitting area. The law provides that determinations of effect on scenic resources, including historic properties, of national or state significance, shall consider whether the wind project will cause unreasonable adverse effects (35-A MRSA §3452). In assessing whether an unreasonable adverse effect on scenic values may be caused by a project, the law requires that the siting authority consider:

- A. The significance of the potentially affected scenic resource of state or national significance;
- B. The existing character of the surrounding area;
- C. The expectations of the typical viewer;
- D. The project purpose and the context of the proposed activity;
- E. The extent, nature and duration of potentially affected public uses of the scenic resource of state or national significance and the potential effect of the generating facilities' presence on the public's continued use and enjoyment of the scenic resource of state or national significance; and
- F. The scope and scale of the potential effect of views of the generating facilities on the scenic resource of state or national significance, including but not limited to issues related to the number and extent of turbines visible from the scenic resource of state or national significance, the distance from the scenic resource of state or national significance and the effect of prominent features of the development on the landscape.

The framework used for assessing the effects of the Oakfield Wind Project Amendment on historic properties was that established by the regulations governing Section 106 of the National Historic Preservation Act. In conducting the assessment, the criteria of adverse effect was applied to each of the properties identified in the survey as listed or eligible for listing in the National Register. An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association (36 CFR 800.5(a)(1)).

Direct Effects

The direct effects APE was established to encompass all Project-related construction activities, including land acquisition, the area where the turbines and collector lines will be located, access roads, material laydown areas, the O & M facility, and the substations (see Figure 2). There are no historic properties within the direct impact APE. Therefore, the Project will have no direct effects to historic properties.

Indirect Effects

Visual Effects

In order to assess whether the views to or from the constructed Project would have an unreasonable adverse effect, the magnitude, distance, and duration of the potential view, along with the qualities of significance that make the properties eligible for listing in the National Register was taken into account. In assessing the potential effects of the Project on historic properties, PAL utilized observations made during the reconnaissance survey, and the draft Visual Impact Assessment. The indirect impact APE was established to include the area where the Oakfield Wind Project Amendment has the potential to cause visual impacts on properties that are listed or evaluated as potentially eligible for listing in the National Register (see Figure 3).

The following presents the effect determinations made by the MHPC as part of their review of the Oakfield Wind Project and discusses the potential effects for the three properties evaluated as potentially eligible for listing in the National Register as part of the reconnaissance survey for the Oakfield Wind Project Amendment. Table 3 provides a summary of the findings for all properties.

Oakfield Wind Effects Determinations

In a letter dated December 22, 2009, the MHPC determined that the Oakfield Wind Project would cause an adverse effect to the following properties:

- Dyer Brook Agricultural Area (Area A), Dyer Brook Road/Route 2, Dyer Brook
- Little Farm/Mary Berry Farm (MHPC No. 132-005), 1397 Silver Ridge Road/Route 2, Dyer Brook

The MHPC also determined (letter dated September 30, 2009) that there would be no effect or no adverse effect to the following properties:

- Oakfield Station, Station Street, Oakfield
- Oakfield Grange #414, 89 Ridge Street, Oakfield
- Farmstead (MHPC No. 277-0004), 341 Route 212, Merrill
- Herbert Tarbell House (MHPC No. 277-0012), 3491 Silver Ridge Road/Route 2, Merrill
- Perley Tarbell House (MHPC No. 277-0013), 3480 Silver Ridge Road/Route 2, Merrill
- Residence (MHPC No. 277-0017), 20 Route 212, Merrill
- Lincoln School (MHPC No. 277-0018), 25 Route 212, Merrill
- Oakfield Gazebo (Survey Map No. 48), 10 Main Street, Oakfield
- Residence (Survey Map No. 87), 118 Ridge Road, Oakfield
- Barn (MHPC No. 321-0008a), 28 Moores Road, Oakfield
- Potato Storage Facilities (Survey Map Nos. 120-122), Station Road, Smyrna
- Church (Survey Map No. 130), 3411 Silver Ridge Road, Smyrna
- Former Bangor & Aroostook Railroad Freight House (Survey Map No. 133.1), 3428R Silver Ridge Road, Smyrna
- Barn (MHPC No. 396-0009), 219 Timoney Lake Road, Smyrna

These assessments were based on the orientation of the properties in the relation to the proposed wind turbines, the limited extent to which the setting relates to a property's integrity, and/or the minimal effect on the setting where the significance of the property is related to its setting.

Oakfield Wind Project Amendment Effects Assessment

Under the currently proposed Oakfield Wind Project Amendment the number of turbines on the Oakfield Hills mountain range located closest to the historic properties in Oakfield, Dyer Brook, Merrill and Smyrna would be reduced from 34 to 26. The number of turbines visible from the two properties in Dyer Brook that the MHPC determined would be adversely affected by the Oakfield Wind Project, namely the Little Farm/Mary Berry Farm (MHPC No. 132-005), at 1397 Silver Ridge Road/Route 2 and the Dyer Brook Agricultural Area (Area A), would also be reduced. By lessening the number of turbines visible from these locations the overall magnitude and duration of the views would be less than what was proposed under the original Oakfield Wind Project.

The currently proposed Oakfield Wind Project Amendment, with the turbines located to the south of the original project, would not have any adverse effects to the properties recently determined eligible for listing in the National Register. The barn at 377 New Limerick Road, Linneus (Survey Map No. 191.3) is located approximately 3.5 miles to closest turbine site. Views of the turbines would likely be screened or blocked by Bates Ridge, which reaches elevations of up to 1200 feet, Crow Hill (1100 feet) and Byron Mountain (980 feet). Further, visual setting is not aspect of significance for this building which is primarily significant for its architecture.

The other two properties in New Limerick evaluated eligible for listing in the National Register, the Shaw Homestead (MHPC No. 305-0001) and the Shakaree Deer Farm (MHPC No. 301-0001), are located at distances that range from 4 to 6 miles from the nearest proposed turbine site. The qualities of significance that make them potentially eligible for listing in the National Register does not extend to the long range viewshed since they are primarily significant under National Register Criterion A for their association with community development and/or Criterion C for architecture. Visual setting is not an element of significance for either of these properties. The currently proposed Project would not alter the qualities of significance for the Shaw Homestead (MHPC No. 305-0001) or the Shakaree Deer Farm (MHPC No. 301-0001) and there would be no adverse effect to these properties.

Therefore, the currently proposed Oakfield Wind Project Amendment, with the additional turbines located to the south, would lessen the visual effect to the two properties in Dyer Brook and would not have any adverse effects on the remaining historic properties in the APE.

Noise Effects

Sound levels produced during construction and operation of a project are regulated by federal, state, and local noise standards. The Maine Department of Environmental Protection (MDEP) regulates noise under the authority of the Site Location of Development Law (38 M.R.S.A 481-490). The current Maine DEP noise regulation, Chapter 375.10, Control of Noise, was enacted in November 1989 to protect certain land uses from excessive sound levels generated by new or expanded developments and facilities.

Sound is measured in decibels, abbreviated as dB. When measuring sounds, A-weighted (dBA) sound levels are used to simulate the hearing response of humans. The hourly equivalent sound level resulting from routine operation of a wind project is limited to 75 dBA at any facility property boundary. Within residentially zoned areas or where the predominant surrounding land use is residential, the hourly sound level limits for routine operation are 60 dBA daytime and 50 dBA nighttime. In protected areas, the hourly sound level limits for routine operation are 55 dBA daytime and 45 dBA nighttime.

The Oakfield Wind Project Amendment's Noise Level Assessment sets forth the predicted "worst case" sounds to be produced by the Project in its final design and configuration. The Assessment relies on a sophisticated model to predict the sound levels from the Project. To generate a "worst-case scenario" a

number of conservative assumptions were input in the model. Among these conservative assumptions were the following:

- All turbines are operating at full sound power at all times;
- Downwind conditions in all directions simultaneously;
- No foliage attenuation;
- “Hard ground” conditions throughout the project area.

Applicable uncertainty factors were added to the turbine manufacturer’s turbine specification guarantee level. The modeling for the Oakfield Wind Project Amendment demonstrates that the noise from the project at all properties listed in or potentially eligible for listing in the National Register will below the regulatory “quiet limits” of 45 dBA.

Table 2. Assessment of Indirect Effects for Properties Listed in or Evaluated as Potentially Eligible for Listing in the National Register within the Oakfield Wind II APE.

| MHPC No. or Survey Map No. | Property Name/Address | National Register Evaluation | Effects Assessment | Comments |
|----------------------------|--|---|--------------------|---|
| N/A | Oakfield Station, Terminus of Station Street, adjacent to the railroad, Oakfield | National Register Listed | No effect | There are no views to the Project due to intervening topography and vegetation. |
| MHPC No. 321-0028 | Oakfield Grange #414, 89 Ridge Street, Oakfield | National Register Listed | No adverse effect | Views to the Project would be limited by existing vegetation and topography. These views would not alter the qualities of significance or integrity that make the property eligible for listing in the National Register. |
| MHPC No. 132-0005 | Farmstead, 1397 Silver Ridge Road, Dyer Brook | Evaluated as Potentially Eligible for National Register Listing | Adverse effect | Potential views of the northern section of the Project in the background when the property is viewed from road. The MHPC determined that the Oakfield Wind Project as originally designed would cause an adverse visual effect on this property (MHPC 12/22/2009). The current design of the Project would lessen the number of turbines visible from this property and the overall magnitude and duration of the view would be less than what was proposed under the original Oakfield Wind Project. |
| Survey Map No. A | Dyer Brook Agricultural District | Evaluated as Potentially Eligible for National Register Listing | Adverse effect | Sections of the Project would likely be visible from a number of the properties within the district. The MHPC determined that the Oakfield Wind Project as originally designed would cause an adverse visual effect on this resource (MHPC 12/22/2009). The current design of the Project would lessen the number of turbines visible from this resource and the overall magnitude and duration of the view would be less than what was proposed under the original Oakfield Wind Project. |

| MHPC No. or Survey Map No. | Property Name/Address | National Register Evaluation | Effects Assessment | Comments |
|----------------------------|---|---|--------------------|---|
| MHPC No. 277-0004 | Farmstead, 341 Route 212, Merrill | Evaluated as Potentially Eligible for National Register Listing | No adverse effect | Potential distant views (approx. 3.75 miles) of the northern section of the Project would be limited by the road alignment and surrounding trees. Property is oriented to the south and the Project would not be affected the agricultural landscape when viewed from the road. |
| MHPC No. 277-0012 | Herbert Tarbell House, 3491 Silver Ridge Road/ Route 2, Merrill | Evaluated as Potentially Eligible for National Register Listing | No adverse effect | Potential distant views (approx. 3.5 miles) of the northern section of the Project would be limited by topography and surrounding trees. These views would not alter the qualities of significance that make the property potentially eligible for listing in the National Register. |
| MHPC No. 277-0013 | Perley Tarbell House, 3480 Silver Ridge Road/ Route 2, Merrill | Evaluated as Potentially Eligible for National Register Listing | No adverse effect | Potential distant views (approx. 3.75 miles) of the northern section of the Project would be limited by topography and surrounding trees. These views would not alter the qualities of significance that make the property potentially eligible for listing in the National Register. |
| MHPC No. 277-0017 | Residence, 20 Route 212, Merrill | Evaluated as Potentially Eligible for National Register Listing | No adverse effect | Potential distant views (approx. 3.75 miles) of the northern section of the Project would be limited by topography and surrounding trees. These views would not alter the qualities of significance that make the property potentially eligible for listing in the National Register. |
| MHPC No. 277-0018 | Lincoln School, 25 Route 212, Merrill | Evaluated as Potentially Eligible for National Register Listing | No adverse effect | Potential distant views (approx. 3.75 miles) of the northern section of the Project would be limited by topography and surrounding trees. These views would not alter the qualities of significance that make the property potentially eligible for listing in the National Register. |
| MHPC No. 301-0001 | Shakaree Deer Farm, 17 Cunliffe Road, New Limerick | Evaluated as Potentially Eligible for National Register Listing | No adverse effect | Potential distant views (approx. 6 miles) of the Project would be limited by topography and surrounding trees and would not alter the qualities of significance that make the property potentially eligible for listing in the National Register. |

| MHPC No. or Survey Map No. | Property Name/Address | National Register Evaluation | Effects Assessment | Comments |
|-----------------------------------|---|---|---------------------------|--|
| MHPC No. 301-0018 | Shaw Homestead, 678 Drews Lake Road, New Limerick | Evaluated as Potentially Eligible for National Register Listing | No adverse effect | Potential distant views (approx. 5 miles) of the Project would be limited by topography and surrounding trees. These views would not alter the qualities of significance that make the property potentially eligible for listing in the National Register. |
| Survey Map No. 191.3 | Barn, 377 New Limerick Road, Linneus | Evaluated as Potentially Eligible for National Register Listing | No adverse effect | Views to the constructed Project would be screened or blocked by existing topography. The Project would not alter the qualities of significance that make the property potentially eligible for listing in the National Register. |

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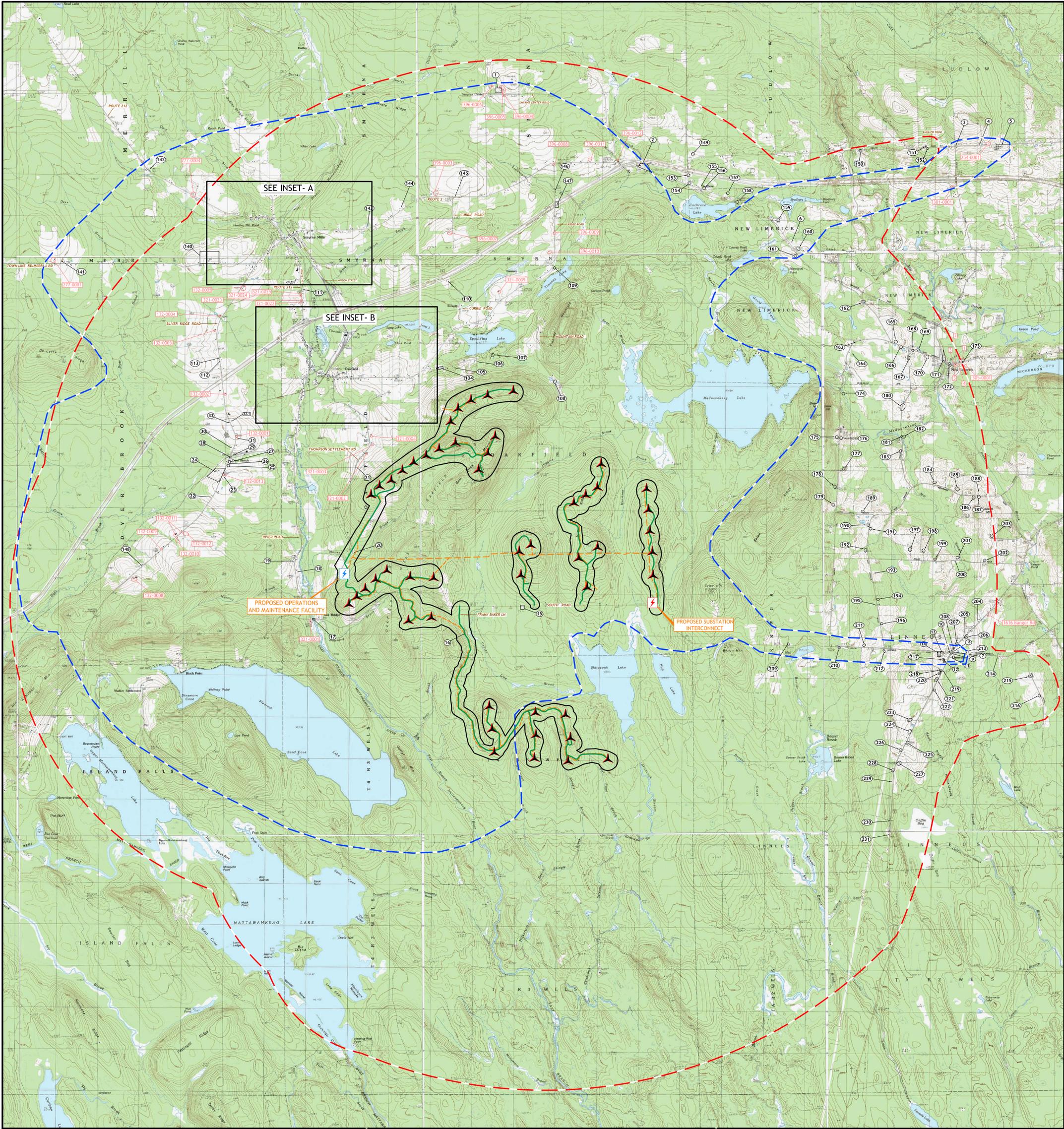
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KEY

- Turbine Locations
- Oakfield Wind - Indirect Area of Potential Effect (APE)
- Oakfield Wind Project Amendment - Indirect Area of Potential Effect (APE)
- Proposed Access Road
- Collector Corridor
- PAL Survey Number
- Previously Surveyed Properties

PAL Revised: 05-18-11
PAL Revised: 11-16-10

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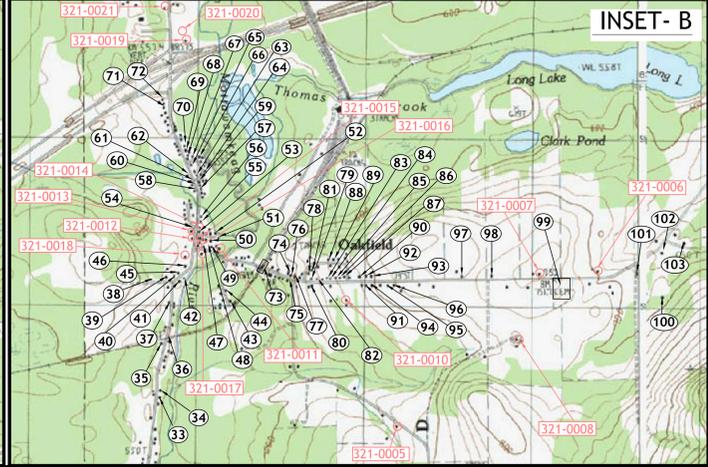
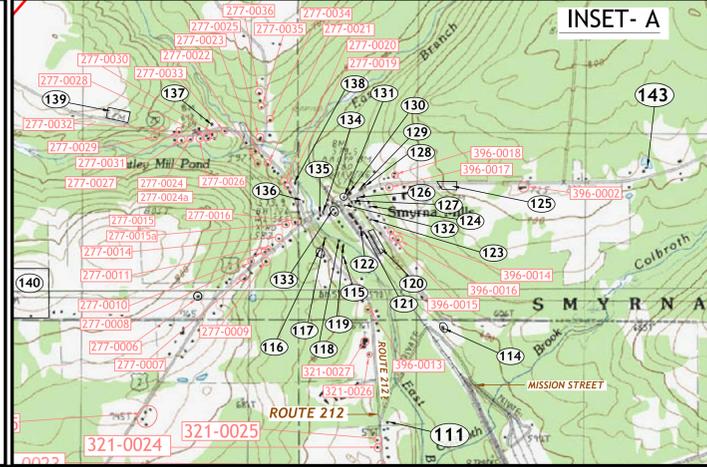


Figure 4. Oakfield Wind Project Amendment Architectural Survey base map.

Appendix 8-2

**Phase 0 Archaeological Survey:
Oakfield Wind Project Amendment
Summit Development
Oakfield, Aroostook County, Maine**

Submitted to
Stantec Consulting Services, Inc.
30 Park Ave.
Topsham, Maine 04086

Kathleen Wheeler, Ph. D., Principal Investigator

Prepared by
Kathleen Wheeler, Ph. D.



**INDEPENDENT ARCHAEOLOGICAL
CONSULTING, LLC**

97 Morning Street
Portsmouth, NH 03801

IAC Report No. 1018

August 11, 2010
REVISED May 23, 2011

This Report Contains Confidential Information

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INTRODUCTION

Independent Archaeological Consulting, LLC (IAC) of Portsmouth, New Hampshire, has completed a Phase 0 reconnaissance survey for the proposed Oakfield Wind Project Amendment located in Oakfield, Aroostook County, Maine, on behalf of Stantec Consulting Services, Inc., of Topsham, Maine. This report is a revision of an August 11, 2010 report. It offers an evaluation of a modified project design and the expansion of the geographic area to include relevant areas of T4R3 WELS.

The present project calls for the erection of 50 turbines along with a proposed 34.5 kV collector system, an electrical substation, and an operations and maintenance facility. The Maine GenLead Amendment includes a 59-mile transmission line, which is the subject of a separate report. Archaeological work is authorized under Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR Part 800). Dr. Kathleen Wheeler served as Principal Investigator, and she exceeds the qualifications set forth by the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44716, September 29, 1993) and 36 CFR Part 61. Dr. Wheeler is a certified Level-2 Historical Archaeologist in Maine and is permitted to conduct all phases of archaeological survey.

In the original Oakfield Wind Project, plans called for the erection of 34 General Electric 1.5-MW turbines, whose impacts were reviewed by IAC and TRC in a Phase 0 assessment (Wheeler, Marlatt, and Will 2009) and an addendum that followed in September (Tumelaire and Wheeler 2009). The present report notes that the Oakfield project now proposes the amended layout of 50 Vestas 3.0-MW turbines, as shown in Figure 1.

The Oakfield Wind Project Amendment is described below.

On January 21, 2010, the Maine Department of Environmental Protection approved the application of Evergreen Wind Power II, LLC (Evergreen II) to construct and operate the 51 megawatt (MW) Oakfield Wind Project in Oakfield (DEP#L-24572-24-A-N/L-24572-TF-B-N).

The Oakfield Wind Project is being amended to change the turbine types from General Electric (GE) 1.5 MW turbines to Vestas V-112 3.0 MW turbines, increase the total number of turbines from 34 to 50 and the installed capacity from 51 MW to 150 MW, and add a new substation and point of electrical interconnection with the electrical grid, which in turn involves construction of a new generator lead transmission line (collectively the "Revised Oakfield Wind Project"). For administrative reasons, the changes to the Oakfield Wind Project are the subject of two separate amendment applications. This application by Evergreen II addresses the changes to the generating facilities (the "Project"), and a companion amendment application by Maine GenLead, LLC, addresses the new generator lead. The resource impacts associated with the Project and the new generator lead are being considered cumulatively.

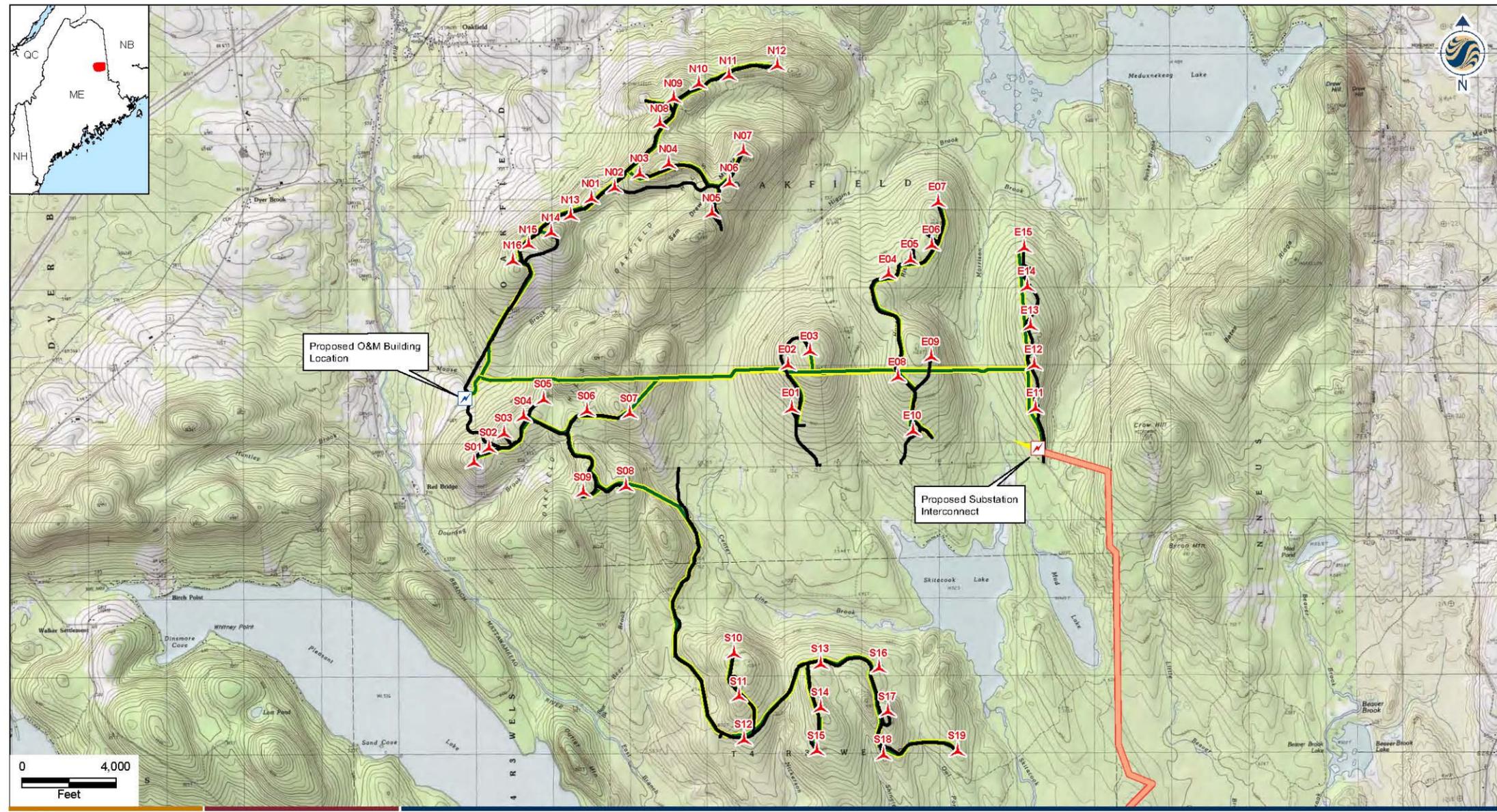
This application by Evergreen II for the *Revised Oakfield Wind Project* amends the original Oakfield Wind Project as follows:

- change the approved turbines in the original project area from 34 GE 1.5-MW with a 77-meter rotor diameter and an 80 meter tower, to 25 Vestas V-112 3.0-MW turbines, with a 112-meter rotor diameter and an 84 meter tower;
- add temporary and permanent met tower locations;
- change turbine pad size, turbine locations, road widths, and some road locations;

- eliminate the northern substation;
- add 25 Vestas 3.0-MW turbines with 112-meter rotor diameters;
- add a new substation location; and
- change the point of electrical interconnection.

This amendment would increase the size of the Oakfield Wind Project to 50 turbines with a potential generating capacity of 150 MW. The Project would be located in the Town of Oakfield and T4R3 WELS.

Electricity generated by the turbines would be collected from the turbines at 34.5 kilovolts (kV), and “stepped up” to 115 kV at the new substation on South Oakfield Road. The northern substation approved as part of the original project would not be constructed. From substation location on South Oakfield Road electricity would be transmitted by the Maine GenLead transmission line to a point in Chester where it would tie into the existing Bangor Hydro Electric system.




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Legend
 Proposed Turbine (Vestas 50)
 Proposed 115kv Transmission Corridor
 Proposed Collector Corridor
 Proposed Access Roads

Client/Project
 Evergreen Wind Power II, LLC
 Oakfield Wind Project Amendment
 Oakfield, Maine
 Figure No.
 1
 Title
Summit Project Development Area
May 2011

Figure 1. Location of 50 proposed wind turbines for Oakfield Wind Project Amendment.

As discussed in the earlier reports (Tumelaire and Wheeler 2009; Wheeler, Marlatt, and Will 2009), nineteenth-century maps show Oakfield as a fairly well-developed town in the last quarter of the century, with home- and farmsteads spread along several main roads. By the time of the publication of 1937 USG quadrangle map of Oakfield, many farmsteads had been abandoned, and we discovered many of these represented as cellarholes. Their location in relation to the proposed Amended Oakfield impacts is shown in Figure 2, which indicates that no historic resources will be affected by the present undertaking, with the sole exception of an access road that passes directly east of the L. Sprague Farmstead (ME 321-003) along South Oakfield Road (Figure 3). The road avoids the cellarhole and barn foundation but passes through a side yard (Figure 4). We recommend fencing along the west edge of the access road as shown in Figure 4, to prevent inadvertent disturbance to the resource. For the rest of the project area, the Areas of Potential Effect (APEs) for turbines, turbine pads, access roads, an Operations and Maintenance (O&M) building, and transmission lines are all in areas of low sensitivity for Euroamerican archaeological resources. We recommend no further archaeological survey for the Oakfield Wind Project Amendment as portrayed here.

Scope and Authority

The Oakfield Wind Project Amendment will require approvals and permits from both federal and state entities. Among these, the Project will be reviewed under Section 106 of the National Historic Preservation Act (NHPA) (16 US §470f). Section 106 of the NHPA requires federal agencies, including the Army Corps of Engineers (ACOE), to take into account, prior to authorizing an undertaking (e.g., the issuance of an ACOE approval or Certificate), the effect of that undertaking on cultural resources listed or eligible for listing in the National Register of Historic Places (National Register) (36 CFR §60). The agency must also afford the Advisory Council on Historic Preservation the opportunity to comment on the undertaking. The Section 106 process is coordinated at the state level by the State Historic Preservation Officer (SHPO), represented in Maine by the Maine Historic Preservation Commission (MHPC). The issuance of agency certificate or approvals will depend, in part, on obtaining comments from the Maine SHPO.

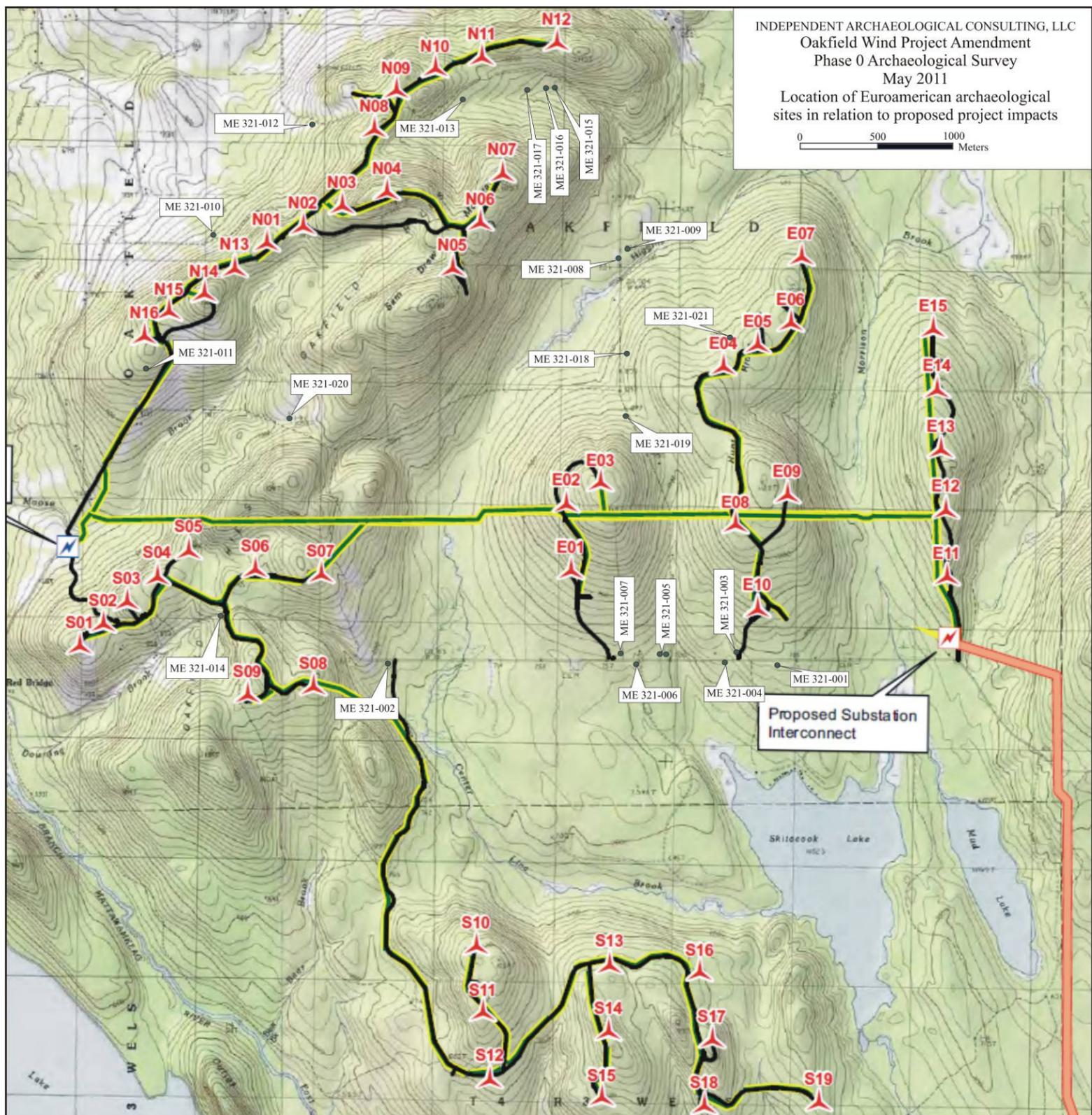


Figure 2. Location of recorded Euroamerican archaeological sites, in relation to the proposed features for the Oakfield Wind Project Amendment.

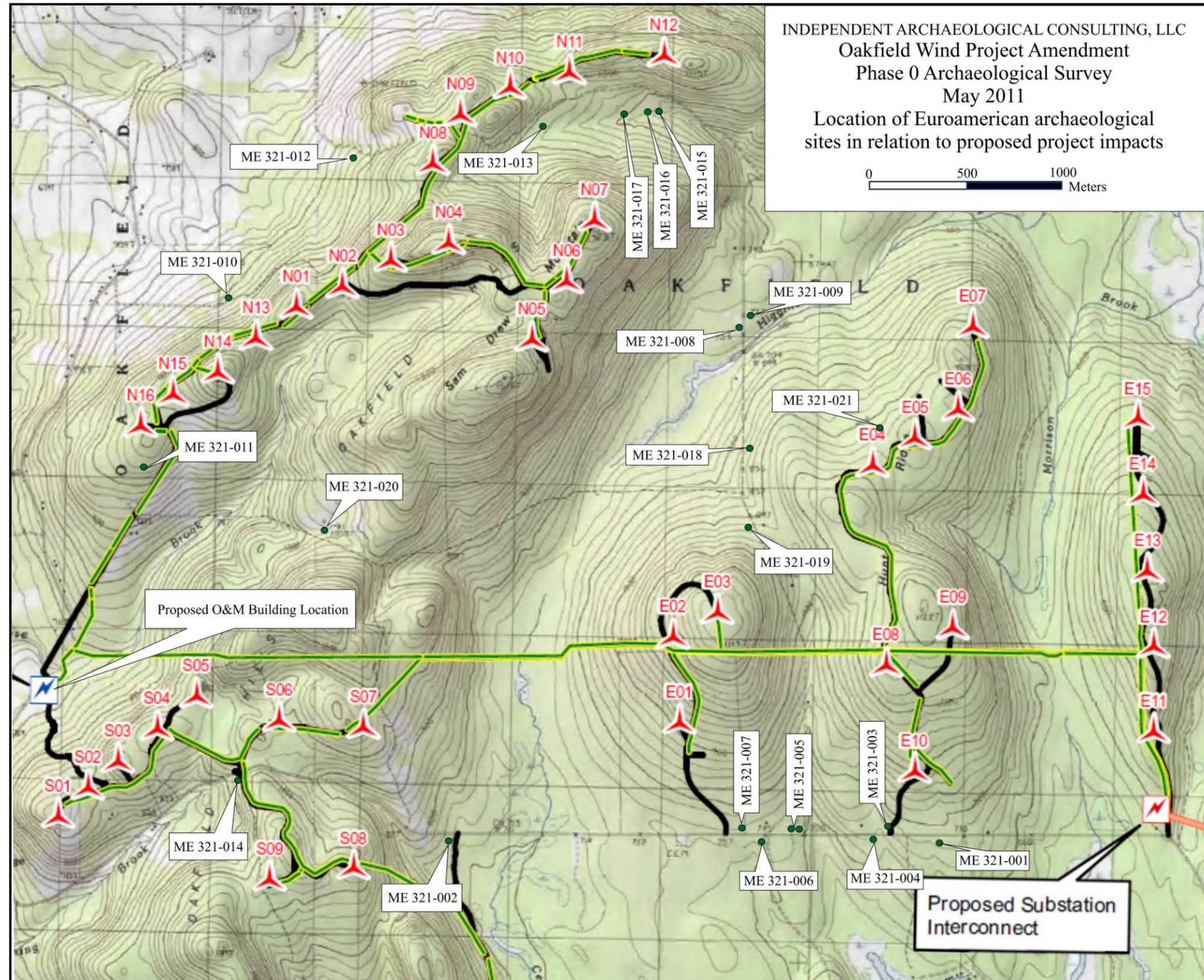
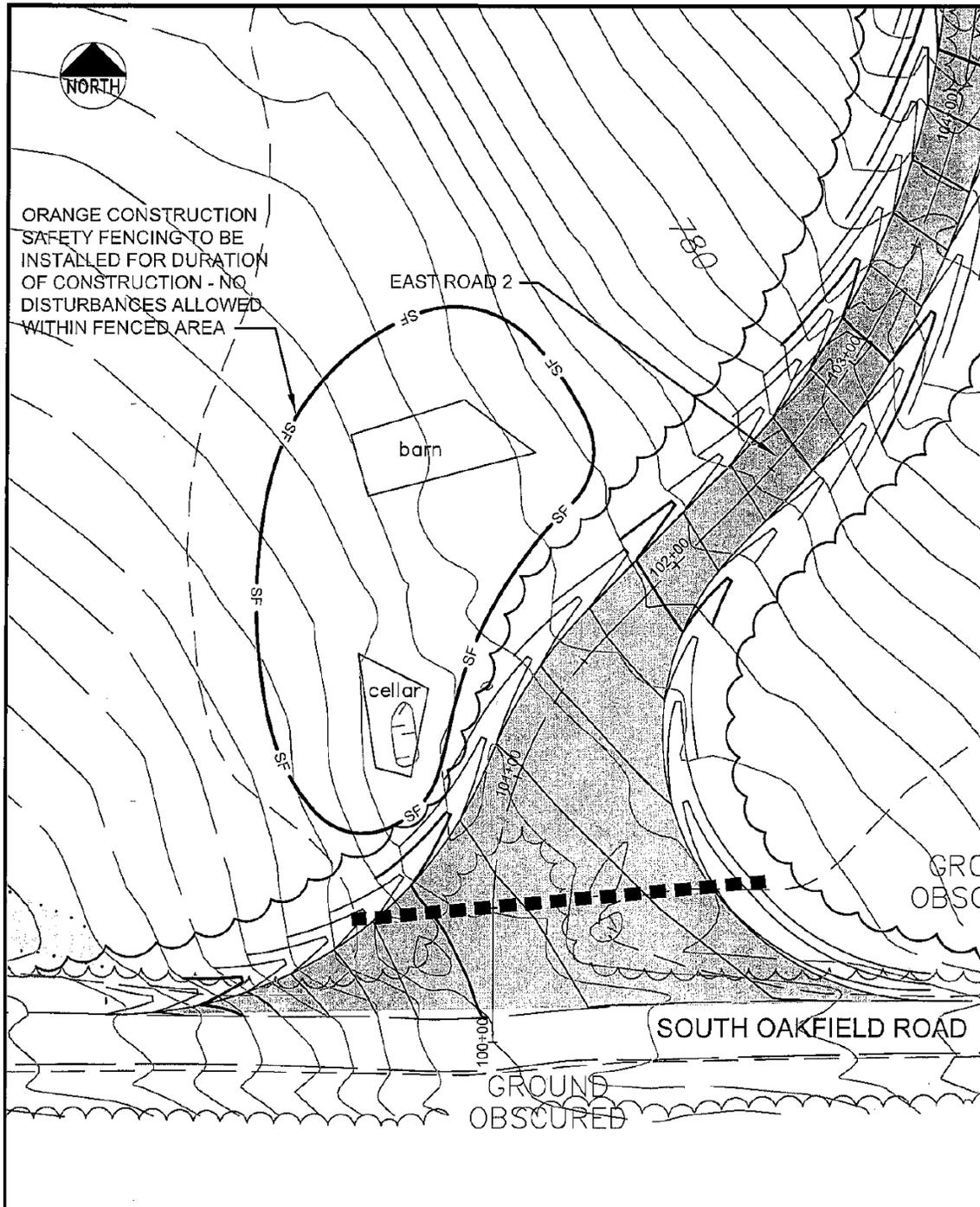


Figure 3. Detail of location of archaeological resources in relation to proposed turbines and access roads.



| | | | |
|--|---------------------------------------|--|-------------|
| REVISED OAKFIELD WIND PROJECT | | SPRAGUE CELLAR NEAR EAST ROAD 2 ENTRANCE | |
|  DeLuca-Hoffman Associates, Inc. 778 MAIN STREET, SUITE 8 SOUTH PORTLAND, ME 04106 207.775.1121 WWW.DELUCAHOFFMAN.COM | DRAWN: DED | DATE: 12.28.10 | FIGURE 1 |
| | DESIGNED: SRB | SCALE: 1" = 50' | |
| | CHECKED: SRB | JOB NO. 2898 | |
| | FILE NAME: 2898 PLAN AND PROFILE EAST | | |

Figure 4. Location of proposed access road to east of house and barn at the L. Sprague Farmstead (ME 321-003).

CULTURAL RESOURCE ASSESSMENT AND SURVEY METHODS

Predicting the location of Euroamerican archaeological resources is built primarily from cartographic evidence from nineteenth- and twentieth-century maps (e. g., Roe & Colby 1877; and United States Geological Survey topographical maps). These cartographic resources pinpoint the location of dwellings, schools, mills, churches, and cemeteries, providing the archaeologist with a ready point of comparison between past and present landscapes. In this, the sensitivity assessment differs greatly from those conducted for pre-Contact-period archaeological resources. Historical archaeologists can also review secondary sources such as town histories, genealogies, photographs, and newspapers to provide a larger historical context for a project area. The sensitivity assessment also includes a site file search for known archaeological sites within the project area, or sites that might serve as analogs for the project area. Using known site types and distributions, historical archaeologists develop settlement models to make predictive statements about where to anticipate finding sites.

High archaeological sensitivity for Euroamerican resources is associated with the following variables:

- documented existence of sites (e. g., homesteads, farmsteads, schools, churches, town halls, cemeteries) through primary, secondary, or cartographic resources
- presence of known sites (whether extant, aboveground representations of early architecture, or documented archaeological site)
- proximity to transportation systems (roads, railroads, major rivers and streams) and potable water sources
- linkage to other resources (such as stone for quarrying, clay sources for brick or ceramics, or metal ores)
- High sensitivity is defined as lying *within 100 m (330 ft)* of documented or known sites, transportation systems, or sources of potential hydropower

Moderate sensitivity was assigned to areas between 100 m to 200 m (330 ft to 650 ft) of an historic road, standing architectural feature, or potable water source, in areas with minimal to moderate disturbance. Low sensitivity areas are those more than 200 m (650 ft) from documented sites, roadways, natural resources, or water sources. Low sensitivity is also assigned to areas with excessive ground disturbance, such as along railroad grades, where extensive cutting and filling are typically involved in the creation of the railroad bed. Table 1 summarizes the fundamental criteria for ranking sensitivity for Euroamerican archaeological resources.

Table 1. Summary of criteria for evaluating Euroamerican archaeological sensitivity.

| Sensitivity | Criteria |
|-------------|---|
| High | within 100 m of transportation systems and/or sites known from maps |
| Moderate | within 100-200 m (330-650 ft) of roads or known sites |
| Low | more than 200 m from roads or known sites; or excessive disturbance |

Euroamerican archaeological resources typically exist along transportation corridors, specifically roads and rivers. Environmental conditions, such as water power and land suitable for agriculture, also affect site location. Nineteenth- and twentieth-century maps of the project area confirm that most buildings and structures were located along roads, which followed streams, rivers, or ponds, because these areas were the most level and easiest to access. Euroamerican

archaeological resources are commonly found where former buildings or structures stood, where people lived and have left a trace of their lives in the form of artifacts and features.

As noted above, our site prediction model anticipates that most resources will be found within 100 m (330 ft) of transportation corridors. In applying this model to the siting of turbines for the Oakfield Wind Project, we note the presence of several historic roads in the APE; i.e., some of these have been incorporated into an elaborate ATV trail system, but at one time, these functioned as transportation corridors between farmsteads, homesteads, schools, churches, stores, and municipal buildings. All areas of documented past habitation are considered sensitive for Euroamerican archaeological resources, and archaeologists identified five areas of high sensitivity.

While the single most important tool in reconstructing Euroamerican settlement is the study of cartographic resources (especially nineteenth-century maps), historical archaeologists are aware of the flaw of relying too heavily on this single source of evidence. In the 1850s and 1870s, wall maps and atlases were published for most Maine Counties (e. g., Walling 1859; Comstock & Cline 1875). These atlases provide data on settlement patterns of the second half of the nineteenth century but do not include abandoned sites from earlier periods of occupation, especially those of seventeenth-century forts and trading posts, as described in Brain (1995, 1997), Camp (1975), Cranmer (1990); Faulkner and Faulkner (1987, 1994) or the farmsteads, schools, and mills from the eighteenth century, abandoned by the time the nineteenth-century maps were drafted. Ultimately, the very earliest of Maine's Euroamerican archaeological resources may not appear on the nineteenth-century maps consulted for the project. Even using archival data, archaeologists cannot always predict the location of Euroamerican sites without conducting walkover surveys to ground-truth the presence or absence of resources.

In addition to maps, secondary sources were reviewed for pertinent information on early settlement, major industries, potential for hydropower development and the local economic base (e. g., Varney 1881; Wells 1869). Landscape characteristics, including soil types, topography, and slope, can also indicate whether Euroamerican sites may be present or absent. Frontier settlement in rural Maine depended on subsistence farming, so early sites are typically associated with arable land. The converse of this is that swamp or marshlands will probably not be selected for settlement; the disclaimer, however, is that archaeologists must be certain that wetlands are a feature of long standing and that they have not been created recently. Multiple wetlands were created during the construction of railroads in the nineteenth century, and our modern highways continue to create "stranded" wetlands. Sources of potable water are critical components of Euroamerican settlement (as they were for pre-Contact times), and sites may be located near wells, springs, or fresh water rivers.

Likewise, early Euroamerican industries were water-powered, so natural features such as waterfalls were regarded as important landscape features. Land deed research of New England towns will often demonstrate that the first pieces of land bought, sold, and contested were lots with water rights. Water has powered sawmills, gristmills, and other industries in Maine from the 1640s to the present day. Where the project area intersects sources of hydropower (as compiled by Wells 1869), IAC inspected the area to see if millworks were present.

Background Research/Information Sources

The initial phase of archaeological investigation (Phase 0 sensitivity assessment) provides the information required to stratify the project into ranked zones of Euroamerican archaeological sensitivity. This sensitivity is defined as the likelihood for Euroamerican cultural resources to be

present within project area boundaries based on different categories of information. The following methodology was utilized to complete the archaeological resources assessment:

- identification of known Euroamerican sites through background research and MHPC site file searches; data pertaining to the known sites, including their locational, functional, and temporal characteristics, were reviewed where applicable;
- review of recent cultural resource management (CRM) surveys performed in the towns and townships where the transmission corridor traverses and
- review of primary and secondary historic information (e.g., maps, atlases, town histories) to learn of areas where sites were potentially located.

Assessing the potential for the presence of cultural resources begins with the examination of primary and secondary documentary sources: written and cartographic documents relating both to past and present environmental conditions and to Euroamerican resources in or close to the project area. This background data assists in the formulation of predictive models or statements about the project area and is an integral part of any assessment. Variables within each category of background data are used to define the overall archaeological and historical context of the project area.

MHPC maintains an archaeological site file database recording the location and relevant information of each recorded Euroamerican site. Persons who are historic archaeologists certified by the State of Maine have access to this database. Dr. Wheeler checked the site file records for the project area and found no new sites discovered in Oakfield since she recorded 21 new sites for the town of Oakfield.

Included in the MHPC files are CRM reports from CRM projects and Maine municipalities under the Maine SHPO Certified Local Government program. Based on the principal investigator's experience on similar projects in Maine, Dr. Wheeler reviews CRM survey reports that might be germane to the research goals and needs of this project.

In addition to identifying known sites within a project APE, the sensitivity assessment seeks to predict the location of sites not currently known. For the Euroamerican time period, written records, maps, and photographs are valuable research tools in assessing where sites may have once been in a project area. Using maps, town histories, oral history, photographs, the historic archaeologist attempts to reconstruct settlement patterns for times past. These settlement patterns are compared with present-day layouts of roads, houses, schools, and farms, to see which of the past resources are absent from the present landscape. If resources appear to be absent from the present landscape, then these might be as yet undiscovered archaeological resources.

The MHPC curates a complete collection of mid-nineteenth century wall maps for each Maine County in existence at that time. These maps, as well as similar county atlases from the 1870s, were consulted to predict the possible location of resources (e. g., homesteads, farmsteads, and mills) in relation to the path of the transmission corridor. Secondary sources at the Maine State Library and Maine State Archives provided background context for each town.

Walkover Survey/Site Inspection

Since Euroamerican sensitivity can be briefly described as all areas along roadways or other transportation corridors, IAC archaeologists conducted site inspections of each and every road crossing near the proposed Amended Oakfield effects. Archaeologists did not conduct 100

percent walkover but focused on roadways, road crossings, stream crossings (where mills and dams might be present), and sites shown in archives (i. e., where locations were given on nineteenth- and twentieth-century maps of dwellings, schools, churches, or cemeteries).

Following the map review, IAC archaeologist Dr. Kathleen Wheeler conducted an inspection of the northern end of the project area along South Oakfield Road on May 26, 2010, to confirm the absence of any new archaeological sites in the project APE. No new archaeological resources were expected for the locations of the Amended Oakfield turbines in T4 R3. She used a Trimble hand-held unit loaded with a shape file that showed project boundaries and checked the eastern edge of the project area where the substation is proposed along South Oakfield Road (see Figure 1). She detected no resources in the project area. On August 2, 2010, Mr. Jacob Tumelaire and Mr. Jonathan Douse took Trimble points on two archaeological sites (ME 321-003 and ME 321-007) on the north side of South Oakfield Road, near where north-trending access roads head up to the summit. The J. Davidson Homestead (ME 321-007) is clearly east of the proposed access road, and no further archaeological survey is necessary.

The L. Sprague Farmstead (ME 321-003) is comprised of a cellarhole on South Oakfield Road with a barn foundation approximately 20-25 m (65-80 ft) to the north (see Figure 4). This resource was not sampled for the present survey, but the proposed impact will be east of the two architectural features and will affect a portion of the eastern side yard. We anticipate that few resources are present in this portion of the farmstead, based on past experience at other nineteenth-century farms. The author has found that the area between the house and barn tends to be most utilized activity area, where archaeological traces are most prevalent. We propose that the western edge of the access road be flagged by archaeologists prior to the road's construction to prevent inadvertent disturbance of the cellarhole and barn foundation.

EUROAMERICAN CULTURAL CONTEXT

The Euroamerican settlement history for Oakfield has been previously treated in the reports generated by Wheeler, Marlatt, and Will (2009) and Tumelaire and Wheeler (2009). This section reprises some of that information as a summary review of the expected Euroamerican archaeological resources.

Oakfield, in Aroostook County, was originally set out as No. 5 in Range 3, a rectangular piece of land to the north of No. 4 in the same range. The territory was bordered by Smyrna to the north, Linneus and New Limerick to the east, Dyer Brook Plantation to the west. The town came to be known as Oakfield Plantation when it was organized in 1866. The East Branch of the Mattawamkeag River, fed by lakes and streams throughout town, flows adjacent to the Oakfield's western border. A few of the streams afforded excellent waterpower for small-scale industry in the nineteenth century, and one lumber mill was reported at Long Lake in 1881 (Varney 1881: 406-407).

Settlement began in the 1830s. By 1877 Oakfield Plantation had been surveyed and divided into rectangular lots of varying sizes. The Roe & Colby (1877) map shows most of these lots accounted for along with landowner names (Figure 5). A handful of roads run alongside or lead from the Mattawamkeag River, spreading across the town land to the north and east. Homesteads and farmsteads, generally one per lot, are shown at fairly regular intervals along these roads.

Population has remained modest since Oakfield's establishment, numbering 559 individuals by 1870 and 636 by 1880 (Table 2). Population figures barely exceeded 1,000 and had declined to 732 individuals by the 2000 Federal Census. In visiting the town in 2008, archaeologists found much open land used for agriculture, with some orchards, and timbering activities. Along South Oakfield Road, several modern homes have been constructed, but overall, the settlement pattern remains open and widespread, with the exception of the village of Oakfield. Figure 6 shows the project impacts as a layer over the Roe & Colby 1877 map.

Table 2. Population figures for Oakfield, 1870 to 2000 (after U. S. Federal Census).

| Year | Population | Change | %Change |
|------|------------|--------|---------|
| 1870 | 559 | | |
| 1880 | 636 | 77 | 14% |
| 1890 | 720 | 84 | 13% |
| 1900 | 860 | 140 | 19% |
| 1910 | 928 | 68 | 8% |
| 1920 | 1016 | 88 | 9% |
| 1930 | 982 | -34 | -3% |
| 1940 | 1059 | 77 | 8% |
| 1950 | 1009 | -50 | -5% |
| 1960 | 848 | -161 | -16% |
| 1969 | 836 | -12 | -1% |
| 1980 | 847 | 11 | 1% |
| 1990 | 846 | -1 | 0% |
| 1999 | 732 | -114 | -13% |



Figure 5. Settlement and development of Oakfield by 1877 (after Roe & Colby 1877).

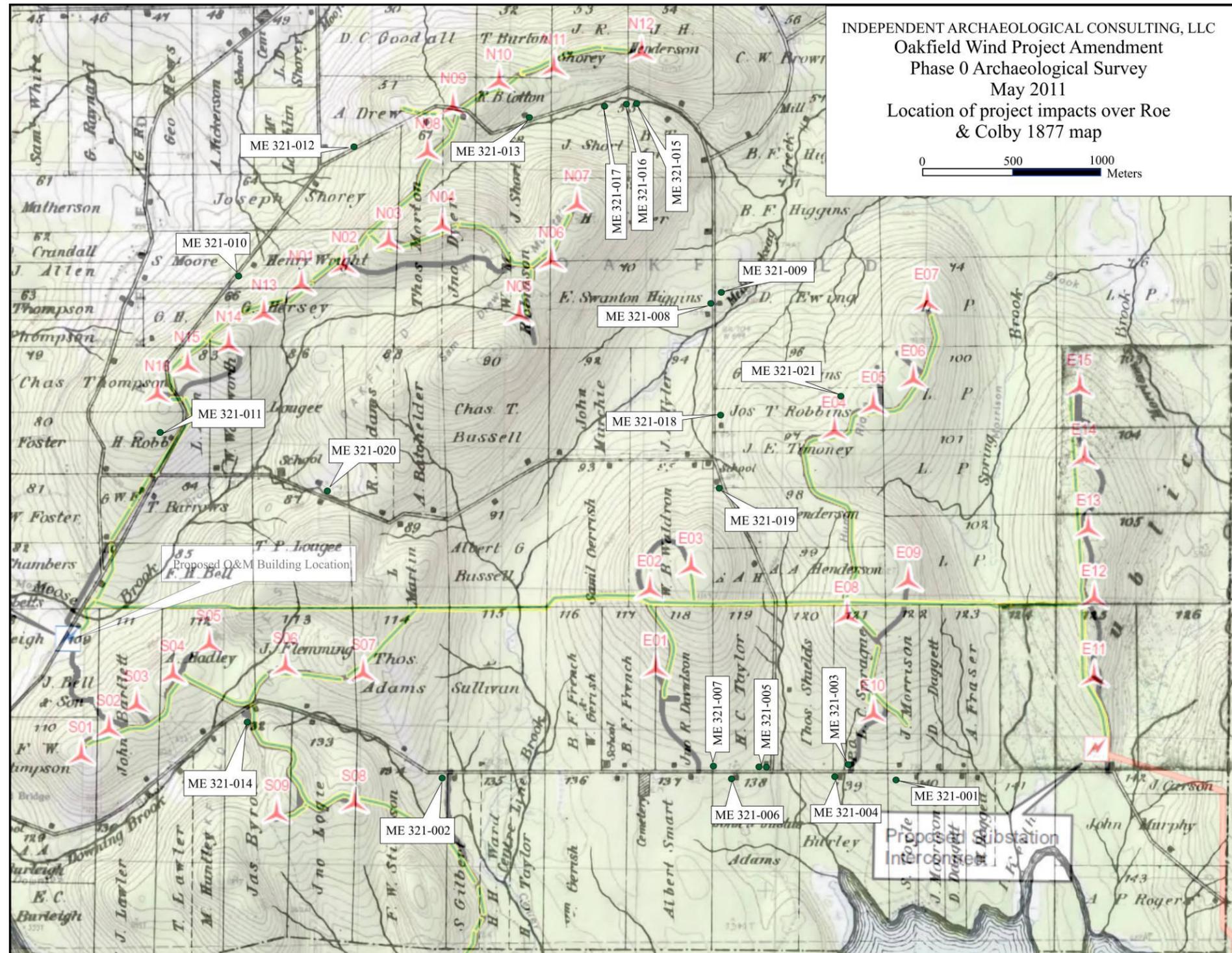


Figure 6. Oakfield Wind Project Amendment impacts viewed on 1877 map of Oakfield (after Roe & Colby 1877).

By contrast, T4 R3 WELS was undeveloped in 1877 (Figure 7), although several land grants had been set aside Township No. 4 in Range 3 W.E.L.S. (hereafter T4 R3) is one of the unnamed townships located near the center of southern Aroostook County, Maine. It is situated south of Oakfield, west of Linneus and Township A in Range 2, North of Township 3 in Range 3, and east of Island Falls. T4 R3 encompasses portions of several bodies of water, including Pleasant Lake and Mattawamkeag Lake in the west, and Skitacook and Mud Lakes in the northeast corner. The East Branch of the Mattawamkeag River runs across the township from southeast to northwest. Even though the township was not developed or occupied through the end of the third quarter of the nineteenth century, Figure 8 illustrates this, showing the project impacts as a layer over the Roe & Colby 1877 map of T4 R3

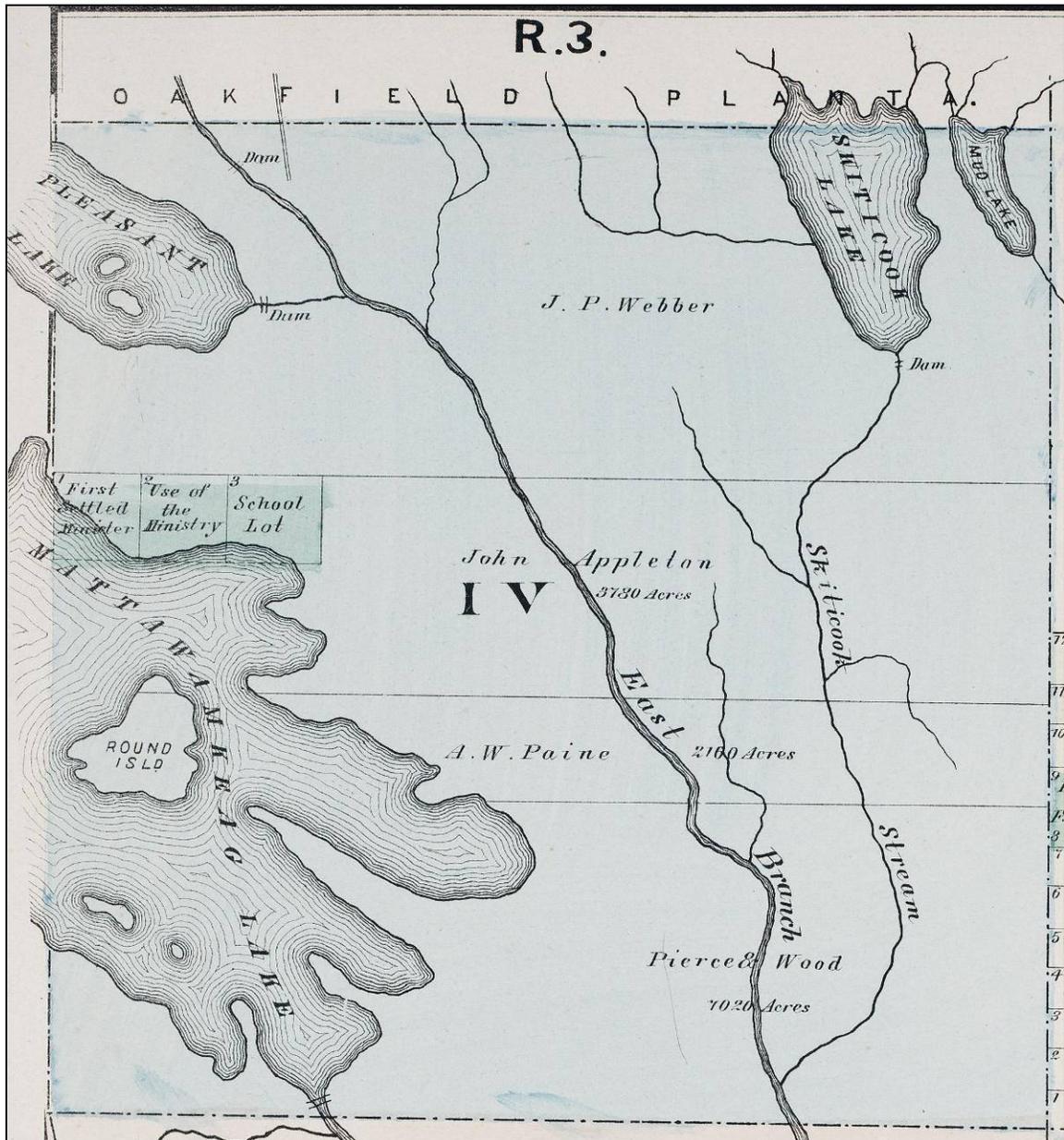


Figure 7. T4 R3 in 1877 – no settlement or development is visible (after Roe & Colby 1877).

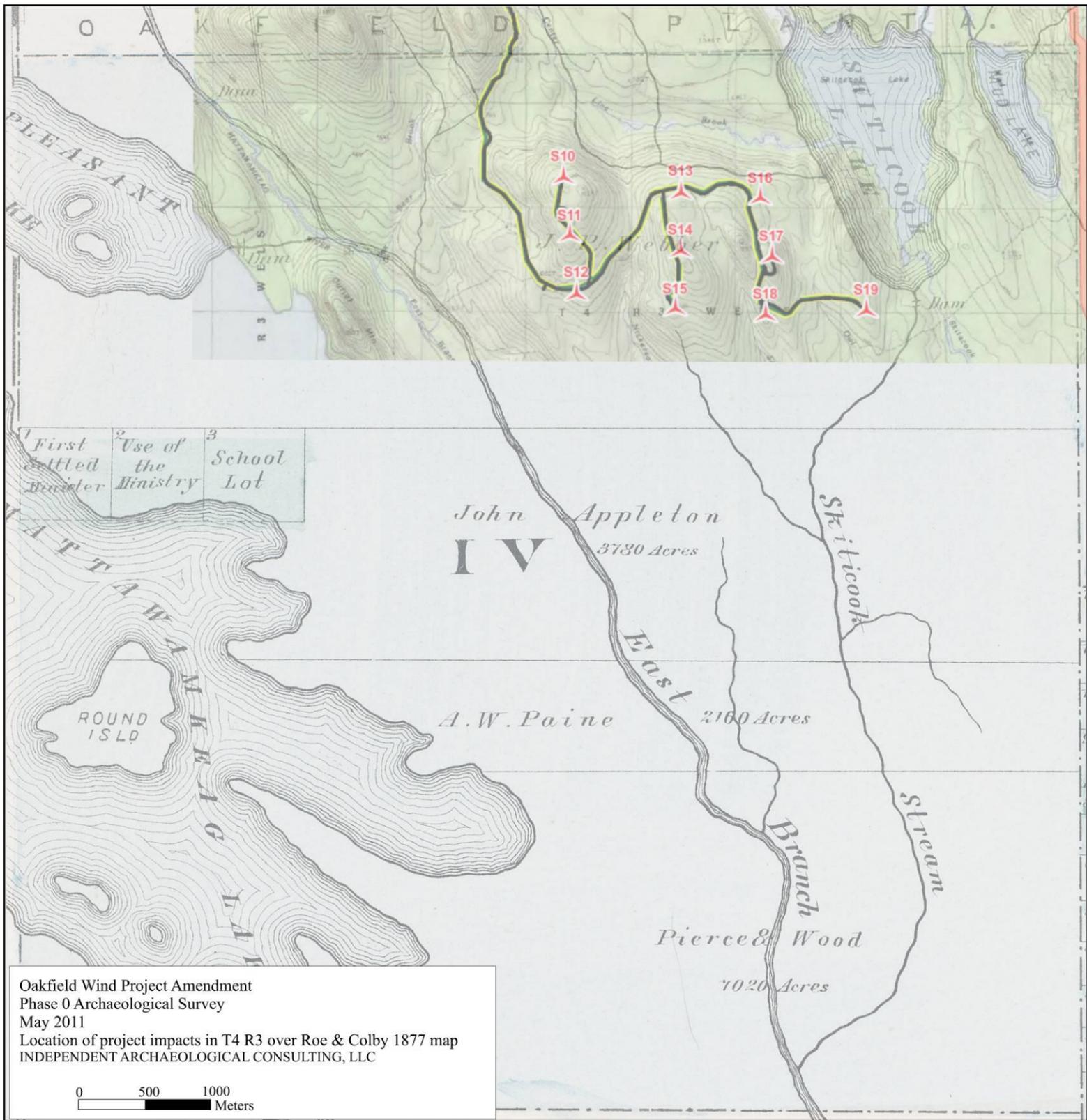


Figure 8. Oakfield Wind Project Amendment impacts viewed on 1877 map of T4 R3 (after Roe & Colby 1877).

Like many unnamed townships, T4 R3 suffers from a deficit of available records. The (Roe & Colby) 1877 map of Aroostook County indicates that T4 R3 had been parceled to a degree, but remained largely undeveloped as of that year. Similarly, there are only three decades in which the population of the unnamed township was documented. In 1870, 46 people resided in T4 R3, but ten years later only two remained. By 1920, that number had climbed back up to 37. With such large gaps in the public record, inferences about the data are difficult to make, but it may suffice to say that few persons have lived in T4 R3, leading archaeologists to predict few historic resources.

RECOMMENDATIONS FOR FURTHER ARCHAEOLOGICAL SURVEY FOR OAKFIELD WIND PROJECT AMENDMENT

IAC found no evidence of historic Euroamerican occupation within the APE for the Oakfield Wind Project Amendment. Archaeologists predicted the location of Euroamerican archaeological resources through the use of nineteenth- and early-twentieth-century map resources and through walkover survey of existing and former roads. The site predictive model and pedestrian survey resulted in the discovery of 21 new sites in the general project area, whose locations are shown in relation to project impacts in Figures 2 and 3. No resources were expected in T4 R3, and none was discovered. With the map review, site prediction, and inspection of the project area, IAC finds the direct Area of Potential Effect for the Oakfield Wind Project Amendment to be in areas of low sensitivity for Euroamerican archaeological resources. For the Oakfield Wind Project Amendment, we recommend no further archaeological survey for the project as presently designed, with the sole exception of fencing the west edge of the access road passing to the east of the L. Sprague Farmstead (ME 321-003) along South Oakfield Road. The proposed fencing is shown in Figure 4. If access roads are moved or turbine locations shifted, we reserve the right to review their potential for intersecting with known or potential historic resources.

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Appendix 8-3

**Results of a PreContact Period Archaeological Assessment: Oakfield
Wind Project Amendment, Aroostook County, Maine**

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June 1, 2010

Introduction: Project Overview

This review for Precontact period archaeological sensitivity is for a proposed amendment to the Oakfield Wind Farm, which is located in Oakfield, Aroostook County, Maine. The Oakfield Wind Project (MHPC# 1252-07) was originally reviewed by Dr. Richard Will in 2008 and was submitted to the Maine Historic Preservation Commission for review and comment in the March 23, 2009, IAC report *Phase 0 Archaeological Survey: Oakfield Wind Project*. The proposed project would modify the location of some turbines in the original Oakfield Wind project and increase the size of the wind farm to 46 turbines with a potential generating capacity of 105.8 MW. Figure 1 shows the complete project area, with revised turbine locations, and additional turbines. All of the new turbine locations would be in the Town of Oakfield.

Electricity generated by all of the turbines would be collected at a new substation located near the eastern end of South Oakfield Road in Oakfield. The substation designed at the north end of the project near the Ridge Road, and permitted in the Oakfield Wind Project, may also be constructed. Electricity generated by the wind turbines would be collected at 34.5 kV, stepped up to 115 kV at the proposed substation location on South Oakfield Road, and transmitted to a point in Chester where it would tie into the exiting Bangor Hydro Electric system.

This report details the results of a review for Precontact period cultural resources with the proposed expanded Oakfield II wind farm. The following section examines prehistoric archaeological resource sensitivity. The last section makes cultural resource management recommendations for the project.

Prehistoric Archaeological Resource Assessment

Locations of prehistoric archaeological sites in Maine and elsewhere are predicted on the basis of natural and cultural historical models that incorporate a variety of types of information from several disciplines including anthropology, biology, natural history, and geology. In addition, Maine archaeologists depend to a great degree on historical experience to guide assessments of where to look for the archaeological remains of past inhabitants.

Several inter-related types for information inform the initial search for archaeological sites and materials. Because Maine's prehistoric hunting and gathering peoples were dependent on natural resources available for exploitation in northern Maine, information that seeks to characterize the type and distribution of natural resources within the project region is essential to an understanding of archaeological site location. Choices related to mobility and settlement also were to a great degree influenced by the nature of the environment. For these reasons, archaeologists look to environmental conditions, both as they exist today and as they are thought to have existed in the past, in an attempt to predict archaeological potential for a project area. Finally, data on previous archaeological discoveries in Maine reveal patterns of prehistoric site location and distribution. This information is used to help predict the setting and type of sites that have a potential to exist in the project area. Consolidation of background information in these areas provides an environmental and cultural historical context in which predictions regarding archaeological resources within the project area can be made.

Environmental and Cultural Context

Evolution of the Early Holocene Landscape. Geologic forces associated with the advance and subsequent retreat of the Laurentide Ice Sheet (LIS) during the end of the Pleistocene epoch shaped the landscape of the region in which the project is located. The LIS advanced across Maine in a southeasterly direction, scouring the landscape as it moved, before attaining a maximum position at Georges Bank in the Gulf of Maine around 22,000-20,000 years ago (Hughes et al. 1985). By 18,000 years ago, it began to retreat across the Gulf of Maine due to the incursion of warm, marine waters underneath the ice. The LIS is believed to have reached the present Maine coastline around 14,000 years ago (Schnitker et al. 2001), and interior portions of Maine by 12,800 years ago (Smith and Hunter 1989). It left behind unsorted clay, silt, sands and rock fragments (till) across much of the landscape in its retreat. These till deposits conform to the local bedrock topography and form most of the surficial deposits in the region. They drape the Oakfield, Maine area.

Colonization of the region by flora during and following deglaciation is characterized by continuous changes, particularly from 14,000 to 9,000 years ago. This time frame marks the transition from an open, tundra-like environment to woodlands, and eventually to a closed forest across much of the New England region (Davis and Jacobson 1985). Pollen and macrofossil studies from lake cores suggest species responded individually to climatic changes in a time-transgressive manner, following the ice front northward. Woodland vegetation, dominated by poplar and spruce, is believed to have spread along the coastal lowlands to New Brunswick by 12,000 years ago, and pushed into interior portions by 11,000 years ago. The transition from woodlands to closed forests initially began in southern Maine around 12,000 years ago and developed rapidly over the region between 11,000 to 10,000 years ago. The closed forests were initially dominated by spruce, balsam fir, birch, and poplar, but pine emerged as the dominant species approximately 1,000 years after closure of the forests. The emergence of pine, and concomitantly the demise of spruce, signaled a warming trend that reached its peak sometime around 5,000 years ago. Studies from lake cores suggest this warming trend was characterized by a drier climate and lower water levels, particularly between 8,000-6,000 years ago (Almquist-Jacobson et al. 2001). Cooler, wetter conditions prevailed after about 4,500 years ago, resulting in an increase in birch, followed by a return of spruce around 2,000 years ago (Almquist-Jacobson and Sanger 1995). During this time, water levels rose, particularly from 3,000-2,500 years ago (Almquist-Jacobson et al. 2001:196).

Precontact period Archaeological Record. The archaeological record of Maine is long and complex and dates back more than 11,000 years. Much of this record has been studied in areas to the south and west of the proposed project area. The rarity of known Precontact period archaeological sites around the project area may be due to the scarcity of cultural resource management surveys conducted in the region and to the lack of research interests of university archaeologists who have tended to focus their studies on coastal Maine and areas geographically closer to their universities. There are exceptions; however, and these are noted in the overview of the Precontact period of Maine presented below.

Archaeologists have divided this Precontact period record into three major periods known as the Paleoindian, Archaic, and Ceramic cultural periods (Table 1). Further subdivisions within these periods are based on similarities in artifact forms and cultural adaptations over broad regions (Spiess 1990). It is important to note that these divisions are archaeological constructs and that their temporal boundaries represent changes perceived as culturally significant by archaeologists in the region. They do not necessarily coincide with Maine Native Americans' perceptions of their history as passed down through oral history.

Paleoindian Period (ca. 11,500-9,500 years ago). The earliest archaeological culture in the region is referred to as the Paleoindian period. The hallmark of Paleoindian period artifacts is the fluted spear point, which was presumably used to hunt large game species, many of which are now extinct. These

spear points are lanceolate in shape and possess a long, groove-like scar caused by a flake struck from their base on both faces. Other diagnostic tool forms include steep-edged end scrapers and other unifacially-flaked implements. Paleoindian tool kits are characteristically manufactured from high quality lithic materials often derived from quarry sources that are located great distances from habitation sites.

In Maine, the Paleoindian period dates from approximately 11,500 to 9,500 years ago when much of the landscape was still vegetated in tundra and/or woodlands. The Paleoindian subsistence/settlement pattern is characterized as highly mobile hunters and gatherers reliant mainly on caribou that presumably were abundant at that time (Spiess, Wilson, and Bradley 1998). Flintknappers crafted tools from very fine-grained, colorful rocks obtained from a limited number of sources in the region. Site locations are typically removed from present day water bodies (Spiess, Wilson and Bradley 1998). These locations were rarely occupied during later cultural periods and are often strategically located above some form of low-lying terrain that may have been suitable habitat for caribou and other game animals or near outcrops of fine-grained rocks that were quarried for tool-making. These sites are typically indicative of short-term habitations by small groups of people, perhaps in some cases by even a single, extended family.

The end of the Paleoindian period and subsequent transition into the Early Archaic period is poorly understood. Archaeological evidence indicates that during the later Paleoindian period, fluted spear points were replaced by smaller, unfluted points. Other point styles also emerge in the region, most notable of which are long, slender lanceolate points with distinct parallel flake scars (Doyle et al. 1985; Cox and Petersen 1997; Will and Moore 2002). These technological changes coincide with the transformation of the environment from more open, woodlands to closed forests. By the Early Archaic period, the archaeological record contains a dramatically different material culture than that recovered from sites dating to the preceding Paleoindian period.

Less than 100 Paleoindian period sites have been discovered in Maine. They consist of campsites that vary in size from less than 300 m² to more than 18,000 m². Some of the best reported Maine Paleoindian sites include the Michaud Site located in Auburn (Spiess and Wilson 1987), the Vail and Adkins Sites located on the shores of Aziscohos Lake in extreme western Oxford County (Gramly 1982, 1988), and the Hedden Site, which is located on the Kennebunk Plains (Spiess and Mosher 1994; Spiess et al. 1995). Two additional, unpublished, Paleoindian sites from southern Maine are under study by Nathan Hamilton. Another unpublished location is site 84.5 which is located along the North Branch of the Dead River in the Flagstaff Lake project area. Also well known, but underreported includes the Paleoindian site complex at the thoroughfare of Munsungun and Chase Lakes, which is located west and north of the project area.

Table 1. Comprehensive Planning Archaeological Study Units

| Time Period (RCYBP) | Study Unit |
|---------------------|---|
| 11,500 - 10,200 | Fluted Point Paleoindian Tradition |
| 10,200 - 9,500 | Late Paleoindian Tradition |
| 10,000 - 6,000 | Early and Middle Archaic Traditions |
| 6,000 - 4,200 | Late Archaic: Laurentian Tradition |
| 6,000 - 2,000 | Late Archaic: Small-stemmed Point Tradition |
| 4,500 - 3,700 | Late Archaic: Moorehead Phase |
| 3,900 - 3,000 | Late Archaic: Susquehanna Tradition |
| 3,000 - 450 | Ceramic Period |

Note: RCYBP equals radiocarbon years before present; AD equals calendar years. All dates are estimates. Source: Spiess (1990 and pers. comm. 1999).

Archaic Period (ca. 9,500-3,000 years ago). The Archaic period represents the longest archaeological cultural period in the region, spanning around 6,500 years. This time frame is indicative of persistent cultural adaptations, as inferred from artifact assemblages, which lasted over several millennia. Early and Middle Archaic subsistence and settlement patterns were different from those of the Paleoindian period, as suggested by the location of Archaic period sites along present-day water bodies, and the presence of food remains of aquatic species, particularly beaver, muskrat, turtles, and fish.

Archaeological assemblages dating to the Early and Middle Archaic periods in Maine are different from their predecessors, and somewhat unique to the Maine region, particularly with respect to the Early Archaic period. Tools were typically produced from local stone, often collected in cobble form, and lack the finely crafted, chipped stone spear points that characterize the Paleoindian period. Rather, flakes and roughly fashioned unifacial tools dominate the assemblages. In addition, a new technology using pecking and grinding techniques appears for the first time in the archaeological record (Robinson 1992). This new technology produced a suite of groundstone tools that became more elaborate through time. By the Middle Archaic period, chipped stone spear points become increasingly more abundant and the first cemetery sites occur. These cemetery sites reveal mortuary practices that included the lavish use of red ochre, and the offering of grave goods, such as gouges, slate spear points, and stone rods (Willoughby 1898; Moorehead 1922; Robinson 1992). Commonly referred to as the “Red Paint People,” sites dating to their tradition have typically been found east of the Kennebec River with some sites displaying a strong focus on maritime resources.

The close of the Late Archaic period is characterized by another archaeological tradition known as the Susquehanna Tradition (Sanger 1979; Bourque 1995). It is widespread in Maine and New England. Susquehanna Tradition subsistence appears to have been focused more on terrestrial resources than marine. Diagnostic tool forms include large, broad-bladed chipped stone spear points.

The relationships between the various Late Archaic traditions continue to be a source of debate among Maine archaeologists. At the root of the argument is whether the various archaeological assemblages of the Late Archaic reflect local, long-term cultural adaptations, or movement of people into the region with different cultures. Whatever the origins of the cultural changes observed, they again roughly coincide with increasing changes in the environment that provided more favorable habitat for deer populations, and other modern species as well.

Archaic period sites are rarely reported from Aroostook County except in areas along major watersway, such as the St. John River (see Sanger 1977, 1978, and 1979; Putnam 1997). They are, however, commonly known from large lakes in Piscataquis County, which is adjacent to Aroostook County. Importantly, there were probably strong cultural ties between Archaic period people living in northern Maine and people living in New Brunswick. This is indicated by the fact that Maine sites often contain lithic materials that are known to have come from New Brunswick (see Burke 2000, for example).

Ceramic Period (ca. 3,000-450 years ago). The introduction of pottery manufacture and use in Maine defines the onset of what Maine archaeologists call the Ceramic period (Sanger 1979). In other parts of the Northeast, this cultural period is referred to as the Woodland period. The differences between the two terms is mainly that hunting and gathering for food remained the primary means of subsistence throughout much of Maine and the Maritimes, while a reliance on horticulture and a tendency toward larger, more permanent settlement patterns developed in other regions during the same time period. Ceramics first appear in the archaeological record of Maine around 3,000 years ago and they persist until contact with Europeans when clay pots were replaced in favor of iron and copper kettles that were traded for beaver pelts and other animal furs.

Ceramic period sites are abundant in Maine, along both the coast and in the Maine interior (Sanger 1979). Along the coast, they are most visible in the form of shell middens, which have attracted the attention of professional and amateur archaeologists since the late 19th century (Wyman 1868). Sites in the interior are most common along waterways, ponds, and lakes. Assemblages from the interior differ from coastal sites in that food bone remains are poorly represented due to differences in preservation. One of the best reported on Ceramic period sites in Aroostook County was excavated on the Aroostook River in Caribou, Maine. Known as the Chan Site, it contained an abundance of end scrapers, many of which were manufactured from lithic materials obtained in New Brunswick (Burke 2000).

The picture that emerges from Ceramic period sites is one showing long-standing cultural adaptation to the diversified use of local resources. In addition, the nature of artifact forms present, and certain types of stone recovered, from Ceramic period sites indicate trade and communication with peoples far to the north, south, and west. By the end of the period, historical and archaeological evidence suggests horticulture was practiced in southern Maine. The Ceramic period ends with European contact around 450 years ago. At this time, most of the artifacts attributable to Precontact period inhabitants of Maine disappear from the archaeological record.

Precontact Period Archaeological Sensitivity

Just as today, people in the Precontact period did not uniformly occupy the landscape; Maine state archaeological survey maps, which show site locations, affirm this conclusion. Some areas were more attractive than others to people deciding where to establish camps and villages. Some locations were used more often than others, because of the availability of unique resources (e.g. plants, animals, and raw materials) or perhaps even through historical accident. And, some areas may simply not have been frequented and used at all. Against this reality is the likelihood that not all human behavior produces archaeologically visible traces. Additional problems affecting understanding of Precontact period land use is the fact that even when an archaeological site is produced, it may not last long due to preservation biases created by local environmental conditions. Interpretation is further confounded, because sharp differences in how land is used and modified in the present compared with the Precontact past has resulted in the destruction of many archaeological site locations.

Mindful of these concerns, the design of Precontact period archaeological resource sensitivity assessments to discover site locations in Maine is supported by more than 100 years of archaeological field investigations and several decades of testing predictive models to determine where sites may be expected to occur. All of these efforts demonstrate that proximity to water resources was a dominant variable used by Precontact period hunter/gatherers for selecting site locations (see, for example, Kellogg 1987, 1994; Spiess 1992, 1994; Will et al. 1995; Will et. al. 1997; Will et. al. 1999). This conclusion is likely not simply a sampling bias. For example, several archaeological cultural resource surveys conducted in eastern Maine (at least in part) during the last 20 years support the conclusion. First, are results obtained from the Phase I survey of the Maritimes and Northeast natural gas pipeline by ARC, Inc. in 1997-1998 (Will et al. 1997; Will et al. 1999) and by TRC in 2004. Briefly, the sensitivity design for the survey focused on identifying the potential for areas within that project's APE (a 200 foot or 62 m wide corridor) to contain Precontact archaeological sites. Predictions of where archaeological resources might be present, and where they were not likely to be present, were made based on a set of key environmental variables for which data could be readily obtained:

High Sensitivity:

fresh or saltwater resources within 150 meters (m);
well-drained sandy soils;
level to moderately level topography (0 to 3 percent slope).

Moderate Sensitivity:

fresh or saltwater resources within 150 to 500 m;
well-drained to moderately well-drained, sandy to cobbly soils;
moderately level topography (3 to 8 percent slope);
minimal to moderate ground disturbance
archaeological sites in vicinity of project area.

Low Sensitivity:

no fresh or salt water for more than 500 m;
poorly drained or inundated areas;
steep topography (8 percent slope or greater);
moderate to extensive ground disturbance;
no archaeological sites in vicinity of project area.

The model was tested with information collected from more than 300 miles of the Maritime & Northeast pipeline corridor. On that project, more than 2,500 testholes were excavated in almost equal proportions among areas of high, medium, and low sensitivity. An important conclusion of this undertaking was that all Precontact period sites (with the exception of one Paleoindian period artifact) were found adjacent to water.

Second, another large archaeological survey using a similar sensitivity model was conducted in Penobscot and Washington Counties by the Maine State Museum under the direction of Dr. Stephen Cox in 1989 (Cox 1989). He surveyed a proposed Bangor Hydroelectric Company 345 kV transmission line route, and examined 87 sampling areas of varying archaeological sensitivity along the route from Orrington to the St. Croix River in Baileyville. A total of 996 testholes were excavated. Three, small, Precontact period archaeological sites were discovered, and all of them were located along a major river or stream.

Third, a major survey on a revised Bangor Hydroelectric Company 345 kV transmission line route was conducted by TRC in 2004 (Clark and Moore 2004). That survey examined a route parallel to the existing Maritimes and Northeast pipeline from Orrington to the St. Croix River. In all, 18 locations and landforms were tested for the presence of Precontact cultural sites and materials using 317 testholes. No Precontact sites or materials were discovered.

Proximity to water is unquestionably a sensitive variable for predicting the locations of Precontact period hunter/gatherers who inhabited Maine. In fact, approximately 95% of all Precontact period archaeological sites reported in Maine (out of a sample of more than 5,000 sites) have been discovered either along the seacoast or along the margins of interior rivers, streams, lakes, and wetlands (Spiess 1994). Even in New York, archaeologist Robert Funk's research (1993) has similarly shown that Precontact period sites are generally located within 300 feet of water.

Most of the sites discovered near water are campsites or villages. They may also have been food extraction locations: places to fish, hunt waterfowl, or dig clams. However, the locations of ritual sites (e.g., cemeteries) or resource extraction sites (e.g., rock quarrying for tool making) are often not near water and are discovered more often by accident rather than by design. They constitute the 5% of sites in the Precontact period inventory of archaeological sites recorded in Maine. Although they represent only a small portion of known sites, they are as equally important as near-water sites for understanding the lifestyles of Precontact period people.

Archaeological sensitivity (or the ability to offer educated judgments about where archaeological resources may have been located) of the project area is derived from taking into consideration where

archaeological sites have already been discovered in Aroostook County (and adjacent counties), where sites have not been discovered as a result of systematic survey, and knowledge about the environments present in the project area.

What is known about the project area is that soils are generally poorly drained (largely glacial till draped over bedrock) and that topography is very hilly (Thompson and Borns 1985). Consequently, proximity to water in the project area is the only variable with high sensitivity for Precontact period archaeological resources. Low archaeological sensitivity was assigned to everywhere else. In addition to habitation sites, special purposes sites, such as rock quarrying locations (e.g., Mt. Kineo at Moosehead Lake and the Munsungun Formation west of Ashland) have been identified as Precontact period archaeological sites. The existence of such sites is dependent on the presence of fine-grained lithic material (rock that produces a conchoidal fracture when broken to make chipped stone tools). The bedrock geology of the project area was reviewed from maps (Osberge, Hussey, and Boone 1985) to determine whether fine-grained lithic materials might be present. None were noted; however. Bedrock outcrops were field checked during the investigation of Oakfield I in 2008 whenever the opportunity arose during fieldwork.

Summary and Conclusions

There are no known Precontact period archaeological sites in the proposed expansion of the Oakfield Wind Farm. The area is characterized by extremely hilly terrain and a network of large and well-maintained gravel roads. Soils in the area are typically till and none of the local bedrock is suitable for the production of chipped stone tools. No further archaeological evaluation of this area for Precontact period sites is recommended.

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1898 **Prehistoric Burial Places in Maine.** Archaeological and Ethnological Papers of the Peabody Museum I(6). Harvard University, Cambridge.
- Wyman, J.
1868 An Account of Some Kjoekkenmoeddings, or Shell-Heap, in Maine and Massachusetts. *American Naturalist* 1(11):561-84.



To: Brooke Barnes, Stantec, Inc., 30 Park Street, Topsham, Maine 04086
From: Rick Will, TRC, 71 Oak Street, Ellsworth, Maine 04605
Re: Addendum to the Oakfield II Archaeological Phase I report
Date: May 11, 2011

It is my understanding that Evergreen Wind Power II, LLC has proposed some changes to the summit portion of the Oakfield Wind Project Amendment in Oakfield, Maine since TRC conducted its Precontact period archaeological investigations (“Results of a PreContact Period Archaeological Assessment: Oakfield Wind Project Amendment, Aroostook County, Maine” [Will 2010] and “Results of Phase I Precontact Archaeological Survey of the GenLead LLC Transmission Line, Aroostook and Penobscot Counties, Maine” [Mack, Clark, and Will 2010]).

Specifically, the revised project will:

- change the approved turbines in the original project area from 34 GE 1.5-MW with a 77-meter rotor diameter and an 80 meter tower, to 25 Vestas V-112 3.0-MW turbines, with a 112-meter rotor diameter and an 84 meter tower;
- add temporary and permanent met tower locations;
- change turbine pad size, turbine locations, road widths, and some road locations;
- eliminate the northern substation;
- add 25 Vestas 3.0-MW turbines with 112-meter rotor diameters;
- add a new substation location; and
- change the point of electrical interconnection.

The changes would increase the size of the Oakfield Wind Project to 50 turbines. Figure 1 shows the complete project area with revised turbine locations and additional turbines.

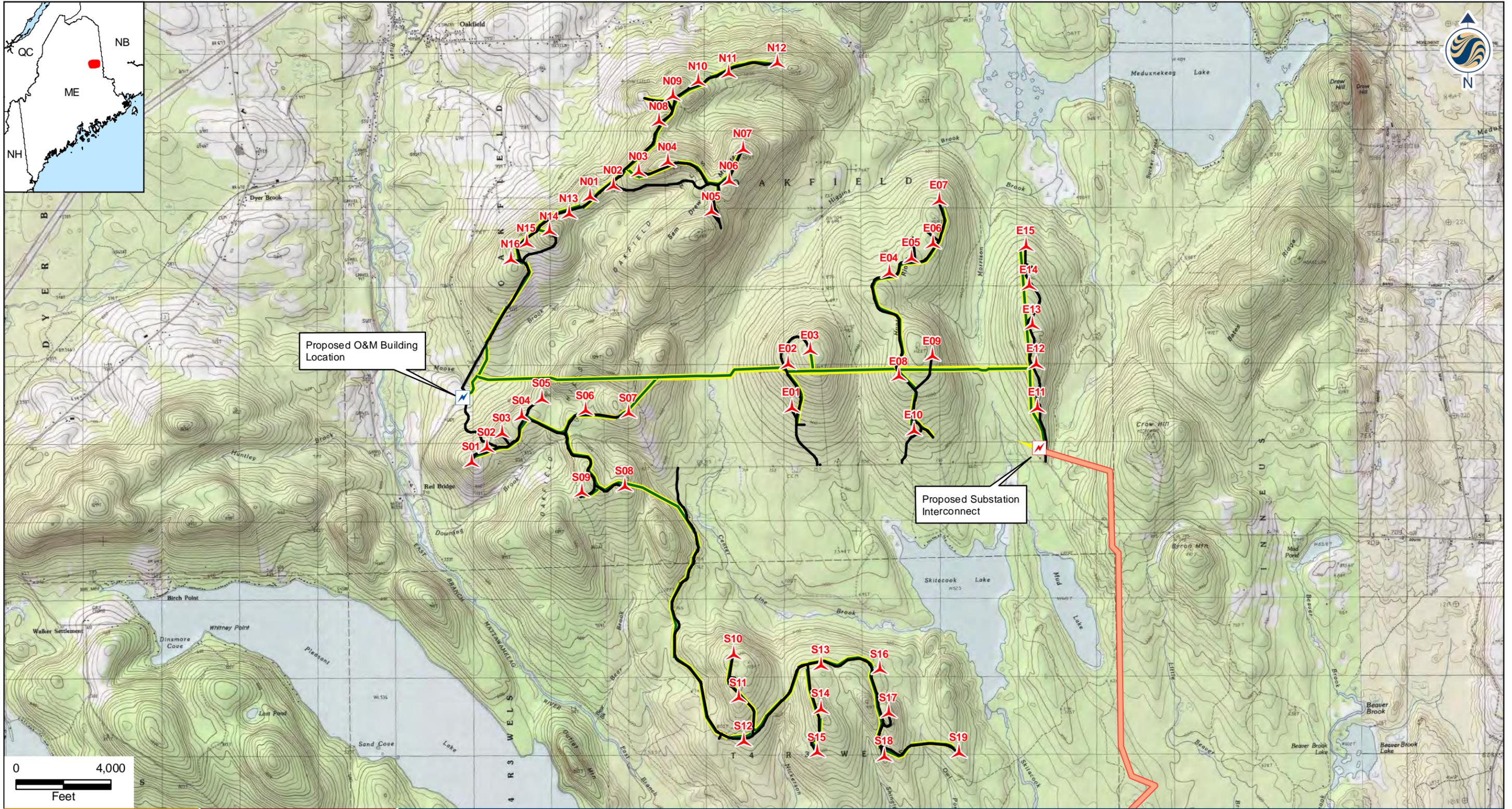
For the purposes of archaeological review, the changes that could be most sensitive for archaeological consideration include new met tower locations, additional turbines, changes in some road locations and their sizes, and a new substation location.

The new met tower and turbine locations are all on hills and mountains that were previously investigated as part of the Oakfield Amendment project. These locations are not considered sensitive for Precontact period archaeological resources (e.g., lithic resources for tool production) and no further archaeological investigation is recommended.

Roads were also examined as part of the Oakfield Amendment Precontact period survey. None were encountered where a water crossing was observed that was identified as sensitive for Precontact period archaeological testing with shovel test holes. No further archaeological investigation is recommended.

The new substation location was reviewed in the field previously (summer 2010) and shown to contain any Precontact period resources. No further archaeological investigation is recommended.

It is recommended that the proposed changes to the project do not require additional Precontact period archaeological study. The most archaeologically sensitive portion of this project is the proposed transmission line, which was systematically tested for archaeological resources in summer 2010. Although no archaeological sites were encountered during that field investigation, any changes to the alignment of this line in archaeologically sensitive resource areas might necessitate additional Phase I archaeological evaluation.



Stantec Consulting Services Inc.
 30 Park Drive
 Topsham, ME USA
 04086
 Phone (207) 729-1199
 Fax: (207) 729-2715
 www.stantec.com

- Legend**
-  Proposed Turbine (Vestas 50)
 -  Proposed 115kv Transmission Corridor
 -  Proposed Collector Corridor
 -  Proposed Access Roads

Client/Project
 Evergreen Wind Power II, LLC
 Oakfield Wind Project Amendment
 Oakfield, Maine

Figure No.
 1

Title
 Summit Project Development Area
 May 2011

195600518

Appendix 8-4



MAINE HISTORIC PRESERVATION COMMISSION
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JOHN ELIAS BALDACCI
GOVERNOR

April 2, 2010

EARLE G. SHETTLEWORTH, JR.
DIRECTOR

Mr. Brooke E. Barnes
Stantec Consulting
30 Park Drive
Topsham, ME 04086

Project: MHPC# 0464-10 - potential wind energy facility and associated transmission line routes; request for significant resources associated with Oakfield, Island Falls, Dyer Brook and other areas

Towns: Oakfield, Island Falls, Dyer Brook, T4 R3 Wels, ME

Dear Mr. Barnes:

In response to your recent request, I have reviewed the information received March 3, 2010 to initiate consultation on the above referenced project.

Based on the information provided, I have concluded that the project areas possibly contain one or more prehistoric and/or historic archaeological sites based on our predictive model of archaeological site location. Therefore, archaeological survey for both prehistoric and historic archaeology are necessary for the areas identified on the enclosed four maps (known archaeological sites and areas which may be sensitive for archaeological sites) prior to any ground disturbance. Lists of qualified historic and prehistoric archaeologists are enclosed along with material explaining the Phase I/II/III approach to archaeological survey. This information can also be found on our website: www.maine.gov/mhpc/project_review This office must approve any proposal for archaeological fieldwork.

Regarding above ground historic architectural resources, please forward maps which clearly indicate the Areas of Potential Effect (APE) for this project in order for us to respond properly to your request. As you know, we usually require some architectural survey for most wind projects and associated transmission lines in order to identify resources which are potentially eligible for listing in the National Register of Historic Places. Survey will need to be completed in accordance with our Section 106 specific architectural survey guidelines and associated forms.

It would be helpful for us to know early on what federal and state agencies will be involved with funding, permitting or licensing for this proposed project.

Once this information is received, we will forward a response regarding the results of our evaluation. Please contact Dr. Arthur Spiess of my staff concerning prehistoric archaeology, Lee Cranmer of my staff regarding historic archaeology or Robin Stancampiano of my staff regarding architecture if we can be of further assistance in this matter.

Sincerely,

Kirk F. Mohney
Deputy State Historic Preservation Officer



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JOHN ELIAS BALDACCI
GOVERNOR

MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
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04333

**Prehistoric Archaeologists Approved List:
Review and Compliance Consulting/Contracting (Active)**

EARLE G. SHETTLEWORTH, JR.
DIRECTOR

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05/18/09



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JOHN ELIAS BALDACCI
 GOVERNOR

**Historic Archaeologists Approved List:
 Review and Compliance Consulting/Contracting (Active)**

EARLE G. SHETTLEWORTH, JR.
 DIRECTOR

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♦Underwater and Maritime





ANGUS S. KING, JR.
GOVERNOR

EARLE G. SHETTLEWORTH, JR.
DIRECTOR

CONTRACT ARCHAEOLOGY GUIDELINES

June 10, 2002

This document is provided as background information to agencies, corporations, professional consultants or individuals needing contract archaeological services (also known as Cultural Resources Management archaeology) in Maine. These guidelines are based on state rules (94-089 Chapter 812).

Project Types

The vast majority of contract archaeology survey work falls into one of three categories. **Phase I** surveys are designed to determine whether or not archaeological sites exist on a particular piece of land. Such work involves checking records of previous archaeology in the area, walking over the landscape to inspect land forms and look for surface exposures of soil and possible archaeological material, and the excavation of shovel test pits in areas of high probability.

Phase II surveys are designed to focus on one or more sites that are already known to exist, find site limits by digging test pits, and determine site content and preservation. Information from Phase II survey work is used by the Maine Historic Preservation Commission (MHPC) to determine site significance (eligibility for listing in the National Register of Historic Places). **Phase III** archaeological work, often called data recovery, is careful excavation of a significant archaeological site to recover the artifacts and information it contains in advance of construction or other disturbance.

Archaeological sites are further divided into two broad categories of culture, **prehistoric** (or Native American), and **historic** (or European-American). Different archaeological specialists are usually needed for prehistoric or historic sites because the nature of content and preservation and site locations are quite different.

Scope of Work

In responding to a project submission, the MHPC may issue a letter specifying which type of archaeological survey is needed (prehistoric, historic or both) and at what level (Phase I, II, or III). Often the response letter contains further information, such as the suspected presence of an historic site of a certain age, or a statement that only a portion of the project parcel in question is sensitive for prehistoric sites and only that portion needs archaeological survey.

Once the project applicant has one or more scopes of work (proposals) from appropriate archaeologists (see below), the applicant should submit their preferred proposal (*without attached financial information or bid total*) to the MHPC for approval. MHPC will not comment upon cost, but will comment on the appropriateness of the scale and scope of the work. An approval from MHPC of the scope of work is the applicant's guarantee that, if the field and laboratory work are done according to the scope, and appropriately described in writing, the results will be accepted by MHPC.

The final written report on the project must also be submitted to MHPC for review and comment.



Finding an Archaeologist

At the time that MHPC issues a letter requiring archaeological survey work, MHPC will also supply one (or more) lists of archaeologists (Levels 1 and/or 2, historic or prehistoric) appropriate to the type of work (Phase I, II, III, historic or prehistoric). Archaeologists on the Level 2 Approved Lists can do projects of any level, including Phase I archaeological survey projects. Level 1 archaeologists are restricted to doing Phase I surveys, and certain planning projects for municipal governments.

MHPC maintains lists of archaeologists interested in working in different geographic areas of Maine, and those who are qualified in different types of work. The archaeologists themselves indicate their availability (except for short-term absence) to MHPC on a periodic basis, so archaeologists on the list can be expected to respond to inquiries. The applicant should solicit proposals or bids for work from archaeologists whose names appear on the list supplied by MHPC.

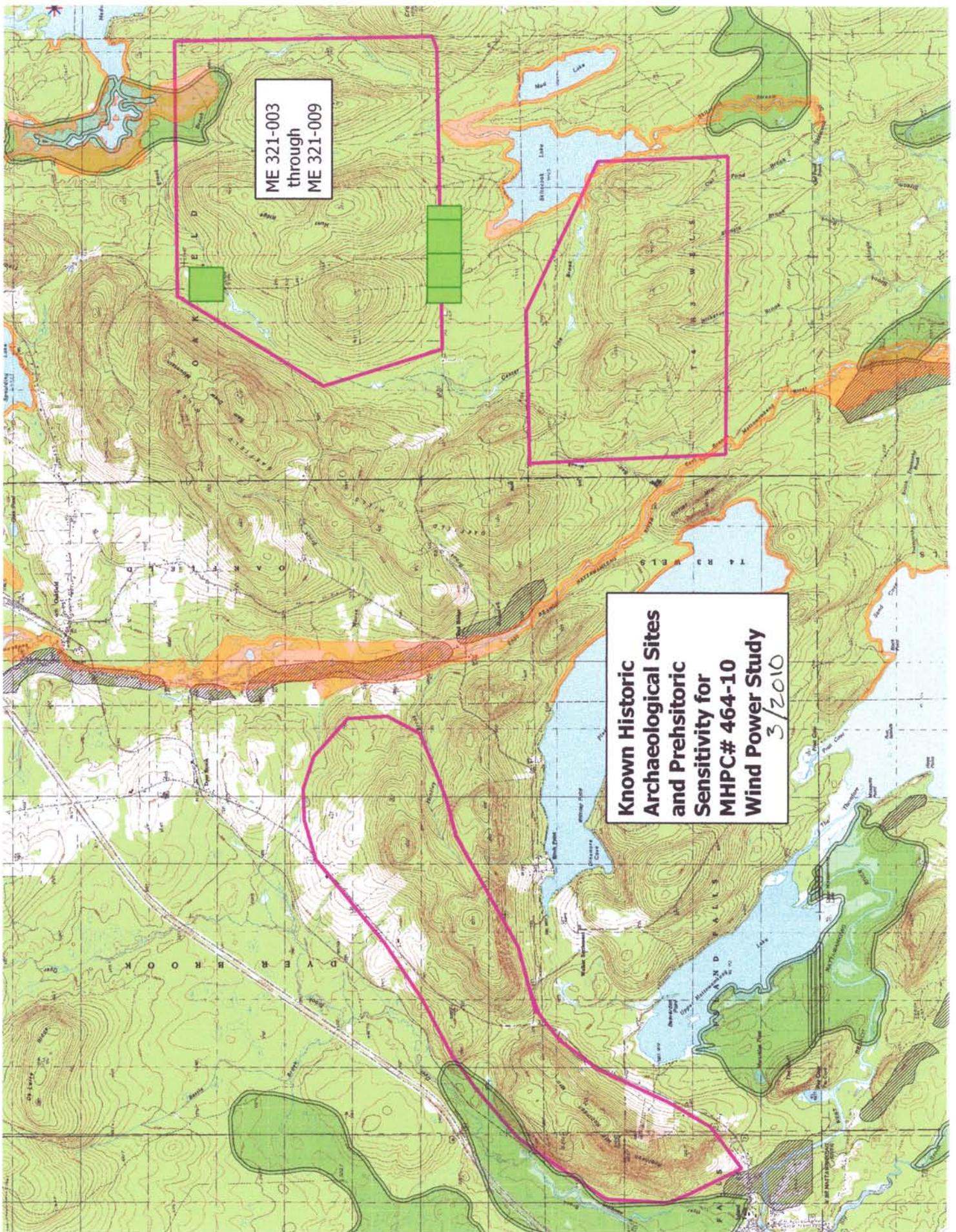
These archaeologists' names are taken from lists of archaeologists approved for work in Maine by MHPC under a set of rules establishing minimal qualifications, such as previous supervisory experience in northern New England, and an appropriate graduate degree. *However, the inclusion of an archaeologist on one of these lists should not be interpreted as an endorsement by the MHPC beyond these limited qualification criteria. Moreover, the MHPC cannot recommend the services of an individual archaeologist.*

Project Final Report

Whatever the archaeological survey result, a final report on the project should be submitted by the applicant to the MHPC. The MHPC will review the report, and issue further guidance or issue a "clearance" letter for the project.

ME 321-003
through
ME 321-009

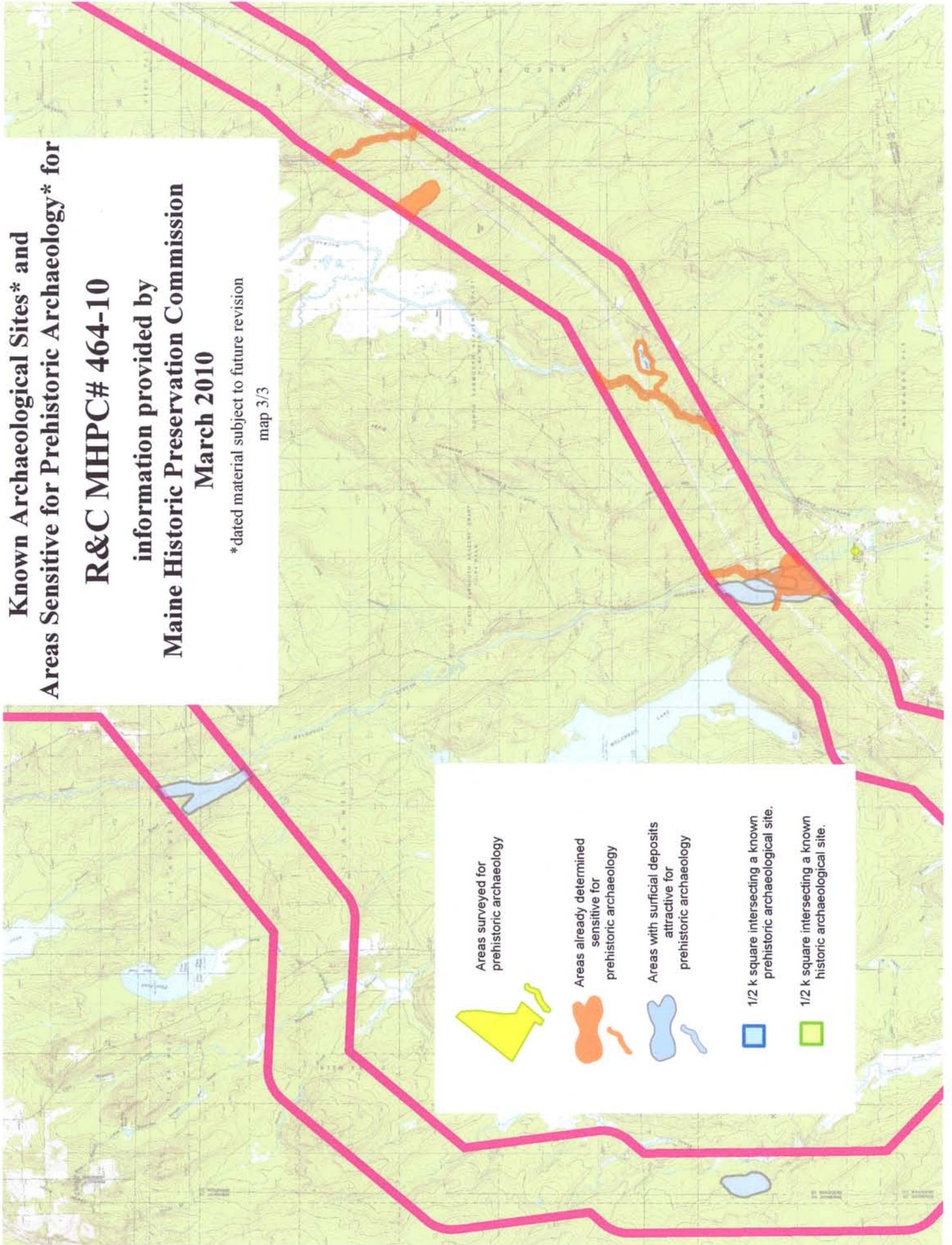
**Known Historic Sites
Archaeological Sites
and Prehistoric
Sensitivity for
MHPC# 464-10
Wind Power Study**
3/2010



**Known Archaeological Sites* and
Areas Sensitive for Prehistoric Archaeology* for
R&C MHPC# 464-10**

**information provided by
Maine Historic Preservation Commission
March 2010**

*dated material subject to future revision
map 3/3



Areas surveyed for prehistoric archaeology

Areas already determined sensitive for prehistoric archaeology

Areas with surficial deposits attractive for prehistoric archaeology

1/2 k square intersecting a known prehistoric archaeological site.

1/2 k square intersecting a known historic archaeological site.

**Known Archaeological Sites* and
Areas Sensitive for Prehistoric Archaeology* for**

R&C MHP C# 464-10

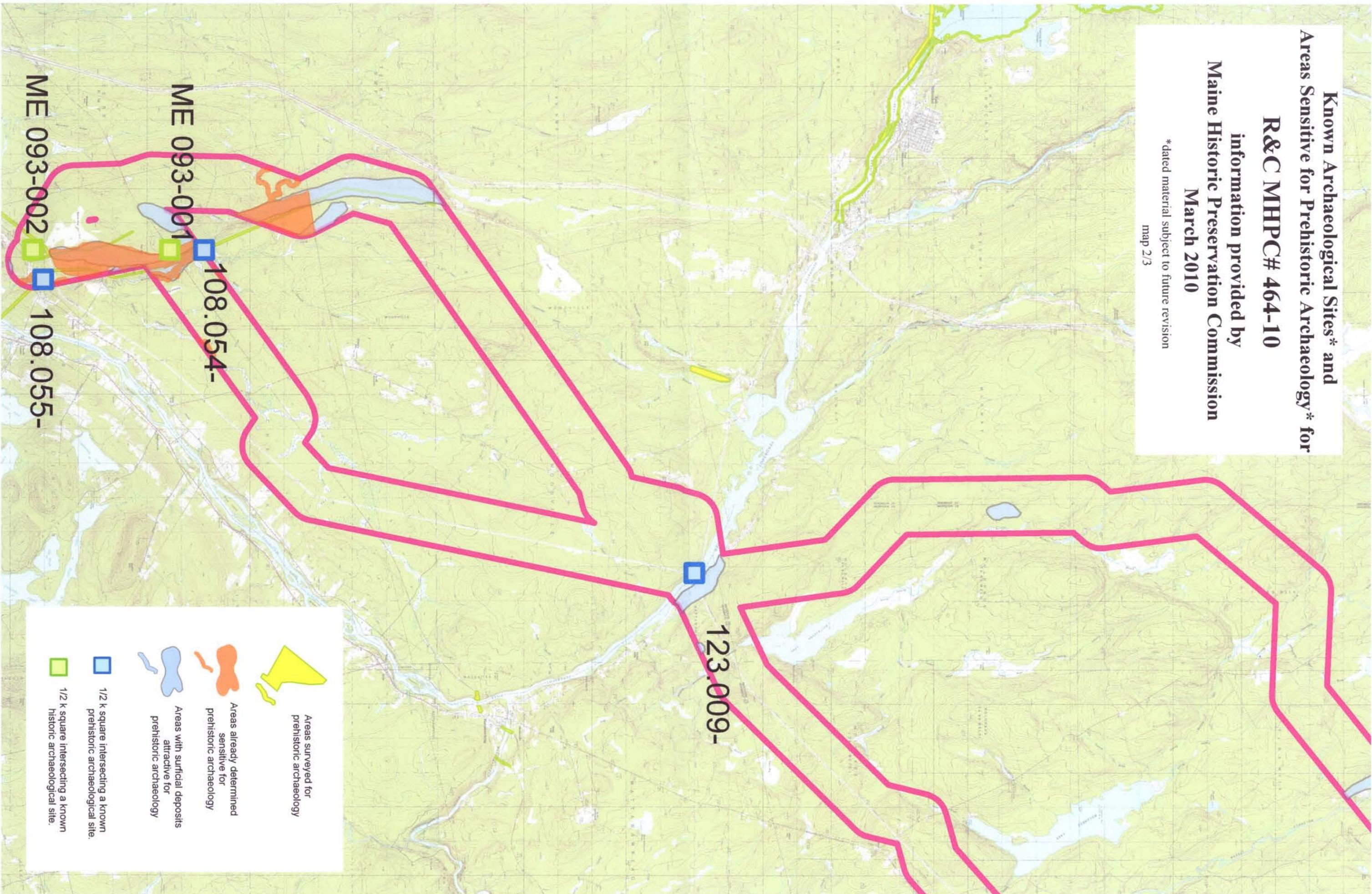
information provided by

Maine Historic Preservation Commission

March 2010

**dated material subject to future revision*

map 2/3



Areas surveyed for prehistoric archaeology

Areas already determined sensitive for prehistoric archaeology

Areas with surficial deposits attractive for prehistoric archaeology

1/2 k square intersecting a known prehistoric archaeological site.

1/2 k square intersecting a known historic archaeological site.

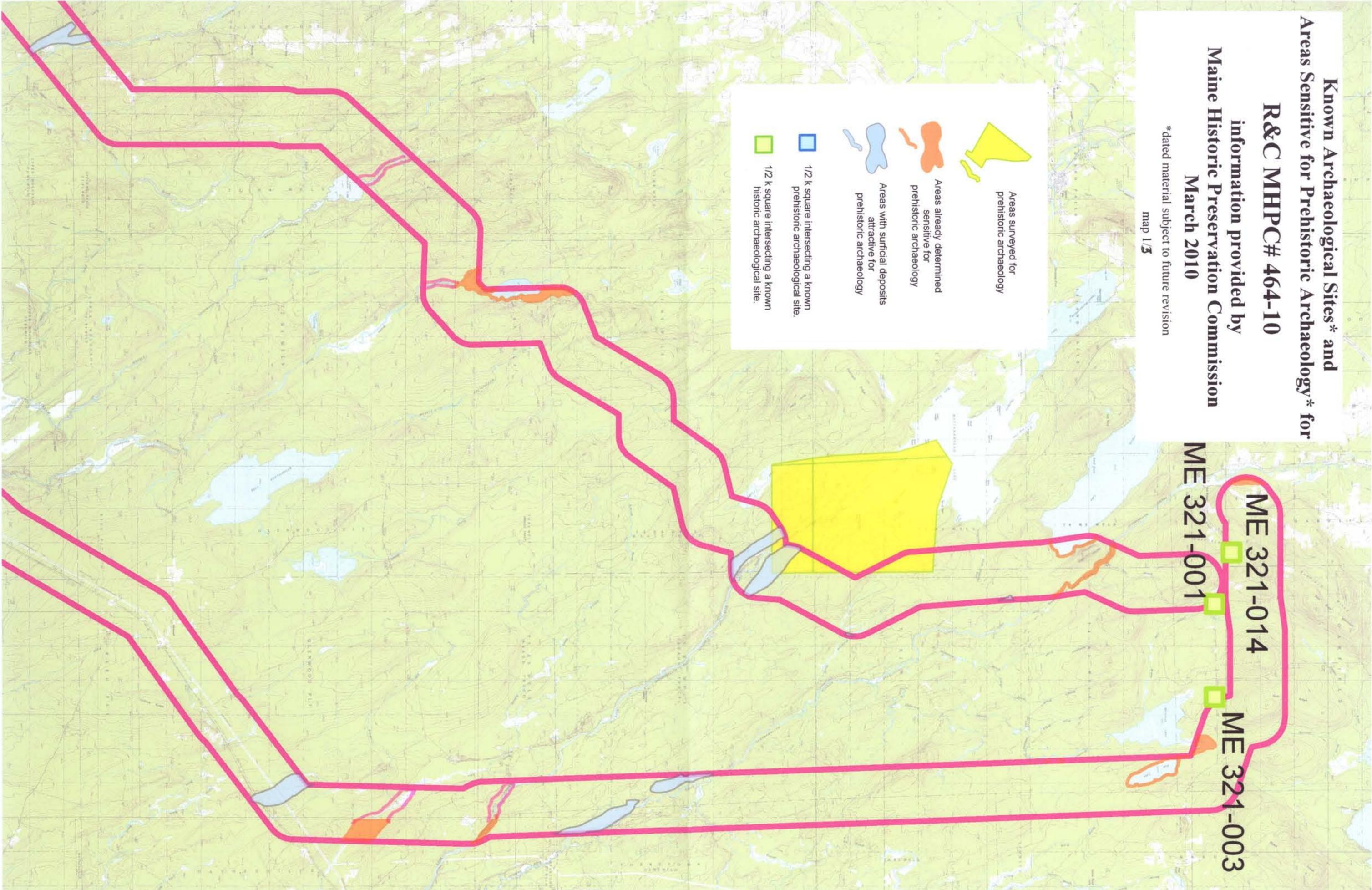
**Known Archaeological Sites* and
Areas Sensitive for Prehistoric Archaeology* for**

R&C MHP C# 464-10
information provided by
Maine Historic Preservation Commission
March 2010

*dated material subject to future revision
map 1/3

Legend for archaeological sites and sensitive areas:

- Areas surveyed for prehistoric archaeology (Yellow polygon)
- Areas already determined sensitive for prehistoric archaeology (Orange polygon)
- Areas with surficial deposits attractive for prehistoric archaeology (Blue polygon)
- 1/2 k square intersecting a known prehistoric archaeological site. (Blue square)
- 1/2 k square intersecting a known historic archaeological site. (Green square)





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JOHN ELIAS BALDACCI
GOVERNOR

EARLE G. SHETTLEWORTH, JR.
DIRECTOR

September 16, 2010

Brook E. Barnes
Stantec Consulting
30 Park Drive
Topsham, ME 04086

Project: MHPC #1252-07 – Oakfield Wind Project, Amendment, Historic Architectural
Reconnaissance Survey
Town: Oakfield, Aroostook County, ME

Dear Mr. Barnes:

In response to your recent request, I have reviewed the Historic Architectural Reconnaissance Survey report received August 24, 2010 to continue consultation on the above referenced project pursuant to Section 106 of the National Historic Preservation Act, as amended.

With regard to the identification of historic properties, the Commission agrees with the conclusion of the architectural survey that the following resources appear to be eligible for listing in the National Register of Historic Places (see Table 3):

- Shakaree Deer Farm, Cunliffe Road, New Limerick, MHPC No. 301-0001
- Shaw Homestead, 678 Drews Lake Road, New Limerick, MHPC No. 301-0018 [note change to MHPC Inventory No.]

We do not agree that the farmstead at 183 Campbell Road, New Limerick, Survey Map No. 162, is eligible for listing in the Register due to the substantial loss of integrity of the house (synthetic siding, windows, metal roof) and the barn (paired garage doors on the façade).

The Commission requests additional photographs of the house on the farmstead at 1807 County Road, Smyrna (Survey Map No. 159), and historical information about the barn at 377 New Limerick Road, Linneus (Survey Map No. 191.3) in order to assess the eligibility of these properties.

Except as noted above, the Commission agrees that no other newly surveyed properties are eligible for listing in the Register.

Upon submittal of the information requested above, we will continue our review of the proposed undertaking.

If you have any questions regarding our comments, please do not hesitate to contact me.

Sincerely,

Kirk F. Mohney
Deputy State Historic Preservation Officer



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JOHN ELIAS BALDACCI
GOVERNOR

EARLE G. SHETTLEWORTH, JR.
DIRECTOR

September 21, 2010

Brooke Barnes
Stantec Consulting
30 Park Drive
Topsham, ME 04086

Re: Revised Oakfield Wind project, MHPC 1252-07, archaeological comments

Dear Mr. Barnes:

For the *entire 50+ mile powerline*, we accept the results of both the Phase 0 historic archaeological report (Wheeler and Sherman) and the prehistoric archaeology (Phase 0) PreContact Period Archaeological Assessment. No further historic archaeological survey work is required for the entire line. **Phase I archaeological survey work is required at the 26 archaeologically sensitive areas indicated in the PreContact Archaeological Assessment.**

For the *Oakfield Wind Project Amendment* (the wind farm area itself) There are no prehistoric archaeological sites present within the wind farm development area of potential effect.. No further archaeological survey fieldwork necessary for historic archaeology, but site ME 321-003 (L. Sprague farmstead along Old Oakfield Road) must be avoided and protected with fencing (such as snow fence) along South Oakfield Road margin during road reconstruction and use.

Sincerely,

Kirk Mohney
Deputy State Historic Preservation Officer



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JOHN ELIAS BALDACCI
GOVERNOR

EARLE G. SHETTLEWORTH, JR.
DIRECTOR

November 10, 2010

Brooke E. Barnes
Stantec Consulting
30 Park Drive
Topsham, ME 04086

Project: MHPC #1252-07 – Oakfield Wind Project, Amendment, Historic Architectural
Reconnaissance Survey; Maine Genlead 115KV Generator Lead Project, Historic
Architectural Reconnaissance Survey and results of prehistoric archaeology survey
Town: Aroostook and Penobscot counties, ME

Dear Mr. Barnes:

In response to your recent request, I have reviewed the additional information received October 12, October 18, and November 10, 2010 to continue consultation on the above referenced undertakings pursuant to Section 106 of the National Historic Preservation Act, as amended, and in accordance with Maine law 35-A MRSA §3452.

Oakfield Wind Project Amendment

Based on the additional information provided to us, the Commission agrees with the conclusion of the architectural survey that the following property is not eligible for listing in the National Register of Historic Places (see Table 3):

- Farmstead, 1807 County Road, Smyrna (Survey Map #s159-159.4)

With regard to the barn at 377 New Limerick Road, Linneus (Survey Map #191.3), we conclude that this building is a representative example of its type, period and method of construction, and retains sufficient integrity to merit listing in the National Register under Criterion C. This is a new finding of eligibility.

Per our telephone discussion on November 10, 2010 with PAL, it is our understanding that the location of the turbines has been modified since we received the Amendment materials discussed above for review. PAL will be revising the map indicating the Area of Potential Effects for this project, their architectural survey report, and their assessment of effects for our review and comment.

Regarding archaeological resources, we will also need to review the new locations to make sure that we have no concerns. Please respond to our Sept. 21, 2010 letter and our concerns about site ME 321-003 (copy enclosed.)

Maine GenLead 115 kV Generator Lead

The Commission concurs with the findings of the Historic Architectural Reconnaissance Survey report that the proposed transmission line will have no adverse effect upon historic properties. We also conclude that given the presence of the existing transmission line in the Canadian Pacific Railway corridor,



MHPC# 1252-07
November 10, 2010

and the possibility that historic bridges and culverts also exist in that corridor (the railroad right-of-way itself was not surveyed), that the addition of the new transmission line will have no adverse effect upon such properties.

With regard to archaeological resources, our office has reviewed the October 13, 2010 report "Results of Phase 1 Precontact Archeological Survey of the GenLead LLC Transmission Line, Aroostook and Penobscot Counties, Maine." The report is complete and acceptable as written. There were no sites identified in the report. No further consultation regarding archaeological resources along the transmission line route is necessary unless changes to the route are proposed.

We look forward to continuing consultation with you on this project. If you have any questions regarding our comments, please do not hesitate to contact me.

Sincerely,



Kirk F. Mohney
Deputy State Historic Preservation Officer

enc.

cc. Carey Jones, PAL (via fax)



MAINE HISTORIC PRESERVATION COMMISSION
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JOHN ELIAS BALDACCI
GOVERNOR

EARLE G. SHETTLEWORTH, JR.
DIRECTOR

September 21, 2010

Brooke Barnes
Stantec Consulting
30 Park Drive
Topsham, ME 04086

Re: Revised Oakfield Wind project, MHPC 1252-07, archaeological comments

Dear Mr. Barnes:

For the *entire 50+ mile powerline*, we accept the results of both the Phase 0 historic archaeological report (Wheeler and Sherman) and the prehistoric archaeology (Phase 0) PreContact Period Archaeological Assessment. No further historic archaeological survey work is required for the entire line. **Phase I archaeological survey work is required at the 26 archaeologically sensitive areas indicated in the PreContact Archaeological Assessment.**

For the *Oakfield Wind Project Amendment* (the wind farm area itself) There are no prehistoric archaeological sites present within the wind farm development area of potential effect.. No further archaeological survey fieldwork necessary for historic archaeology, but site ME 321-003 (L. Sprague farmstead along Old Oakfield Road) must be avoided and protected with fencing (such as snow fence) along South Oakfield Road margin during road reconstruction and use.

Sincerely,

Kirk Mohny
Deputy State Historic Preservation Officer



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