

*Phase IA Archaeological Background and Literature Review  
and Phase IB Archaeological Field Reconnaissance Report for  
the Proposed Madison County Landfill Expansion Project and  
Two Potential Soil Borrow Areas  
in the Town of Lincoln, Madison County, New York*

*(OPRHP Project Review Number 04PR00503)*

*Report prepared by:*

*Alliance Archaeological Services*

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*Report date:*

*February 26, 2010*

*Reports of Investigations 09FR02*

Phase IA Archaeological Background and Literature Review and Phase IB Archaeological Field Reconnaissance  
Report for the Proposed Madison County Landfill Expansion Project and Two Potential Soil Borrow Areas  
in the Town of Lincoln, Madison County, New York

**(OPRHP Project Review Number 04PR00503)**

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Reports of Investigations 04FR01 and 09FR02

## Management Summary

OPRHP Project Review Number: 04PR00503

Involved State and Federal Agencies: Madison County Planning Board; Department of Environmental Conservation

Phase of Survey: Phase IA and IB

Survey Size: 92 acres (37 hectares) for the proposed landfill expansion area; 85 acres (34 hectares) for one related soil borrow area; and 130 acres (53 hectares) for the another related soil borrow/development area.

### Location Information:

Location: The landfill expansion project area is located to the north, west and south of the existing Madison County Landfill on the west side of Buyea Road in the Town of Lincoln, Madison County, New York. This area is bordered to the west by Limestone Creek. The 85-acre soil borrow area is located to the northwest of the existing landfill between Tuttle Road on the west and Limestone Creek on the east. The 130-acre soil borrow/development area is located to the northeast of the existing landfill along the east side of Buyea Road. The current project calls for the expansion of the existing landfill within 92 acres of adjacent land over the course of approximately one century. Soil related to the expansion and use of the landfill will also potentially be borrowed from one 85-acre area to the northwest of the existing landfill, and one 130-acre area to the northeast of the existing landfill. However, the 130-acre soil borrow area may also be opened for commercial development.

Minor Civil Division: Town of Lincoln

County: Madison

U.S.G.S. 7.5' Quadrangle Map: 1955 Oneida, New York, photo-revised 1993, Copyright 2006, Maptech, Inc.

### 04FR01 Archaeological Survey Overview:

Number & Interval of Shovel Tests: 480 (15 meter/50 foot intervals), 252 (3 meter/10 foot intervals), and 34 (60 meter/200 foot intervals) within the 92-acre landfill expansion project area. 102 (15 meter/50 foot intervals), 60 (3 meter/10 foot intervals), and 66 (60 meter/200 foot intervals) within the 85-acre soil borrow project area. No shovel tests excavated within the 130-acre soil borrow/development project area.

Number & Size of Units: not applicable

Width of Plowed Strips: 10 meters (30 feet)

Surface Survey Transect Interval: 1 to 3 meters (3 to 10 feet)

### Results of the 04FR01 Archaeological Survey:

Number & name of pre-contact sites identified: Late Woodland Tuttle Site

Number & name of historic sites identified: Historic Wm. Tuttle (south) House Site

Number & name of sites recommended for Phase II/Avoidance: Late Woodland Tuttle Site; Historic Wm. Tuttle (south) House Site

### 09FR02 Archaeological Survey Overview:

Number & Interval of Shovel Tests: No additional shovel tests excavated within the 92-acre landfill expansion project area. No additional shovel tests excavated within the 85-acre soil borrow project area. 47 (15 meter/50 foot intervals) and 48 (90 meter/300 foot intervals) within the 130-acre soil borrow/development project area.

Number & Size of Units: not applicable  
Width of Plowed Strips: not applicable; all accessible areas plowed and disced  
Surface Survey Transect Interval: 1 to 3 meters (3 to 10 feet)

*Results of the 09FR02 Archaeological Survey:*

Number & name of pre-contact sites identified: 0  
Number & name of historic sites identified: 0  
Number & name of sites recommended for Phase II/Avoidance: 0

*Results of the Architectural Survey:*

Number of buildings/structures/cemeteries within the project area: 0  
Number of buildings/structures/cemeteries adjacent the project area: 0  
Number of previously determined NR listed or eligible buildings/structures/cemeteries/districts: 0  
Number of identified eligible buildings/structures/cemeteries/districts: 0

*Recommendations:* If avoidance of the area surrounding the precontact ceramic findspot within the 85-acre A.P.E. is infeasible, supplemental phase I archaeological testing in order to further evaluate the specimen's presence within this area as an isolate is conducted. No further archaeological investigations are recommended within the field investigated portions of the 85-acre soil borrow project area. However, should the project A.P.E. change, supplemental phase IB work within these additional areas is recommended.

That if the uninvestigated portion of the north hay field within the extreme northern portion of the 92-acre landfill expansion project area cannot be avoided in its entirety, then a phase IB shovel test evaluation of this area be conducted in advance of any earth-moving and/or ground-disturbing activities within this location. Avoidance of both the Late Woodland Tuttle Site and the Historic Wm. Tuttle (south) House Site by all earth-moving and/or ground-disturbing activities is recommended. If avoidance is not possible, phase II archaeological test excavations are recommended within any threatened site areas. No further archaeological investigations are recommended within the remaining portions of the 92-acre landfill expansion project area. However, should the project boundaries change, supplemental phase IB work within these additional areas is recommended.

Cultural resource clearance for the proposed 130-acre soil borrow A.P.E. is recommended. However, should the project A.P.E. boundaries change, additional archaeological investigations, especially deep subsurface testing of the Cowaselon Creek floodplain, are recommended.

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*Date of Final Report:* February 26<sup>th</sup>, 2010

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## Introduction

In response to a request from Barton & Loguidice, P.C., Consulting Engineers, Alliance Archaeological Services has completed a phase IA archaeological background and literature review and a phase IB archaeological field reconnaissance of the proposed Madison County Landfill expansion area, and two related soil borrow areas, in the Town of Lincoln, Madison County, New York (OPRHP Project Review Number 04PR00503).

The purpose of a phase IA archaeological background and literature review is to identify and describe all previously recorded pre-EuroAmerican contact and historic archaeological sites and resources within and around the boundaries of a proposed project area. This information is then combined with a review of the natural setting of the project area in order to develop a regionally specific pre-contact and historic context. This context is then used to evaluate the project area's sensitivity to contain additional pre-contact and/or historic archaeological sites. The results of the phase IA evaluation are then used to evaluate the necessity of any additional archaeological investigations, and if necessary, formulate a project-specific phase IB archaeological field reconnaissance methodology. The results of both investigations are then used to evaluate the eligibility of any archaeological sites within the project area for nomination to the State and/or National Registers of Historic Places. All aspects of the phase I archaeological survey conducted for this project conform to the New York Archaeological Council's (NYAC) *Standards for Cultural Resource Investigations* (1994) as adopted and required by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP), as well as to the *Phase I Archaeological Report Format Requirements* as published and required by the OPRHP (2005).

The following report details the results of the phase IA background and literature review and phase IB field reconnaissance, and presents Alliance Archaeological Services' conclusions and recommendations concerning the necessity of any additional archaeological investigations.

### *Project Description*

The proposed project plan calls for the expansion of the existing landfill within 92 acres of adjacent land over the course of approximately one century. Soil related to the expansion and use of the landfill will also be borrowed from one 85-acre area to the northwest, and one 130-acre area to the northeast of the existing landfill. However, this 130-acre area may also be opened to commercial development. The current work scope was therefore defined as a phase IA archaeological background and literature review of all three project areas, and a phase IB archaeological field reconnaissance of all current A.P.E.s. For example, all wooded areas within the 92-acre expansion and 85-acre soil borrow A.P.E.s, all lawn areas within the 130-acre A.P.E., as well as all areas suitable for a visual pedestrian survey within all three A.P.E.s, were included in the 2004, 2005 and 2009 phase IB investigations. However, all open areas within the 92-acre and 130-acre A.P.E.s which could not be plowed and disced (such as due to restrictions from excessive slope and/or severe erosion) were not systematically evaluated during the phase IB investigations. These unevaluated areas consisted of fallow agricultural land bounded by excessive slope within the extreme northern portion of the landfill expansion A.P.E., as well as those areas of excessive slope within the extreme eastern portion of the 130-acre A.P.E. However, all portions of the 130-acre A.P.E. which were not contained within excessive slope and/or severely eroded soils were fully evaluated during the 2009 phase IB field investigation. Nevertheless, as all wooded and eastern portions of this overall 130-acre project area were not scheduled for any kind of ground disturbance at the time of the current investigation, only a non-systematic pedestrian survey was conducted within these remaining areas. All portions of each overall project area are discussed in full detail in the *Results* section. Representative photographs of all portions of the project areas evaluated during the 2004, 2005 and 2009 field seasons are provided in appendices A and B, respectively.

### *Project Location*

The proposed landfill expansion and soil borrow project areas are located in the Town of Lincoln, Madison County in central New York state to the southeast of Lake Ontario (Figure 1). Figure 2 shows the location of all three project areas on a portion of the 1955 Oneida, New York 7.5' quadrangle, photo-revised 1993, copyright 2006, Maptech, Inc. Figure 3 shows the location of the proposed project areas on portions of soil map sheets #14 and 19 (Hanna 1981). Historic maps of the project areas are provided as figures 4 through 9. Figures 11 through 40 show the location of all phase IB archaeological testing, the location and orientation of all project photographs, the location

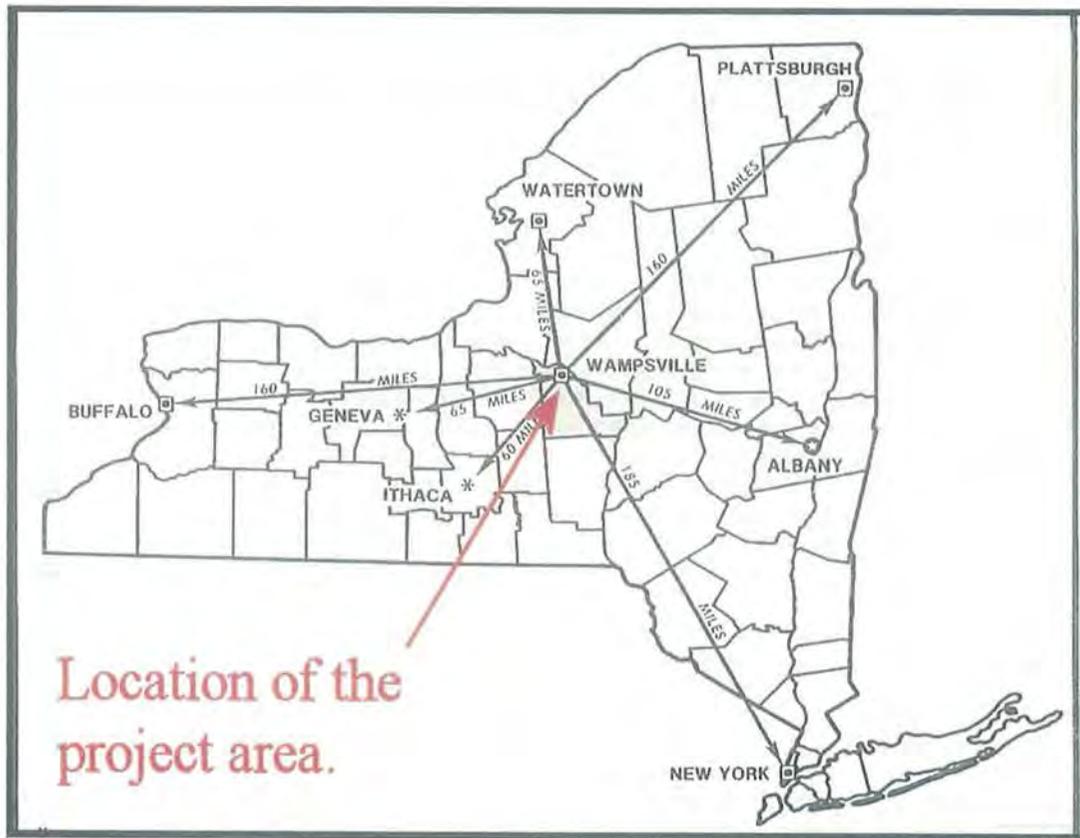


Figure 1. General location of the project areas within New York state (Adapted from Hanna 1981).

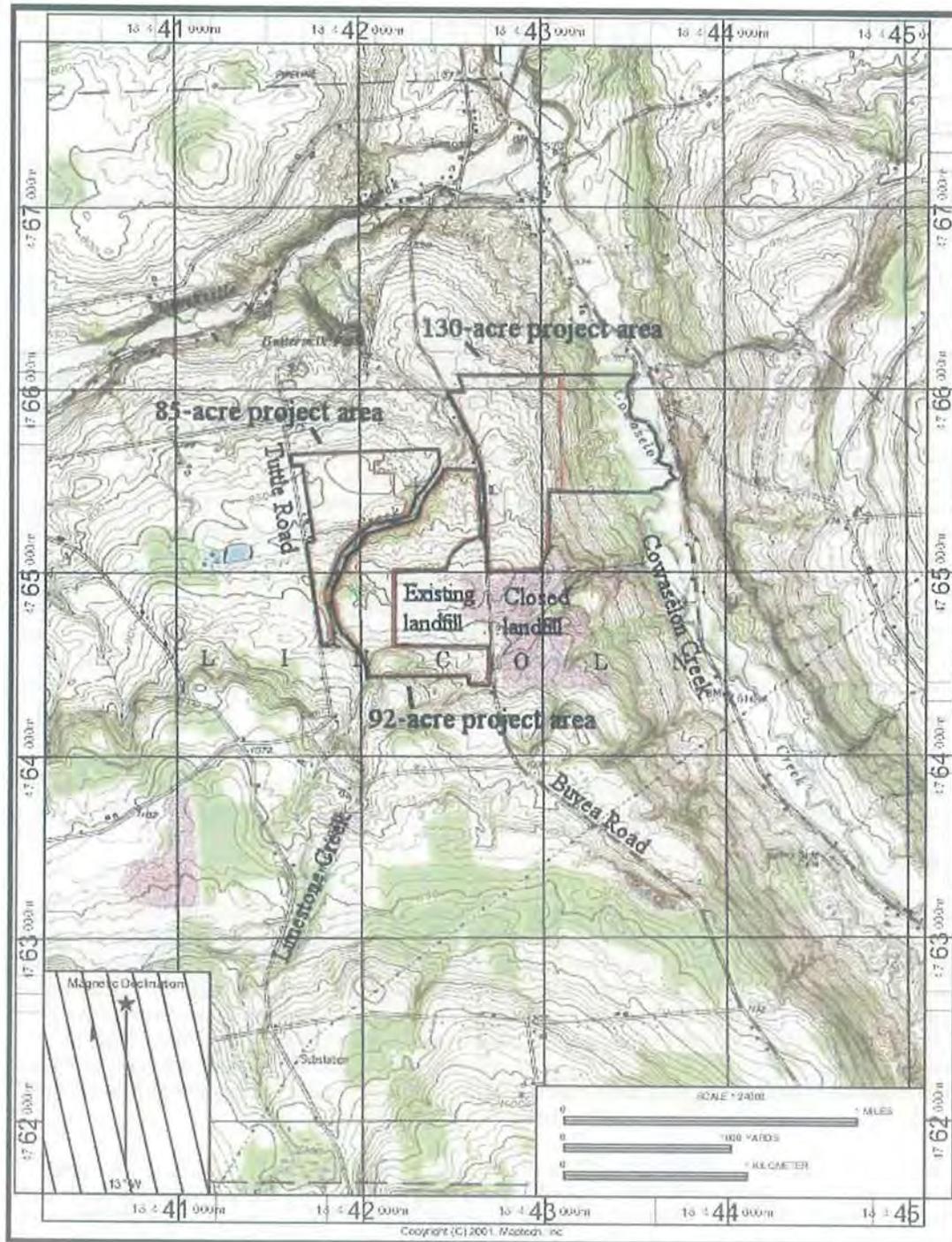


Figure 2. Location of the project areas as shown on a portion of the 1955 Oneida, New York 7.5' quadrangle, photo-revised 1993, Copyright 2006, Maptech, Inc. (Scale in UTM's.). The overall project boundaries are shown in black. The A.P.E. boundaries are shown in red.

of all identified cultural materials and archaeological sites, and provide representative examples of all identified cultural materials for each of the three project areas. Photographs (appendices A and B) provide representative views of each project area at the time of the phase IB field investigations.

## **Background Research**

### *Environmental Setting*

The following represents a brief synthesis of the available information regarding the physical and environmental setting of the project areas. This information is provided in order to place the project areas within a context conducive to assessing their potential to contain significant archaeological resources.

### *Past and Present Land Use and Current Conditions*

The 85-acre soil borrow area was in a mix of active agricultural land and secondary growth woodland. Identified disturbances were restricted to the construction and maintenance of Tuttle Road, and bulldozing and grading of soils within and adjacent the small woodlot. At the time of the 2004-2005 phase IB investigation, the majority of this area was in tall corn; however, all supplemental 2009 investigations were completed after the crops had been planted but well before they had reached 5 cm (2 inches) in height. The only exception to these conditions was the small east-west lying stand of young growth trees. Representative photographs of the 85-acre project area have been provided in Appendix A. The 92-acre landfill expansion project area was in a mix of existing landfill structures and facilities, fallow agricultural land, scrub grass, hayfields and secondary growth woodland. Identified disturbances were restricted to previous well digging, dirt/gravel road construction and maintenance, grading and soil removal, and mining. Representative photographs of the 92-acre project area have been provided in Appendix A. The 130-acre soil borrow/development project area was in a mix of active and fallow agricultural land, secondary growth woodland and maintained grass lawns. With the exception of those areas in association with the existing residential structures directly along the eastern side of Buyea Road, no widespread areas of significant previous disturbance were identified. However, those portions of this project area containing excessive slopes were found to be severely eroded. Representative photographs of the 130-acre project area have been provided in appendices A and B.

### *Soils*

Given the range of landforms investigated during the phase IB evaluations, each of the three proposed project areas are discussed separately below. All specific soil data has been illustrated by project area in Tables 1, 2 and 3.

### *Proposed 85-acre Soil Borrow Project Area*

The 85-acre soil borrow project area (Figure 3) is within the Cazenovia, Honeoye and Lairdsville series soil associations. Cazenovia Series soils consist of deep, well to moderately well drained soils which formed in glacial till consisting primarily of limestone, red shale and re-glaciated lacustrine sediment. They are gently sloping to steep and are found on island-like areas within old lake plains and low upland plateaus (Hanna 1981: 32-33). Honeoye Series soils consist of deep, well drained soils which formed in glacial till consisting primarily of limestone and shale. They are also gently sloping to steep and are found on upland plateaus and dissected valley sides (Hanna 1981: 51). Lairdsville Series soils consist of moderately deep, moderately well to well drained soils which formed in glacial till and residuum derived from the underlying shale bedrock. They are gently sloping to steep and are found on the northern edge of the upland plateau (Hanna 1981: 55-56).

The specific soils within the 85-acre soil borrow project area are Cazenovia silt loam, 3 to 8% slopes (CfB); Honeoye silt loam, 3 to 8% slopes (HnB); Honeoye silt loam, 8 to 15% slopes (HnC); Honeoye silt loam, 25 to 50% slopes (HnE); Lairdsville silt loam, 3 to 8% slopes (LaB); and Lairdsville silty clay loam, 15 to 25% slopes, severely eroded (LbD3) (Hanna 1981: Soil Map Sheet #19, pp.32-33, 51-52 and 55-56; Figure 3). The key properties of these soils are illustrated in Table 1 below.

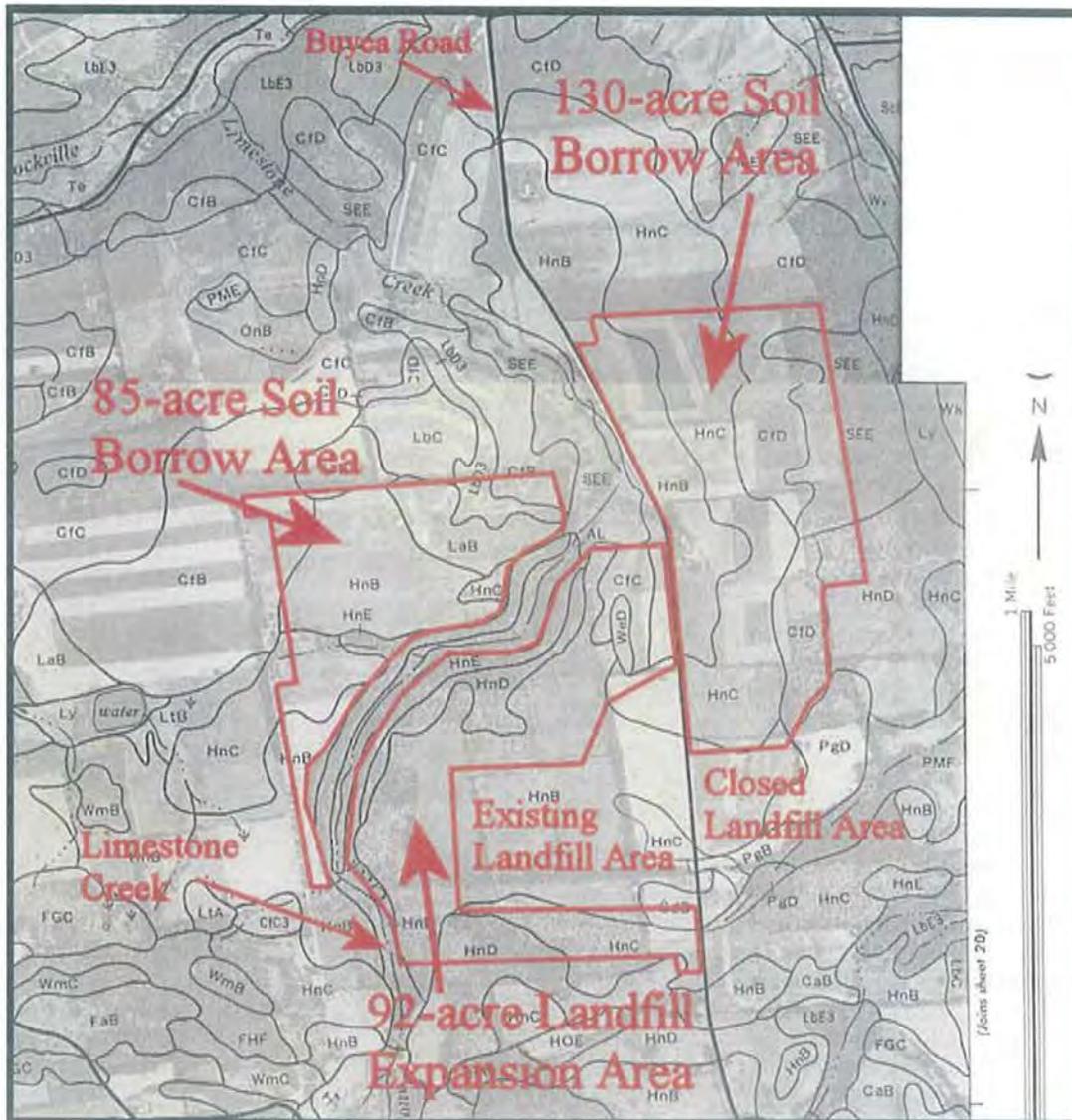


Figure 3. Soils within the project areas as shown on a portion of soil map sheets #14 and 19, Soil Survey of Madison County, New York (Hanna 1981).

**Table 1:  
Soils Within the 85-acre Soil Borrow Project Area**

Name	Soil Horizon Depth (cm/in)	Color	Texture, Inclusions	Slope %	Drainage	Landform
Cazenovia silt loam, (CfB)	A <sub>p</sub> : 0-23 cm (0-9 in) A2: 23-28 cm (9-11 in) BA: 28-38 cm (11-15 in) B1 <sub>t</sub> : 38-61 cm (15-24 in) B2 <sub>t</sub> : 61-74 cm (24-29 in) C: 74-132 cm (29-52 in)	DkBrn Brn RdBrn RdBrn RdBrn Brn	SiLo SiLo LtSiClLo SiClLo GrvSiClLo GrvHSiLo	3-8	WD to MWD	lake plains & low upland plateaus
Comments: this soil has a profile described as representative of the series. Erosion is a slight to moderate hazard once the original vegetative cover has been removed.						
Honeoye silt loam, (HnB)	A <sub>p</sub> : 0-23 cm (0-9 in) A2: 23-36 cm (9-14 in) BA: 36-48 cm (14-19 in) B2 <sub>t</sub> : 48-74 cm (19-29 in) C: 74-158 cm (29-62 in)	VDkGrBrn Brn Brn DkBrn DkGrBrn	SiLo SiLo SiLo GrvHSiLo GrvSiLo	3-8	WD	upland plateaus & dissected valley sides
Comments: this soil has a profile described as representative of the series. Erosion can be a hazard once the original vegetative cover has been removed.						
Honeoye silt loam, (HnC)	A <sub>p</sub> : 0-23 cm (0-9 in) A2: 23-36 cm (9-14 in) BA: 36-48 cm (14-19 in) B2 <sub>t</sub> : 48-74 cm (19-29 in) C: 74-158 cm (29-62 in)	VDkGrBrn Brn Brn DkBrn DkGrBrn	SiLo SiLo SiLo GrvHSiLo GrvSiLo	8-15	WD	upland plateaus & dissected valley sides
Comments: this soil has a profile described as representative of the series, except that the surface layer and subsoil are slightly thinner. Erosion is a severe hazard once the original vegetative cover has been removed.						
Honeoye silt loam, (HnE)	A <sub>p</sub> : 0-23 cm (0-9 in) A2: 23-36 cm (9-14 in) BA: 36-48 cm (14-19 in) B2 <sub>t</sub> : 48-74 cm (19-29 in) C: 74-158 cm (29-62 in)	VDkGrBrn Brn Brn DkBrn DkGrBrn	SiLo SiLo SiLo GrvHSiLo GrvSiLo	25-50	WD	dissected valley sides
Comments: this soil has a profile described as representative of the series, except that the calcareous till substratum is closer to the surface and the lower portion of the subsoil is not mottled. Erosion is a severe hazard once the original vegetative cover has been removed.						
Lairdsville silt loam, (LaB)	A <sub>p</sub> : 0-20 cm (0-8 in) BA: 20-30 cm (8-12 in) B2 <sub>t</sub> : 30-69 cm (12-27 in) C2: 69-76 cm (27-30 in) C3: 76-84 cm (30-33 in) R3: 84 cm (33 in)	DkRdBrn DkRdBrn DkRdBrn MxWRd O OGr	SiLo SiClLo HSiClLo ShClLo VShClLo ShBR	3-8	MWD to WD	northern edge of the upland plateau
Comments: this soil has a profile described as representative of the series. Erosion can be a slight to moderate hazard once the original vegetative cover has been removed.						
Lairdsville silty clay loam, severely eroded (LbD3)	A <sub>p</sub> : 0-20 cm (0-8 in) BA: 20-30 cm (8-12 in) B2 <sub>t</sub> : 30-69 cm (12-27 in) C2: 69-76 cm (27-30 in) C3: 76-84 cm (30-33 in) R3: 84 cm (33 in)	DkRdBrn DkRdBrn DkRdBrn MxWRd O OGr	SiLo SiClLo HSiClLo ShClLo VShClLo ShBR	15-25	mostly WD	northern edge of the upland plateau
Comments: this soil has a profile described as representative of the series, except the surface layer is mixed with the finer-textured subsoil due to erosion. Continued erosion is a severe hazard once the original vegetative cover has been removed.						

KEY: Brn-Brown      BR-Bedrock      cm-centimeters      Cl-Clay      Dk-Dark      Gr-Grayish  
 Grv-Gravelly      H-Heavy      in-inches      Lo-Loam      Lt-Light      MWD-Moderately  
 Mx-Mixed      O-Olive      Rd-Reddish      Sh-Shale      Si-Silt      V-Very  
 W-Weak      WD-Well Drained

The 85-acre soil borrow project area (Figure 3) is primarily mapped within Honeoye silt loams, particularly those with 3 to 8% slopes (HnB). However, a large unit of Honeoye silt loams with 8 to 15% slopes (HnC) also roughly bisects this area. The excessively sloped soils are concentrated along the stream gully in the northeast central portion of this area, while the Lairdsville silt loam is restricted to a small mapped portion in the extreme northeast corner (Figure 3). This area is therefore predominantly within deep, moderately well to well drained soils which formed in a mix of glacial till deposits on old glacial landforms. These soils have slopes ranging from 3 to 50%, and can be subject to moderate to severe erosion once the original vegetative cover has been removed. As a result, cultural materials, if present, are expected to be restricted to the upper portions of the soil profile: i.e. less than 30 cm (12 in) below the original ground surface. Although no significant, widespread previous disturbances were documented for this overall area, given that the original vegetative cover was removed, and this area has since been in historic agricultural for at least the last several decades, moderate to severe erosion may already have taken place within the more severely sloped sections. A comparison of the results of the phase IB soil evaluation with the published soil information is provided in the *Results* section.

*Proposed 92-acre Landfill Expansion Project Area*

The 92-acre landfill expansion project area (Figure 3) is within the Cazenovia, Honeoye, Wampsville and Schoharie series soil associations. Cazenovia Series soils consist of deep, well to moderately well drained soils which formed in glacial till consisting primarily of limestone, red shale and re-glaciated lacustrine sediment. They are gently sloping to steep and are found on island-like areas within old lake plains and low upland plateaus (Hanna 1981: 32-33). Honeoye Series soils consist of deep, well drained soils which formed in glacial till consisting primarily of limestone and shale. They are also gently sloping to steep and are found on upland plateaus and dissected valley sides (Hanna 1981: 51). Schoharie Series soils consist of deep, moderately well to well drained soils which formed in reddish, glaciolacustrine deposits consisting primarily of clay and silt. They are gently sloping to steep and are found on lake plains and within valleys which were formerly glacial lakes (Hanna 1981: 81-82). Wampsville Series soils consist of deep, well drained soils which formed in gravelly, glaciofluvial deposits consisting predominantly of soft red shale, limestone and sandstone. They are nearly level to hilly and are found on terraces and kame moraines on the northern edge of the upland plateau (Hanna 1981: 90-91).

The specific soils within the 92-acre landfill expansion project area are Cazenovia silt loam, 8 to 15% slopes (CfC); Honeoye silt loam, 3 to 8% slopes (HnB); Honeoye silt loam, 8 to 15% slopes (HnC); Honeoye silt loam, 15 to 25% slopes (HnD); Honeoye silt loam, 25 to 50% slopes (HnE); Schoharie silty clay loam, rolling (SdC); and Wampsville gravelly silt loam, hilly (WeD) (Hanna 1981: Soil Map Sheet #19, pp. 32-33, 51-52, 81-82 and 90-92; Figure 3). The key properties of these soils are illustrated in Table 2 below.

Table 2: Soils Within the 92-acre Landfill Expansion Project Area						
Name	Soil Horizon Depth (cm/in)	Color	Texture, Inclusions	Slope %	Drainage	Landform
Cazenovia silt loam, (CfC)	A <sub>p</sub> : 0-23 cm (0-9 in) A2: 23-28 cm (9-11 in) BA: 28-38 cm (11-15 in) B1: 38-61 cm (15-24 in) B2: 61-74 cm (24-29 in) C: 74-132 cm (29-52 in)	DkBrn Brn RdBrn RdBrn RdBrn Brn	SiLo SiLo LtSiClLo SiClLo GrvSiClLo GrvHSiLo	8-15	WD to MWD	lake plains & low upland plateaus
Comments: this soil has a profile described as representative of the series, except that faint mottles can be present at a greater depth. Erosion is a moderate to severe hazard once the original vegetative cover has been removed.						
Honeoye silt loam, (HnB)	A <sub>p</sub> : 0-23 cm (0-9 in) A2: 23-36 cm (9-14 in) BA: 36-48 cm (14-19 in) B2: 48-74 cm (19-29 in) C: 74-158 cm (29-62 in)	VDkGrBrn Brn Brn DkBrn DkGrBrn	SiLo SiLo SiLo GrvHSiLo GrvSiLo	3-8	WD	upland plateaus & dissected valley sides
Comments: this soil has a profile described as representative of the series. Erosion can be a hazard once the original vegetative cover has been removed.						
Honeoye silt loam, (HnC)	A <sub>p</sub> : 0-23 cm (0-9 in) A2: 23-36 cm (9-14 in)	VDkGrBrn Brn	SiLo SiLo	8-15	WD	upland plateaus & dissected

	BA: 36-48 cm (14-19 in) B2 <sub>t</sub> : 48-74 cm (19-29 in) C: 74-158 cm (29-62 in)	Brn DkBrn DkGrBrn	SiLo GrvHSiLo GrvSiLo			valley sides
Comments: this soil has a profile described as representative of the series, except that the surface layer and subsoil are slightly thinner. Erosion is a severe hazard once the original vegetative cover has been removed.						
Honeoye silt loam, 15 to 25% slopes (HnD)	A <sub>p</sub> : 0-23 cm (0-9 in) A2: 23-36 cm (9-14 in) BA: 36-48 cm (14-19 in) B2 <sub>t</sub> : 48-74 cm (19-29 in) C: 74-158 cm (29-62 in)	VDkGrBrn Brn Brn DkBrn DkGrBrn	SiLo SiLo SiLo GrvHSiLo GrvSiLo	15-25	WD	side slopes, upland hills & dissected valley sides
Comments: this soil has a profile described as representative of the series, except that the surface layer and subsoil are thinner and the lower portion of the subsoil is not mottled. Erosion is a severe hazard once the original vegetative cover has been removed.						
Honeoye silt loam, (HnE)	A <sub>p</sub> : 0-23 cm (0-9 in) A2: 23-36 cm (9-14 in) BA: 36-48 cm (14-19 in) B2 <sub>t</sub> : 48-74 cm (19-29 in) C: 74-158 cm (29-62 in)	VDkGrBrn Brn Brn DkBrn DkGrBrn	SiLo SiLo SiLo GrvHSiLo GrvSiLo	25-50	WD	dissected valley sides
Comments: this soil has a profile described as representative of the series, except that the calcareous till substratum is closer to the surface and the lower portion of the subsoil is not mottled. Erosion is a severe hazard once the original vegetative cover has been removed.						
Schoharie silty clay loam, rolling (SdC)	A <sub>p</sub> : 0-18 cm (0-7 in) BA: 18-36 cm (7-14 in) B2 <sub>t</sub> : 36-64 cm (14-25 in) C1: 64-97cm (25-38 in) C2: 97-152 cm(38-60 in)	DkBrn RdBrn RdBrn RdBrn WRd	SiLo SiClLo SiCl SiCl SiCl	8-15	WD to MWD	lake plains and old glacial lake valleys
Comments: this soil has a profile described as representative of the series, except the surface layer is finer textured. Erosion is a severe hazard once the original vegetative cover has been removed.						
Wampsville gravelly silt loam, hilly (WeD)	A <sub>p</sub> : 0-20 cm (0-8 in) A2: 20-30 cm (8-12 in) BA: 30-41 cm (12-16 in) B1 <sub>t</sub> : 41-61 cm (16-24 in) B2 <sub>t</sub> : 61-81 cm (24-32 in) B3: 81-91 cm (32-36 in) C1: 91-114 cm (36-45 in) C2: 114-183 cm (45-72 in)	DkBrn RdBrn RdBrn RdBrn DkRdBrn DkRdGr Brn NA	GrvSiLo GrvLo GrvHLo GrvClLo GrvClLo GrvLo VGrvLo StrSaGrv	15-25	WD	moraines & long, narrow terraces
Comments: this soil has a profile described as representative of the series, except the surface layer and subsoil are thinner and have a higher concentration of coarse fragments. Erosion is a severe hazard once the original vegetative cover has been removed.						

KEY: Brn-Brown cm-centimeters Cl-Clay Dk-Dark Gr-Grayish Grv-Gravelly  
H-Heavy in-inches Lo-Loam Lt-Light MWD-Moderately Well Drained  
NA-not applicable Rd-Reddish Sa-Sand Si-Silt Str-Stratified  
V-Very W-Weak WD-Well Drained

The 92-acre landfill expansion project area (Figure 3) is primarily mapped within deep, moderately well to well drained soils which formed in a mix of glacial till deposits on old glacial landforms. These soils have slopes ranging from 3 to 50%, and can be subject to moderate to severe erosion once the original vegetative cover has been removed. As a result, cultural materials, if present, are expected to be restricted to the upper portions of the soil profile: i.e. less than 30 cm (12 in) below the original ground surface. Although no significant, widespread previous disturbances beyond impacts related to the existing landfill have been documented for this overall area, given that the original vegetative cover was removed, and this area has since been in historic agricultural for at least the last several decades, moderate to severe erosion may already have taken place within the more severely sloped areas. A comparison of the results of the phase IB soil evaluation with the published soil information is provided in the *Results* section.

*Proposed 130-acre Soil Borrow/Development Project Area*

The 130-acre soil borrow/development project area (Figure 3) is within the Cazenovia, Honeoye and Schoharie series soil associations. Cazenovia Series soils consist of deep, well to moderately well drained soils which formed in glacial till consisting primarily of limestone, red shale and re-glaciated lacustrine sediment. They are gently sloping to steep and are found on island-like areas within old lake plains and low upland plateaus (Hanna 1981: 32-33). Honeoye Series soils consist of deep, well drained soils which formed in glacial till consisting primarily of limestone and shale. They are also gently sloping to steep and are found on upland plateaus and dissected valley sides (Hanna 1981: 51). Schoharie Series soils consist of deep, moderately well to well drained soils which formed in reddish, glaciolacustrine deposits consisting primarily of clay and silt. They are gently sloping to steep and are found on lake plains and within valleys which were formerly glacial lakes (Hanna 1981: 81-82).

The specific soils within the 130-acre soil borrow/development project area are Cazenovia silt loam, 15 to 25% slopes (CfD); Honeoye silt loam, 3 to 8% slopes (HnB); Honeoye silt loam, 8 to 15% slopes (HnC); and Schoharie-Cazenovia complex, steep, 25 to 50% slopes (SEE); (Hanna 1981: Soil Map Sheets #14, 19 and 20, pp.32-34, 51-52 and 81-83; Figure 3). The key properties of these soils are illustrated in Table 3 below.

Table 3: Soils Within the 130-acre Soil Borrow/Development Project Area						
Name	Soil Horizon Depth (cm/in)	Color	Texture, Inclusions	Slope %	Drainage	Landform
Cazenovia silt loam, (CfD)	A <sub>p</sub> : 0-23 cm (0-9 in) A2: 23-28 cm (9-11 in) BA: 28-38 cm (11-15 in) B1 <sub>t</sub> : 38-61 cm (15-24 in) B2 <sub>t</sub> : 61-74 cm (24-29 in) C: 74-132 cm (29-52 in)	DkBrn Brn RdBrn RdBrn RdBrn Brn	SiLo SiLo LtSiCILo SiCILo GrvSiCILo GrvHSiLo	15-25	WD to MWD	valley sides
Comments: this soil has a profile described as representative of the series, except the substratum is shallower and mottles are absent. Erosion is a severe hazard once the original vegetative cover has been removed.						
Honeoye silt loam, (HnB)	A <sub>p</sub> : 0-23 cm (0-9 in) A2: 23-36 cm (9-14 in) BA: 36-48 cm (14-19 in) B2 <sub>t</sub> : 48-74 cm (19-29 in) C: 74-158 cm (29-62 in)	VDkGrBrn Brn Brn DkBrn DkGrBrn	SiLo SiLo SiLo GrvHSiLo GrvSiLo	3-8	WD	upland plateaus & dissected valley sides
Comments: this soil has a profile described as representative of the series. Erosion can be a hazard once the original vegetative cover has been removed.						
Honeoye silt loam, (HnC)	A <sub>p</sub> : 0-23 cm (0-9 in) A2: 23-36 cm (9-14 in) BA: 36-48 cm (14-19 in) B2 <sub>t</sub> : 48-74 cm (19-29 in) C: 74-158 cm (29-62 in)	VDkGrBrn Brn Brn DkBrn DkGrBrn	SiLo SiLo SiLo GrvHSiLo GrvSiLo	8-15	WD	upland plateaus & dissected valley sides
Comments: this soil has a profile described as representative of the series, except that the surface layer and subsoil are slightly thinner. Erosion is a severe hazard once the original vegetative cover has been removed.						
Schoharie-Cazenovia complex, steep, (SEE)	A <sub>p</sub> : 0-18 cm (0-7 in) BA: 18-36 cm (7-14 in) B2 <sub>t</sub> : 36-64 cm (14-25 in) C1: 64-97 cm (25-38 in) C2: 97-152 cm (38-60 in)	DkBrn RdBrn RdBrn RdBrn WRd	SiLo SiCILo SiCl SiCl SiCl	25-50	MWD to WD	lake plains, valleys and valley sides
Comments: these soils have a profile described as representative of their respective series, except the surface layer of the Schoharie soils is predominantly silty clay loam. Severe erosion of the surface has also caused significant mixing with the finer-textured subsoil. Continued erosion is a very severe hazard once the original vegetative cover has been removed. The above soil profile description is for the Schoharie Series.						

KEY: Brn-Brown cm-centimeters Cl-Clay Dk-Dark Gr-Grayish Grv-Gravelly  
H-Heavy in-inches Lo-Loam Lt-Light MWD-Moderately  
Rd-Reddish Si-Silt V-Very W-Weak WD-Well Drained

The 130-acre soil borrow/development A.P.E. (Figure 3) is primarily mapped within Honeoye silt loams which have slopes ranging from 3 to 15%. However, the eastern portion of this area is mapped within extremely steep, moderately to severely eroded soils with slopes ranging from 15 to 50%. As a result, cultural materials, if present within the lesser sloped, western portions of the project area are expected to be restricted to the upper portions of the soil profile: i.e. less than 30 cm (12 in) below the original ground surface. However, given the extreme slope and previous significant erosion within the eastern portion of this area, the potential for intact and/or potentially significant cultural materials to still be present is considered to be negligible. A comparison of the results of the phase IB soil evaluation with the published soil information is provided in the *Results* section.

Overall, the project areas are mapped within moderately well drained to well drained, silt loams which have been forming for less than 15,000 years from predominantly glacial till deposits consisting of limestone and shale. Although the soils within the project areas are therefore fairly young, pedogenesis is well expressed and the soil horizons are distinct (Hanna 1981:113). A comparison of the results of all phase IB soil evaluations with the published soil information is provided in the *Results* section.

#### *Drainage*

The project areas are drained by Limestone Creek, which lies between the proposed landfill expansion project area on the east and the proposed 85-acre soil borrow area on the west (Figure 2). Smaller, unnamed tributaries of the creek also intersperse portions of both project areas. The proposed 130-acre soil borrow area is also drained by Limestone Creek which lies less than 61 meters (200 feet) to the west of the western border of this area at its closest point, and by Cowaselon Creek which marks the overall eastern project border (Figure 2). The majority of the small, unnamed tributaries within this 130-acre area drain to the east to Cowaselon Creek. A large tract of wetland is shown roughly two miles to the southwest (Figure 2). At the time of the phase IB field evaluations, no areas of standing water or saturated soils were identified.

#### *Site File Search*

An initial site file search was conducted by the author in July of 2004 in order to identify the locations of all previously recorded archaeological sites within a one mile radius of the proposed project area. Additional information on the Late Woodland Tuttle Site was provided by Dr. Nancy Herter of the OPRHP, and supplemental archaeological and historic information was provided by Croshier Archaeological Research. Evaluated files included the New York State Museum (NYSM) site file records, the OPRHP site file records, and the OPRHP previous archaeological survey report files. Available National Register of Historic Places Building Inventories were also evaluated to identify both National Register Listed (NRL) and National Register Eligible (NRE) structures within or adjacent to the proposed project areas. Historic map evaluation included the 1853 Byles map of Madison County, the 1859 French map of Madison County, the 1875 Beers Map of Madison County, the 1895 Oneida quadrangle, and the 1946 Oneida quadrangle. The file search also included pre-EuroAmerican contact sites documented by early investigators of the region, such as Beauchamp (1900) and Parker (1922).

These data were then combined with the results of the natural and environmental setting review in order to construct a regionally specific archaeological sensitivity assessment for each of the proposed project areas. The results of this file search are presented below.

#### *Previously Recorded Archaeological Sites*

A search of the available site files revealed that two previously reported pre-contact archaeological sites are recorded within, and at least four previously reported pre-contact archaeological sites are recorded within approximately one mile, of all three proposed project areas. However, no historic archaeological sites have been previously reported within the same interval. In addition, the early 20<sup>th</sup> century literature (Beauchamp 1900; Parker 1922) does not show any additional archaeological resources within or adjacent the proposed project areas. Likewise, no additional descriptions of the pre-recorded sites were provided in either Beauchamp (1900) or Parker (1922). All of the previously reported pre-contact archaeological sites date to the Late Woodland (c.1000-1600 A.D.) period and are summarized in Table 4 and discussed in more detail below.

NYS OPRHP Site #	Additional Site #s and/or Names	Dist/Direction (meters/feet)*	Time Period	Site Type
A053.10.0005	NYSM #655; Tuttle Site	within the 92-acre landfill expansion A.P.E.	Late Woodland Chance Phase; c. 1400-1425 A.D.?	village
A053.10.0006	NYSM #654; Buyea/Buyer Site	within the closed portion of the Madison County Landfill	Late Woodland Chance Phase; c. 1425-1475 A.D.?	village
---	NYSM #8018; Ingal Site	potentially within or adjacent the 130-acre A.P.E.	indeterminate Late Woodland	village
A053.10.0007	NYSM #659; Moon Site	789 m; 2,588 ft; E	Late Woodland Chance Phase; c. 1425-1475 A.D.?	village
A053.10.0009	NYSM #657; Bronk/Bronck Site	edge of the 1 mile evaluation interval; SE	Late Woodland Chance Phase; c. 1425-1475 A.D.?	village
---	NYSM #658; Goff-Putnam Site	edge of the 1 mile evaluation interval; SE	Late Woodland Chance Phase; c. 1425-1475 A.D.?	village

\*minimum distance as shown on the OPRHP site file maps.

#### *The Tuttle Site*

The Tuttle site is a Late Woodland, Chance Phase Oneida village recorded on a ridge just to the east of Limestone Creek within the central portion of the proposed landfill expansion project area. Proposed dates of occupation for the site range from c.1350-1400 A.D. to c.1400-1425 A.D. Pratt (1976:95-96) initially described the site as encompassing no more than 3/4 of an acre with pottery similar to that recovered from the Buyea (see below) and Nichols Pond sites. Although Pratt did not believe that much of the site remained intact, Gibson (1986) suggested that settlement pattern data were still present. Although no systematic investigations of the site have ever been published, Anthony Wonderley did include the Tuttle site in his *Inventory of Oneida Archaeological Sites* (2004). This site was re-identified during the 2004-2005 phase IB field investigation of the proposed landfill expansion A.P.E., and these data are presented in their entirety in the *Results* section.

#### *The Buyea Site*

The Buyea site (also recorded as the Buyer site) is also a Late Woodland, Chance Phase Oneida village; however, the reported date range (c.1425-1475 A.D.) is slightly later than that of Tuttle, suggesting that it may have been occupied following the occupation of the Tuttle site. This site is recorded to the east of Buyea Road above Cowaselon Creek.

The Buyea site was initially investigated by Peter Pratt from 1956 to 1957 (Pratt 1976:96-98). Ted Whitney (1970) conducted additional excavations during the late 1960s, revealing the outline of a longhouse approximately 5 meters wide and 37 meters long (17.5 feet wide and 120 feet long). These excavations suggested that no more than four of these structures were present. Although a palisade was also identified in at least two areas, Whitney (1970) indicated that the recovered evidence suggested that the palisade was fairly ephemeral. Some of the recovered pottery was also reported to exhibit effigy face decoration underlying the rim castellations.

The Buyea site was reported as destroyed by the closed landfill to the east of Buyea Road and immediately to the south of the 130-acre soil borrow/development project area, and all identified publications show this site as lying within the disturbed portions of the closed landfill. Although the 130-acre A.P.E. was extensively evaluated during the 2009 field season, no data which could be potentially associated with this site were identified. As a result, no portions of the Buyea Site appear to be either within or directly adjacent to this project area.

### *The Ingal Site*

The Ingal site is a Late Woodland Oneida village of currently indeterminate affiliation recorded to the north of the Buyea site on the east-tending slopes of a steep ridge overlooking Cowaselon Creek. Although this site was reported in the NYSM files as identified by Dean and Snow in 1993, very little published information is available and neither Beauchamp (1900) nor Parker (1922) show a site within or adjacent this area. As a result, the full nature and extent of the Ingal site remains largely unknown. Although this site is reported within the OPRHP site files as being located within the east-central portion of the proposed 130-acre soil borrow/development area, this recorded location is not topographically suitable for such a large village site. For example, this mapped location contains steep, eastward facing slopes ranging from 25 to 50% and is severely eroded. As no information regarding the location and placement of this site is available on the OPRHP records, and no reports of any previous field evaluations could be identified, it is considered highly likely that the location provided for this site in the current records is a transcription error. In addition, the 2009 re-evaluation of the burned soil feature identified during an informal walk-over of the eastern border of the 130-acre A.P.E. in 2004 indicated that this anomaly represents either a natural phenomenon or the removal and burning of a tree in modern times. For example, despite a less than 0.5 meter (1.6 foot) surface survey interval with greater than 90% ground surface visibility within and surrounding this area, no cultural materials were visible on the surface, and the single, small (less than 0.5 cm) piece of red ochre recorded on the surface in 2004 was in 2009 determined to be consistent with glacial surface remains identified throughout the plowed portions of this A.P.E. As this feature was also identified within the base of a small but steep swale, it is highly likely that the ochre represents an intrusive deposit washed down from the adjacent ridgetops. Hand-excavation of this feature in 2009 also revealed that it was shallow (restricted entirely to the plowzone) and contained only natural glacial till inclusions. No cultural materials or indications of a cultural feature were identified and the anomaly was subsequently determined to have a highly amorphous and irregular shape. All of these data therefore support the conclusion that this burned feature was either a natural or recent phenomenon.

Further evaluation of the modern topographic map, as well as a 2009 visual survey of the surrounding landforms, strongly suggests that the more logical locations for this site are either further to the north and west along the relatively flat crest of a ridge overlooking the confluence of both Limestone and Cowaselon creeks, or further to the east within the low floodplain lying directly to the west of Cowaselon Creek (Figure 2). This northern ridge location would have offered excellent defensive capabilities and is also the only relatively large portion of level land within this overall area. This location would also be consistent with the known location of the roughly contemporaneous Tuttle Site (discussed above) which was identified less than 1,158 meters (3,800 feet) to the west on the flat crest of a ridge overlooking Limestone Creek. However, as this northern ridge area was largely outside the 130-acre overall project boundaries, and was also in mature beans with a zero percent ground surface visibility, no field evaluations of this hypothesis were conducted. The low floodplain to the east would also have offered a wide, moderately well drained and flat area suitable for a village habitation. Although this area is included within the overall 130-acre project boundaries, and was therefore also included in the non-systematic surface evaluation, it is well outside the current project A.P.E. As a result, this floodplain was not the subject of any intensive phase IB archaeological field investigations. During the 2009 field season this floodplain area was found to be within fallow crops which provided a ground surface visibility of only 10 to 50%. Therefore, although no cultural materials or features which could indicate the presence of the Ingal Site were identified at this location, the 2009 survey conditions were insufficient to eliminate this possibility entirely. In addition, as this area is contained within recent alluvium (Hanna 1981; Soil Map Sheet #20, pp. 96-97), further evaluation of this hypothesis was beyond the current work scope.

However, it is also possible that the Ingal site was simply recorded slightly too far to the east within the OPRHP records and is actually within the dissected ridge-swale landforms to the immediate west of the recorded site location. As this potential site area (as well as the southern edge of the ridge discussed above) were within the 130-acre A.P.E., full field investigations of these areas were conducted during the 2009 field season.

### *The Moon Site*

The Moon site is yet another Late Woodland, Chance Phase Oneida village recorded within this overall area. This site is shown within the OPRHP records as lying to the east of the Buyea site along the western edge of a ridge overlooking the east bank of Cowaselon Creek. Proposed dates of occupation for this site range from c.1425-1475 A.D, which makes the site occupation contemporaneous with that of Buyea. The NYSM files indicate that the site was first identified by Pratt; however, no data concerning this initial evaluation were available. The Moon site is also listed in Wonderley's *Inventory of Oneida Archaeological Sites* (2004). However, no indications of any professional

field evaluations could be identified. Nevertheless, as this site is well outside the areas of proposed project impacts, no further archaeological investigations related to the current project were conducted.

#### *The Bronck Site*

The Bronck site (also recorded as the Bronk site) is also a Late Woodland, Chance Phase Oneida village and is recorded within the OPRHP files to the southeast of the Moon Site along the western edge of the same ridge overlooking the eastern bank of Cowaselon Creek. The proposed dates of occupation for this site are the same as for the Moon site. The NYSM files also indicate that Bronck was first evaluated by Pratt; however, no further information on the site was available. The Bronck site is also listed in Wonderley (2004). However, no indications of any professional field evaluations could be identified. Nevertheless, as this site is also well outside the areas of proposed project impacts, no further archaeological investigations related to the current project were conducted.

#### *The Goff-Putnam Site*

The Goff-Putnam site is another Late Woodland, Chance Phase Oneida village and is recorded in the OPRHP records just to the northeast of the Bronck site. The proposed dates of occupation for this site are the same as for Bronck and Moon. The NYSM files again indicate that this site was first evaluated by Pratt; however, no additional information was available. Wonderley (2004) lists a Goff site, which may be the site in question. However, as this site is also well outside the areas of proposed project impacts, no further archaeological investigations related to the current project were conducted.

#### *Previous Professional Archaeological Investigations*

A review of the available survey files indicated that although the specific project areas have never been the subject of full scale, professional archaeological investigations, at least three professional phase I archaeological surveys have been conducted within one mile. The first survey was a stage I archaeological investigation of the proposed Eisaman soil borrow site conducted by Atlantic Testing Laboratories Limited in 1989 (Oberon 1989). This survey covered a total of 25 acres adjacent to the current landfill expansion project area on its east-central border. Although the Buyea site was recorded to the east within the general project vicinity, and the Tuttle site was recorded almost immediately to the west, no cultural materials related to these sites were identified. This project area is within the current footprint of the existing landfill and was therefore not evaluated further during the current investigation.

The second survey was a phase I investigation of 7 acres along Buyea Road conducted by Pratt and Pratt Archaeological Consultants, Inc. in 1989 (Pratt and Pratt 1989). This area was southeast of the parcel investigated by Oberon, and is also within the current footprint of the existing landfill. Although the Buyea site is recorded directly to the north and east, no cultural materials or features were identified. This project area is directly north of the southern portion of the proposed landfill expansion area which was evaluated during the current investigation.

The final survey was a phase I archaeological investigation of 9 acres related to a proposed wetland reserve program easement conducted by Powers & Teremy, LLC (2004). This survey was conducted to the northeast of the 130-acre soil borrow area at the edge of the one mile interval. Although several Late Woodland village sites are located less than one mile to the south, no archaeological resources were identified. As a result, these surveys suggest that even though fairly intensive Late Woodland occupation took place within the overall area, the materials related to these occupations would appear to be contained within fairly discrete loci of immediate site occupation and use. This settlement and cultural material identification pattern is consistent with the occupation and use of semi-sedentary, often fortified villages where everyday activity areas were most often contained within and/or directly adjacent to, the fortified boundaries of the site.

#### *Pre-contact Sensitivity Assessment*

A review of the archaeological and cultural history for the region indicates that this overall area was highly suitable for human utilization throughout the known pre-contact period, particularly during the Late Woodland. The well drained terrace soils, lying above the fairly wide floodplains of both Limestone and Cowaselon creeks, indicates that this area would have been well suited to a wide variety of pre-contact uses: from opportunistic hunting and gathering to semi-sedentary horticulture. A wide variety of lithic raw materials for stone tool manufacture would also have been readily available from the numerous glacial till deposits. Given this diversity of environments, a wide

variety of wild floral and faunal resources would also have been present within the overall region for exploitation throughout the pre-contact period. As a result, no significant factors beyond acute variations in the local topography were identified which would have restricted pre-contact settlement and/or use of the area.

The current evidence for pre-contact utilization of this area is strongest for the Late Woodland period, particularly the 15<sup>th</sup> century A.D. At least six sites which date to this time period have been recorded within one mile, one of which is known to be within the area of direct landfill expansion project impacts (the Buyea Site) and one which is potentially within the area of soil borrow/development project impacts (the Ingal Site). Although no sites from other pre-contact time periods have yet been recorded within one mile, only three relatively small scale professional archaeological surveys have been conducted within this same interval. As a result, the full archaeological potential of this area has not yet been exhausted. In addition, the review of the natural and environmental setting indicated that the overall project areas would have been highly suitable for human utilization throughout the known pre-contact period. Therefore, given that 1) no systematic archaeological surveys specifically designed to address the pre-contact potential of this overall area have yet been conducted, 2) at least six Late Woodland village sites have already been recorded within one mile, one of which is known to be within and one of which may be within the areas of direct project impacts, and 3) the natural and environmental setting review did not identify any factors which would have eliminated these areas as suitable for pre-contact exploitation, the current project areas are considered to have a high potential to contain both previously undocumented pre-contact sites, as well as additional site information related to the Late Woodland period.

#### *National Register Listed and Eligible Properties*

A review of the available National Register of Historic Places Building Inventories was also undertaken to identify both National Register Listed (NRL) and National Register Eligible (NRE) structures in or adjacent to the proposed project areas. Although no NRL or NRE structures have been recorded within one mile, the available inventories did identify one listed property within the general project vicinity. The listed property is recorded as the Lincoln Town Hall, formerly the Lenox District Schoolhouse #4, constructed between 1854 and 1857. The structure was constructed in the Greek Revival style. At the time of the original inventory assessment, the Town Hall was a clapboard, wood frame building with interlocking joints. The structure was in good condition with original site integrity. This structure is recorded well to the north of the current project areas in Clockville. As a result, any archaeological deposits associated with this structure will not be impacted by the proposed project.

#### *Map-Documented Historic Structures*

The review of available historic maps of the proposed project areas (figures 4, 5, 6, 7, 8 and 9) indicates that numerous historic resources are recorded within and/or around each of the three proposed project areas. All map documented structures identified within and/or adjacent the proposed project areas, as well as all non-residential historic resources within one mile, are discussed by project area below.

#### *Proposed 85-acre Soil Borrow Project Area*

A review of historic maps from 1853, 1859, 1875, 1895 and 1946 indicates that although no structures are shown within the proposed 85-acre soil borrow project area, at least eight are shown as roughly adjacent. Each of these properties is discussed in more detail below.

The 1853 Byles Map of Madison County shows six structures roughly adjacent the boundaries of the proposed 85-acre soil borrow project area (figures 4 and 5). An inspection of a larger scale version of the map (Figure 5) indicates that the first structure is a house on the J. Cooper lot just to the north of the dividing line with the Wm. Tuttle property. This house is situated just to the east of what is now known as Tuttle Road. By 1859 (Figure 6), this structure is shown as the W. Tuttle house<sup>1</sup>. It retains this location and designation on the 1875 map (Figure 7). Although two structures are shown at this location on the 1895 and 1946 quadrangles (figures 8 and 9), no property owner names are provided, but the northern-most mapped structure is most consistent with the Cooper/Tuttle (north) house location. By 1955, three structures are shown (Figure 2). However, by the time of the phase IB field

<sup>1</sup>To avoid confusion with the other Wm. Tuttle house shown within the proposed 92-acre landfill expansion project area, these two structures will be referred to in the remaining text as the north and south Tuttle residences respectively.

inspection, both of the northern-most structures had been razed (including the Cooper/Tuttle house), and the surrounding area had been leveled and graded (Appendix A). Although the southern-most structure was still extant, considerable disturbance was identified within the woodlot extending east from this remaining structure to the ridge above Limestone Creek. This disturbance included excavated soil pits and graded areas, as well as soil and debris dump piles. This area, along with its possible connection to secondary-context materials potentially associated with the Cooper/Tuttle (north) house and adjacent structures, is discussed in detail in the *Results* section. However, as the original location of none of these structures was included in the proposed 85-acre soil borrow project area, no further evaluation of any *in situ* data related to these mapped resources was conducted.

The second roughly adjacent structure on the 1853 map is the F. Bligh house, recorded to the north of the project area on the north side of what is now known as Timmerman Road (figures 4 and 5). However, by 1859 (Figure 6) this structure is no longer shown, suggesting that it had either been abandoned or demolished. The structure is also missing on the 1875 map (Figure 7). However, a structure is shown within this general location on the 1895 quadrangle (Figure 8). As no property owner names are provided, it is unclear at this time if these two structures are related or represent two distinct mapped resources. This structure is not shown on either the 1946 or the 1955 quadrangle (figures 9 and 2). However, as this area was not included in the proposed 85-acre soil borrow project area, no further evaluation of this mapped resource was conducted.

The third roughly adjacent structure on the 1853 map is shown on the south side of Timmerman Road to the east of the F. Bligh house (figures 4 and 5). Although a property owner is not provided on the 1853 map, N. Harp is shown as the property owner in 1859 (Figure 6). By 1875, the owner is identified as A.E. Bridge (Figure 7). A structure is also shown at this location on the 1895, 1946 and 1955 quadrangles (figures 8, 9 and 2); however, as this area was not included in the proposed 85-acre soil borrow project area, no further evaluation of this mapped resource was conducted.

The fourth roughly adjacent structure on the 1853 map is the B. Buyea house (figures 4 and 5), recorded on the west side of Tuttle Road across from the western terminus of a road which marks the dividing line between the Wm. Tuttle and J. Van Dusen properties. Although this road is no longer shown on the quadrangle map of the area in 1955 (Figure 2), a dirt road was identified at this location during the 2004-2005 phase IB field reconnaissance of the adjacent 92-acre project area (Appendix A). The mapped location of this road marks the southern boundary of the 85-acre soil borrow project area, and as such, was not directly evaluated during the current investigation. Although a structure is no longer shown at this location on the 1859 map (Figure 6), a house is shown in a new location just to the south within the same property (B. Buyea). The structure retains this location on the 1875, 1895, 1946 and 1955 maps respectively (figures 7, 8, 9 and 2). Although the 1875 map identifies the property owner as Mrs. Buyea, similar information is not provided on the subsequent maps. Although it is unclear if two distinct Buyea structures are represented by the historic maps, or if the 1853 location of the structure was in error, as this area was not included in the proposed 85-acre soil borrow project area, no further evaluation was conducted.

The fifth roughly adjacent structure on the 1853 map is the J. Van Dusen house (figures 4 and 5), recorded just to the east of a mapped waterway and just to the south of the road lying between the adjacent Tuttle property to the north. Although this location would appear to indicate that this structure is within the 92-acre landfill expansion project area (Figure 2), the 1859 map (Figure 6) indicates that the single waterway shown on the 1853 map is actually both the main waterway and a southwest-tending tributary. In 1859, the main waterway is identified as Troup Creek; however, it is recorded today as Limestone Creek. The name of the tributary is not shown. As the 1859 map, the 1875 map and the 1895 map (figures 6, 7 and 8) all show the structure on the Van Dusen property as west of Limestone Creek, the location shown on the 1853 map is presumed to be in error. The 1859 map (Figure 6) still identifies the property owner as J. Van Dusen; however, by 1875 (Figure 7), the property has passed to O. Van Dusen. Although the 1895 quadrangle still shows a structure at this location (Figure 8), it is missing on both the 1946 and the 1955 quadrangles (figures 9 and 2). However, as the area west of Limestone Creek and south of the proposed 85-acre soil borrow area is not within the proposed landfill expansion A.P.E., no further evaluation of this mapped resource was conducted.

The sixth roughly adjacent structure on the 1853 map is the Wm. Tuttle (south) house (figures 4 and 5), recorded just to the north of the road between the Tuttle and Van Dusen properties. This structure is within the proposed 92-acre landfill expansion A.P.E., and cultural materials related to this resource were identified during the phase IB field investigation. These archaeological data are discussed in detail in that section. The W. Tuttle (south) house is shown again on the 1859 map (Figure 6), the 1875 map (Figure 7), and the 1895 map (Figure 8). However,

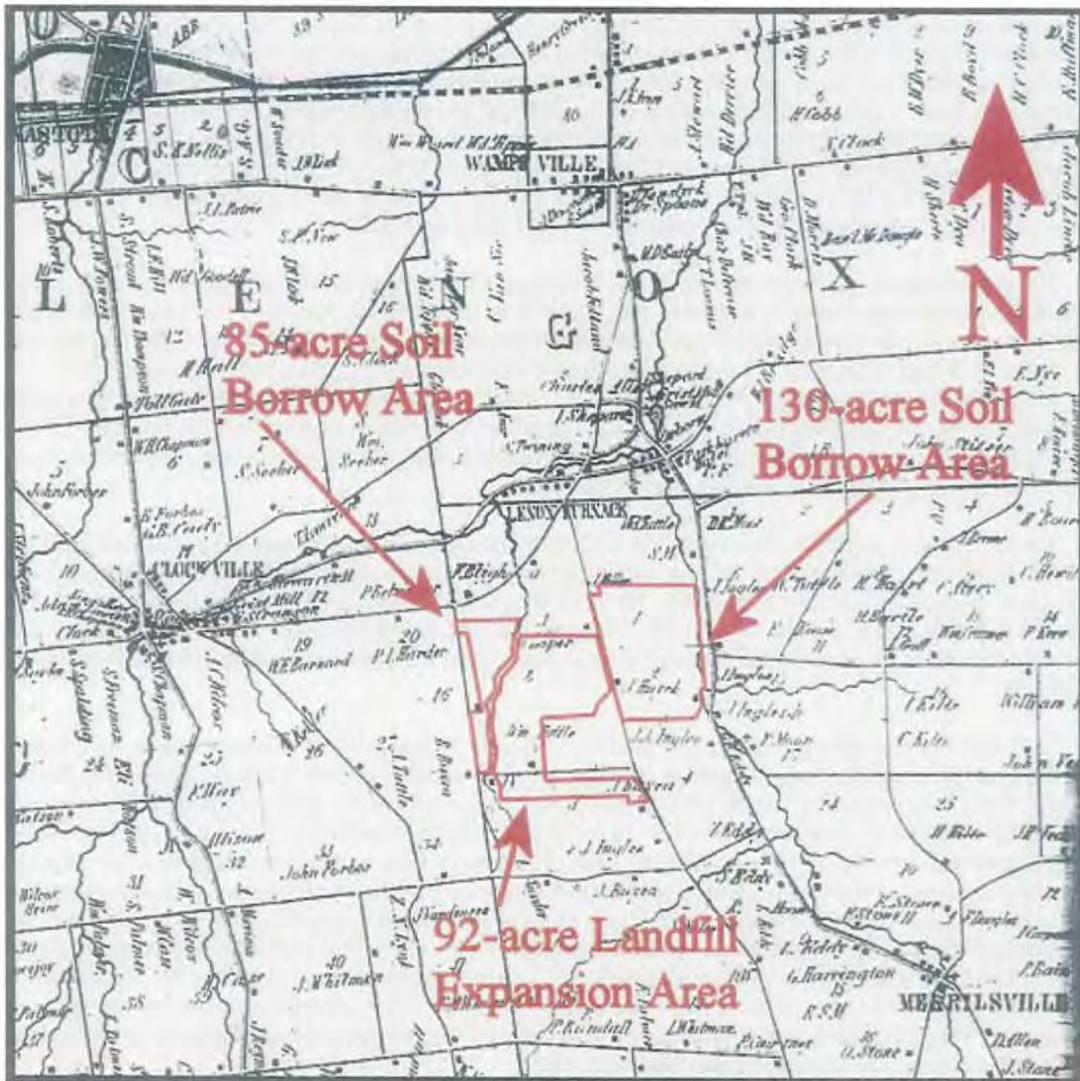


Figure 4. Location of the project areas as shown on a portion of the 1853 Byles' Map of Madison County, New York.

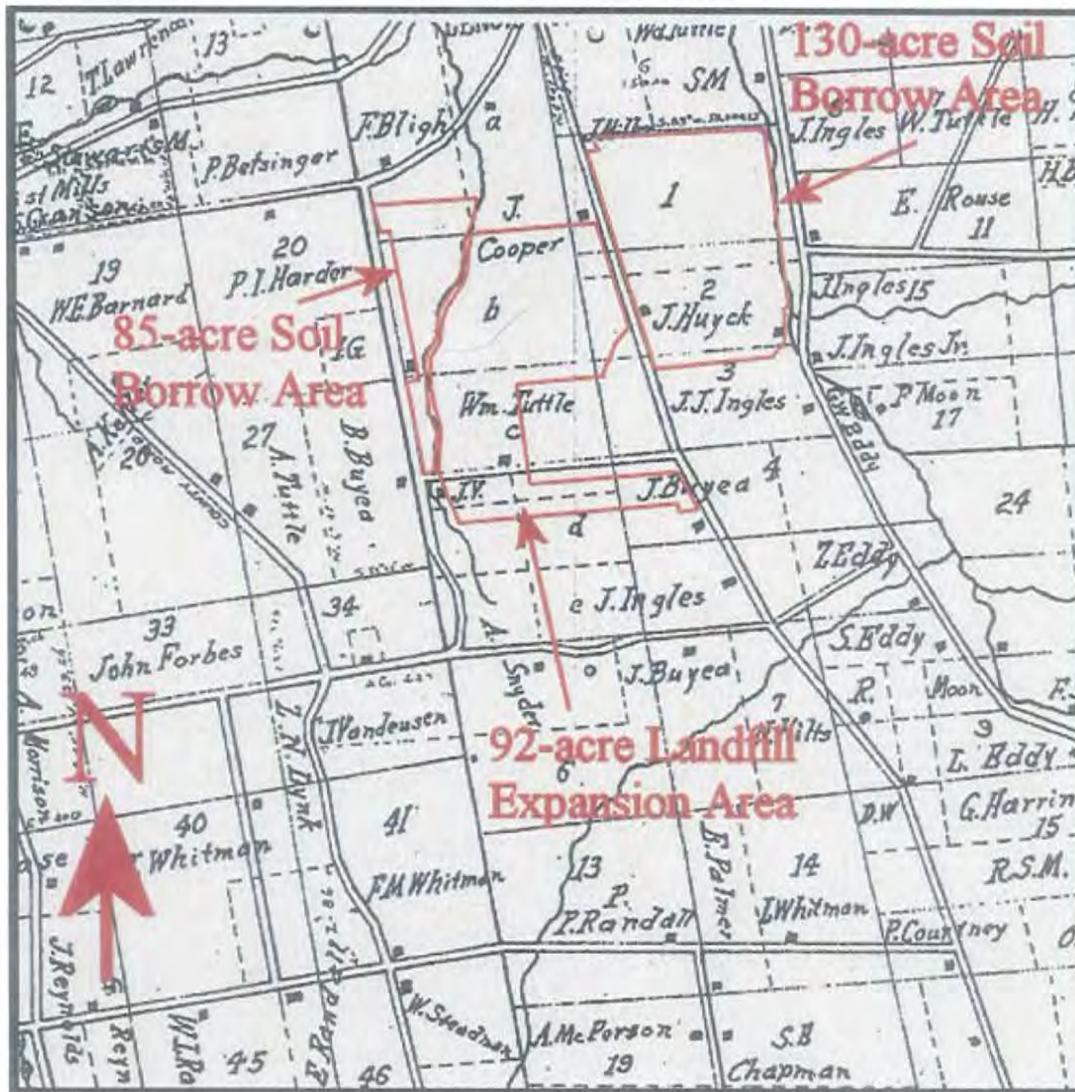


Figure 5. Location of the project areas as shown on a detail portion of the 1853 Byles' Map of Madison County, New York.



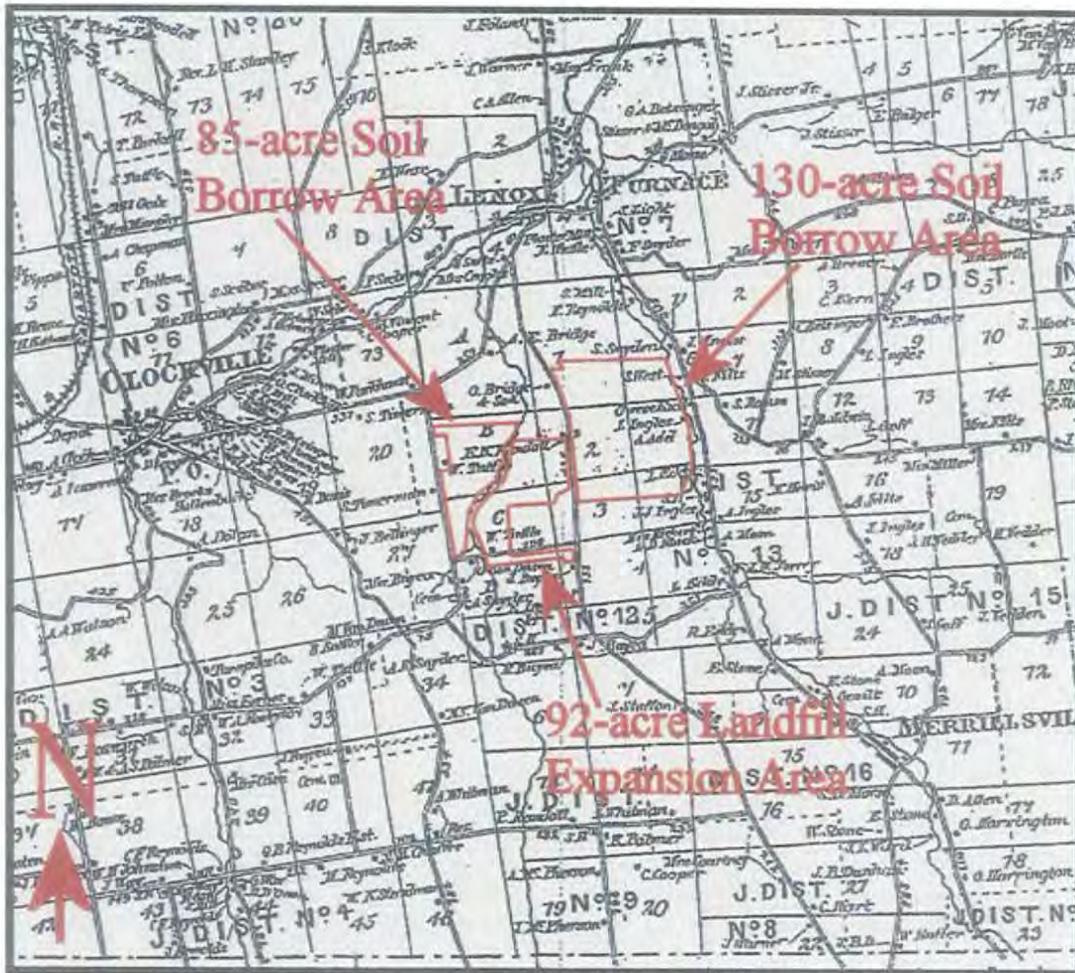


Figure 7. Location of the project areas as shown on a portion of the 1875 Beers' Map of Madison County, New York.

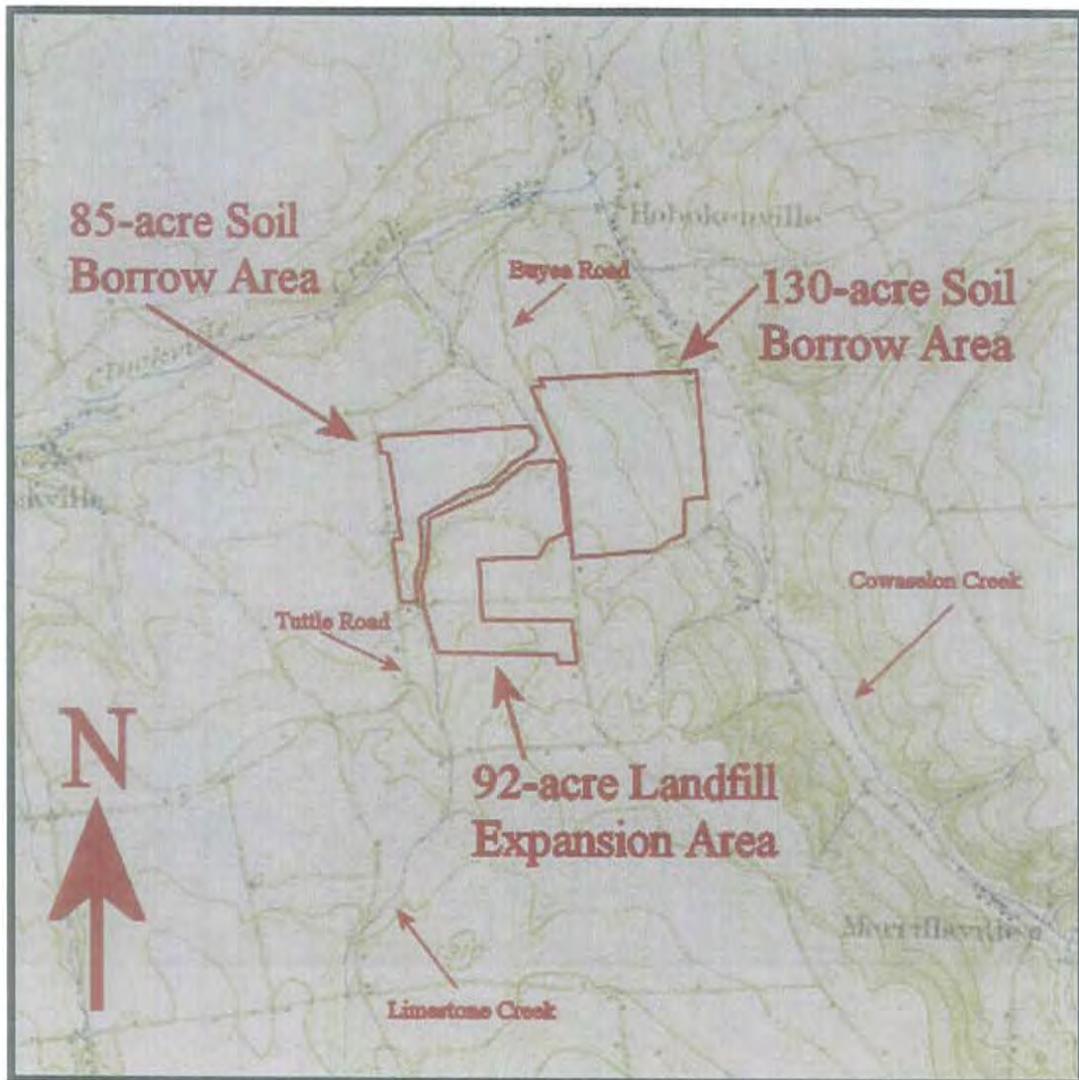


Figure 8. Location of the project areas as shown on a portion of the 1895 Oneida, New York quadrangle map.

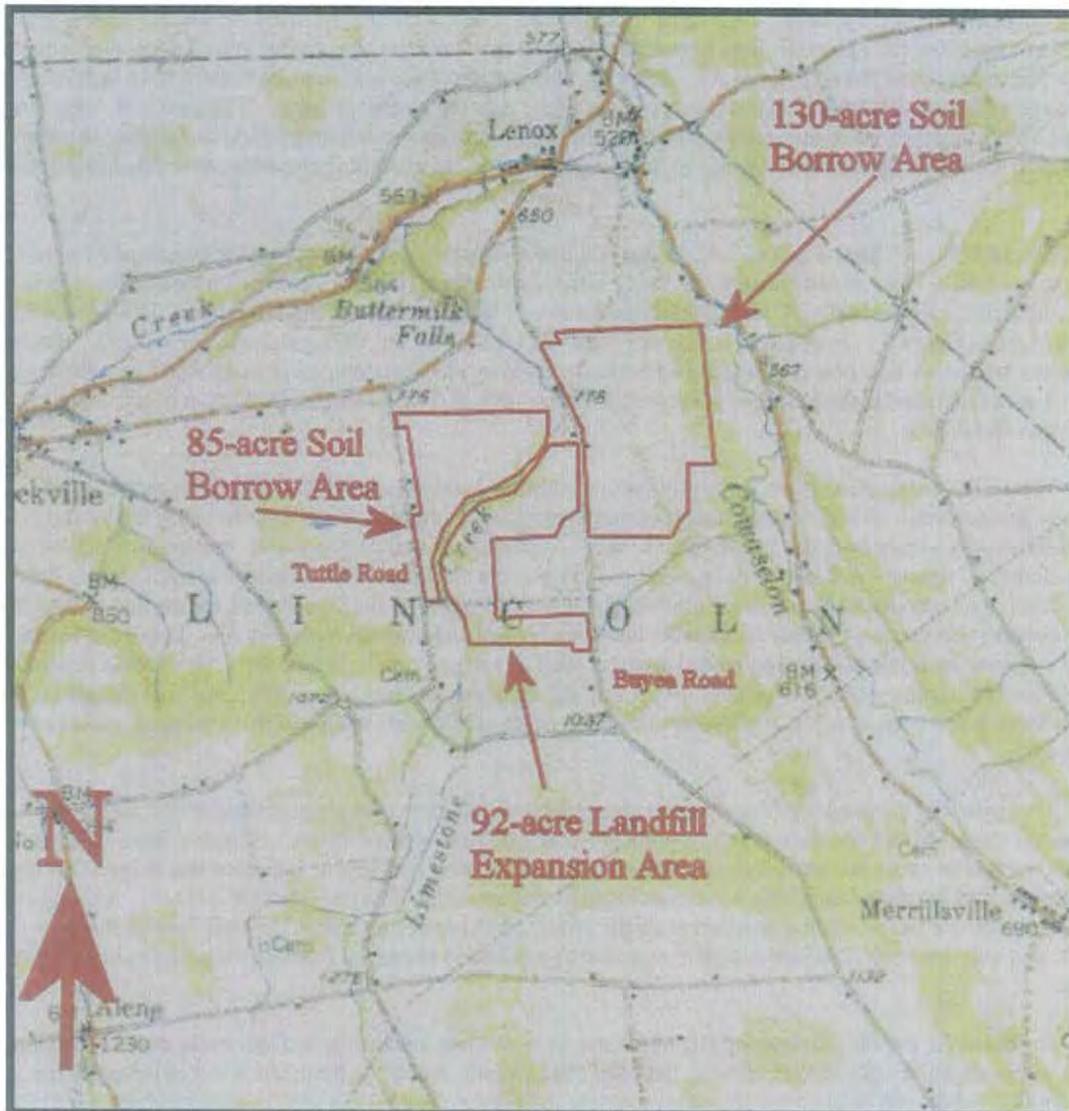


Figure 9. Location of the project areas as shown on a portion of the 1946 Oneida, New York 15' quadrangle map.

the structure is no longer present on the 1946 or the 1955 quadrangles (figures 9 and 2). The road marking the property line between the Tuttle and Van Dusen properties also ceases to be shown as a solid line after 1895 (Figure 8). The 1946 quadrangle (Figure 9) shows the road as "unimproved" and it is missing from the 1955 quadrangle (Figure 2). At the time of the 2004-2005 phase IB field inspection, the portion of the road adjacent the Wm. Tuttle (south) house to the south was unimproved dirt (Appendix A). However, this portion of the road appears to have been kept relatively clear through periodic use related to maintenance and use of the existing landfill grounds. The road is no longer extant to the east of this location, while the western portion of the road is outside the current project boundaries. As the Wm. Tuttle (south) house was re-identified during the field inspection, this structure is discussed in more detail in the *Results* section.

The 1859 French map (Figure 6) shows one additional structure roughly adjacent the proposed 85-acre soil borrow project area. This structure is shown as the L. Timmerman house (Figure 6) and is recorded on the west side of Tuttle Road to the southwest of the Wm. Tuttle (north) house. This structure is identified as the S. Timmerman house on the 1875 map (Figure 7). A structure is also shown at this location on the 1895 quadrangle (Figure 8). However, no structures are shown at or near this location on either the 1946 or 1955 quadrangles (figures 9 and 2). However, as this area was not included in the proposed 85-acre soil borrow project area, no further evaluation of this mapped resource was conducted.

The 1895 quadrangle (Figure 8) also shows one additional structure roughly adjacent the proposed 85-acre soil borrow project area. This structure is recorded just to the south of the Wm. Tuttle (north) house on the east side of Tuttle Road directly across from the Timmerman house. A structure is also shown at this location on the 1946 and 1955 quadrangles (figures 9 and 2). Although no property owners are identified, a structure is still extant at this location today. As mentioned above, at the time of the 2004-2005 phase IB field inspection, the portion of the project area surrounding this structure within the woodlot had been leveled and graded (Appendix A). This disturbance included excavated soil borrow pits and graded areas, as well as soil and debris dump piles. This area is discussed in more detail in the *Results* section. However, as the original location of none of these structures was included in the proposed 85-acre soil borrow A.P.E., no further evaluation of any *in situ* data related to these mapped resources was conducted.

The review of the available historic maps also indicated that more than six dozen additional residential structures are shown within one mile of the proposed 85-acre soil borrow project area. However, none of these additional residential structures are within close proximity. In addition, this review indicated that at least two dozen non-residential historic resources and/or businesses are also present within the same one mile interval. Although none of these resources are shown within, or adjacent to, the proposed 85-acre project area, they still help to illustrate the economic and industrial growth of the overall area, and are therefore an important factor in assessing the area's historic potential.

For example, the 1853 Byles map (figures 4 and 5) shows two grist mills, two saw mills, and the Parkhurst Hotel all within one mile. By 1859 (Figure 6), the hotel and saw mills are still present, while one of the grist mills is no longer shown. Additional resources within one mile now include two blacksmith shops, one additional saw mill, a paper mill, three cemeteries, four schoolhouses, and two structures for J. & H. Cook (nature of business unknown). In 1875 (Figure 7) the hotel is no longer identified and only two of the saw mills are still shown. J. & H. Cook is also now missing, but all of the remaining resources are still listed. New resources include two plaster mills, one new grist mill, a cheese factory, one new schoolhouse and O. Bridge & Son (nature of business again unknown). Overall, these resources document intensive historic use of the region surrounding and within the proposed 85-acre soil borrow project area.

#### *Proposed 92-acre Landfill Expansion Project Area*

A review of historic maps from 1853, 1859, 1875, 1895 and 1946 indicates that one structure is shown within the proposed 92-acre landfill expansion project area, and at least seven structures are shown as roughly adjacent. Each of these properties is discussed in more detail below.

The 1853 Byles Map of Madison County (figures 4 and 5) shows that the Wm. Tuttle (south) house is within the proposed 92-acre landfill expansion project area and A.P.E. This structure is recorded just to the north of the road between the Tuttle and Van Dusen properties, and materials related to this resource were identified during the 2004-2005 phase IB field investigation. These archaeological data are discussed in detail in that section. The Wm.

Tuttle (south) house is shown again on the 1859 map (Figure 6), the 1875 map (Figure 7), and the 1895 map (Figure 8). However, the structure is no longer present on the 1946 or the 1955 quadrangle (figures 9 and 2). The road marking the property line between the Tuttle and Van Dusen properties also ceases to be shown as a solid line after 1895 (Figure 8). The 1946 quadrangle (Figure 9) shows the road as "unimproved" and it is missing from the 1955 quadrangle (Figure 2). At the time of the 2004-2005 phase IB field inspection, the portion of the road adjacent the Wm. Tuttle (south) house to the south was unimproved dirt (Appendix A). However, this portion of the road appears to have been kept relatively clear through periodic use related to maintenance and use of the existing landfill grounds. The road is no longer extant to the east of this location, while the western portion of the road is outside the current project boundaries. As the Wm. Tuttle (south) house was re-identified during the field inspection, this structure is discussed in more detail in the *Results* section.

The first structure roughly adjacent the proposed 92-acre landfill expansion project area on the 1853 map is the J. Buyea house (figures 4 and 5). This structure is recorded just to the south of the southern boundary of the project area on the west side of Buyea Road. This structure is still identified as the J. Buyea residence on both the 1859 and 1875 maps (figures 6 and 7). Although it is missing from the 1895 quadrangle (Figure 8), a structure is shown in this general location on both the 1946 and 1955 quadrangles (figures 9 and 2). Although it is unclear if this is the same structure, or indicates two distinct structures, as this area was not included in the proposed 92-acre landfill expansion project area, no further evaluation of this mapped resource was conducted.

The second roughly adjacent structure on the 1853 map is the B. Buyea house (figures 4 and 5). This structure is recorded on the west side of Tuttle Road across from the western terminus of the road which marks the dividing line between the Wm. Tuttle and J. Van Dusen properties. Although this road is no longer shown on the quadrangle map of the area in 1955 (Figure 2), a dirt road was identified at this location during the phase IB field reconnaissance of the adjacent 92-acre project area (Appendix A). The mapped location of this road also marks the southern boundary of the 85-acre soil borrow project area to the west, and as such, only those portions within the landfill expansion A.P.E. were directly evaluated during the current investigation. Although a structure is no longer shown at the same location on the 1859 map (Figure 6), a house is shown in a new location just to the south within the same property (B. Buyea). The structure retains this location on the 1875, 1895, 1946 and 1955 maps respectively (figures 7, 8, 9 and 2). Although the 1875 map (Figure 7) identifies the property owner as Mrs. Buyea, similar information is not provided on the subsequent maps. Although it is unclear if two distinct Buyea structures are represented by the historic maps, or if the 1853 location of the structure was in error, as this area was not included in the proposed 92-acre landfill expansion project area, no further evaluation was conducted.

The third roughly adjacent structure on the 1853 map is the J. Cooper house (figures 4 and 5). An inspection of a larger scale version of the map (Figure 5) indicates that this house is shown on the J. Cooper lot just to the north of the dividing line with the Wm. Tuttle property, and is situated just to the east of what is now known as Tuttle Road. By 1859 (Figure 6), this structure is shown as the W. Tuttle house. It retains this location and designation on the 1875 map (Figure 7). Although two structures are shown at this location on the 1895 and 1946 quadrangles (figures 8 and 9), and no property owner names are provided, the northern-most mapped structure is most consistent with the Cooper/Tuttle (north) house location. By 1955, three structures are shown (Figure 2). However, as this area was not included in the proposed 92-acre landfill expansion project area, no further evaluation was conducted.

The fourth roughly adjacent structure on the 1853 map is shown on the south side of Timmerman Road to the north of the 92-acre project area (figures 4 and 5). Although a property owner is not provided on the 1853 map, N. Harp is shown as the property owner in 1859 (Figure 6). By 1875, the owner is identified as A.E. Bridge (Figure 7). A structure is also shown at this location on the 1895, 1946 and 1955 quadrangles (figures 8, 9 and 2); however, as this area was not included in the proposed 92-acre landfill expansion project area, no further evaluation of this mapped resource was conducted.

The fifth roughly adjacent structure on the 1853 map is the J. Huyck house (figures 4 and 5). This structure is recorded on the east side of Buyea Road slightly to the north and east of the Wm Tuttle (north) house. The 1859 map (Figure 6) identifies this structure as the J.P. Huyck house, and the 1875 map identifies it as the easternmost E.K. Randall house (Figure 7). A structure is still shown at this location on the 1895, 1946 and 1955 quadrangles (figures 8, 9 and 2). This location is within the proposed 130-acre soil A.P.E. and this area was evaluated during the 2009 field season. The data recovered from this investigation are provided in the *Results* section.

The sixth roughly adjacent structure on the 1853 map is the J. Miller house (figures 4 and 5). This structure is recorded just to the north of the 92-acre project area on the west side of Buyea Road. The 1859 map (Figure 6) shows the structure as the S. Miller house, while the 1875 map (Figure 7) shows the structure as the property of O. Bridge & Son. However, the nature of this business was not provided. A structure is still shown at this location on the 1895, 1946 and 1955 quadrangles (figures 8, 9 and 2). However, as this area was not included in the proposed 92-acre landfill expansion project area, no further evaluation was conducted.

The seventh roughly adjacent structure on the 1853 map is the J. Van Dusen house (figures 4 and 5), recorded just to the east of a mapped waterway and just to the south of the road lying between the adjacent Tuttle property to the north. Although this location would appear to indicate that this structure is within the landfill expansion project area (Figure 2), the 1859 map (Figure 6) indicates that the single waterway shown on the 1853 map is actually both the main waterway and a southwest-tending tributary. In 1859, the main waterway is identified as the Troup Creek; however, it is recorded today as Limestone Creek (figures 6 and 2). The name of the tributary is not shown. As the 1859 map, the 1875 map and the 1895 map (figures 6, 7 and 8) all show the structure on the Van Dusen property as west of Limestone Creek, the location shown on the 1853 map (figures 4 and 5) is presumed to be in error. The 1859 map (Figure 6) still identifies the property owner as J. Van Dusen; however, by 1875 (Figure 7), the property has passed to O. Van Dusen. Although the 1895 quadrangle still shows a structure at this location (Figure 8), it is missing on both the 1946 and the 1955 quadrangle (figures 9 and 2). However, as the area west of Limestone Creek and south of the proposed 85-acre soil borrow area is not within the proposed landfill expansion project area, no further evaluation of this mapped resource was conducted.

One additional structure is shown as roughly adjacent the 92-acre landfill expansion project area on the 1875 map (Figure 7). This structure is shown as the western-most E.K. Randall house, on the west side of Buyea Road directly across from the J.P. Huyck house. The structure is not shown on the 1895 quadrangle (Figure 8); however, a structure is shown within this general location in 1946 and 1955 (figures 9 and 2). However, as this location is within the footprint of the existing landfill, no further evaluation of this mapped resource was conducted.

One additional structure is also shown as roughly adjacent the 92-acre landfill expansion project area on the 1895 quadrangle (Figure 8). This structure is recorded on the east side of Buyea Road just to the north of the eastern terminus of the road between the Tuttle and Van Dusen properties; however, this structure is missing from the 1946 quadrangle (Figure 9). The 1955 quadrangle (Figure 2) indicates that this structure was recorded south of the proposed 130-acre soil borrow area and is currently within the closed landfill footprint. As a result, no further evaluation of this mapped resource was conducted.

The review of the available historic maps also indicated that more than six dozen additional residential structures are shown within one mile of the proposed 92-acre landfill expansion project area. However, none of these additional residential structures are within close proximity. In addition, this review indicated that at least two non-residential historic resources and/or business are also present within the same one mile interval. Although none of these resources are shown within, or adjacent, the proposed 92-acre project area, they still help to illustrate the economic and industrial growth of the overall area, and are therefore an important factor in assessing the area's historic potential. All of these additional resources are discussed in detail in the section above.

#### *Proposed 130-acre Soil Borrow/Development Project Area*

A review of historic maps from 1853, 1859, 1875, 1895 and 1946 indicates that although five structures are shown within the overall 130-acre soil borrow project area, only one of these structures is actually within the current A.P.E. At least five additional structures are also shown as roughly adjacent along the west of bank of Cowaselon Creek. Each of these properties is discussed in more detail below.

The 1853 Byles Map of Madison County (figures 4 and 5) shows one structure within the proposed 130-acre A.P.E. and one structure within the overall project area. Both of these structures are on the J. Huyck property. The first Huyck structure is recorded on the east side of Buyea Road slightly to the north and east of the Wm Tuttle (north) house within the current A.P.E. boundaries. The 1859 map (Figure 6) identifies this structure as the J.P. Huyck house, and the 1875 map identifies it as the easternmost E.K. Randall house (Figure 7). A structure is still shown at this location on the 1895, 1946 and 1955 quadrangles (figures 8, 9 and 2), and several outbuildings were still present at this location at the time of the 2009 investigation. However, this area also contains a modern house and several associated garages and barns, and considerable development of the surrounding landscape has since taken place. Nevertheless,

further evaluation of this structure was completed during the 2009 field season. The results of these investigations have been provided in the *Results* section. The second Huyck structure on the 1853 map (figures 4 and 5) is shown to the southeast on the west side of the Cowaselon Creek; however, this structure is missing from the 1859 and subsequent maps (figures 6 through 9). Although this location is within the overall 130-acre project boundaries, this area is neither within nor adjacent the current A.P.E. As a result, no further archaeological evaluations related to the current investigation were conducted.

The 1859 map (Figure 6) shows two additional structures within the overall 130-acre soil borrow area, but well outside the current A.P.E. boundaries. The first of these structures is the C. Adle house, shown to the northeast of the westernmost (1853) J.P. Huyck house to the west of Cowaselon Creek. This structure is shown as the L. Ingles house on the 1875 map (Figure 7), but is either missing from the 1895 map (Figure 8) or is one of the structures now shown within the Cowaselon Creek floodplain. Irregardless, this area is outside the current project A.P.E.. The second structure is the A. Adle house shown to the north of the C. Adle house near the northern border of the project area along the west bank of Cowaselon Creek (Figure 6). However, no structures are shown at this location on any of the subsequent maps (figures 7 through 9). However, as all of these structures are well outside the current A.P.E., no further archaeological evaluations related to the current investigation were conducted.

The 1875 map (Figure 7) shows one additional structure within the overall 130-acre project area, but again well outside the current A.P.E. boundaries. This structure is identified as the A. Adle house, to the south of the C. Adle/L. Ingles house along the west bank of Cowaselon Creek. Although this structure shares the name with the 1859 A. Adle structure (Figure 6), it is shown considerably further to the south, roughly parallel with the eastern-most E.K. Randall house. As a result, this would appear to be a distinct structure. However, the 1895 quadrangle (Figure 8) shows two structures roughly matching the location of the A. Adle (1875, Figure 7) and C. Adle/L. Ingles houses outside the 130-acre project boundaries within the Cowaselon Creek floodplain. These structures are shown as roughly adjacent the creek on the previous maps. As a result, it is highly possible that both of these latter structures are actually outside of the overall project boundaries.

The remaining five roughly adjacent structures are all shown to the west of Cowaselon Creek on the historic maps (figures 4 through 9). The 1853 map (figures 4 and 5) identifies two of these structures as the J.J. Ingles house and the J. Miller house. The Ingles house is shown to the south of the southern project boundary. This structure is shown on the 1859 and 1875 maps (figures 6 and 7), but is no longer shown by 1895 (Figure 8). The Miller house is shown to the west of Buyea Road, and is also roughly adjacent the northern border of the 92-acre project area. The 1859 map (Figure 6) shows the structure as the S. Miller house, while the 1875 map shows the structure as the property of O. Bridge & Son. However, the nature of this business was not provided. A structure is still shown at this location on the 1895, 1946 and 1955 quadrangles (figures 8, 9 and 2). However, as this area was not included in the proposed 92-acre landfill expansion project area, no further evaluation was conducted.

The third roughly adjacent structure is the E.K. Randall (west) house, shown along the western border of Buyea Road in 1875 (Figure 7). However, by 1895 (Figure 8), this structure is no longer shown. The mapped location of this structure is within the existing landfill footprint, and therefore outside the current project boundaries. As a result, no further archaeological evaluations were conducted. The final two roughly adjacent structures are only shown on the 1895 and 1946 quadrangles (figures 8 and 9). As a result, no property owner names were available. The first of these structures is shown to the south of the 130-acre project boundaries, just to the east of Buyea Road. However, this structure is missing by 1946 (Figure 9). The final structure is shown to the west of Buyea Road, just to the north of the 92-acre project area (figures 9 and 2). At the time of the phase IB field evaluations, a structure was still extant at this location (Appendix A). However, as this area was outside the project boundaries, no further evaluations were conducted.

The review of the available historic maps also indicated that more than seven dozen additional residential structures are shown within one mile of the proposed 130-acre soil borrow project area. However, with the exception of the structures shown along the east bank of Cowaselon Creek, none of these additional residential structures are in close proximity. In addition, this review indicated that at least two dozen non-residential historic resources and/or businesses are also present within the same one mile interval. Although none of these resources are shown within, or adjacent, the proposed project area, they still help to illustrate the economic and industrial growth of the overall area, and are therefore an important factor in assessing the area's historic potential. All of these additional resources are discussed in detail in the section above.

### *Historic Settlement Patterns*

Although the site file search identified no historic archaeological sites or National Register Listed or Eligible properties, one listed property is within the general project vicinity. The listed property is recorded as the Lincoln Town Hall, formerly the Lenox District Schoolhouse #4, constructed between 1854 and 1857. The structure was constructed in the Greek Revival style. At the time of the original inventory assessment, the Hall was a clapboard, wood frame building with interlocking joints. The structure was in good condition with original site integrity. This structure is recorded well to the north of the current project areas in Clockville. As a result, any archaeological deposits associated with this structure will not be impacted by the proposed project.

The review of the region's historic development indicates that this area was highly active in the 19<sup>th</sup> century development of Madison County. For example, a review of the historic maps of the project areas shows that at least one dozen historic residences are shown as either within or adjacent to these areas from 1853 onward. At least two dozen non-residential structures are also shown within one mile from at least the mid 1800s. Although none of these structures are shown within the 85-acre project area, at least five are potentially shown as within the overall 130-acre project area, and one is shown within the 92-acre project area. This latter structure, the Wm. Tuttle (south) house, was re-identified during the 2004-2005 phase IB field investigation, and is discussed in detail in the *Results* section. Although one map-documented structure is within the 130-acre A.P.E., and was therefore evaluated during the 2009 field season, none of the remaining four structures are within or adjacent to the current A.P.E. As a result, these latter four structures will still need to be evaluated if and when the 130-acre A.P.E. is expanded.

Overall, these maps indicate fairly intensive historic use of the region surrounding the current project areas from the mid-19<sup>th</sup> century onwards, and document increasingly intensive Euro-American settlement of the region from the 18<sup>th</sup> century onwards.

### *Historic Sensitivity Assessment*

The evidence for historic utilization of the proposed project areas is provided by map-documented structures and 19<sup>th</sup> century histories. Although no historic archaeological sites, National Register Listed or National Register Eligible properties which can be related to these data have yet been identified, these specific areas have never been the subject of professional archaeological investigations. In addition, at least two map documented historic structures are shown as potentially within the 92-acre and 130-acre A.P.E.s, respectively, and at least four additional map-documented structures are shown as potentially within the remaining portions of the overall 130-acre project area. Therefore, given the long documented historic occupation of the region, the current project areas are considered to have a high potential to contain previously undocumented historic resources, especially as related to the map documented structures discussed above.

In addition, two potential sources of non-structure related historic archaeological materials were also identified. First, as portions of all three project areas lie adjacent to (and in some cases are intersected by) historic roads and farmlanes, there is a potential for materials discarded along these roadsides to be present. Although interpretation of the significance of such materials can be highly problematic, their presence can provide basic information on socioeconomics. Secondly, as significant portions of all A.P.E.s were used for historic agriculture, there is a potential for historic middens established within these areas to be present. Although definitive association with a specific farmstead can be problematic, investigation of such deposits is critical to expanding our understanding of local lifeways, and given the general proximity of the mapped historic residences, any identified midden deposits will most likely be related to these occupations. Therefore, the potential for previously unidentified, non-structure related historic archaeological sites to be present within the current A.P.E.s was also considered to be high.

### **Archaeological Survey Methodology**

The 2004 field investigations were completed by Nikki Waters, Mary Trudeau, Jeannelle Trudeau and Joseph Trudeau, with occasional supplementary work provided by Jeffery Shaner. Primary fieldwork was completed during August and September of 2004 under the direct supervision of Nikki A. Waters, M.A. However, supplemental surface inspection of the Late Woodland Tuttle site was completed by the author during November and December of 2004. Additional project photographs were also taken in the spring and summer of 2005. The 2009 field investigations were completed by Nikki Waters with some limited volunteer assistance by Tamra Reece. Fieldwork was completed between June and September of 2009. All aspects of this evaluation were conducted in accordance with the New York

Archaeological Council's *Standards for Cultural Resource Investigations* (1994) as adopted and required by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP), as well as to the *Phase I Archaeological Report Format Requirements* as published and required by the OPRHP (2005). The specific methodology employed within each of the project areas is discussed in more detail below.

#### *Surface Inspection*

##### *Proposed 85-acre Soil Borrow Project Area*

##### *Non-Systematic*

A non-systematic pedestrian survey of the proposed 85-acre soil borrow project area was conducted by the author on August 2<sup>nd</sup>, 2004. As this area was dominated by tall corn at the time of the phase IB assessment, the majority of this inspection was restricted to an evaluation of the ground surface visibility at random locations along the margins of the corn field. However, this inspection also included an evaluation of any readily visible areas of potentially significant disturbance. The narrow woodlot was also assessed for subsequent subsurface testing, as well as surface indications of pre-contact and/or historic archaeological sites. As all suitable agricultural portions of this area were already under cultivation, the identification of additional areas suitable for subsequent plowing was unnecessary. Although the northeastern corner of this project area was observed to be in tall grass, and the northwestern margin was within low scrub grass, as these areas were not scheduled for ground-disturbance or earth-moving activities, no further evaluations were conducted.

The locations of the structures shown on the historic maps of the region were also visually evaluated and compared to the project map to ensure that no portions of these non-extant structures or their directly adjacent grounds were included in the proposed soil borrow A.P.E.. Although historic debris spoil piles were identified on the surface within the narrow woodlot to the south and east of these locations, the full nature and extent of these disturbed areas was not immediately clear. As a result, these piles were included in the subsequent shovel test reconnaissance.

##### *Systematic*

At the time of the 2004-2005 phase IB investigation, the overwhelming majority of this A.P.E. was in tall corn with a ground surface visibility suitable for a visual pedestrian survey. As a result, all tall corn areas were evaluated for archaeological resources at 3 meter initial intervals. When possible, the visual survey followed the existing corn rows; however, the entire field was not planted in a Cartesian grid and many of the rows overlapped and/or converged with others. As a result, labeled flagging tape marking the beginning and ends of transects, as well as GPS coordinates of the same points, were used to help ensure full coverage of the entire field. If any areas were in doubt, they were re-evaluated.

When cultural materials were identified, the initial 3 meter survey interval was reduced to 1 meter (3 foot) or less (one corn row) until the horizontal extent of the scatter was determined. This was typically established by at least 30 meters (98 feet) of negative surface inspection in each direction; however, as all artifact locations were recorded by GPS, related scatters "hidden" by the poor horizontal eye-height visibility within the tall corn were revealed in the lab. All artifact locations were pin flagged and recorded by GPS. All materials were then collected by pin flag coordinates. Shovel tests were subsequently excavated at 61 meter (200 foot) intervals throughout the surface-inspected area in order to further evaluate each artifact scatter, evaluate the soil stratigraphy and assess the potential for deeply buried cultural materials and/or features to be present. The specific shovel test methodology employed is described in detail in the next section.

##### *Proposed 92-acre Landfill Expansion Project Area*

##### *Non-Systematic*

A non-systematic pedestrian survey of the proposed 92-acre landfill expansion project area was conducted by the author on August 2<sup>nd</sup>, 2004 in order to identify areas of potentially significant disturbance, gather data relevant to formulating an effective subsurface testing strategy, identify agricultural areas suitable for subsequent plowing, and identify any surface indications of precontact and/or historic archaeological resources prior to the initiation of more intensive subsurface evaluations.

The initial pedestrian survey was conducted through a non-systematic visual inspection of all portions of the proposed landfill expansion project area. The majority of this area was determined to be in secondary growth woodland, with less than half in either active agricultural crop land, fallow scrub grass, or significantly disturbed and graded areas. Portions of the wooded section were also determined to be significantly sloped. However, with the exception of only a few areas of extremely steep slope along the southern border, no wooded portions of the project area were subsequently excluded from subsurface testing. Likewise, isolated areas of significant previous disturbance (such as dirt/gravel roads and excavated test wells) were localized enough that the standard test pit interval could be modified accordingly to evaluate around them. Within areas of significant grading and/or excavation, a visual evaluation was conducted of the spoil piles and excavation cuts in order to confirm their nature and extent into the lower portions of the subsoil. If the visual inspection was determined to be sufficient to establish significant previous disturbance, no further evaluations were conducted. However, if the full nature and extent of the disturbance was at all in question, the area was included in the subsequent shovel test probe reconnaissance.

#### *Systematic*

Two active agricultural fields were also identified as suitable for subsequent plowing within the 92-acre landfill expansion A.P.E. As the cultivated portions of these fields were in standing hay at the time of the 2004-2005 phase IB investigation, parallel strip plowing at no more than 9 meter (30 foot) intervals was selected in order to minimize overall crop damage. Although all of the southernmost field was determined to be suitable for this technique, the western two-thirds of the northernmost field was observed to be separated from the remainder of the area by a steep-sided swale. This portion of the northern field was observed to be fallow, with scrub grass, shrubbery and scattered young saplings. As this swale prevented access to this area by the tractor and plow, and no other suitable access points to this area were identified, the western two-thirds of the north field were not evaluated during either the 2004-2005 or the 2009 field season; only the wooded portions of this A.P.E. had been scheduled for systematic, subsurface inspection. Therefore, if ground disturbance or earth-moving is planned for this area, a supplemental phase IB shovel test probe investigation within this specific area will still be needed.

However, following harvest of the cultivated portions of these fields, strips were plowed parallel to Buyea Road beginning just to the west of the disturbed portion of the road right-of-way. Each strip was then disced in order to smooth the cut furrows. Following suitable rain-washing, all strips were systematically inspected through visual pedestrian transects at 1 to 3 meter (3 to 10 foot) intervals. At least three transects were placed within each plowed strip. When cultural materials were identified, a pin flag was placed at each find spot until the full distribution of the scatter within the strip at 1 meter (3 foot) or less intervals was determined. All artifact find spots were then recorded by GPS, and the materials bagged by pin flag coordinates. Shovel test probes were subsequently excavated at 61 meter (200 foot) intervals between the plowed strips in order to evaluate the soil stratigraphy and assess the potential for deeply buried cultural materials and/or features to be present. The specific shovel test methodology employed is described in detail in the next section.

The non-systematic visual inspection also determined that the open, grassy areas to the north and west of the existing landfill were also suitable for subsequent plowing. Although these areas had previously been under cultivation, they have since been left fallow. As tall grass covered the majority of these areas at the time of the 2004-2005 phase IB evaluation, all portions for subsequent plowing were first mowed. Parallel strips were then plowed within these areas at no more than 9 meter (30 foot) intervals following the existing contours of the land. Although one short area of excessive slope was avoided, plowed strips were placed both above and below this location. Each strip was then disced in order to smooth the cut furrows. Following suitable rainwashing, all strips were systematically inspected through visual pedestrian transects at 1 to 3 meter (3 to 10 foot) intervals. At least three transects were placed within each plowed strip. When cultural materials were identified, a pin flag was placed at each find spot until the full distribution of the scatter within the strip at 1 meter (3 foot) or less intervals was determined. All artifact find spots were then recorded by GPS, and the materials bagged by pin flag coordinates. Supplemental shovel test probes were also excavated to the east of the easternmost initial plowed strip within the Tuttle site, to evaluate the soil stratigraphy and assess the extent of the previous disturbance within this area. The specific shovel test methodology employed is described in detail in the next section.

Following the identification and initial evaluation of the Tuttle site, additional data were needed to more fully assess the site's vertical and horizontal extent. As a result, the entire non-wooded portions of the ridgetop within and around the site were re-plowed and re-disced in advance of a second visual pedestrian reconnaissance. This supplemental plowing was completed in late November of 2004, and a supplemental visual pedestrian reconnaissance,

as described above, was completed by the author in early December of 2004. Only those portions of the ridgetop underneath the massive spoil piles, and those portions with obvious visual indications of disturbance into the subsoil were not re-evaluated. These spoil piles were located on the south edge of the ridge containing the Tuttle site, while the obviously graded areas were located on the ridge's far eastern edge. An abrupt and distinct drop in elevation was present at this location and the lower portions of the subsoil were visible on the surface. Given these factors, no further evaluation of these areas was conducted.

#### *Proposed 130-acre Soil Borrow/Development Project Area*

##### *Non-Systematic*

A preliminary non-systematic pedestrian survey of the proposed 130-acre soil borrow project area was conducted by the author on September 10, 2004. However, as only a very small portion of this area was scheduled for a phase IB field reconnaissance during the 2004-2005 investigation (approximately 28 acres), a visual inspection of the entire area was not conducted. As a result, the 2004 evaluation concentrated on identifying only those areas suitable "as is" for subsequent visual pedestrian reconnaissance. A full investigation of the remaining portions of the 130-acre A.P.E. was completed in 2009. The 2009 non-systematic pedestrian survey was completed on June 8<sup>th</sup> in order to gather data relevant to assessing the nature and extent of any previous disturbance, gather data relevant to formulating a subsurface testing strategy, and identify any obvious surface indications of pre-contact and/or historic archaeological materials prior to the initiation of the systematic evaluations.

##### *Systematic*

During the 2004 field season, the majority of this A.P.E. was determined to be active agricultural land. However, in order to minimize crop damage, only those portions within newly planted, unsprouted winter wheat were surface evaluated. These areas occurred as alternating strips of varying width between strips of standing hay. The remaining agricultural areas were not investigated. Those portions of the project area within active pasture land, as well as those areas surrounding the existing structures, were also determined to be unsuitable for the 2004-2005 pedestrian reconnaissance. However, during the 2009 field season, all agricultural portions of the A.P.E. with slopes of less than 25% were plowed and disced following removal of the standing hay crop.

As mentioned above, only those strip areas within newly planted winter wheat were suitable for a visual pedestrian reconnaissance during the 2004-2005 field season. However, all agricultural portions of the A.P.E. with slopes of less than 25% were plowed, disced and rainwashed for the 2009 field season. Ground surface visibility was visually estimated at between 90 and 95 percent. All areas were initially investigated at 3 meter (10 foot) intervals; however, when cultural materials were identified, or if an area was determined to be potentially sensitive, this interval was reduced to 1 meter (3 feet) or less until the horizontal extent of the scatter had been established or the entirety of the sensitivity area had been evaluated. All artifact locations were pin flagged, recorded by GPS, and then collected by pin flag coordinates. Although no shovel test probes were excavated within this area in 2004 in order to avoid crop damage, a full shovel test survey was completed within this A.P.E. in 2009. The specific shovel test methodology employed is described in detail in the next section.

#### *Subsurface Inspection*

##### *Proposed 85-acre Soil Borrow Project Area*

In accordance with the results of the background and literature search, and preliminary surface inspection, a systematic shovel probe evaluation of the narrow woodlot portions of this project area was conducted in August and September of 2004 (Appendix C). Although no areas of saturated soils were identified, a small east-tending tributary of Limestone Creek roughly bisects the woodlot and two artificial ponds are present. Given that no surface indications of pre-contact and/or potentially significant historic archaeological sites were identified during the initial pedestrian investigation, and no pre-recorded archaeological resources were shown to be within the proposed A.P.E., only a standard subsurface investigation was conducted.

The non-systematic pedestrian survey indicated that the ground surface visibility within this area was zero due to low vegetation and forest debris. As a result, the phase IB reconnaissance of this area involved the hand excavation of shovel tests at no more than 15 meter (50 foot) intervals in linear 15 meter (50 foot) transects running perpendicular