8.0 HISTORIC SITES

8.1 Pre-Contact Archaeological Survey

TRC Solutions (TRC) evaluated background research and conducted a Pre-contact historic archaeological investigation of the Three Rivers Solar Power Project area to determine potential impacts to historic resources. The Area of Potential Effects (APE) within a project for archaeological consideration may include all areas where the ground may be disturbed. The APE for this Project is based on a letter provided to Next Phase Energy Services, LLC by the Maine Historic Preservation Commission (MHPC) on April 30, 2019 (See Exhibit 8-1). Background research and a field investigation was conducted to evaluate whether Pre-contact period archaeological resources might be present within the APE of the Three Rivers Solar Project. There were no archaeological resources found present and no further archaeological investigation of this Project is recommended as it is currently configured. This report has been provided to the MHPC for review. Exhibit 8-2 includes the full Phase I Archaeological Investigation Report.
Exhibit 8-1

Maine Historic Preservation Commission Agency Correspondence
April 30, 2018

Ms. Stephanie Fowler
Next Phase Energy Services, LLC
143 Highland Shores Road
Casco, ME 04015

Project: MHPC #0465-18 Three Rivers Solar
100 MW Energy with Panels

Town: T 16 MD, ME

Dear Ms. Fowler:

In response to your recent request, I have reviewed the information received April 12, 2018 to initiate consultation on the above referenced project in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended.

There are no known archaeological sites on the property, but certain landforms and areas of the property have a high to medium probability of containing prehistoric archaeological sites. A Phase I prehistoric archaeological survey is recommended within 200 yards of the West Branch Narraguagus, or the Colson Branch, and on the crest of Colson Branch Hill (above the 260 foot contour as mapped on the USGS topographic map).

A list of qualified historic archaeologists has been enclosed and can be found on our website: http://www.maine.gov/mhpc/project_review/consultants/prehistoric_archaeology.shtml.

No architectural or historic archaeological resources will be affected by this undertaking.

If you have any questions regarding archaeology, please contact Dr. Arthur Spiess of this office at Arthur.Spiess@maine.gov.

Sincerely,

Kirk F. Mohney
State Historic Preservation Officer
Archaeological Survey Guidelines

Updated: June 10, 2002

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

Project Types

The vast majority of contract archaeology survey work falls into one of three categories.

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

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

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

Scope of Work

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

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

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

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

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

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

Project Final Report

Whatever the archaeological survey result, a final report on the project should be submitted by the applicant to the MHPC. The MHPC will review the report, and issue further guidance or issue a “clearance” letter for the project.
Prehistoric Archaeologists Approved List:
Review and Compliance Consulting/Contracting (Active)
LEVEL 1 (Phase I and reconnaissance survey only)

Dr. Christopher Dona (401-273-9900)
HRA Gray and Pape, LLC
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cdonta@graypape.com

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Wakefield, RI 02879
marylynne.rainey@verizon.net

James A Clark (207-930-0543)
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clark.ja@gmail.com

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401-728-8780
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brigham@nearchaeology.com

Mr. Jacob Tumelaire
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Portsmouth, NH 03801
jtumelaire@iaac-itc.net

LEVEL 2 (Phase I, II, III, data recovery, all phases of survey)

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FAX: 207-667-0485
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www.monadarch.com

Dr. Victoria Bunkar (603-776-4386)
PO Box 16
New Durham NH 03809-0016
vbk@worldpath.net

Mr. Jacob A. Freedman
SEARCH, INC
P.O. Box 1080
Portsmouth, NH 03802
603-319-6939
www.searchne.com
jaacob@searchne.com
Exhibit 8-2

Three Rivers Solar Power Phase I Archaeological Report
Phase I Archaeological Investigation of the Three Rivers Solar Project, Township 16, Hancock County, Maine

Prepared For:
Swift Current Energy
184 High Street
Suite 701
Boston, MA 02110

Prepared By:
Richard Will and Karen E. Mack
TRC
71 Oak Street
Ellsworth, ME 04605

September 13, 2019

THIS REPORT CONTAINS CONFIDENTIAL INFORMATION
NOT FOR PUBLIC DISTRIBUTION
# TABLE OF CONTENTS

1 PROJECT DESCRIPTION ........................................................................................................ 1

2 PROJECT AREA OF POTENTIAL EFFECTS (APE) .............................................. 1

3 ENVIRONMENTAL AND ARCHAEOLOGICAL CONTEXTS................................. 1
   3.1 Environmental Overview ................................................................................................. 2
   3.1.1 Bedrock Geology .................................................................................................. 2
   3.1.2 Surficial Geology ................................................................................................. 2
   3.1.3 Vegetation .......................................................................................................... 3
   3.1.4 Soils ...................................................................................................................... 3
   3.2 Precontact Period Archaeological Overview .............................................................. 4
       3.2.1 Paleoindian Period (ca. 11,500-9,500 years ago) .............................................. 4
       3.2.2 Archaic Period (ca. 9,500-3,000 years ago) ..................................................... 5
       3.2.3 Ceramic Period (ca. 3,000-450 years ago) ....................................................... 6
       3.2.4 Summary ......................................................................................................... 6

4 ARCHAEOLOGICAL FIELD INVESTIGATION .................................................... 7
   4.1 Disturbances ...........................................................................................................  Error! Bookmark not defined.
   4.2 Potential Testing Areas (TA) .................................................................................. 9

5 CONCLUSIONS ............................................................................................................. 8

6 REFERENCES ................................................................................................................. 9
TABLES

Table 1. Comprehensive planning archaeological study units.

APPENDICES

Appendix 1 – Report Figures

Figure 1. Project location and location of proposed archaeologically sensitive areas.
Figure 2. Boulder and stumps piled to side of improved road located along project perimeter.
Figure 3. Outwash burrow pit used to extract gravel for road improvements.
Figure 4. Exposed soil areas composed of mostly decomposing granite.
Figure 5. TA 1.
Figure 6. TA 2.
Figure 7. TA 3.
Figure 8. TA 4.
Figure 9. TA 5.
Figure 10. TA 6.
Figure 11. Substation.
1 PROJECT DESCRIPTION
Three Rivers Solar, LLC proposes developing a solar power generation facility (the Project) capable of producing 100 megawatts of reliable renewable energy. The Project boundary will occupy approximately 696 acres of the 1,115-acre parcel owned by Elliot Jordan & Sons, which is located in Township 16 MD BPP, Hancock County, Maine. The Project area is encircled by a red line in Figure 1. The yellow-dotted line depicts the 250 ft (158 m) buffer zone located between the Project boundary and the proposed solar arrays within areas marked with orange polygons. No construction activities will occur within this zone. Potential areas examined for archaeological sensitivity are denoted by the pink lines. The Project name is derived from the fact that the Mahanon Brook runs along the northern Project area. The West Branch of the Narraguagus River runs along its eastern area boundary, and Colson Branch is located at its southern area boundary.

Currently, the Project area is cultivated in wild blueberries. The area to house solar panels will be de-stumped and rocks removed. Approximately 300,000 to 400,000 solar panels, 30 to 40 inverters and a new substation will be constructed and installed to support the Project. The Project is located adjacent to the now-built Bull Hill Wind Project, which was evaluated for its archaeological potential almost a decade ago (Will 2010).

2 PROJECT AREA OF POTENTIAL EFFECTS (APE)
The Area of Potential Effects (APE) within a project for archaeological consideration may include all areas where the ground may be disturbed. The APE for this Project is based on a letter provided to Next Phase Energy Services, LLC by the Maine Historic Preservation Commission (MHPC) on April 30, 2019. The MHPC states that,

“There are no known archaeological sites on the property, but certain land forms and areas of the property have a high to medium probability of containing prehistoric archaeological sites. A Phase I prehistoric archaeological survey is recommended within 200 yards of the West Branch Narraguagus, or the Colson Branch, and on the crest of Colson Branch Hill (above the 260 foot contour as mapped on the USGS topographic map).”

This scope of work assumes that the proposed Project will impact all areas within the orange line as indicated on the attached Figure 1. Based on that assumption seven areas occur within the parameters outlined by MHPC and will require walkover survey and evaluation. The approximate locations of these areas have been added (in pink) to Figure 1 and labeled Test Areas 1 – 6 (TA 1- TA6) and the substation.

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

Several inter-related types of information inform the initial search for archaeological sites. Because Maine’s Precontact hunting and gathering peoples were dependent on natural resources available for exploitation,
information that seeks to characterize the type and distribution of natural resources within a project area is important to an understanding of site location. Choices related to mobility and settlement also were to a great degree influenced by the nature of the environment. For these reasons, archaeologists look to environmental conditions, both as they exist today and as they are thought to have existed in the past, in an attempt to predict archaeological potential for a project area. Finally, data on previous archaeological discoveries in Maine reveal patterns of Precontact site location and distribution. This information is used to help predict the setting and type of sites that have a potential to exist in the Project area.

3.1 Environmental Overview

The environmental context of the project area is essentially that of “Downeast” Maine. Variations exist in topography, surficial materials, ground cover, as well as historical cultural development. The maximum elevation of the Project is around 206 m asl. Surficial features and topography of the area reflect events associated with the Wisconsinan glaciation, the last major glacial advance in the Northeast, and the land surface varies between irregular boulder and cobble-strewn terrain composed of angular till to water-laid features and sediments produced by glacial run-off and meltwater drainage.

3.1.1 Bedrock Geology

Bedrock in the project area owes its origins to events leading up to and during the Acadian Orogeny between 400-360 million years ago. This mountain building period stems from the convergence and subsequent collision of the North American plate with a crustal block of the Eurasian Plate known as Avalonia. The collision caused widespread metamorphism and resulted in large slabs of crust being subducted into the mantle, forming plutons that later intruded into overlying metamorphosed rock. Some of these plutons are exposed on the surface today and can occasionally be noted in Hancock and Washington Counties.

Certain types of bedrock were particularly well suited for use by Native people for the manufacture of stone implements. In Maine, fine-grained, aphanitic rocks of meta-sedimentary and volcanic origin—cherts, felsite, and quartz predominantly—because of their flaking qualities, were used to make flaked stone tools such as projectile points and scraping/processing tools. Another class of tools, manufactured through a combination of flaking, pecking, and grinding, were typically manufactured from other rock types, including basalt, slate, and phyllite. The Project area does not have exposed rock outcrops, but are all underlain by Devonian Pelite (Osberg et. al. 1985). This semi metamorphosed sedimentary rock was observed in places along the roadside during a field visit to the project area, but none of it could have been used for making stone tools.

3.1.2 Surficial Geology

During the last glaciation of the Pleistocene, the Laurentian Ice Sheet (LIS) flowed south-southeast across the present coastline to reach a terminal position in the Gulf of Maine at Georges Bank some 18,000 to 20,000 years B.P. (Hughes et al. 1985). At that time, the project area was depressed under an enormous weight of ice. As the ice retreated across the landscape, marine waters followed it into the interior of present-day Maine as far north as the town of Lincoln. Fine silt flowing from the ice margin settled as it met calmer marine waters, blanketing coarser glacial deposits in lower elevations and river valleys. These deposits were named the "Presumpscot Formation" by Bloom (1963), and their internal characteristics,
fossil assemblages, and chronological relationships with other surficial materials have greatly enhanced understanding of the evolution of the present landscape. Deposits associated with this marine transgression are encountered in the Penobscot River valley and eastward to the coast. Moving east, the silty deposits related to the Presumpscot Formation diminish and till-based silts and outwash sands and gravel predominate. The Project area is mapped as till (Borns and Anderson 1982) and this was easily confirmed in road cuts throughout the Project area.

3.1.3 Vegetation

Since the retreat of the LIS and subsequent regression of marine waters, vegetation in the project area has undergone a series of changes throughout the Holocene Epoch leading up to and continuing to the present day. These changes occurred as successive, location-specific responses of individual species to changes in the physical environment. These changes, which are described on a regional rather than local scale, are derived primarily from pollen core studies undertaken in the 1980s (Davis and Jacobson [1985]) and are briefly summarized here.

The initial vegetation to colonize the landscape left bare by the LIS consisted of tundra and open woodland species of poplar, spruce, and paper birch. By 12,000 years ago, a closed spruce forest began to form over southern Maine and progressively moved northward. During the early Holocene Epoch (ca. 10,000-7,000 years B.P.), spruce declined dramatically and was replaced predominately by species of pine, as well as oak and birch. Between 8,000-5,000 years ago, pine declined considerably, birch and oak less so, with the emergence of hemlock. With the exception of a short period of decline in hemlock as well as the emergence of beech between 5,000-4,000 years B.P., forests remained relatively unchanged until about 1,500-1,000 years B.P. when spruce and fir show slight increases, perhaps related to a cooling trend.

By the arrival of Europeans in the 17th century, many of these tree species were already beginning to show decline, particularly hemlock. By the end of the 19th century, vegetation had been significantly modified by human disturbances. These disturbances resulted from numerous activities, namely logging and agriculture. Due to the extensive history of logging in the Project area, as indicated by the abundant, weather tree stumps that cover the area, the vegetation today may not well reflect the forest resources that were available to Precontact period people.

3.1.4 Soils

Soil development in the Project area is the result of a long, continuous process involving the interaction of a variety of dynamic natural forces. The variability of these forces in the project area is ultimately reflected in the variable types of soils observed. Factors influencing the development are inevitably related to climate, parent material, relief, organic activity, time, and disturbance. Some broad generalizations of soil characteristics observed in the project area are directly related to parent materials and disturbance.

Better drained sediments such as sand, gravel, and some till show typical northern forest soil sequences that display a surface organic mat, overlying albic (leached) and spodic (enriched with sesquioxides) horizons. These horizons are diagnostic of a soil type referred to as "spodosols." Poorer drained materials such as silts, clay, and some till show very little alteration of the parent material and fit a category of soil types known as "entisols." In general, observed soils were thin and poorly formed.
3.2 Precontact Period Archaeological Overview

The Precontact archaeological record of Maine is long and complex dating back more than 11,000 years. The following is an overview of the three major periods that archaeologists use as a framework for identification of Precontact cultural resources discovered in Maine. These three periods are known as the Paleoindian, Archaic, and Ceramic cultural periods (Table 1). Further subdivisions within these periods are based on similarities in artifact forms and cultural adaptations over broad regions (Spiess 1990).

Table 1. Comprehensive planning archaeological study units.

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Study Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>11,500 - 10,000 RCYBP</td>
<td>Fluted Point Paleoindian Tradition</td>
</tr>
<tr>
<td>10,200 - 9,500 RCYBP</td>
<td>Late Paleoindian Tradition</td>
</tr>
<tr>
<td>10,000-6,000 RCYBP</td>
<td>Early and Middle Archaic Traditions</td>
</tr>
<tr>
<td>6,000 - 4,200 RCYBP</td>
<td>Late Archaic: Laurentian Tradition</td>
</tr>
<tr>
<td>6,000 - 4,000 RCYBP</td>
<td>Late Archaic: Small-stemmed Point Tradition</td>
</tr>
<tr>
<td>4,500 - 3,700 RCYBP</td>
<td>Late Archaic: Moorehead Phase</td>
</tr>
<tr>
<td>3,900 - 3,000 RCYBP</td>
<td>Late Archaic: Susquehanna Tradition</td>
</tr>
<tr>
<td>3,000 RCYBP – AD 1500</td>
<td>Ceramic Period</td>
</tr>
<tr>
<td>AD 1500 – AD 1675</td>
<td>Early Contact</td>
</tr>
<tr>
<td>AD 1675 – AD 1760</td>
<td>Late Contact</td>
</tr>
<tr>
<td>AD 1760 – AD 1940</td>
<td>Integration with Euro-American Life</td>
</tr>
</tbody>
</table>

Note: RCYBC equals radiocarbon years before present; AD equals calendar years. All dates are estimates. Sources: Spiess (1990:104) and Spiess (pers. comm. 1999).

3.2.1 Paleoindian Period (ca. 11,500-9,500 years ago)

The earliest Precontact inhabitants in the region, and throughout North America, are referred to as Paleoindians. Paleoindians are believed to be the first people to migrate into North America and, in their pursuit of large game, rapidly colonized the continent (Martin 1973). The hallmark of Paleoindian peoples is the fluted spear point, which was presumably used to hunt large game species, some of which are now extinct. These spear points are lanceolate in shape and possess a long, groove-like flake scar struck from their base on both faces. In Maine, the Paleoindian period dates from approximately 11,500 to 9,500 years ago when much of the landscape was still vegetated in tundra and/or woodlands. Paleoindian peoples living in the region are characterized as highly mobile hunter and gatherers reliant mainly on caribou that presumably were abundant in the environment of that time (Spiess, Wilson, and Bradley 1998). They crafted their tools out of very fine-grained, colorful rocks obtained from a limited number of sources in the region, and they camped in locations typically removed from present day water bodies (Spiess, Wilson, and Bradley 1998). These locations were rarely occupied during later cultural periods and are often strategically located above some form of low-lying terrain that may have been suitable habitat for caribou and other game animals. Their campsites are typically indicative of short-term habitations by small groups, perhaps in some cases by even a single, extended family.
High elevations, which afforded commanding views of the surrounding countryside to spot game are places in Maine where Paleoindian periods sites in Maine. For that reason, the crest of Colson Branch Hill was inspected.

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

3.2.2 Archaic Period (ca. 9,500-3,000 years ago)

The Archaic period represents the longest cultural period in the region, spanning around 6,500 years. This time frame is indicative of persistent cultural adaptations, as inferred from artifact assemblages, which lasted over several millennia. Although Early and Middle Archaic populations probably continued a nomadic hunter and gatherer lifestyle, their subsistence and settlement patterns were different than those of the Paleoindians. This is suggested by the location of most Early and Middle Archaic sites along present-day water bodies, and the presence of food remains of aquatic species, particularly beaver, muskrat, and fish.

Archaeological assemblages dating to the Early and Middle Archaic periods in Maine are different than their Paleoindian predecessors, and somewhat unique to the Maine region, particularly with respect to the Early Archaic. Tools were typically made from local stone, often collected in cobbles form, and assemblages lack the finely crafted, chipped stone spear points of the Paleoindian period. Rather, flakes and crudely fashioned unifacial tools dominate the assemblages. In addition, a new technology using pecking and grinding techniques appears for the first time in the archaeological record (Robinson 1992). This new technology produced a suite of groundstone tools that became more elaborate through time. By the Middle Archaic, chipped stone spear points become increasingly more abundant and the first cemetery sites occur. These cemetery sites reveal mortuary practices that included the sprinkling of graves with red ochre, and the offering of grave goods, such as wood working gouges, slate spear points, and stone rods (Moorehead 1922; Robinson 1992). This component, commonly referred to as the “Red Paint People,” sites dating to their tradition are best know from Maine east of the Kennebec River.

The close of the Late Archaic period is characterized by another archaeological tradition known as the Susquehanna tradition (Sanger 1979; Borstal 1982; Bourque 1995). It is widespread in Maine and New England. The people of the Susquehanna Tradition appear to have been more focused on a terrestrial economy than a marine economy. They largely abandoned the use of red ochre in their graves, and often cremated their corpses rather than buried them intact. Diagnostic tool forms include large, broad-bladed chipped stone spear points.
The relationships between the perceived Late Archaic cultural groups continue to be a source of debate among Maine archaeologists. At the root of the argument is whether the various archaeological assemblages of the Late Archaic reflect local, long-term cultural adaptation or movement of people into the region, bringing with them a different culture and way of life. Whatever the origins of the cultural changes observed, they again roughly coincide with increasing changes in the environment that provided more favorable habitat for deer populations, and possibly other more modern species as well.

3.2.3 Ceramic Period (ca. 3,000-450 years ago)

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

Ceramic period sites are abundant in Maine, along both the coast and in the Maine interior (Sanger 1979). Along the coast, they are most visible in the form of shell middens, which have attracted the attention of professional and amateur archaeologists since the late 19th century (e.g., Mercer 1897). Shell midden sites are found all along the Maine coast and contain discarded shells of clams, oysters, mussels, and quahogs, bones of both terrestrial and marine animals, as well as broken pottery sherds and discarded stone and bone tools. Sites in the interior are most common along waterways, ponds, and lakes (Sanger 1979). Assemblages from the interior differ from coastal sites in that the bone assemblages are poorly represented due to differences in preservation. The picture that emerges from Ceramic period sites is one showing a long-standing cultural adaptation to the diversified use of local resources. In addition, the nature of artifact forms present and certain types of stone recovered from Ceramic period sites indicate trade and communication with peoples to the far north, south, and west. By the end of the period, historical and archaeological evidence suggests horticulture was practiced in southern Maine. The Ceramic period ends with European contact around 450 years ago. At this time, most of the artifacts attributable to Precontact inhabitants of Maine disappear from the archaeological record so that tracing specific cultural connections between present-day Maine Indians and their Precontact ancestors is not possible.

3.2.4 Summary

Maine has a rich and varied cultural history dating back more than 11,000 years ago. Although archaeology can only provide glimpses into the past, sites dating to the Paleoindian, Archaic, and Ceramic periods document that people lived in a wide variety of environments through time and were very successful in adapting to environmental change as it has occurred throughout the Holocene Epoch. Our knowledge of Maine’s past people using archaeology is further complicated by the fact that survey coverage for the state is very uneven. Some places, like the coast of Maine, have received archaeological attention for more than 150 years, while interior areas have received the majority of attention during the last 30 years as a consequence of cultural resources management studies.
A review of the Precontact period archaeological site files at the Maine Historic Preservation Commission in Augusta shows that there are no known sites in the project area or nearby. However, Downeast Maine has not received much archaeological attention or survey to locate Precontact period archaeological sites.

4 ARCHaeological FIELD INVEsTIGATION

TRC archaeologists, Karen Mack and Richard Will visited the project on August 20, 2019 to visit assess and document all of the areas previously identified as potentially archaeologically sensitive. The areas included five that were potentially located within 250 feet of one of the rivers that borders the Project boundary, a high knoll near the center of Parcel 1 that may have provided a broad lookout during the early Holocene before trees revegetated the region after deglaciation, and Parcel 4 where a substation is proposed (Figure 1).

4.1 Disturbances

Three kinds of disturbances to the Project area were observed in addition to the roadway that traverses along most of the project boundary. The first kind consists of major clearing of the roads. The numerous boulders and other decries are pushed 10-30 m off the outer edge of the roads as shown in Figure 2. The second kind consists of borrow areas where large amount of sand and gravel have been extracted presumably for construction of the roadways (Figure 3). Figure 2 also shows how thin is the veneer of organic mat that grows over the Project area. The area was lightly forested in the past as evidenced by weather gray and cracked tree stumps. Mineral soil was exposed around many of these. In fact, it was the light color of exposed soils that were easier to spot than the tree stumps. The soil seemed to have been formed on decomposing granite in every location observed around the project (Figure 4).

4.2 Potential Testing Areas (TA)

Six potential testing areas (TA)s and the proposed location of the substation were field checked with the Project. These areas are denoted on Figure 1 in purple and are keyed to Figures 5-11.

TA 1, which is located in Area 1 shows a considerable amount of disturbance caused by road construction activities (Figure 5). Earth is mounded and boulders and stumps pushed to the side was common. No location for subsurface testing was noted.

TA 2, which is also located in Area 1 is similar to TA 1 in all respects (Figure 6). No location for subsurface testing was encountered.

TA 3 is located in Area 4. It is more open than either TA 1 or 2, but the APE is quite distant from West Branch of the Narraguagus River (Figure 7).

TA 4 is located in Area 5. It is similar to TA 3 in vegetation and topography (Figure 8), and like TA 3 the APE is quite distant from West Branch of the Narraguagus River.
TA 5 occurs along the western border of Area 6. Heavily cut over, the APE is distant from Colson Branch (Figure 9). No breaks and slope or other topographic features were observed in the APE that might warrant archaeological testing.

TA 6 occurs at the height of land near the center of Area 1 (Colson Branch crest) (Figure 10). The area is cultivated entirely in blueberries and affords distant views of area in all directions. Soils are extremely thin and weathered stumps are common. Exposed soils were examined in numerous locations in TA 6. No location for archaeological testing were noted.

Substation. The proposed substation location was visited in Area 4 (Figure 11). The APE is level and overgrown. It is not near water and no areas for archaeological testing were observed.

5 CONCLUSIONS

Background research and a field investigation was conducted to evaluate whether Precontact period archaeological resources might be present with the APE of the Three Rivers Solar Project. Although the Project Area is adjacent to three waterways, the APE is distant (more than 158 m) distant from any of them. The closest approach to rivers is the improved gravel road that largely follows the area marked in orange on Figure 1. Seven areas were examined. Disturbances included, construction activities for clearing and building a road system, gravel extract areas for road construction, and extensive land clearing for forests in the past.

Soils were observed as thin to almost no existent. They largely were present as a thin veneer in areas cultivated in blueberries.

No breaks in slope or other topographic features that might have afforded camping sites relative to the waterways were observed.

No cobbles or boulders were observed anywhere within the Project that could have been used for making stone tools.

No further archaeological investigation of this Project is recommended as it is currently configured.
6 REFERENCES

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APPENDIX 1
Report Figures
Figure 1. Project location and location of proposed archaeologically sensitive areas.
Figure 2. Boulders and stumps piled to side of improved gravel road along project boundary.

Figure 3. Outwash borrow pit used to extract fill for gravel road.
Figure 4. Exposed soil areas composed mostly of decomposing granite.

Figure 5. TA 1.
Figure 6. TA 2.

Figure 7. TA 3.
Figure 8. TA 4.

Figure 9. TA 5.
Figure 10. TA 6.

Figure 11. Substation.