Global Operations, Environment, Health & Safety

1 Plastics Avenue
Pittsfield, MA 01201

Via Electronc Mail

July 8, 2022

Mr. Richard Fisher
Office of Site Remediation and Restoration
U.S. Environmental Protection Agency, Region I
5 Post Office Square - Suite 100
Boston, MA 02109-3912

Re: GE-Pittsfield/Housatonic River Site
Rest of River (GECD850)
Phase IA Cultural Resources Assessment Report for Upland Disposal Facility Area

Dear Mr. Fisher:

In accordance with Condition 31 in EPA's February 25, 2022 conditional approval letter for GE's *Pre-Design Investigation Work Plan for Upland Disposal Facility*, enclosed for EPA's review and approval is GE's *Phase IA Cultural Resources Assessment Report for Upland Disposal Facility Area*, prepared for GE by AECOM. This report includes a description of the cultural resources assessment (CRA) activities conducted by AECOM on GE's behalf at the property on which the Upland Disposal Facility (UDF), as well as potential support areas, will be located (referred to in this report as the "GE Parcel"). This report also includes a plan for supplemental CRA investigations, including field surveys, in three discrete areas of the GE Parcel, located outside the disposal or operational areas, that appear, based on the visual reconnaissance, to be less disturbed and to have the potential to contain archaeological resources and that could potentially be used for UDF support activities.

Please let me know if you have any questions about this report and plan.

Very truly yours,

Matthew Calacone
Senior Project Manager – Environmental Remediation

Enclosure

Cc: (via electronic mail unless noted otherwise)
Dean Tagliaferro, EPA
Tim Conway, EPA
John Kilborn, EPA
Anni Loughlin, EPA
Christopher Ferry, ASRC Primus
Thomas Czelusniak, HDR Inc.
Scott Campbell, Taconic Ridge Environmental
Izabella Zapisek, Taconic Ridge Environmental

Michael Gorski, MassDEP
Elizabeth Stinehart, MassDEP
John Ziegler, MassDEP
Ben Guidi, MassDEP
Michelle Craddock, MassDEP
Jeffrey Mickelson, MassDEP
Mark Tisa, MassDFW
Jonathan Regosin, MassDFW
Brona Simon, Executive Director, Mass. Historical Commission (including archaeological abstract) (plus one hard copy of report via USPS and one CD-ROM with Word file of abstract)
Edward Bell, Deputy State Historic Preservation Officer, Mass. Historical Commission (including archaeological abstract) (plus one hard copy of report via USPS)
David S. Robinson, Mass. Board of Underwater Archaeological Resources
Betsy Harper, MA AG
Traci Lott, CT DEEP
Susan Peterson, CT DEEP
Graham Stevens, CT DEEP
Lori DiBella, CT AG
Molly Sperduto, USFWS
Mark Barash, US DOI
Ken Finkelstein, NOAA
James McGrath, City of Pittsfield
Andrew Cambi, City of Pittsfield
Michael Coakley, PEDA
Melissa Provencher, BRPC
Christopher Ketchen, Town of Lenox
Town Administrator, Lee
Town Manager, Great Barrington
Town Administrator, Stockbridge
Town Administrator, Sheffield
Jeffrey Bendremer, Stockbridge-Munsee Band of Mohican Indians
Bettina Washington, Wampanoag Tribe of Gay Head (Aquinnah)
Mark Andrews, Wampanoag Tribe of Gay Head (Aquinnah)
Chuck Kilson, Schaghticoke Tribal Nation
Chairman Russell, Schaghticoke Indian Tribe
Andrew Silfer, GE
Kevin Mooney, GE
Andrew Thomas, GE
James Bieke, Sidley Austin
Daniel Cassedy, AECOM
Michael Werth, Anchor QEA
Public Information Repository at David M. Hunt Library in Falls Village, CT
GE Internal Repository

July 2022
Housatonic River – Upland Disposal Facility

AECOM

Phase IA Cultural Resources Assessment Report for Upland Disposal Facility Area

Prepared for General Electric Company
Pittsfield, Massachusetts

July 2022
Housatonic River – Upland Disposal Facility

Phase IA Cultural Resources Assessment Report for Upland Disposal Facility Area

Prepared for
General Electric Company
1 Plastics Avenue
Pittsfield, Massachusetts 01201

Prepared by
AECOM
500 Enterprise Drive
Rocky Hill, Connecticut 06067

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1 Introduction and Background

1.1 Introduction

This Phase IA Cultural Resources Assessment (CRA) Report has been prepared on behalf of the General Electric Company (GE) to present the results of the initial cultural resources data collection as part of pre-design investigation (PDI) activities for the Upland Disposal Facility (UDF) and UDF support area associated with the Rest of River (ROR) Remedial Action. The ROR area consists of the portion of the Housatonic River and its backwaters and floodplain (excluding portions of certain residential properties) downstream of the confluence of the East and West Branches of the Housatonic River. On December 16, 2020, the U.S. Environmental Protection Agency (EPA) issued to GE a Revised Final Resource Conservation and Recovery Act (RCRA) Permit Modification (Revised Permit), which set forth the Remedial Action selected by EPA to address polychlorinated biphenyls (PCBs) in the ROR. The Revised Permit included a provision for GE to construct and utilize a UDF at a largely disturbed industrial site in the ROR area, but outside the 500-year floodplain of the River, for the disposal of certain of the sediments and soils to be removed as part of the Remedial Action.

The UDF will be constructed on a 75-acre property in the Town of Lee, Massachusetts (Figure 1) that was formerly part of an active sand and gravel quarry and that GE acquired from The Lane Construction Corporation (Lane) in April 2021. Figure 2 shows the extent of the property acquired by GE (referred to herein as the GE Parcel). That figure also shows the maximum limits of consolidated material for the UDF and the associated operational area surrounding and encompassing the limits of the consolidated material (jointly referred to herein as the UDF area). Finally, the figure shows the potential UDF support area, which is currently undefined but may include temporary facilities such as sediment dewatering and material handling areas (referred to herein as UDF support area).

On November 24, 2021, pursuant to the Revised Permit and the associated *Final Revised Rest of River Statement of Work* (Anchor QEA et al. 2021), GE submitted a Pre-Design Investigation Work Plan for the UDF (Arcadis and AECOM 2021). Section 5.2.8 of that Work Plan provided that GE would conduct an initial Phase IA CRA of the UDF area and described the scope of those initial CRA activities. That Work Plan was conditionally approved by EPA on February 25, 2022.[1] GE subsequently carried out the CRA activities described in that Work Plan. Those activities are described in this Report. In addition, this Report contains a plan for supplemental CRA investigations in three relatively less disturbed areas of the GE Parcel, located outside of the disposal or operational areas, that could potentially be used for UDF support activities and that have the potential to contain archaeological resources.

[1] Separately, on January 17, 2022, GE submitted a Supplemental Phase IA CRA Work Plan for the overall areas that will be affected by the ROR Remedial Action apart from the UDF. That Work Plan was conditionally approved by EPA on April 20, 2022, and those CRA activities are currently ongoing.

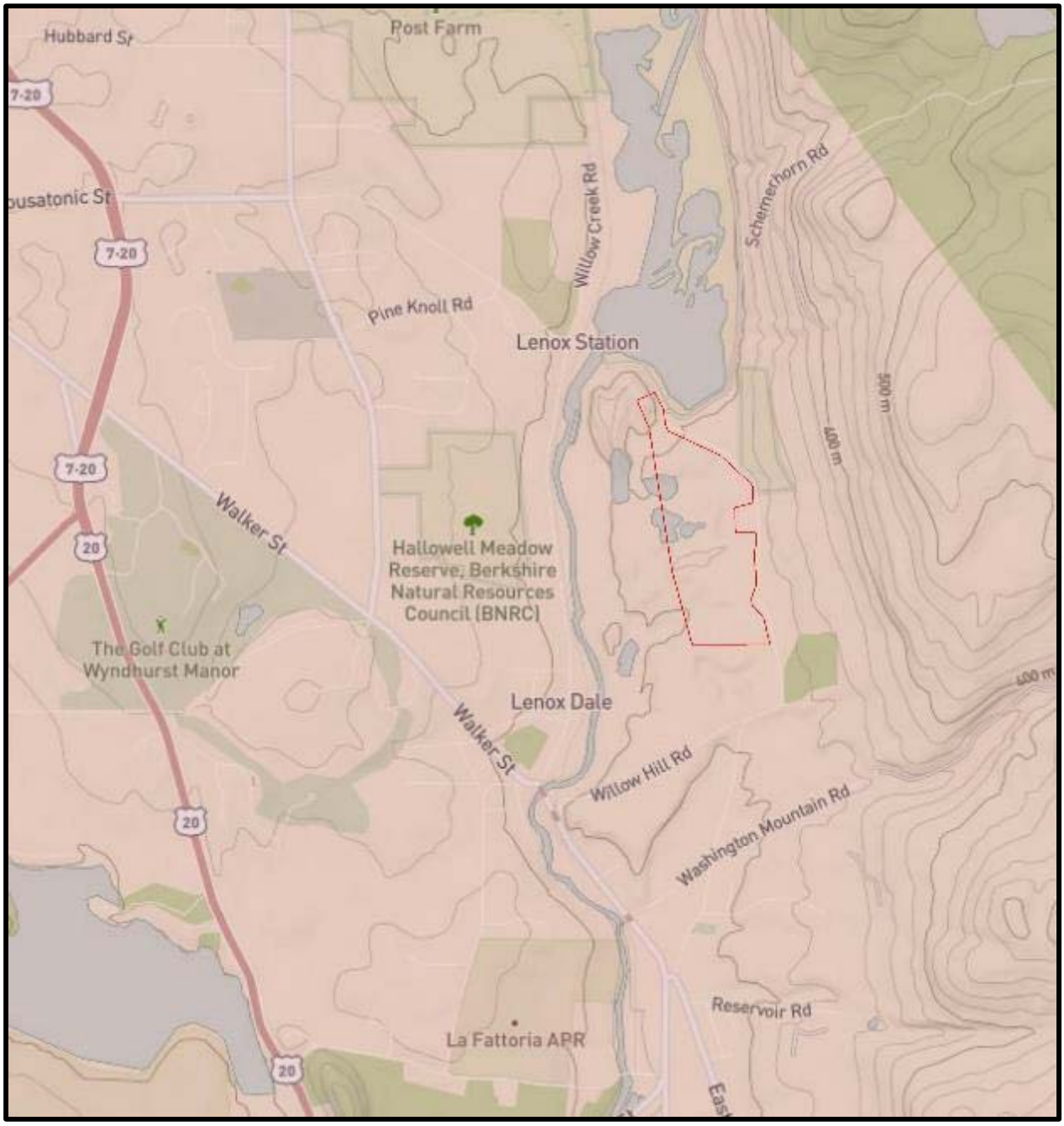

Figure 1. Location of the GE Parcel in Lee, Massachusetts.

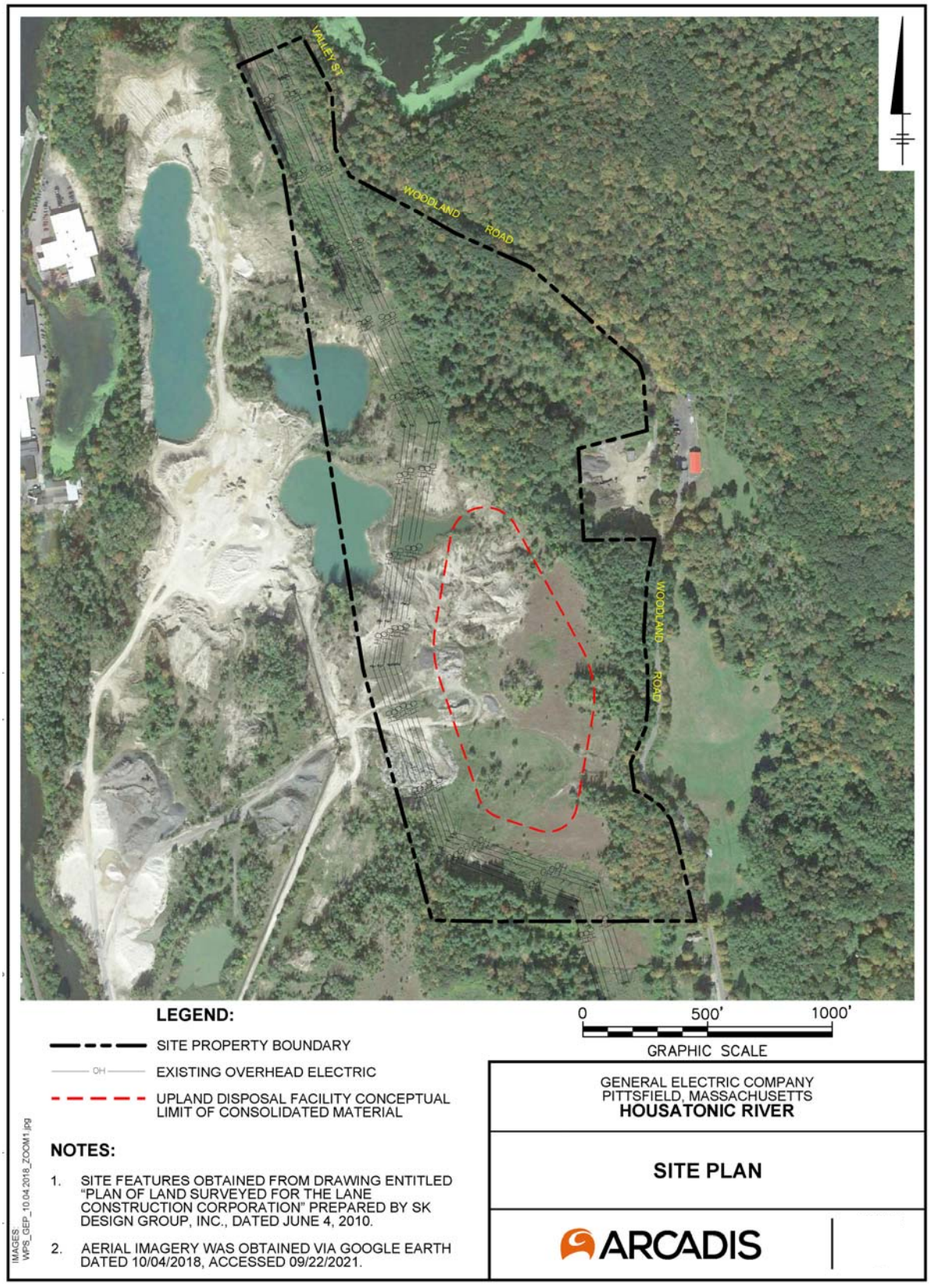

Figure 2. General Layout of the Upland Disposal Facility in Lee, Massachusetts.

1.2 Scope of the UDF Area CRA

This section describes the Phase 1A CRA activities described in Section 5.2.8 of the UDF PDI Work Plan and subsequently conducted for the UDF area and UDF support area.

The Area of Potential Effects (APE) for both archaeological resources and historic architectural resources was defined based on the location and extent of the UDF area and UDF support area.

Desktop and on-line reviews were conducted of the Massachusetts Historical Commission's (MHC's) files and databases, including the Massachusetts Cultural Resource Information System (MACRIS), the Massachusetts State Historic Preservation Plan, and the MHC State Reconnaissance Survey Reports, as well as the files of local historical organizations, including the Lenox Historical Society, the Lee Historical Society, the Lee Library, and the Stockbridge Library – Museum and Archives, to determine whether the UDF area or UDF support area contains or could affect cultural resources included in those files or databases. Additionally, historical aerial photography, historic maps, and soils and geological mapping were reviewed for evidence of past environmental characteristics and land use patterns.

Coordination with the MHC and with Native American tribal representatives regarding the locations of cultural resources and traditional cultural properties in the vicinity of the GE Parcel was conducted through EPA's outreach efforts to consulting parties as well as through AECOM's contacts with representatives of the following tribes: Stockbridge Munsee Band of Mohican Indians; Wampanoag Tribe of Gay Head (Aquinnah); Schaghticoke Tribal Nation; and Schaghticoke Indian Tribe.

Two field inspections were made in March and June of 2022 to visually assess and document the environmental characteristics of the project area and to search for visible above-ground cultural resources; no subsurface investigations were conducted during this phase of the investigation except for one hand auger boring described in Section 5.1. For both field inspections, AECOM's archaeologist was accompanied by an archaeologist from EPA's support contractor and a representative of the Wampanoag Tribe of Gay Head (Aquinnah).

Based on the information gathered during these research tasks, an investigation was made of the potential for the APE to contain unidentified potentially significant cultural resources. For purposes of this CRA, potentially significant cultural resources mean cultural resources that are listed or could potentially meet the criteria for listing on the National Register of Historic Places (NRHP), resources that are listed on the Massachusetts State Register of Historic Places (SRHP) and included on the State Inventory of Historic and Archaeological Assets, and potentially significant scientific, prehistorical, historical, or archaeological data subject to the Archaeological and Historic Preservation

Act.[2] This assessment was conducted using the approach previously developed for the 2008 Initial Phase IA CRA (URS 2008), which incorporated data on soil types, slope, land use, and the location of known archaeological sites to identify the potential for the occurrence of pre-contact or historic archaeological resources, using the following categories and criteria:

High Potential

- water source within 150 meters (m)
- well drained sandy soils
- level to fairly level topography (0 – 3%)
- none to minimal disturbance
- known sites in the immediate area
- In addition, for historic-period archaeological site potential, areas within 100 m of major historic transportation networks

Moderate Potential

- water source within 150 to 300 m
- well drained to fairly well drained, sandy to cobbly soils
- moderate slopes (3 – 8%)
- minimal to moderate disturbance
- known sites in the vicinity

Low /NoPotential

- water source greater than 300 m
- poorly drained soils
- moderate to extensive disturbance
- steep slopes (> 8%)
- no known sites in the vicinity

Investigation of known or suspected historic structures within the historic architectural APE was accomplished by examining existing historic structure inventories. The locations of any such structures were plotted for systematic comparison with the location of the GE Parcel, and aerial photography and maps were examined to identify the locations of additional structures. Because, as will be described in more detail below, the APE did not extend beyond the limits of the GE Parcel and no historic structures occur within it, no additional field inspections were required.

[2] Such resources include properties of traditional religious and cultural importance that fall into any of the foregoing categories.

1.3 APE Definition

The Archaeological APE is defined as all portions of the GE Parcel that may experience ground disturbance as a result of remediation activities. Although the approximate limits of the disposal facility within the property have been identified, the exact layout of possible access and support facilities has not yet been developed. For purposes of the Phase IA CRA, the Archaeological APE was therefore defined as the entire GE Parcel. This APE may be refined for future studies when the designs for the UDF are better developed.

It was anticipated that the Historic Architectural APE would encompass the Archaeological APE and adjacent locations within sight of areas involved in remediation, as well as areas which could be indirectly impacted by factors such as noise or vehicle movements. The construction and operation of the UDF will occur within a setting that is visually isolated from adjacent areas, and the existence of ongoing gravel removal and transportation activities for over 75 years suggests that new impacts to historic structures outside of the GE Parcel would be very unlikely. For these reasons, the Historic Architectural APE for the UDF is also defined by the limits of the GE Parcel.

2 Environmental Setting

The GE Parcel is located at the northern edge of the Town of Lee in Berkshire County, Massachusetts, which is on the western edge of the State and is bordered by Connecticut (south), New York (west), and Vermont (north). It is positioned in steep dissected terrain between the western slopes of October Mountain and the Housatonic River, which flows south through the Central Valley region between the Berkshire Plateau and the Taconic Mountains. The main stem of the river is formed by the confluence of the East and West Branches of the Housatonic River in Pittsfield. The East Branch begins in Dalton and Hinsdale from headwater tributaries. The West Branch starts at Onota and Pontoosuc Lakes in Pittsfield and Lanesboro and is augmented by flows from the Southwest Branch. Below the confluence, the river generally flows south through Berkshire County for approximately 10 miles to Woods Pond, the first significant impoundment. Woods Pond is an impoundment created in 1890 and is located just north of the GE Parcel. Downstream of Woods Pond, the river continues south through western Massachusetts and south/southeast through Connecticut before emptying into Long Island Sound at Stratford, Connecticut.

As can be seen in Figure 3, the topography of the GE Parcel is highly irregular, which is the result of decades of sand and gravel mining that have removed and rearranged large volumes of soil. This can also be seen in the soils map prepared by the Natural Resources Conservation Service (Figure 4). The entire area planned to be used for the consolidated materials disposal (approximately half of the parcel) is mapped as gravel pits, and an additional 25% of the parcel is classified as sandy and gravelly soils of 15% to 35% slopes

Figure 5 illustrates the appearance of the southern portion of the GE Parcel, which has been partially reclaimed and stabilized after gravel removal; and Figure 6 provides a panoramic view of the deeply dissected central portion of the parcel.

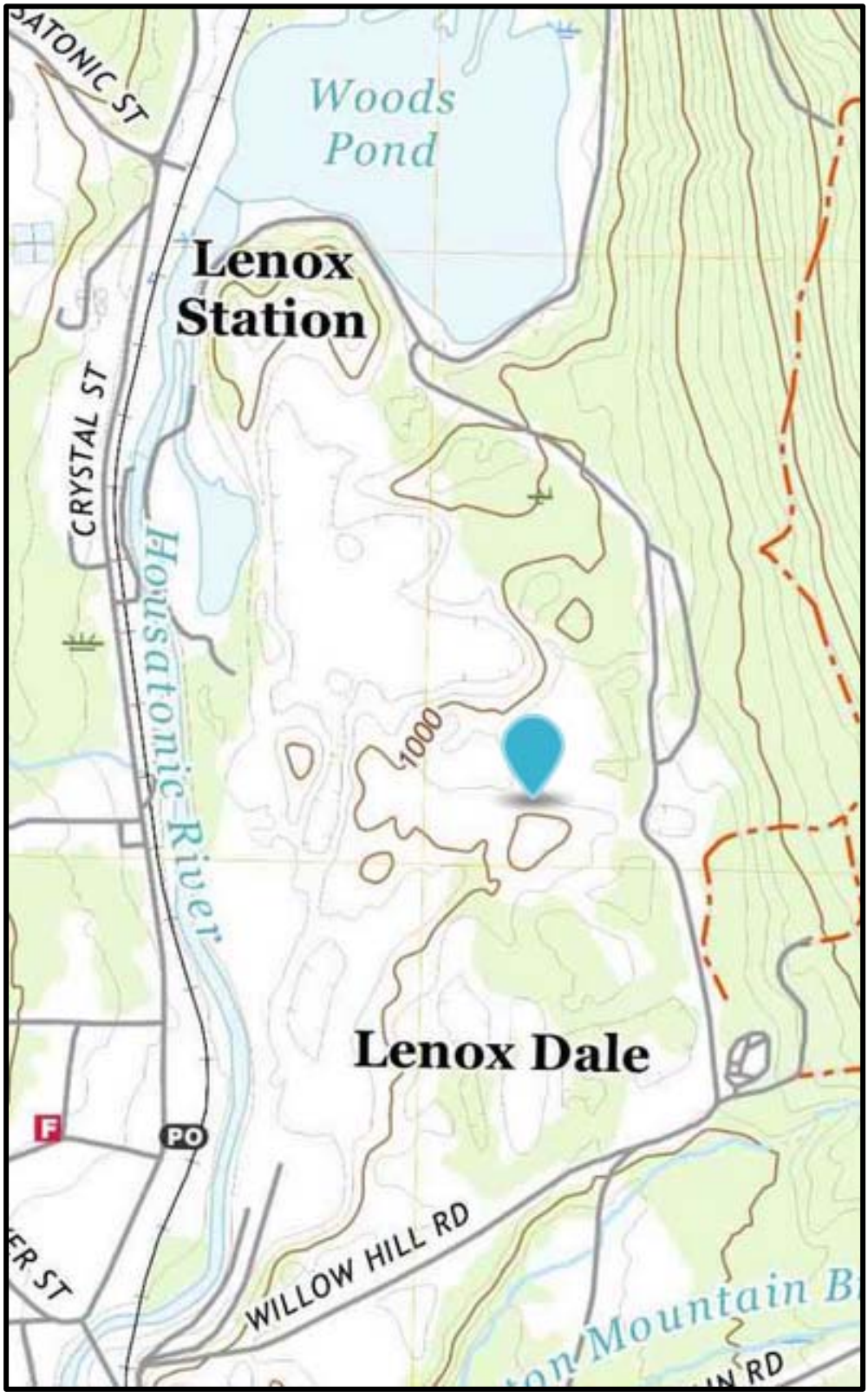

Figure 3. 2021 East Lee Topographic Quadrangle Map.

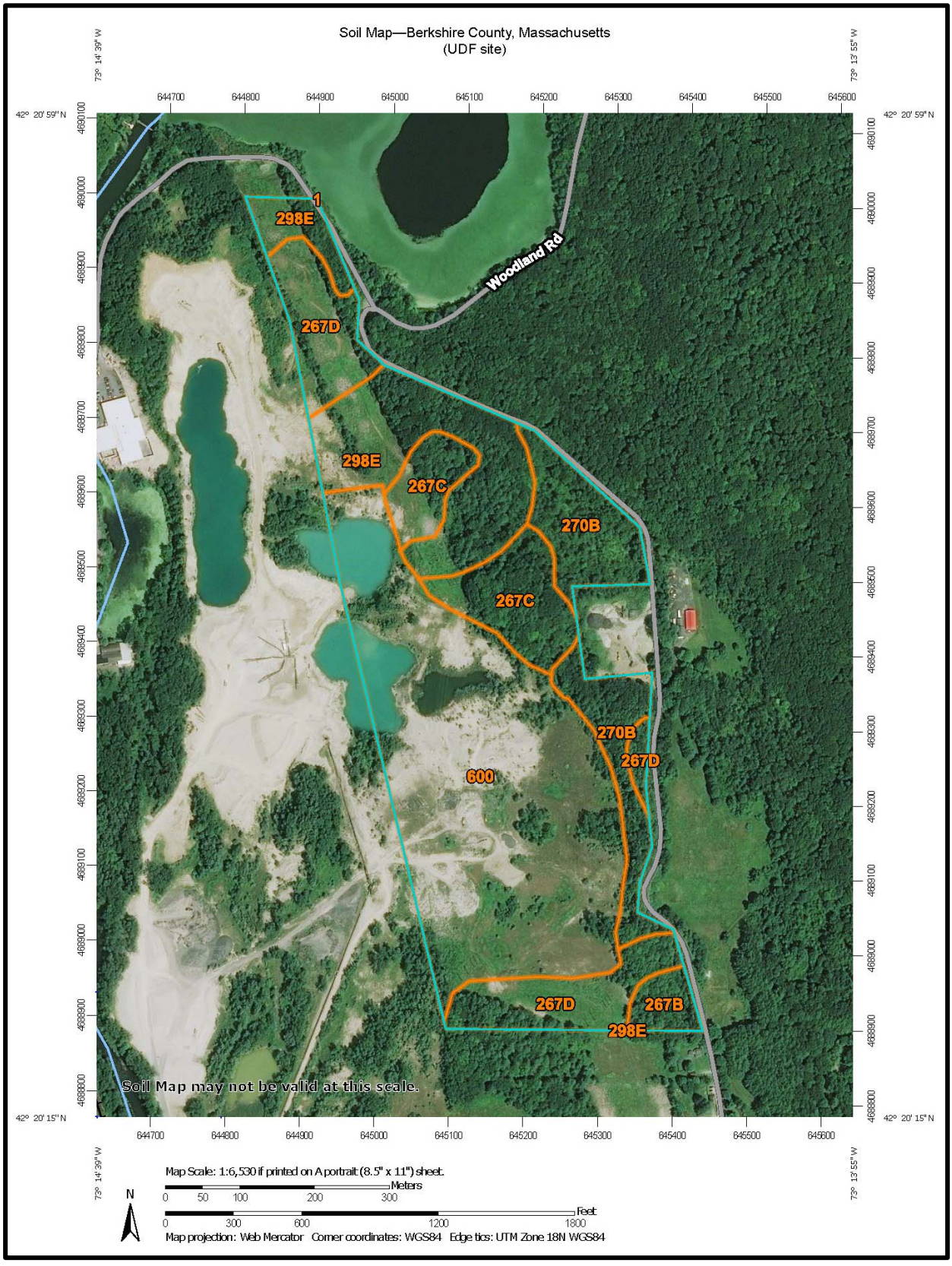

Figure 4. NRCS Soils Map.

Figure 5. View North from Southwest Corner of Parcel Near Well PZ-8.

Figure 6. View South of Level Knoll in Area C.

3 Cultural and Historical Setting

The following sections summarize the pre-contact and historic period contexts of the general region around the project.

3.1 Paleoindian Period

Human occupation of northeastern North America began soon after the continental ice sheet began to recede northward, once again exposing land. Current evidence suggests that approximately 13,000 years before the present (B.P.), humans began moving into what is now New England. This first period of prehistory lasted until approximately 9,500 B.P. Archaeological sites dating to this time period are most commonly recognized by the presence of distinctive biface stone tools called fluted points. Because of extreme age and low population densities, Paleoindian sites are relatively rare and have often been disturbed by more recent natural events and human activities.

Although relatively few Paleoindian sites have been excavated in the Northeast, there have been documented discoveries in the general region near the Housatonic drainage. In 1977, the American Indian Archaeological Institute (AIAI) excavated a site known as 6LF21 on the Shepaug River in northwestern Connecticut (Moeller 1980), and this site produced a radiocarbon date of 10,190 RCY B.P. More recently, the Hidden Creek site in Mashantucket, Connecticut (Jones & Forrest 2003) has yield evidence of Paleoindian occupations. Most of the evidence for Paleoindian occupations in the region comes from isolated finds of the distinctive fluted points from scattered locations. Many finds appear to be associated with former post-glacial lake basins (Lavin 1984). In particular, surveys by the AIAI near Robbins Swamp in northwestern Connecticut have identified a number of Paleoindian sites around the margins of this rich ecological zone (Nicholas 1988).

3.2 Early Archaic Period

Prior to 1970, there was virtually no evidence of any Northeastern sites dating to the Early or Middle Archaic periods. In the last three decades, considerable information has been obtained to fill in that gap, but the picture is still incomplete. There are still relatively few excavated, radiocarbon-dated Early Archaic sites in the Northeast. Most have been identified by the presence of projectile points analogous to dated types such as Palmer, Kirk, Charleston, MacCorkle, LeCroy, St. Albans, and Kanawha, which have been found in stratified Southeastern sites.

Archaeologists are beginning to be able to identify distinctive regional characteristics in the Early Archaic artifact forms and assemblage characteristics. Excavations in northwestern Connecticut around Robbins Swamp in the Upper Housatonic drainage just south of the Massachusetts border suggest that these early Holocene occupations tended to cluster in resource rich locales such as former glacial lake basins (Nicholas 1988). Approximately 35 Early Archaic components were identified along with a number of Paleoindian sites, suggesting early intensive exploitation of this

extensive wetlands complex. Some of the Early Archaic sites were identified by the presence of diagnostic types such as Kirk, bifurcate, and Kanawha points, and others by the presence of distinctive scraper and graver forms. Early site/landform associations range from lake shoreline and upper river terraces to wetland margins and upland springs, and include large, multiple, early component sites, and small, single-component, special-activity sites (Nicholas 1988:271).

Nicholas has been a frequent and vocal proponent of the idea that early Holocene occupations in the Northeast were much more abundant than previously thought, and that they operated within an environment that was much more productive than originally described. He has identified former glacial lake basins as locations that are likely to have been established as resource rich mosaics within a changing and somewhat unpredictable early Holocene landscape (Nicholas 1988).

3.3 Middle Archaic Period

The Middle Archaic is associated with warmer and drier climatic conditions. By this period, modern floral communities were established and characterized by mast-producing hardwoods. Rivers stabilized during this time and wetland and lake areas were reduced in size. Hunting continued to be important, and fish may have become a more predictable resource.

Clear identification of the chronological position of Middle Archaic artifacts in the Northeast was not established until Dincauze reported on the excavations at the stratified Neville site on the Merrimack River in New Hampshire (Dincauze 1976). These excavations documented the existence of the Neville stemmed point type dating to between 7,800 and 7,000 B.P., and the Stark stemmed point type dating between about 7,600 and 6,400 B.P. (Dincauze 1976). The Neville and Stark point types are similar in style and age to the Stanly and Morrow Mountain types that Coe (1964) defined earlier in the Southeast. In addition, the Merrimack point type was identified as dating to the end of the Middle Archaic period close to 6,000 B.P.

The Neville and Stark types have proved to be relatively common throughout New England. Dincauze and Mulholland (1977) have presented a synthetic model of Middle Archaic settlement for southern New England. They suggest that site types of this period involve large-group occupations that maximize proximity to a variety of seasonal resources, as evidenced by the tool assemblages and recovered faunal materials at these sites. An increase in the number of sites in aquatic resource environments is noted, and these sites are frequently located at falls or rapids where anadromous fish comprised an important seasonal resource (Dincauze 1976). The accumulated data for the Middle Archaic period in the Northeast suggest that, during this period, the prehistoric inhabitants were forming themselves into distinct bands and were settling into defined territories. These bands were establishing base camps and were occupying a greater variety of special-purpose sites in a carefully planned seasonal round (Snow 1980:183).

3.4 Late/Terminal Archaic Period

Archaeologists recognize the Late Archaic period as one in which the numbers and types of sites increase dramatically—what Snow (1980:187) describes as the Late Archaic "florescence." Based on his early work in New York, Ritchie recognized two major Late Archaic trajectories, the Lamoka and the Laurentian, which overlap in both time and space. Both are also represented in New England, but in different distributions.

Following Tuck's (1978) definition of the Lamoka/Sylvan/Squibnocket complexes of central and southern New York and New England as the "Mast Forest Archaic," Snow (1980:226) proposed that the Laurentian complex and related assemblages in northern New England and the St. Lawrence drainage be designated as the "Lake Forest Archaic." As Snow describes them, these two complexes coexisted at times during which each was more common within a particular geographic region. This scheme supposes that there was a "marginal belt of tension between the two coeval zones that persisted throughout the Late Archaic" (Snow 1980:227).

Although Snow (1980) suggests that the Lake Forest Archaic sites are primarily a northern New England manifestation, and only appear in sparse numbers in western Massachusetts and Connecticut between 5,500 and 4,500 B.P., Pfeiffer (1984) has compiled evidence that the Lake Forest Archaic in southern New England is a widespread tradition firmly dated to the period between 5,000 and 4,200 B.P. Pfeiffer notes that "the Late Archaic period also witnessed an increase in the importance of gathering activities, the employment of storage, and an expanded duration of settlement" (1984:85).

In addition to the Lake Forest Archaic assemblages, southern New England also has widespread and long-term evidence of Snow's Mast Forest tradition—what other researchers have often called the "Narrow-Stemmed" or "Narrow-Point" traditions. Although some researchers have proposed that the Laurentian, or Lake Forest, tradition coexisted with the Narrow Point tradition (Ritchie 1969; Dincauze 1975; Snow 1980), others (McBride 1984a:247-248) consider the Lake Forest (Laurentian, Golet phase) as temporally distinct from the Mast Forest (Narrow Point, Tinkham phase).

Mast Forest Archaic sites are numerous and occur in a "wide variety of local settings" (Snow 1980:230). The settlement system likely consisted of "central based wandering" by highly territorial groups (Dincauze 1974:48, 1975:25; Snow 1980; McBride 1984a, 1984b:65). Population aggregations occurred along major drainages and interior wetlands, with movement between habitation sites prescribed by seasonal availability of resources (Dincauze 1974:48, 1975:25; McBride 1984a, 1984b:65; Snow 1980).

The end of the Archaic has also been commonly called "Transitional" in reference to its presumed transitional status between the Archaic and Woodland periods. Since research continues to indicate that there is actually a great deal of cultural and biological continuity between the Archaic and the

Woodland periods, Snow (1980:235) has suggested that the label "Terminal Archaic" is more appropriate.

As Snow defines it, the hallmark of the early part of the Terminal Archaic in eastern and southern New York is the Susquehanna tradition of broad stemmed projectile points and their associated assemblages. These points include a number of regional varieties, including the Genesee, Perkiomen, Snook Kill, and Susquehanna Broad types in New York and Atlantic/Wayland points in Massachusetts. This Susquehanna tradition of broad stemmed projectile points is analogous to Coe's (1964) Savannah River type from the southeastern United States. Characteristics of the Susquehanna Tradition include a riverine adaptation and a predilection for the fine-grained lithic resources of the Piedmont province including rhyolite, felsite, argillite, and slate (Dincauze 1975:27; Turnbaugh 1975:54). The latter portion of the Terminal Archaic period is marked by the appearance of narrow, tapered Orient Fishtail projectile points.

3.5 Early and Middle Woodland Period

Early Woodland cultures in southern New England show considerable variation from the patterns seen in central and western New York. Sites in the latter region show much greater participation in widespread trade networks that extended from the Gulf of Mexico to the Great Lakes. Exotic seashells, distinctive types of stone, and native metals such as copper and lead moved between the far-flung reaches of the network. This trade network was also associated with an elaborate mortuary ceremonialism that included burying many of the exotic traded items in graves with the dead. The presumed core of this system was the Adena tradition of the Ohio River drainage, to which numerous elaborate sites with well stocked graves have been attributed.

Evidence of the Adena tradition is more limited in the Early Woodland Meadowood tradition of southern New England. In addition to Meadowood projectile points, Adena, Rossville, and Lagoon points and Vinette I ceramics are also associated with this time period. Rossville and Lagoon points are particularly common on Early Woodland sites in the coastal areas of southern New England and Long Island Sound.

Narrow points are commonly assigned to the Late Archaic period; however, Swigart (1974) has dated points of this type in the Housatonic drainage to 2,700-2,500 B.P., which would place them in the Early Woodland period. Furthermore, Lavin, McBride, and others have suggested that the Narrow Point technological tradition may have even continued into Contact and historic periods (McBride 1984a:105; Lavin 1984).

Just as the Early Woodland Meadowood phase is associated with the Ohio Valley Adena network, Middle Woodland sites appear to have been associated to some degree with the Middle Woodland

Hopewell interaction sphere. However, exotic trade items from the Hopewell network are less common in southern New England and eastern New York than they are in the west (Snow 1980:287).

3.6 Late Woodland Period

Following the apparent decline in settlement activity during the Early Woodland and the early part of the Middle Woodland period in the Northeast, the next millennium witnessed an intensification of subsistence and settlement patterns that culminated in the relatively sedentary villages of agriculturalists encountered by the first European explorers. This span of time has been traditionally designated by archaeologists as the latter portion of the Middle Woodland period from 1,650 B.P. to 1,000 B.P. and the Late Woodland period from 1,000 B.P. to substantive contact with Europeans. This report will break from tradition somewhat and will end the Middle Woodland at about 1,200 B.P (A.D. 750).

A division between Middle and Late Woodland at this point in time correlates with the widespread appearance of maize in the archaeological record throughout much of the eastern United States. Snow (1980:261) has previously suggested that the Kipp Island and Hunters Home phases reflect the increasing isolation of the Northeast from the rest of the Eastern Woodlands. Interestingly, this is also a period in which the Hudson drainage shows increasing linkages with southern New England. These linkages include increasing amounts of chert moving into the Housatonic and Connecticut River drainages, as well as "New York" ceramic traditions extending east into the upper Housatonic drainage (e.g., see Cassedy and Lavin 2007).

By the Late Woodland period, the archaeological antecedents of historically recognized Native American groups can be recognized. North, central, and western New York were occupied by groups believed to be ancestral to the Iroquois; in these areas, large, nucleated, semipermanent sedentary villages developed. In contrast, eastern New York and western New England were occupied by smaller, somewhat less permanent settlements ancestral to the Algonkians (Late Woodland settlement patterns in both areas were still more sedentary than in previous periods).

Late Woodland sites are recognized by a series of distinctive incised and collared ceramic types and by triangular projectile points. The larger Levanna point type was most common early in the period and was later accompanied by the smaller Madison type.

3.7 Contact/Native American Historic Period

The chronological end of the Late Woodland period is about 350 B.P (A.D. 1600), but it varies by region, depending on the timing of European exploration and settlement. The next two centuries are often referred to as the Contact Period, and in southern New England the term "Final Woodland" is preferred by some. Both labels refer to the phase when Native lifestyles were radically changed by factors such as war, disease, trade, and acculturation.

At the time of European contact in the early seventeenth century, the upper Hudson and Housatonic valleys were occupied by the Mahican horticulturalists and fishermen culturally affiliated with their Algonkian neighbors to the east. Some ethnohistoric data indicate they lived in stockaded hilltop villages containing three to 16 elongated wigwam longhouses (Snow 1980:88). In addition to these villages, "when at fishing or hunting stations, the Mahican probably lived in single-family wigwams" (Snow 1980:88).

For many years, the Mahican occupied a pivotal position both culturally and geographically in the conflicts between the Iroquois Confederacy and the Algonkian tribes of New England (Brasser 1978). At one point, the Mahican occupied lands on both sides of the upper Hudson River, but they lost control of the area on the west side of the river in 1628 as a result of warfare with the Iroquois. In the 1660s, they were forced to abandon almost all of the Hudson Valley and many of them clustered with other related western New England Algonkians in settlements along the upper Housatonic River in western Massachusetts.

3.8 Settlement and Revolutionary War Era

The lower Housatonic was settled in the 1640s, but it took almost a hundred years for permanent settlements to expand north into what is now Berkshire County, Massachusetts. In 1733, Sheffield was the first town in the county to be incorporated, followed by Stockbridge in 1739, Great Barrington in 1742, and Pittsfield in 1753. Lee and Lenox incorporated a decade or two later.

In 1734, John Sergeant initiated a mission amongst the Mahican, who at the time were living in two communities along the Housatonic – one they called Skatehook (in Sheffield) and the other Wnahktukook (at what is now Stockbridge). To consolidate the settlements, the Massachusetts legislature established a six-square-mile township for the Mahican; and as Field (1829:239) reports, "the design was to include the fine alluvial grounds at Wnahktukook, already cleared and cultivated to some extent, where a party of the Indians then lived . . . ."

By the 1780s, the Mahican had lost control over most of their land, and most of the tribe moved west into Oneida County, New York, and in the 19th century eventually into Wisconsin. The Mahican joined Munsee refugees on a jointly held reservation in Wisconsin, where the two tribes remain together today under the name "Stockbridge-Munsee Band of Mohican Indians."

By the Revolutionary War era in the late 18th century, Euro-American settlements were well established in all towns of the project area. Forests were being cleared and small farms dotted both the valleys and the hillsides. Many of the suitable water power locations had small grist mills, saw mills, and furnaces established at them, such as at Lenox Furnace (Lenox Dale), Lee, and South Lee.

3.9 From the Revolution into the Nineteenth Century

After peace was established between the U.S. and England, settlement of the region expanded dramatically. Settlers took advantage of the agricultural potential of the valley and its transportation corridor, and industrial development at prime mill sites along the river and its tributaries soon followed.

For the first several decades of the nineteenth century, wagons and stages were the only effective means of transporting goods and people, as the shallow depths and multiple rapids along the upper Housatonic were not conducive to large-scale reliable boat transport both upstream and downstream along the river. This situation changed with the creation of railroad links with New York and New England in the 1840s.

Throughout the nineteenth century, the project area witnessed an intensification of industrial development along the river. The number, size, and variety of mills all increased, with woolen and cotton mills, paper mills, turning factories, and iron and glass furnaces being built in Lee, South Lee, Glendale, and Housatonic (additional industry was located in Pittsfield upstream from the project area). By end of the century, paper mills came to dominate the industries along the river. As industry was expanding in the Berkshires, agriculture was declining throughout the nineteenth century due to soil exhaustion and western competition.

In addition to transporting industrial products to wide markets, the railroad also made the region easily accessible to New York City, and wealthy families from began vacationing in the Berkshires and eventually many built homes there. In 1845, Samuel Gray Ward came from Boston to Stockbridge to turn an older house into a relatively palatial structure, Highwood, which is recognized as the first of dozens of mansions, quaintly called "cottages," which were erected there and in Lenox and, to a lesser degree, in Great Barrington. In addition, artists began flocking here and by mid-century, the tradition of a Berkshire cultural center had taken hold.

3.10 Twentieth Century

Industrial development that had begun in the nineteenth century expanded even more in the twentieth century. Electronics plants were constructed in the region, and paper mills continued to flourish in Lee and Housatonic. Stanley Electric Manufacturing Company was acquired by General Electric in 1903, and the operation produced small-scale transformers, flat irons, electric fans and small motors.

The era known as the Gilded Age continued up to World War I, and wealthy outsiders continued to vacation and build mansions in the Berkshires (by 1900, there were over 75 in Lenox), providing substantial employment opportunities for many local people. However, the imposition of the federal income tax in 1913 marked a turning point in the construction of new mansions (NPS 2002:73). Over

the next few decades, many were converted to other uses such as seminaries, schools, offices, or museums. At the same time, the coming of the automobile opened up new opportunities for middle class tourism in the Berkshires that continue today.

For the better part of the twentieth century, Pittsfield was inextricably linked to GE, which at one point provided jobs for 75% of Pittsfield's workforce. Pittsfield's population in 1930 had grown to more than 50,000, and industrial expansion related to World War II swelled the population even further, as munitions and plastics were also produced. By the 1950s, GE was building the largest transformers in the world, but the transformer operation closed down in 1986.

4 Results of Background Research

4.1 Introduction

Most of the useful background information was already consolidated within the MHC's MACRIS database. The State Historic Preservation Plan, State Reconnaissance Survey Reports, and databases of local historical organizations did not provide additional details relevant to the GE Parcel. Historic maps provided information on previous roads and structures in the area, and previous archaeological reports for nearby projects were also examined.

4.2 MACRIS Database

Figure 7 illustrates the search results from the MHC's MACRIS database for a one-mile radius around the center of the GE Parcel, which shows that there are no previously documented historic structures or archaeological sites located within the APE. The closest documented NRHP-listed resource is the Lenox Station historic railroad facility, which is located approximately ¼ mile northwest of the northern end of the GE Parcel, on the western side the Housatonic River and Woods Pond. Also in that general area is recorded archaeological site BK-188, which is listed as an isolated find spot (the green square that plots that resource is a broad marker indicating it was recovered somewhere in that general area). The Valley Mill bridge mapped approximately ¼ mile west of the APE spans the Housatonic River from Crystal Street, and the remaining blue dots depict the location of various inventoried historic structures that are located ¾ mile to one mile south and west of the GE Parcel.

Figure 7. MACRIS Search Results Map Generated May 10, 2022.

4.3 Historic Maps

The earliest available historic map that depicts the area at a useful scale is the 1876 Beers map of Lee, which is reproduced in Figure 8. This map depicts the residence of "J. Toole" on the western side of Woodland Road, in the outparcel adjacent to the GE Parcel that is currently the location of a local construction company. Near the southeast corner of the UDF property are depicted the houses of "Mrs. Flynn," "Wm Perry," and "R. Landers."

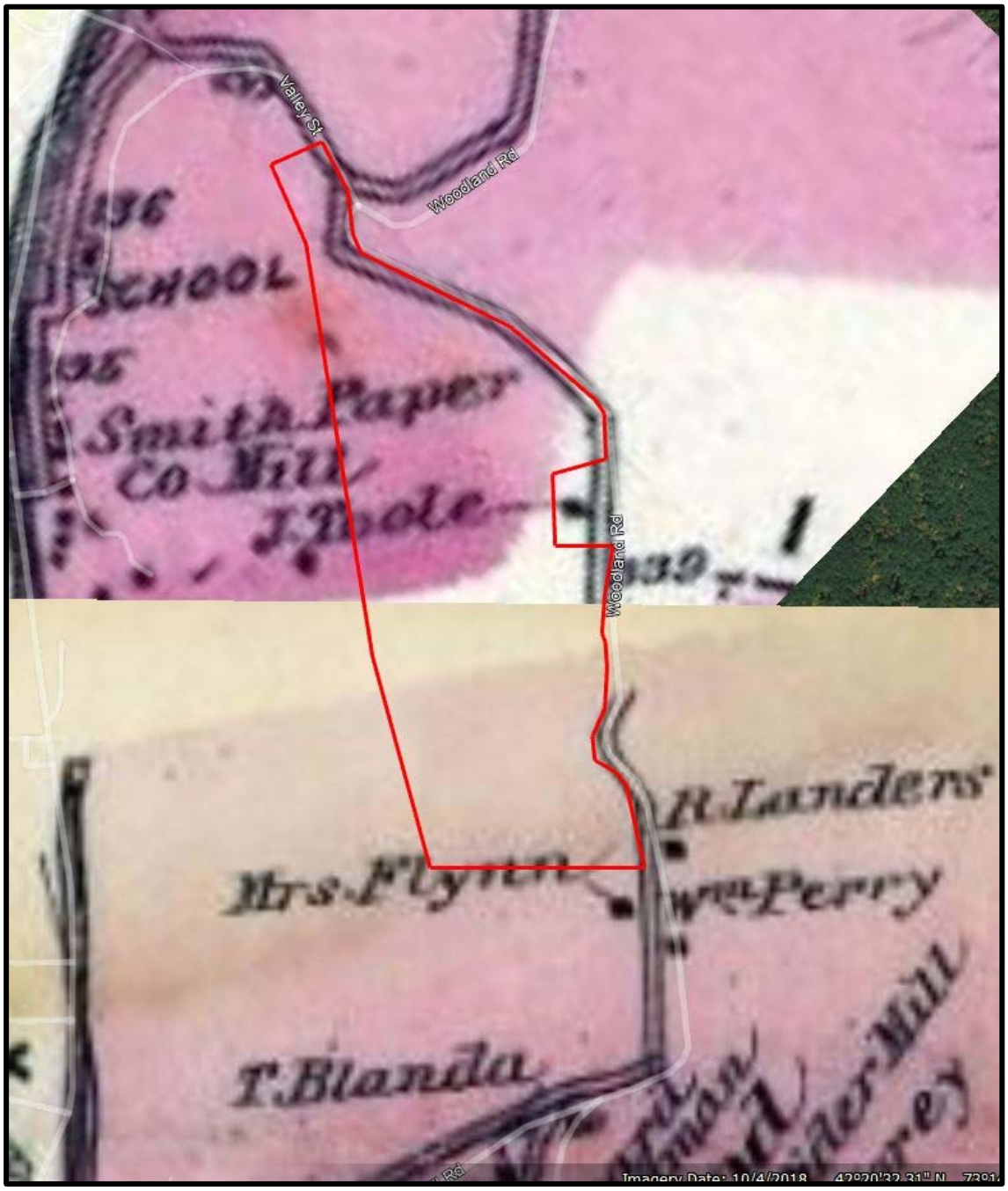

Figure 8. 1876 Beers Map of Lee (GE Parcel Shown Approximately in Red).

The next available historic map is from 1890 (Figure 9) and it shows "James Toola" at the previous "J. Toole" location, "Richard Landers" at the "R. Landers" location, and "Michael Crowley" in the approximate location of the "Mrs. Flynn" house. The scale of this map appears to be somewhat distorted, as shown by the location of "Wm. Perry" well to the south of where Wm Perry's house was previously mapped in 1876.

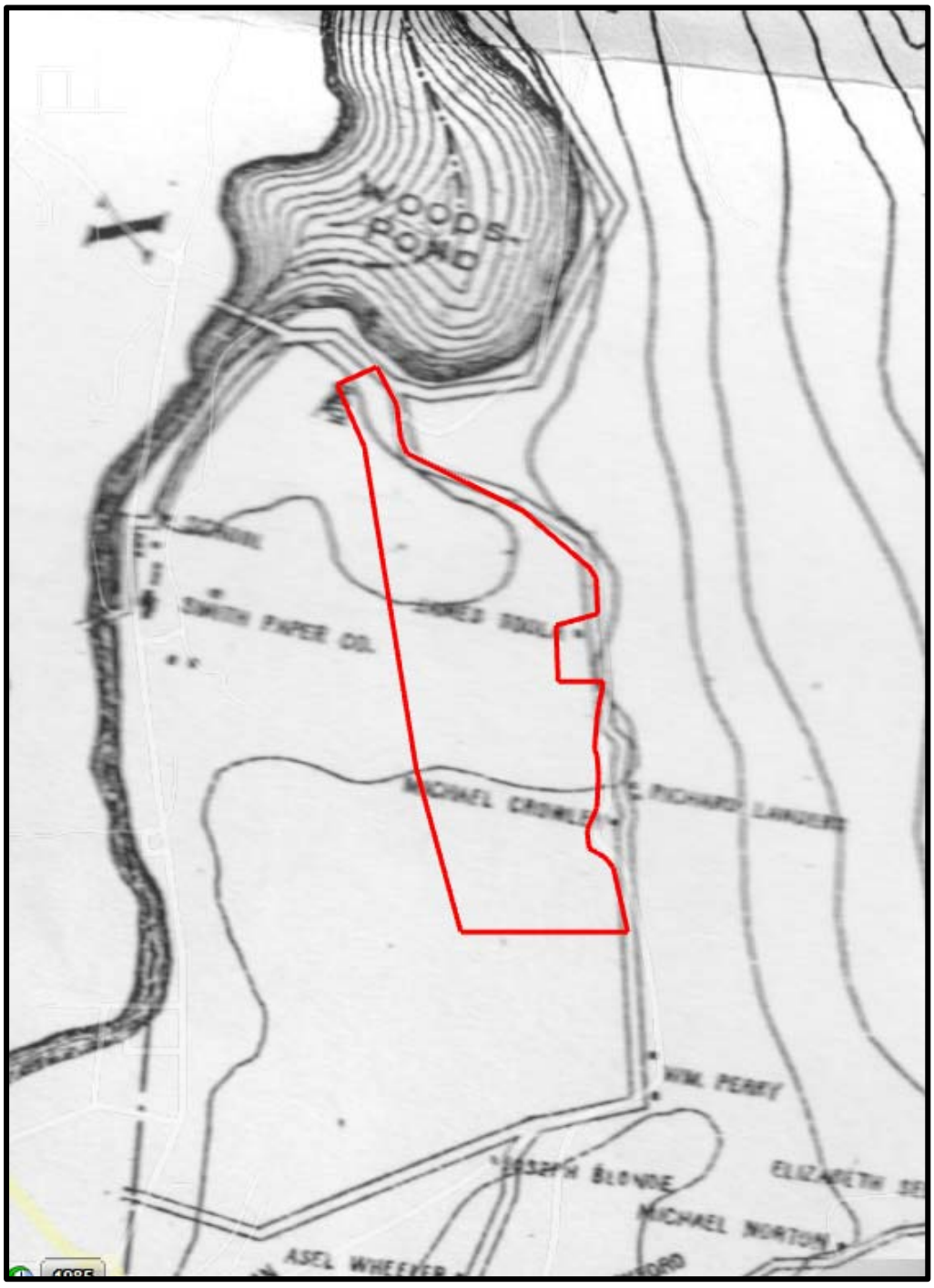

Figure 9. 1890 Map of Lee (GE Parcel Shown Approximately in Red).

The 1897 USGS topographic map for this area (Figure 10) depicts the Landers, Perry, and Crowley structures along Woodland Road (see red arrow), but no structure is mapped further north where the Toole/Toola location was previously depicted.

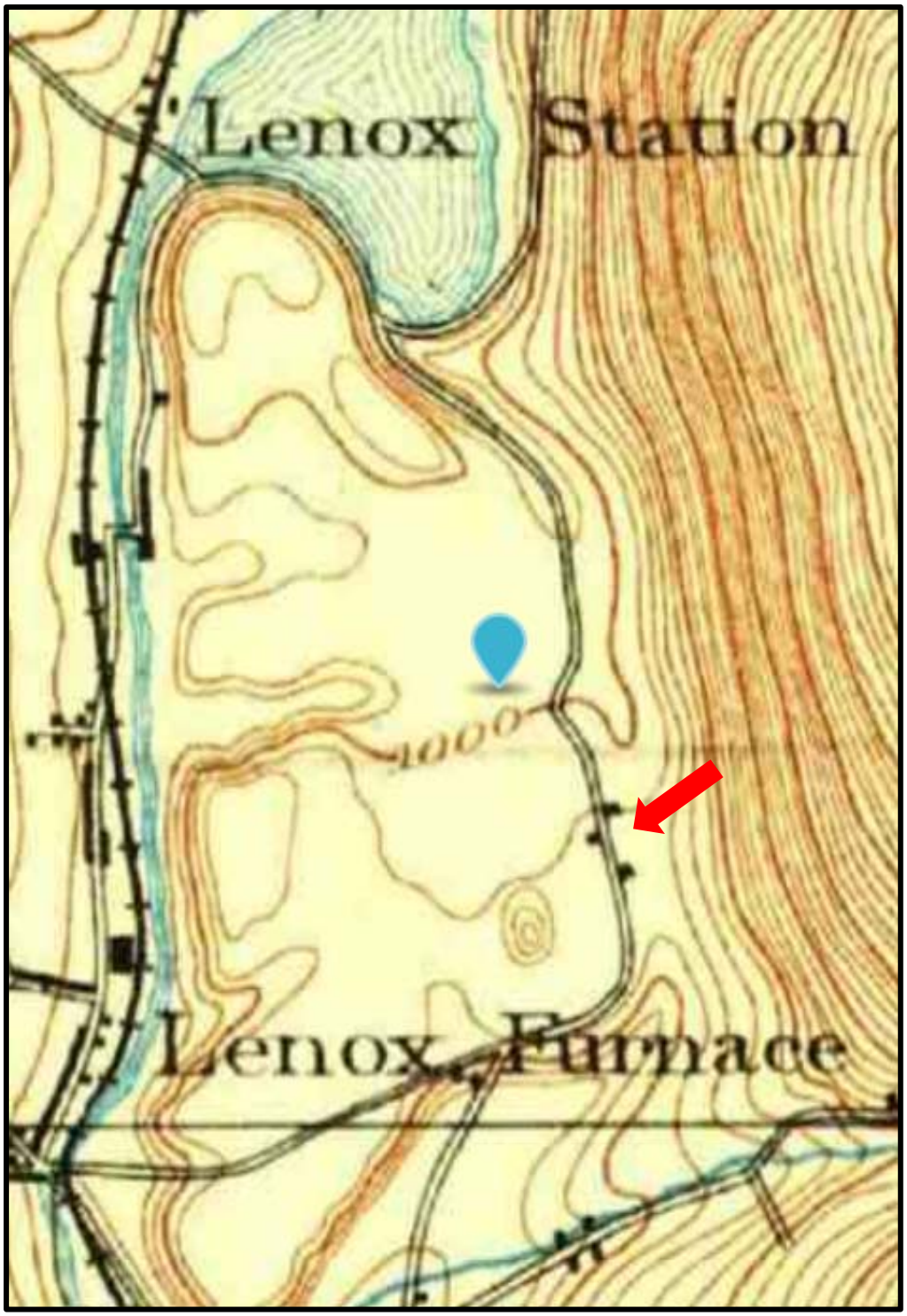

Figure 10. 1897 Becket, MA topographic quadrangle map

Despite the omission of the Toole/Toola structure from the 1897 map, the updated 1945 USGS topographic map does depict a structure in that general location (Figure 11). No structures are shown within the GE Parcel, but the map does illustrate the placement of the electric transmission line that still crosses the property from southeast to northwest, and evidence of gravel pit excavations can be seen in the multiple topographic depressions. This documents that the GE Parcel has been the location of active gravel removals for over 75 years.

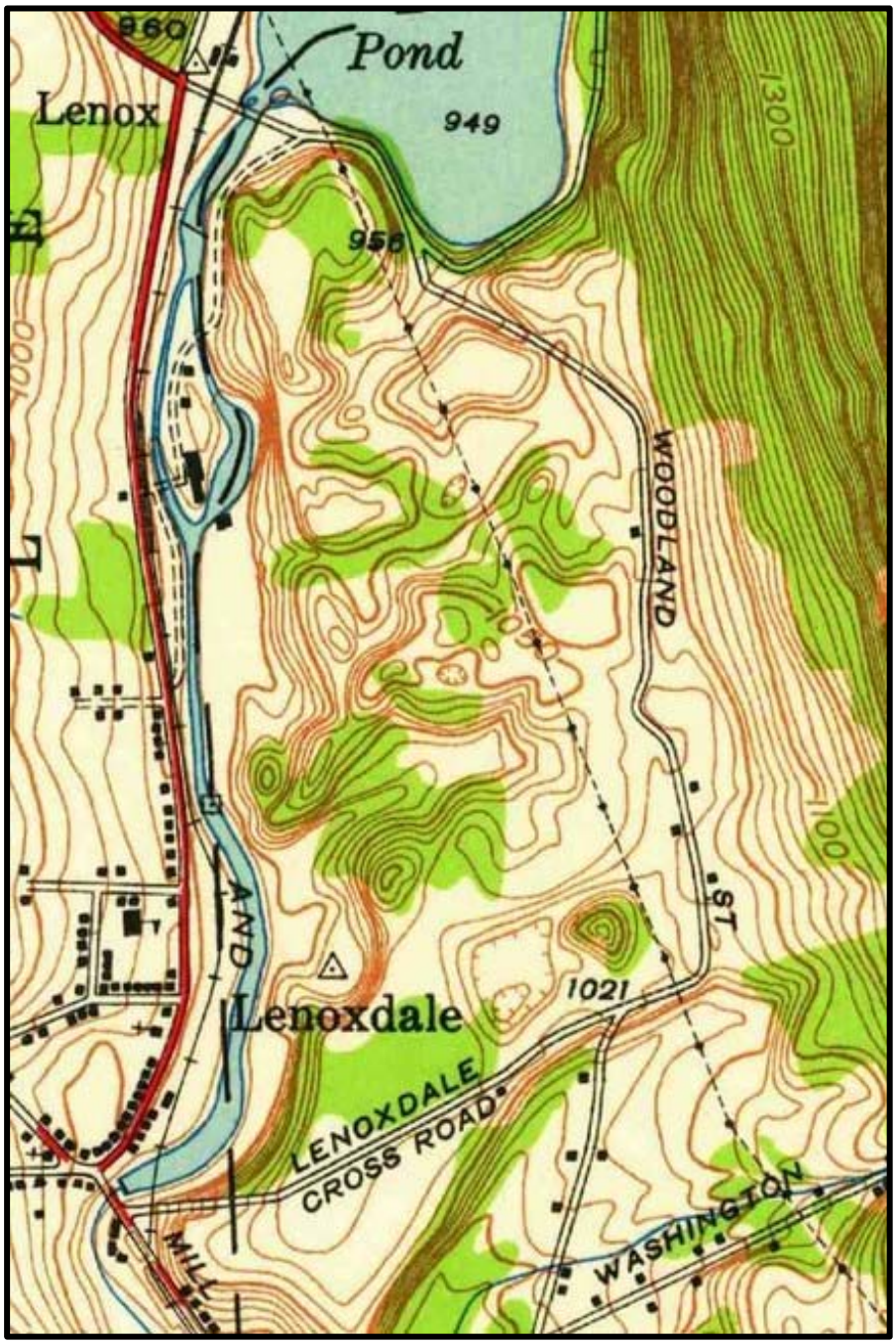

Figure 11. 1945 East Lee, MA topographic quadrangle map.

4.4 Previous Studies

As depicted previously in Figure 7, a previous archaeological survey is recorded in the MACRIS files as having covered the transmission line southeast of the GE Parcel. This survey was conducted by Heritage Consultants, LLC and did not document any archaeological sites near the GE Parcel.

In 2008, GE submitted to EPA a report entitled *Initial Phase IA Cultural Resources Assessment (CRA) for the Housatonic Rest of River Project* (URS 2008). The Initial Phase IA CRA was conducted to assess the potential for archaeological and historical resources to exist in the portions of the Housatonic River and its floodplain that could potentially be affected by implementation of Corrective Measures selected by EPA – namely, Reaches 5 through 8. Because that report was focused on areas in and adjacent to the River, it did not include any information specific to the current UDF site.

5 Results of Field Inspections

5.1 March Field Inspection in Advance of Geotechnical Boring Activity

In March 2022, AECOM senior archaeologist Daniel Cassedy conducted a field inspection of the locations of proposed soil borings that were planned to be placed within the GE Parcel to obtain geotechnical information and establish monitoring wells. This inspection covered the cleared and previously mined areas as well as a portion of the wooded strip along Woodland Road. Conditions during the field inspection were rainy and there was no snow cover. As previously noted, archaeological representatives of an EPA contractor and the Wampanoag Tribe were present during this inspection.

This visual inspection documented that almost all the proposed boring locations were situated in locations previously disturbed by mining operations. One exception was at the planned location of monitoring well MW 2022-1, which is situated in a wooded strip along the eastern edge of the parcel near Woodland Road (Figure 12). The use of a three-inch hand-operated bucket auger revealed a relatively undisturbed soil profile of dark brown sandy loam A horizon over yellow brown silty sand and brown sand B horizons (Figure 13). The auger hole terminated at 60 cm below the surface when large glacial pebbles and small cobbles were encountered.

The EPA and Wampanoag archaeological representatives concurred with AECOM's recommendation that the area around MW 2022-1 had archaeological potential and should be systematically surveyed prior to any future substantive earth moving that might be planned, but that the proposed monitoring well to be placed at the location of the three-inch bucket auger sampling should not have a notable impact on any potentially significant archaeological resources. There was also concurrence that excavation of a 50 cm x 50 cm (20 in x 20 in) shovel test pit at that location prior to geotechnical boring would in fact disturb more ground than the proposed boring and would therefore not be justified. The boring was to be conducted by a tracked boring machine and would result in eight-inch diameter sized holes. No other earth-moving activities were planned as part of the geotechnical boring operation.

5.2 June Field Inspection of the Vegetated Margins of the GE Parcel

In June 2022, Dr. Cassedy conducted an additional field inspection of the remainder of the GE Parcel. This inspection covered the vegetated margins along the entire eastern side along Woodland Road. He was joined again by EPA and Wampanoag archaeological representatives. Conditions at the time were clear, warm, and dry. This field inspection did not identify any visible above-ground cultural resources, and it documented that much of the wooded areas were situated in steeply sloping terrain, with intermittent evidence of past mining soil removals.

Figure 12. Location of Monitoring Well 2022-1. Mark Andrews, Wampanoag Aquinnah Cultural Resources Monitor, and Ray Pasquariello, HDR Archaeologist in the background.

Figure 13. Sandy B-horizon soils from hand-auger hole at Monitoring Well 2022-1.

During this inspection, the various areas and conditions at the GE Parcel were evaluated in terms of whether they have a high, moderate, or low/no potential to contain archaeological resources. In general, the GE Parcel showed evidence of widespread disturbance, and all areas at that parcel were determined to have no or low potential to contain archaeological resources, with the exception that three separate areas of relatively level terrain were identified that appeared to be less modified and located in settings that might contain archaeological sites. These have been designated as Areas A, B, and C and are all located outside of operational area and the main disposal facility limits of consolidated material, but could potentially be affected by UDF support activities. Those areas are shown on Figure 14 and are described below.

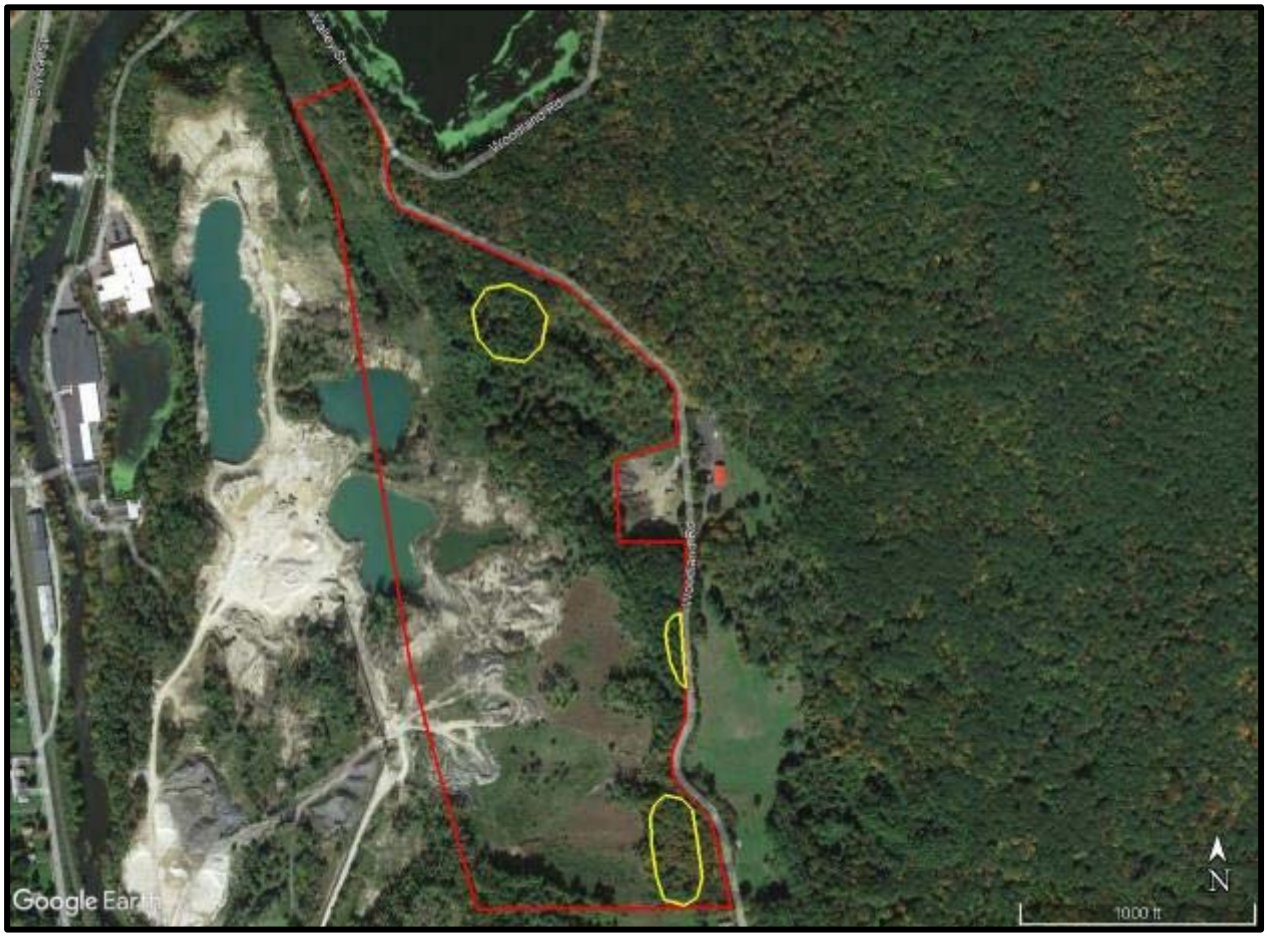

Figure 14. Areas of Archaeological Potential within the GE Parcel (Outlined in Yellow).

Area A is in the northern portion of the GE Parcel on a high terrace or knoll situated between the transmission line corridor and Woodland Road. It overlooks a small vernal pool wetland to the south (Figure 15). It is covered by a mixture of mature trees and slopes gradually to the north and west and is considered to have high archaeological potential for pre-contact period sites.

Area B is located in a narrow strip of woods along the eastern edge of the property between a steep gravel mine berm and Woodland Road. This is the area where the location of monitoring well MW 2022-1 was inspected in March 2022 and determined to be in a level area of moderate archaeological potential (Figure 16) for both pre-contact and historic period sites.

Area C occupies the southeastern corner of the parcel and is situated on a relatively level knoll with large mature pine trees and small hardwoods (Figure 17). In addition to having potential for pre-contact resources, it is also in the general vicinity of some residential structures depicted on nineteenth century maps. Area C is considered to have high archaeological potential for both pre-contact and historic period sites.

Figure 15. View South from High Knoll in Area A with Wetland in the Background.

Figure 16. View West of Monitoring Well 2022-1 in in Area B with Gravel Mine Berm in the Background.

Figure 17. View South of Level Knoll in Area C.

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6 Plan for Supplemental CRA Investigations

This CRA identified no previously recorded or visible cultural resources within the overall APE. However, three locations within portions of the GE Parcel that could potentially be used for UDF support activities, identified above as Areas A, B, and C, have a potential to contain archaeological resources. In accordance with the UDF PDI Work Plan and EPA's February 25, 2022 conditional approval letter, this section presents GE's supplemental plan to further investigate whether those three areas contain potentially significant cultural resource.

This supplemental project will include additional background research on relevant prior studies and available environmental data to provide a context within which to interpret any archaeological remains that may be identified in the three areas of interest. It will then involve survey fieldwork in those three areas. All work will be performed by or under the direct supervision of individuals meeting the Secretary of the Interior's professional qualifications standards for archaeologists (36 CFR 61).

6.1 Background Research

To date, AECOM has conducted background research to provide an assessment of the available data concerning potential archaeological resources at the GE Parcel. This research has consisted of a review of archaeological site and inventory records, as well as examination of historic maps, aerial photographs, soils data, and historical documentary evidence. These data will help orient the archaeologists during fieldwork, and the results of additional research in the MHC's inventory will be contextualized in relation to previous relevant research to provide an adequate discussion of archaeological resources that may be encountered by the survey fieldwork.

Prior to the fieldwork, AECOM will develop more detailed prehistoric and historic contexts as well as outline the developmental history of GE Parcel, focusing on the three less modified areas described above. Information will be provided on the boundaries and extent of disturbances and modifications within the areas to be surveyed. Historic maps and aerial images will be georeferenced in a geographic information system (GIS) to illustrate archaeological sensitivity and indicate the extent of previous disturbances.

6.2 Field Investigations

All fieldwork will be conducted in accordance with MHC archaeological guidelines. AECOM will first conduct a systematic visual inspection of Areas A, B, and C to verify current field conditions and refine the field survey strategy as needed. It will then conduct field surveys of those three areas. Specifically, AECOM will excavate 50-centimeter square shovel test pits (STPs) spaced at 10-meter intervals across each of those areas. Soils will be removed in 10-centimeter levels within the natural or cultural stratigraphy (whichever is smaller) of each STP. All soils will be screened through ¼-inch

hardware mesh screens to recover artifacts, if any. Quantitative and qualitative characteristics for each stratum will be recorded in the field. Data will include depths in centimeters, soil texture, horizon designation, soil color using a Munsell chart, stratum/level information, and type/number of artifacts recovered, as well as relevant comments on the location of the STP (landform, vegetative cover, etc.). Artifacts will be bagged immediately and labelled with provenience information (project information, STP number, stratum and level, depth, date, and initials of the excavator). The locations of all STPs and identified features will be mapped using a hand-held, sub-meter accurate GPS unit, and photographs documenting the work will be taken with appropriate scales and caption boards.

In the case of an unanticipated discovery of human remains during the project, AECOM will follow all relevant state and federal law and recommendations regarding treatment of human remains. AECOM recognizes the importance of providing careful and respectful treatment for human remains recovered as an unanticipated discovery or as part of this archaeological investigation. In the event of an unanticipated discovery of human remains, AECOM will follow the following protocols:

1) Should human remains or evidence of possible burials be encountered, work in the general area of the discovery will stop immediately and the location will be immediately secured and protected from damage and disturbance.

2) Human remains and associated artifacts will be left in place and not disturbed. No skeletal remains or materials associated with the remains will be collected or removed until appropriate consultation has taken place and a plan of action has been developed.

3) The county coroner/medical examiner, local law enforcement, the MHC, and the appropriate Indian Nations will be notified immediately. The coroner and local law enforcement will make the official ruling on the nature of the remains, being either forensic or archaeological. If human remains are determined to be Native American, the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated. AECOM will consult with the MHC and appropriate Indian Nations to develop a plan of action that is consistent with the Native American Graves Protection and Repatriation Act (NAGPRA) guidance.

4) If human remains are determined to be non-Native American, the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated in accordance with MHC's "Policy and Guidelines for Non-Native Human Remains Which are Over 100 Years Old or Older" and in a manner consistent with the ACHP Policy Statement Regarding Treatment of Burial Sites, Human Remains and Funerary Objects (February 23, 2007). Consultation with the MHC and other appropriate parties will be required to determine a plan of action.

6.3 Laboratory Analysis and Curation

Any archaeological artifacts and samples recovered will be returned to the AECOM laboratory for professional analysis and cataloging. Artifacts will be cleaned and labeled. Any artifact needing conservation will be removed from the collection for separate processing and evaluation. After the artifacts are dry, they will be separated by class and placed in individual 4-ml polyethylene bags labeled with provenience information in permanent marker. The individual bags will be placed within a large bag(s) for the entire provenience. All bags will be labeled and will be pierced for air circulation.

Any artifacts recovered from the investigation will be fully inventoried and cataloged. This information will be used to establish the contemporaneity of contexts and strata, as well as to determine whether assemblages represent primary or secondary deposits. At a minimum, basic analyses performed on these artifacts from any given archeological context will include the identification of key characteristics for each object, including general form and function (e.g., nail – architectural), material composition (ceramic, glass, metal, etc.), manufacturing technique, date of manufacture, maker's marks (if present), and the total number of artifacts with such characteristic within a specific context.

Any artifacts recovered from intact deposits will additionally undergo more intensive analyses designed to facilitate the interpretation of these materials and the context in which they were found. Additional artifact characteristics will be recorded for identified vessels, including those related to methods of decoration, motifs, and use-wear. Efforts will also be made to more accurately date all diagnostic artifacts, and to utilize those data to establish *terminus post quem* (TPQ) and *terminus ante quem* (TAQ) dates for specified archeological deposits.

At the conclusion of this supplemental investigation, any artifacts recovered and project records will be prepared for permanent curation with a qualified curation facility. All artifacts will be delivered in archivally stable Hollinger Record Storage Boxes or an equivalent. Artifacts within the boxes will be packaged in labeled, vented, zipper-sealed polyethylene bags. Along with the artifact collection and a paper catalog, an electronic format copy of the final catalog will be provided. In addition, all notes, photographs, drawings, maps, and both original and duplicate copies (photo-reproduced onto acid-free paper) of all field documentation and notes will be curated.

6.4 Reporting

Following an assessment of the field data collected and the laboratory analysis, AECOM will produce a draft report presenting the results of the survey of Areas A, B, and C. That report will be prepared to meet the standards of the MHC reporting guidelines (950 CMR 70.14). At a minimum, the report will include the following: an abstract (consistent with the State Archaeologist's memorandum on archaeological abstracts), introduction, background research methods, description and justification

of the research design, field testing methods, field results, laboratory procedures and analyses and discussion, conclusions and recommendations for further work (if any), bibliography, and lists of tables, figures, and photographs. AECOM will include maps created in GIS depicting the locations of the areas surveyed, historic maps showing development and past land use, and field results. All figures and field photographs will be prepared consistent with professional practices and the State Archaeologist's memorandum on cartography and photography.

6.5 Schedule

The field data collection will be initiated within 30 days after EPA approval of this work plan for supplemental archaeological investigations and will be completed within approximately 30 days after initiation. Thereafter, AECOM will conduct the laboratory processing and report preparation. A report on these supplemental investigations will be included in the Interim PDI Summary Report to be included with the UDF Conceptual Design Plan (currently due on December 6, 2022).

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