



New York Branch
2390 Clinton Street
Buffalo, NY 14227
Tel: (716) 821-1650
Fax: (716) 821-1607

Alabama Branch
2301 Paul Bryant Drive
Tuscaloosa, AL 35401
Tel: (205) 556-3096
Fax: (205) 556-1144

Tennessee Branch
91 Tillman Street
Memphis, TN 38111
Tel: (901) 454-4733
Fax: (901) 454-4736

Corporate Headquarters
P.O. Box 20884
Tuscaloosa, AL 35402
Tel: (205) 248-8767
Fax: (205) 248-8739

PHASE 1A

CULTURAL RESOURCES INVESTIGATION

FOR THE PROPOSED BULL RUN

WIND ENERGY CENTER,

TOWNS OF CLINTON, ELLENBURG, ALTONA, AND

MOOERS, CLINTON COUNTY, NEW YORK

Prepared for:

INVENERGY WIND, LLC
120 N. Lee Street, Suite 103
Falls Church, Virginia 22046

Prepared by:

PANAMERICAN CONSULTANTS, INC.
Buffalo Branch Office
2390 Clinton Street
Buffalo, NY 14227
(716) 821-1650

November 2015

**PHASE IA CULTURAL RESOURCES INVESTIGATION
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Prepared for:

**INVENERGY WIND, LLC
120 N. Lee Street, Suite 103
Falls Church, Virginia 22046**

Prepared by:

**Christine M. Longiaru, M.A., Senior Architectural Historian/Co-Principal Investigator
Robert J. Hanley, M.A., RPA, Senior Archaeologist/Co-Principal Investigator
Mark A. Steinback, M.A., Senior Historian
Michael A. Cinquino, Ph.D., RPA, Project Director**

**PANAMERICAN CONSULTANTS, INC.
Buffalo Branch Office
2390 Clinton Street
Buffalo, NY 14227
(716) 821-1650**

November 2015

Management Summary

SHPO Project Review Number (if available): #

Involved Federal and State Agencies: U.S. Army Corps of Engineers, New York State Department of Environmental Conservation, Public Service Commission

Phase of Survey: Phase 1A Cultural Resources Reconnaissance Survey

Project Location Information:

Location:

Minor Civil Division: Towns of Altona (MCD 01901), Clinton (MCD 01907), Ellenburg (MCD 01909), and Mooers (MCD 019010)

County: Clinton

Five-mile ring Information:

Minor Civil Division: Towns of Altona (MCD 01901), Clinton (MCD 01907), Ellenburg (MCD 01909), and Mooers (MCD 019010)

County: Clinton

USGS 7.5-Minute Quadrangle Maps (all New York): Altona 1964; Churubusco 1964; Ellenburg Depot 1964

Survey Area (Metric & English):

Archaeological Survey Overview

Number & Interval of Shovel Tests: N/A

Results of Archaeological Survey

Number & name of historic sites identified: N/A

Number and name of sites recommended for Phase 2/Avoidance: N/A

Results of Architectural Survey: Preliminary 5-mile Visual APE Study Area

Number of historic architectural resources within Project area: 77± (see Tables 4.1 and 4.2)

Number of identified S/NRHP Listed historic architectural resources: 1 (Adirondack Forest Preserve)

Number of identified S/NRHP Eligible historic architectural resources: To be determined during Phase 1B investigation

Number of Historic Districts: none

Report Author(s): C.M. Longiaru, R.J. Hanley, M. Steinback, M. Cinquino

Date of Report: November 2015

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1.0 Introduction

1.1 PROJECT DESCRIPTION

Panamerican Consultants, Inc. (Panamerican) was contracted by Invenergy Wind, LLC. (Invenergy), Chicago, Illinois, to conduct a Phase 1A cultural resources investigation for the proposed Bull Run Wind Energy Center in the towns of Altona, Clinton, Ellenburg, and Mooers, Clinton County, New York (Figures 1.1 and 1.2). Operating as Bull Run Energy LLC (BRE), the proposed Project is to have a maximum generating capability of 300 megawatts (MW) from an estimated 50 to 100 wind turbines located on land leased from owners of private property located in the towns of Clinton, Ellenburg, Altona, and Mooers. BRE anticipates the interconnection facilities will include a 230-kilovolt (kV) switchyard built adjacent to New York Power Authority's (NYPA's) Ryan-Plattsburgh 230-kV transmission line and an overhead 230-kV interconnection line approximately four miles long. This transmission line would be subject to Public Service Law Article VII, rather than the Article X process. BRE plans to submit its Article VII and Article X applications concurrently and as part of its public involvement program (PIP) outreach activities BRE will describe the transmission line and the wind-energy facility (Invenergy 2015).

The purpose of the Phase 1A investigation was to determine if any previously recorded cultural resources are present within the Area of Potential Effect (APE) for the project and assess its general sensitivity for archaeological and historic architectural cultural resources. The APE for the archaeological sensitivity assessment comprised the general location the Project (see Figure 1.1). At the time of this Phase 1A cultural resources investigation, the Project layout and specific locations has yet to be planned.

The visual APE is defined as the area from which the proposed undertaking may be visible within five miles from its turbines (New York State Historic Preservation Office [NYSHPO] 2006). As noted, the Project layout has not been finalized. The accompanying map (Figure 1.3) shows a general boundary of the Visual APE. A formal Visual APE based on topography will be generated by Panamerican once the locations and heights of the wind turbine generators have been determined.

The cultural resources investigation included archival, documentary, and historical map research, a site file and literature search, the examination of properties listed in the New York State and National Registers of Historic Places (S/NRHP), a cursory windshield survey of historical buildings/structures in the project area as well as its setting, assessments of cultural resource sensitivity and past disturbances within its APE, and photographic documentation of conditions characterizing the APE.

The cultural resource investigation was conducted in compliance with the National Historic Preservation Act (as amended), the National Environmental Policy Act, the New York State Historic Preservation Act, and the State Environmental Quality Review Act, as well as all relevant federal and state legislation. The archaeological investigation also was conducted according to the New York Archaeological Council's (NYAC) standards and the historic structures assessment was conducted in compliance with NYSHPO's *Guidelines for Wind Farm Development Cultural Resources Survey Work* (2006). The field investigation was conducted during the first week of November 2015 by Senior Architectural Historian Ms. Christine Longiaru, M.A., Co-Principal Investigator; Senior Archaeologist Mr. Robert J. Hanley, M.A., RPA, served as Co-Principal Investigator; Senior Historian Mr. Mark Steinback, M.A., was Project Historian; and Senior Archaeologist Dr. Michael A. Cinquino, RPA, served as Project Director.

1.2 METHODOLOGY

Cultural resources investigations are designed to provide a complete examination of a project area in order to identify and assess any known or unknown cultural resources prior to potential impacts. These resources include archaeological sites (prehistoric and historic), and standing structures or other aboveground features. A Phase 1A survey consists of a background/literature search, a site file check, and a field inspection of the project area. Archaeological and historic site files at the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) are reviewed as an initial step to

determine the presence of known archaeological sites within a one-mile radius of the area of potential effect. These files include data recorded at both the OPRHP and the New York State Museum (NYSM) and are accessed through OPRHP's electronic Culture Resource Information System (CRIS). Results of the site file check are summarized in Section 2.3.2. The prehistory and history of the region is reviewed for the preparation of an historic context within the APE (see Section 2.2).

Information collected during the Phase 1A survey is used to assess the sensitivity of the project area for the presence of cultural resources. The sensitivity of the project area is assessed through background research and field examination. Areas that are untestable or severely disturbed are identified according to the following criteria:

- graded and cut areas through surrounding terrain (e.g., hills or gorges), such as those resulting from road construction
- areas that appear to have over 5 feet (1.5 meters) of fill
- areas previously impacted by construction of utilities, drainage ditches, streets or other obvious areas of significant earth movement
- areas including poorly drained soils and wetlands
- areas having slopes greater than 15 percent

Areas of archaeological potential and high sensitivity are identified based on the following criteria:

- undisturbed areas that are environmentally sensitive with relatively level well-drained soils or in the vicinity of potable water such as springs, streams or creeks (these characteristics typify known site locations in the region)
- known prehistoric or historic site locations within or adjacent to the project area
- historic structures identified within or immediately adjacent to the project area

Photographs 1.1-1.14 show representative views of the general area, setting, and field conditions of the Project location. A discussion of the historic structures investigation is presented in Section 4.0.

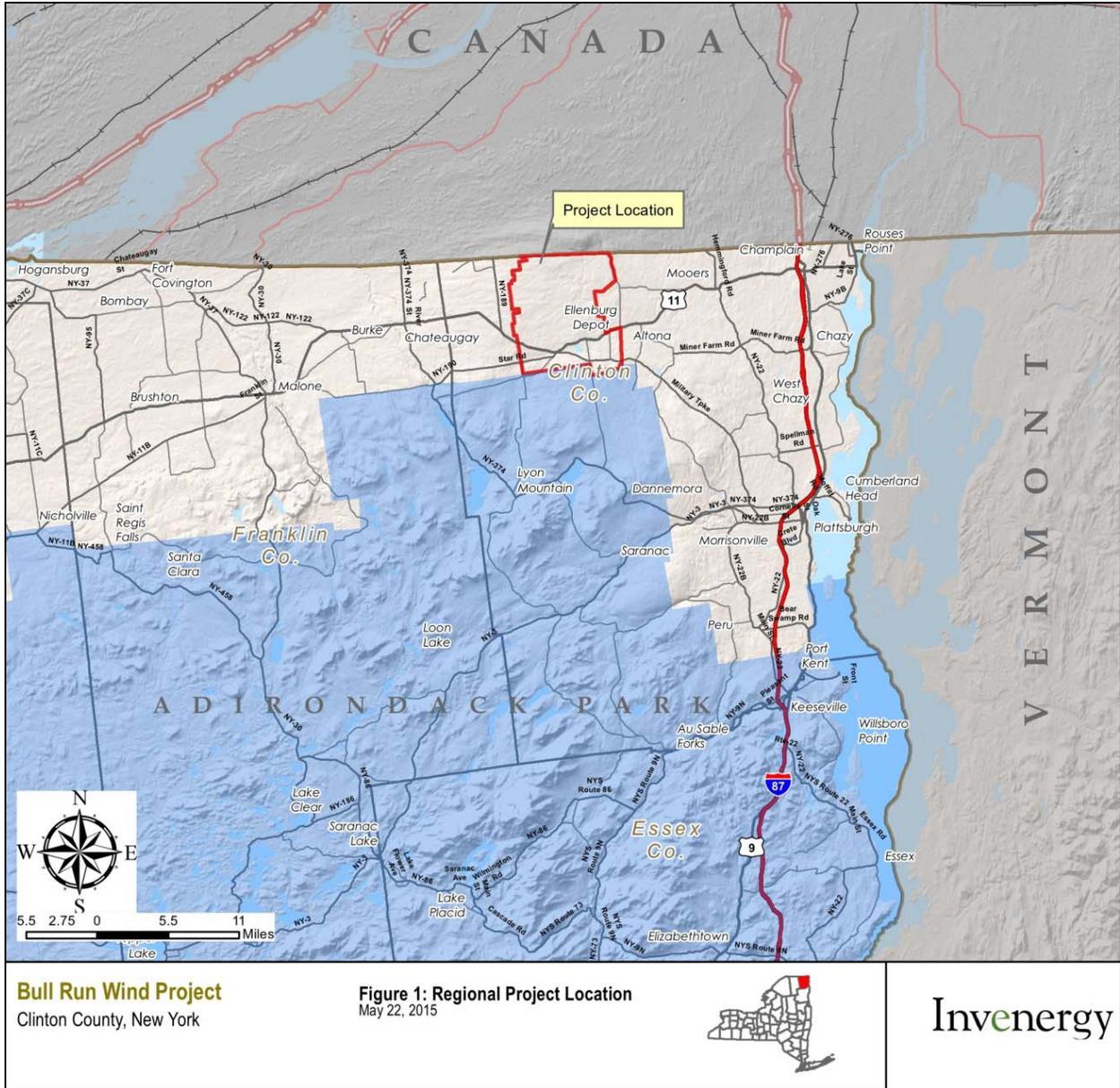


Figure 1.1. Regional Project Location in Clinton County, New York (Invenergy 2015).

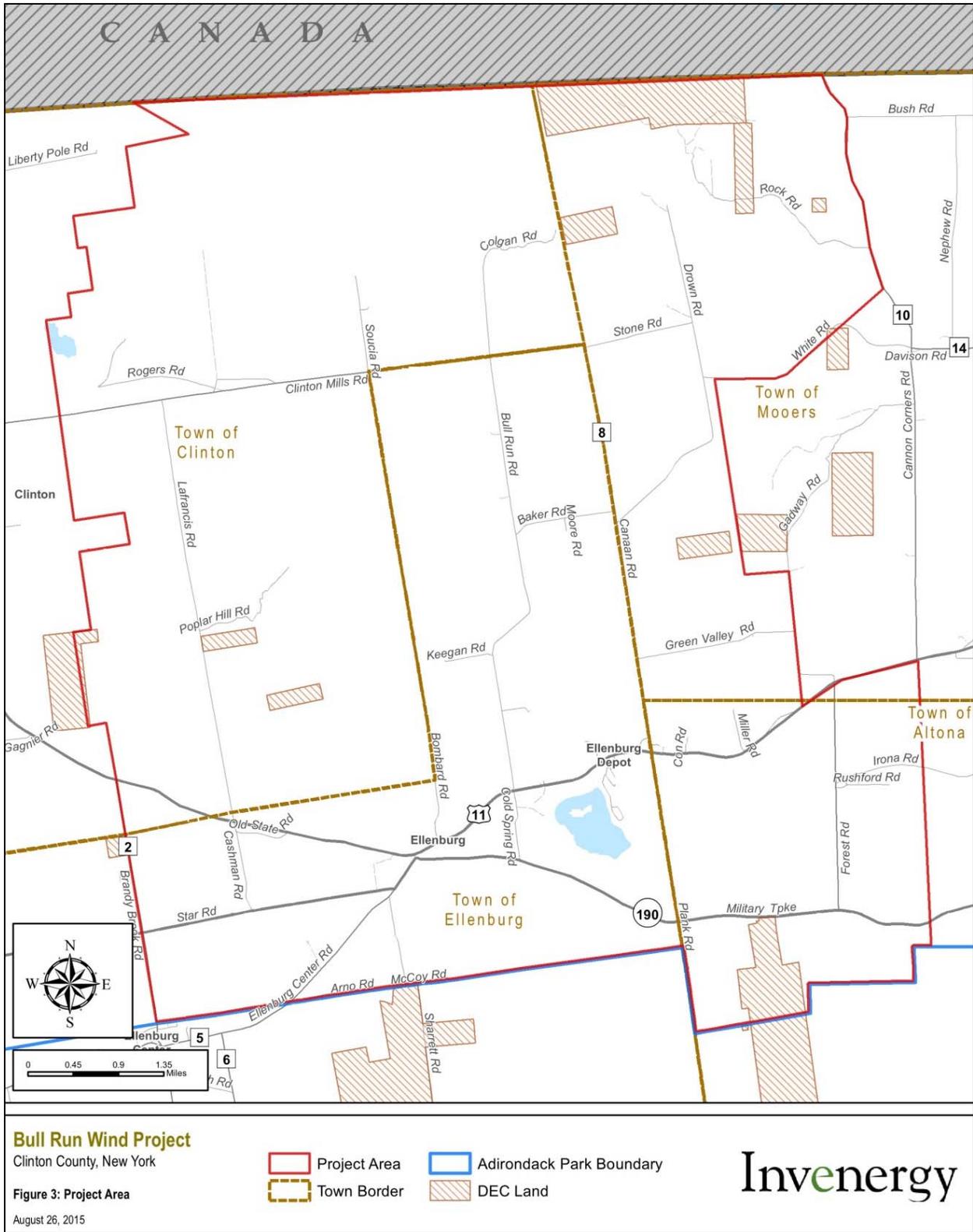


Figure 1.2. General project location in the towns of Altona, Clinton, Ellenburg, and Moers, Clinton County, New York (Invenergy 2015).



Bull Run Wind Project

Clinton County, New York

Figure 2: Project Area and Study Area

May 26, 2015

- Project Area
- Adirondack Park Boundary
- 5-Mile Study Area
- DEC Land

Invenergy

Figure 1.3. General boundary of the five-mile Visual APE study area in the towns of Altona, Clinton, Ellenburg, and Mooers, Clinton County, New York (Invenergy 2015).



Photograph 1.1. General setting of the Project location from just west of the intersection of Clinton Mills and Rogers roads, Town of Clinton, facing east (Panamerican 2015).



Photograph 1.2. General setting of the Project location from just west of the intersection Clinton Mills and Rogers road, Town of Clinton, facing east (Panamerican 2015).



Photograph 1.3. General setting of the Project location from the intersection of Clinton Mills and Bull Run roads, Town of Ellenburg, facing south (Panamerican 2015).



Photograph 1.4. General setting of the Project location from the intersection of Clinton Mills and Bull Run roads, Town of Ellenburg, facing west (Panamerican 2015).



Photograph 1.5. General setting of the Project location from the intersection of Clinton Mills and Bull Run roads, Town of Ellenburg, facing northwest (Panamerican 2015).



Photograph 1.6. General setting of the Project location from the intersection of Clinton Mills and Bull Run roads, Town of Ellenburg, facing north (Panamerican 2015).



Photograph 1.7. General setting of the Project location from the intersection of Clinton Mills and Bull Run roads, Town of Ellenburg, facing east (*Panamerican 2015*).



Photograph 1.8. General setting of the Project location at 805 Bull Run Road, Town of Ellenburg, facing west (*Panamerican 2015*).



Photograph 1.9. General setting of the Project location showing pasture at 800 Bull Run Road, Town of Ellenburg, facing east (*Panamerican 2015*).



Photograph 1.10. General setting of the Project location showing pasture at 800 Bull Run Road, Town of Ellenburg, facing southeast (*Panamerican 2015*).



Photograph 1.11. General setting of the Project location from Bull Run Road just south of Baker Road, Town of Ellenburg, facing south (Panamerican 2015).



Photograph 1.12. General setting of the Project location with abandoned farm house on side of Canaan just north of Green Valley Road, Town of Mooers, facing northeast (Panamerican 2015).



Photograph 1.13. General setting of the Project location on Canaan Road from Green Valley Road, Town of Mooers, facing northwest (*Panamerican 2015*).



Photograph 1.14. General setting of the Project location from near 135 Green Valley Road, Town of Mooers, facing southwest (*Panamerican 2015*).

2.0 Context and Background Research

2.1 ENVIRONMENTAL SETTING

Topography. The project area is located in St. Lawrence Hills section of St. Lawrence-Champlain Lowlands physiographic province (one of two provinces containing Clinton County; the Central Highlands section of the Adirondack Uplands is the other). The project footprint is situated east of the Churubusco plateau, an upland ridge that extends from the Adirondack Mountains into Canada (Trevail 2006:4; Cressey 1966:26). The undulating topography rises generally from east to southwest from approximately 850 ft (259 m) in the Town of Mooers to more than 1,200 ft (366 m) in the towns of Clinton and Ellenburg. Relict Beach ridges associated with Glacial Lake Iroquois are west of the project area (U.S. Geological Survey [USGS] 1964a, 1964b, 1966).

Geology. The project area lies within the St. Lawrence-Champlain Lowlands. Although the Champlain Lake Plain is predominately a limestone base covered with marine clays, in the project area, sandstone forms the parent material that is overlain with glacial drift (Cressey 1966:24-28; Isachsen et al. 1990). The Champlain Lowlands in the study area is an area of moderate relief “underlain by lower Paleozoic sedimentary rocks and unconsolidated Pleistocene glacial, lacustrine, and marine deposits” (Trevail 2006:4). The sandstone in northern and central Clinton County is known as the Potsdam sandstone, and is a common source for building material. Further, noted rocks in portions of the project footprint are interbedded quartzose dolostone and dolomitic sandstone of the Theresa Formation, which overlies the Potsdam sandstone (Van Diver 1985:385; Trevail 2006:4-5).

Soils. The project footprint covers terrain with numerous soil types and six soil associations designated by the U. S. Department of Agriculture (Trevail 2006:General Soil Map). The area of proposed wind-energy development lies within an acid soil region of the state, where the loamy soils tend to be deep on glacial till over hilly terrain (de Laubenfels 1966b:106, 108). In general, the project footprint is situated predominantly within two soil associations—the Irona-Conic-Topknot (#8 in Figure 2.1) and the Schroon-Peasleeville (#11 in Figure 2.1) associations. Formed in acidic glacial till over sandstone bedrock, soils of the Irona-Conic-Topknot association are shallow and moderately deep, nearly level to strongly sloping, well drained to somewhat poorly drained, and moderately coarse textured. Soils of the Schroon-Peasleeville association also formed in acidic glacial till, and are very deep, nearly level to strongly sloping, moderately well drained and somewhat poorly drained, and medium and moderately coarse textured (Trevail 2006: General Soil Map, 21-22, 24). In addition, smaller areas within the project footprint contain soils from four other associations—Colosse-Trout River (#3 in Figure 2.1), Coveytown-Fahey-Malone (#4), Muskellunge-Adjidaumo-Swanton (#5), Rock Outcrop-Ricker (#10), and Skerry-Becket-Adirondack (#13; Trevail 2006: General Soil Map; see Figure 2.1).

Soils of the Colosse-Trout River association formed in glacial outwash and glacial beach ridge deposits, and are very deep, gently sloping to moderately steep, excessively drained, and coarse textured. Identified in a small area at the eastern end of the project area, soils of the Coveytown-Fahey-Malone association formed in glacial till on outwash or glacial till plains, and are very deep, nearly level to gently sloping, moderately well drained and somewhat poorly drained, and coarse textured or medium textured (Trevail 2006: General Soil Map, 13, 15-18).

A small area in the middle of the project footprint contained soils of the Muskellunge-Adjidaumo-Swanton association. These soils formed in lacustrine and marine sediments on glacial lake plains, and are very deep, somewhat poorly drained to very poorly drained, nearly level and gently sloping, and fine textured and moderately fine textured soils (Trevail 2006: General Soil Map, 18-19). Soils of the Rock Outcrop-Ricker association formed in acidic, loamy glacial till deposits, and are nearly level and gently sloping, well drained areas of sandstone bedrock exposures and very shallow to moderately deep organic soils. Finally, at the southern end of the project area, soils of the Skerry-Becket-Adirondack association also formed in acidic, loamy glacial till deposits, and are very deep, gently sloping to steep, well to somewhat poorly drained, moderately coarse textured (Trevail 2006:General Soil Map, 23-25; see Figure 2.1).

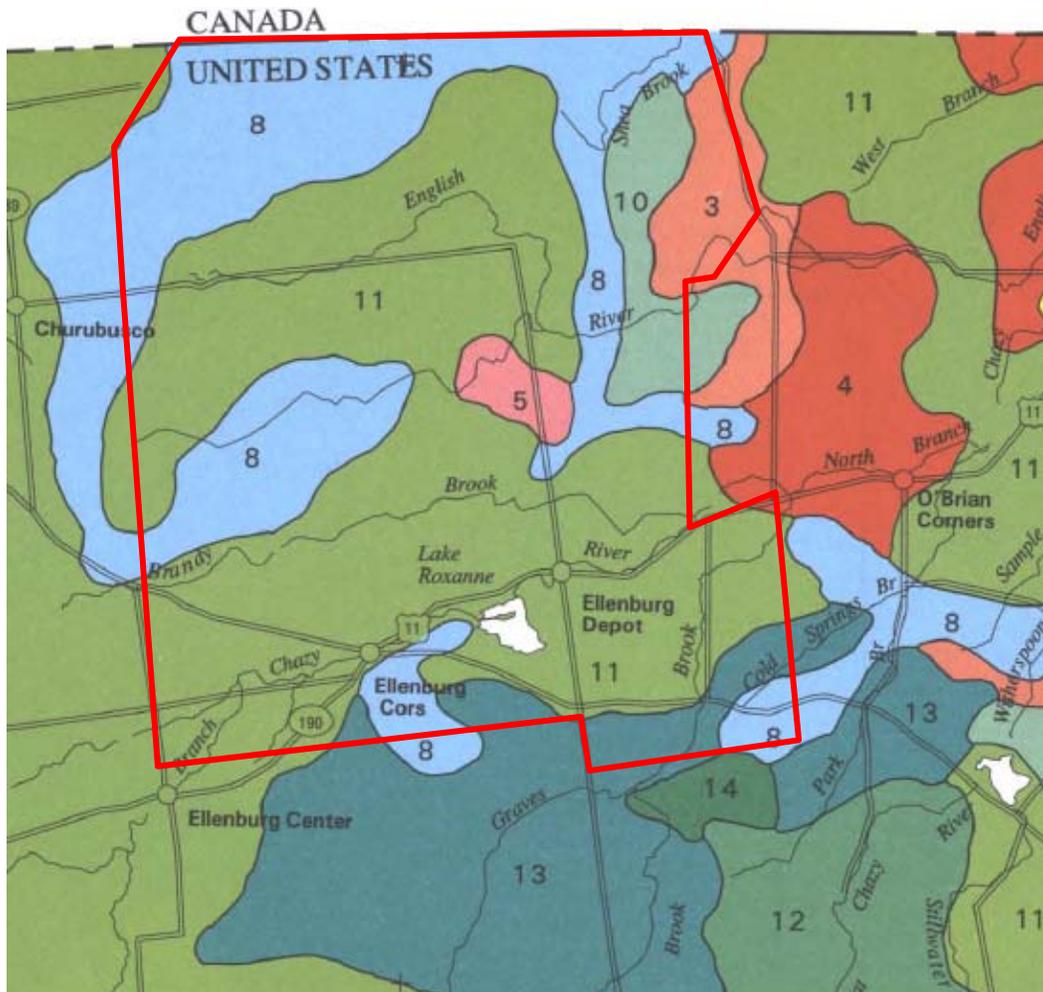


Figure 2.1. General soil associations within the approximate location of the Bull Run Wind Energy Center project footprint in Clinton County (Trevail 2006: General Soil Map).

Drainage. Numerous streams cross the project footprint (see Figure 2.1), generally flowing eastward. This portion of Clinton County is drained by English and Chateaugay rivers. The English River originates between Churubusco and Ellenburg and flows eastward before turning northward into Canada and joining the St. Lawrence River. The Chateaugay River originates in Franklin County and flows northward into the St. Lawrence River (Trevail 2006:8)

Forest Zone and Vegetation. The project area lies within the Northern Hardwood forest zone, which covers the northern and eastern portions of the county (de Laubenfels 1966a:92). Occurring in higher elevations, this zone is not uniform, consisting of a variety of species, but dominated by beech and sugar maple. In cooler areas, the third most prevalent tree is yellow birch. Though not evenly distributed, all types of evergreens are abundant among hardwoods in the cooler regions, the most popular of which include hemlock, white pine and white cedar. The climatic conditions of this zone comprise cool wet summers, cold snowy winters, and a shorter growing season (de Laubenfels 1966a:95-96).

Man-Made Features and Alterations. The project area is crossed by U.S. Route 11, the heavily trafficked, primary east-west thoroughfare of the North Country region of New York State. Commercial enterprises found along the eastern portion of U.S. 11 mainly cater to traffic associated with Interstate-87 (I-87), the Adirondack Northway. Other wind-energy projects are in proximity to the project area.

2.2 CULTURAL BACKGROUND

2.2.1 Prehistoric (Precontact) Period. The three major cultural traditions manifested in New York State during the prehistoric era were the Paleo-Indian, the Archaic, and Woodland. The earliest people were nomadic big-game hunters (12,000 to 8000 BC). Changing environmental conditions required an adaptation of the economy, resulting in a shift to the efficient exploitation of temperate forest resources by Archaic hunter-gatherers. In many areas of eastern North America, the Archaic (8000 to 1500 BC) is followed by the Transitional period (1500 to 1000 BC) that bridges the Archaic and the subsequent Woodland period. The Woodland period (1000 BC to AD 1600) is marked by the introduction of pottery, agriculture, and burial mounds. As a result of these innovations, many new and very different social and economic adaptations developed (Ritchie 1980; Hart 2011).

Paleo-Indian Period (ca. 12,000-8000 BC). Hunter-gatherer bands of the Paleo-Indian culture were the first humans in New York State after the last glacial retreat approximately 14,000 years ago. While much of the northern part of the state was locked in ice, it is possible that the environmental fluctuations that occurred during this early period were conducive to periodic forays by the Paleo-Indian groups into the region when conditions were suitable. As the climate gradually became more temperate, these forays likely became more extended. Prior to 10,000 years ago, the ice had not retreated very far north of the lake and the Lake Ontario basin was still somewhat inhospitable (Ritchie 1980:4-5; Cressey 1966:22).

The archaeological record suggests that Paleo-Indian subsistence strategies emphasized hunting big-game species, many of which are extinct. These included mastodon, mammoth, great beaver, caribou and moose-elk, along with a variety of smaller game. Few tool associations have been made with aquatic resources, although this food source was probably utilized as the climate moderated (Funk 1972:11; Ritchie 1980; Salwen 1975). The remains of mammoths and mastodon have been found throughout much of the state, although not in Franklin, Clinton or St. Lawrence counties. Pleistocene elk remains have been identified in the southeastern St. Lawrence County and in eastern Clinton County near Lake Champlain (Ritchie 1980:10-11).

Adapted to the tundra, Paleo-Indians utilized a nomadic settlement system in which their movements followed that of game. During seasonal resource peaks, larger populations occupied strategically located base camps; and during periods of scarce resources, the population dispersed, occupying small camp sites and rockshelters on a temporary basis. A band-level social organization is attributed to Paleo-Indian groups, with each band consisting of 25 or 30 people (Snow 1980:150; Fitting 1968; Funk 1978). As climatic conditions allowed more permanent occupation of an area, this wandering became more restrictive and bands settled into loose territories.

Technologically, the Paleo-Indian period has been associated with the fluted Clovis point industry. These points are generally large (2.5 to 10 centimeters [1 to 4 inches] in length), with a flute on each face that facilitated hafting (Funk and Schambach 1964). A fluted point was collected in southeastern Clinton County (Ritchie 1980:5).

Archaic Period (ca. 8000-1000 BC). The Archaic period is differentiated from the Paleo-Indian period by a functional shift in lithic technology, an apparent increase in population, changes in the subsistence strategy, and a less nomadic settlement system (Funk 1978; Tuck 1978). These changes reflect an adaptation to an improved climate and a more diversified biome (Funk 1972:10). Three subdivisions are generally recognized for the Archaic: Early, Middle, and Late.

The Early Archaic tool kit consisted of Hardaway, Dalton, Palmer corner-notched, Kirk corner-notched, and bifurcate base points which frequently had serrated edges (Funk 1993). People of the Early Archaic also used end scrapers, side scrapers, spokeshaves, drills, gravers, choppers, hammers, and anvil stones. Although archaeological sites from the Early and Middle Archaic are rare, important sites have been found in central and eastern New York, in Ulster County and near Sylvan Lake (Dutchess County), as well as western Connecticut, the upper Delaware valley and the Susquehanna valley (Dent 1991; Funk 1991, 1993; Nicholas 1988).

In addition to an improved climate and more diversified biome, a few technological changes, such as the production of ground and polished stone tools, serve to identify the Middle Archaic (6000-4000 BC) (Funk 1991; Kraft 1986). The bannerstone, probably used as an atlatl weight, and the bell pestle were Middle Archaic innovations (Griffin 1967). People began to develop woodworking tools during this period, using coarse-grained stones and river cobbles as their raw materials. The Middle Archaic tool kit included anvil stones, choppers, netsinkers, an array of projectile points, axes, adzes, gouges, choppers, and other woodworking implements (Funk 1991; Kraft 1986). The territorial "settling in" process begun during the Early Archaic continued into the Middle Archaic, stimulating a process of group isolation. Sites from these periods cluster along major rivers and marshy, swampy land as well as lowlands.

During the Late Archaic period (4000-1500 BC) hunting, fishing, and gathering remained the principal daily activities, although greater emphasis was placed on deer and small game like birds and turtles, shellfish, nuts and possibly wild cereal grains like *Chenopodium*. Associated with the shift in subsistence strategies was the increase in population densities, and as population increased, camps became larger and more numerous. Bands moved seasonally or when resources dwindled. Most sites of the Late Archaic period were seasonal, special purpose habitation sites such as hunting camps, spring fishing stations, fall nut-gathering and processing stations, and shellfish processing, while some settlements located near major rivers or lakes were multi-activity spring and summer villages (Ritchie and Funk 1973). Groups probably congregated cyclically for exchange and socialization. Houses of this period may have been rectangular, 14-to-16 ft long and 7-to-13 ft wide. Several such house patterns were found at the Lamoka Lake site in Schuyler County (Ritchie and Funk 1973).

The Terminal Archaic, sometimes called the Transitional period (ca. 1500-1000 BC), features a continuation of Late Archaic cultural and economic patterns, with a few innovative traits. Among these are a developing burial/ceremonial complex and, toward the end of the period, the introduction of ceramics. Frost Island phase culture was generally situated in central New York with extensions into western and northern New York (Snow 1980; Ritchie 1980). Artifacts characteristic of this phase include Perkiomen, Susquehanna Broad points, drills and strike-a-lights made of reworked Susquehanna Broad points, flake tools, celts, netsinkers, hammerstones, pitted stones, anvil stones, and milling slabs (Funk 1993:197). The hallmark of this transition is the adoption of pottery around 1200 BC. The shift to pottery appears to have been preceded by the adoption of steatite or soapstone pots, which made cooking and food preparation easier (Ritchie and Funk 1973:87; Funk 1993:198). The earliest pottery in New York State (Vinette 1 type) has been radiocarbon dated to about 1250 BC at the Frost Island component of the O'Neil site on the Seneca River.

Woodland Period (1000 BC-AD 1500/1600). The definitive characteristic of the Woodland period in New York State is the adoption of pottery technology, a development that occurred at different times from one location to another (Feder 1984:101-102; Sears 1948; Snow 1980:262). Native groups also became more dependent on domesticated plants—including maize, beans, and squash—although this change does not seem to have significantly altered subsistence and settlement patterns until the Late Woodland, after AD 1000 (Ritchie and Funk 1973:96). In the meantime, hunting and gathering continued to be important elements of Native lifeways for much of the Woodland and people likely still employed these strategies, at least part time, at the time of contact with Europeans. With agriculture came settled village life, a general increase in population, technological changes, warfare, and a litany of social and political changes.

The Early Woodland period (1000-100 BC) is marked by several cultural phases in New York State, including the Meadowood, Middlesex, Orient, and Bushkill phases. The Early Woodland is marked by an increase in burial ceremonialism. The Meadowood phase is strongly represented in northern, central, and western New York, but its presence is weaker and more sporadic east of the Susquehanna valley (Funk 1976). Settlement type information is scarce for the Meadowood phase. Meadowood cremation cemeteries have been found in the St. Lawrence drainage, while in the western Finger Lakes region, both skeletal and cremation burials have been recovered in an apparent cemetery context at the Morrow site, Ontario County (Ritchie 1980).

The Middle Woodland period (100 BC-AD 1000) shows continued long-distance exchange, although perhaps with varying strength at different times. In the Finger Lakes and surrounding locales in northern New York, a sequence of occupation sites shows evidence of a long, Middle Woodland cultural tradition referred to as Point Peninsula (Ritchie 1980). In northern New York, a transitional culture between the Middle and Late Woodland periods is marked by the Hunter's Home phase, an aspect of the terminal Point Peninsula tradition and sometimes designated Late Woodland (AD 1000-1500/1600) (Mason 1981; Ritchie and Funk 1973; Tuck 1978).

In Ritchie's chronological framework, the end of the Middle Woodland, which he argued came around AD 1000, occurred when people in New York adopted the suite of characteristics he associated with the Late Woodland: primarily agriculture based on maize, beans, and squash; Owasco-style pottery (collarless vessels with elongate bodies, conoidal bases, slightly everted rims, and cord-wrapped-stick impressed exterior decoration confined largely to their necks); and house structures resembling historical Haudenosaunee longhouses. Ritchie believed people adopted these innovations relatively rapidly between AD 1000 and 1100. Recent studies, however, have demonstrated that none of these developments occurred at AD 1000, nor did they happen together at any other single time (Hart 1999, 2000, 2011; Hart et al. 2003; Hart and Brumbach 2003; Prezzano 1988; Schulenberg 2002). Moreover, this research has altered how events during the Middle Woodland are interpreted. The direct dating of maize using the accelerator mass spectrometry (AMS) technique, for example, has demonstrated that people in southern Ontario and central New York were growing the crop before AD 700 (Crawford et al. 1997:114-115; Hart et al. 2003:634). Meanwhile, Hart et al. (2003:624-625) and Schulenberg (2002:160-164) have obtained AMS dates from charred residue on the interiors of Owasco vessels that indicate people were manufacturing those pots as early as the seventh century AD (see also Hart and Brumbach 2003:743-744). Beyond this, Hart has demonstrated that people did not construct longhouses in central New York before the beginning of the thirteenth century AD and that they did not likely grow beans until an even later date (Hart 1999, 2000).

The Late Woodland, in Ritchie's scheme for the Northeast, was the period between AD 1000 and the time at which native people traded for or otherwise obtained European goods, the precise timing of which varied throughout the region. In the 1930s, Ritchie (1937 [1936]) proposed dividing the Late Woodland into two shorter periods: the Owasco and Iroquois (see also Ritchie 1944). At the time, he believed Iroquoian groups migrated to the New York State area and replaced the Algonquian Owasco people already living there (see Tuck 1971:11-14). Although, since the 1950s, researchers have generally accepted that Iroquoian speakers did not immigrate to the Northeast at the beginning of the Late Woodland, the distinction between the Owasco and Iroquois periods has remained. Also, with the development of radiocarbon dating, the two have acquired distinct temporal boundaries, with the Owasco lasting from AD 1000 to 1300, and the Iroquois spanning the years thereafter (Hart and Brumbach 2003:747). In terms of material culture, the primary differences between the two entities are related to ceramic vessel form and decoration. While Owasco pots tend to be collarless, decorated with a cord-wrapped paddle or stick, and have elongate bodies surmounting conoidal and subconoidal bases, Iroquois vessels generally have collars, are decorated with incised designs, and have globular bodies (MacNeish 1952; Ritchie and MacNeish 1949).

Although, as outlined above, some of the cultural developments Ritchie associated with the Late Woodland did not occur between AD 1000 and 1100, some—particularly those related to the development of an agricultural system based on maize, beans, and squash—did happen in the succeeding years. In fact, several developments appear to cluster around AD 1200 to 1300: the earliest evidence for longhouses and multiple household villages is from the thirteenth century AD and people added beans to their diets around AD 1300 (Hart and Brumbach 2003:744-746). In addition, Snow (2000:30) notes that groups in central New York began surrounding their settlements with defensive palisades after AD 1200. During the later years of the Iroquois period, people in some areas began clustering their villages within the territories occupied by historically known nations (Snow 2000:46-51). Likely in part because of the large amounts of wood consumed during the construction and maintenance of these settlements, as well as that needed for firewood, inhabitants periodically relocated their villages roughly every 10 to 20 years (Engelbrecht 2003:101-103). In several cases, researchers have reconstructed parts of the resulting

sequences of settlements and produced detailed data concerning local culture change and the effects thereon of contact with Europeans (e.g., White 1961).

Important changes occurring in this period were social rather than techno-economic. The technology of the period is characterized by refinement of the developments of earlier periods with styles and techniques becoming more regionalized. Horticulture, primarily the growing of corn, beans, and squash, was the primary source of plant food for the prehistoric Haudenosaunee, but never totally supplanted the hunting, fishing, and collecting strategy as the most important means of subsistence procurement. The practice of horticulture allowed or even necessitated increased sedentarism. With the added premium placed on land in the Late Woodland, territorialism increased (Whallon 1968).

During the late prehistoric and Contact periods, tribal clusters of Iroquoian-speaking peoples were situated throughout New York State and lower Ontario Province, Canada. Comprising several thousand people in at least one, and usually several, villages in proximity to one another, each tribal cluster was separated from the others by extensive and widespread hunting and fishing areas (Trigger 1978:344; Tuck 1978:324). Cultural changes during the late prehistoric period laid the groundwork for the development of the individual nations of the Haudenosaunee Confederacy (historically referred to as the Iroquois or Five Nations) during the historic period, in New York.

Contact Period (AD 1500–1650). This period dates the beginning of the end of traditional Native American cultural patterns as a result of ever-increasing political, military, religious and economic interactions with Europeans. The trends occurring at the end of the Late Woodland were greatly accelerated by contact with European explorers beginning in the sixteenth century. Native American groups in Northern New York were profoundly affected by direct and indirect contacts with the fur trade, long before the arrival of a permanent European-American population to the area. In 1535, French explorer Jacques Cartier sailed up the St. Lawrence River and met groups of Iroquoian-speaking Native Americans (the so-called “St. Lawrence Iroquoians”) at what is now Québec City and Montréal. There is some evidence, however, that Basque, Portuguese and Breton fishermen were traveling to the Gulf of the St. Lawrence-Newfoundland area and making sporadic contacts with Native Americans prior to this time (Hoffman 1961; Brassier 1978:79-81; Trigger 1978:345-346).

Beginning in the last decades of the sixteenth century, the increasingly regular encounters between Europeans and Native Americans incubated a pandemic of European diseases among unprepared Native populations, which decimated many Native nations. The presence of typhus, smallpox, measles, and others ravaged Native communities. In addition to the tensions introduced through simple contact with Europeans, trade has been recognized as having a major impact upon traditional aboriginal cultural patterns (Brassier 1978:83). Further, utilizing pre-existing intertribal exchange networks and relationships, changes in aboriginal cultural patterns were occurring as a result of the earliest tentative and sporadic introductions of European material culture. The source of these goods was the French outpost of Tadoussac in the lower St. Lawrence valley at the mouth of the Saguenay River where European fishing parties traded for furs with the local native groups (Trigger 1978:346-347). The most immediate changes were due to the introduction of a superior material culture. Once the fur trade was established, assuring a stable supply of these goods, the manufacture of Native goods rapidly declined until they were entirely replaced by European manufactured implements. Finally, changes occurred in sociopolitical relationships after 1640 as the fur trade intensified and the supply of furs declined. The most important of these changes was the formation of confederations, such as the Five Nations or Haudenosaunee Confederacy of New York State, and the Huron Confederacy.

During this time, a group referred to as the “St. Lawrence Iroquois” occupied villages along the north bank of the St. Lawrence River in what is now Canada. After 1550, these people vanished from this area. It is surmised that they succumbed to either disease brought by the Europeans or conflict with the Haudenosaunee and the survivors were incorporated into either the Huron or Onondaga nations (Tuck 1978:324; Trigger and Pendergast 1978:357, 360-361). After the “disappearance” of the St. Lawrence Iroquoians, what is now Northern New York had become a middle ground between the Huron-Algonquian nations of present-day Canada and the Haudenosaunee nations of what is now New York State, and was

not continuously occupied by either group, although the Mohawk exerted some control over the area. Despite its contested status, the current county was included within the traditional hunting areas of the Mohawk, although the region of their principal villages lay around the Mohawk River (Trigger 1978:346; Durant and Peirce 1982 [1878]:22; Fenton and Tooker 1978:466). Western Abenaki nations are noted as occupying areas along the east shore of Lake Champlain and areas east of both the lake and the Richelieu River during the late prehistoric period. Villages were noted in what is now northern Vermont along the Winooski and Lamoille rivers as well as on Grande Isle. Despite its contested status, portions of the southern Adirondacks and the lower Champlain valley were included within the traditional hunting areas of the Mohawk, although the regions of their principal villages lay around the Mohawk River (Fenton and Tooker 1978:466; Day 1978:148-149).

2.2.2 Historic Period. As noted, the French were the first recorded Europeans to penetrate the valley of the St. Lawrence River. By the end of the sixteenth century, the fur trade in the St. Lawrence Valley had become an important commercial and imperial concern. Commissioned to fortify outposts of trade in 1608, Samuel de Champlain founded Québec (1608) and established a trading post at what is now Montréal (1611). The year 1609 was momentous. Exploring the St. Lawrence River valley, Champlain and a small party followed the streams and rivers inland until they reached the lake that he named for himself. While there, his party encountered a group of Mohawk. Two of the latter were killed by gunfire, an action that would eventually help seal the fate of the French in the New World. Also in that year, the Englishman Henry Hudson, sailing for the United Provinces of the Netherlands, sailed up the river the Dutch called Mauritius or North River, reaching as far north as what is now Albany. While the French were engaged with the Haudenosaunee, the Dutch were establishing a trading post called Fort Orange at what is now Albany in 1624. From these early settlements the penetration and exploration of inland New York began (Trigger 1978:346-349; Tooker 1978:430; Fenton and Tooker 1978:467-469).

Colonial Period. The arrival of the Dutch initiated an era of rabid competition among the imperial powers for the lucrative fur trade. This competition spilled over to the Native nations with whom the Europeans dealt. As the supply of furs began to decline in the 1630s and 1640s, some Mohawk and Oneida were ambushing and attacking Algonquians and French in the Ottawa and upper St. Lawrence valleys. These raids would continue intermittently until the end of the century. In 1664, the British seized New Netherland from the Dutch, renaming it New York, thereby becoming the patrons of the Haudenosaunee. For the British, as it had earlier for the French, the fur trade became an essential imperial concern, and the struggle between the English and the French over the fur trade once again affected their Native American clients, who were forced to ally themselves with one or the other power. The subsequent competition in the New World resulted in the erection of fortified trading posts along the frontier by both kingdoms. In 1666, the French had established the short-lived outpost of Fort Ste. Anne on the Isle La Motte on the Vermont side of Lake Champlain; it was abandoned in the 1670s (Abler and Tooker 1978:505-507; Fenton and Tooker 1978:468-469; Trigger 1978:354-356; Hurd 1880:277-278).

Despite the erection of European posts in the Niagara and Mohawk valleys and along the north and south shores of Lake Ontario, what is now northern New York was largely free of settlement until the middle of the eighteenth century. Although, in the 1670s two settlements of Haudenosaunee who had converted to Catholicism were established in the St. Lawrence Valley: one called Caughnawaga and the other near Montréal (Fenton and Tooker 1978:468-469). Sometime between 1747 and 1755, a group of Iroquoians from Caughnawaga established a settlement on high ground along the south side of the St. Lawrence between the Raquette and St. Regis rivers. Called St. Regis, after Jean François Régis, this settlement expanded into the present Akwesasne reservation. In 1749, a collection of Christian Haudenosaunee (identified as the Oswegatchies, but really Oneida, Onondaga, and Cayuga) settled at La Presentation (present-day Ogdensburg). This group, comprising approximately 1,500 people by 1751, was later dispersed into the St. Regis and Onondaga reservations (ca. 1807). This location served as a place for raids against British settlements in the Mohawk and Hudson valleys during the French and Indian War (Hurd 1880:117, 375; Durant and Peirce 1982 [1878]:29-30, 46, 57; Blau et al. 1978:494-495). However, the French were unable to maintain this position and, with the signing of the Treaty of Paris in 1763, their claims in most of North America were officially terminated.

The British government patented much of the lands within the current New York State prior to the Revolution. The most northerly of these patents was Totten & Crossfield's purchase. Obtained by Joseph Totten, Stephen Crossfield, and their associates ca. 1772, the northern extreme of the patent formed the southern boundary of what would become Franklin and St. Lawrence counties (Figure 2.2). Much of the land covered by this patent reverted to the state after the Revolutionary War. Other patents included Dean's Patent to Elkanah Deane and 29 associates in 1769, William Beekman's Patent ca. 1769, and the Duerville Patent granted to Duer and Company prior to 1775 (Hurd 1880:20-22; Sullivan and Martin 1979:27-35).



Figure 2.2. Northern New York land purchases prior to 1800 (adapted from Ellis et al. 1967:157).

Settlement of what are now Clinton and Franklin counties was nonexistent until the middle of the eighteenth century as conflicting patents issued by both the French and the British impeded settlement of the area. The first recorded European settler of Clinton County was Frenchman Jean La Frombois or Framboise, who erected a log cabin in what is now the Town of Chazy ca. 1763. Several others built homesteads in proximity to the lakeshore prior to the American Revolution, but European settlement was deterred by the growing animosity between Great Britain and its colony (Hurd 1880:375; Sullivan and Martin 1979:20).

Lake Champlain is reputed to be the scene of the first naval battle fought by the United States Navy. On October 11, 1776, the engagement occurred in a strait between the mainland near Plattsburgh and Valcour Island. Patriot ships under the direction of Benedict Arnold were largely destroyed by a superior British force, but the battle postponed the British campaign to separate New England from the rest of the rebelling colonies. A second British attempt at splitting the colonies occurred the following year under the command of General John Burgoyne. Settlers in the Champlain Valley were driven out during Burgoyne's star-crossed invasion in 1777 (Child 1862).

Early State Period. European-American settlement in northern New York dates from the end of the American Revolution. The British and their Loyalist allies were expelled from the new United States after

the Treaty of Paris (1783) ended the Revolutionary War, although the British did not vacate forts along Lake Ontario or the St. Lawrence River until 1796.

Northern New York was virtually unbroken wilderness in 1783 except for a few settlements fringing Lake Champlain. In fact, most of the region lying between Lake Champlain on the east, Lake Ontario on the west, the St. Lawrence River on the north, and the southern slopes of the Adirondacks remained wilderness until late in the nineteenth century [Ellis et al. 1967:156].

About this time in May 1782, the state set aside a tract comprising 231,540 acres in the northeast part of the state in what would become Clinton County to refugees from Canada and Nova Scotia who had sympathized with the American Patriots. The tract was divided into 80- and 420-acre lots, except for two lots of 500 acres and 6,000 acres, which were divided into 18 equal lots and were granted to the officers and privates among the 252 refugees (Hurd 1880:24; Meining 1966:141; Sullivan and Martin 1979:30). William Bailey, early settler of what would become the Town of Chateaugay, surveyed this patent in 1784 for the refugees, which were not available for settlement until 1789. The patent covered portions of the future towns of Altona, Chazy, Dannemora, and Saranac (Hurd 1880:286, 458).

In 1786, the New York Legislature set aside land north of the Adirondacks to satisfy the obligations promised to Continental soldiers. It had previously set aside an extensive tract in central New York for the same purpose, but it had encountered difficulties extinguishing the Native American title to the land. West of the Refugee Patent, the northern New York Military tracts were referred to as the Old Military tract to distinguish them from the Military Tract in central New York (see Figure 2.2). Each of the twelve tracts contained 100 square miles: Tracts 1, 2, 11 and 12 would be contained within Essex County; Tracts 3, 4, 5 and 6 would be included within Clinton County; and, Tracts 7, 8, 9 and 10 would comprise Franklin County. Although these lands were set aside in 1786, none was ever patented to military claimants, testifying not only to the remoteness and undesirability of these lands, but also to the degree that they were sold to speculators. For example, Military Tract #5 was purchased by William Henderson in September 1794. He sold it to Jacob Mark in January 1795, who mortgaged it the following week to Robert and Jacob Leroy. By 1822 it was owned by John L. Norton and Hannah Murray, who divided it into 300 lots, which would later be included in the towns of Dannemora and Ellenburg (Hurd 1880:24, 305; Meining 1966:141). Townships #6 and #7 were patented by the State to James Caldwell in February 1785, who held the area for nearly ten days before selling them off to Colonel McGregor for £500. In December 1795, McGregor sold proportions of the tract to John Lamb, William Bell, George Bowne, Joseph Pearsall, Henry Haydock and Edmund Prior, all merchants of New York City, to hold as tenants in common. The tract was divided into lots and distributed to the entrepreneurs based on the amount of their investment (Hurd 1880:439, 456).

With the return of peace, settlers and land speculators again began to stream northward, although tensions between the new government and the British deterred development along the northern portion of the state until after the signing of Jay's Treaty in 1796. Undaunted, Alexander Macomb purchased 640,000 acres on the south side of the St. Lawrence River in 1787, which was equally divided into ten towns. Called the "St. Lawrence Ten Towns," this tract was included in the northwestern portion of what would become St. Lawrence County (see Figure 2.2). Later, after the state acquired northern New York in a 1788 treaty at Fort Stanwix, Macomb added nearly four million acres, called Macomb's Purchase (see Figure 2.2), to his holdings in 1791 (Dill 1990). Macomb's eponymous purchase was surveyed into six great tracts and put up for sale. "Tracts Four, Five, and Six fell under the supervision of William Constable, who took over complete control after Macomb became insolvent" (Ellis et al. 1967:156-157). Tracts One, Two and Three, comprising the northern part of Macomb's Purchase, "had a similar history" (Ellis et al. 1967:157). "All in all, the north country proved a disappointment to most land speculators, who could not successfully compete with the holders of the richer lands of western New York and, subsequently, of the Great Lakes states" (Ellis et al. 1967:158). Great Tract No. 1 included all of Franklin County except the towns of Burke, Constable, Belmont, and Franklin (Hurd 1880:22).

The pioneers of northeastern New York were predominantly from Vermont and New Hampshire who entered the area across Lake Champlain after 1783. Early settlement concentrated along the lake and gradually filtered into the interior following the Old Military Road after 1795. Area rivers provided the power for the numerous small sawmills and gristmills that slowly emerged from the wilderness. Initial

roads connected isolated settlements to nearby mills or crossroads, which were little more than deer trails. Because of its location and lack of inland roads, early settlements in the area were more closely tied to British settlements in Canada through the navigable Champlain Valley than to American settlements in the Mohawk valley. Despite the improvements in roads and development of mills and other processing facilities, economic growth still lagged. A problem facing many rural farming communities was ensuring that local produce could reach places where they could be purchased (Ellis et al. 1967:156; Meinig 1966:144-145, 153). As a result of this proximity, violation of the embargo of British goods in 1808 was an open secret and smuggling was rampant.

An early road ran along west shore of Lake Champlain to facilitate communication with Montréal. Called old State Road, it was laid out in 1790 and largely completed by 1793. The road extended from what is now Hudson Falls in Washington County to Canada and passed through what are now the towns of Peru, Plattsburgh, Beekmantown, Chazy and Champlain. Another road extended from Plattsburgh to Chateaugay to Ogdensburg (the precursor to the Old Military Road). Benjamin Roberts traversed this road with his companions to what would become the Town of Chateaugay in 1796. After the War of 1812 revealed the inferior condition of transportation in the North Country, President James Monroe ordered the military to provide the labor to improve it. After 1817 the improved road between Plattsburgh and Chateaugay was called the Old Military Road, later Old Military Turnpike after tolls were charged on it to facilitate repairs (Hurd 1880:51, 202, 301; Sullivan and Martin 1979:196-197, 201-202).

Named for then governor George Clinton, Clinton County comprised four subdivisions when it was initially organized: Champlain, Plattsburgh, Willsborough, and Crown Point (Hurd 1880:118). The county was created from Washington County in March 1788, and attained its present size in 1808 after several adjustments, including the formation of Franklin County. The first Anglo-American settler of Franklin County was Benjamin Roberts and Nathan Beman in 1796 near the present village of Chateaugay. Franklin County comprised three towns upon its formation in 1808—Chateaugay, Constable and Harrison (later Malone) (Hurd 1880:375).

Since the St. Lawrence area was a boundary between the British in Canada and the Americans in the United States, northern New York was the northern theater in the War of 1812, and Lake Champlain was again the scene of numerous skirmishes and an important naval engagement (Meinig 1966:153; Ellis et al. 1967:140-141). During the first part of the conflict, several small engagements occurred and cross-border foraging activities occurred. Major General Wade Hampton advanced from Plattsburgh to the present-day Chateaugay village in anticipation of an invasion of Canada during the late summer and early autumn of 1813, which never materialized. A blockhouse was erected near Marble River north of the village during the winter of 1813, and was burned near the end of the war (Hurd 1880; Seaver 1918). The Battle of Plattsburgh on September 11, 1814 was a decisive American victory in the face of extreme odds. Outnumbered naval forces under the command of Thomas McDonough thwarted the invasion, just as British soldiers were about to decimate severely overmatched American troops at Plattsburgh. The British retreat ended active warfare on the lake, although periodic skirmishing occurred in the areas to the northwest. After the war, the lack of good roads frustrated settlement during the first half of the nineteenth century.

Nineteenth Century. Logging, lumbering and timber-related products were the initial commodities of the North Country counties during the first years of settlement. Once the initial round of tree clearing had been completed, the pioneers worked the land in preparation to sow their crops or graze their animals. An abundance of wild animals provided options as a source of food for the residents of the North Country. Deer, bear, raccoon, rabbit, fox, partridge and wild turkey populated the area's forests, as did dangerous competition from wildcats and wolves. Substantial bounties were advertised for killed wolves, suggesting not only the economic importance the grazing of sheep and cattle held for settlers, but also the degree of threat of depredation posed by the wolves. In 1817, for example, a town bounty of \$15 was offered for any wolf killed in the Town of Chateaugay, and \$30 for a panther. The amount for a wolf was increased later to \$20 (Seaver 1918; Hough 1853:273, 472). Apparently wolves and panthers weren't the only predators prowling northern New York, as the Town of Canton in nearby St. Lawrence County, in 1810, imposed a fine of \$12 "on all jugglers, mountebanks [sellers of patent medicine] and wire dancers" (Hough 1853:273).

John and James Winans of Burlington, Vermont, constructed the first steamboat on Lake Champlain, the *Vermont*, between 1807 and 1809. The advent of the steamboat greatly improved transportation within the Champlain corridor; and the completion of Champlain Canal to Whitehall by 1823 further energized business and access to the North Country. However, much of the increase in commercial activity focused along the lake and inland areas had to wait for the construction of railroad lines for greater access to markets.

While agitation for railroad lines to Ogdensburg and Boston percolated through the Adirondacks in the 1830s and 1840s, the Northern Railroad would not be completed until 1850, and the Delaware & Hudson Canal Company Railroad would not penetrate the Champlain valley until after the Civil War (Lyman 1976). Railroads provided farmers and entrepreneurs of northern New York a means of getting their products to market more efficiently. Curiously, agitation for a rail link to the Great Lakes shipping port of Ogdensburg emerged from the eastern markets in Boston. After nearly two decades of discussions, negotiations, and politicking, construction of the Northern Railroad finally began in March 1848 and was completed in September 1850. The generally east-west-running line linked Ogdensburg to Rouses Point on Lake Champlain and passed through the towns of Chateaugay, Clinton, Ellenburgh, Altona, and Mooers; its importance deriving more from the freight it carried rather than the people. In July 1851 the Northern Railroad pioneered the use of refrigerated cars, carrying eight tons of fresh butter from Ogdensburg to Boston (Lyman 1976). The line operated butter, freight, milk, mail, and passenger trains. Despite its importance to the local economy, the railroad struggled financially. It was reorganized as the Ogdensburg Railroad in 1858 and the Ogdensburg & Lake Champlain (OLC) Railroad in 1864. In 1870, the Vermont Central Railroad leased the OLC. It became part of the Rutland Railroad in 1901, and part of the New York Central system in 1905 (Lyman 1976). The line remained troubled financially and became the Rutland Railway in 1950. Passenger service was discontinued in 1953, and freight service in September 1961. The tracks were removed in the mid-1960s (Lyman 1976).

In 1852, the Plattsburgh & Montreal Railway, running generally north-south, passes through Plattsburgh, Beekmantown, Chazy, and Mooers, where it intersected the Ogdensburg & Lake Champlain Railroad before continuing into Quebec. Because of financial problems, the company was reorganized in 1856 and became the Montreal & Plattsburgh Railroad. Later, it was part of the Rutland & Burlington Railway, then part of Vermont Central Railway. It was subsumed under the Delaware & Hudson Railroad (D&H) by the late 1870s (Hurd 1880).

A great fire through swept the general area in May 1877, threatening the towns of Ellenburg, Altona, Clinton and Mooers. The hamlets of Clinton Mills and Cannon's Corners (in Mooers) were virtually destroyed. Hundreds were left homeless, notably the 400 or so inhabitants of Clinton Mills who were employed at the R.W. Adams & Company. Only five homes remained in Clinton Mills after the blaze (Hurd 1880:302-303).

Bark skimmers harvesting for the tanning industry and charcoal makers for the iron industry reduced the primeval forest cover by the Civil War. In the late nineteenth century lumbering operations entered the higher Adirondacks cutting trees for pulp and lumber. These companies purchased and cut large tracts of timber land, later forfeiting denuded acres to the state in lieu of taxes. During this time, the destruction of such large swaths of forest raised an outcry and resulted in the creation of Adirondack Forest Preserve in 1885. The Adirondack Park was created for this area in 1892 and covers both state-owned and private land within the park. The Forest Preserve was made "forever wild" as a result of the 1895 New York State Constitution. Today the Forest Preserve covers 2.5 million acres (Adirondack Park Agency 2003).

Blueberry picking was an important industry in Altona during the late nineteenth century into the twentieth century. Peter Barnaby, Sr., was the first to recognize the potential of Altona's blueberry field as an avenue for commercial success in the 1850s. Napoleon Trombly was a prominent blueberry merchant in Altona beginning in 1872, and the ubiquitous Wood Brothers were blueberry dealers in West Chazy in the 1880s. In 1891 Trombly incorporated as Trombly & Sons (later Trombly Brothers). To ensure their supply of berries, they began to acquire the camps of independent berry pickers and grew to be the largest store

in town. In the early twentieth century the Tromblys bought out the Woods. The berry business continued through the twentieth century (Gooley 1980).

Town of Clinton. The town was formed from the Town of Ellenburgh in May 1845. In the 1860s it was considered mostly a wilderness as “a large part of the land is owned by capitalists and speculators” (French 2003[1860]; Child 1862:19; Ligowsky 1856). The first recorded visitor was Benjamin Roberts, who passed through what is now the town in 1796 on the path that became the Old Military Road/Turnpike. He was the first settler of Chateaugay, but eventually relocated in the Town of Clinton (Hurd 1880:301). The Town of Clinton is part of what was Township #6 of the Old Military Tract. Farming and cutting railroad ties and timber were the leading pursuits at the end of the nineteenth century.

The earliest settlers erected homesteads along the Old Military Road and at Frontier, in the northwestern part of the town, prior to 1820. These pioneers prior to 1830 included Junio, Antipias, Osiah, Merritt, and Richard Howard, Asa Smith, Ebenezer Gates, George Peters, Calvin Johnson, Benjamin Roberts, William Hunter, Jonathan Race, Ira Laughlin, Dorus, Stephen and Caleb Martin, Zephaniah Grimshaw, John McCoy, Esek Hinds (a Methodist minister), and Cornelius and Amos Austin. Benjamin Roberts kept the first tavern in the town ca. 1815 on the Military Turnpike. Benjamin Calkins kept a tavern at Frontier (called The Frontiers in the nineteenth century) in the 1840s. Dorus Martin and John McCoy manufactured potash and McCoy erected the first sawmill in the town at Frontier in 1850 (Hurd 1880:300). The entrepreneurial McCoy also operated the first store on the American side and a tavern at Frontier, which straddled the United States-Canada border, and later the first hotel at Churubusco in the 1850s (Hurd 1880:301). The first store at Frontier was run by Charles D. Bachus and Jacob Abbott, but it was located on the Canadian side.

In the southwestern part of the town, pioneer residents included William Taylor, John P. Bishop William Olds, and John Boomhower. In the 1830s an influx of Canadian and Irish immigrants settled along what is now New York State Route (NY) 189 between Churubusco and the international boundary. These pioneers included Edmund O’Neil, Patrick Sweeney, Edmund Powers, Francis and John Sampicha, Peter Butro, John Deso, Slocum Clark, John Richardson, and Joseph Willette, among others. Carlisle Davidson ran the first store at Churubusco prior to the Civil War. The area in the vicinity of what is now Clinton Mills was settled around the time of the Civil War under the auspices of the R.W. Adams & Company (Hurd 1880:300-301; Beers 1869).

The Northern Railroad (also the Ogdensburg & Lake Champlain Railroad and the Rutland Railroad) was completed across the northern tier of the town in 1853. Stations on this line were located at Churubusco (also called Summit Depot) and Clinton Mills (Beers 1869). Churubusco was named in honor of the American troops that fought in the Battle of Churubusco (1847) during the Mexican-American War. In 1880 the hamlet contained a Roman Catholic church, a store, two public houses, the town-house, a railroad station, and a number of dwellings (Hurd 1880).

In the north central part of the town, Frontier, on both sides of the international border, contained two stores, a blacksmith shop, and several dwellings in 1880. At that time, Clinton Mills, on the English River and along the route of the Ogdensburg & Lake Champlain Railroad, supported a saw and planing mill and a blacksmith shop as well as the R.W. Adams & Company, which owned six square miles of timber land. A widespread fire in 1877 destroyed most of Clinton Mills, the leading industrial center in the town at the time. The mill was rebuilt after the fire (Hurd 1880:302-304). Lumbering began at Clinton Mills in 1866 and its success, as well as the location of the railroad depot, fostered the development of the community. The community’s decline in the late nineteenth century and early twentieth century paralleled the decline in the lumber industry as a whole. General economic decline in the early twentieth century was reinforced by a gradual curtailment in railroad services along the Rutland Railroad. Clinton Mills ceased as a railroad stop in 1931. Most of the railroad tracks around Churubusco were removed by 1953 (Heaton 2007:8-11). The Rutland Railroad ceased operations in the early 1960s and the tracks were removed by ca. 1970. In the twentieth-first century the town has seen the erection of several wind-energy developments. The town had a population of 727 in 2000 and 737 in 2010.

Town of Ellenburg. The town was created from the Town of Mooers in April 1830, and attained its present size in 1845 with the creation of the Town of Clinton. The Town of Ellenburg was named in honor of a daughter (Ellen) of John R. Murray, the principal proprietor of Township #5 of the Old Military Tract (Child 1862:19-20). At that time, the “dense wilderness extend[ed] many miles in all directions” (Hurd 1880:313). The first road was constructed ca. 1832 down the English River. About that time David S. Daniels and Amos Aldridge settled near what became Ellenburg Depot (Carter’s Mills), where William Lawrence later erected a sawmill (Hurd 1880:313). In the 1860s, the principal occupation of the residents in the mountainous township was lumbering. By the end of the nineteenth century, hay and stock raising, dairying, potato growing, and lumbering were the leading economic activities of the town (French 2003[1860]; Hurd 1880:312).

James Hanchett is reputed to be the first European-American visitor to the town in 1796, but Abner Pomeroy was the first permanent settler, residing near Ellenburg Corners (now, Ellenburg) in 1803. Settlement was stagnant until 1812 when Aaron Broadwell and Lewis Ransom arrived. Ransom had been the first supervisor of the Town of Chateaugay. After the War of 1812, the Old Military Road served as conduit for the trickle of additional settlers. Ransom erected a tavern where this road crossed the north branch of the Chazy River in 1822 (Hurd 1880:313).

The pace of population growth accelerated in 1823 when Harriet and John R. Murray offered 50 acres of land to the first ten permanent settlers of the town. In 1823 Benjamin Hinds, Joseph Sevy, Samuel Hasseltine, Pardon Daily, Marshall Perry, W. Jennings, Jr., Mr. French, and Eli Hasseltine accepted the offer. Israel and Edward Carpenter erected homesteads in 1826 and 1827 (Hurd 1880:312-313, 316). Murray built the first sawmill (1824) and gristmill (1830) in the town, on the stream near Ransom’s tavern, as an additional lure to settlement. Other pioneers in the 1820s included Smith Delemater, Phoebe Estabrook, Moses Craig, Jeremiah O’Brien, and Abner Kent (Hurd 1880:321). Henry Shutts and Royal Graham also constructed early sawmills.

From 1830 to 1852 E. & I. Carpenter operated a sawmill at Ellenburg Center. In 1853 B.S. Webster and C.H. Dow converted the mill into a starch factory. The factory purchased locally grown potatoes and was still in operation in 1879, although under different ownership. Other industrial endeavors located along area streams. For example, A.S. Marshall & Co. erected a second starch factory at Ellenburg Center in 1858. It was part of the Carter & Vilas operation by 1869. R.S. & H. Webster operated a steam sawmill south of Ellenburg Center, which manufactured shingles, clapboards and laths. It burned in 1873. Shortly thereafter, Seymour Phelps erected a sawmill near the ruins. Frederick and George Rosman built a sawmill near Ellenburgh Corners in 1849; Ransom, Fisher & Co. operated it in the 1850s and built a starch factory nearby in 1855. Both ventures were operated by Carter & Vilas in 1879. In addition, Col. Morris Perry and William Cressey erected a gristmill near Ellenburg Corners in 1854 and a gang sawmill in 1855 (Hurd 1880:321).

In the late nineteenth century a community emerged along the Ellenburgh-Altona town line identified as Sherlock’s mills. S.N. Pike was first settler in this area near Graves Brook in 1852 (on the Ellenburgh side). In 1868 J. and R. Sherlock obtained 5,000 acres in western Altona and erected a large lumber mill on Graves Brook. In 1877, a fire destroyed the sawmill and shingle mill, which were replaced the following year. Nevertheless, this industrial community was nonexistent by 1915. A plank road extended along the Town of Mooers town line south through Dannemora Station, on the Ogdensburg & Lake Champlain Railroad, and Sherlock Mills to Ledger Corners near Chazy Lake (Beers 1869; Hurd 1880:200-201; USGS 1915). By the 1870s Lower Chateaugay Lake was a popular summer resort. The two hotels located there at that time were the Merrill House and Ebenezer McPherson’s hotel. The Town of Ellenburg had a population of 2,374 in 1875.

The Adirondack Park was created in 1892 and covers both state-owned and private land within the park. The Forest Preserve was made “forever wild” as a result of the 1895 New York State Constitution. Today the Forest Preserve covers 2.5 million acres, including the southern portion of the Town of Ellenburg (Adirondack Park Agency 2003). In the twentieth-first century the town has been part of studies for the development of wind-energy facilities. The town had a population of 1,812 in 2000, and 1,743 in 2010.

Ellenburg or Ellenburg Corners developed along the North Branch of the Chazy River, where the river crossed the Old Military Turnpike. Later the road between Ellenburg Depot and Ellenburg Center would pass through the village. John W. Havens settled at Ellenburg Corners ca. 1844, and operated a store with a variety of partners until 1879. Alvah S. Marshall ran a store there beginning in 1842. Joined by John L. Carter in 1861, the business became Carter & Vilas by 1869 (Hurd 1880:314; Beers 1869). Ransom's tavern was the earliest public house in the town; others operated it in succeeding years (Hurd 1880:314, 315). Aaron Sawyer operated a large tannery at Ellenburg Corners from 1851 to 1877, when it was destroyed by fire. It was rebuilt a few months later by E. & W. Sawyer (Hurd 1880:321).

Joseph R. Emerson erected a hotel at Ellenburg Corners in 1838 and ran it until 1853, when it was taken over by Church Emerson. A.S. Marshall erected the Ellenburgh House in 1849, which was still in operation in 1879. The Hammond Hotel was in operation prior to 1844 (Hurd 1880:315). By 1880 the hamlet contained four churches (three Protestant and one Catholic), three stores, a hotel, a tannery, a starch factory, a sawmill, and "a few shops devoted to the mechanic arts" (Hurd 1880:317). It had a population of about 200 at that time (Hurd 1880:317).

Ellenburg Center developed in the center of the town near the north branch of the Chazy River. Willard Honsinger (a blacksmith), William Sherburne, Michael Curry, Elias Moore, Ethan Mix and Ephraim Halcomb were early settlers at the locality. The first store at Ellenburg Center was operated by Elias Beman by 1831. Lorenzo Atwood and Thomas Worden were other early storekeepers. A large store was operated by R.S. & W. Webster beginning in 1858 in conjunction with their sawmill. Henry Hartford ran the first hotel at Ellenburg Center prior to 1860; it later became the short-lived Mead House. By 1880 the hamlet contained a church, a sawmill and gristmill, two starch factories and three stores with 25 dwellings (Hurd 1880:314, 317-318).

Ellenburg Depot was a station of the Ogdensburg & Lake Champlain Railroad, later the Rutland Railroad. Sullivan & Phelps owned much of the land in this area in the 1880s as an ore bed, but Hurlburt & Ames built a dam and sawmill on the English River in 1849. The sawmill burned in 1855. Perry and Cressey erected a mill on the site in 1861, which was obtained by Carter & Vilas. Luther Carter used it by 1879 to make shingles (Hurd 1880:322). Early settlers at Ellenburg Depot were David S. Daniels, Micajah S. Phelps, Mr. Trombly, George S. Sullivan, Frederick Ames, Putnam Lawrence, George Stevenson, Duncan McGregor, Joel Sheldon, and Luther Carter among others (Hurd 1880:314). Sullivan & Phelps operated a sawmill and kept store by 1847. Colby Boyington kept the first public house at the Ellenburg Depot beginning ca. 1859 (Hurd 1880:316). By 1880, the hamlet, also called Carters Mills at that time, was a stop on the railroad, and contained two sawmills, a gristmill, a stave factory, two protestant churches, four stores, and two hotels (Hurd 1880:318).

Town of Altona. The Town of Altona was created at the relatively late date of December 1857 from the Town of Chazy. In the 1860s, the town's limited population was engaged in lumbering, and its dense forests were filled with wild animals. The earliest road through the town was the Old Military Road/Turnpike that extended from Plattsburgh to what is now Chateaugay village by 1796. A road to Mooers was in use prior to 1812 as well as a road to Robert Tripp's gristmill at Wood's Falls. Along the Old Military Road, Benjamin Graves with several hired men transported his family to the Town of Chateaugay. About this time, ca. 1800, Simeon Wood and his family became the first recorded settlers of the town, having to cut his way through the dense forest from Beekmantown. Erected a log cabin and planting a crop of wheat, Wood remained in what is now Altona for approximately six years before relocating to the present Town of Chazy, where he erected a gristmill. He would trade the gristmill to Kinner Newcomb for 420 acres and his tavern along the Old Military Road by 1811 (Hurd 1880:198-199, 202).

Settlers of the Town of Altona after 1800, which in the early nineteenth century was the western part of the Town of Chazy, included Lyman Clothier, Epiphalet Hascall, Daniel and Robert Baker, Thomas Cudworth, Simon Goodspeed and Daniel Robinson. Clothier and Robinson also kept taverns, especially along the military road. Lewis Robinson operated a tavern in 1810, and Abner Pomeroy was also a tavern keeper. Settlers along the military turnpike included Asa Stiles, Samuel Eaton, Grove Page, Stephen

Goodspeed, Isaac Marsh and David Vincent (Hurd 1880:199-200). In the 1870s the McGregor Hotel, southwest of the village of Altona, was one of the more important hotels in the town since it was located at the intersection of the Old Military Road and the Great Chazy River (Beers 1869; Hurd 1880:199).

The village of Altona developed after 1848 as a result of the construction of the Northern Railroad (later, the Ogdensburg & Lake Champlain Railroad/Rutland Railroad). The Smith, Wells, Brockway and Marsh families arrived in this area during the construction of the railroad. Harvey and James Mead erected a sawmill soon after the line was completed. William Graham built a sawmill and gristmill southeast of Altona; a mill was still in this location in 1880. In 1869 Frank Palmer ran a five-fire forge at the village, receiving ore from Chateaugay. Seventeen coal kilns in the area facilitated its operation. John Phinney operated a sawmill in the village, which became Palmer's shingle mill by 1880. Other industries in Altona included Stephen and Frank Dow's tannery in the 1860s and Clark and Company's tannery in 1880. The village of Altona was considered a "water and wood station" along the railroad line (Hurd 1880:200-202; Child 1862:16; French 2003[1860]).

In the northwestern part of the town, a community called Forest developed, also along the Ogdensburg & Lake Champlain Railroad. A man named Augur was the first settler in this vicinity. He was followed by James Scott. The Wyatt and McGregor families also settled in the northwestern portion of the town. William Graham and Pennfield & Moore constructed a steam sawmill and a tannery in the Forest area. Dake and Crabtree also operated a small mill in the northwest part of town at some point (Beers 1869; Hurd 1880:200-201; USGS 1915).

Located between Forest and Altona, a community identified as Irona developed around Asa Reynolds' iron forge. In 1866 Reynolds purchase 1,000 acres in the vicinity of Cold Spring and Park brooks. He constructed and operated a sawmill for two years, then built an iron forge in 1868. He ran the forge until 1875, when it burned. Reynolds rebuilt it later that year as a steam-powered four-fire forge. The mainline of the Ogdensburg & Lake Champlain Railroad runs south of the complex (Beers 1869; Hurd 1880:201-202).

In the late nineteenth century a community emerged along the Ellenburgh-Altona town line identified as Sherlock's mills. S.N. Pike was first settler in this area near Graves Brook in 1852 (on the Ellenburgh side). In 1868 J. and R. Sherlock obtained 5,000 acres in western Altona and erected a large lumber mill on Graves Brook. In 1877, a fire destroyed their sawmill and shingle mill, which were replaced the following year. Nevertheless, this industrial community was nonexistent by 1915. A plank road extended along the Town of Mooers town line south through Dannemora Station, on the Ogdensburg & Lake Champlain Railroad, and Sherlock Mills to Ledger Corners near Chazy Lake (Beers 1869; Hurd 1880:200-201; USGS 1915).

Industrial development was initiated by Benjamin Mooers, who constructed a sawmill on Wood's Brook before 1820. Other sawmills included Kinnear Newcomb's Old Button Mill, Ketcham, Hobart and Moore's mill along the Great Chazy River, and Meigs and Wead on Chazy Lake. Smith Wood erected a sawmill on Wood's Brook in 1838, but it burned down in 1854. Ormes, Bailey and Ellis also constructed a sawmill on Wood's Brook, which was still in operation in 1880 (Hurd 1880:200-201).

In 1853, Samuel Comer erected a gristmill on the English River near the Ellenburgh-Altona line, which was owned by James Atwood in 1879 (Hurd 1880:321). In the late nineteenth century a community emerged along the Ellenburgh-Altona town line identified as Sherlock's mills. S.N. Pike was first settler in this area near Graves Brook in 1852 (on the Ellenburgh side). In 1868 J and R Sherlock obtained 5,000 acres in western Altona and erected a large lumber mill on Graves Brook. In 1877, a fire destroyed their sawmill and shingle mill, which were replaced the following year. A plank road extended along the Town of Mooers town line south through Dannemora Crossing on the Ogdensburg & Lake Champlain Railroad and Sherlock Mills to Ledger Corners near Chazy Lake (Beers 1869; Hurd 1880:200-201; USGS 1915). The town of Altona had a population of 3,445 in 1875.

The Adirondack Park was created in 1892 and covers both state-owned and private land within the park. The Forest Preserve was made "forever wild" as a result of the 1895 New York State Constitution. At

present the Forest Preserve covers 2.5 million acres, including the southern portion of the Town of Altona (Adirondack Park Agency 2003). In the twentieth-first century the town has been part of studies for the development of wind-energy facilities. The Town of Altona has a population of 3,160 in 2000, and 2,887 in 2010.

Town of Mooers. The Town of Mooers was created in March 1804 from the Town of Champlain, and attained its present size in 1830 with the creation of the Town of Ellenburg. It was named for General Benjamin Mooers. Joshua C. Bosworth was the first settler in the town arriving in 1796 on the flats where Mooers village is presently. Settlers prior to 1800 included Ichabod T. Bosworth, Daniel Southwick, Daniel Perry, George Perry, John, Joseph, and Samuel Churchill, Robert Tripp, Andrew Blackmun, and John Shedden (French 2003[1860]; Hurd 1880:327-328). Daniel Perry erected a sawmill and gristmill, and engaged in cloth making at what became known as Perry's mills. Robert Tripp shipped a grist mill by boat and erected it at Woods Falls, and later erected a blacksmith shop, tannery as well as other industries (Hurd 1880:328). The first grist and sawmill in the town was erected by William Beaumont erected the first grist and sawmill in the town, located where C.P. and J.F. Shedden operated a sawmill, gristmill and churn factory in 1880. Knapp & Pratt's sash-and-blind factory and Esek Hawkins' tannery were nearby at that time (Hurd 1880:336).

James Fitch operated a sawmill at Woods Falls in 1841, which was later purchased by the Wood family. The Wood brothers and Frank Palmer erected a five-fire iron forge at Woods Falls in 1863, which was still in operation in 1880. The forge received its charcoal from the numerous coal kilns in the area. The Wood's rebuilt several nearby sawmills in the 1860s. In 1874, the Wood brothers constructed a short-lived pyroligneous acid manufactory. The acid was made by condensing the vapor created during the conversion of wood into charcoal. Also referred to as wood vinegar, the acid is composed of acetic acid and methanol and was used to make sodium acetate, which is required for dyeing cloth (Hurd 1880:336).

Settlers of the town after 1800 included Jabez Fitch, John Smedley at Mooers Forks, Robert R. Rood at Mooers Junction, Peter Muncy, Jacob and Samuel Elliott, Hollis Barr, Andrew Huntley, David Frost, Timothy Doty, William Beaumont, William Lewis, William Speers, and Martin Carter, among others. Abel Knapp kept the first store at Mooers village between 1827 and 1877. Robert Rood and Isaac Fields operated stores in conjunction with their lumber businesses. James Shedden kept a store at Mooers village, as did Dimmick & Platt, George Standish, John Ransom and Hiram Walker. Prentice Douglas kept the first store at Mooers Forks in 1838. Other storekeepers were John Phinney, beginning in 1840, and Asa Corkins, beginning in 1839 (Hurd 1880:328-330).

Ezekial Steele lived at Mooers Forks prior to 1812, but settlement of western part of the town occurred largely after the War of 1812. Charles Allen erected the first sawmill at Mooers Forks. Others early residents of the western part of the town were Edwin P. Francis, Truman Knapp, William Kiernan (a shoemaker), the Armstrong family, a blacksmith named Eaton, Jonas Parker, Alvin Wood, and Edward Springer. Asa Corkins operated a sawmill at Mooers Forks beginning in 1838; it was converted to a stove-heading and shingle mill in 1854 (Hurd 1880:329, 336).

The town's rivers have powered numerous small-scale sawmills, chair factories, shingle mills and turning mills (Beers 1869; Hurd 1880:337). But by the 1880s, local supplies of timber were becoming scarce. While lumbering had been the chief industry of the town since its inception, agricultural endeavors began to assume primacy with the clearing of the land (Child 1862:20; Hurd 1880:329).

Early roads connected houses to nearby mills or to other trails. The road from Mooers Forks west was laid out as early as 1826 followed by a turnpike from Mooers Forks to Ellenburg and another to West Chazy. An early road was cut to Champlain to access its mill and to transport goods to the lake. A road was laid out from Mooers village to the southwest in 1841-1842. (Hurd 1880:330-331). With the creation of roads, people began to travel. Zetus Newell operated the first tavern at Mooers village in 1830, and Elijah Ransom kept a hotel at Mooers Forks. The Riverside House at Mooers Forks was erected in 1840 and was still in service in 1880 (Hurd 1880:330).

Mooers Forks (also referred to as Centerville in the 1860s) is on the north branch of the Chazy River and was a stop on the Ogdensburg & Lake Champlain Railroad. In 1860 it contained two churches, a sawmill, a stave factory and 30 dwellings. By 1880, it housed a Catholic and two Protestant churches, a hotel, a number of stores, a sawmill, a gristmill and 40 dwellings (Beers 1869; Hurd 1880:332; USGS 1895).

In the eastern portion of the town, Mooers village, on the Chazy River, housed several stores, mechanic shops and two churches (Child 1862:20; French 2003[1860]). By 1880, it contained two Protestant churches, a school, a cemetery, a sash-and-blind factory, two gristmills, a shingle mill, and a number of stores and dwellings (Hurd 1880:331). It is near the junction of Ogdensburgh & Lake Champlain and Plattsburgh & Montreal railroads during the nineteenth century into the early and twentieth century (Beers 1869; USGS 1895, 1943).

One mile north of Mooers village was Mooers Junction. This locality was near the crossing of the Ogdensburg & Lake Champlain and Plattsburgh & Montreal railroads. It contained two railroad stations, the Junction Hotel, a church, Rich's barrel-stave factory and several dwellings (Hurd 1880:331; USGS 1895). On the south branch of the Chazy River, Wood's Falls contained an iron forge, a sawmill, a shingle mill, a lath mill, and a starch factory and other industrial operations of the Woods brothers during the late nineteenth century (Hurd 1880:332). The town had a population of 4,537 in 1875.

In the twentieth-first century the town has been part of studies for the development of wind-energy facilities. The Town of Mooers had a population of 3,404 by 2000, and 3,592 in 2010. The village of Mooers, which was disincorporated as of January 1997, had a population of 440 in 2000.

2.3 DOCUMENTARY RESEARCH

2.3.1 Historical Map Analysis. Nine historic period maps were reviewed for the current project area (Burr 1840 [1829]; Ligowsky 1856 [Figure 2.3]; Beers 1869 [Figure 2.4]; Averill and Hagar 1879; Ogden and Stark 1912; and a variety of USGS (1895 [Figure 2.5], 1915 [Figure 2.6], 1943, and 1954). A more detailed discussion of potential map-documented discussions will occur in the Phase 1B investigation once the actual locations of project components are made.

The Burr map is an 1840 reprint of a 1829 map and depicted the lots and several roads, but no structures or landowners. The 1856 map detailed the clustering of the population in separate settlements and spread along several roadways, notably the Old Military Turnpike (present-day US 11; see Figure 2.3). The 1869 maps of the individual towns further details the clustering of settlement along the area's roads, notably in the southern portion of the project footprint in the Town of Ellenburgh (see Figure 2.4c) and along the Old Military Turnpike. The 1879 map depicted villages, roads, and the railroad but not structures or landowners. The 1912 map also showed villages and roads, as well as some lot owners and the locations of school houses (Averill and Hagar 1879; Ogden and Stark 1912). The USGS maps identified structure locations but do not provide names associated with those structures.

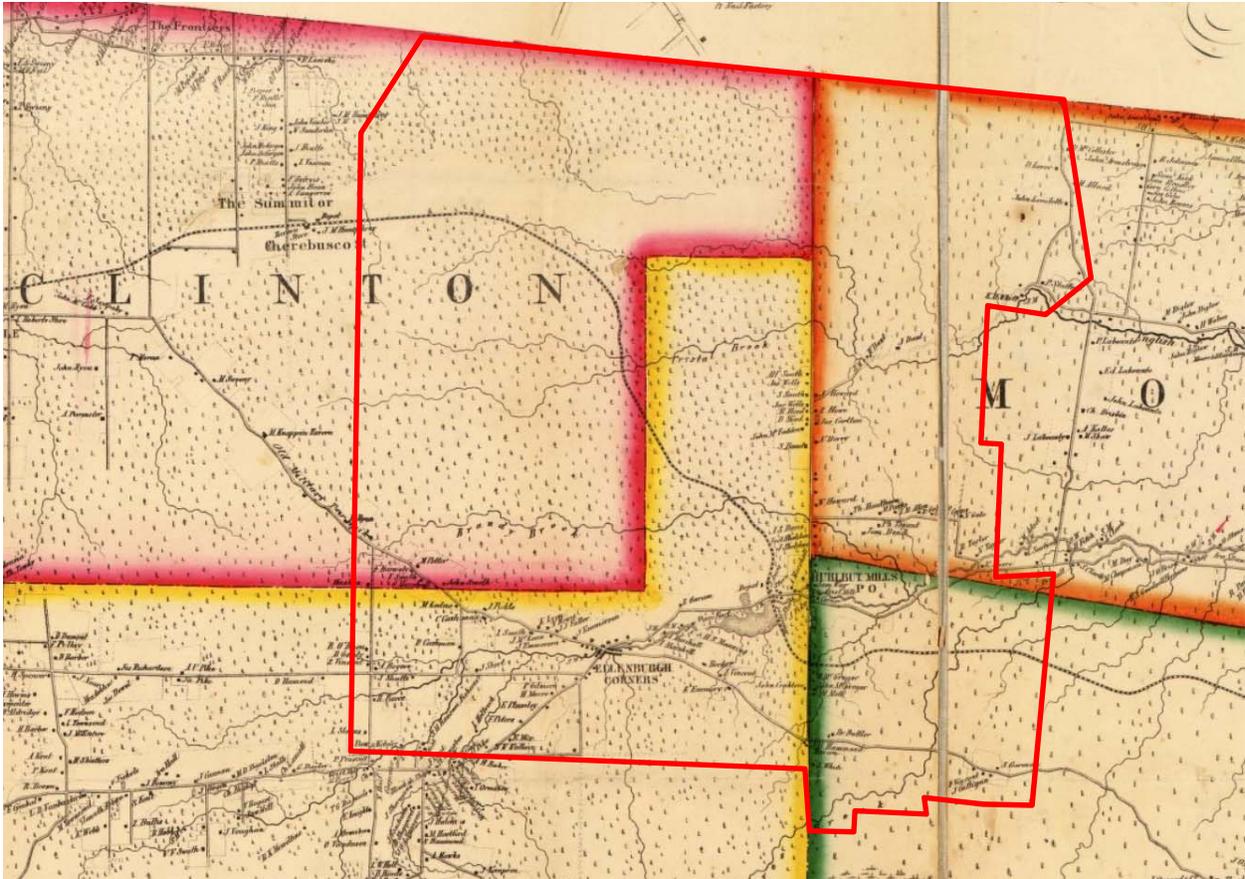


Figure 2.3. The approximate location of the proposed project footprint in Clinton County in 1856 (Ligowsky 1856).

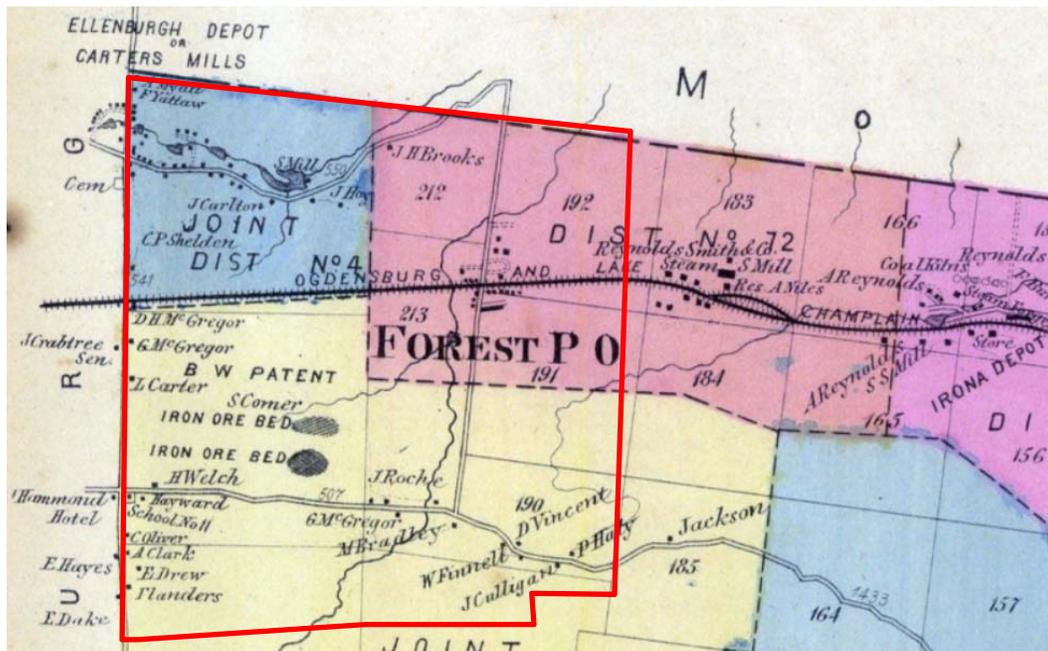


Figure 2.4a. The approximate location of the proposed project footprint in the Town of Altona in 1869 (Beers 1869).

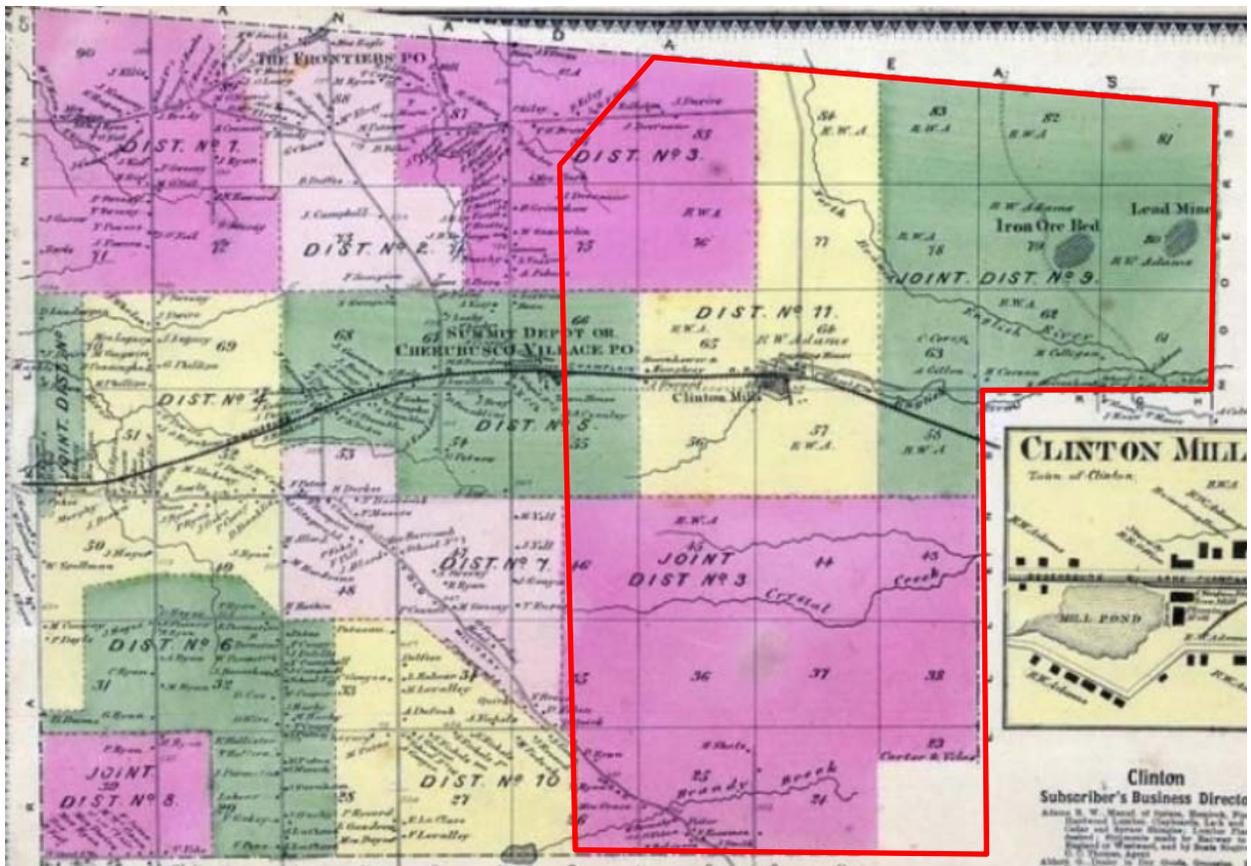


Figure 2.4b. The approximate location of the proposed project footprint in the Town of Clinton in 1869 (Beers 1869).

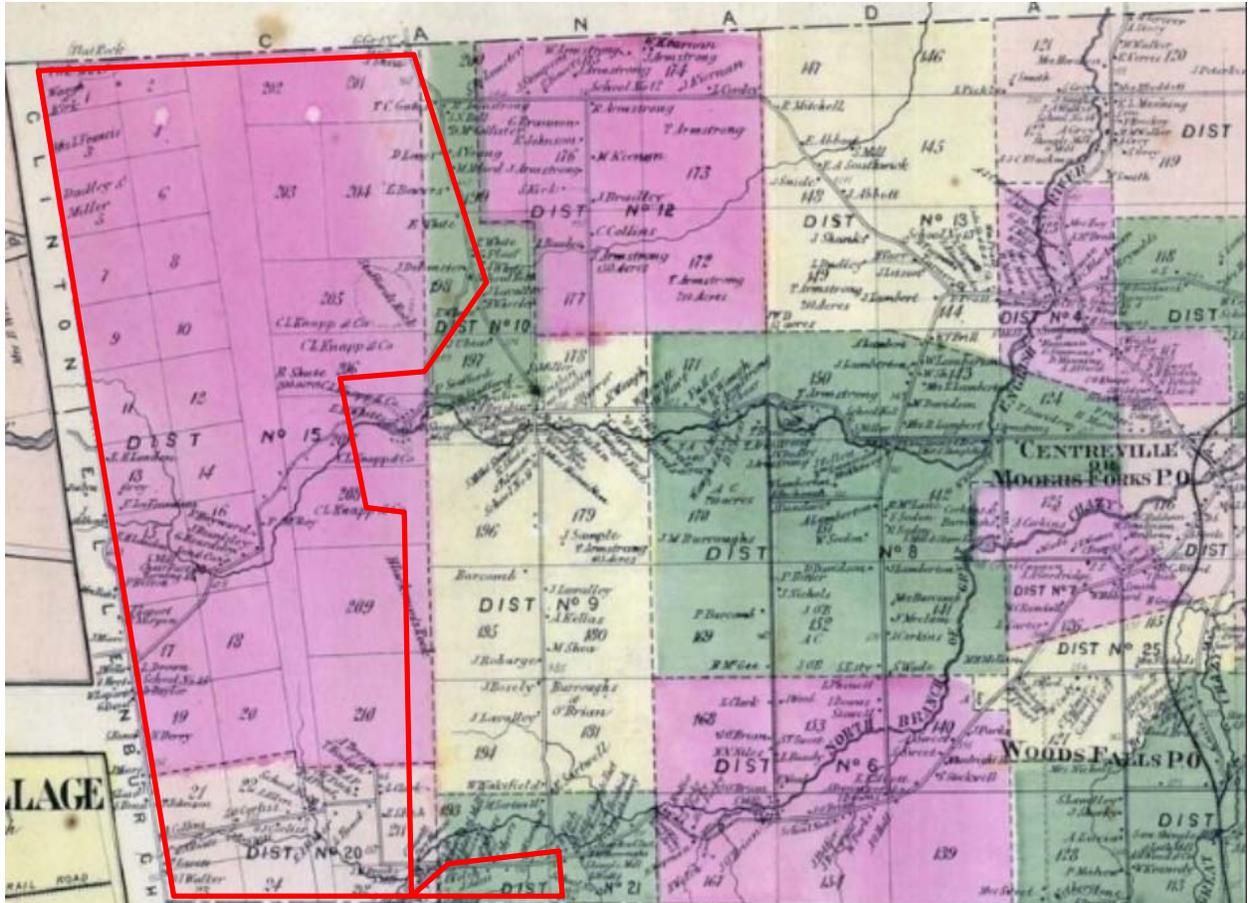


Figure 2.4d. The approximate location of the proposed project footprint in the Town of Moers in 1869 (Beers 1869).

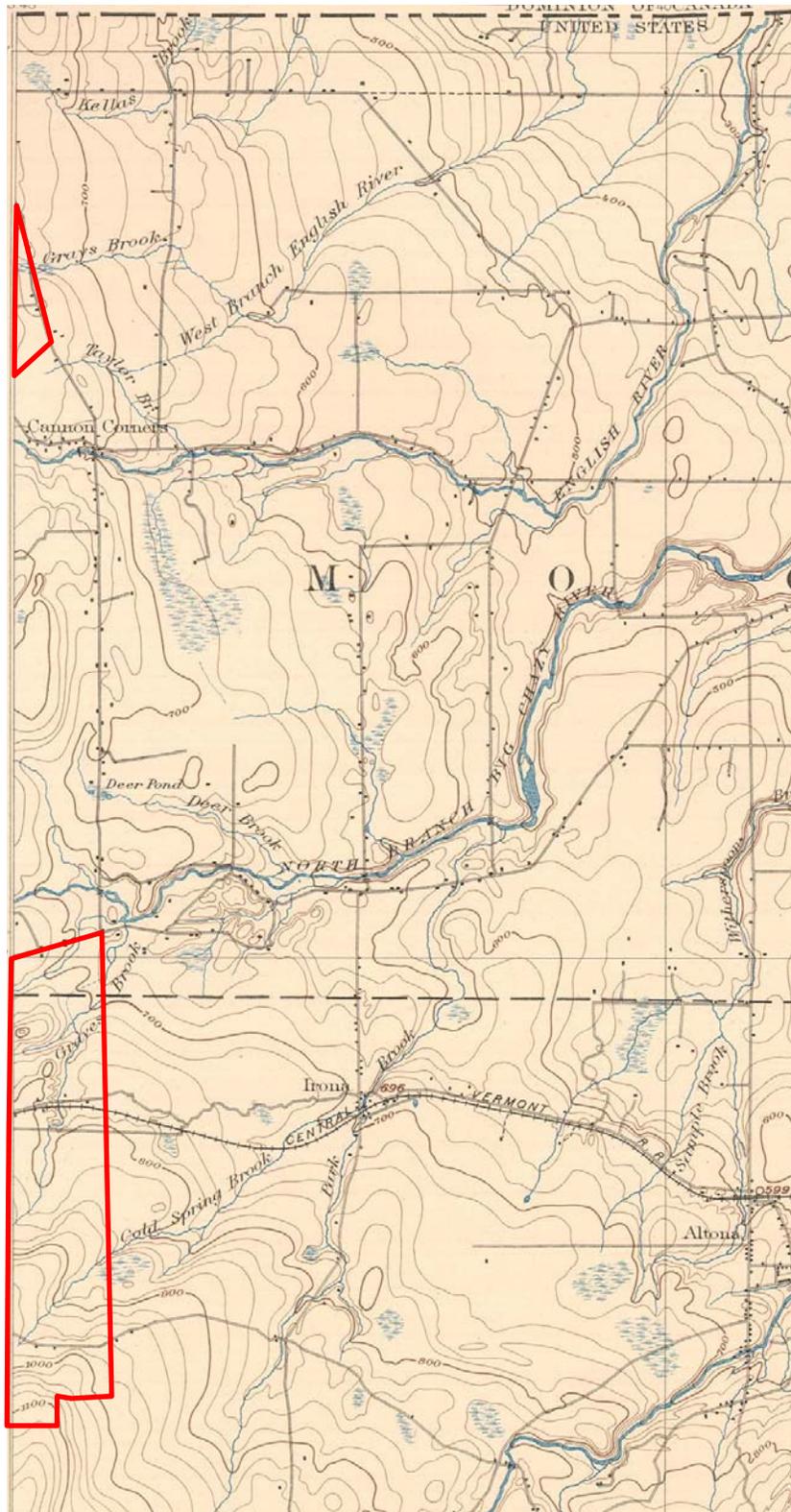


Figure 2.5. The approximate location of the proposed project footprint in the Towns of Moers and Altona in 1895 (USGS 1895).

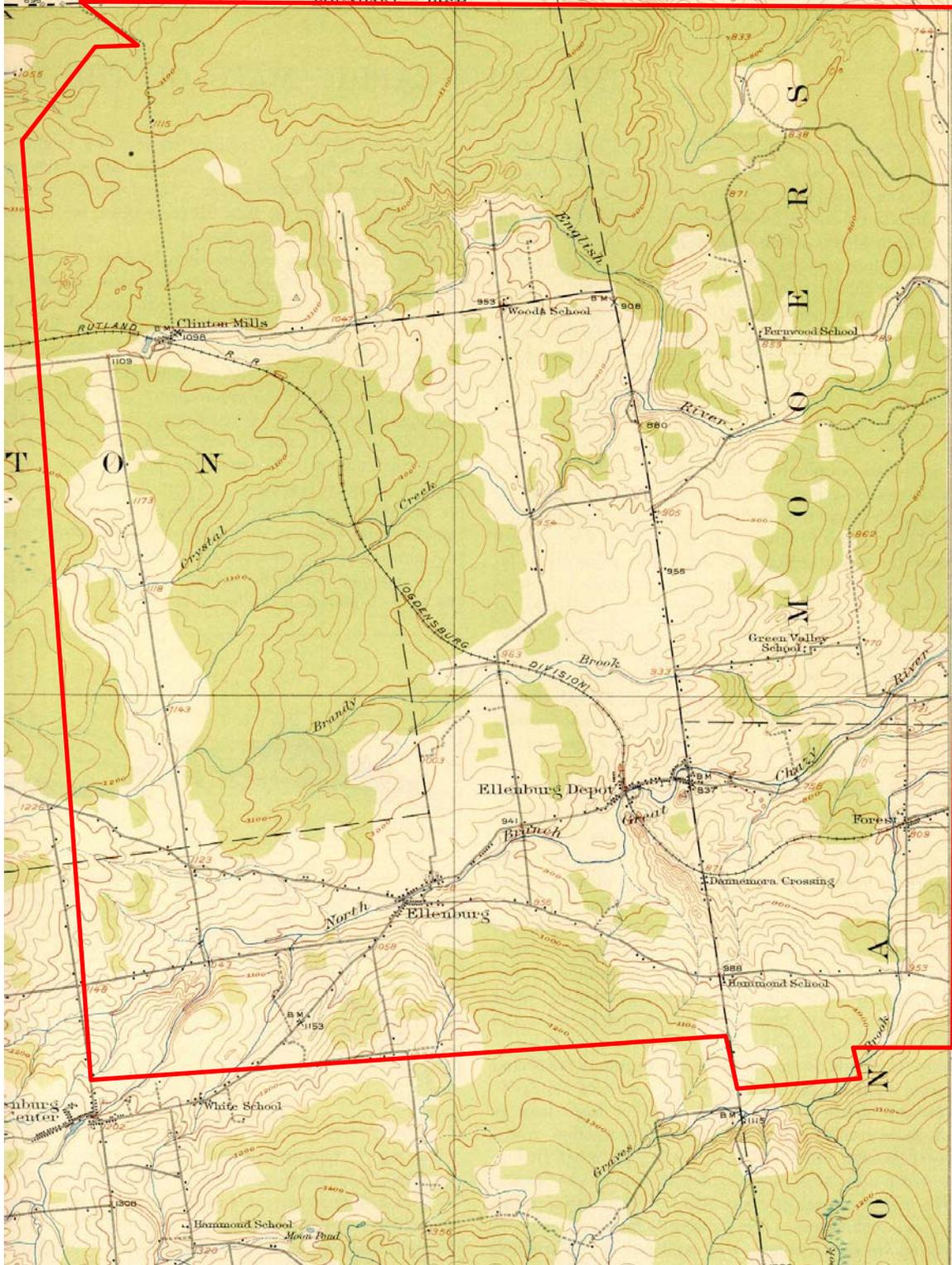


Figure 2.6. The approximate location of the proposed project footprint in 1915 (USGS 1915).

2.3.2 Site File and Archival Review. A review of the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) archaeological site-file database accessed through the New York State Cultural Resource Information System (CRIS) identified 25 historic archaeological sites and no prehistoric

archaeological sites within the project footprint. Since details regarding the locations of the project components are not available, determining distances is pointless. In addition, six historic archaeological sites and one prehistoric archaeological site were listed in the database within one mile of the project footprint (Table 2.1).

Early archaeological surveys such as Beauchamp (1900) and Parker (1922) do not indicate the presence of any prehistoric sites in the vicinity of the project area. Later archaeological work by Ritchie (1980) and Ritchie and Funk (1973) do not denote the presence of archaeological sites within the project area.

Table 2.1 Archaeological sites within approximately one mile of the project area.

OPRHP Site #	Additional Site #	In Project Footprint	Time Period	Site Type
01901.000005	Stackpole's Forge	No	Ca. 1875-1890	Foundation remains
01901.000007	Mortared stone foundation, concrete faced	Yes	Nineteenth century	Foundation
01901.000008	Stone foundation (nineteenth century)	Yes	Nineteenth century	Foundation
01901.000009	Stone foundation (nineteenth century)	Yes	Nineteenth century	Foundation
01901.000020	A. LaBumbard Historic Site: SUBi 2702; NYSM 11743	Yes	Ca. 1869-1915	Foundation with demolition debris
01907.000061	Old Military Turnpike	Yes	1817-1826	Road
01907.000077	Liberty Pole Road Historic Site 1	No	Ca. 1900-1964	Foundation
01907.000078	Liberty Pole Road Historic Site 2	No	Ca. 1910s	Foundation
01907.000079	Durant Historic Site	Yes	1860s	Foundation with domestic refuse
01907.000080	Goka Historic Site	No	1850s-1970	Foundation
01907.000082	Boomhower & Humphrey Historic Site	Yes	1850s-1860s	Foundation
01907.000085	Clark Historic Site	No	1850s-1910	Foundation
01907.000086	Saphouse Historic Site	Yes	Early twentieth century	Collapsed structure with domestic refuse
01907.000087	Wilkins Road Historic Site	Yes	Ca. 1910s	Farmstead remains
01907.000088	Clinton Mills Historic Archeological District	Yes	Ca. 1865-1930	Former lumber mill and company town
01907.000089	Ogdensburgh & Lake Champlain Railroad Berm	Yes	Ca. 1853	Railroad berm
01907.000102	Marble River Wind Isolate 2	No	Unidentified precontact	Stray find
01907.000103	Kluckey Farm Historic Site	No	Ca. 1915-1960	Cedar-shingled shed with domestic refuse
01907.000104	Clinton Mills Historic Site JMA Feature 1	Yes	Ca. 1865-1930	Brick and fieldstone rubble
01907.000105	Clinton Mills Historic Site JMA Feature 2	Yes	Ca. 1865-1930	Nineteenth/twentieth-century domestic refuse and demolition debris
01907.000106	Clinton Mills Historic Site, MDS A, B, C, D	Yes	Ca. 1865-1930	Nineteenth/twentieth-century domestic refuse and demolition debris
01907.000107	Clinton Mills Historic Site, MDS Barn	Yes	Ca. 1865-1930	Nineteenth/twentieth-century domestic refuse and demolition debris
01907.000108	Clinton Mills Historic Site, MDS Blacksmith shop	Yes	Ca. 1865-1930	Nineteenth/twentieth-century domestic refuse and demolition debris

OPRHP Site #	Additional Site #	In Project Footprint	Time Period	Site Type
01907.000109	Clinton Mills Historic Site, Foundation/cellar hole	Yes	Ca. 1865-1930	Foundation
01907.000110	Clinton Mills Historic Site, MDS Schoolhouse	Yes	Ca. 1865-1930	Nineteenth/twentieth-century domestic refuse and demolition debris
01907.000111	Clinton Mills Historic Site, Mill Foundation	Yes	Ca. 1865-1930	Sawmill remains
01909.000001	Historic Old Military Turnpike	Yes	No information	No information
01910.000043	Cannon Corners LPOE (Customs/Border Protection Facility)	Yes	No information	No information
01910.000044	NY-CNN-A01 Historic Farmstead Site	Yes	1850s-1960s	Nineteenth/twentieth-century domestic refuse and demolition debris
01910.000045	NY-CNN-A02 Historic Site	Yes	1850s-1960s	Nineteenth/twentieth-century domestic refuse and demolition debris
01910.000046	NY-CNN-A03 Historic Site	Yes	1850s-1960s	Nineteenth/twentieth-century domestic refuse and demolition debris
	NYSM 10130; Fuller farm near Ellenburg	Yes	No information	No information

2.3.3 Previous Research. Numerous investigations have been conducted within or in proximity to the proposed footprint of the project four towns. Previous windfarm investigations (Heaton 2006, 2007a, 2007b; Longiaru et al. 2006a, 2006b, 2006c, 2006d, 2006e, 2006f, 2006g, 2007; 2009, Mahar et al. 2008; Hanley et al. 2007) cover portions of the proposed footprint. These investigations have inventoried numerous historic structures and eligibility determinations have been completed for them, although many of these determinations do not appear in CRIS. Cultural resources investigations have also been completed for other kinds of projects for areas within the proposed footprint (Anderson et al. 2007; Belfast et al. 2007; Longiaru et al. 2009; Ecology & Environment [E&E] 2006; Jacobseon et al. 2007; Smith et al. 2009, among others).

Register Listings. A review of the New York State and National Registers of Historic Places, as recorded in the files of the OPRHP and accessed through CRIS, did not identify any sites or districts as listed within or in the vicinity of the project footprint. One National Register-eligible property was identified in the project footprint—A01910.000044, NY-CNN-A01 Historic Farmstead Site. This property is located along Cannon Corners Road.

Identified NRHP listed and eligible structures are discussed in Section 4.0.

3.0 Archaeological Sensitivity Assessment

The historical/background research and the setting of the Bull Run Wind Energy Center project area indicates that its APE is generally sensitive for historical archaeological resources. Numerous (n=31) historic sites have been reported within or in the vicinity (one-mile radius) of the project area (see Table 2.1). Many map-documented structure (MDS) locations are also common in the region (see Figures 2.3 to 2.6).

In the historical period, the project area has been used almost exclusively for agriculture (see Section 1.0 photographs and Section 2.0), which would have had moderate impacts on any archaeological resources that are present. Shallowly-buried archaeological sites will have been somewhat disrupted by plowing, but patterns of artifacts from sites in plowed fields can typically still yield information. Beyond this, disturbances from plows are relatively shallow and will not disrupt deep archaeological features, such as filled/covered storage pits, privies, or wells. No large-scale disturbances that would affect the integrity of archaeological resources were noted during the site visit/reconnaissance. Thus, if archaeological sites are present in the project APE, it is unlikely they would have been profoundly disturbed by uses of the land during historical times.

To a lesser degree, the project area is sensitive for prehistoric/precontact period cultural resources. The only precontact archaeological site previously reported within one mile of the broadly defined project area is an isolated (i.e., stray) find referred to as Marble River Wind Isolate 2 (01907.000102). The most sensitive portion of the project area for precontact sites are those in proximity to streams and other sources of potable water such as tributaries of the North Branch of the Great Chazy River, English River, Brandy Brook, and Crystal Creek and along the periphery of wetlands. Habitation sites may be present in the APE, but they would most likely have been small camps associated with short-duration tasks such as hunting (e.g., Funk 1993:279-283), and there also may be related kill sites. Rock outcrops or other sources of raw lithic material for precontact tool making are not common in the project area and, therefore, quarry and workshop sites are unlikely. Burial sites and cemeteries, which are typically associated with long-term habitation sites, are also unlikely.

Conclusions and Recommendations. The project area is sensitive for both prehistoric/precontact and historic period archaeological sites and has been minimally disturbed by modern-era development and land use. Panamerican recommends a Phase 1B investigation be conducted that complies with the NYSHPO *Guidelines for Wind Farm Development Cultural Resources Survey Work*. Once the APE of project components (e.g., turbines, access roads, electric connector lines substations, equipment yards) is determined, a Phase 1B field-testing strategy should be developed by determining the acreage of the APE and the percentages of it relative to “environmental zones” and “local habitat areas.” The relative number of shovel tests should be allocated to match the relative sizes of the environmental factors which are assessed following Robert Funk’s *Archaeological Investigations in the Upper Susquehanna Valley, New York State* (1993). The Phase 1B testing strategy should also include investigation of MDS and previously reported sites within the APE.

Environmental zones are large-scale geographic regions (e.g., valley floor, valley walls, and interfluves/uplands [Funk 1993:65]). The project area is in a region designated “Saint Lawrence Hills within the Saint Lawrence – Champlain Lowlands and rolling plains” (Cressey 1966: Figure 9). In *Roadside Geology of New York State*, it is in the “Saint Lawrence – Champlain” (Van Diver 1985:viii and 13). Examples of local habitat areas include: large level terraces; gradually sloping upland margin (away from waterbodies); near streams or stream headwaters; and, near bogs, swamps, ponds.

4.0 Historic Architectural Resources

The Project study area encompasses approximately 316 square miles in the towns of Clinton, Mooers, Ellenburg, and Altona in Clinton County, New York (see Figure 1.1 through 1.3). The international border with the Province of Quebec, Canada, delineates the northern boundary of the study area, as well as the northern municipal boundaries of the towns of Clinton and Mooers. The western edge of the study area is roughly bound by the western municipal boundary of the Town of Clinton. Land within the Adirondack Forest Preserve in the towns of Ellenburg and Altona occupies the southern portion of the study area. The eastern boundary of the study area borders the west side of Mooers Forks in the Town of Mooers. The Project design layout has not been finalized. As such, the Phase 1A historic architectural resources background review is based on a general Project location with an estimated five-mile buffer (see Figure 1.3). A topographically-based Visual APE with visual analysis (i.e., viewshed) is not included with this Phase 1A. Panamerican created a general Project map with the locations of all National Register-listed (NRL) and National Register-eligible (NRE) resources in the preliminary study area (see Appendix A).

Most of the area within the five-mile APE is representative of the region known as the North Country of New York State, which is typically sparsely populated outside of village centers. The region's enduring agricultural history is reflected in the surviving and active farms with their overlay of evolving agricultural systems as evidenced in the layout of farm buildings and types of farm buildings. Similar to other areas in the Northeast, as agricultural profitability and practices changed, new forms or land arrangements were overlaid onto existing fields and farm complexes. The earlier farm layouts with their loose quadrangular arrangement of farm complexes to fields and pastures were expanded to accommodate new practices. The study area also encompasses several hamlets which served as local centers for commerce, trade, and transportation. Hamlets in the study area include Ellenburg Center, Ellenburg Depot, Ellenburg Corners, Churubusco, Altona, and Mooers Forks.

Large tracts of open space distinguish this region of the state along with the surroundings Adirondack Mountains to the south. The study area's agricultural landscape elements include farm buildings, farmhouses, silos, fields demarcated by stone fences and rows of trees, wide expanses of rolling pasture land, and its varied crops. Also contributing to the character of the landscape are the significant stands of forested land dispersed throughout the region. These preserved woodlands serve as vestiges of the widespread forest that once dominated the region. Broad vistas are afforded of the hills and mountains of the Adirondack State Park from the roads in the southern part of the Project's study area. The region's natural resources and its agricultural legacy preserve the scenic character of northeastern portion of the North Country.

4.1. PREVIOUSLY IDENTIFIED HISTORIC ARCHITECTURAL RESOURCES

Panamerican utilized NYSOPRHP's Cultural Resources Information System (CRIS) to identify previously inventoried historic resources and historic districts located within a five-mile buffer around the Project. The results of the CRIS search for NRL and NRE resources are enumerated in Table 4.1. Resources in the study area with an "Undetermined" S/NRHP eligibility status are presented in Table 4.2. Locations of identified resources are indicated on the project study area map (see Appendix A). Not all of the inventoried resources in CRIS have updated GIS locational data. In several cases, resources in CRIS do not have any locational data. Property locations and street addresses were cross-referenced with parcel data available on the Clinton County

Real Property Office website¹ and Google Earth. The Visual APE (viewshed) has not been generated as of November 2015. As a result, all NRL and NRE resources are considered to be in the preliminary study area.

The Adirondack Forest Preserve is a National Historic Landmark (NHL; designated 1963) and listed on the National Register. Encompassing some six million acres, it is distinguished as the largest property listed on the National Register of Historic Places. In 1885, the Adirondack Forest Preserve became the first state forest preserve in the nation when New York established it as a wilderness area. It is the largest publicly protected area in the lower 48 United States. The southern portion of the Visual APE study area extends south of the Adirondack Park Blue Line boundary and includes the extreme northeast corner of the park located in the towns of Altona and Ellenburg. The section of the Visual APE study area within the Adirondack Forest Preserve is sparsely populated rural agricultural land. Historic architectural resources in the Visual APE on park land greater than 50 years of age will be evaluated for their NRHP eligibility during the next phase of the cultural resources investigation (Phase 1B/5-mile radius reconnaissance survey).

A total of 35 identified historic architectural resources are located within the five-mile study area for the Bull Run Wind Energy Center Project. Of these, one property located in the five-mile Visual APE study area is NRL. Further, 34 NRE resources were identified in the Project study area: 11 of which are located in the preliminary Project area location (APE) and 23 NRE resources are located in the five-mile Visual APE buffer. There are 23 NRE resources with unknown locations in towns in the Project study area that do not have GIS data available in CRIS (see Table 4.1). The types of NRE historic resources include farm complexes, individual residences, and cemeteries. A summary of NRHP status for resources in the study area is provided below.

- The Adirondack Forest Preserve is an NHL (designated 1963) and listed on the National Register. It is located in the five-mile Visual APE study area in the towns of Altona and Ellenburg. It is the only NRL resource in the study area.
- Eleven NRE properties are located within the preliminary Project areas (APE) that have been previously determined eligible by NYSHPO (see Table 5.1).
- There are 23 NRE properties located within the five-mile radius Visual APE that have been previously determined eligible by NYSHPO.
- Twenty-three NRE properties, as previously determined by NYSHPO, are located in towns in the five-mile Visual APE, but do not have GIS data available in CRIS (see Table 4.1). The exact locations of these resources are unknown. Further consultation with NYSHPO will be necessary to determine if these resources are in the Visual APE study area.
- Forty-two properties whose NRHP eligibility is currently undetermined are located in the study area; seven of which were identified in the preliminary Project area and the other 35 resources are within the five-mile Visual APE. Fifty-one resources are located in the towns in the five-mile Visual APE, but do not have GIS data available in CRIS (see Table 4.2).

¹Clinton County Real Property Office website, <http://www.clintoncountygov.com/departments/realproperty/rphome.html>

- Two resources whose NRHP eligibility is currently undetermined were reported demolished (Traum and Klein 2007) and one resource was misidentified in CRIS as being located in the Town of Clinton.

Table 4.1. NRL and NRE Resources in Project Study Area (CRIS 2015).²

USN	Name	Address	TOWN	S/NRHP Status	Location in Study Area
n/a	Adirondack Forest Preserve	n/a	Altona & Ellenburg	NHL / Listed	5-mile
01901.000006	Building #62	n/a	Altona	Eligible	Unknown; No GIS data in CRIS
01901.000010	LaSell & McGregor Dams & McGregor Powerhouse	Great Chazy River; Devils Den Road, west side	Altona (Altona village)	Eligible	5-mile
01901.000021	Church of Nazarene & Rectory	570 Devils Den Road	Altona (Altona village)	Eligible	5-mile
01907.000008	Residence	7165 US 11	Clinton	Eligible	5-mile
01907.000065	Residence	n/a	Clinton	Eligible*	Unknown; No GIS data in CRIS
01907.000066	Brick residence	n/a	Clinton	Eligible*	Unknown; No GIS data in CRIS
01907.000067	Residence	n/a	Clinton	Eligible*	Unknown; No GIS data in CRIS
01907.000068	Residence	n/a	Clinton	Eligible*	Unknown; No GIS data in CRIS
01907.000069	Farm complex	n/a	Clinton	Eligible*	Unknown; No GIS data in CRIS
01907.000070	Brick residence	n/a	Clinton	Eligible*	Unknown; No GIS data in CRIS
01907.000071	Residence	n/a	Clinton	Eligible*	Unknown; No GIS data in CRIS
01907.000072	Residence	n/a	Clinton	Eligible*	Unknown; No GIS data in CRIS
01907.000073	Immaculate Heart of Mary Rectory	556 State Route 189 ³	Clinton (Churubusco)	Eligible*	5-mile

² **Key for Table 4.1.** USN=SHPO Unique Site Number; S/NRHP= State/National Registers of Historic Places; Address: n/a = No locational information available for property in CRIS; Eligible*= "Building" resource type identified as "Archaeology" in CRIS.

³ In CRIS, the street address for Immaculate Heart of Mary Rectory is entered as 560 State Route 189. The current address is 556 State Route 189.

USN	Name	Address	TOWN	S/NRHP Status	Location in Study Area
01907.000074	Immaculate Heart of Mary Church	560 State Route 189	Clinton (Churubusco)	Eligible*	5-mile
01907.000075	Immaculate Heart of Mary Church Cemetery #1 (old)	560 State Route 189	Clinton (Churubusco)	Eligible*	5-mile
01907.000076	Immaculate Heart of Mary Church Cemetery #2 (new)	560 State Route 189	Clinton (Churubusco)	Eligible*	5-mile
01907.000090	Residence	549 Frontier Road	Clinton	Eligible	5-mile
01907.000091	Residence	550 Frontier Road	Clinton	Eligible	5-mile
01907.000092	Residence	538 Frontier Road	Clinton	Eligible	5-mile
01907.000093	Residence	528 Frontier Road	Clinton	Eligible	5-mile
01907.000094	Residence	522 Frontier Road	Clinton	Eligible	5-mile
01907.000095	Residence	369 Campbell Road	Clinton	Eligible	5-mile
01907.000096	Farmstead	228 NY 189	Clinton	Eligible	5-mile
01907.000097	Residence	132 Rogers Road	Clinton	Eligible	Preliminary project area
01907.000099	Residence	n/a	Clinton	Eligible*	Unknown; No GIS data in CRIS
01907.000101		n/a	Clinton	Eligible*	Unknown; No GIS data in CRIS
01909.000003	Ellenburg Center Methodist Church	5 Church Street (Route 190)	Ellenburg (Ellenburg Center)	Eligible	5-mile
01909.000032	Northern Adirondack Central School	5572-558 Route 11	Ellenburg	Eligible	Preliminary project area
01909.000040	Farm complex	n/a	Ellenburg	Eligible	Unknown; No GIS data in CRIS
01909.000041	Farm complex/stone farmhouse	n/a	Ellenburg	Eligible	Unknown; No GIS data in CRIS
01909.000042	Farm complex	n/a	Ellenburg	Eligible	Unknown; No GIS data in CRIS
01909.000043	Star Road Cemetery	Star Road (east side) between Tacey & Sancomb (Moore) roads	Ellenburg	Eligible	5-mile
01909.000044	West Hills Cemetery	West Hill Road (north side); between Sancomb & Peets roads	Ellenburg	Eligible	5-mile

USN	Name	Address	TOWN	S/NRHP Status	Location in Study Area
01909.000047	Sheldon Hill Cemetery	2131 Plank Road	Ellenburg (Ellenburg Depot)	Eligible	Preliminary project area
01909.000048	Sunderland's Farm	n/a	Ellenburg	Eligible	Unknown; No GIS data in CRIS
01909.000049	Dutch Colonial Revival residence	n/a	Ellenburg	Eligible	Unknown; No GIS data in CRIS
01909.000050	L-shaped Italianate residence w/tower	n/a	Ellenburg	Eligible	Unknown; No GIS data in CRIS
01909.000051	Ellenburg Protestant Cemetery	US 11; east of St. Edmund's Church between Bull Run & Bombard roads	Ellenburg	Eligible	Preliminary project area
01909.000052	St. Edmund's Church/Rectory / Bombard Road Cemetery	n/a	Ellenburg	Eligible	Preliminary project area
01909.000053	Riverside Cemetery	n/a	Ellenburg (Ellenburg Center)	Eligible	5-mile
01909.000054	Hutchins Cemetery	Smith Road (west side); between SR 190/Ellenburg Center and Booth Roads	Ellenburg (Ellenburg Corners)	Eligible	5-mile
01909.000056	Residence	5013 US 11	Ellenburg	Eligible	Preliminary project area
01909.000057	Former blacksmith shop	5021 US 11	Ellenburg	Eligible	Preliminary project area
01909.000058	Residence	5066 US 11	Ellenburg	Eligible	Preliminary project area
01909.000062	Farmstead	n/a	Ellenburg	Eligible	Unknown; No GIS data in CRIS
01909.000063	Farmstead	1985 Bradley Pond Road	Ellenburg	Eligible	5-mile
01909.000064	Residence	26 Carpenter Street	Ellenburg	Eligible	5-mile
01909.000065	Residence/poss. church rectory	9 Church Street	Ellenburg	Eligible	5-mile
01909.000066	Second Empire residence	2149 Bradley Pond Road	Ellenburg	Eligible	5-mile
01909.000071	Queen Anne residence	n/a	Ellenburg	Eligible*	Unknown; No GIS data in CRIS
01909.000073	NBT Bank	5084 US 11	Ellenburg	Eligible*	Preliminary project area

USN	Name	Address	TOWN	S/NRHP Status	Location in Study Area
01909.000076	St. Edmund's Cemetery	US 11 (south side); west of Bull Run Road	Ellenburg (Ellenburg Corners)	Eligible	Preliminary project area
01910.000010		798 Davison Road	Mooers	Eligible	5-mile, but no resource at location
01910.000033	Farmstead	576 Canaan Road	Mooers	Eligible	Preliminary project area
01910.000035	Farmstead	n/a	Mooers	Eligible*	Unknown; No GIS data in CRIS
01910.000036	Farmstead	n/a	Mooers	Eligible*	Unknown; No GIS data in CRIS
01910.000037	Farmstead	n/a	Mooers	Eligible*	Unknown; No GIS data in CRIS

Table 4.2. Resources with “Undetermined” S/NRHP Status in Project Study Area (CRIS 2015).

USN	Name	Address	TOWN	Location in Study Area
01907.000002	Allen House	n/a	Clinton	Unknown; No GIS data in CRIS
01907.000004		7361 US 11	Clinton	5-mile
01907.000005		7547 US 11	Clinton	5-mile
01907.000006	Farmstead	7473 US 11	Clinton	5-mile
01907.000007		7173 US 11	Clinton	5-mile
01907.000009		7103 US 11	Clinton	5-mile
01907.000010		6801 US 11	Clinton	5-mile
01907.000011		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000012		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000013		6231 US 11	Clinton	Preliminary project area
01907.000014		5889 US 11	Clinton	Preliminary project area
01907.000015		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000016		6110 US 11	Clinton	Preliminary project area
01907.000017		6346 US 11	Clinton	5-mile
01907.000018		6514 US 11	Clinton	5-mile
01907.000019		6766 US 11	Clinton	5-mile
01907.000020		6956 US 11	Clinton	5-mile
01907.000021		7126 US 11	Clinton	5-mile
01907.000022		7168 US 11	Clinton	5-mile
01907.000023		7272 US 11	Clinton	5-mile
01907.000024		7456 US 11	Clinton	5-mile
01907.000025		n/a US 11	Clinton	Reported demolished (Traum and Klein 2007)
01907.000026		7504 US 11	Clinton	5-mile
01907.000027		n/a US 11	Clinton	Unknown; No info in CRIS.
01907.000028	Dick's Country Music Oasis	7429 & 7433 US 11	Clinton	5-mile

USN	Name	Address	TOWN	Location in Study Area
01907.000029		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000030		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000031		6977 US 11	Clinton	5-mile
01907.000032		6985 US 11	Clinton	5-mile
01907.000033		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000034		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000035		6747 US 11	Clinton	5-mile
01907.000036		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000037		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000038		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000039		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.00004		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000041		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000042		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000043		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000044		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000045		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000046		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000047		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000048		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000049		n/a US 11	Clinton	Unknown; No GIS data in CRIS

USN	Name	Address	TOWN	Location in Study Area
01907.00005		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000051		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000052		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000053		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000054		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000055		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000056		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000057		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000058		n/a US 11	Clinton	Unknown; No GIS data in CRIS
01907.000112	Clinton Central Schools	75 Chenango Avenue	Clinton	Not in study area. No Chenango Avenue in the Town of Clinton
01909.000006		5849 US 11	Ellenburg	Preliminary project area
01909.000007		n/a US 11	Ellenburg	Unknown; No GIS data in CRIS
01909.000008		5727 US 11	Ellenburg	Reported demolished (Traum and Klein 2007)
01909.000009		n/a US 11	Ellenburg	Unknown; No GIS data in CRIS
01909.000010		5688 US 11	Ellenburg	Preliminary project area
01909.000011		n/a US 11	Ellenburg	Unknown; No GIS data in CRIS
01909.000012		n/a US 11	Ellenburg	Unknown; No GIS data in CRIS
01909.000013		n/a US 11	Ellenburg	Unknown; No GIS data in CRIS
01909.000014		n/a US 11	Ellenburg	Unknown; No GIS data in CRIS

USN	Name	Address	TOWN	Location in Study Area
01909.000015		n/a US 11	Ellenburg	Unknown; No GIS data in CRIS
01909.000016		n/a US 11	Ellenburg	Unknown; No GIS data in CRIS
01909.000017		n/a US 11	Ellenburg	Unknown; No GIS data in CRIS
01909.000018		n/a US 11	Ellenburg	Unknown; No GIS data in CRIS
01909.000019		n/a US 11	Ellenburg	Unknown; No GIS data in CRIS
01909.000020		n/a US 11	Ellenburg	Unknown; No GIS data in CRIS
01909.000021		n/a US 11	Ellenburg	Unknown; No GIS data in CRIS
01909.000022		n/a US 11	Ellenburg	Unknown; No GIS data in CRIS
01909.000023		n/a US 11	Ellenburg	Unknown; No GIS data in CRIS
01909.000025	Glenn Dickey Farm	Tacey Road	Ellenburg	Unknown; No GIS data in CRIS
01909.000028		54 West Hill Road	Ellenburg	5-mile
01909.000029	McIntosh Barn	n/a NY 374	Ellenburg	Unknown; No GIS data in CRIS
01909.000059	Former Ellenburg Depot	24 Station Hill Road	Ellenburg	Preliminary project area
01909.000060	Ellenburg Town Hall Theater	13 Brandy Brook Road	Ellenburg	5-mile
01909.000061	Residence /Gothic Revival	6643 NY 190 (current address 6643 Star Road)	Ellenburg	Preliminary project area
01910.000002		n/a US 11	Moers	Unknown; No GIS data in CRIS
01910.000005		124 Bush Road (current address 128 Bush Road)	Moers	5-mile
01910.000006		419 Nephew Road	Moers	5-mile
01910.000007		124 Nephew Road	Moers	5-mile
01910.000008		305 Nephew Road	Moers	5-mile
01910.000009		175 Blackman Road	Moers	5-mile

USN	Name	Address	TOWN	Location in Study Area
01910.000015		360 Cannon Corners Road	Mooers	5-mile
01910.000016		3589 US 11	Mooers	5-mile
01910.000018		4432 US 11	Mooers	5-mile
01910.000020		354 Drown Road	Mooers	5-mile
01910.000021		44 Kasey Drive	Mooers	5-mile
01910.000023		315 Gero Road	Mooers	5-mile
01910.000024		125 Gero Road	Mooers	5-mile
01910.000025		44 White Road	Mooers	5-mile
01910.000026		50 White Road	Mooers	5-mile
01910.000034	Commercial / residential	663 White Road	Mooers	Unconfirmed address. Last address on White Road is #459.

4.2 PREVIOUS HISTORIC ARCHITECTURAL RESOURCES SURVEYS

Seven previous historic architectural resources surveys for wind-energy projects were previously conducted within the Project's Visual APE study area (Longiaru et al. 2006a, 2006b, 2006c, 2006d, and 2007; Mahar et al. 2008; and Traum and Klein 2007). These previous historic architectural resources survey identified NRE resources within the current Project Visual APE study area. The surveys included identification of all historical architectural resources previously determined listed or eligible the S/NRHPs. These previous surveys share significant overlap in their Visual APE/five-mile buffer study areas in the towns of Altona, Clinton, and Ellenburg. Only one of the previous studies (Traum and Klein 2007) documented resources in the western portion of the Town of Mooers.

4.3 PHASE 1A ARCHITECTURAL SURVEY

Panamerican conducted a Phase 1A field visit during the week of November 2, 2015 to assess the setting of the general location of the Project (see Figure 1.2). A limited preliminary windshield survey was carried out in the general location of the Project and in those areas not previously surveyed, specifically in the Town of Mooers. These locations were visited to assess the level of survey effort required to complete the Phase 1B/five-mile survey. As a result of the significant overlap in the study areas of previous historic resource surveys, a one-mile ring survey (as per *SHPO Wind Guidelines* [2006]) was not required.

Bull Run Energy LLC plans to submit an application to construct a major electric generating facility under Article X of the Public Service Law (PSL). Pursuant to the rules of the New York State Board on Electric Generation Siting and the Environment (Siting Board), applicants proposing to submit an application to construct a major electric generating facility under Article X must submit a PIP. As required by 16 NYCRR § 1000.4, this PIP plan describes the steps BRE plans to take to inform, engage, and solicit input from the local community, general public, and other stakeholders (Invenergy 2015). The Project's PIP is currently available on Invenergy's website:

<https://www.invenergyllc.com/PublicFilings/BullRunWindEnergyCenter.aspx>.

Updates on the project's development and review under New York's Article X regulations is provided on the website.

As part of the Phase 1A informational visit, Panamerican's Senior Architectural Historian initiated formal public outreach measures as outlined in the Bull Run Wind Energy Center's PIP plan (Invenergy 2015). Panamerican initially contacted local historians via email and phone. The initial introductions were followed up with individual meetings with five of the six local historians identified in the PIP plan (see Table 4.3). Overall, there were no major concerns expressed by the local historians regarding significant historic resources in the study area. The local historians indicated that the northern section of Clinton County was not specifically associated with any major historic period military events or occupations. The town historians provided Panamerican with background materials such as copies of local histories and historical atlas maps.

Rural or family cemeteries and one-room school houses were the two resource types of interest identified by each of the local historians in the meetings held with Panamerican in November 2015. The numerous small cemeteries are considered historically significant to the local communities in the study area. Many of which have been previously documented in earlier wind-energy project historic resources surveys. There are few extant rural one-room school houses in the section of Clinton County in the study area. The historians for the towns of Mooers and Ellenburg will be assisting Panamerican with the identification of any undocumented one-room school houses located in the study area. Historical atlas maps and other historical materials will be reviewed to identify any undocumented, extant historic-era cemeteries and one-room school houses.

Table 4.3. Local Historians Identified in PIP Plan (Invenergy 2015).

Historian	Affiliation	Address	Met in Nov. 2015
Anastasia Pratt	Historian, Clinton County	Clinton County Historian's Office 137 Margaret Street, Suite 105 Plattsburgh, NY 12901	No
Bridgette "Lee" Coolidge	Historian, Town of Altona	Altona Town Hall 77 Station Street Altona, NY 12910	Yes
Joan Hobbs	Historian, Town of Ellenburg	Ellenburg Town Offices 15 Carpenter Street, Ellenburg Center, NY 12934	Yes
Melissa Peck	Director, Clinton County Historical Association and Museum	Clinton County Historical Association and Museum 98 Ohio Ave Plattsburgh, NY 12903	Yes
Diane Lagree	Historian, Town of Clinton	Clinton Town Hall 23 Smith Street Churubusco, NY 12923	Yes
Jennifer Bulriss	Historian, Town of Mooers	Mooers Town Offices PO Box 242 Mooers, NY 12958	Yes

4.4 HISTORIC ARCHITECTURAL RESOURCES RECONNAISSANCE SURVEY: SPRING 2016

Phase 1B Field investigation: Five-mile Visual APE. The next phase of the cultural resources investigation is projected for the spring of 2016. A final Visual APE survey area map will be generated to

reflect a five-mile buffer around the final Project layout. The historic architectural resources survey will be conducted in accordance with NYSHPO's *Guidelines for Wind Farm Development Cultural Resources Survey Work* (2006), and based on previous experience with conducting historic resources for wind-energy projects surveys. Panamerican has conducted five historic resources surveys for wind-energy projects in Clinton and Franklin counties which have identified NRE resources in the current Project's study area. The majority of the Project's Visual APE study area has been previously surveyed. Within this significant overlap area (i.e., previously surveyed area), new survey work will occur only in locations determined to be in the current Project's Visual APE study area that were not included in previous surveys (Longiaru et al. 2006a, 2006b, 2006c, 2006d, and 2007; Mahar et al. 2008; and Heaton 2006).

All newly documented buildings included in the Phase 1B reconnaissance survey will be evaluated for National Register eligibility through application of the NRHP Criteria (36 CFR 60.4): "The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association." The four aspects of significance used to evaluate national Register eligibility for listing in the NRHP (A) association with historic events or activities; (B) association with important persons; (C) distinctive design or physical characteristics; or (D) potential to provide important information about prehistory or history (national Park Service [NPS] 2002). A property must meet at least one of the criteria for listing in the National Register of Historic Places. For the Phase 1B investigation, visible inspection of properties will be limited to the exterior of buildings from public rights of way; no interiors will be accessed. Buildings less than 50 years of age or lacking architectural integrity will not be included in or documented during the next phase of the historic architectural resources reconnaissance survey. Previously identified resources in the Visual APE without formal NRHP determinations will be evaluated for eligibility as part of the Phase 1B survey.

Phase 1B /Historic Architectural Resources Survey Report: Five-mile Visual APE. The methods and findings of the Phase 1B Historic Architectural Resources survey will be summarized in a technical report. All documented properties will be presented in an annotated list of properties which will include the following: minimum of two digital photographs of each resource as per NYSHPO guidelines, location information, a brief description of the property (name, estimated date of construction, architectural style, existing condition assessment, building materials, and other relevant information), and an recommendation of NRHP eligibility.⁴

An analysis of the potential visual effect on the Project on significant properties in the Visual APE will be included in the Phase 1B report. Per the NYSHPO Wind Guidelines, the APE for visual impacts on historic properties for wind projects is defined as those areas within five miles of proposed turbines which are within the potential viewshed (based on topography) of the project (NYSHPO 2006). The New York State Department of Environmental Conservation (NYSDEC) defines *Visual Impact* as:

when the mitigating effects of perspective do not reduce the visibility of an object to insignificant levels. Beauty plays no role in this concept. A visual impact may also be considered in the context of contrast. For instance, all other things being equal, a blue object seen against an orange background has greater visual impact than a blue object seen against the same colored blue background. Again, beauty plays no role in this concept [NYSDEC 2000:10-11].

The analysis takes into consideration the resource's geographical distance and the effect of vegetation, and other landscape features that may screen or minimize views of the Project from historic resources. Resources previously identified as NRE will not be surveyed as part of the Phase 1B study, though the visual effect on those historic resources will be included in the visual effects analysis prepared for the Project. Recommendations for mitigation options will also be included in the report.

⁴ Note: only a single photograph will be included for existing National Register-Listed and -Eligible properties.

The final report will be submitted to NYSHPO via the CRIS website. Any newly identified resources or resources recommended as NRE in the survey will be uploaded to the CRIS database as part of the report submittal to NYSHPO.

5.0 Conclusions and Recommendations

5.1 ARCHAEOLOGICAL INVESTIGATION

The project area is sensitive for both prehistoric/precontact and historic period archaeological sites and has been minimally disturbed by modern-era development and land use. Panamerican recommends a Phase 1B investigation be conducted that complies with the NYSHPO *Guidelines for Wind Farm Development Cultural Resources Survey Work*. Once the APE of project components (e.g., turbines, access roads, electric connector lines substations, equipment yards) is determined, a Phase 1B field-testing strategy should be developed by determining the acreage of the APE and the percentages of it relative to “environmental zones” and “local habitat areas.” The relative number of shovel tests should be allocated to match the relative sizes of the environmental factors which are assessed following Robert Funk’s *Archaeological Investigations in the Upper Susquehanna Valley, New York State* (1993). The Phase 1B testing strategy should also include investigation of MDS and previously reported sites within the APE.

5.2 HISTORIC ARCHITECTURAL RESOURCES INVESTIGATION: PHASE 1A

A final Project design showing the locations of an estimated 50 to 100 wind-turbine generators to be sited on more than 18,100 acres of private land in the Towns of Altona, Clinton, Ellenburg, and Mooers was not available as of November 2015. Therefore, the Visual APE (viewshed study area) has not been generated for this Phase 1A study. All State/National Register listed (NRL) and eligible (NRE) resources are considered in this summary of findings to be in the preliminary Visual APE study area. The final Project design is anticipated to be completed in the spring of 2016. The next phase of the cultural resources investigation (Phase 1B/Five-mile Visual APE survey) is projected to commence in late spring/early summer of 2016.

A total of 35 identified historic architectural resources are located within the five-mile study area for the Bull Run Wind Energy Center Project. Of these, one property located in the five-mile Visual APE study area is NRL. Further, 34 NRE resources were identified in the Project study area: 11 of which are located in the preliminary Project area location (APE) and 23 NRE resources are located in the five-mile Visual APE buffer. There are 23 NRE resources with unknown locations in towns in the Project study area that do not have GIS data available in CRIS (see Table 4.1). A summary of NRHP status for resources in the study area is provided below.

- The Adirondack Forest Preserve is a National Historic Landmark (designated 1963) and listed on the National Register. It is located in the five-mile Visual APE study area in the towns of Altona and Ellenburg. It is the only NRL resource in the study area.
- Eleven NRE properties are located within the preliminary Project areas (APE) that have been previously determined eligible by NYSHPO (see Table 5.1).
- There are 23 NRE properties located within the five-mile radius Visual APE that have been previously determined eligible by NYSHPO.
- Twenty-three NRE properties, as previously determined by NYSHPO, are located in towns in the five-mile Visual APE, but do not have GIS data available in CRIS (see Table

4.1). The exact locations of these resources are unknown. Further consultation with SHPO will be necessary to determine if these resources are in the Visual APE study area.

- Forty-one properties whose NRHP eligibility is currently undetermined are located in the study area; seven of which were identified in the preliminary Project area and the other 35 resources are within the five-mile Visual APE. Fifty resources are located in the towns in the five-mile Visual APE, but do not have GIS data available in CRIS (see Table 4.2)
- Two resources whose NRHP eligibility is currently undetermined were reported demolished (Traum and Klein 2007) and one resource is misidentified in CRIS as being located in the Town of Clinton.

Table 5.1. S/NRE Resources in the Preliminary Project Location: General Boundary (APE).

USN	Name	Address	Town
01907.000097	Residence	132 Rogers Road	Clinton
01909.000032	Northern Adirondack Central School	5572-5580 US 11	Ellenburg
01909.000047	Sheldon Hill Cemetery	2131 Plank Road	Ellenburg (Ellenburg Depot)
01909.000051	Ellenburg Protestant Cemetery	US 11; east of St. Edmund's Church between Bull Run & Bombard roads	Ellenburg
01909.000052	St. Edmund's Church/Rectory Bombard Road Cemetery	US 11 (south side); west of Bull Run Road	Ellenburg
01909.000056	Residence	5013 US 11	Ellenburg
01909.000057	Former blacksmith shop	5021 US 11	Ellenburg
01909.000058	Residence	5066 US 11	Ellenburg
01909.000073	NBT Bank	5084 US 11	Ellenburg
01909.000076	St. Edmund's Cemetery	US 11 (south side); west of Bull Run Road	Ellenburg (Ellenburg Depot)
01910.000033	Farmstead	576 Canaan Road	Mooers

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