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TECHNICAL REPORT

ARCHAEOLOGICAL SITE EXAMINATION
WELLS 3 & 4 WATER TREATMENT PLANT

Medfield, Massachusetts

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MANAGEMENT ABSTRACT

A site examination was conducted for the Town Wells 3 & 4 Site, a pre-contact Native American archaeological resource within the Town Wells 3 & 4 Water Treatment Plant project area in Medfield, Massachusetts. Archival research for the study included a review of information on recorded pre-contact sites in the vicinity of the Project area to assist in interpretation of cultural materials and other information (size, internal structure, temporal affiliation) collected from the Town Wells 3 & 4 Site in the site examination.

Subsurface testing consisted of 40, 50-x-50-cm test pits placed in a 5 and 10-m grid across the site to establish its horizontal and vertical boundaries and locate previously unknown subsurface features (firepit/hearth, refuse pit, lithic workshop) or concentrations of cultural material. Three, 1-x-1-m excavation units (EUs) were placed where test pits yielded small concentrations of chipping debris or chipped stone tools and there was potential to recover additional information. In two small loci of cultural material in the northern and southern portions of the site, densities of cultural material ranged from a maximum of 104 pieces/sq m (intensive survey test pit AR-02-360) in the southern locus to only about 4 to 12 pieces/sq m in the northern locus. Across the rest of the delineated site area outside the two loci, densities of cultural material were low ranging from 4 to 8 pieces/sq m.

Chipped stone tools were a Middle Archaic Period Stark point of argillite, two Late to Transitional Archaic or Early Woodland Period small stemmed points of argillite and quartz and a unifacially modified piece of quartz shatter. The three diagnostic projectile points were found in the southern locus within the site and indicate occupation episodes in the Middle (8000-5000 B.P.) and Late to Transitional Archaic or Early Woodland periods (4000-2500 B.P.). An assemblage of 38 pieces of quartz, rhyolite and argillite chipping debris and 7 fragments of burned rock was also collected from the site. No concentrations of burned rock or other features such as hearth/firepits or deep storage pits were found.

The identification of Middle (8000-5000 years B.P.) and Late to Transitional Archaic or Early Woodland (4000-2500 B.P.) Period components on the Town Wells 3 & 4 Site is a contribution to what is currently known about pre-contact Native American settlement and lithic resource use in the core area formed by the Mine Brook drainage and combined upper Neponset and Charles River basins.

However, most of the pre-contact cultural material recovered in the site examination was within an A horizon interpreted as a plowzone formed by past agricultural land use. The results of close interval subsurface sampling indicated that the amount and types of pre-contact cultural materials present in intact subsoil horizons is minimal. It is also likely that subsurface sampling conducted for the intensive survey and site examination collected most of the information within the small locus of cultural material in the southern portion of the site. This locus is outside the footprint of the new water treatment plant but within a gravel or crushed rock apron and parking area adjacent to the northwest corner of this proposed structure.

In summary, based on the results of the site examination, the Town Wells 3 & 4 Site does not have sufficient integrity or information content to be potentially significant and eligible for listing in the National Register of Historic Places. Further study would be unlikely to yield much new information and no additional archaeological investigation is recommended for the Town Wells 3 & 4 Site.

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CHAPTER ONE

INTRODUCTION

The Town of Medfield is currently planning the proposed Wells 3 and 4 Water Treatment Plant (WTP) on Elm Street in Medfield, Massachusetts (Figure 1-1). The proposed project involves the construction of a water treatment plant, well replacement, and improvements to two existing well stations. The project area is located off Elm Street approximately 750m (2460 ft) south of the Wheelock School and 100m (300 ft) east of a railroad (Amtrak) right-of-way within mostly undeveloped land west of Mine Brook and its associated wetlands (Figure 1-2).

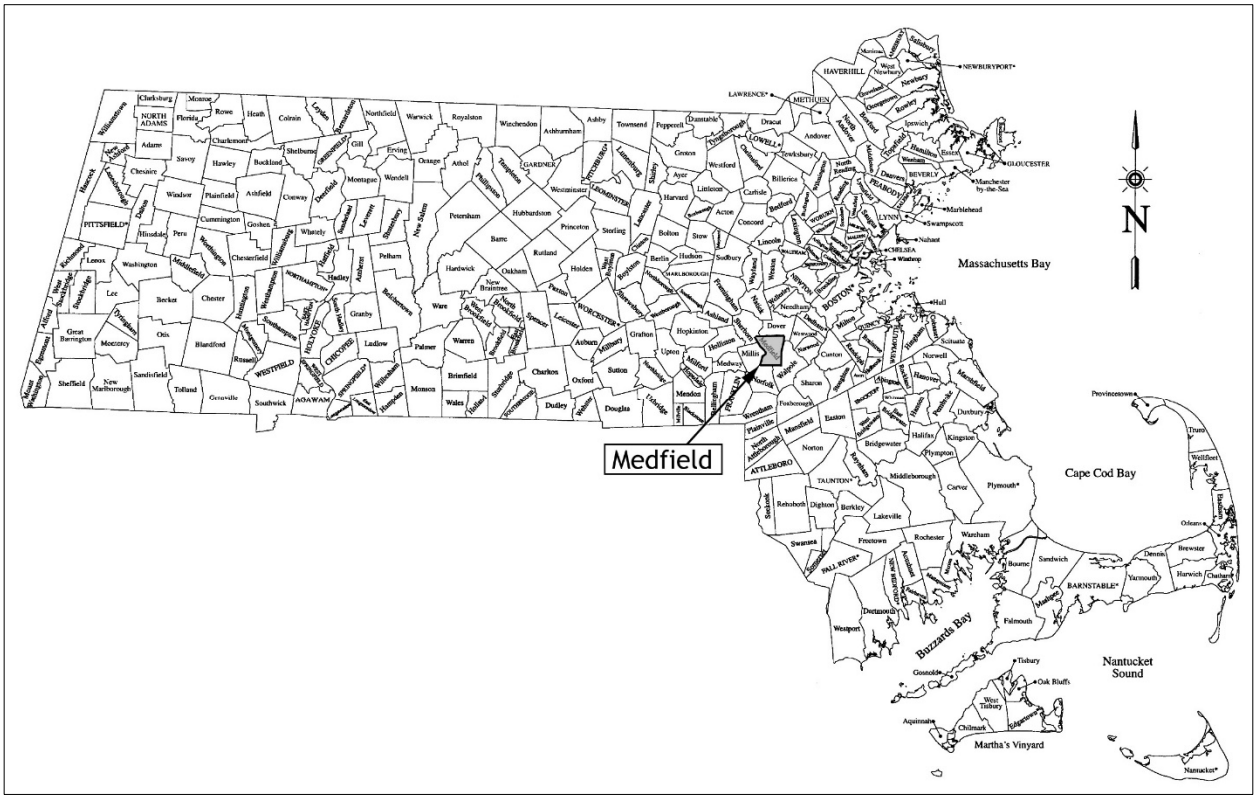

Figure 1-1. Map of Massachusetts showing the location of the town of Medfield.

Project Description

The new water treatment plant will be located between two groundwater wells within an approximately 21.8-acre project area owned by the Town of Medfield. The new treatment plant building will be a 4,421 square foot, pre-engineered metal structure. The water treatment plant will remove iron and manganese from water withdrawn from two groundwater wells (Wells 3, 4) that supply the Medfield water system. The project includes selective demolition of an existing generator, propane tank, chemical storage tank, and chain link fences at the Well Stations. Selective demolition inside the well stations includes the existing chemical feed systems, monitoring equipment, piping, and appurtenances. Rehabilitation of the existing

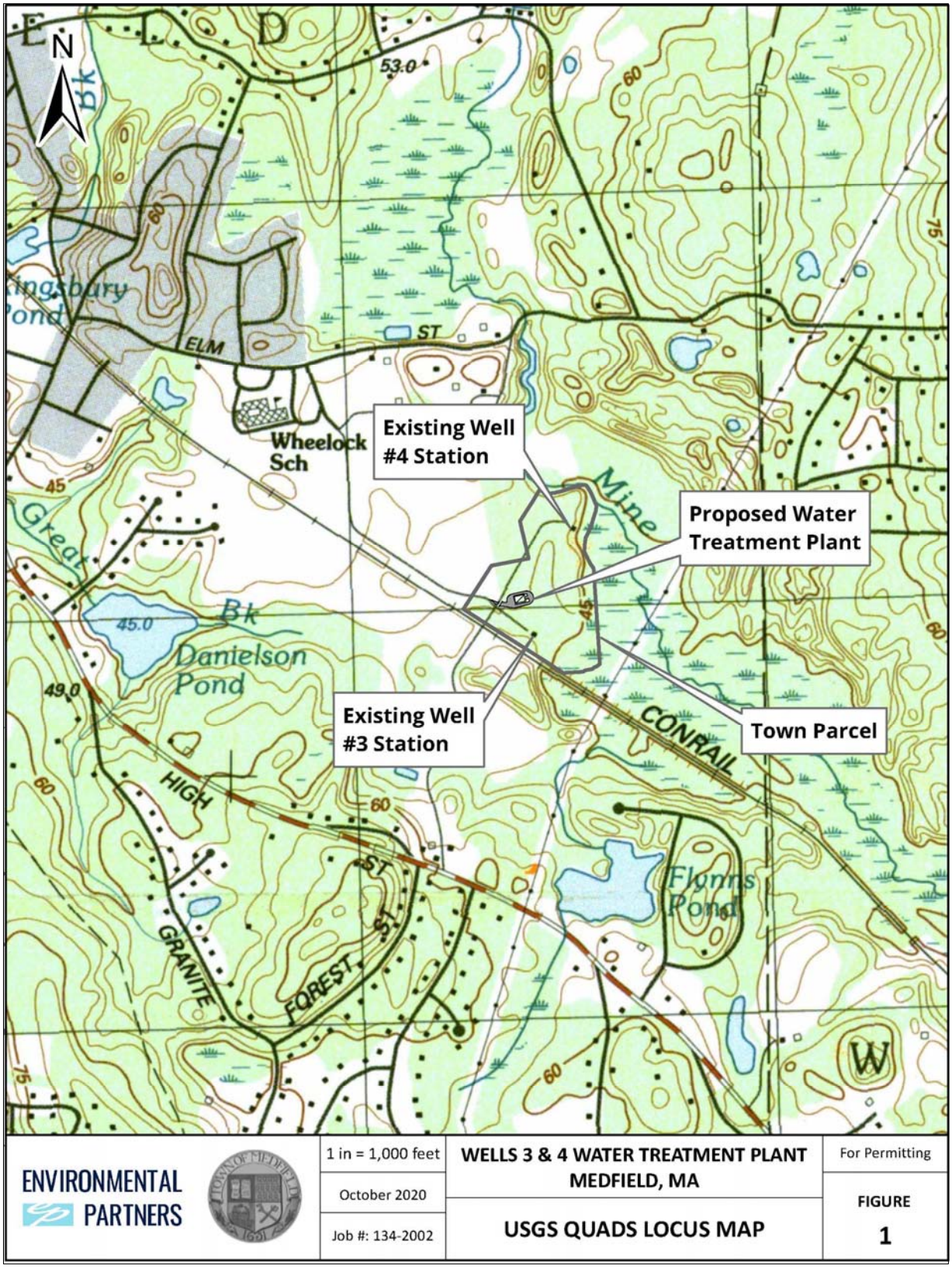

Figure 1-2. Location of the Medfield Wells 3 & 4 Water Treatment Plant Project area on the USGS Medfield, Massachusetts, 7.5-minute USGS topographic quadrangle map.

well station buildings will include roof replacement, hazardous material removal (if found), heating and ventilation modifications, and electrical improvements.

Project Authority

The site examination was conducted to assist the project proponent in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800) and 36 CFR 60 and Massachusetts General Laws, Chapter 9, Sections 26-27C as amended by Chapter 254 of the Acts of 1988 (950 CMR 71). The project also requires several approvals from the Massachusetts Department of Environmental Protection (DEP) for construction of a new water treatment facility.

History of Cultural Resource Investigations

In November 2020, the Massachusetts Historical Commission (MHC) reviewed a Project Notification Form (PNF) and Environmental Notification Form (ENF) prepared for the project by EPG and commented that the project will use Revolving Funds administered by the Massachusetts Department of Environmental Protection (DEP) and would be reviewed pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 USC 3100101 et seq.) and its implementing regulations (36 CFR 800) and also in accordance with (M.G.L. Chapter 9, sections 26-27C (950 CMR 70-71).

MHC requested that an intensive (locational) archaeological survey (950 CMR 70) be conducted for archaeologically sensitive portions of the project (MHC letter to Town of Medfield dated November 30, 2020). The MHC noted that multiple ancient Native American archaeological sites have been recorded in proximity to the project area and its environmental attributes (sandy, well-drained soils, wetland and stream setting) are favorable for ancient and historic period archaeological sites.

In March 2021, PAL conducted an intensive survey under State Archaeologist Permit No. 4058 issued by the MHC. Subsurface testing of the project area consisted of 34, 50-x-50-centimeter (cm) test pits on four judgmental linear transects, in two array patterns and in three judgmentally selected locations. Seven test pits yielded an assemblage of pre-contact cultural material consisting of a broken small stemmed projectile point of rhyolite, 35 pieces of chipping debris (quartz, gray-green volcanic rock) and a piece of burned rock designated as the Town Wells 3 & 4 Site. The site was interpreted as a small, temporary encampment where chipped stone tools were made from quartz and a grey-green volcanic rock interpreted as a rhyolite or similar rock type from a nearby section of the Mattapan volcanic complex. The Town Wells 3 & 4 Site had the potential to yield additional information about pre-contact Native American use of this lithic resource. A fragment of burned rock indicated there may be a hearth or firepit feature within the site. The small stemmed projectile point fragment suggested the site was created about 4000 to 2500 years ago in the Late to Transitional Archaic or Early Woodland Period.

Considered to be a potentially significant cultural resource, the Town Wells 3 & 4 Site was within the proposed location of the water treatment plant and other components (access road/driveway, stormwater retention basins, landscaping) of this facility. Additional archaeological investigation with a site examination was recommended to determine its horizontal and vertical boundaries, assess its contents (range of cultural materials and features), temporal/cultural affiliation and potential significance in terms of National Register of Historic Places criteria (Ritchie 2021). Delineation of site boundaries can assist in the development of a plan to avoid and protect the Town Well 3 & 4 Site through re-design of the proposed water treatment facility, if feasible. In May 2021, MHC concurred with this recommendation and requested that an archaeological site examination (950 CMR 70) be conducted for the Town Wells 3 & 4 Site.

PAL Scope

The purpose of the site examination was to identify the horizontal and vertical boundaries, internal configuration and complexity, physical integrity or condition and temporal/cultural affiliation of the Town Wells 3 & 4 Site within the Wells 3 & 4 WTP project area and evaluate whether or not the site is eligible for listing on the National Register of Historic Places. Sufficient information should also be obtained from a site examination to assist in further consultation to avoid, minimize or mitigate any adverse effects to the archaeological resources within the project impact area.

PAL conducted the site examination under State Archaeologist's Permit No. 4094 issued by the MHC on May 24, 2021. Key PAL personnel involved in the intensive survey meet the *Secretary of the Interior's Professional Qualification Standards* (36 CFR 61, Appendix A). All tasks associated with the site examination were undertaken in accordance with the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* (48 FR 44716–44742, National Park Service [NPS] 1983) and the MHC's *Public Planning and Environmental Review: Archaeology and Historic Preservation* (1979) and were completed in compliance with Massachusetts General Laws, Chapter 9, Sections 26-27C and 950 CMR 70-71. This report follows the guidelines established by the NPS in *Recovery of Scientific, Prehistoric, Historic, and Archaeological Data* (36 CFR 66, Appendix A).

Personnel

PAL personnel involved in the project were Duncan Ritchie (senior archaeologist/principal investigator), John M. Kelly (project archaeologist), Ted Datillo, Nate Orsi and Colin Stephenson (archaeologists). All laboratory work was conducted at PAL under the supervision of Heather Olson (laboratory manager), including the artifact analyses performed by Kate Erickson (laboratory analyst).

Disposition of PAL Project Materials

All documentation and materials for the intensive survey, including cultural material, field forms, maps, and photographs, are stored at PAL, 26 Main Street, Pawtucket, Rhode Island. PAL serves as a temporary curation facility until the Commonwealth of Massachusetts designates a permanent state repository.

CHAPTER TWO

RESEARCH DESIGN AND METHODS

The goal of the archaeological site examination was to collect sufficient information from the Town Wells 3 & 4 Site within the Medfield Wells 3 & 4 Water Treatment Plant (WTP) Project to evaluate its significance and eligibility for listing in the State and/or National Registers and to develop plans to avoid, minimize, or mitigate adverse effects, if necessary. The data collected included information about the site's boundaries, physical integrity, density, complexity, and age. Research questions were formulated to address the site's role in local and regional land-use and settlement patterns and its importance within larger pre-contact Native American contexts.

Significance and Historic Contexts

The different phases of archaeological investigations (reconnaissance survey, intensive [locational] survey, site examination, and data recovery) reflect preservation planning standards for the identification, evaluation, registration, and treatment of archaeological resources (National Park Service [NPS] 1983). An essential component of this planning structure is the identification of archaeological and traditional cultural properties that are eligible for inclusion in the National Register. Archaeological properties can be a district, site, building, structure, or object, but are most often sites and districts (Little et al. 2000).

Traditional cultural properties are defined generally as ones that are eligible for inclusion in the National Register because of their association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community (Parker and King 1998). The results of professional surveys and consultation with Native American or other ethnic communities are used to make recommendations about the significance and eligibility of archaeological and traditional cultural properties.

An archaeological property may be pre-contact, post-contact, or contain components from both periods. Pre-contact (or what is often termed "prehistoric") archaeology focuses on the remains of indigenous American societies as they existed before substantial contact with Europeans and the resulting written records (Little et al. 2000). In accordance with the NPS guidelines, "pre-contact" is used, unless directly quoting materials that use "prehistoric." There is no single year that marks the transition from pre-contact to post-contact.

Post-contact (or what is often termed "historical") archaeology is the archaeology of sites and structures dating from time periods since significant contact between Native Americans and Europeans. Documentary records and oral traditions can be used to better understand these properties and their inhabitants (Little et al. 2000). Again, for reasons of consistency with the NPS guidelines, "post-contact" is used when referring to archaeology of this period, unless directly quoting materials that use "historical."

The NPS has established four criteria for listing significant cultural properties in the National Register (36 CFR 60). The criteria are broadly defined to include the wide range of properties that are significant in American history, architecture, archaeology, engineering, and culture. The quality of significance may be present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association. The criteria (known by the letters A–D) allow for the listing of properties

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

Archaeological and traditional cultural properties can be determined eligible for listing in the National Register under all four criteria, but must meet at least one (Little et al. 2000; Parker and King 1998). Archaeological properties listed under Criterion A or Criterion B must have a demonstrated ability to convey their associations with events, persons, or patterns significant to our history. Criterion C is intended to recognize properties that are significant expressions of culture or technology (especially architecture, artistic value, landscape architecture, and engineering) (Little et al. 2002:26). Under Criterion C, an archeological property must have remains that are well-preserved and clearly illustrate the design and construction of a building or structure (Little et al. 2002:27).

For Criterion D, under which most archaeological properties are determined eligible for listing in the National Register, only the potential to yield important information is required (Little et al. 2002:22). However, it is important to consider whether the data derived from a site are unique or redundant and how they relate to the current state of knowledge regarding substantive research topic(s). A defensible argument must establish that a property "has important legitimate associations and/or information value based upon existing knowledge and interpretations that have been made, evaluated, and accepted" (McManamon 1990:15).

Another critical component in assessing the significance of a historic property is an evaluation of its integrity. Historic properties either retain integrity (i.e., the ability to convey their significance) or they do not. The National Register criteria recognize seven aspects or qualities that, in various combinations, define integrity:

- *location*, the place where the historic property was constructed or the place where the historic event occurred;
- *design*, the combination of elements that create the form, plan, space, structure, and style of a property;
- *setting*, the physical environment of a historic property;
- *materials*, the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property;
- *workmanship*, the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory;
- *feeling*, a property's expression of the aesthetic or historic sense of a particular period of time; and
- *association*, the direct link between an important historic event or person and a historic property.

To retain historic integrity, a property will always possess several, and usually most, of these qualities. The retention of specific aspects of integrity is paramount for a property to convey its significance. Determining which of these aspects or qualities are most important to a particular property requires knowing why, where, and when the property is significant (NPS 2002).

Research Design

The site examination was designed to collect information about the horizontal and vertical boundaries, integrity or condition, distribution and density of any cultural materials and features (internal complexity), and the temporal/cultural affiliation of pre-contact Native American occupations or components of the Town Wells 3 & 4 Site. Another objective of the site examination on the Town Wells 3 & 4 Site was to determine its horizontal extent in relation to the area of impact from construction of the proposed Wells 3 & 4 WTP.

Archaeological Site Examination

The goal of the site examination was to evaluate the eligibility of the Town Wells 3 & 4 Site to the National Register by obtaining different types of information from the site. This information was used to address site specific, local, and regional issues in prehistory. Understanding the basic attributes of the site, including horizontal and vertical boundaries, integrity, patterns of artifact distribution and density, and internal complexity of the sites was a focus of the site examination.

Site Boundaries

Site boundaries are defined by the presence or absence of cultural material and natural boundaries that include slope and presence of wetlands or poorly drained soils. Property lines bounding the project area and the location of impacts related to project construction are factors determining the extent of subsurface testing conducted during a site examination. The boundaries of the Town Wells 3 & 4 Site had the potential to be partially defined by natural topographic features such as gradual slopes and changes in the texture of subsoils (sandy to gravelly).

Site Integrity

Integrity is defined as the physical condition of a site. Natural and/or cultural factors such as erosion, plowing, and previous development or construction activities may have impacted an archaeological deposition and lessened its integrity. The prior intensive survey found that the Town Wells 3 & 4 Site had some evidence of previous alteration of soils from construction of an existing access road along its northern boundary. The remainder of the site had good physical integrity within the proposed development area.

Internal Density

The internal density of a site is determined by the frequency of cultural materials and features found during subsurface testing. A site examination is designed to locate concentrations of cultural material and features through systematic excavation of test pits within a close interval (5m) grid pattern surrounding the original find of artifacts and/or features. The intensive survey conducted by PAL found that the Town Wells 3 & 4 Site containing deposits of pre-contact cultural materials (chipped stone projectile point, chipping debris, burned rock fragments) that vary in density. Prior to site examination fieldwork, the Town Wells 3 & 4 Site was known to contain at least two small loci of cultural materials that developed from the manufacture of chipped stone tools (Ritchie 2021).

One objective of the systematic sampling in the site examination was to identify any additional features such as hearths or firepits with burned rock, deep pits, post molds, burned rock concentrations or pavements and lithic workshops.

Site Complexity

Site complexity is determined by the number of different types of activities that occurred on the site during individual occupations as well as over time. Another measure of complexity is the degree of internal spatial complexity displayed by an archaeological site, created by overlapping deposits of cultural materials or features.

Additional testing for the site examination was designed to determine if there were more dense and diverse concentrations of cultural materials (chipped or ground stone tools, chipping debris, ceramic sherds) and other types of features (deep pits, post molds, burnt rock spreads) present in the Town Wells 3 & 4 Site. Chipped stone tools such as preforms or tool blades, projectile points, drills and scrapers as well as ground stone objects (semi-lunar knife, gouge, adze, plummet/net weight, etc.) can indicate a range of on and off-site activities. Features may yield information about the activities that occurred on or near these sites such as natural resource use (hunting, fishing, collecting plant foods), food or resource processing; in addition to seasonal occupation, trade and exchange, Native architecture and use of space.

Temporal Range of Occupations

Diagnostic artifacts are used to estimate the age and number of occupations of a post-contact Native American site undergoing a site examination. The temporal/cultural affiliation of the Town Wells 3 & 4 Site was known to include the Late to Transitional Archaic or Early Woodland Periods (4000 to 2500 years ago), based on a small stemmed projectile point fragment found in the previous intensive survey. The site also had the potential to contain evidence of activity from various points in the approximately 8500-year span of the Archaic and Woodland periods.

The site examination was expected to yield additional diagnostic cultural material such as projectile points that would indicate periods of occupation for the loci forming the Town Wells 3 & 4 Site. Radiocarbon dating of charcoal, if recovered from features on the site, could be used to refine the periods of occupation for them. Overall, the archaeological remains preserved within this site had the potential to yield new information about Native American settlement patterns and lithic resource use within the middle to upper Neponset and Charles River drainages during the Archaic and Woodland periods. The following tasks were completed as part of the archaeological site examinations.

Archival Research

Archival research for the site examination on the Town Wells 3 & 4 Site consisted of a more detailed review of local geography, ecology, soils, and Native American archaeological sites to help develop substantive research contexts with which to evaluate National Register eligibility. Sources of information included the archaeological site files housed at the MHC, comprehensive narratives of the pre-contact history of eastern and southeastern Massachusetts, and technical reports on previous investigations of archaeological sites prepared by avocational and professional archaeologists. PAL has recently conducted several archaeological investigations in the towns of Medfield, Medway and Norfolk and the additional research included a reviewed of in-house information about archaeological sites identified in the area (Flynn and Doucette 2017; Doucette and Flynn 2019).

Pre-Contact Site Research Themes

Background research and analysis of the archaeological assemblage recovered from the Town Wells 3 & 4 Site in the intensive (locational) survey were used to develop research contexts relevant to known and expected categories of information in the site. The research contexts guided interpretation of categories of archaeological information collected from the Town Wells 3 & 4 Site in the site examination and assess

how that information may contribute to further understanding of local and regional level themes or patterns (settlement, lithic resource use, site complexity etc.) in pre-contact Native American activity. The following set of three research contexts was developed for the archaeological site examination of the Town Wells 3 & 4 Site.

Research Context #1: Native American Settlement Patterns and Site Structure in the Upper Neponset and Charles River Drainages

The towns of Medfield and Walpole are situated within the upper Neponset and Charles River drainage basins, two major river systems in eastern Massachusetts. The headwaters of the Neponset River are in Foxborough and it flows in a northeast direction to extensive marshes in the Fowl Meadow section of Canton and Norwood. The mouth of the Neponset River is in Quincy and Dorchester where there are estuarine salt marshes bordering Boston harbor. From headwaters in the towns of Hopkinton and Milford the Charles River flows south, turning north in Bellingham, east/northeast in Medway and then north through the towns of Millis, Norfolk, Medfield and Dover. In the towns of Medway and Medfield are large areas of open marsh and meadow reaching a maximum width of more than one mile on both sides of the Charles River (Bickford and Dymon 1990; Clapp 1902: 218–222).

The Town Wells 3 & 4 Site is located on a narrow watershed or divide between the Charles and Neponset drainages along Mine Brook in the southeast corner of Medfield. This site is also on the periphery of two major core areas of Native American settlement and activity centered on the Neponset and Charles rivers and their associated wetlands. The river marshes and floodplain on both rivers are important stopover and nesting areas for migratory birds and provided habitat for many species of mammals, reptiles and amphibians. Archaeological sites located near riverine wetlands, marshes and floodplain portions of tributary streams in these core areas display a wide range of size and complexity and span the entire 11,000-year continuum of pre-contact Native American settlement. The few documented sites situated along the upland portions of tributary streams and wetland systems in the Neponset and Charles core areas consist of small camps apparently created by multiple episodes of resource acquisition (hunting, fishing, trapping, foraging forest and wetland plants) and processing. They tend to have fewer components and lower complexity deposits of cultural materials and subsurface features.

The Town Wells 3 & 4 Site is closest to the core area of Native American settlement within the middle Charles drainage in Medfield. This Medfield core contains evidence for occupation from the Early Archaic through Late Woodland periods 8500 to 500 years ago. Known sites in the Medfield core range from very large multicomponent base camps like Site 19-NF-52, covering 5 to 10 acres of glacial outwash terraces along wetlands, to small upland temporary campsites (Ritchie 1997). Mine Brook runs roughly parallel to the Charles River and is almost connected to it through wetlands north and east of Danielson and Kingsbury ponds in Medfield. Mine Brook could have been an important Native American transportation corridor linking the upper Neponset and Charles rivers. The wetlands and upland environment along this stream likely supported a variety of plants, animals and other resources.

The Town Wells 3 & 4 Site is on a knoll sloping gradually towards wetlands along the west side of Mine Brook. Based on information collected in the prior intensive survey, this site represents a small to moderate-sized encampment where a few activities such as the manufacture and repair/maintenance of chipped stone tools and construction and use of small hearths or fire pit features were conducted. It may have functioned as a staging area for small groups of ancient Native Americans involved in hunting, trapping or collecting forest resources.

Hypotheses

- The horizontal dimensions of the Town Wells 3 & 4 Site are expected to reflect local topographic and soil conditions within the site area. The sloping sides of the knoll on which it is situated and

changes in soil texture will form natural site boundaries on the east, south and west. Concentrations of chipping debris and features marking the loci of pre-contact Native American activity within the site will be within areas of fine-textured sandy subsoils while gravelly subsoils were avoided. Close interval sampling is expected to accurately define the extent to which the site was truncated on the north by modern road construction.

- Based on testing done in the prior intensive survey, the Town Wells 3 & 4 Site is about 278 square meters (sq m) in size. Additional close interval sampling for the site examination is expected to confirm that the site is larger, covering an area about 500 sq m in maximum horizontal extent. The size of the site will reflect the number of components or occupation episodes and relative intensity or amount of use by pre-contact Native Americans.

- The prior intensive survey found two small clusters of cultural material in the northern and southern portions of the Town Wells 3 & 4 Site. It is expected to have a more complex internal structure containing several clusters of moderate to high density (40 to 120 pieces/sq m) of cultural material (stone tools, chipping debris) surrounded by areas of less-dense (4 to 32 pieces/sq m) concentrations of cultural materials.

- The Town Wells 3 & 4 Site functioned as a short-term camp and the archaeological deposits within it were formed by a limited number of occupation episodes. The primary activity carried out by Native American groups or individuals was the manufacture and/or maintenance (repair, recycling) of chipped stone tools at small lithic workshop loci containing concentrations of chipping debris and other objects (chipped stone tools). The assemblage of tools will be restricted to a few functional types such as projectile points, point performs and bifacial tool blades). Some other on-site activities such as cooking and resource processing could be indicated by features such as hearth/firepits, deep storage pits or concentrations of burned rock fragments.

Research Context # 2: Pre-Contact Lithic Resource Use in the Middle to Upper Charles River Drainage and Medfield Core Area

Based on studies of stone tools in the artifact collections of avocational archaeologists and assemblages from controlled professional investigations, lithic materials from the major volcanic rock complexes in eastern Massachusetts were widely used by pre-contact Native American groups in the middle to upper Charles and Neponset River drainages, (Ritchie 1997; Strauss 1990).

The Blue Hills Range in the lower portion of the Neponset River drainage contains several quarries where pre-contact Native Americans obtained materials for the manufacture of chipped and ground stone tools. Within the Neponset and Charles drainages rhyolite and Braintree Slate from this general source area primary materials for the manufacture of both chipped and ground-stone tools from the Middle Archaic (8000-5000 years B.P.) through the Late Woodland Period about 500 years ago. Hornfels from the Massachusetts Hill quarry in the Blue Hills was widely used across southeastern New England during the Middle Woodland Period (Bowman and Zeoli 1978; Ritchie and Gould 1985). Components from this temporal period with tools (projectile points, bifacial tool blades) and chipping debris of hornfels have been documented in the upper Charles drainage at the Blue Flag Site (Rainey et al. 1998) and Longshadow Site in Bellingham (Waller et al. 1999), the Andrews Knoll Site in Milford (Leveillee and Davin 1987) and the Howie Site in Millis.

Other rhyolite quarries associated with exposures of the Mattapan volcanic complex along the lower Neponset River and the upland boundary between the Neponset and Charles basins in Westwood and Dover were also sources of raw lithic material from the Middle Archaic through the Late Woodland (1000-500

years ago) periods. Flow-banded rhyolite from a specific source in Mattapan has been found as chipping debris at the Beaver Pond Site in Franklin, demonstrating that lithic materials were transported from the Boston basin area into the upper Charles River drainage.

Native American quarrying of rhyolite associated with the Mattapan volcanic complex also occurred at small intrusive dikes within granite outcrops in upland areas. Quarry sites along the Charles/Neponset River watershed in Dover and Westwood were used by Late to Transitional Archaic Period Susquehanna tradition groups about 3800 to 3000 years ago (Chapin 1970; Chute 1966; Leveillee and Ritchie 1981).

The Crescent Site, a small temporary encampment on the east side of Mine Brook in Walpole, contained a Susquehanna tradition component with Mansion Inn bifacial preforms, scrapers and hammerstones. The light to medium grey and black rhyolites used to make most of these tools likely came from sources in both the Lynn and Mattapan volcanic complexes. Most of the grey rhyolite was visually similar to material from the quarries within the Dover and Westwood section of the Mattapan volcanic complex (Waller and Ritchie 2004).

In Medfield, cultural resource management (CRM) investigations within a section of Site 19-NF-52 north of the Town Wells 3 & 4 project area yielded an assemblage of cultural material that included 14 Middle Archaic Neville points of quartzite and rhyolite, bifacial tool blades, unifacial tools and scrapers of grey and black rhyolites likely from the Lynn, Mattapan or Blue Hills volcanic complexes. Some Attleboro red felsite or rhyolite from the Wamsutta volcanic complex in the Ten Mile River drainage was also present (Strauss 1996, 1997). Some of the Archaic period ground stone tools such as full grooved axes, gouges, and adzes in the collection of the Medfield Historical Society appear to be made of Braintree Slate. A broken preform for a Middle Archaic semi-lunar knife of Braintree Slate recently found at the Cifre Farm Locus 1 Site in Medway is additional evidence for use of this material in the upper Charles drainage (Doucette and Flynn 2019: 27, 30)

A section of the Mattapan volcanic complex extending southwest from the Boston basin along the middle Charles drainage in Sherborn and Natick contains a rock type described as crystal tuff (Nelson 1975). This material appears to have been used by pre-contact Native Americans to manufacture chipped stone tools. Examples of Middle Archaic Neville and Stark points made of a volcanic rock visually identified as crystal tuff have been documented in collections made by avocational archaeologists and in excavated assemblages from sites in the Sudbury and Assabet River drainages (Ritchie 1979; 1983).

On Site 34-1 in the middle Assabet River drainage, finished Neville points, flake blanks, bifacial tool blades or preforms and over 1000 pieces of chipping debris of a gray-tan fine-grained rock were found in a lithic workshop feature. Petrographic thin section analysis of a sample of this material from Site 34-1 showed it is a very fine grained, crypto-crystalline textured volcanic rock, possibly containing devitrified glass. Textural features and accessory minerals indicated that this rock is probably derived from the Lynn-Mattapan volcanic complex, such as the section extending into the middle Charles drainage (Ritchie 2010: 230).

The lithic assemblage collected from the Town Wells 3 & 4 Site in the intensive survey contained 23 pieces of chipping debris of fine grained, grey-green rhyolite like the crystal tuff and material from Site 34-1 described above. This grey-green rhyolite is suspected to be from a source in the southwestern part of the Mattapan volcanic complex.

Hypotheses

- The Town Wells 3 & 4 Site will yield a larger sample of the grey-green rhyolite and it may include pieces with weathered fracture plane cortex indicating it was obtained from a bedrock outcrop.

None of it is expected to display cobble cortex as this lithic material was not derived from glacial outwash gravel deposits.

- Any broken discarded bifacial tool blades or preforms and the attributes (size range) of chipping debris are expected to yield more information on what form the grey-green rhyolite was in when brought to the Town Wells 3 & 4 Site. There may be some large (5-7cm, 7-9cm) tabular pieces that were partially shaped, or early stage bifacial tool blades that broke and were discarded on the site.

- The prior intensive survey yielded a midsection fragment of a small stemmed projectile point made of mottled gray-brown rhyolite that could be derived from either the Blue Hills or Mattapan volcanic complexes. The site examination is expected to recover more tools (projectile points, bifacial tool blades) and chipping debris of rhyolites from these sources.

- The Town Wells 3 &4 Site may have a low diversity lithic assemblage with tools and chipping debris of only two or three materials such as rhyolite and quartz. Only 12 pieces of quartz chipping debris were found on the site in the intensive survey, and it may not contain any concentrations or lithic workshops with this material. One quartz flake had cobble cortex so it was likely obtained from nearby deposits of gravelly glacial outwash.

Research Context # 3: The Temporal and Cultural Affiliation of the Town Wells 3 & 4 Site

Archaeological investigations within the Neponset and adjacent Charles River drainage have documented that Native Americans occupied the area through the entire pre-contact era from the PaleoIndian (12,500–10,000 B.P.) to Late Woodland (1000 – 450 B.P.) Period. The Fowl Meadow (Neponset) and Medfield (Charles) riverine core areas contain large, complex archaeological sites with the few known Early Archaic (10,000–8000 B.P.) components.

A larger number of sites have evidence of expanding settlement patterns in the Middle Archaic (8000–5000 B.P.) Period. In the Medfield core, most of the known Middle Archaic components are on sites in a generalized riverine environmental setting such as terraces of sandy glacial outwash in proximity to the Charles River, its open marshes, wooded wetlands and tributary stream confluences. Based on the number of known sites with Late to Terminal Archaic Period components identified from diagnostic projectile point types, the most frequent and intensive occupations at many locations in the Medfield core occurred from about 5000–2500 B.P.

For example, sites 19-NF-107 and 19-NF-108 next to Kingsbury Pond contained numerous chipped stone tools associated with the Small Stemmed Point and Susquehanna traditions. Untyped stemmed and triangular projectile points were found at Site 19-NF-108, and Site 19-NF-107 produced a Susquehanna tradition (Mansion Inn) bifacial tool blade used as a scraper. Several Late Archaic Susquehanna tradition (Coburn Phase) burials were reported from a section of Site 19-NF-52 near Danielson Pond. Further north along the margin of the marshes and riverine environmental setting in Medfield, Squibnocket Triangle, small stemmed and other untyped stemmed points were collected from the North End Sauer Orchard Site (19-NF-294) (Ritchie 1977, 1997).

Low numbers of diagnostic Woodland Period projectile points and ceramic vessel sherds in artifact collections made by avocational archaeologists initially suggested there was decreased settlement activity in the middle to upper Charles drainage after about 3000 years ago. However, CRM investigations have documented Early to Middle Woodland activity at sites along the upper Charles River. Two loci on the East Terrace Site in Bellingham contained hearth features radiocarbon dated to 2530+/-60 years B.P. and 2000 ± 70 years B.P. and sherds of cord-marked pottery (Waller and Leveillee 1998; Rainey et al 1998).

Diagnostic Jacks Reef and Fox Creek projectile points found on sites in Bellingham, Franklin, Milford and Millis indicate Middle Woodland settlement patterns included a range of riverine and upland site locations in the upper Charles drainage. Leveillee and Davin 1987b; Strauss 1990; Waller et al. 1999). Closer to the Medfield core, small upland zone Middle Woodland components were on the Ant Hill East Site in Sherborn (Waller and Ritchie 2006) and Noanet Pond in Dover (Leveillee and Ritchie 1981).

Small Late Woodland components on sites suggest there was some continuity in use of pond and wetland locations from the Middle Woodland Period. Various loci around Beaver Pond in Franklin contained a total of 21 diagnostic Levanna points (Strauss 1990). Other Levanna points were on the multi-component Cutler-Morse Site on Lake Winthrop in Holliston. Small sites with Levanna points in proximity to upland tributary streams and wetlands like Medway 3 near Chicken Brook in Medway (Rainey 1990) and 19-NF-152 near Mine Brook in Medfield represent temporary camps used by Late Woodland groups with territories in the upper/middle Charles drainage (Hoffman 1980).

Hypotheses

- Given its location on the periphery of the riverine environmental setting, the Town Wells 3 & 4 Site is not expected to contain Early or Middle Archaic Period components from about 8500 to 5000 years ago.

- The Town Wells 3 & 4 Site was occupied in the Late to Transitional Archaic or Early Woodland Period by Native Americans using a small stemmed projectile point technology. It may also have one or two small components affiliated with other Late Archaic cultural traditions that can be identified from diagnostic Laurentian (Vosburg, Brewerton) or Susquehanna tradition projectile point (Atlantic, Wayland Notched) or bifacial tool blade (Mansion Inn) types.

- If suitable charcoal for analysis can be collected from features or other discrete depositional contexts on the Town Wells 3 & 4 Site, it is expected to yield a radiocarbon date ranging in age from about 4500 to 2500 B.P. This would be consistent with the larger pattern of intensive settlement and use of many site locations in the Medfield core during the Late to Transitional Archaic Period.

- It is unlikely that the Town Wells 3 & 4 Site will contain evidence of occupation in the Middle or Late Woodland Periods (ca. 2000 to 500 B.P.).

Analysis of the recovered pre-contact Native American assemblage (lithic, floral or faunal remains, etc.) assisted in addressing the three research contexts and evaluating the eligibility of the Town Wells 3 & 4 Site for listing in the National Register of Historic Places.

Coordination and Consultation

In June 2021, PAL notified the tribal historic preservation office (THPO) of federally recognized Native American tribes to seek input about areas of concern to Native American groups. A response was received from the Wampanoag Tribe of Gay Head/Aquinnah and tribal monitor Steven Craddock was present during two days of fieldwork.

Site Examination Methodology

As a first step in fieldwork, a walkover survey and surface inspection of the Project area was conducted to note current conditions and re-locate test pits excavated during the prior intensive survey. All of these older test pits were found and mapped within a coordinate grid with a 10-m interval established on the Town Wells 3 & 4 Site.

Site Examination Methodology

Subsurface Testing and Field Mapping

Subsurface testing consisted of placing 50-x-50-cm test pits in a grid pattern over the Town Wells 3 & 4 Site to determine its horizontal boundaries, locate any concentrations of cultural materials and features and ensure adequate sampling (Figure 2-1). Test pits were placed at 10-m intervals within the grid pattern to rapidly determine site boundaries. Once site boundaries were delineated, additional test pits were placed at a 5-meter interval within the coordinate grid to identify small concentrations of cultural material and features (hearth/firepit, refuse pit, lithic workshop etc). Site boundaries were defined by excavating two sequential sterile test pits beyond any that contained pre-contact cultural material.

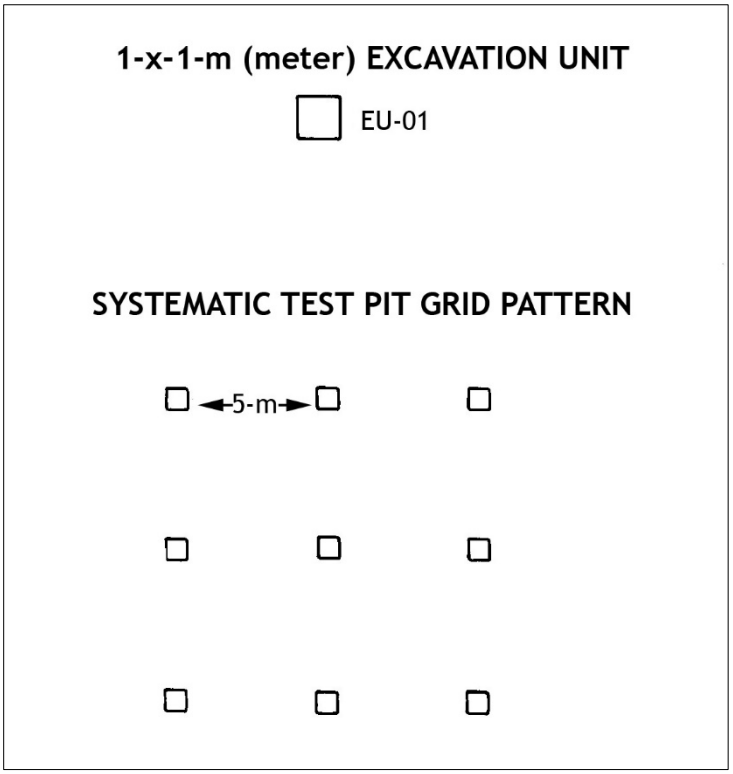

Figure 2-1. Subsurface testing strategies used in the site examination.

It was proposed that approximately 20 test pits and 3, 1-x-1-m units would be excavated within the Town Wells 3 & 4 Site. Due to the amount of 5-m interval testing necessary to intensively sample the site and determine where pre-contact cultural materials were concentrated, a total of 45, 50-x-50-centimeter (cm) test pits were actually excavated. They provided detailed information about the distribution and density of cultural materials in the two loci within the Town Wells 3 & 4 Site.

Following the delineation of site boundaries, larger, 1-x-1-m units were used to collect information on the density and complexity of deposits of cultural material and temporal range of occupations on the site (see Figure 2-1). Three, 1-x-1-meter excavation units were excavated; all of them were placed in the single moderate density deposit where intensive survey (test pits TC-02, AR-02-360, AR-02-270) and site examination (N5E0) test pits yielded the most pre-contact cultural material. Test pits in the remainder of the site yielded very low densities of cultural material and their locations were not sampled further with excavation units.

All test pits and larger units were excavated by shovel in arbitrary 10 cm levels to sterile subsoils. Excavated soils were screened through ¼ inch hardware mesh to recover cultural material ¼ inch or larger in size. Cultural material and samples were bagged and labeled with provenience information. No pre-contact features were found that could provide soil samples for flotation analysis or charcoal samples for radiocarbon dating. Soil profiles were drawn for all test pits and excavation units.

All test pits and excavation units and the post-contact cultural feature formed by a low berm of previously disturbed soil extending across the northern boundary of the site in proximity to the existing access road were mapped with a Trimble GeoXT Global Positioning System (GPS) handheld receiver. Digital

photographs were taken of fieldwork in progress, soil profiles in the three excavation units and existing conditions on the Town Wells 3 & 4 Site. A record of digital images was maintained on standard PAL Photograph Log forms. A daily record of observations and fieldwork procedures was maintained by a project archaeologist.

Laboratory Processing and Analyses

All cultural materials were cataloged using a customized relational database, which provides the flexibility needed when cataloging archaeological collections that often contain disparate cultural materials such as stone, ceramics, and/or glass. Artifacts with similar morphological attributes were grouped into lots, which allows for efficient cataloging. The artifacts were placed in 2-mil-thick polyethylene resealable bags with acid-free tags containing provenience identification information. These bags were placed in acid-free boxes that are labeled and stored in PAL's curatorial facility in accordance with current state and federal curation standards.

Culturally modified lithic materials, such as stone tools and chipping debris, were identified in terms of material, size (0–1 cm, 1–3 cm, 3–5 cm, etc.), and color. A lithic-type collection, maintained at PAL and containing materials from various source areas in New England and nearby regions such as New York and Pennsylvania, was used to identify all lithic materials. Chipping debris was classified as either flakes or shatter. Pieces of debitage showing evidence of a striking platform, bulbs of percussion, or identifiable dorsal or ventral surfaces were called flakes. Debitage without these attributes, and exhibiting angular or blocky forms, were classified as shatter. Lithic debris was examined for edges that had been modified by use wear or intentional retouch.

Post-contact artifacts were cataloged by material (e.g., ceramic, glass, coal, and synthetic), form (e.g., bottle, jar, plate, nail, and brick), and function (e.g., kitchen, architectural, and clothing).

Curation

Following laboratory processing, cataloging, and analyses, all recovered cultural materials were stored in acid-free Hollinger boxes with box content lists and labels printed on acid-free paper. The cataloged artifacts and associated documentation are stored at PAL, 26 Main Street, Pawtucket, Rhode Island, in accordance with the Secretary of the Interior's *Curation of Federally-Owned and Administered Archeological Collections* (36 CFR 79) and the MHC's *State Archaeologist's Permit Regulations* (950 CMR 70), until a permanent repository is designated.

CHAPTER THREE

ENVIRONMENTAL SETTING

Geomorphology

Medfield is in a section of eastern Massachusetts that forms a gradual transition from the Seaboard Lowland province to elevated highlands in central Massachusetts (Figure 3-1; Fenneman 1938). The topography in the immediate vicinity of the Project area consists of slightly sloping to level terrain bordering the west side of the Mine Brook drainage and associated wetlands. Elevations range from about 147 feet above sea level (ft asl) on the margin of wetlands bordering Mine Brook to 150 ft asl on a low knoll in the center of the Project area. The large level terrace north of the Project area near the Wheelock School has a maximum elevation of about 159 ft asl. More elevated terrain with maximum elevations of 300–310 ft asl is east and northeast of the Project area in Medfield and Walpole.

Bedrock Geology

The primary bedrock formation underlying Medfield is Dedham granite and diorite. The Dedham granite is a light gray-pink to green-gray equigranular to slightly porphyritic rock. The diorite is a medium-grained hornblende diorite metamorphosed in part to amphibolite and hornblende gneiss (Zen et al. 1983). Outcrops are primarily on the sides and crests of hills in upland areas across the northern part of the town. The Rocky Woods section of Medfield and Dover contains numerous bedrock outcrops. Another large area of scattered outcrops is on Noon and Indian Hills. Other outcrops in the southeast corner of Medfield are near Rocky Lane and the intersection of Forest and Granite streets. No bedrock outcrops are in or near the Project area.

The bedrock in the adjacent towns of Dover and Westwood is predominantly Westwood granite. This light pinkish-gray granite contains small rhyolite dikes and flows associated with the Mattapan volcanic complex (Chute 1966:14, 15, 25; Thompson and Hermes 1990). The rhyolite was an important source of lithic material for pre-contact Native Americans in the Neponset and Charles River drainages; it was used it to manufacture chipped-stone tools. Small quarries and associated workshop areas, such as the Noanet Quarry Site in Dover, were along exposures of rhyolite flows within the Westwood granite used during the Middle and Late Archaic periods. Continued use of some quarries in the Woodland Period is likely.

In the Post-Contact Period, granite was quarried from outcrops in the Rocky Woods section of Medfield. Small-scale quarrying at a location in Rocky Woods known as “Courthouse Ledge” apparently began in the early nineteenth century. Granite from this quarry was used locally for one public building in Dedham and probably on several nearby estates and mill sites (Tritsch 1996:12–14).

Surficial Geology and Soils

During the postglacial period more than 13,000 years ago, the middle section of the Charles River basin in what are now Medfield, Millis, Norfolk, and Walpole was occupied by glacial Lake Medfield. This large, ice-dammed freshwater lake was fed by meltwater streams that deposited sediments in delta formations along the lake margin. The Medfield delta is a large feature created by glacial meltwater streams flowing into the lake. It expanded into glacial Lake Medfield, moving south toward uplands and hills covered with glacial till. After the lake drained, Horse, or Nantasket, Brook cut a deep channel through the sand and

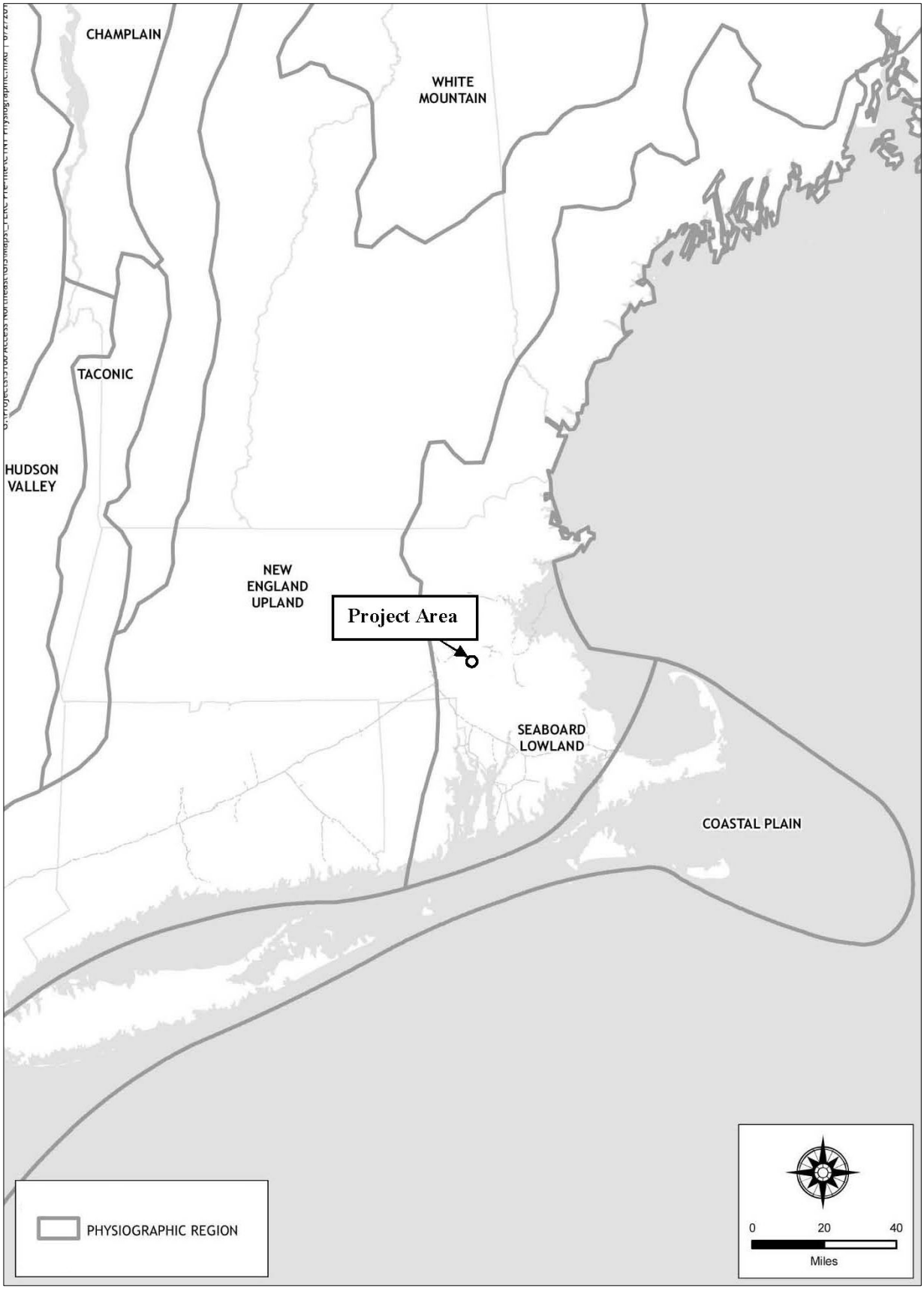

Figure 3-1. Physiographic zones of southern New England showing the approximate location of the Medfield Wells 3 & 4 Water Treatment Plant Project area (Fenneman 1938).

gravel delta deposits. Some aeolian (wind–blown) deposits formed a cap on the upper surface of the delta, and fine sediment and sand were transported by post-glacial winds (Strauss 1996; Volckmann 1975).

The center of Medfield and an area of flat or slightly sloping terrain extending southeast to the Wheelock School property is within extensive delta deposits consisting of boulders, cobbles, pebbles, and sand in stratified beds that were graded to the level of glacial Lake Medfield. The Project area is on the southeast edge of this outwash delta feature and includes a low knoll sloping toward the margin of wetlands bordering Mine Brook.

The primary soil types in areas of glacial outwash are the Merrimack and Hinckley series, well-drained, fine sandy loams that are well suited for settlement and agriculture. Most of the known pre-contact archaeological sites in Medfield are in areas with Merrimack and Hinckley series soils. Soils in the Project area have been classified as Merrimac fine sandy loam on 3 to 8 percent slopes. This soil type consists of very deep subsoil strata of loamy sand and very gravelly coarse sand that are excessively drained and occur on gently sloping terrain and broad plains and terraces that often follow major streams (USDA 1989:36).

Hydrology and Drainage Patterns

Medfield is in the middle section of the Charles River drainage (Figure 3-2). This drainage basin covers an area of 300 square miles that extends from the elevated upland terrain of the southern Worcester Plateau to Boston Harbor. Millis and Medfield have large areas of open marsh and meadow more than one mile in maximum width on both sides of the Charles River (Clapp 1902:218–222). Walpole is within the upper Neponset River drainage. From headwaters in Foxborough, the Neponset River flows in a southwest to northeast direction through Walpole and extensive marshes in Fowl Meadow in Norwood and Canton before entering an estuary and salt marsh zone in Milton and Dorchester on the southern edge of Boston Harbor (Bickford and Dymon 1990).

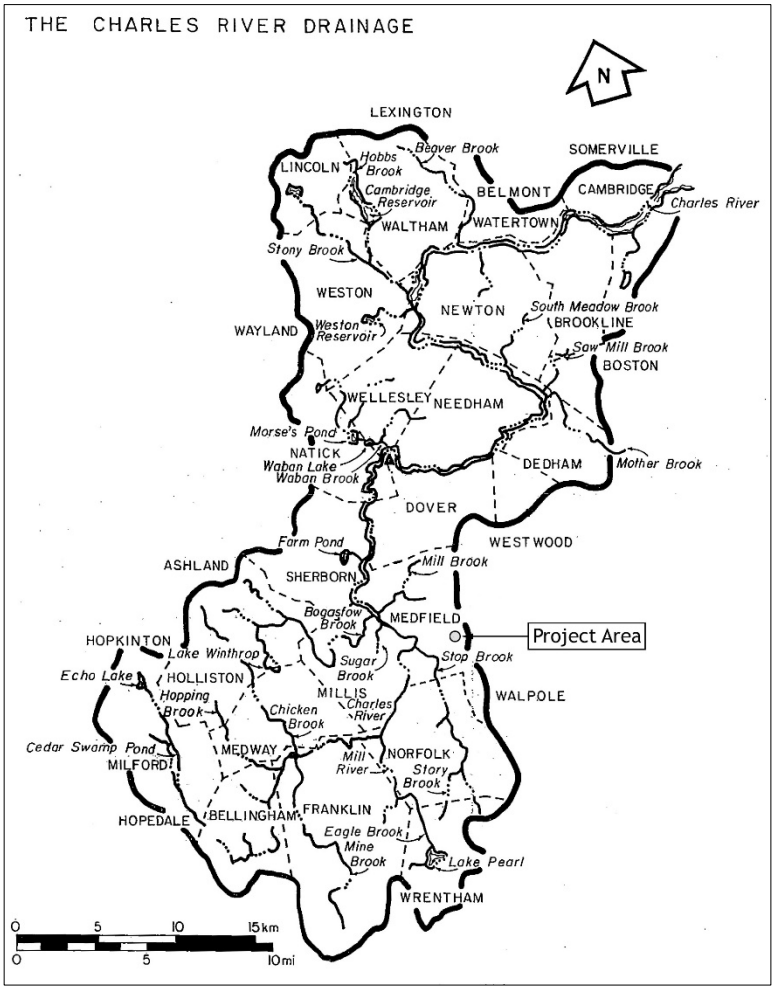

Figure 3-2. Charles River drainage with the approximate location of the Medfield Wells 3 & 4 Water Treatment Plant Project area.

A narrow watershed or divide between the Charles and Neponset drainages is in the southeast corner of Medfield along Mine Brook. Wooded wetlands in upland areas serve as the source for several tributary streams flowing into the Charles River, including Sewall, Vine, Mill, and Nantasket brooks. These streams are oriented in a northeast to southwest direction. Stop

River is the largest tributary entering the floodplain in this section of the Charles River drainage (see Figure 3-2). Nantasket and Great brooks drain from Kingsbury and Danielson ponds into the Charles River in Medfield. Mine Brook flows southeast into the upper Neponset River in Walpole. The Project area is near Mine Brook along the boundary of the Charles and Neponset River drainage basins.

Existing Conditions

The Project area for the site examination of the Town Wells 3 & 4 Site is a wooded parcel bounded on the north, west and south by existing asphalt paved access roads to Wells 3 & 4. These roads extend south and southeast from the Wheelock School. To the east is undeveloped wooded land extending toward wetlands along Mine Brook. The current vegetation consists of a second growth forest dominated by white pine with some oak trees (Figure 3-3).

The existing access roads form linear zones of previous disturbance and are bordered by graded shoulders vegetated with grass and small white pine saplings (Figure 3-4). Zones of previous disturbance noted during a walkover inspection of the wooded portion of the Project area for the prior intensive archaeological survey were three recently excavated soil engineering test pits within proposed stormwater detention basins. A more detailed inspection of the Town Wells 3 &4 Site for the site examination revealed a low, linear berm of previously disturbed soil about 15 cm high just inside the tree line in the northern portion of the site (Figure 3-5). This berm is covered with a forest duff layer and its location conforms to previously disturbed, re-deposited soils exposed in intensive survey test pits excavated in the northern portion of the Project area.

Figure 3-3. Existing conditions on the Town Wells 3 & 4 Site, Medfield Wells 3 & 4 Water Treatment Plant Project area, view east.

Figure 3-4. Existing access road on the western and northern boundaries of the Town Wells 3 & 4 Site, Medfield Wells 3 & 4 Water Treatment Plant Project area, view south.

Figure 3-5. Low berm of previously disturbed soils along tree line in western and northern portion of the Town Wells 3 & 4 Site, Medfield Wells 3 & 4 Water Treatment Plant Project area, view west.

CHAPTER FOUR

RESULTS OF FIELDWORK AND ANALYSIS

Archival Research

Prior to fieldwork, PAL staff conducted archival research to review information on recorded pre-contact sites in the vicinity of the Project area to assist in interpretation of the assemblage of cultural material and other information (size, internal structure, temporal affiliation) collected from the Town Wells 3 & 4 Site in the site examination. This research found that due to its location within a core area of settlement and land use there are numerous recorded pre-contact Native American sites within approximately one mile (1.2 km) of the Town Wells Project area. However, as many of these sites were first found by avocational archaeologists, specific information on their size, internal complexity and contents is limited.

For example, the South Plain Site (19-NF-52) northwest of the Project area on the Wheelock School property is a very large multi-component site occupied over 7000 years from the Early Archaic to Late Woodland Period. It may be composed of numerous smaller site areas with some overlapping deposits of cultural materials. Smaller sites closer to the Charles River floodplain and marshes like 19-NF-107 and 19-NF-108 next to Kingsbury Pond and Sewall Brook contained numerous chipped stone tools associated with Small Stemmed Point and Susquehanna tradition components; they also appear to be more complex than the Town Wells 3 & 4 Site.

Pre-contact sites investigated in cultural resource management studies provided the most information for comparison with the Town Wells 3 & 4 Site. Five known pre-contact sites (19-NF-152, 19-NF-301, 19-NF-305, 19-NF-306, 19-NF-307) in an upland tributary stream and wetland environmental zone along Mine Brook and the upper portion of Vine Brook near the Project area are small to moderate loci with less complex internal structures. The ROW 447-8 Site (19–NF–152) was a find spot of a Late Woodland Period Levanna point and chipping debris (Hoffman 1980). The Erik Road Site (19–NF–301) yielded quartz chipping debris and may have been a small lithic workshop where tools were made of this local material. The Woodcliff I (19–NF–305) contained a tip fragment from an untyped projectile point, rhyolite and quartz chipping debris. The Woodcliff II (19–NF–306) was an isolated Late Archaic Period Brewerton projectile point. The Erik Road II Site (19-NF-307) contained deposits of quartz chipping debris and was either a series of small, closely spaced activity areas along a wetland margin or one moderate to large site. (Clements 1996).

Two sites along the Vine and Mine Brook drainages in Medfield are examples of small temporary encampments along these tributary streams. A pre-contact component on the Clark-Morse Site near Vine Brook yielded a small lithic assemblage with a tip fragment from an untyped projectile point of rhyolite, a modified argillite cobble, 23 pieces of argillite, jasper, quartz, quartzite, rhyolite and unidentified igneous and metamorphic rock chipping debris and three ceramic vessel sherds. A feature on this site yielded a radiocarbon date of 1460 +/- 30 years B.P. (Beta 464553) indicating occupation in the Middle Woodland Period (ca. 1600 – 1000 B.P.) (Flynn and Doucette 2017). The Wheelock Site recently identified about 800 m north of the Town Wells 3 and 4 Project area, is a small locus of Early Woodland Period (2500 -1600 B.P.) activity with a Rossville-like projectile point, low densities of argillite, quartz, quartzite, and rhyolite chipping debris, and two fragments of fire-cracked rock (Mair 2021).

Located in Walpole on the east side of the Mine Brook drainage, the Crescent Site was a moderate sized approximately 1060 sq m encampment with a single Susquehanna tradition component estimated to be about 3,600 to 3,200 years old. Cultural materials were present in low densities across most of the site with one dense (150 pieces per sq m) concentration of lithic material in its central portion. The site also contained one hearth or firepit feature (Waller and Ritchie 2004).

A predictive model based on extant information stated that pre-contact Native American sites in the upland tributary stream and wetland environmental zone in Medfield are most likely to be small temporary camps. These sites are not expected to exceed 150 sq m in area and will have a simple internal structure, often consisting of an activity area around a hearth/firepit or other feature. Densities of chipping debris or other cultural materials within the activity area can range from very low to high density (Ritchie 1997). Numerous examples of sites like this are known from upland settings in other parts of the upper Charles River drainage (Leveillee and Davin 1987; Rainey 1991; Waller and Ritchie 2006).

Archival research on post-contact period land use in and around the Project area found limited additional information on Fairacres Field, the private airstrip formerly located near the Project area. This dirt airstrip was built before World War II by Medfield resident Justin Dart, who was involved in both the Rexall and Walgreens drug store chains. Dart lived on Holiday Farm on Elm Street and the airstrip was located in what is now soccer fields for the Wheelock School (https://yourfirstvisit.net/2015/03/06/introducing-a-new-series-friday-visits-with-jim-korkis). Construction and use of this unimproved dirt airstrip would not have had any impact on the location of the Town Wells 3 & 4 Site.

The open land directly north of the Project area was used for agricultural purposes from the seventeenth to mid twentieth centuries. Review of aerial photographs taken in 1957 and 1969 show a tree farm directly north of the Project area and the knoll containing the Town Well 3 & 4 Site was partially cleared of vegetation. However, most of the previous disturbance from grading soils in the northern portion of the Project area is likely related to construction of the existing paved access road to Town Well 4. Town Wells 3 and 4 were built in 1967 and 1976, respectively and the access road would have been constructed in that general time period.

Fieldwork

Walkover Survey

The first step in fieldwork for the site examination was a walkover inspection of the Town Wells 3 & 4 Site to confirm the locations of test pits excavated in the prior intensive archaeological survey and determine the best location for a coordinate grid to organize subsurface sampling for the site examination.

During the walkover survey a low, linear mound or berm of soils extending for about 15m along the northern and western edge of the Town Wells 3 & 4 Site was noted and its location mapped on a scaled plan. Likely created by grading of soils during the construction of the existing access road to Town Well # 4, this berm is about 15 cm in height and covered with a forest duff layer and small white pine saplings. The location of this berm corresponded with intensive survey test pits (TA-01, TB-01, TC-01, TD-01, AR-01-360) that contained altered, re-deposited soils and were near the open, landscaped shoulder for the existing access road to Town Well # 4.

Subsurface Testing

A 10-m interval coordinate grid oriented to magnetic north was established to organize subsurface testing for the site examination at the Town Wells 3 &4 Site (Figure 4-1). The coordinate grid was set up to cover the level crest and upper slopes of the knoll and delineate the entire horizontal extent of the site. The

N00E00 datum point for the grid corresponded with the location of intensive survey test pit TC-02. This test pit was also the center point of a 2.5m array pattern used to investigate a small concentration of pre-contact cultural material.

PAL excavated a total of 40, 50-x-50-cm test pits across the site to establish its horizontal and vertical boundaries and locate previously unknown subsurface features (firepit/hearth, refuse pit, lithic workshop) or concentrations of cultural material. Three, 1-x-1-m excavation units (EUs) were placed where test pitsyielded small concentrations of chipping debris or chipped stone tools and there was potential to recover diagnostic cultural material (projectile points, ceramic sherds, etc.) (see Figure 4-1). These EUs collected a larger sample of information needed to evaluate the temporal and cultural affiliation and internal complexity of the Town Wells 3 & 4 Site.

No new concentrations of cultural materials or features were identified by the close interval sampling with test pits in the coordinate grid. Many test pits were sterile and in the 9 that yielded pre-contact cultural material it was limited to one or two pieces of quartz and rhyolite chipping debris.

EU-01, EU-02 and EU-03 were all placed in the primary concentration of cultural material previously identified by intensive survey test pits TC-02, AR-02-360 and AR-02-270 in the southern portion of the site. EU-01 was placed adjacent to test pit AR-02-360 that contained a dense deposit of grey-green rhyolite chipping debris. EU-02 was placed between test pits TC-02 and AR-02-270 that yielded a few pieces of grey-green rhyolite and quartz chipping debris. EU-03 was placed northwest of Array 02 to determine if deposits of cultural material extended toward test pits TC-01 and N05W10 (see Figure 4-1).

A catalog of all cultural materials recovered during the site examination is provided in Appendix A. An updated MHC site form for the Town Wells 3 & 4 Site incorporating the results of the site examination is provided in Appendix C.

Cultural Materials

Subsurface sampling with test pits and excavation units collected an assemblage of 57 pieces of cultural material. Of this total 49 were pre-contact and 8 were post-contact period materials (see Appendix A).

Chipping Debris

Most of the pre-contact assemblage (77%) consists of 38 pieces of chipping debris (Table 4-1). A majority (n =37) of the chipping debris was small, thin flakes in the 0-1 cm and 1-3 cm size range; one larger rhyolite flake was in the 3-5 cm size range. A single piece of angular quartz shatter was in the 1-3 cm size range (Table 4-2). The predominance of smaller, 1-3 cm sized flakes indicates the chipping debris likely resulted from the intermediate to late stages of a bifacial tool production sequence, in which the emphasis is on thinning and shaping tools into a finished form (e.g. projectile point, drill, scraper). However, the flakes in the 0-1 and 1-3 cm size ranges may also have been produced by tool maintenance such as curation and reshaping of broken or damaged tools which tends to produce small, thin flakes.

The chipping debris reflects the use of locally available lithic materials, primarily quartz (n = 25), and grey speckled rhyolite likely from a nearby source area in the towns of Dover and Westwood (n=10). Three pieces of chipping debris were of gray-green argillite from an unknown source, possibly in the Boston basin.

Eleven pieces of quartz and rhyolite chipping debris were found in test pits. N5E00 was the only site examination test pit in the primary concentration area that yielded chipping debris. The other site examination test pits that contained chipping debris were dispersed across the southeast, western and

northern portions of the delineated site area. None of the eight test pits that contained chipping debris had more than 2 pieces of it, and this category of cultural material had a very low density (4 to 8 pieces /sq m) distribution across most of the site. The three excavation units contained a total of 28 pieces, or 73.6 percent of all chipping debris recovered in the site examination (see Appendix A).

Table 4-1. Distribution of Pre-Contact Cultural Materials in Soil Strata, Town Wells 3 & 4 Site.

Object Type	Material Type	Soil Stratum				Count
		A_1	B_1	Developing A	Redeposited A/B	
Chipping Debris, Flake	Argillite	3				3
	Quartz	16	4	2	2	24
	Rhyolite	8	1		1	10
Chipping Debris, Shatter	Quartz	1				1
Fire-Cracked Rock	Granitic		1			1
	Quartzite		1			1
	Rhyolite	1				1
	Unid. Igneous	2				2
	Unid. Metamorphic	2				2
Projectile Point, Wading River	Argillite	1				1
Projectile Point, Small Stemmed	Quartz		1			1
Projectile Point, Stark	Argillite		1			1
Uniface	Quartz	1				1
Total		**35**	**9**	**2**	**3**	**49**

Table 4-2. Lithic Material and Size Range of Chipping Debris, Town Wells 3 & 4 Site.

Material Type	Size			Count
	0-1cm	1-3cm	3-5cm	
Argillite		3		3
Quartz	5	19		24
Rhyolite	2	7	1	10
Quartz		1		1
Total	**7**	**30**	**1**	**38**

The horizontal distribution and densities of chipping debris indicates that stone tool production activities were concentrated in the primary concentration area first identified in intensive survey test pit TC-02 and Array 02-360.

Chipped Stone Tools

Four chipped stone tools, consisting of three projectile points and a unifacially modified piece of chipping debris were recovered during the site examination. They were found in EU-01, EU-03 and test pit N15E09.5, respectively (see Figure 4-1; Table 4-1; Appendix A).

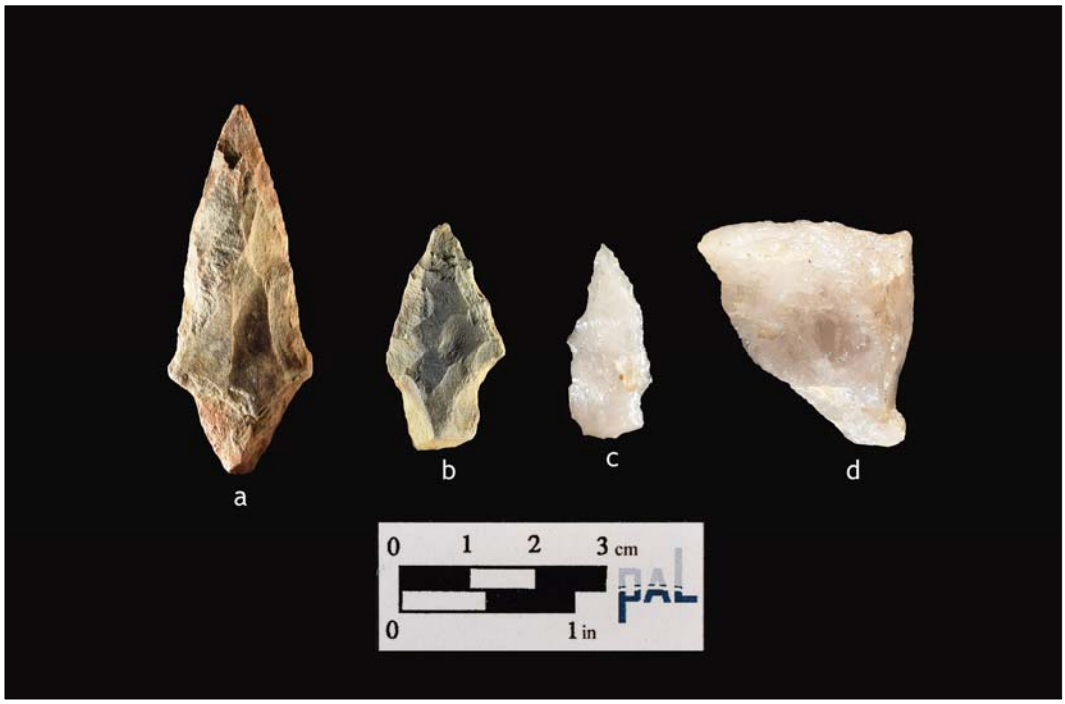

Figure 4-2. Chipped stone tools from the Town Wells 3 & 4 Site, Medfield Wells 3 & 4 Water Treatment Plant Project.

Projectile Points

A complete point of the Stark type was recovered from EU-03 at 30-40 cmbs in the B_1 subsoil horizon. It is 5.3 cm long, 2.0 cm wide, 0.77 cm thick and made of argillite that has weathered to a medium brown to tan color (Figure 4-2, a; Appendix A). The source of this lithic material is unknown; it may be within the upper Charles River basin as most of the argillite from sources in the northern and southern sections of the Boston basin is light grey to grey-green in color. This point type is diagnostic of the Middle Archaic Period (8000-5000 years B.P.).

Two complete Small Stemmed points were found in EU-01. A point made of grey to light grey argillite with defined shoulders and a square stem similar to the Wading River type was at 10-20 cmbs in the A_1 horizon. It is 3.3 cm long, 1.7 cm wide and 0.46 cm thick see Figure 4-2, b; Appendix A). The second point of this type found at 30-40 cmbs in the B_1 subsoil horizon is more irregular in form and made from a thin flake of white quartz. It is 2.8 cm long, 1.2 cm wide, .47 cm thick and the blade and stem are defined by mostly unifacial flaking. This point still retains portions of unmodified ventral surface of the flake blank from which it was made see Figure 4-2, c; Appendix A).

Like the broken example of rhyolite found in the prior intensive survey, these two Small Stemmed points from EU-01 are of Late to Transitional Archaic or Early Woodland Period (4000-2500 years B.P.) age.

Unifacial Tool

A unifacial tool of quartz was found in test pit N15E09.5 at 0-10 cmbs in the A_1 horizon. It is 4.1 by 2.0 and 1.8 cm thick. This tool was made on a piece of angular shatter with a prismatic cross section and one steeply angled edge that was modified with unifacial flaking. Examination of its edges under 10x

magnification did not reveal any use wear patterns. This tool is not diagnostic of any specific temporal period or cultural tradition (Figure 4-2, d).

Post-Contact Material

A small assemblage of 7 pieces of post-contact cultural material was recovered during the site examination. It consists of a small brass harness buckle, a brass reed plate from a harmonica from test pit N00W15 at 0-10 and 10-20 cmbs in the A_1 horizon and 5 wire nails found in test pit S05W10.5 from 60-70 cmbs in a disturbed B horizon subsoil (see Appendix A).

All of these objects could be related to past farming and agricultural use of the land in the Project area; with the harness buckle and harmonica reed plate discarded and buried together as refuse. The 5 wire nails may have been embedded in a wood fence post set into the B horizon subsoil. These post-contact artifacts were not associated with any structural features or foundations within the Project area and are not considered potentially significant.

Town Wells 3 & 4 Site Attributes

Data about the attributes of the Town Wells 3 & 4 Site collected during the site examination were used to reconstruct its horizontal and vertical extent within the project area, the density and complexity of cultural materials, and its integrity or condition. These data were used to evaluate the potential significance of the site in terms of National and State Register of Historic Places criteria.

Site Stratigraphy and Integrity

Subsurface testing for the site examination encountered the zone of previous disturbance with altered and re-deposited soils in the northern and western portions of the Town Wells 3 &4 Site identified in the prior intensive survey. This disturbance was caused by construction of the existing asphalt paved access leading to Town Well #4. This interpretation is also supported by the low berm of overgrown altered soil extending along the northern boundary of the site and parallel to the access road as described in Chapter 3.

Site examination test pits in that part of the site such as N15W05 and N10W05, exposed soil profiles with a forest duff layer (Ao) about 8 cm thick covering re-deposited A and B horizon soils. These re-deposited soils were dark yellow brown (10YR 3/4) mottled with yellow brown (10YR 5/8) silty medium sand with gravel. Below that were either a buried, remnant A horizon of dark brown (10YR 3/3) silty fine to medium sand to varying depths or truncated B subsoil horizons of dark yellow brown (10YR 4/6) to yellow brown (10YR 5/8) silty fine to medium (B_1) or medium to coarse sand with gravel (B_2) from about 34 to more than 40 cmbs. The C subsoil horizon forming the base of soil profiles was light yellow brown (2.5Y 6/4) coarse sand with gravel (Figure 4-3).

Within the remainder of the delineated area for the Town Wells 3 & 4 Site, test pit profiles typically consisted of a forest duff layer (Ao) about 4 cm thick covering dark yellow brown (10YR 3/4) fine to medium sandy silt forming an A_1 horizon that often extended to at least 20 cmbs and was observed to a maximum of 27 cmbs. This horizon was also considered to be a post-contact period plowzone created by past agricultural land use. Below that was a thin B_1 subsoil horizon of dark yellow brown (10YR 4/6) medium to coarse sandy silt to about 23 cmbs. From 23 to 32 cmbs was a B_2 subsoil horizon of yellow brown (10YR 5/8) silty coarse sand with gravel. The base of a typical profile was light yellow brown (2.5Y 6/4) coarse sand with gravel forming the C subsoil horizon (see Figure 4-3). Soil profiles exposed in the three excavation units were consistent with those recorded from test pits in the central portion of the site with an A horizon (plowzone) to at least 20 cmbs overlying intact B and C subsoil horizons (see Figure 4-3).

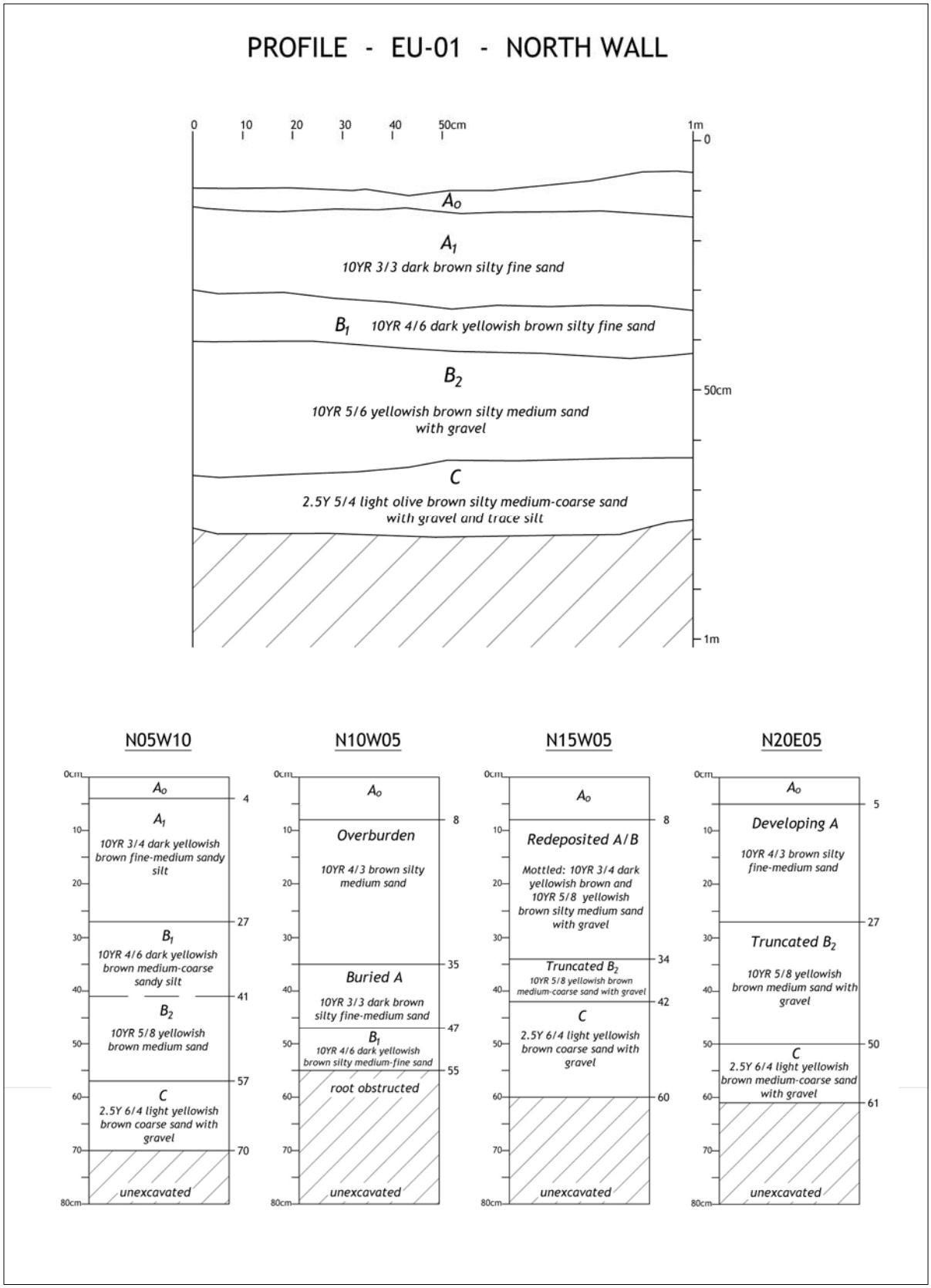

Figure 4-3. Representative soil profiles from test pits and excavation units in the Town Wells 3 & 4 Site, Medfield Wells 3 & 4 Water Treatment Plant Project area.

The total vertical distribution of pre-contact material was from about 5 to 40 cmbs. The level from 0-10 cmbs yielded 13 pieces or 26.53 percent and 21 pieces or 42.85 percent of all pre-contact material was found from 10-20 cmbs. The 14 pieces found from 20-30 cmbs made up another 28.57 percent and the single piece from 30-40 cmbs was 2.04 percent of all pre-contact material (Table 4-3).

Table 4-3. Vertical Distribution of Pre-Contact Cultural Materials, Town Wells 3 & 4 Site.

Object Type	Material Type	Depth (cm)				Count
		0 - 10	10 - 20	20 - 30	30 - 40	
Chipping Debris, Flake	Argillite		3			3
	Quartz	8	9	7		24
	Rhyolite	1	5	4		10
Chipping Debris, Shatter	Quartz		1			1
Fire-Cracked Rock	Granitic			1		1
	Quartzite			1		1
	Rhyolite	1				1
	Unid. Igneous		2			2
	Unid. Metamorphic	2				2
Projectile Point, Wading River	Quartz				1	1
Projectile Point, Small Stemmed	Argillite			1		1
Projectile Point, Stark	Argillite		1			1
Uniface	Quartz	1				1
Total		**13**	**21**	**14**	**1**	**49**

The Town Wells 3 & 4 Site has limited integrity and 40 pieces or 81.6 percent of all pre-contact cultural materials were recovered from the A_1 horizon (plowzone), a developing A horizon, re-deposited A and B horizon soils and disturbed B_1 subsoil horizon. More than half of all pre-contact material (69.5 percent) was recovered from the A_1 horizon (plowzone) and only 9 pieces (18.3 percent) were found in the B1 subsoil horizon (see Table 4-1).

Site Boundaries

The results of close interval sampling for the site examination demonstrate that the current horizontal limits of the Town Wells 3 & 4 Site correspond to the level to slightly sloping crest of the low knoll forming the Project area. Test pits along the upper slopes of this knoll were mostly sterile with the exception of a few isolated pieces of chipping debris in S05E10 and N15E10. Test pits along the northern and western edges of the delineated site area with pre-contact cultural materials in altered soil contexts do indicate the site extended further north and west before it was truncated by construction of the existing paved access road to Town Well #4. The Town Wells 3 & 4 Site covers a horizontal area of approximately 348.3 sq meters sq m extending across the knoll (and the project area) (see Figure 4-1). As noted above, the vertical boundaries of the site are from about 5 to 40 cmbs.

Site Density and Internal Complexity

The 50-x-50-cm test pits and 1-x-1-m excavation units completed for the site examination provided additional information about the density of cultural materials and internal complexity of the Town Wells 3 & 4 Site. The spatial distribution of projectile points, chipping debris and burned rock fragments recovered during the intensive survey and site examination indicates pre-contact Native American activity within the site was concentrated in the locus first identified by test pits TC-02 and AR-02-360 and sampled more extensively in the site examination with EU-01, EU-02 and EU-03. A deposit of 27 pieces of quartz and grey-green rhyolite chipping debris and a broken, small stemmed point of rhyolite were in test pits TC-02 and AR-02-360. The density of cultural material in test pit AR-02-360 was high and equivalent to 104 pieces/square meter (sq m.)

However, in the site examination no additional grey-green rhyolite chipping debris was recovered from an excavation unit (EU-01) placed next to test pit AR-02-360. The three excavation units (EU-01, EU-02 and EU-03) completed for the site examination yielded three projectile points (Stark, small stemmed) 28 pieces of quartz, rhyolite and argillite chipping debris and 6 pieces of burned rock. Individually, densities of cultural material in these units was low and ranged from 8 to 11 pieces/sq m.

A smaller, much more dispersed locus of activity with low densities (4 to 12 pieces/sq m) of chipping debris was in the northern portion of the site where 5 pieces of quartz chipping debris were found in intensive survey test pits TA-01, AR-01-360 and AR-01-90. Two more pieces of quartz chipping debris were in site examination test pits N20E05 and N20W05.

Outside of these two activity loci densities of pre-contact cultural material dropped to one or two pieces per test pit or 4 to 8 pieces/sq m and most intensive survey and site examination test pits were sterile. Overall, the two loci forming the Town Wells 3 & 4 Site yielded low densities of cultural materials, did not contain any pre-contact features (firepit/hearth, refuse pit, etc.) and displayed internal structures with a lack of complexity.

CHAPTER FIVE

ASSESSMENT OF THEMATIC CONTEXTS AND MANAGEMENT RECOMMENDATIONS

The archaeological site examination on the Town Wells 3 & 4 Site within the Medfield Town Wells 3 & 4 Water Treatment Plant Project area was able to collect information that can address the three research themes or contexts and sets of questions developed for the investigation, which were intended to answer questions about pre-contact Native American settlement patterns in the Charles and upper Neponset River drainage, the range of activities that occurred at the Town Wells 3 & 4 Site, and the use of resources by site occupants. The following assessment is based on analysis of the attributes of this site, the assemblage of cultural material collected from it during fieldwork and the relevance of this data to the questions posed for each research theme.

Site Examination Research Contexts

Research Context #1: Native American Settlement Patterns and Site Structure in the Upper Neponset and Charles River Drainages

Hypotheses

- *The horizontal dimensions of the Town Wells 3 & 4 Site are expected to reflect local topographic and soil conditions within the site area. The sloping sides of the knoll on which it is situated and changes in soil texture will form natural site boundaries on the east, south and west. Concentrations of chipping debris and features marking the loci of pre-contact Native American activity within the site will be within areas of fine-textured sandy subsoils while gravelly subsoils were avoided. Close interval sampling is expected to accurately define the extent to which the site was truncated on the north by modern road construction.*

The results of the site examination confirmed that the horizontal dimensions of the Town Wells 3 & 4 Site reflect localized topographic conditions on the knoll on which it is situated. Most of the pre-contact cultural material from both the intensive survey and site examination was found within two small loci on the level to slightly sloping crest of the knoll. A few test pits on the upper slopes of the knoll yielded one or two pieces of quartz chipping debris that may reflect incidental scattering or discard of cultural material outside the primary loci of activity. There were no distinct differences in the texture of subsoil horizons that corresponded with the loci of pre-contact Native American activity. Some gravel content was noted in the B subsoil horizons exposed in EU-02, but soil textures were generally uniform within the delineated site area. Most of the site examination test pits excavated at 5m intervals in proximity to the existing access road were sterile and only the northern end of the site appears to have been truncated by past road construction.

- *Based on testing done in the prior intensive survey, the Town Wells 3 & 4 Site is about 278 square meters (sq m) in size. Additional close interval sampling for the site examination is expected to confirm that the site is larger, covering an area about 500 sq m in maximum horizontal extent. The size of the site will reflect the number of components or occupation episodes and relative intensity or amount of use by pre-contact Native Americans.*

This hypothesis was not supported by the results of close interval subsurface testing for the site examination which confirmed that the Town Wells 3 & 4 Site is slightly larger than the 278 square meter area estimated from prior intensive survey sampling. The area delineated by the site examination covers 348.3 sq m and is less than the predicted size of about 500 sq m.

The shape of the delineated site area changed from what was estimated at completion of the intensive survey and it was found to have a more elongated form extending along the crest of the knoll. The two temporal components (Middle, Late Archaic Periods) on the site were within the same small locus and did not appear to have affected site size.

- *The prior intensive survey found two small clusters of cultural material in the northern and southern portions of the Town Wells 3 & 4 Site. It is expected to have a more complex internal structure containing several clusters of moderate to high density (40 to 120 pieces/sq m) of cultural material (stone tools, chipping debris) surrounded by areas of less-dense (4 to 32 pieces/sq m) concentrations of cultural materials.*

This hypothesis was not entirely supported by the results of the site examination which demonstrate that the Town Wells 3 & 4 Site does not have a more complex internal structure than that known from the prior intensive survey. Close interval sampling with test pits for the site examination did not identify any new clusters or loci of cultural material. Two small loci of cultural material are in the northern and southern portions of the site and densities of cultural material within them range from a maximum of 104 pieces/sq m (intensive survey test pit AR-02-360) in the southern locus to only about 4 to 12 pieces/sq m in the northern locus. Across the rest of the delineated site area outside the two loci, densities of cultural material were low ranging from 4 to 8 pieces/sq m.

- *The Town Wells 3 & 4 Site functioned as a short-term camp and the archaeological deposits within it were formed by a limited number of occupation episodes. The primary activity carried out by Native American groups or individuals was the manufacture and/or maintenance (repair, recycling) of chipped stone tools at small lithic workshop loci containing concentrations of chipping debris and other objects (chipped stone tools). The assemblage of tools will be restricted to a few functional types such as projectile points, point performs and bifacial tool blades). Some other on-site activities such as cooking and resource processing could be indicated by features such as hearth/firepits, deep storage pits or concentrations of burned rock fragments.*

This hypothesis was supported by the results of the site examination; the small deposits of cultural material in the Town Wells 3 & 4 Site are consistent with use as a short-term camp where a limited range of activities were carried out by small Native American groups or individuals. Chipped stone tool manufacture and/or maintenance was done at one small lithic workshop and more spatially dispersed locations within the site. The assemblage of discarded chipped stone tools was restricted to only two functional categories; projectile points and a unifacially modified piece of quartz shatter. The four diagnostic projectile points found in the southern locus within the site indicate only two occupation episodes in the Middle (8000-5000 B.P.) and Late to Transitional Archaic or Early Woodland periods (4000-2500 B.P.). Other on-site activities such as cooking and resource processing were indicated by the 7 fragments of burned rock found in test pits and excavation units, but no concentrations of this material or other features such as hearth/firepits or deep storage pits were found.

In comparison to other recorded sites in Medfield, the Town Wells 3 & 4 Site is more internally complex than the Erik Road Site (19–NF–301) a small lithic workshop on Vine Brook that contained only quartz chipping debris. It is also larger than tributary stream zone sites described in a predictive model that were not likely to cover horizontal areas of more than 150 sq m. However, it does have the simple internal

structure predicted by this model; with an activity area in which densities of chipping debris or other materials can range from very low to high (Ritchie 1997). The Town Wells 3 & 4 Site is similar to, but less complex than the moderate sized Clark-Morse Site near Vine Brook that yielded a small lithic assemblage with a broken untyped projectile point of rhyolite, modified argillite cobble, 23 pieces of argillite, jasper, quartz, quartzite, rhyolite and unidentified igneous and metamorphic rock chipping debris and three ceramic vessel sherds. A feature on this site yielded a radiocarbon date of 1460 +/- 30 years B.P. (Beta 464553) indicating occupation in the Middle Woodland Period (ca. 1600 – 1000 B.P.) (Flynn and Doucette 2017).

Research Context # 2: Pre-Contact Lithic Resource Use in the Middle to Upper Charles River Drainage and Medfield Core Area

Hypotheses

- *The Town Wells 3 & 4 Site will yield a larger sample of the grey-green rhyolite and it may include pieces with weathered fracture plane cortex indicating it was obtained from a bedrock outcrop. None of it is expected to display cobble cortex as this lithic material was not derived from glacial outwash gravel deposits.*

This hypothesis about lithic resource use on the Town Wells 3 & 4 Site was not supported by the results of the site examination. As part of the subsurface sampling strategy, a 1-x-1m excavation unit (EU-01) was specifically placed next to intensive survey test pits TC-02 and AR-02-360 which yielded 23 pieces of grey-green rhyolite chipping debris. No chipped stone tools or pieces of chipping debris of this lithic material were recovered in the site examination. Given the lack of a larger sample, it was not possible to determine if Native Americans using the site obtained this lithic material from a bedrock outcrop or cobbles or investigate the possibility that its source is within a section of the Mattapan volcanic complex outcropping in the towns of Sherborn and Natick.

- *Any broken discarded bifacial tool blades or preforms and the attributes (size range) of chipping debris are expected to yield more information on what form the grey-green rhyolite was in when brought to the Town Wells 3 & 4 Site. There may be some large (5-7cm, 7-9cm) tabular pieces that were partially shaped, or early stage bifacial tool blades that broke and were discarded on the site.*

It was not possible to address this hypothesis about what form the grey-green rhyolite was in when brought to the Town Wells 3 & 4 Site. Close interval sampling across the delineated site area with test pits and further investigation of a known concentration (test pits TC-02, AR-02-360) did not yield any bifacial tool blades or preforms of this lithic material.

- *The prior intensive survey yielded a midsection fragment of a small stemmed projectile point made of mottled gray-brown rhyolite that could be derived from either the Blue Hills or Mattapan volcanic complexes. The site examination is expected to recover more tools (projectile points, bifacial tool blades) and chipping debris of rhyolites from these sources.*

This hypothesis was partially supported by the small amount of rhyolite chipping debris found in the southern half of the site. No chipped stone tools of rhyolite were recovered so information about how this material was used at the Town Wells 3 &4 Site is limited. Of the 10 pieces of rhyolite chipping debris recovered from the site 8 were in the three excavation units (EU-01, EU-02, EU-03) and two in test pits N05W10 and N10W05. The rhyolite found as chipping debris ranged from dark to light grey in color with some speckling on weathered surfaces. All 10 pieces were thin flakes ranging from 0-1 cm (1) and 1-3 cm (7) to 3 -5 cm (1) in size. The most likely source for this material is the nearby source area within a section of the Mattapan volcanic complex in Westwood and Dover, less than 5 miles from the Town Wells 3 &4

Site. None of the chipping debris was like the mottled gray-brown rhyolite used to make the small stemmed projectile point found in the intensive survey, or had macroscopic attributes (pink feldspar and quartz phenocrysts, etc.) characteristic of material from the Blue Hills source.

- *The Town Wells 3 &4 Site may have a low diversity lithic assemblage with tools and chipping debris of only two or three materials such as rhyolite and quartz. Only 12 pieces of quartz chipping debris were found on the site in the intensive survey, and it may not contain any concentrations or lithic workshops with this material. One quartz flake had cobble cortex so it was likely obtained from nearby deposits of gravelly glacial outwash.*

This hypothesis about the lithic assemblage within the Town Wells 3 &4 Site was supported by the results of the site examination. Tools and chipping debris recovered from the site were of only three lithic materials, quartz, rhyolite and argillite, displaying the low diversity predicted for a small, less complex settlement location like the Town Wells 3 &4 Site. Of the four chipped stone tools (three projectile points, unifacially modified shatter) found in the site, two were quartz and two of argillite. Quartz was the most frequent material in the sample of chipping debris collected in the site examination, but the 24 pieces of this material were found in low densities across the site and there were no concentrations or lithic workshops. None of the quartz chipping debris had cobble cortex and it was not possible to assess if this material was derived from glacial cobbles or a bedrock vein source.

Research Context # 3: The Temporal and Cultural Affiliation of the Town Wells 3 & 4 Site

Hypotheses

- *Given its location on the periphery of the riverine environmental setting, the Town Wells 3 & 4 Site is not expected to contain Early or Middle Archaic Period components from about 8500 to 5000 years ago.*

This hypothesis about the components within the Town Wells 3 & 4 Site was not supported by the results of the site examination and pre-contact Native American use of this location has a wider temporal range than expected. A Stark point diagnostic of the latter part of the Middle Archaic Period was recovered from an excavation unit placed in the southern portion of the site. Found in EU-03 at 30-40 cmbs in the B_1 subsoil horizon, this point of tan-brown argillite indicated the earliest occupation of the site was about 7000 to 6000 years ago. No other material clearly diagnostic of the Middle Archaic Period was found.

- *The Town Wells 3 & 4 Site was occupied in the Late to Transitional Archaic or Early Woodland Period by Native Americans using a small stemmed projectile point technology. It may also have one or two small components affiliated with other Late Archaic cultural traditions that can be identified from diagnostic Laurentian (Vosburg, Brewerton) or Susquehanna tradition projectile point (Atlantic, Wayland Notched) or bifacial tool blade (Mansion Inn) types.*

This hypothesis based on the results of the prior intensive survey was partially confirmed by diagnostic cultural material found in the site examination. The two small stemmed projectile points of quartz and argillite from the same excavation unit (EU-01, 10-20 and 30-40 cmbs) are associated with a Late to Transitional Archaic or Early Woodland Period (4000-2500 B.P.) component on the Town Wells 3 & 4 Site. This component was first identified from a broken small stemmed point found in the intensive survey. In many concentrations of pre-contact Native American settlement in southeastern New England like the Medfield and Neponset core areas, this general temporal period was an episode of intensive, repeated occupation on sites.

The site examination did not yield any evidence of other small Late Archaic period components created by Laurentian (ca. 5500-4200 B.P) or Susquehanna tradition affiliated groups around 3900 to 3200 years ago.

- *If suitable charcoal for analysis can be collected from features or other discrete depositional contexts on the Town Wells 3 & 4 Site, it is expected to yield a radiocarbon date ranging in age from about 4500 to 2500 B.P. This would be consistent with the larger pattern of intensive settlement and use of many site locations in the Medfield core during the Late to Transitional Archaic Period.*

- Although diagnostic small stemmed projectile points found in the site may be related to the larger pattern of intensive settlement and use of many locations in the Medfield core during the Late to Transitional Archaic Period, it was not possible to gain further support for this hypothesis through radiocarbon dating. No features or other discrete depositional contexts with charcoal fragments were found in test pits and excavation units completed on the site. Burned rock fragments found in the locus of activity in the southern portion of the site were not associated with subsurface features. It is also possible that post-contact period agricultural land use that created the A horizon interpreted as a plowzone dispersed burned rock fragments originally associated with features within the site.

- *It is unlikely that the Town Wells 3 & 4 Site will contain evidence of occupation in the Middle or Late Woodland Periods (ca. 2000 to 500 B.P.).*

  This hypothesis about use of the Town Wells 3 & 4 Site from about 2000 to 500 years ago was confirmed by the results of the site examination. No diagnostic chipped stone tools, ceramic vessel sherds or other evidence for use of this site in the Middle or Late Woodland Periods (ca. 2000 to 500 B.P.) was found.

Summary and Management Recommendations

The identification of Middle (8000-5000 years B.P.) and Late to Transitional Archaic or Early Woodland (4000-2500 B.P.) Period components on the Town Wells 3 & 4 Site is a contribution to what is currently known about pre-contact Native American settlement and lithic resource use in the core area formed by the Mine Brook drainage and combined upper Neponset and Charles River basins. However, most of the pre-contact cultural material recovered in the site examination was within an A horizon interpreted as a plowzone formed by past agricultural land use. The results of close interval subsurface sampling indicated that the amount and type of pre-contact cultural materials present in intact subsoil horizons is minimal. It is also likely that subsurface sampling conducted for the intensive survey and site examination collected most of the information within the small locus of cultural material in the southern portion of the site. This locus is outside the footprint of the new water treatment plant but within a gravel or crushed rock apron and parking area adjacent to the northwest corner of this proposed structure. **In summary, based on the results of the site examination, the Town Wells 3 & 4 Site does not have sufficient integrity or information content to be potentially significant and eligible for listing in the National Register of Historic Places. Further study would be unlikely to yield much new information and no additional archaeological investigation is recommended for the Town Wells 3 & 4 Site.**

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APPENDIX A

CATALOG OF CULTURAL MATERIALS

Appendix A. Catalog of Cultural Materials, Medfield Water Treatment Plant, Intensive Survey.

Provenience	Material	Object	Size	Attributes	Color(s)	Count
Town Wells 3 and 4						
AR-01-090 20-30, B1	Quartz	Chipping Debris Flake	1-3cm	Complete	White	1
AR-01-360 10-20, Overburden	Quartz	Chipping Debris Flake	1-3cm	Complete	Clear, Gray	1
	Quartz	Chipping Debris Flake	1-3cm	Complete Cortex	Clear, Gray	2
AR-02-270 10-20, Apz	Quartz	Chipping Debris Shatter	3-5cm	Complete	White	1
AR-02-360 0-10, Apz	Quartz	Chipping Debris Flake	1-3cm	Complete	White	2
	Rhyolite	Chipping Debris Flake	1-3cm	Complete	Gray, Green	1
AR-02-360 10-20, Apz	Rhyolite	Projectile Point Small Stemmed	2.48x1.47x0.79	Midsection	Banded, Cream, Gray, Speckled	1
	Quartz	Chipping Debris Flake	1-3cm	Complete	Red, White	1
	Quartz	Chipping Debris Flake	3-5cm	Complete	White	1
	Rhyolite	Chipping Debris Flake	1-3cm	Complete	Gray, Green	3
	Rhyolite	Chipping Debris Flake	3-5cm	Complete	Gray, Green	1
AR-02-360 20-30, B1	Rhyolite	Chipping Debris Flake	0-1cm	Complete	Gray, Green	2
	Rhyolite	Chipping Debris Flake	1-3cm	Complete	Gray, Green	9
AR-02-360 30-40, B2	Rhyolite	Chipping Debris Flake	1-3cm	Complete	Gray, Green	5
EU-01 0-10, A1	Quartz	Chipping Debris Flake	0-1cm	Complete	White	1
EU-01 10-20, A1	Argillite	Projectile Point Wading River	3.3x1.71x0.46	Complete	Gray, Lt Gray	1
	Argillite	Chipping Debris Flake	1-3cm	Complete	Lt Gray	1
	Quartz	Chipping Debris Flake	1-3cm	Complete	White	2
EU-01 20-30, A1	Rhyolite	Chipping Debris Flake	1-3cm	Complete	Gray, Speckled	1
	Rhyolite	Chipping Debris Flake	0-1cm	Complete	Dk Gray, Gray, Speckled	1
	Quartz	Chipping Debris Flake	1-3cm	Complete	White	1
EU-01 20-30, B1	Quartz	Chipping Debris Flake	0-1cm	Complete	White	2
EU-01 30-40, B1	Quartz	Projectile Point Small Stemmed	2.82x1.21x0.47	Complete	White	1
EU-02 0-10, A1	Quartz	Chipping Debris Flake	1-3cm	Complete	White	1
	Quartz	Chipping Debris Flake	1-3cm	Complete	Clear, White	1
	Unid. Metamorphic	Fire-Cracked Rock		Fragment	Pink, Tan	2
EU-02 10-20, A1	Argillite	Chipping Debris Flake	1-3cm	Complete	Brown, Gray	1
	Quartz	Chipping Debris Flake	0-1cm	Complete	White	1

Appendix A. Catalog of Cultural Materials, Medfield Water Treatment Plant, Site Examination.

Provenience	Material	Object	Size	Attributes	Color(s)	Count
Town Wells 3 and 4						
EU-02 10-20, A1	Quartz	Chipping Debris Flake	1-3cm	Complete	White	1
	Quartz	Chipping Debris Shatter	1-3cm	Complete	White	1
	Rhyolite	Chipping Debris Flake	0-1cm	Complete	Dk Gray, Gray, Speckled	1
	Rhyolite	Chipping Debris Flake	1-3cm	Complete	Dk Gray, Gray, Speckled	1
	Unid. Igneous	Fire-Cracked Rock		Fragment	Gray, Pink, Tan	2
EU-02 20-30, B1	Granitic	Fire-Cracked Rock		Fragment	Dk Gray, Red, Tan	1
	Quartzite	Fire-Cracked Rock		Fragment	Cream, Red, Tan	1
EU-03 0-10, A1	Quartz	Chipping Debris Flake	1-3cm	Complete	Crystal, White	1
	Rhyolite	Chipping Debris Flake	1-3cm	Complete	Gray, Lt Gray	1
EU-03 10-20, A1	Argillite	Chipping Debris Flake	1-3cm	Complete	Brown	1
	Quartz	Chipping Debris Flake	0-1cm	Complete	White	1
	Quartz	Chipping Debris Flake	1-3cm	Complete	Rust, White	2
	Rhyolite	Chipping Debris Flake	1-3cm	Complete	Dk Gray, Gray	2
EU-03 20-30, B1	Argillite	Projectile Point Stark	5.33x2.07x0.77	Complete	Dk Gray, Tan	1
	Quartz	Chipping Debris Flake	1-3cm	Complete	White	2
	Rhyolite	Chipping Debris Flake	3-5cm	Complete	Dk Gray, Gray, Lt Gray, Speckled	1
N00W15 0-10, A1	Quartz	Chipping Debris Flake	1-3cm	Complete	Dk Gray, White	1
	Copper Alloy	Buckle Harness Buckle		Complete		2
N00W15 10-20, A1	Copper Alloy	Miscellaneous Personal Harmonica Part Reed Plate		Complete		1
N05E00 0-10, A1	Quartz	Chipping Debris Flake	1-3cm	Complete	White	1
	Rhyolite	Fire-Cracked Rock		Fragment	Red, Tan	1
N05W10 10-20, A1	Rhyolite	Chipping Debris Flake	1-3cm	Complete	Gray	1
	Quartz	Chipping Debris Flake	1-3cm	Complete	White	1
N10E05 0-10, Developing A	Quartz	Chipping Debris Flake	1-3cm	Complete	White	1
N10W05 20-30, Overburden	Rhyolite	Chipping Debris Flake	1-3cm	Complete	Gray	1
	Quartz	Chipping Debris Flake	1-3cm	Complete	White	1
N15E09.5 0-10, A1	Quartz	Uniface	4.1x2081x1.8	Fragment	Gray, White	1
N20E05 10-20, Developing A	Quartz	Chipping Debris Flake	1-3cm	Complete	White	1

Appendix A. Catalog of Cultural Materials, Medfield Water Treatment Plant, Site Examination.

Provenience	Material	Object	Size	Attributes	Color(s)	Count
Town Wells 3 and 4						
N20W05 20-30, Redeposited A/B	Quartz	Chipping Debris Flake	1-3cm	Complete	White	1
S05E10 0-10, A1	Quartz	Chipping Debris Flake	1-3cm	Complete	White	1
S05W10.5 60-70, Disturbed B	Ferrous	Nail Wire Nail		Fragment		5
TA-01 30-40, Dist. B1	Quartz	Chipping Debris Flake	1-3cm	Complete	White	1
TC-01 0-10, Overburden	Ferrous	Miscellaneous Hardware		Fragment		1
	Quartz	Chipping Debris Flake	1-3cm	Complete	White	1
TC-01 20-30, Overburden	Unid. Igneous	Fire-Cracked Rock		Complete	Black, Speckled, Tan	1
TC-01 30-40, B1	Quartz	Chipping Debris Flake	1-3cm	Complete	White	1
TC-02 20-30, B1	Rhyolite	Chipping Debris Flake	1-3cm	Complete	Gray, Green	1
TC-02 40-50, B2	Rhyolite	Chipping Debris Flake	3-5cm	Complete	Gray, Green	1
					Total:	**95**

APPENDIX B

CORRESPONDENCE

Public Archaeology Laboratory

May 19, 2021

Brona Simon
State Historic Preservation Officer
State Archaeologist
Executive Director
Massachusetts Historical Commission
220 Morrissey Boulevard
Boston, Massachusetts 02125

Re: Medfield Wells 3 & 4 Water Treatment Plant, 43 Elm Street, Medfield, Massachusetts
Archaeological Site Examination
MHC # RC. 68914, EEA # 16293, PAL # 4085

Dear Ms. Simon:

Enclosed please find an application for a permit to conduct an archaeological site examination of the Town Wells 3 & 4 Site within the Medfield Wells 3 & 4 Water Treatment Plant project area at 43 Elm Street in Medfield, Massachusetts. The project area is located on the Medfield, MA quadrangle. We would like to begin investigations as soon as possible, weather permitting. Thank you in advance for your time and attention to this matter.

If you have any questions or concerns, please do not hesitate to contact Duncan Ritchie, Senior Archaeologist, or me, at your convenience.

Sincerely,

Deborah C. Cox, RPA

Enclosure

cc: Eric Kelley, Environmental Partners Group, Inc. (w/encl. – via email)

26 Main Street Pawtucket, RI 02860 | 401.728.8780 Main | 401.728.8784 Fax
palinc.com

950 CMR: DEPARTMENT OF THE STATE SECRETARY

APPENDIX B
COMMONWEALTH OF MASSACHUSETTS

SECRETARY OF STATE: MASSACHUSETTS HISTORICAL COMMISSION

PERMIT APPLICATION: ARCHAEOLOGICAL FIELD INVESTIGATION

A. General Information

Pursuant to Section 27C of Chapter 9 of the General Laws and according to the regulations outlined in 950 CMR 70.00, a permit to conduct a field investigation is hereby requested.

1. Name(s): Duncan Ritchie

2. Institution: The Public Archaeology Laboratory, Inc.

   Address: 26 Main Street
   Pawtucket, Rhode Island 02860

3. Project Location: Wells 3 and 4 Water Treatment Plant

   see attached proposal

4. Town(s): Medfield

5. Attach a copy of a USGS quadrangle with the project area clearly marked.

   see attached

6. Property Owner(s): Town of Medfield

7. The applicant affirms that the owner has been notified and has agreed that the applicant may perform the proposed field investigation.

8. The proposed field investigation is for a(n):

   a. Reconnaissance Survey
   b. Intensive Survey
   c. Site Examination
   d. Data Recovery

B. Professional Qualifications

1. Attach a personnel chart and project schedule as described in 950 CMR 70.11 (b).

   a. Personnel

   Principal Investigator(s): Duncan Ritchie

   Project Archaeologist: John Campbell

   Field Crew: Ted Dattilo

   b. Schedule

   Fieldwork: June 2021

   Laboratory: June 2021

   Report: June – July 2021

2. Include copies of curriculum vitae of key personnel (unless already on file with the State Archaeologist).

C. Research Design

1. Attach a narrative description of the proposed Research Design according to the requirements of 950 CMR 70.11.

2. The Applicant agrees to perform the field investigations according to the standards outlined in 950 CMR 70.13.

3. The Applicant agrees to submit a Summary Report, prepared according to the standards outlined in 950 CMR 70.14 by: August 31, 2021

4. The specimens recovered during performance of the proposed field investigation will be curated at:

   The Public Archaeology Laboratory, Inc.
   26 Main Street
   Pawtucket, Rhode Island 02860

SIGNATURE Duncan Ritchie DATE May 19, 2021

APPLICANT (S)

The Commonwealth of Massachusetts

William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

PERMIT TO CONDUCT ARCHAEOLOGICAL FIELD INVESTIGATION

Permit Number 4094 Date of Issue May 24, 2021
Expiration Date May 24, 2022

PAL is hereby authorized to conduct an archaeological field investigation pursuant to Section 27C of Chapter 9 of General Laws and according to the regulations outlined in 950 CMR 70.00.

Medfield Wells 3 & 4 Water Treatment Plant, Town Wells 3 & 4 Site, Medfield
Project Location

Brona Simon

Brona Simon, State Archaeologist
Massachusetts Historical Commission

220 Morrissey Boulevard, Boston, Massachusetts 02125
(617) 727-8470 • Fax: (617) 727-5128
www.sec.state.ma.us/mhc

APPENDIX C

MHC SITE FORM

FORM D ARCHAEOLOGICAL SURVEY
PREHISTORIC ARCHAEOLOGICAL SITES

Massachusetts Historical Commission
Office of the Secretary
State House, Boston

FOR MHC OFFICE USE ONLY

Town
UTM
QUAD
MHC NO.

NR ☐ ACT ☐ ELIG. ☐ NO DISTRICT ☐ YES ☐ NO

IDENTIFICATION

1. SITE NAME(S) Town Wells 3 & 4 Site — MAS NO. — OTHER NO.

2. TOWN/CITY Medfield — COUNTY Norfolk

3. STREET AND NUMBER (IF NOT AVAILABLE, GIVE DETAILED DESCRIPTION OF HOW TO REACH SITE)
Icoated about 2500 feet south of Elm Street, about 300 ft east of railroad corridor (Conrail) along accees road to town wells

4. OWNER(S) AND ADDRESS(ES) Town of Medfield Water and Sewer division, 450 Main Street, Medfield, MA 02053 ☑ Public ☐ Private

5. SITE LOCATED BY
☑ CRM Survey ☐ Avocational Collector ☐ Field School ☐ Other (Specify)
Describe Sampling Strategy used to Locate Site 50x50 cm test pitss at 5 and 10m intervals in grid pattern and on transects, 2.5m array patterns. 1x1m excavation units

DESCRIPTION

6a. PERIOD(S) (Check all applicable boxes)
☐ Paleo ☑ Early Woodland ☐ Contact
☐ Early Archaic ☐ Middle Woodland ☐ Unknown
☑ Middle Archaic ☐ Late Woodland ☐ Other (Specify)
☑ Late Archaic

6b. Estimated Occupation Range ca 7000 to 2500 B.P.

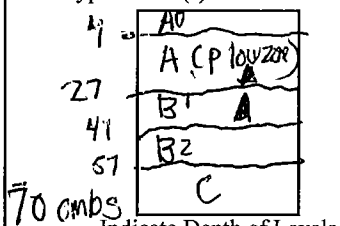
☐ Single Component ☑ Multi-Component
Specify All Components
Middle Archaic (Stark), Late to Transional Archaic or Early Woodland (small stem

7. DATING METHODS: C-14 ☑ Intuition ☑ Other (specify) diagnostic projectile points; Comparative Materials

8. DESCRIBE SITE TYPE / FUNCTION small temporary encampment used to make chipped stone tools, some feature (firepits?) construction inferred but not confirmed

9. DESCRIBE SIZE AND HORIZONTAL AND VERTICAL BOUNDARIES
Based on results of site examination, the delineated site covers a horizontal area of 348.3 square meters.. Vertical extent of site is from about 5 to 40 cm below surface.

10. GENERALIZED SITE PROFILE
Type of Soil(s) Cultural Material = A



Indicate Depth of Levels

ENVIRONMENT

11. SOIL
USDA Soil Series: Merrimac fine sandy loam
Contour Elevation: 150 feet asl
% Slope of Ground: ☑ 0 - 5 ☐ 5 - 15 ☐ 15 - 25 ☐ Over 25
Acidity: 1 ——— 7 ——— 14 (Acid) (Base) 5.0 ?

12. TOPOGRAPHY
☐ Flat ☑ Gentle undulation ☐ Other
☐ Rolling Hills ☐ Mountains

13. WATER

NEAREST WATER SOURCE	SIZE AND SPEED	DISTANCE FROM SITE	SEASONAL AVAILABILITY
Mine Brook	small, slow	about 700 ft (210 m)	year orund

14. VEGE-TATION
PRESENT: second growth white pine, oak forest
PAST: open agricultural field and wooded in 18th to late 20th centuries

CONDITION

15. SITE INTEGRITY
☐ Undisturbed ☐ Good ☑ Fair ☐ Destroyed
IF DISTURBED, DESCRIBE DISTURBANCE
plowing and zone of disturbance from access road to town Well 4

16. SURROUNDING ENVIRONMENT
☑ Open Land ☑ Woodland ☐ Eroded Soils ☐ Residential ☑ Scattered Buildings Visible from Site
☐ Commercial ☐ Industrial ☐ Rural
☐ Coastal ☑ Isolated

17. ANY THREATS TO SITE ☑ Yes ☐ No
DESCRIBE POTENTIAL THREATS
proposed Town ofMedfield water treatment facility

18. ACCESSIBILITY TO PUBLIC
☐ Free Access ☑ Need Owner Permission ☐ Restricted ☐ No Access

RESEARCH STATUS

19. PREVIOUS WORK

☐ Surface Collected	By Whom / Affiliation	Date
☐ "Pot hunted"	By Whom / Affiliation	Date
☑ Tested	By Whom / Affiliation PAL Inc staff	Date 2021
☐ Excavation	By Whom / Affiliation	Date

20. PRESENT LOCATION OF MATERIALS (INCLUDE ADDRESS)

Public Archaeology Laboratory, Inc 26 Main Street, Pawtucket, RI 02860

21. REFERENCES / REPORTS

Ritchie, Duncan 2021a Intensive Archaeological Survey Wells 3 and 4 Water Treatment plant, Medfield, Massachusetts..Public Archaeology Laboratory report 4085. submitted to Environmental Partners Group, Wobrn, MA 01801 2021b Archseological Site Examination Wells 3 and 4 Water Treatment Plant, Medfield, Massachusetts..Public Archaeology Laboratory report 4085. submitted to Environmental Partners Group, Wobrn, MA

SIGNIFICANCE

22. RECOVERED DATA (identify in DETAIL, including features, pits, burials, faunal material, etc.)

Intensive survey yielded a broken small stemmed projectile point of rhyolite, 35 pieces of chipping debris (quartz, gray-green volcanic rock) and a piece of burned rock. Site examination yielded assemblage of Middle Archaic Period Stark point of argillite, two Late to Transitional Archaic or Early Woodland Period small stemmed points of argillite and quartz and a unifacially modified piece of quartz shatter. 38 pieces of quartz, rhyolite and argillite chipping debris and 7 fragments of burned rock were also collected from the site.. .

23. ARCHAEOLOGICAL OR HISTORICAL SIGNIFICANCE

identification of Middle (8000-5000 years B.P.) and Late to Transitional Archaic or Early Woodland (4000-2500 B.P.) Period components on the Town Wells 3 & 4 Site is a contribution to what is currently known about pre-contact Native American settlement and lithic resource use in the core area formed by the Mine Brook drainage and combined upper Neponset and Charles River basins. Most of the pre-contact cultural material recovered in the site examination was within an A horizon interpreted as a plowzone formed by past agricultural land use. The results of close interval subsurface sampling indicated that the amount and types of pre-contact cultural materials present in intact subsoil horizons is minimal. The Town Wells 3 & 4 Site not considered to have sufficient integrity or information content to be potentially significant and eligible for listing in the National Register of Historic Places.

SITE PLAN

24. ATTACH PORTION OF USGS QUAD WITH SITE AREA MARKED TO THIS FORM

25. SKETCH PLAN OF SITE

See Attached Map

Scale:

26. PHOTOS: Attach if available
Label each with: Date of photo, photographer, view shown, name of site

REPORTED BY:

NAME D. Ritchie	ADDRESS 26 Main Street	
ORGANIZATION Public Archaeology Laboratory, Inc		DATE 6/25/2021

FOR OFFICE USE ONLY

FIELD EVALUATION

COMMENTS

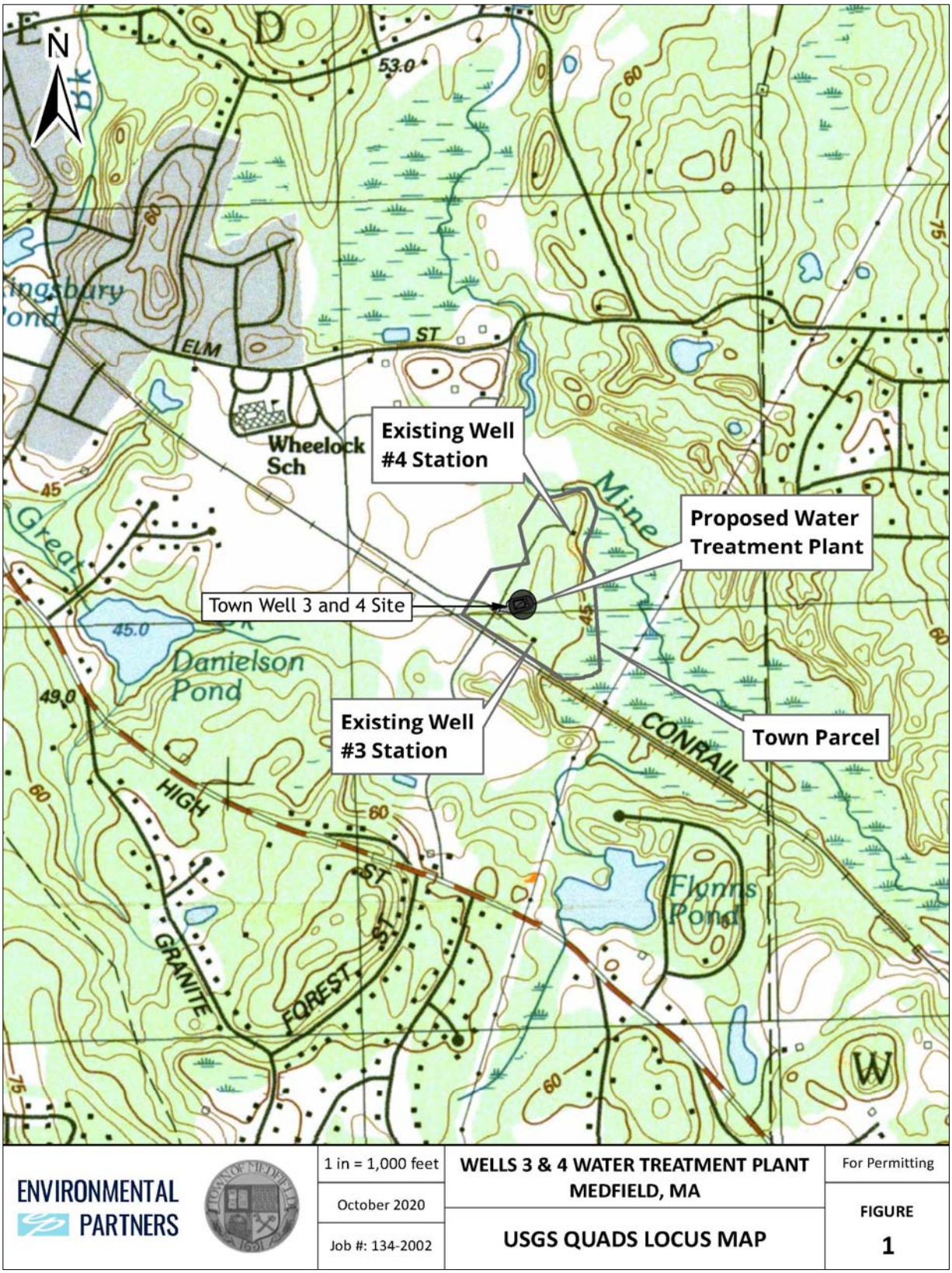


Figure 1. Location of the Medfield Wells 3 & 4 Water Treatment Plant Project area on the USGS Medfield, Massachusetts, 7.5-minute USGS topographic quadrangle map.