Section 8. HISTORIC SITES

8.1. AGENCY OUTREACH

Cultural surveys have been initiated for the Project, including historic architectural resources and archaeological resources.

Downeast Wind initiated consultation with the Maine Historic Preservation Commission (MHPC) in October 2019. On March 26, 2020, Downeast Wind initiated consultation with MHPC specific to the architectural resource survey and submitted a proposed architectural survey scope of work, along with the Project's design and a viewshed analysis map. The MHPC concurred with the proposed scope of work in a letter dated April 3, 2020. All correspondence with the MHPC is provided in Exhibit 8-2.

8.2. ARCHAEOLOGICAL RESOURCES

The Archaeological Phase IA Assessment for the Project was completed in May 2020, which identified 11 potentially sensitive archaeological areas (ASAs). Field survey of these areas confirmed that nine were sensitive for archaeological resources and one was not sensitive. Additionally, one archaeologically sensitive area was identified in the field that was not identified during the desktop review. Therefore, TRC recommended further investigation of 10 ASAs due to their location in an area with proposed site disturbance. All of the ASAs are potentially sensitive for Precontact period archaeological resources and are identified in the Phase IA Assessment Report. A summary of the Archaeological Phase IA assessment for the Project, as well as a scope of work for the proposed Phase I archaeological survey and protocol was provided to MHPC on July 16, 2020 and is provided in Exhibit 8-1. A copy of the Archaeological Phase IA Assessment report is included as Exhibit 8-2.

Based on the Phase IA Assessment, Phase IB recommendations were developed and approved by MHPC on July 23, 2020. Phase IB field surveys were started in November 2020 and are expected to be completed during the spring of 2021.

8.3. CULTURAL SURVEYS

8.3.1. RECONNAISSANCE ARCHITECTURAL RESOURCES SURVEY

A reconnaissance architectural resources survey was completed in July 2020 to assess whether the Project would potentially affect properties listed or eligible for listing in the National Register of Historic Places (NRHP) within the Project's Area of Potential Effects (APE). The APE for architecture was defined as areas that have visibility of the Project within an 8-mile radius of the proposed Project facilities. A GIS-based viewshed analysis of the 8-mile survey radius was created to determine areas of visibility in the APE. Areas within this radius that have no visibility of the Project due to vegetation, topography, and modern development were considered outside the APE.

Using the results of background research and the GIS viewshed analysis, nine previously surveyed architectural resources were documented in the APE, 5 of which are mile markers along the Epping Base Line, which is eligible for listing on the NRHP. No other architectural resources were identified in the APE.

The Epping Base Line is a 5.4-mile long, perfectly straight line established in 1857 as a reference benchmark for mapping the Maine coast. Today, the Epping Base Line is represented by remnants of its original mile markers and an adjacent road known as Baseline Road. The Epping Base Line will have visibility of seven Project wind turbines on its north side. Based on the results of field work, background research, and consultation with the MHPC, the proposed turbines would not prevent the ability of an individual or group to re-create the line in the present day, nor would the turbines impede the ability to survey distant reference points based on the line's location. Therefore, in an email dated January 20, 2021, the MHPC concluded that the visibility of the turbines will have No Adverse Effect on the line's historic setting or any of the other characteristics that make it eligible for listing on the NRHP.

Aside from the Epping Base Line, there are no other NRHP eligible properties with visibility of the proposed Project. As a result, the proposed Project will have No Adverse Effect on historic resources and no additional architectural studies are required for the Project as it is currently designed. The Architectural Survey report is provided as Exhibit 8-3.

8.3.2. ARCHAEOLOGICAL PRECONTACT PERIOD AND HISTORIC PERIOD SURVEYS

An archaeological Precontact period and Historic period desktop review and field reconnaissance were conducted for the proposed Project. This work was completed in the fall of 2019. Based on this joint review, 10 archaeologically sensitive areas within Project area of potential effect (APE) were recommended for Phase IB testing. Changes to the Project APE in 2020 required additional walkover survey, which was completed in October 2020. This survey resulted in the identification of 12 ASAs associated with Project APE. These areas included four turbine pad locations (i.e., T34A, T32, T26A, and T3923A) and seven locations of proposed road widening and one collector line location. Phase IB testing was completed in November 2020 and no archaeological resources were found (Table 8-1).

Table 8-1. Summary of Phase IB Testing by Sensitive Area

Project Component[1]	No. of Transects	No. of THs	No. of Positive THs
Turbine 26 (30)	2	49	0
Turbine 32 (37)	2	27	0
Turbine 34A (39)	1	9	0
Area A			
Collector line to Turbine 33	2	18	0
Area B[2]			
Road widening on access road located south of Schoodic Road	0	0	0
Area C			
Road widening south side of Bog Stream	2	8	0
Area D			
Road widening northeast of Long Pond	4	12	0

Project Component[1]	No. of Transects	No. of THs	No. of Positive THs
Road widening northwest of Long Pond	3	9	0
Road widening north side of Colonel Brook	2	7	0
Area E			
Road widening both sides of Colonel Brook	2	8	0
Area H			
Road widening north side of Horseshoe Pond	1	20	0
Additional Areas			
Turbine 23A (27)	2	32	0
Total	23	199	0

[1] The number in () refer to Project layout 036.

[2] No testing was completed in Area B because it was removed from Project layout 037.

Proposed changes to the Project APE in November 2020 required additional walkover survey that was completed at the end of November 2020. This survey identified three new potentially sensitive areas within the APE. These include the location of road widening near the Pleasant River, the location of the horizontal directional drill pad that will be used to install conduit line below the Pleasant River, and the location where the access road and collection line will cross a tributary to the Pleasant River to reach Turbine 36. Winter conditions precluded completion of this Phase IB testing of these three areas in 2020, therefore Phase 1B testing is planned for spring of 2021.

EXHIBIT 8-1: ARCHAEOLOGICAL PHASE IA REPORT (REDACTED COPY)

Phase IA Archaeological Assessment of the Downeast Wind Project, Washington County, Maine

Prepared For:
Downeast Wind, LLC

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

May 5, 2020

REDACTED COPY

TABLE OF CONTENTS

TABLES

APPENDICES

Appendix 1 – Report Figures

1. INTRODUCTION

The following report is a Phase 1A archaeological review and sensitivity assessment of the proposed Downeast Wind Energy Project (the Project). The objective of the Phase IA assessment was to conduct a background review of existing archaeologically relevant resources and use those data to develop a predictive model. The model was used to identify archeologically sensitive areas where Project construction activities will disturb the ground. The archaeological Area of Potential Effects (APE) within this Project are all areas where the ground may be disturbed by construction activities including wind turbine pads, interconnect lines, access roads and other facilities and where sensitivity exists for both or either Precontact- or Historic-period archaeology.

The 126_megawatt Project will be located in the town of Columbia and in unorganized territories, T18, MD BPP and T24 MD BPP, Washington County (Figure 1). It consists of 34 turbines with a direct interconnection into the existing 115 Kilovolt transmission line running through the Project area. It also includes three existing temporary meteorological (MET) towers, two collector substations, an Operations and Maintenance building (O&M), and overhead and underground electrical collection lines, access roads, and temporary laydown areas. In addition, the Project includes improvements to associated existing access roads, culverts, and bridges.

For the purposes of this study, the Project is divided into two areas, the northern portion and the southern portion. They are divided by the Great Heath Maine Public Reserved Land. The O&M building will be located in Columbia. The northern section includes Project facilities located in the townships of T18 MD BPP and T24 MD BPP including turbines 01-32, the substation located between turbines 11 and 12, access roads and underground collection lines. The southern section includes all Project facilities in the town of Columbia including turbines 33-39, the substation located just south of turbines 33 and 35, access roads and underground collection lines (Figure 1). It should be noted that originally 40 turbines were proposed for the Project but the following turbines have been eliminated: T16, T17, T20, T23, and T40. There is no new transmission line associated with the Project since the Project substation will connect to an adjacent existing 115kV electric transmission line.

Section 2 of this report provides an environmental overview of the Project area with respect to its geology. It also includes discussion of the soils and the culture history as it pertains to variables commonly accepted by the Maine Historic Preservation (MHPC) for performing archaeological survey in Maine (e.g., soil type, topography, proximity to water, slope, proximity to known archaeological sites, and natural resources such as stone for tool making (https://www.maine.gov/mhpc/quick-links/forms-instructions#archaeologicalsurvey). Section 3 describes archaeological sites known within proximity to the Project area that are identified in archaeological files maintained by the MHPC in Augusta. Section 4 describes the models used for determining areas with sensitivity for both Precontact- and Historic-period cultural resources and how areas were identified as archaeologically sensitive for either Historic- or Precontact-period archaeological resources. A walkover survey of the Project area was completed on October 30 and 31, 2019. The goal of the field survey was to verify the desktop analysis and what is known from previous archaeological studies around the Project area. The results of the walkover survey are presented in Section 5. Finally, recommendations for Phase IB field testing are presented in Section 6.

2. GEOLOGICAL AND ARCHAEOLOGICAL CONTEXTS

The topography in and around the Project varies considerably in elevation from an approximate high of 500 feet (150 m) (asl) around the top of Northeast Bluff to a low of about 250 feet (78 m) (asl) around Crebo Flat. It is separated into northern and southern portions by The Great Heath (Figure 1). Much of the Project construction area is in cultivated blueberries, but low-lying areas, which will be used for accessing the turbine locations, contain wetlands and are dissected by other waterbodies.

2.1 Geological Contexts

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 of these types (Osberg et al. 1985), and none of the rocks exposed along roadsides traversed by the TRC archaeological crew in the Project would have been used for making stone tools. However, there are locations where high-quality granite was mined for commercial use, such as in Addison Maine located on the coast to the south of the Project (Dale 1923).

2.1.1 Surficial Geology

During the last glaciation, 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 radiocarbon years ago. (Hughes et al. 1985). At that time, the Project area was depressed under an enormous weight of ice. By about 13,000 radiocarbon years ago, 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, which is located approximately 60 miles (96 km) northwest of the Project area. 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 Machias River valley all the way 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 and outwash (Borns and Anderson 1982) and this was readily confirmed by TRC archaeologists in road cuts across the Project area.

2.1.2 Soils

Soil type has been shown in some cultural contexts to be a predictor of site location (Spiess 1990). For example, the earliest archaeological sites dating to the Paleoindian period more than 10,000 years ago are often associated with sandy 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 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." Table 1, at the end of this report provides a detailed breakdown by soil classifications reported throughout the entire Project area by northern and southern section. Table 2 below, identifies soils reported specifically around turbine and substation locations. The northern section of the Project includes 19 different map soil units. Nine of the nineteen units are identified as till, six derive from glaciofluvial deposits, one derives from glaciolacustrine deposits, one derives from glaciomarine deposits, one is muck or organic deposits and one is classified as alluvium. Seven map soil units exist in the southern portion of the Project area. They are dominated by glaciofluvial deposits which account for six of the seven units. The remaining soil unit derives from glacial till. This data was gathered from the Natural Resource Conservation Service (NRCS) web site (http://websoilsurvey.sc.egov.usda.gov).

Table 2. Soils by Turbine and Substation Location.

Facility	Map Unit Symbol	Map Unit Name
Northern Project Area		
T01	SNC	Skerry-Becket association
T02	SNC & SOB	Skerry-Becket association & Skerry-Colonel association
T03	CRC	Colton-Adams complex
T04	SNC	Skerry-Becket association
T05	SNC	Skerry-Becket association
T06	BKD	Becket-Skerry association very stony
T07	SNC	Skerry-Becket association
T08	SNC	Skerry-Becket association
T09	SNC	Skerry-Becket association
T10	SNC	Skerry-Becket association
T11	SOB	Skerry-Colonel association
T12	SNC	Skerry-Becket association
T13	SNC	Skerry-Becket association
T14	CRE	Colton-Adams complex
T15	SNC	Skerry-Becket association
T18	SNC	Skerry-Becket association
T19	HSC	Hermon-Monadnock-Skerry complex, very bouldery
T21	SNC	Skerry-Becket association
T22	SOB	Skerry-Colonel association
T24	MmA, MmB	Masardis fine sandy loam
T25	HVC	Hermon-Monadnock-Skerry complex, extremely bouldery
T26	MSC	Masardis-Sheepscot complex

Facility	Map Unit Symbol	Map Unit Name
T27	MmA	Masardis fine sandy loam
T28	HSC	Hermon-Monadnock-Skerry complex, very bouldery
T29	HSC	Hermon-Monadnock-Skerry complex, very bouldery
T30	MmB	Masardis fine sandy loam
T31	HSC	Hermon-Monadnock-Skerry complex, very bouldery
T32	HSC	Hermon-Monadnock-Skerry complex, very bouldery
Substation (north)	SOB	Skerry-Colonel association
Southern Project Area		
T33	HkB	Hermon and Manodnock soils, very bouldery
T34	CpB & CpC	Colton gravelly sandy loam & Colton gravelly sandy loam
T35	CpB & CpC	Colton gravelly sandy loam & Colton gravelly sandy loam
T36	CpC	Colton gravelly sandy loam
T37	CoE & CpB	Colton gravelly sandy loam & Colton gravelly sandy loam
T38	CpB & CSD	Colton gravelly sandy loam & Colton-Hermon complex, very bouldery
T39	CoA & Kn	Colton gravelly sandy loam & Kinsman sand
Substation (south)	HkB	Hermon and Manodnock soils, very bouldery

2.2 Archaeological Contexts

The Precontact archaeological record of Maine is long and complex dating back more than 11,000 years. The following is a brief overview of the three (3) major periods that archaeologists use as a framework for identification of Precontact cultural resources discovered in Maine to understand the Precontact-period people who may have lived in or near the proposed Project area. These three periods are known as the Paleoindian, Archaic, and Ceramic periods (Table 3) (Spiess 1990).

The archaeological context is not as well-known in Downeast Maine as in other parts of the state, because there have been fewer cultural resources studies completed Downeast. Not all three cultural periods are equally represented in Washington County. The least well-known from Washington County is the Paleoindian period. [redacted]

Table 3. Comprehensive Planning Archaeological Study Units

Time Period	Study Unit
11,500 - 10,000 RCYPB	Fluted Point Paleoindian Tradition
10,200 - 9,500 RCYBP	Late Paleoindian Tradition
10,000- 6,000 RCYBP	Early and Middle Archaic Traditions
6,000 - 4,200 RCYBP	Late Archaic: Laurentian Tradition
6,000 - 4,000 RCYBP	Late Archaic: Small-stemmed Point Tradition
4,500 - 3,700 RCYBP	Late Archaic: Moorehead Phase
3,900 - 3,000 RCYBP	Late Archaic: Susquehanna Tradition

Time Period	Study Unit
3,000 RCYBP – AD 1500	Ceramic Period
AD 1500 – AD 1675	Early Contact
AD 1675 – AD 1760	Late Contact
AD 1760 – AD 1940	Integration with Euro-American Life

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

2.2.1 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. Paleoindian people are the first 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 distinctive fluted spear point, which was presumably used to hunt large game species, some of which are now extinct.

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).

Archaeological site locations were rarely show evidence of reoccupation during later time 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.

The end of the Paleoindian period, and subsequent transition into the Early Archaic period, is poorly understood. Other point styles appear 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). 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.

2.2.2 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 cobble 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). By the Middle Archaic, chipped stone spear points become increasingly more abundant and the first cemetery sites occur revealing mortuary practices that included sprinkling graves with red ochre, and offerings of grave goods, such as wood working gouges, slate spear points, and stone rods (Moorehead 1922; Robinson 1992).

The close of the Late Archaic period is characterized by another archaeological tradition known as the Susquehanna tradition (Sanger 1979; Borstel 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 deceased rather than burying them. Diagnostic tool forms include large, broad-bladed chipped stone spear points.

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.

2.2.3 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 this period, historical and archaeological evidence suggests

horticulture was practiced in southern Maine. The Ceramic period ends with European contact around 450 years ago. At that 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. PREVIOUSLY RECORDED ARCHAEOLOGICAL SITES IN THE PROJECT AREA

[redacted]

[redacted]

4. ARCHAEOLOGICAL SITE SENSITIVITY MODELING

Two predictive models for determining Precontact period archaeological sensitivity and Historic period archaeological sensitivity are presented in this section. They identify the attributes used to infer archaeological sensitivity that includes variables described in sections 2 and 3 above.

4.1 Predictive Model for Precontact Period Sensitivity

A predictive model serves as input guide for the Phase IA assessment by analyzing the particular environmental and cultural contexts of the Project area and identifying those areas that are most likely to contain previously unrecorded archaeological resources.

Groups in the Precontract period did not uniformly occupy the landscape and not all human behavior leaves archeologically visible traces. Additional problems confounding understanding of Precontact period land use happens when the environment in which archaeological deposits are buried degrades them and when more recent human activity destroys the archaeological evidence for older land use. However, a hundred years or more of archaeological data collection and analyses do confirm some patterns demonstrating decisions people made in the Precontact period regarding where to settle, at least in northeast North America. Sensitive variables are described below.

First, locational data from a sample of more than 5,000 Precontact period sites in Maine show that proximity to waterbodies (streams, rivers, lakes, and wetlands) was a determining factor for locating human activity (Spiess 1994; Clark et al. 1996; Will et al. 1998; Will and Moore 2002; Will et al. 2006; Mack 2018). Its nearby location (0-100 m) was considered a primary variable for establishing the archaeological sensitivity of a location within the Project.

Second, regardless of proximity to water, people generally did not camp on steep slopes or utilize such areas unless they contained a resource, such as fine-grained stone resources useful for tool making that would otherwise attract their attention. Consequently, we eliminated areas of greater than 12% slope for field testing unless surficial geologic maps indicated a potential resource that we should consider.

Third, people generally did not camp in areas where poorly drained soils occur. There does appear to be a causal relationship between Paleoindian site locations and sandy locations (Spiess and Wilson 1990). The Paleoindian period is an exception to the settlement pattern described above for later time periods.

Paleoindian period sites dating from 11,500-9,000 radiocarbon years ago are often located on relic Late Pleistocene/Early Holocene landforms that provided unobstructed views of the surrounding landscape below them (e.g., Site 60.10, described above). This is true throughout northeastern North American including New York (Ritchie 1980). 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 tundra and grassland-adapted game animals. Their campsites are typically indicative of short-term habitations by small groups of people, perhaps in some cases by even a single or extended family (Spiess, Wilson, and Bradley 1998). Therefore, we conservatively considered well drained locations near a break in slope overlooking an area as sensitive for Paleoindian period archaeological resources and tested them accordingly.

Fourth and final, wetland locations were not considered sensitive except in those situations where a break in slope was also present to provide an overlook or dry place for camping.

4.2 Predictive Model for Historic Period Sensitivity

The sensitivity assessment for historic archaeological resources is based mainly on cartographic evidence gathered from 18th to 20th century maps. These cartographic resources pinpoint the location of dwellings, schools, mills, churches, cemeteries, roads, and railroads providing the archaeologist with a ready point of comparison between past and present landscapes. In this, the sensitivity assessment differs greatly from those conducted for Prehistoric period archaeological resources. Historical archaeologists can also review secondary sources such as town histories, photographs, and newspapers to provide a larger historical context for a Project area. The sensitivity assessment also includes a site file search for known archaeological sites within or around the Project area, as well sites that might serve as analogs for the Project area. Using known site types and distributions, historical archaeologists develop settlement models to make predictive statements about where to anticipate finding sites.

Locations that are considered sensitive for historic resources are associated with the following variables: documented existence of sites (e.g., homesteads, farmsteads, schools, churches, town halls, cemeteries, mills) through primary, secondary, or cartographic resources; presence of known sites (whether extant, aboveground representations of early architecture, or documented archaeological site); proximity to transportation systems (roads, railroads, major rivers and streams) and potable water sources; and linkage to other resources (such as stone for quarrying, clay sources for brick or ceramics, or metal ores).

Historic archaeological resources typically exist along transportation corridors, specifically roads and rivers as is the case with the known 19th century sites reported from the Project area noted above. Environmental conditions, such as waterpower and land suitable for agriculture, also affect site location. Nineteenth- and twentieth-century maps of the project area confirm that most buildings and structures were located along roads, which followed streams, rivers, or ponds, because these areas were the most level and easiest to access. Euroamerican archaeological resources are commonly found where former buildings or structures stood.

5. PROJECT ARCHAEOLOGICAL SENSITIVITY AND WALKOVER INSPECTION

The initial, desktop review assessment of the Project area was completed using a variety of maps (USGS topographic, historic, soils, and Google Earth). The review resulted in 11 areas in the Project where ground disturbances will occur in potentially sensitive areas: four turbine locations and seven areas where Project access roads or underground collection lines exist were identified as sensitive for cultural resources (Figure 3). Figure 5 shows areas that were covered during walkover survey.

Two 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 6. The second kind of disturbance is in the form of partially buried irrigation pipes throughout the Project area (Figure 7).

5.1 Walkover Survey Results

The initial, desktop review assessment of the Project area was completed using a variety of maps (USGS topographic, historic, soils, and Google Earth). The review resulted in 11 areas in the Project where ground disturbances will occur in potentially sensitive areas. A field inspection walkover was completed on October 30, 2019 to verify the desktop review and to locate other areas that might be archaeologically sensitive. The results of these efforts are described below with respect to Precontact- and Historic-period archaeological sensitivity and a summary of the results of the walkover survey are presented in Table 4, below.

5.2 Precontact Period Sensitivity

Figure 1 shows the proposed Project design. Thirty-five turbine locations are identified where disturbances will occur to create a pad for installation of the turbine tower and turbine. The estimated APE for each turbine pad is 4 acres, which is based on the presumed size of the construction to install a turbine pad.

A majority of turbine locations are located on bluffs and hilltops, which is typical of locations for other wind projects proposed or built in Maine. These locations, unless they are associated with a resource, such as rock that could be quarried for tool making, are not considered sensitive for Precontact period archaeological resources (e.g., Will 2010a, b, 14, and 2015). However, four turbine (T30, T37, T38 and T39) locations are sensitive based on criteria described above (Figure 2; Table 4). Location T30 overlooks ponds and wetlands (Figure 8). Location T37 sits on a level, elevated landform overlooking a stream (Figure 9). Location T38 is another, elevated location that provides surrounding views of nearby areas where game could have viewed and hunted (Figure 10). Location T39 is adjacent to a brook (Figure 11). All four of these areas are recommended for subsurface testing.

Existing and proposed roads connect to access the Project area and to connect the turbine locations are shown in Figure 1. All of these roads and potential roadways were examined for their Precontact period sensitivity using the rational described above. Seven locations were identified during map review (A-G). Two (A and F) were eliminated during fieldwork, but another (H) was added in the field bringing the total to six areas (identified as Areas A-H in Figure 2).

It should be noted that the extent of the APE around any of these roads is not known at this date. It will be determined once upgrades to the roads have been established.

Sensitive Area A is located between Turbine Locations 37 and 38 (Figure 12). It was identified on maps as a small stream or brook crossing. Field examination did not confirm the stream but show the area to be an extensive wetland with no areas of higher topographic relief for archaeological testing. No testing is recommended.

Sensitive Area B is located on a high ridge overlooking Schoodic Lake to the southwest between turbine locations T31 to the north and T35 to the south (Figures 13a, 13b). It consists of both an existing roadway that will be used for the Project and a proposed location of an underground collection line. Much of the location is vegetated with blueberries and grasses. The sloping portions of this area are covered with hardwood trees. If the road is upgraded with expansion along its western side, or if underground collections lines are located to the west of the road, then archaeological testing is recommended.

Sensitive Area C is located to the north of T24 and similar to Area B it includes an existing roadway that will be used for the Project and a proposed location of an underground collection line. Portions of this area have been artificially leveled and irrigation pipes are visible (Figure 14a). However, there is a high and level area looking to Bog Stream to the south that is sensitive for archaeological resources (Figure 14b). It the roadway in this area is expanded or if underground collections lines pass through this location archaeological testing will be needed.

Sensitive Area D is north of Area C at the location of multiple stream crossings and includes an existing roadway that will be used for the Project. A portion of the road located here is high, level and overlooks the stream crossings (Figures 15a and 15b). The level portion is vegetated with blueberries and a mix of hard and soft wood trees are present along the slopes. Archaeological testing is recommended, depending on what upgrades to the road are proposed.

Sensitive Area E is a road section located to the north of Sensitive Area D where it crosses Colonial Brook and includes an existing roadway that will be used for the Project. The area is elevated and covered with blueberries and moss (Figures 16a and 16b). Unvegetated areas with sand and gravel were exposed along the margins of the roadbed. This area is recommended for archaeological testing depending on what upgrades to the road are proposed.

Sensitive Area F, which is located to the south and east of T22, was selected during map review showing the presence of Fred Dorr Brook. The area consists of an existing roadway that will be used for the Project. Field inspection showed the area is low, wet and rocky with no archaeologically testable surfaces (Figures 17a and 17b). The area was eliminated from further archaeological consideration.

Sensitive Area G is located to the east of Sensitive Area F, where a Project road crosses Taylor Branch, and although that spot is low and wet, there are small, testable rises to the east and south of it (Figures 18a and 18b). The rises are covered with hard wood trees, including birch, oak and maple. This area is recommended for archaeological testing depending on what upgrades to the road are proposed.

Sensitive Area H is located to the south of T31 and 32 and includes a portion of an existing road that will be used for the Project. It was discovered during fieldwork. Located between Pike Brook Pond and Horseshoe Pond, this high and level road section offers commanding views of those two waterbodies located to the east of it (Figure 19). The area is open and vegetated with blueberries, it is recommended for archaeological testing depending on what upgrades to the road are proposed.

The locations of two proposed substations were also evaluated for their Precontact period archaeological sensitivity. One substation is located near T11, while the other is situated near T35. Neither location contains features that would make them sensitive for Precontact cultural resources, and no Historic period features were observed during walkover survey.

5.3 Historic Period Sensitivity

Maps dating to 1861, 1881, 1902, 1904 and 1941 were reviewed for possible locations of historic archaeological sites (Figures 20-24). No potentially sensitive locations were identified, nor were any discovered during the field reconnaissance survey. The two Historic cellar holes noted above (ME 99.01 and 99.02) that were discovered by Dr. Gary Shaffer in 2008, lie outside of the Project area. No further archaeological investigation of Historic period resources in the Project is recommended.

6. CONCLUSIONS

An archaeological Precontact period and Historic period desktop review and field reconnaissance were conducted for the proposed Downeast Wind project, Washington County, Maine. The criteria used to identify Precontact period and Historic period sensitivity are described above in Section 4.

Four turbine pad locations (i.e., T30, T37, T38, and T39) were identified as sensitive for Precontact period resources based on desktop review. No turbine pad locations were identified as sensitive for Historic period resources. This conclusion was also confirmed during the field reconnaissance, which took place on October 30, 2019. The four turbine pad locations are recommended for Phase IB investigation to determine whether archaeological resources are present.

Seven areas, which are roadways, where improvements may occur during Project construction, were also identified as sensitive for Precontact period resources (A-G). Two of these areas (A and B) also include proposed underground collection lines. No access areas within the Project were identified as sensitive for Historic period resourced. The field reconnaissance showed that areas A and F were not sensitive as originally identified in the desktop review and they were eliminated from further consideration. A new area was identified (i.e., H) during field work as sensitive for Precontact period archaeological resources. The six areas (B, C, D, E, G, and H) are recommended for Phase IB investigation to determine whether archaeological resources are present.

Table 4. Results of Phase IA Walkover Survey

Turbine/Area	Environment	Test	Sensitivity
T30	High level terrace overlooking Pike Brook Pond and East Pike Brook Pond. Wetland to the north, east and south edges of the APE.	Yes	High level area overlooking ponds and wetlands.
T37	Southeast portion of APE is a level high area overlooking the streaming crossing in area A. Central portion of APE is uneven, rocky terrain. Just northwest of center point is a level ridge running SW/NE with a steep slope to the NW.	Yes	Test on the high, level terrace overlooking the stream and the level ridge overlooking the steep slope
T38	Majority of this area is rocky and uneven terrain. Level area overlooking blueberry barrens to the north and an area on the SE of edge of the APE that is high and overlooking blueberry barrens.	Yes	Test on the area near break in slope overlooking the blueberry fields to the NE and area in the SE overlooking blueberry barrens.
T39	Large open level area, small brook running N/S through the area.	Yes	Test along the brook.
Area A	Area A was identified as a stream crossing located between T37 and T38. No stream was visible, but a large wetland area with low/wet areas surrounding the area was seen.	No	Area is low and wet surrounding "stream"
Area B	Access road/collection lines proposed along the northeast edge of Schoodic lake. Area is high area overlooking the lake, southwestern side of current road steeply sloped, northeastern side level. High ridge slightly north of the lake.	Yes	Test to the NE of the current road and the northern high ridge (west of road)
Area C	Area surrounding Bog Stream, area north of Bog Stream (western side of road) artificially leveled and irrigation pipes throughout area, eastern side of road is a small rise overlooking Bog Stream and associated wetlands. Southern side of Bog Stream is a high area with gradual slope down to the stream.	Yes	Eastern side of road north of Bog Stream and southern high area sloping towards stream.
Area D	Area D is surrounding multiple stream crossings. Wester edges is low and wet, eastern edge has disturbance from pipes and road construction. Beyond disturbance is a higher, level area overlooking streams and Long Pond.	Yes	Test high level area overlooking streams and pond.

Turbine/Area	Environment	Test	Sensitivity
Area E	Area E is surrounding Colonial Brook crossing. There is a ridge with level area NE of the brook, level area SE of brook, soils on surface appear sandy with gravel.	Yes	Test on both sides of Colonial Brook
Area F	Area is surrounding Fred Dorr Brook; southwest side of brook is low and wet sloping to the southwest. Northeast side of the brook is sloping, uneven terrain, very rocky	No	Sloped, low and wet.
Area G	Area surrounding Taylor Branch. Majority of area is low and wet. Two small rises, one to the south and one to the east overlooking the stream.	Yes	Test small rises to the south and east of the crossing.
Area H (found in field)	Area is located between Pike Brook Pond and Horseshoe Pond, level area overlooking both ponds.	Yes	Test level area overlooking both ponds

7. REFERENCES

Baldwin, G.E. and W. J. Chadwick
2004 Archaeological Phase I survey for the Columbia Falls and Moscow OTHB-E Radar Stations, Washington and Somerset Counties, Maine. Report on file with the Maine Historic Preservation Commission, Augusta.

Bloom, A. L.
1963Late Pleistocene Fluctuation of Sea Level and Postglacial Crustal Rebound in Coastal Maine. *American Journal of Science* 261:862-879.

Borns, Harold, Jr. and Bjorn Anderson
1982 Surficial Geology of the Tunk Lake Quadrangle, Maine. Maine Geological Survey. Augusta, Maine.

Borstel, C. L.
1982 Archaeological Investigations at the Young Site, Alton, Maine. Occasional Publications in Maine Archaeology, No. 2. Maine Historic Preservation Commission, Augusta.

Bourque, B. J.
1995 *Diversity and Complex Society in Prehistoric Maritime Societies: A Gulf of Maine Perspective*. Plenum Press, New York.

Clark, J., R. Will, and J. Cormier
1996 Phase I Archaeological Resource Assessment of the Flagstaff Project (FERC #2612), Somerset and Franklin Counties, Maine. Report on file with the Maine Historic Preservation Commission, Augusta.

Colby, George N.
1881 *Washington County Map.* Published by George N. Colby, Houlton and Machias, ME.

Cox, B. L. And J. B. Petersen
1997 *The Varney Farm (ME 36-57): A Late Paleoindian Encampment in Western Maine.* Bulletin of the Maine Archaeological Society 37(2):25-48.

Dale, T. Nelson
1923 *The Commercial Granites of New England.* Bulletin 738. Washington, D.C.: Department of the Interior, United States Geological Survey.

Davis, R. B. and G. L. Jacobson, Jr.
1985 Late Glacial and Early Holocene Landscapes in Northern New England and Adjacent Areas of Canada. *Quaternary Research* 23:341-368.

Doyle, R., Jr., N. Hamilton, J. Petersen, and D. Sanger
1985 Late Paleo-Indian Remains from Maine and their Correlations in Northeastern Prehistory. *Archaeology of Eastern North America* 13:1-34.

Hughes, T. J., H. W. Borns, Jr., J. L. Fastook, M. R. Hyland, J. S. Kite, and T. V. Lowell
1985 Models of Glacial Reconstruction and Deglaciation Applied to Maritime Canada and New England. In *Late Pleistocene History of Northeastern New England and Adjacent Quebec*, edited by H. W. Borns, Jr., P. LaSalle, P., and W. P. Thompson. Geological Society of America, Special Paper no.197.

Mack, K. E., J. Larlee, and B. Kenline-Nyman
2018 Phase IB Archaeological Assessment of the Kaaterskill Solar, LLC Project, Town of Saugertres, Ulster County, New York. Report of file with TRC, Ellsworth, Maine.

Martin, P.S.
1973 The Discovery of America. *Science* 179:969-974.

Mercer, Henry C.
1897 An exploration of aboriginal shell heaps revealing traces of cannibalism on the York River, Maine. *Publications of the University of Pennsylvania, Series in Philology, Literature and Archaeology* 6:11-137.

Moorehead, W. K.
1922 *A Report on the Archaeology of Maine*. The Andover Press, Andover, Massachusetts.

Natural Resources Conservation Service
2019 http://websoilsurvey.sc.egov.usda.gov.

Osberg, Philip, Arthur Hussey, II, and Gary Boone
1985 Bedrock Geologic Map of Maine. Maine Geological Survey, scale 1:500,000.

Petersen, J. B, and M. J. Keckenberger
1987 Archaeological Phase I survey and Phase II testing of the Laser Intraferometer. Gravity Wave Observatory (LIGO) Project in Columbia Twp., Washington Co., Maine. Report on file with the Maine Historic Preservation Commission.

Ritchie, William A.
1980 The Archaeology of New York State. (revised edition) Harbor Hill Books, Harrison, New York.

Robinson, B. S.
1992 Early and Middle Archaic Occupation in the Gulf of Maine Region: Mortuary and Technological Patterning. In *Early Holocene Occupation in Northern New England*, edited by B. S. Robins, J. B. Petersen, and A. K. Robinson. Occasional Publications in Maine Archaeology, no. 9. The Maine Historic Preservation Commission, Augusta.

Sanger, D.
1979 The Ceramic Period in Maine. In *Discovering Maine's Archaeological Heritage*, edited by D. Sanger. Maine Historic Preservation Commission, Augusta.

Schiffer, M. B.
1987 Formation Processes of the Archaeological Record. University of New Mexico Press, Albuquerque.

Spiess, A. E.
1990 Maine's Unwritten Past: State Plan for Prehistoric Archaeology. (2nd Draft) Report on file with the Maine Historic Preservation Commission, Augusta.

1994 CRM Archaeology and Hydroelectric Relicensing in Maine. In *Cultural Resource Management: Archaeological Research, Preservation Planning, and Public Education in the Northeastern United States*, edited by J. E. Kerber. Greenwood Publishing. Westport, Connecticut.

Spiess, A. E. and D. Wilson
1990 Study Unit I: Fluted Point Paleoindian. The Maine Archaeological Society Bulletin 30(1):15-31.

Spiess, A., D. Wilson, and J. Bradley
1998 Paleoindian Occupation in the New England-Maritimes Region: Beyond Cultural Ecology. *Archaeology of Eastern North America* 26:201-264.

U.S. Geologic Survey
1902 Quadrangle Map, Cherryfield, ME. Washington D.C.
1904 Quadrangle Map, Cherryfield, ME. Washington D.C
1941 Quadrangle Map, Tug Mountain, ME. Washington D.C

Varney, G. J.
1886 History of Washington County. In **Gazetteer of the State of Maine**. Boston: B. B. Russell.

Walling, H.P.
1861 *Topographicla Map of the County of Washington Maine.* Published by Lee and Marsh, New York, NY.

Will, R. T.
2010a Results of a Precontact Period Archaeological Assessment: Oakfield Wind Project, Aroostook County, Maine. Report on file with the Maine Historic Preservation Commission, Augusta.

2010b Phase IA Recontact Archaeological Review and Assessment of the Proposed Highland Wind Project. Report on file with the Maine Historic Preservation Commission, Augusta.

2010c Results of a Phase IA Archaeological Survey of the Proposed Bull Hill Wind Project, Hancock, County, Maine. Report on file with the Maine Historic Preservation Commission, Augusta.

2013 Precontact Period Archaeological Assessment: Bingham Wind Project. Bigham and Mayfield (Somerset County), Kingsbury, Parkman, and Abbott (Piscataquis County), Maine. Report on file with the Maine Historic Preservation Commission, Augusta.

2014 Phase IA Archaeological Precontact Period Study of the Weaver Wind Project. Aurora, Osborn, T22 MD, and Eastbrook, Hancock County, Maine. Report on file with the Maine Historic Preservation Commission, Augusta.

2015 Phase IA Archaeological Precontact Period Study of the Number Nine Wind Farm, Aroostook County, Maine Report on file with the Maine Historic Preservation Commission, Augusta.

Will, R., and E. Moore
2002 Recent Late Paleoindian Finds in Maine. *Bulletin of the Maine Archaeological Society* 42(1):1-14.

Will, R. and K. E. Mack
2019 Phase I Archaeological Investigation of the Proposed Three Rivers Solar Project, Township 16, Hancock County, Maine. Report on file with the Maine Historic Preservation Commission, Augusta.

Will, R., K. Wheeler, E. Moore, E. Marlatt, and J.C. Clark
1998 Cultural Resources Investigations, Maritimes & Northeast Pipeline, L.L.C., Phase II Pipeline Project, Maine. FERC Docket No. CP96-809-000. Volume 1: Archaeological Survey Report. Report on file with the Maine Historic Preservation Commission, Augusta.

Will, R., R. Cole-Will, K. Wheeler, E. Marlatt, and R. Quiggle
2006 Phase IB Cultural Resources Investigation: Niagara Power Project (FERC No. 2216). Report on file with the New York Office of Parks, Recreation and Historic Preservation, Albany.

Table 1. Soils within the Project Area.

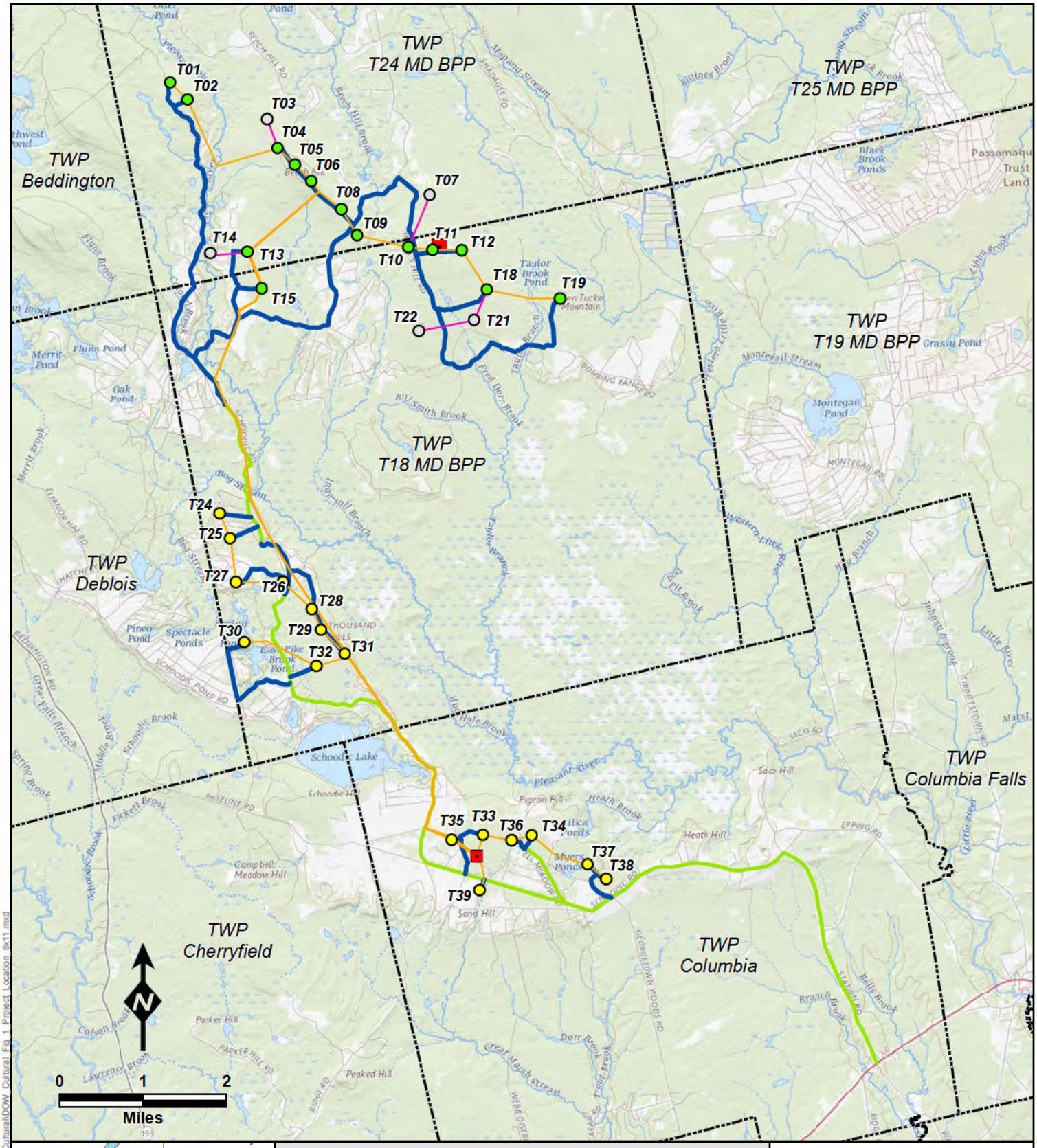
Map Unit Symbol	Map Unit Name	Typical Profile	Characteristics
Northern Project Area			
AGB	Adams-Croghan association	Oe-0 to 4 in.: decomposing plant material E-4 to 6 in.: loamy sand Bs-6 to 21 in.: sand BC-21 to 27 in.: sand C-27 to 65 in.: sand	Parent material: sandy glaciofluvial deposits Slope: 0 – 8% Natural drainage class: somewhat excessively drained Depth to water table: + 80 in.
BKD	Becket-Skerry association very stony	Oi-0 to 2 in.: decomposing plant material E-2 to 4 in.: fine sandy loam Bhs-4 to 5 in.: fine sandy loam Bs1-5 to 7 in.: sandy loam Bs2-7 to 14 in.: fine sandy loam Bs3-14 to 24 in.: gravelly sandy loam BC-24 to 33 in.: gravelly sandy loam Cd-33 to 65 in: gravelly loamy sand	Parent material: lodgment till Slope: 8 – 35% Natural drainage class: well drained Depth to water table: + 80 in.
BRB	Brayton-Colonel association	Oa-0 to 5 inches: muck A-5 to 10 inches: fine sandy loam Bg-10 to 23 inches: fine sandy loam Cd-23 to 65 inches: fine sandy loam	Parent material: loamy lodgment till Slope: 0 – 8% Natural drainage class: poorly drained Depth to water table: 0 - 12in.
BW	Bucksport and Wonsqueak mucks	Oa1-0 to 12 in.: muck Oa2-12 to 25 in.: muck Oa3-25 to 45 in.: muck Oa4-45 to 65 in: muck	Parent material: herbaceous organic material and/or woody organic material Slope: 0 – 2% Natural drainage class: very poorly drained Depth to water table: 0 in.
CoA, CoB	Colton gravelly sandy loam	Ap-0 to 7 in.: gravelly sandy loam Bs-7 to 14 in.: gravelly loamy sand BC-14 to 24 in.: very gravelly coarse sand C-24 to 65 in: extremely gravelly coarse sand	Parent material: sandy-skeletal glaciofluvial deposits Slope: 0 – 3; 3 – 8% Natural drainage class: somewhat excessively drained Depth to water table: + 80 in.
HkB	Hermon and Manodnock soils, very bouldery	Oa-0 to 2 in.: decomposing plant material E-2 to 3 in.: sandy loam Bhs-3 to 9 in.: sandy loam Bs_1-9 to 16 in.: very gravelly sandy loam Bs_2-16 to 32 in.: extremely gravelly loamy sand	Parent material: sandy and gravelly supra glacial meltout till Slope: 0 – 8% Natural drainage class: somewhat excessively drained Depth to water table: + 80 in.
HMD	Monadnock-Hermon complex	Oe-0 to 3 inches: decomposed plant material E-3 to 8 inches: fine sandy loam Bs1-8 to 10 inches: fine sandy loam Bs2-10 to 12 inches: fine sandy loam Bs3-12 to 22 inches: gravelly fine sandy loam BC-22 to 25 inches: gravelly fine sandy loam 2C1-25 to 45 inches: gravelly loamy sand 2C2-45 to 65 inches: gravelly loamy sand	Parent material: loamy supraglacial meltout till Slope: 15 – 30% Natural drainage class: well drained Depth to water table: + 80 in.

Map Unit Symbol	Map Unit Name	Typical Profile	Characteristics
HSC	Hermon-Monadnock-Skerry complex, very bouldery	Oa-0 to 2 in.: decomposing plant material E-2 to 3 in.: sandy loam Bs-3 to 9 in.: sandy loam Bs1-9 to 16 in.: very gravelly sandy loam Bs2-16 to 32 in.: extremely gravelly loamy sand C-32 to 65 in.: very gravelly coarse sand	Parent material: supraglacial till Slope: 0 – 15% Natural drainage class: somewhat excessively drained Depth to water table: + 80 in.
HVC	Hermon-Monadnock-Skerry complex, extremely bouldery	Oa-0 to 2 in.: decomposing plant material E-2 to 3 in.: sandy loam Bs-3 to 9 in.: sandy loam Bs1-9 to 16 in.: very gravelly sandy loam Bs2-16 to 32 in.: extremely gravelly loamy sand C-32 to 65 in.: very gravelly coarse sand	Parent material: supraglacial till Slope: 0 – 15% Natural drainage class: somewhat excessively drained Depth to water table: + 80 in.
KW	Kinsman-Wonsqueak association	Oa-0 to 4 in.: decomposing plant material H1-4 to 8 in.: sand H2-8 to 42 in.: sand H3-42 to 65 in.: sand	Parent material: sandy glaciofluvial deposits Slope: 0 – 3% Natural drainage class: poorly drained Depth to water table: 0 - 18 in.
MmA, MmB, MmE	Masardis fine sandy loam	H1-0 to 2 in.: fine sandy loam H2-2 to 16 in.: gravelly fine sandy loam H3-16 to 65 in.: very gravelly sand	Parent material: sandy glaciofluvial deposits Slope: 0 – 3%, 3 – 8%, 15 – 45% Natural drainage class: somewhat excessively drained Depth to water table: + 80 in.
MSC	Masardis-Sheepscot complex	Oe-0 to 4 in.: decomposing plant material E-4 to 8 in.: fine sandy loam Bs-8 to 17 in.: cobblysandy loam BC-17 to 24 in.: very gravelly loamy sand C-24 to 65 in.: very gravelly sand	Parent material: sandy-skeletal glaciofluvial deposits Slope: 0 – 15% Natural drainage class: somewhat excessively drained Depth to water table: + 80 in.
MT	Medomak and Wonsqueak soils, frequently flooded	Oa-0 to 3 in.: decomposing plant material H1-3 to 13 in.: silt loam H2-13 to 52 in.: silt loam H3-52 to 65 in.: stratified silt loam	Parent material: coarse silty alluvium Slope: 0 – 2% Natural drainage class: very poorly drained Depth to water table: 0 - 6 in.
NGB	Nicholville-Croghan complex	Oa-0 to 3 in.: decomposing plant material H1-3 to 4 in.: very fine sandy loam H2-4 to 17 in.: very fine sandy loam H3-17 to 30 in.: loamy very fine sand H4-30 to 65 in.: loamy very fine sand	Parent material: coarse-silty glaciolacustrine deposits Slope: 0 – 5% Natural drainage class: moderately well drained Depth to water table: 18 - 24 in.
SF	Scantic-Biddeford complex	Oe-0 to 4 in.: mucky peat Bg1-4 to 16 in.: silty clay loam Bg2-16 to 29 in.: silty clay Cg-29 to 65 in.: silty clay	Parent material: glaciomarine deposits Slope: 0 – 3% Natural drainage class: poorly drained Depth to water table: 0 - 12 in.

Map Unit Symbol	Map Unit Name	Typical Profile	Characteristics
ShB	Sheepscot fine sandy loam	Oa-0 to 4 in.: decomposing plant material H1-4 to 7 in.: fine sandy loam H2-7 to 16 in.: gravelly sandy loam H3-16 to 29 in.: very gravelly loamy sand H4-29 to 65 in.: very gravelly sand	Parent material: sandy-skeletal glaciofluvial deposits Slope: 0 – 8% Natural drainage class: moderately well drained Depth to water table: 18 - 36 in.
SJB	Sheepscot-Croghan-Kinsman complex	Oa-0 to 4 inches: decomposed plant material H1-4 to 7 inches: fine sandy loam H2-7 to 16 inches: gravelly sandy loam H3-16 to 29 inches: very gravelly loamy sand H4-29 to 65 inches: very gravelly sand	Parent material: sandy-skeletal glaciofluvial deposits Slope: 0 – 8% Natural drainage class: moderately well drained Depth to water table: 18 - 34 in.
SNC	Skerry-Becket association	Oa-0 to 2 in.: decomposing plant material E-2 to 4 in.: fine sandy loam Bhs-4 to 6 in.: fine sandy loam Bs1-6 to 20 in.: gravelly sandy loam Bs2-20 to 25 in.: gravelly sandy loam Cd1-25 to 34 in.: gravelly loamy sand Cd2-34 to 65 in: gravelly loamy sand	Parent material: loamy lodgment till Slope: 0 – 15% Natural drainage class: moderately well drained Depth to water table: 19 - 34 in.
SOB	Skerry-Colonel association	Oa-0 to 2 inches: highly decomposed plant material E-2 to 4 inches: fine sandy loam Bhs-4 to 6 inches: fine sandy loam Bs1-6 to 20 inches: gravelly fine sandy loam Bs2-20 to 25 inches: gravelly fine sandy loam Cd1-25 to 34 inches: gravelly loamy sand Cd2-34 to 65 inches: gravelly loamy sand	Parent material: loamy lodgment till Slope: 0 – 15% Natural drainage class: moderately well drained Depth to water table: 19 - 34 in.
Southern Project Area			
AdB	Adams loamy sand	Ap-0 to 7 in.: loamy sand Bs-7 to 21 in.: sand BC-21 to 27 in.: sand C-27 to 64 in: sand	Parent material: sandy glaciofluvial deposits Slope: 3 – 8% Natural drainage class: somewhat excessively drained Depth to water table: + 80 in.
CoA, CoB, CoE	Colton gravelly sandy loam	Ap-0 to 7 in.: gravelly sandy loam Bs-7 to 14 in.: gravelly loamy sand BC-14 to 24 in.: very gravelly coarse sand C-24 to 65 in: extremely gravelly coarse sand	Parent material: sandy-skeletal glaciofluvial deposits Slope: 0 – 3%, 3 – 8%, 15 – 60% Natural drainage class: somewhat excessively drained Depth to water table: + 80 in.
CpB, CpC	Colton gravelly sandy loam	Oe-0 to 4 in.: decomposing plant material E-4 to 6 in.: gravelly sandy loam Bs-6 to 14 in.: gravelly loamy sand BC-14 to 24 in.: very gravelly coarse sand C-24 to 65 in.: extremely gravelly coarse sand	Parent material: sandy-skeletal glaciofluvial deposits Slope: 0 – 8%, 8 – 15% Natural drainage class: somewhat excessively drained Depth to water table: + 80 in.

Map Unit Symbol	Map Unit Name	Typical Profile	Characteristics
CSC, CSD	Colton-Hermon complex, very bouldery	Oa-0 to 2 in.: decomposing plant material H_1-2 to 3 in.: gravelly sandy loam H_2-3 to 9 in.: gravelly sandy loam H_3-9 to 16 in.: gravelly loamy sand H_4-16 to 32 in.: extremely gravelly sand	Parent material: sandy-skeletal glaciofluvial deposits Slope: 3 – 15%; 15 – 30% Natural drainage class: excessively drained Depth to water table: + 80 in.
HkB	Hermon and Manodnock soils, very bouldery	Oa-0 to 2 in.: decomposing plant material E-2 to 3 in.: sandy loam Bhs-3 to 9 in.: sandy loam Bs_1-9 to 16 in.: very gravelly sandy loam Bs_2-16 to 32 in.: extremely gravelly loamy sand	Parent material: sandy and gravelly supra glacial meltout till Slope: 0 – 8% Natural drainage class: somewhat excessively drained Depth to water table: + 80 in.
Kn	Kinsman sand	Oa-0 to 4 in.: decomposing plant material H_1-4 to 8 in.: sand H_2-8 to 42 in.: sand H_3-42 to 65 in.: sand	Parent material: glaciofluvial deposits Slope: 0 – 3% Natural drainage class: poorly drained Depth to water table: 0 to 18 in.
KW	Kinsman-Wonsqueak association	Oa-0 to 4 in.: decomposing plant material H1-4 to 8 in.: sand H2-8 to 42 in.: sand H3-42 to 65 in.: sand	Parent material: sandy glaciofluvial deposits Slope: 0 – 3% Natural drainage class: poorly drained Depth to water table: 0 - 18 in.

Appendix 1 – Report Figures

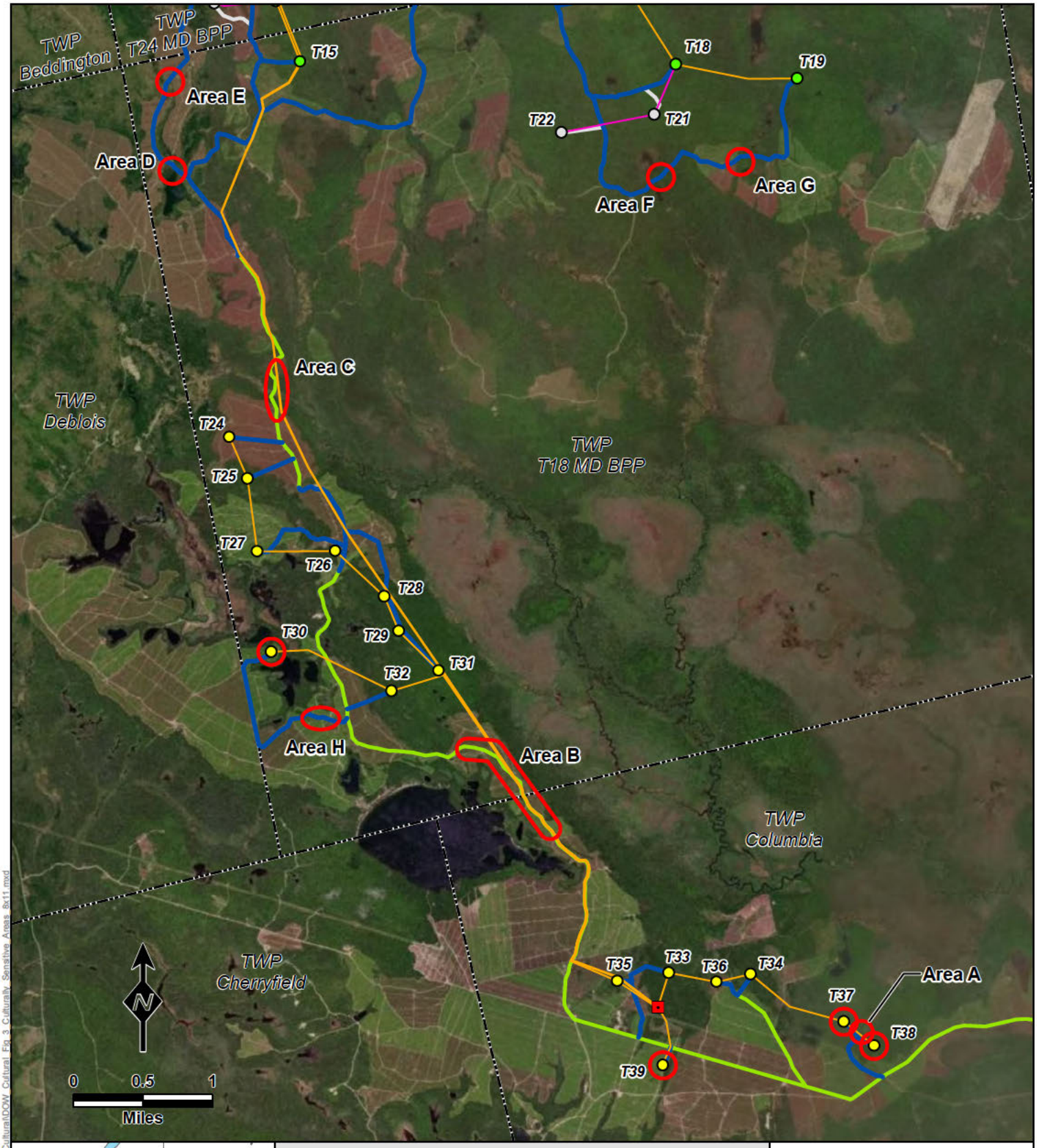


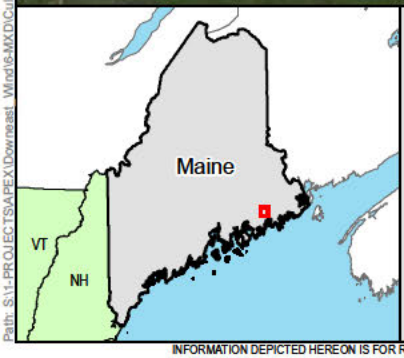
APEX
Downeast Wind
Washington County, Maine

Figure 1
Project Location

TRC
14 Gabriel Drive
Augusta, ME 04330

2/13/2020





Legend

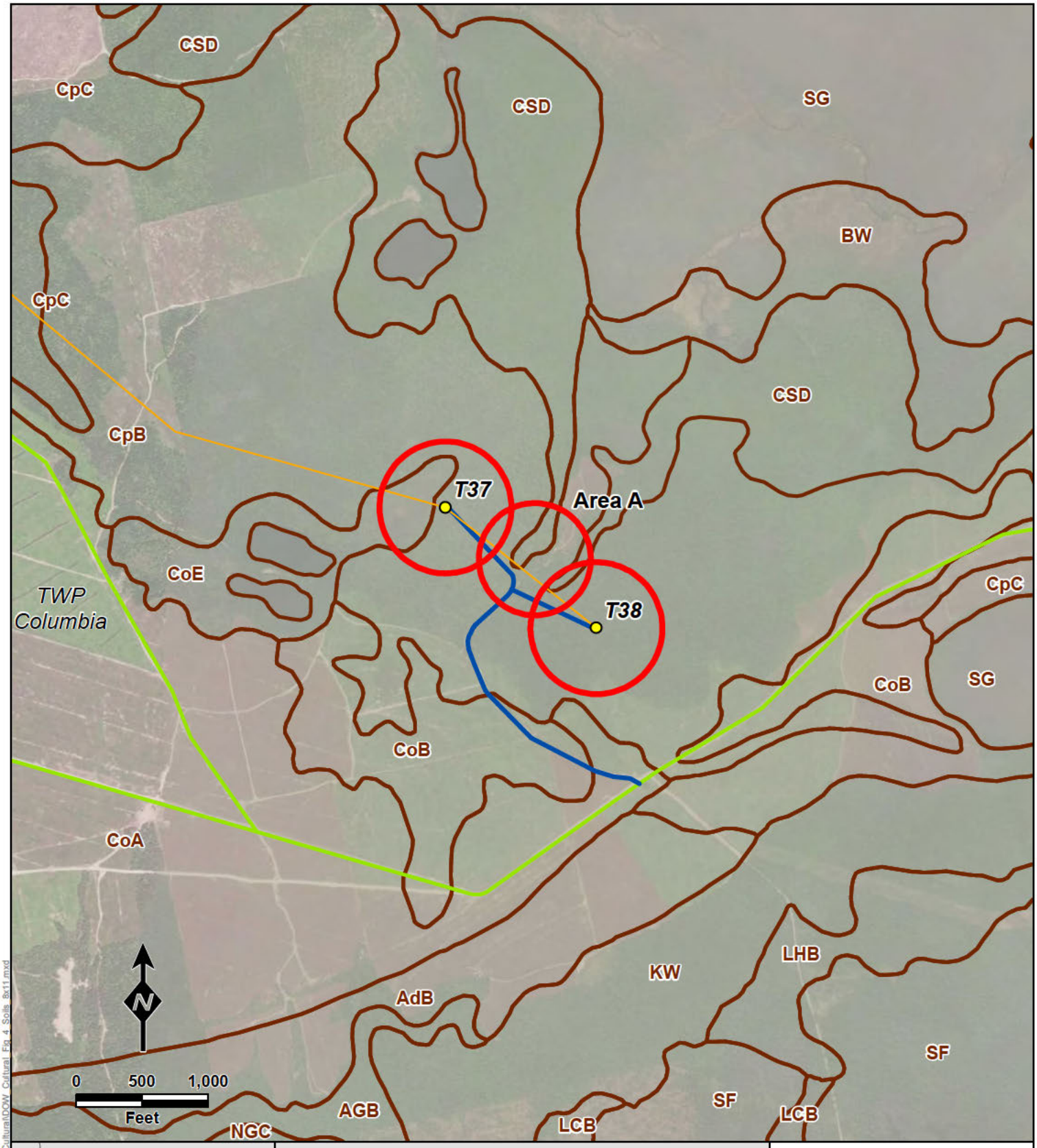
- Sensitive Area
- **Turbine Array**
  - A - PRIMARY
  - A - SPARE
  - B - PRIMARY
  - B - SPARE
  - Substation Location
- Access Road - private
- Access Road - spare
- Access Road - public
- Underground Collection
- Underground Collection - spare
- Town Boundary

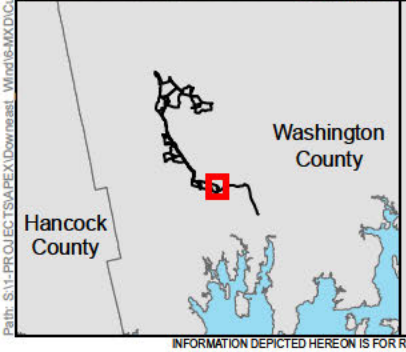
APEX
Downeast Wind
Washington County, Maine

Figure 3
Culturally Sensitive Areas

TRC
14 Gabriel Drive
Augusta, ME 04330

2/13/2020





Legend

- Sensitive Area
- Turbine Array
  - A - PRIMARY
  - A - SPARE
  - B - PRIMARY
  - B - SPARE
  - Proposed Substation
- Access Road - private
- Access Road - spare
- Access Road - public
- Underground Collection
- Underground Collection - spare
- NRCS Soils
- Town Boundary

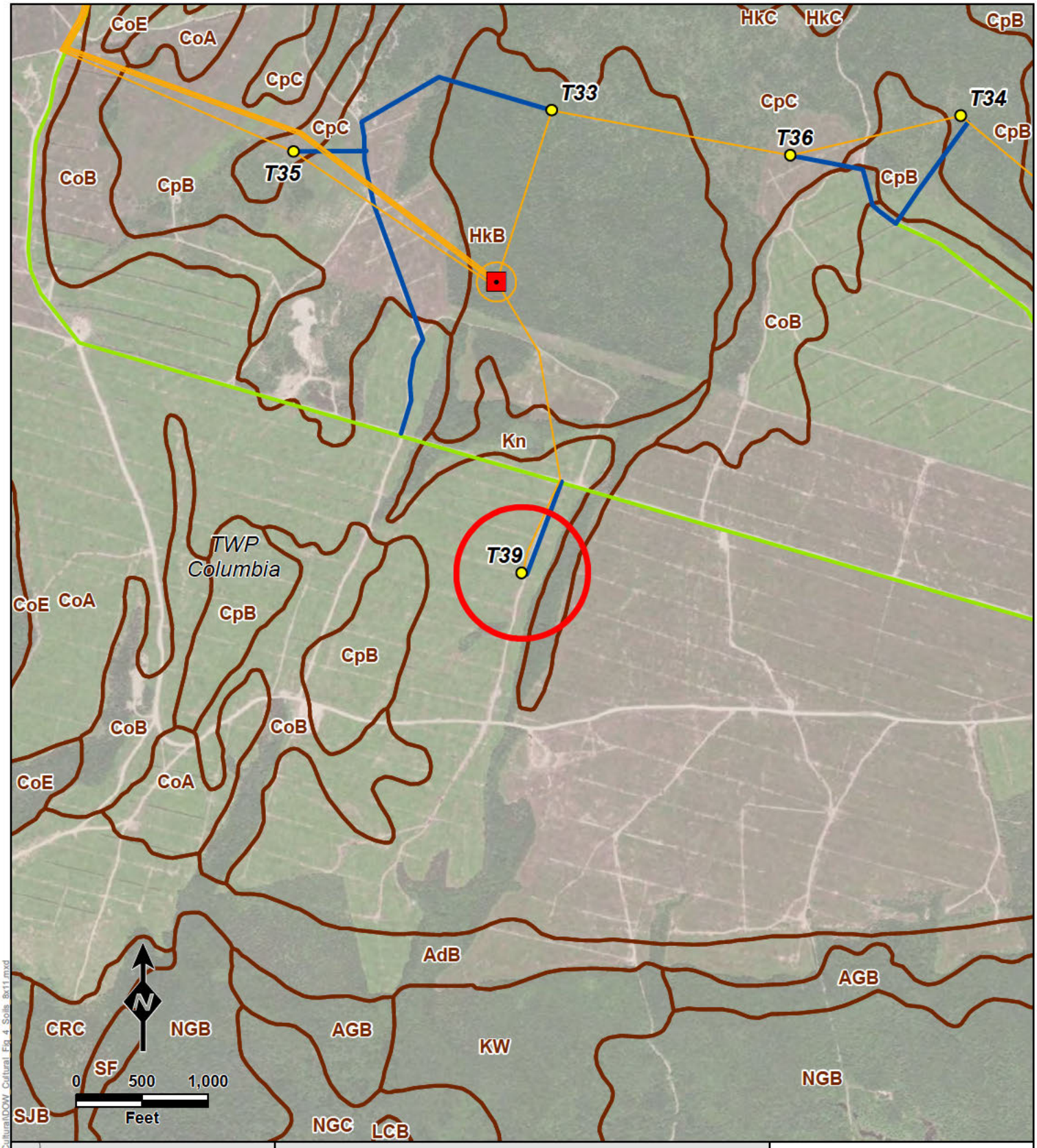
APEX
Downeast Wind

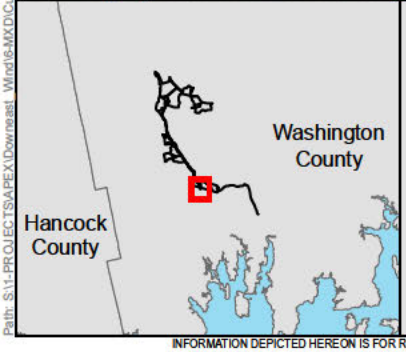
Washington County, Maine

Figure 4
Culturally Sensitive Areas - NRCS Soils
Sheet 1 of 7

TRC
14 Gabriel Drive
Augusta, ME 04330

2/13/2020





Legend

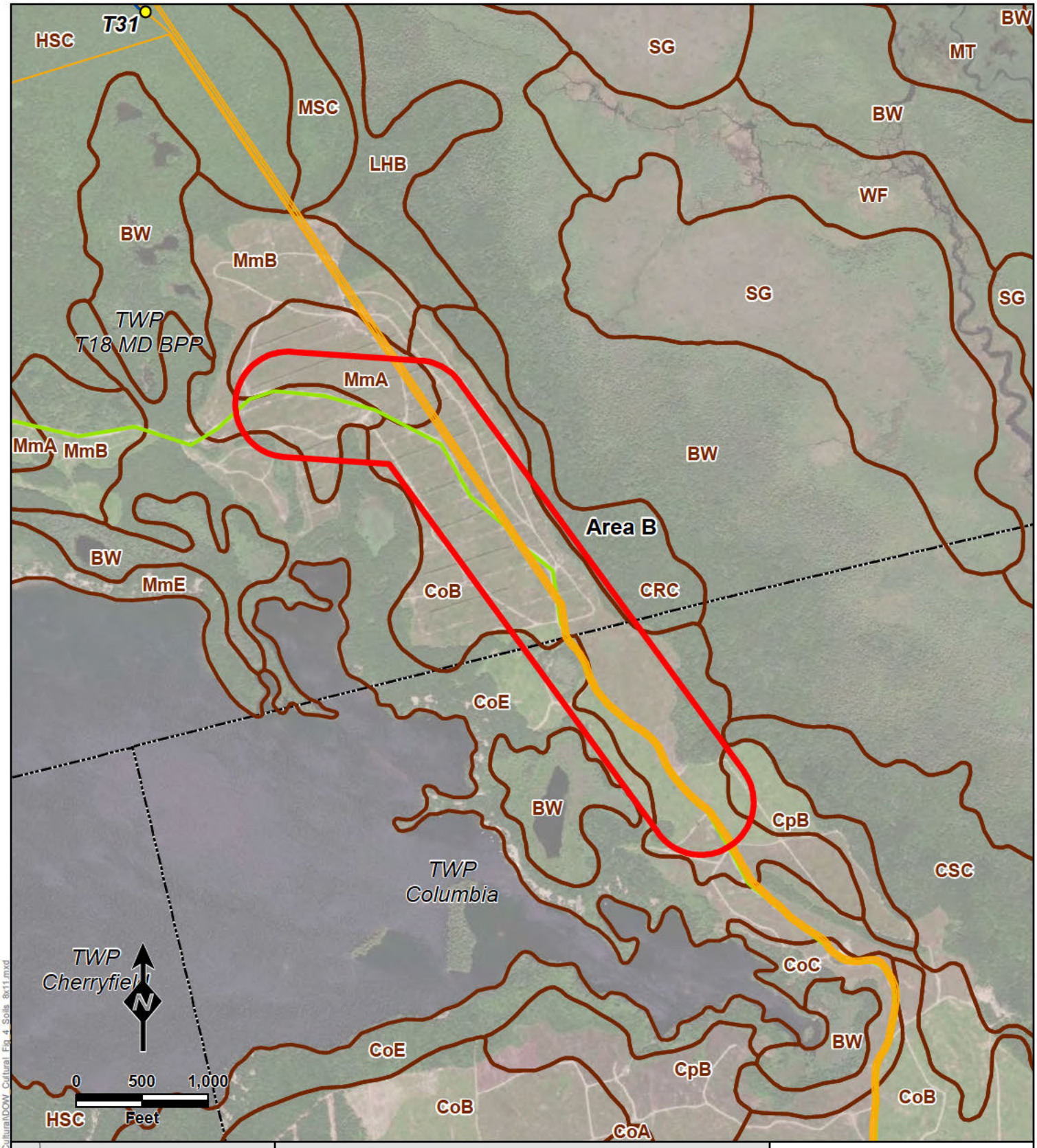
- Sensitive Area
- Turbine Array
  - A - PRIMARY
  - A - SPARE
  - B - PRIMARY
  - B - SPARE
  - Proposed Substation
- Access Road - private
- Access Road - spare
- Access Road - public
- Underground Collection
- Underground Collection - spare
- NRCS Soils
- Town Boundary

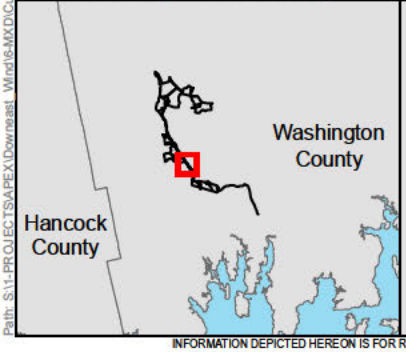
APEX
Downeast Wind
Washington County, Maine

Figure 4
Culturally Sensitive Areas - NRCS Soils
Sheet 2 of 7

TRC
14 Gabriel Drive
Augusta, ME 04330

2/13/2020





Legend

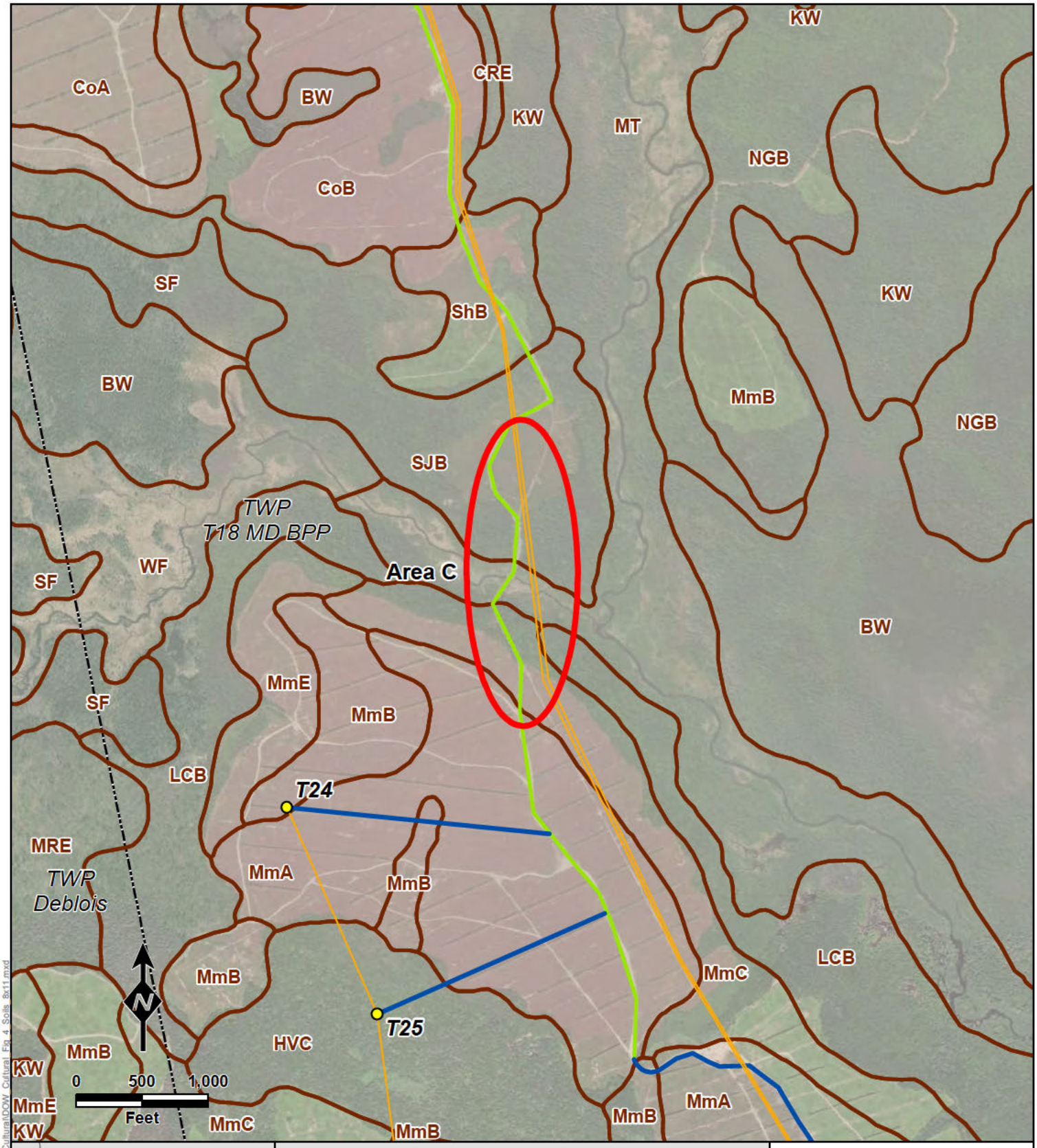
- Sensitive Area
- Turbine Array
  - A - PRIMARY
  - A - SPARE
  - B - PRIMARY
  - B - SPARE
- Proposed Substation
- Access Road - private
- Access Road - spare
- Access Road - public
- Underground Collection
- Underground Collection - spare
- NRCS Soils
- Town Boundary

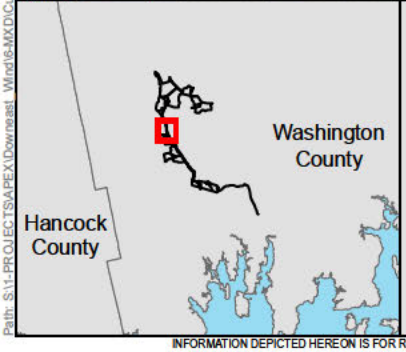
APEX
Downeast Wind
Washington County, Maine

Figure 4
Culturally Sensitive Areas - NRCS Soils
Sheet 3 of 7

TRC
14 Gabriel Drive
Augusta, ME 04330

2/13/2020





Legend

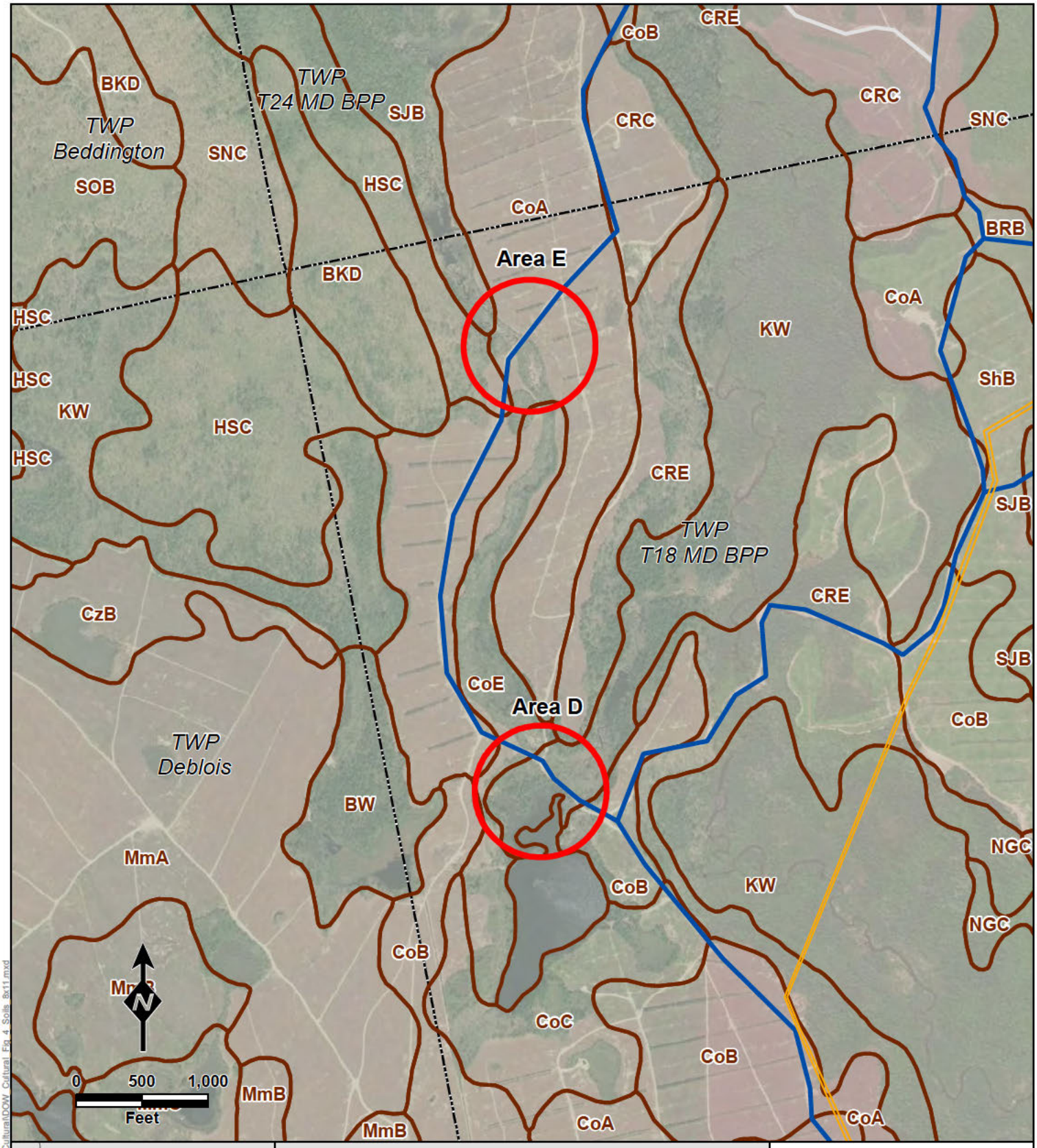
- Sensitive Area
- Turbine Array
  - A - PRIMARY
  - A - SPARE
  - B - PRIMARY
  - B - SPARE
  - Proposed Substation
- Access Road - private
- Access Road - spare
- Access Road - public
- Underground Collection
- Underground Collection - spare
- NRCS Soils
- Town Boundary

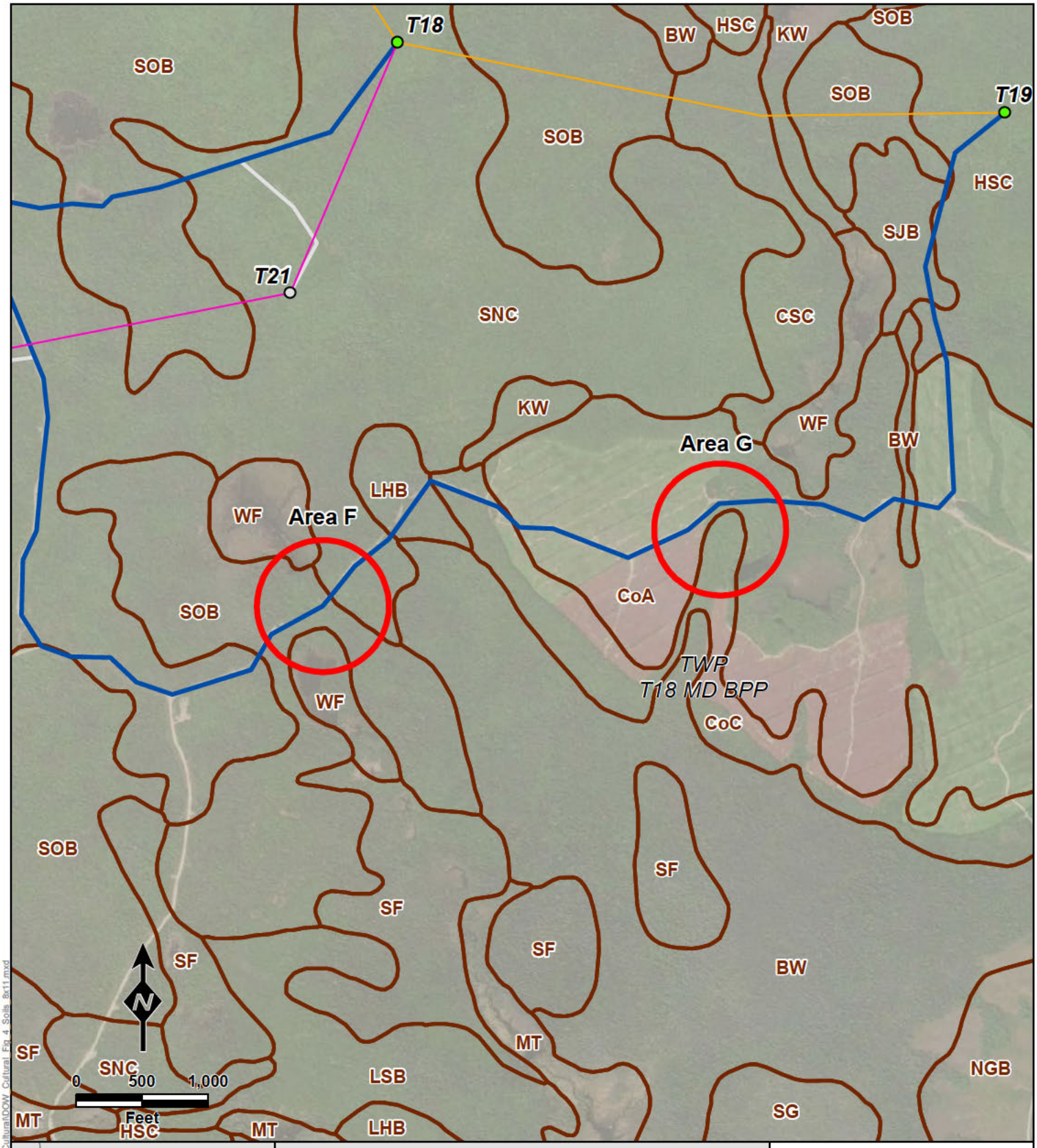
APEX
Downeast Wind
Washington County, Maine

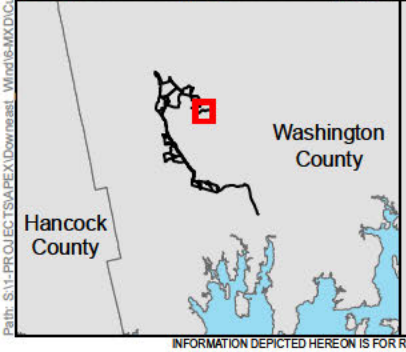
Figure 4
Culturally Sensitive Areas - NRCS Soils
Sheet 4 of 7

TRC
14 Gabriel Drive
Augusta, ME 04330

2/13/2020


CoB
CRE
BKD
TWP
T24 MD BPP
SJB
CRC
SNC
TWP
Beddington
SNC
SOB
HSC
CoA
BRB
Area E
BKD
CoA
HSC
KW
HSC
ShB
KW
HSC
HSC
CRE
SJB
TWP
T18 MD BPP
CzB
CRE
SJB
CoE
Area D
CoB
TWP
Deblois
BW
NGC
MmA
CoB
KW
NGC
CoB
CoC
CoB
MmB
CoA
MmB
CoA
N
0
500
1,000
Feet
Washington
County
Hancock
County
Legend
Sensitive Area
Turbine Array
A - PRIMARY
A - SPARE
B - PRIMARY
B - SPARE
Proposed Substation
Access Road - private
Access Road - spare
Access Road - public
Underground Collection
Underground Collection - spare
NRCS Soils
Town Boundary
APEX
Downeast Wind
Washington County, Maine
Figure 4
Culturally Sensitive
Areas - NRCS Soils
Sheet 5 of 7
TRC
14 Gabriel Drive
Augusta, ME 04330
INFORMATION DEPICTED HEREON IS FOR REFERENCE PURPOSES ONLY AND IS COMPILED FROM BEST AVAILABLE DATA SOURCES. TRC ASSUMES NO RESPONSIBILITY FOR ERRORS ARISING FROM MISUSE OF THIS MAP.
2/13/2020
Path: S:\1-PROJECTS\APEX\Downeast_Wind\6-MXD\Cultural\DOW_Cultural_Fig_4_Soils_8x11.mxd





Legend

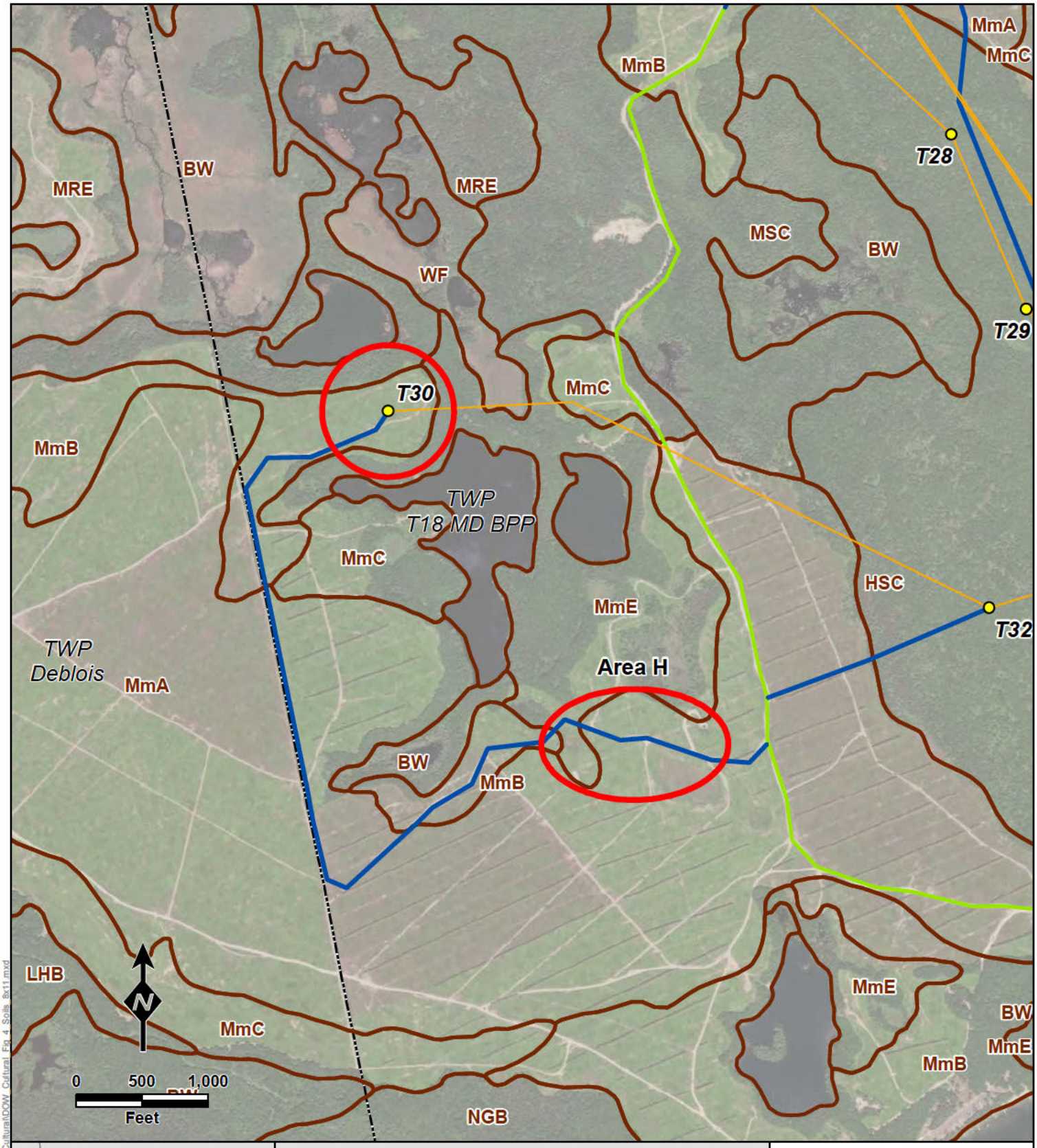
- Sensitive Area
- Turbine Array
  - A - PRIMARY
  - A - SPARE
  - B - PRIMARY
  - B - SPARE
- Proposed Substation
- Access Road - private
- Access Road - spare
- Access Road - public
- Underground Collection
- Underground Collection - spare
- NRCS Soils
- Town Boundary

APEX
Downeast Wind
Washington County, Maine

Figure 4
Culturally Sensitive Areas - NRCS Soils
Sheet 6 of 7

TRC
14 Gabriel Drive
Augusta, ME 04330

2/13/2020



APEX
Downeast Wind

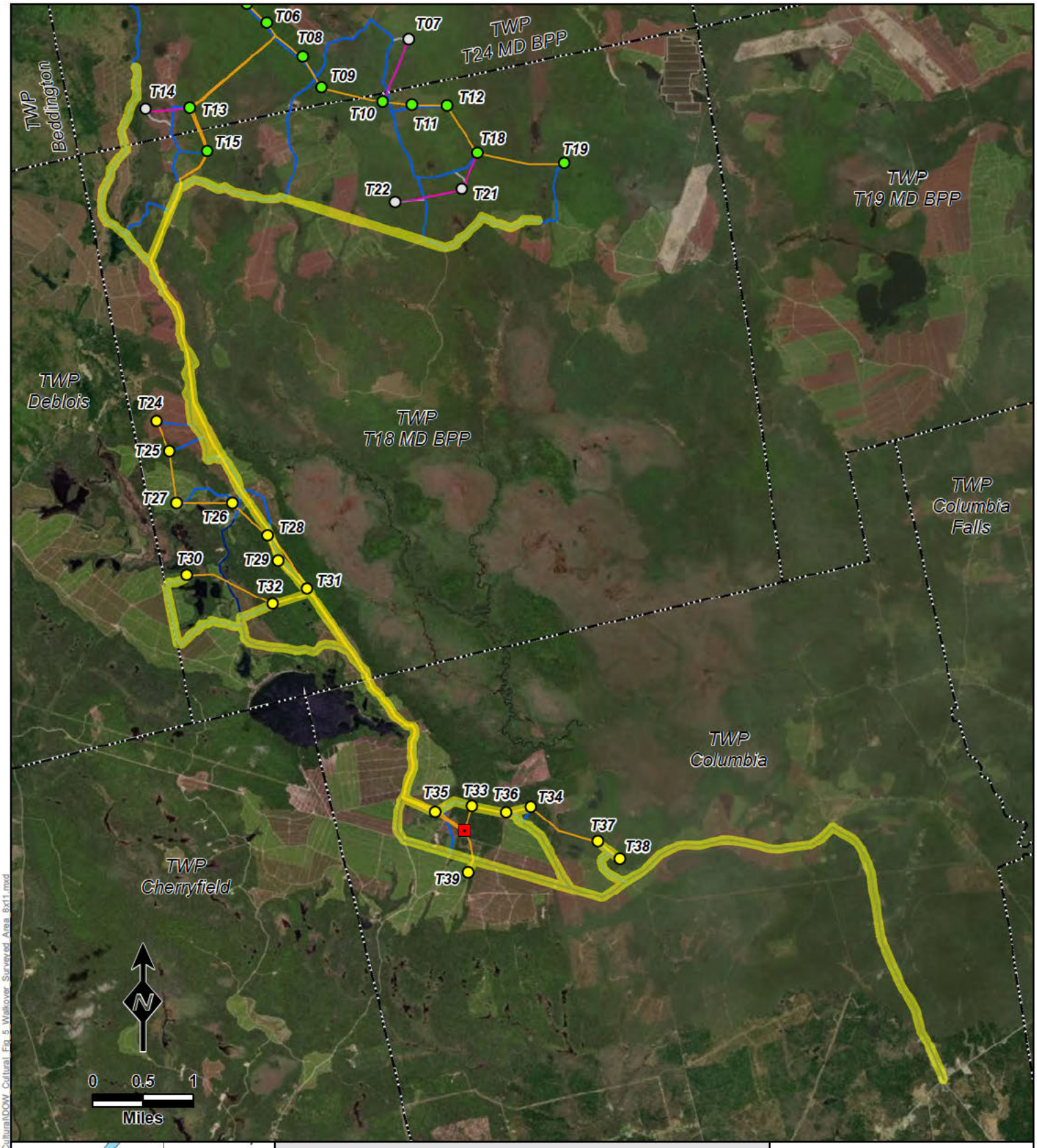
Washington County, Maine

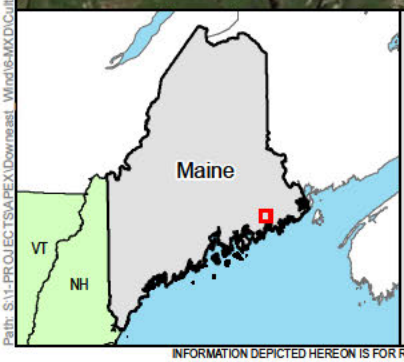
Figure 4
Culturally Sensitive Areas - NRCS Soils
Sheet 7 of 7

TRC
14 Gabriel Drive
Augusta, ME 04330

2/13/2020

Path: S:\1-PROJECTS\APEX\Downeast_Wind\6-MXD\Cultural\DOW_Cultural_Fig_4_Soils_8x11.mxd





Legend

- Walkover Surveyed Area
- **Turbine Array**
  - A - PRIMARY
  - A - SPARE
  - B - PRIMARY
  - B - SPARE
  - Substation Location
- Access Road - private
- Access Road - spare
- Access Road - public
- Underground Collection
- Underground Collection - spare
- Town Boundary

APEX
Downeast Wind
Washington County, Maine

Figure 5
Walkover Surveyed Area

TRC
14 Gabriel Drive
Augusta, ME 04330

2/13/2020

Phase IA Assessment **Downeast Wind** **Washington, County**	Figure 6. Disturbance from road construction, view east.
TRC **71 Oak Street** **Ellsworth, Maine 04605**	

Figure 7. Area of disturbance from irrigation system, view east.

Phase IA Assessment
Downeast Wind
Washington, County

TRC
71 Oak Street
Ellsworth, Maine 04605

Figure 8a (above). T30 level area at break in slope, view southwest.

Figure 8b (below). Slope over looking Pike Brook Pond and East Pike Brook Pond, view southeast.

Phase IA Assessment
Downeast Wind
Washington, County

TRC
71 Oak Street
Ellsworth, Maine 04605

Figure 9a (above). Level terrace in T37, view north.

Figure 9b (below). View from level terrace overlooking steep slope, view northwest.

Phase IA Assessment
Downeast Wind
Washington, County

TRC
71 Oak Street
Ellsworth, Maine 04605

Figure 10a (above). T38 higher landform overlooking low area, view northeast.

Figure 10b (below).

Phase IA Assessment
Downeast Wind
Washington, County

TRC
71 Oak Street
Ellsworth, Maine 04605

Figure 11a (above). T39 open level area, view southwest.

Figure 11b (below). Level area and gently sloping area to the brook, view southwest.

Figure 12. Area A, low and wet, view southeast.

Phase IA Assessment
Downeast Wind
Washington, County

TRC
71 Oak Street
Ellsworth, Maine 04605

Figure 13a (above). Ridge in Area B overlooking Schoodic Lake to the south, view south.

Figure 13b (below). Area B, ridge and slope, view south.

Phase IA Assessment
Downeast Wind
Washington, County

TRC
71 Oak Street
Ellsworth, Maine 04605

Figure 14a (above). Artificially leveled area and irrigation pipes in Area C, view southwest.

Figure 14b (below). Area C, small rise overlooking Bog Stream, view east.

Phase IA Assessment
Downeast Wind
Washington, County

TRC
71 Oak Street
Ellsworth, Maine 04605

Figure 15a (above). Area D, high level area overlooking stream, view southwest.

Figure 15b (below). Area D, stream and pond, view southwest.

Phase IA Assessment
Downeast Wind
Washington, County

TRC
71 Oak Street
Ellsworth, Maine 04605

Figure 16a (above). Area E, north side of Colonial Brook, view northwest.

Figure 16b (below). Area E, level rise southwest of Colonial Brook, view north.

Phase IA Assessment
Downeast Wind
Washington, County

TRC
71 Oak Street
Ellsworth, Maine 04605

Figure 17a (above). Area F, west side of Fred Dorr Brook, low and wet, view southeast.

Figure 17b (below). Area F, low and wet area surrounding Fred Dorr Brook, view south.

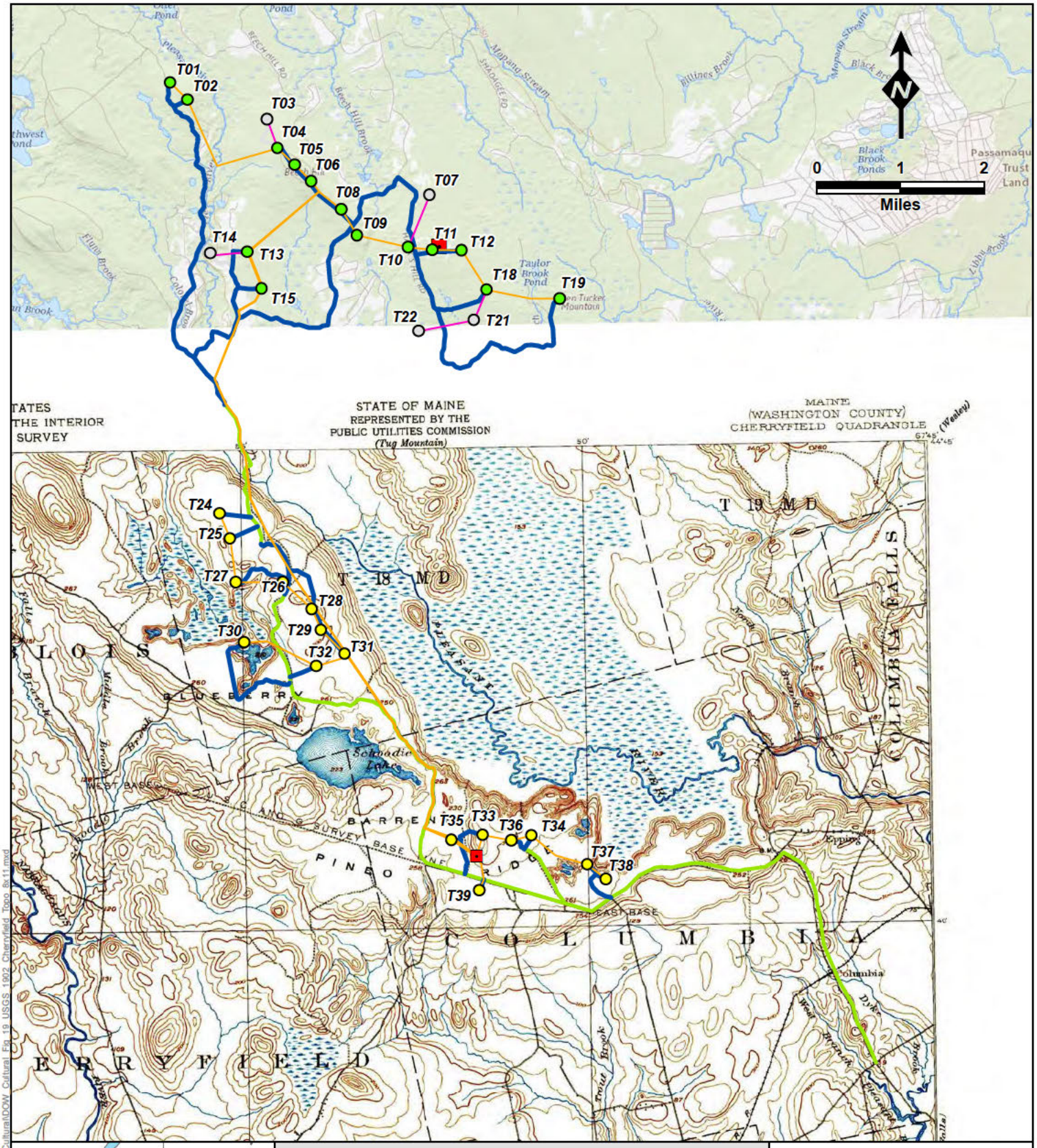
Phase IA Assessment
Downeast Wind
Washington, County

TRC
71 Oak Street
Ellsworth, Maine 04605

Figure 18a (above). Area G, small rise east of Taylor Branch, view southeast.

Figure 18b (below). Area G, small rise south of Taylor Branch, view southwest.

Figure 19. Area H high level area between Pike Brook Pond and Horseshoe Pond, view east.



Legend

Turbine Array

- A - PRIMARY
- A - SPARE
- B - PRIMARY
- B - SPARE
- Substation Location

- Access Road - private
- Access Road - spare
- Access Road - public
- Underground Collection
- Underground Collection - spare

NOTE: USGS 1:62500-scale Quadrangle not displayed at native scale.

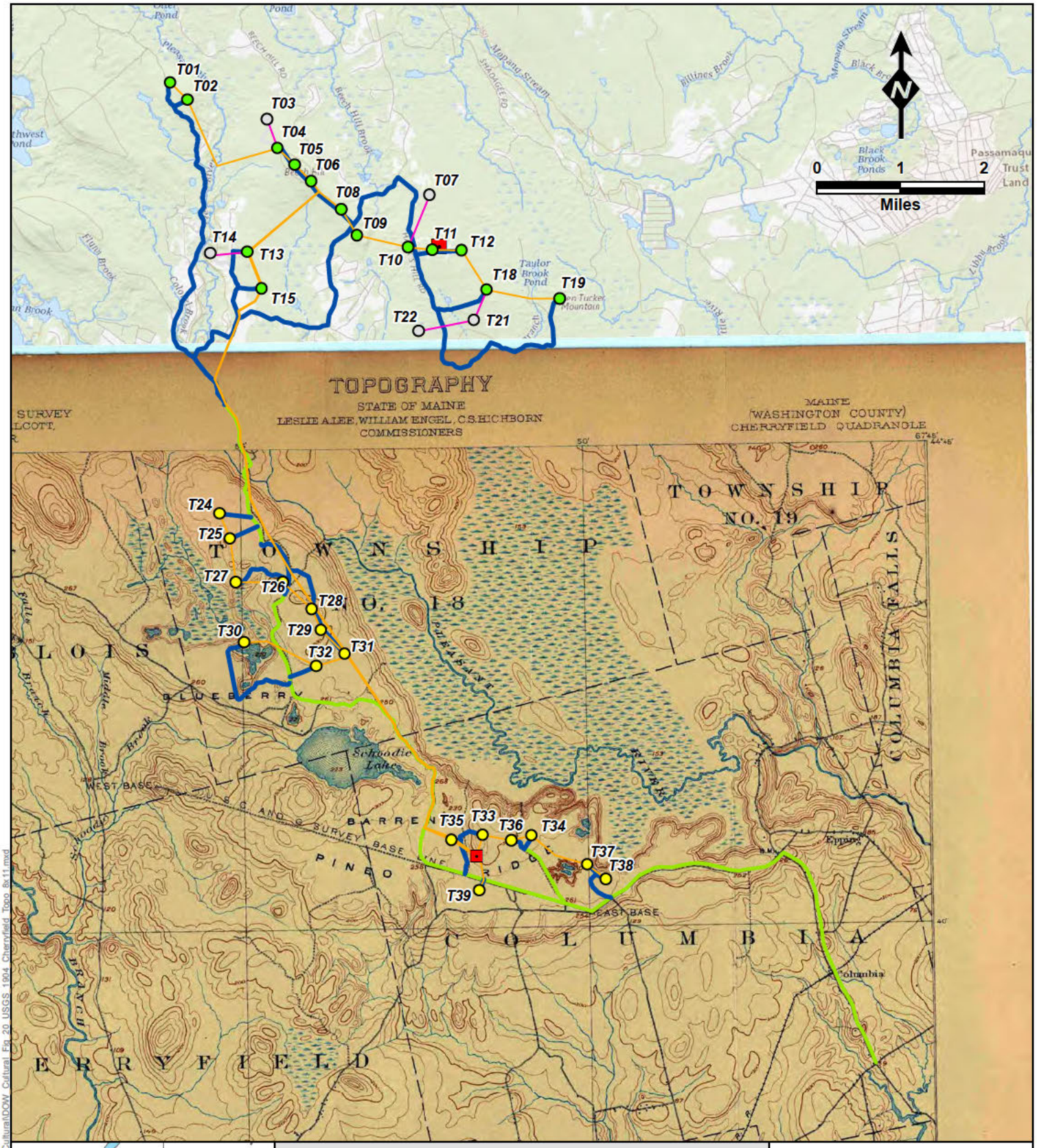
APEX
Downeast Wind

Washington County, Maine

Figure 20
USGS 1:62500-scale Quadrangle for Cherryfield, ME 1902

TRC
14 Gabriel Drive
Augusta, ME 04330

2/13/2020



NOTE: USGS 1:62500-scale Quadrangle not displayed at native scale.

APEX
Downeast Wind

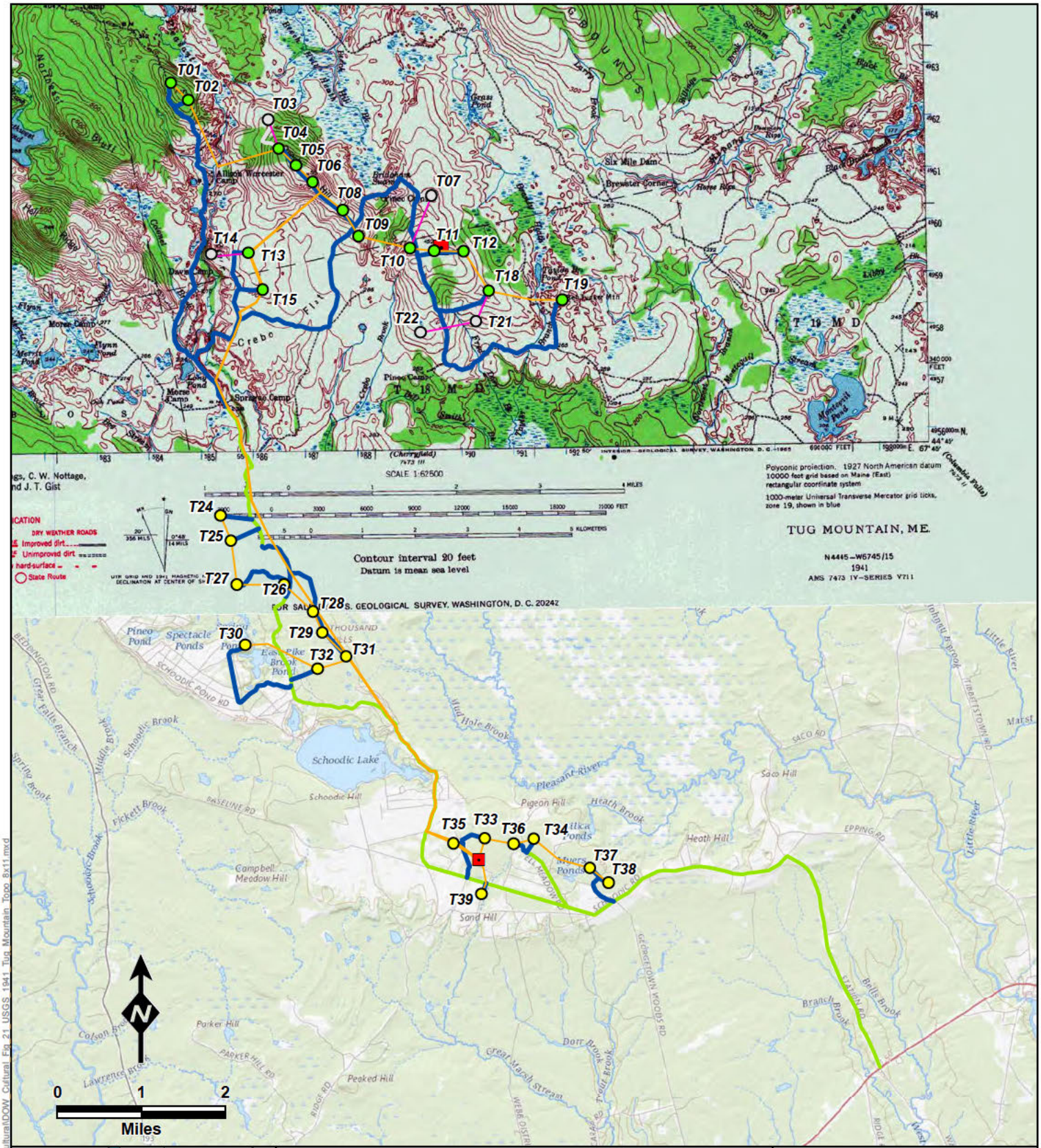
Washington County, Maine

Figure 21
USGS 1:62500-scale Quadrangle for Cherryfield, ME 1904

TRC
14 Gabriel Drive
Augusta, ME 04330

2/13/2020

Path: S:\1-PROJECTS\APEX\Downeast_Wind\6-MXD\Cultural\DOW_Cultural_Fig_20_USGS_1904_Cherryfield_Topo_8x11.mxd



NOTE: USGS 1:62500-scale Quadrangle not displayed at native scale.

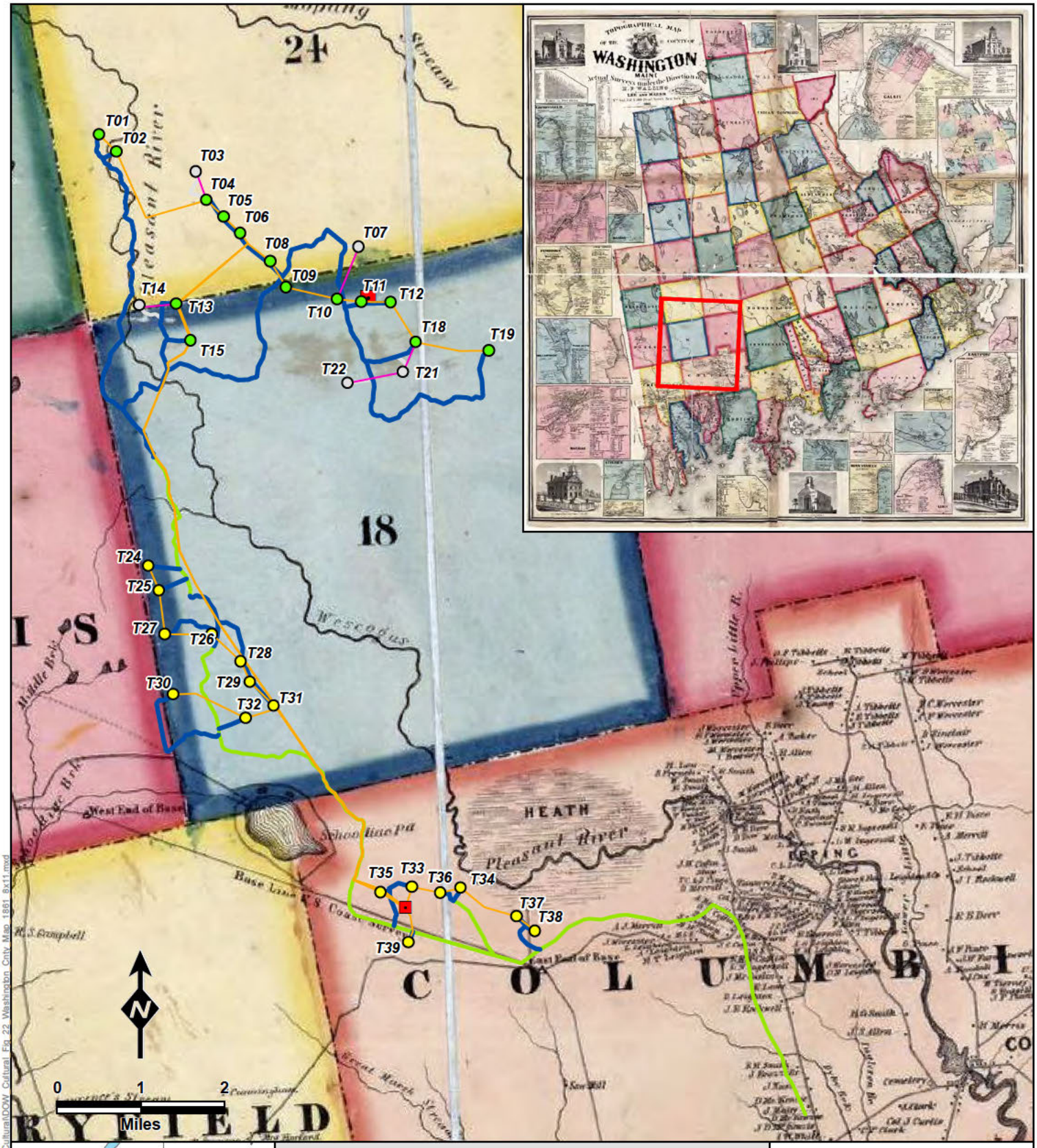
APEX
Downeast Wind
Washington County, Maine

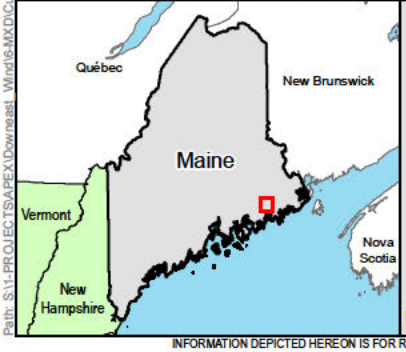
Figure 22
USGS 1:62500-scale Quadrangle for Tug Mountain, ME 1941

TRC
14 Gabriel Drive
Augusta, ME 04330

2/13/2020

Path: S:\1-PROJECTS\APEX\Downeast_Wind\6-MXD\Cultural\DOW_Cultural_Fig 21 USGS 1941 Tug Mountain Topo 8x11.mxd





Legend

Turbine Array

- A - PRIMARY
- A - SPARE
- B - PRIMARY
- B - SPARE
- Substation Location

- Access Road - private
- Access Road - spare
- Access Road - public
- Underground Collection
- Underground Collection - spare

NOTE: Historic Washington County Map not displayed at native scale.

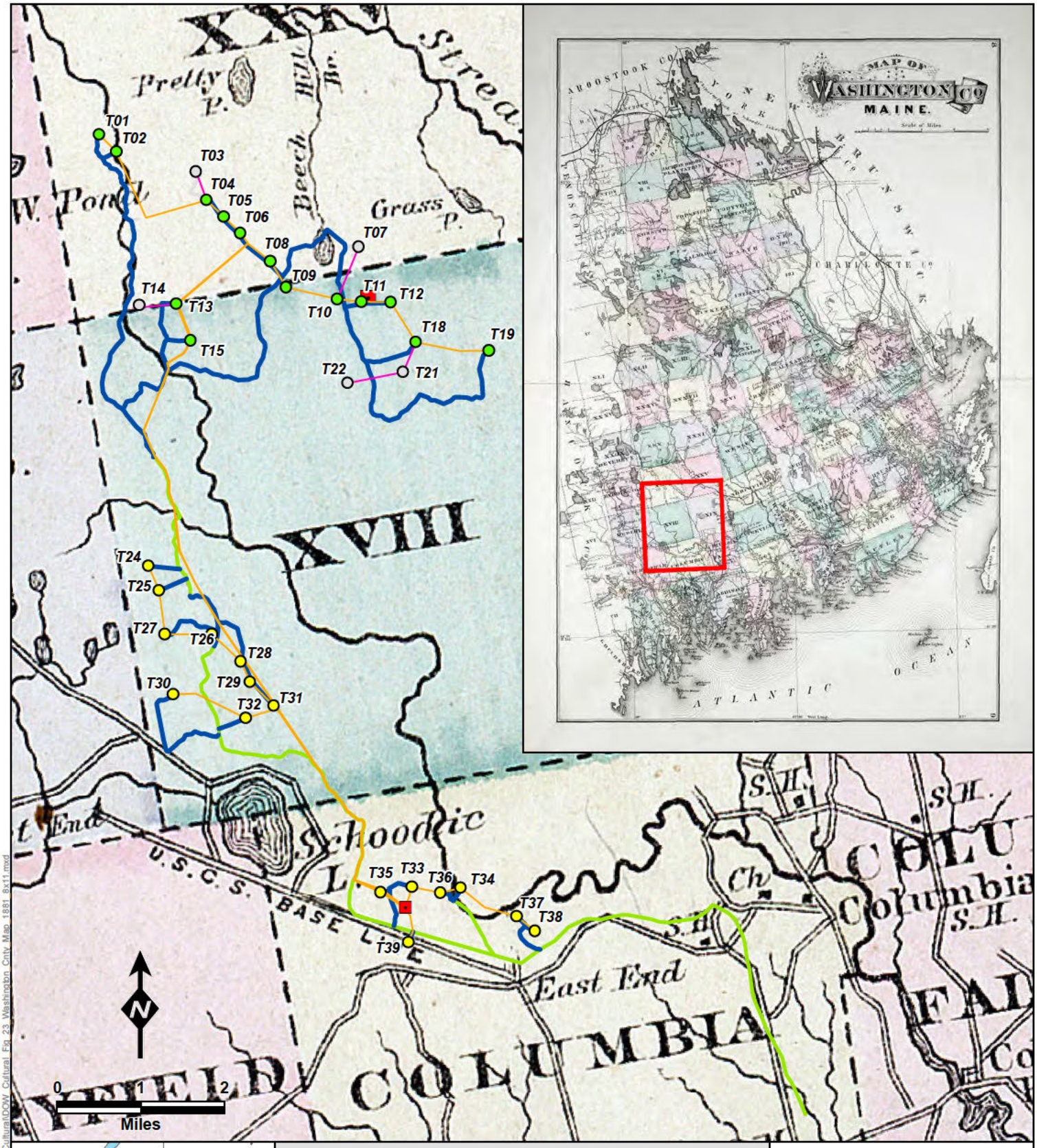
APEX
Downeast Wind
Washington County, Maine

Figure 23
Washington County
Map of 1861

TRC
14 Gabriel Drive
Augusta, ME 04330

2/13/2020

Path: S:\1-PROJECTS\APEX\Downeast Wind\6-MXD\Cultural\DOWV_Cultural_Fig_22_Washington_Cnty_Map_1861_8x11.mxd



Legend

Turbine Array

- A - PRIMARY
- A - SPARE
- B - PRIMARY
- B - SPARE
- Substation Location

- Access Road - private
- Access Road - spare
- Access Road - public
- Underground Collection
- Underground Collection - spare

NOTE: Historic Washington County Map not displayed at native scale.

APEX
Downeast Wind
Washington County, Maine

Figure 24
Washington County
Map of 1881

TRC
14 Gabriel Drive
Augusta, ME 04330

2/13/2020

EXHIBIT 8-2: MHPC CONSULTATION LETTERS

1865 Air Lane Dr., Suite 9
Nashville, TN 37210

T 615.884.4430
TRCcompanies.com

March 26, 2020

Ms. Megan M. Rideout
Review & Compliance/CLG Coordinator
Maine Historic Preservation Commission
55 Capitol Street
Augusta, Maine 04333-0065

Subject: Initial Consultation Letter for the Downeast Wind Project, Washington and Hancock Counties, Maine

Dear Megan,

On behalf of Apex Clean Energy, Inc. (the Applicant), TRC seeks to begin consultation with the Maine Historic Preservation Office (MHPC) on the completion of an architectural resources survey for the proposed Downeast Wind Project (the Project) in Washington and Hancock Counties, Maine. The survey will be completed in compliance with the Maine Site Location of Development Act (06-096 CMR 375.11) and MHPC guidelines for architectural surveys.

The proposed Project is an approximately 126-megawatt (MW) grid-scale wind energy facility in the Town of Columbia, and in unorganized territory T18 MD BPP. The Project consists of 30 Vestas V150 4.2 MW turbines, 125 M Hub Height, Rotor Diameter 150 M, with a Direct Tap into a 115-kV line running through the Project area. The Project also includes 3 existing temporary meteorological (MET) towers, a collector substation, an Operations and Maintenance building (O&M), overhead and underground electrical collection lines, access roads, and temporary laydown areas. In addition, the Project includes improvements to associated existing access roads, culverts, and bridges. The Project is divided into two areas. The north side and the south side are divided by the Great Heath Maine Public Reserved Land. There is no new transmission line associated with the project since the Project substation will connect to an adjacent existing 115kV electric transmission line. The O&M building will be located in an existing building in Columbia.

TRC proposes to conduct an architectural survey to document historic and architectural resources aged 50 years or older within the project's area of potential effects (APE), including those listed or eligible for listing in the National Register of Historic Places (NRHP). The proposed APE is defined as the Project area and any areas connected to it via viewshed within an 8.0-mile survey radius. Architectural resources located within the survey radius that have no visibility of the Project will be excluded from the APE. TRC has prepared a viewshed analysis that will be used in the course of background research and field work. The architectural survey will require five tasks: consultation with the MHPC, background research, fieldwork, data analysis, and report preparation. Please see the attached series of maps showing the Project location, survey radius, viewshed assessment data, and initial desktop research results.

Scope of Work

Background Research

The study will begin with background research in the MHPC's online Cultural Architectural Resource Management Archive (CARMA) and in the physical site files at the MHPC office in Augusta to identify previously-surveyed architectural resources within the APE, and properties that have been evaluated for listing in the NRHP. Additional history research will take place at local libraries and historical societies to

gather secondary histories of the APE, as well as historic maps to develop a general view of the area's historic development and settlement patterns, and to determine the locations of early roads, dwellings, and industrial developments.

Architectural Resource Survey

An architectural historian will conduct a reconnaissance-level architectural survey to identify and record all properties aged 50 years or older in the APE. MHPC survey forms will be completed for each identified resource, their location will be recorded on a 7 ½ minute USGS topographic map, and they will be documented with high-resolution digital photography. Photographs will be taken looking to and from the proposed Project area from each surveyed resource. Survey data for previously-surveyed properties identified during background research will be updated. The architectural survey fieldwork and documentation will follow the guidelines included in the MHPC publication, *Above Ground Cultural Resource Survey Manual - Guidelines for Identification: Architecture and Cultural Landscapes*. The architectural historian will evaluate all surveyed architectural resources for listing on the NRHP. For those properties in the APE that are listed or recommended eligible for listing in the NRHP, Section 106 assessments of effect (primarily visual effect) will be completed.

Reporting

Upon completion of fieldwork, a detailed project report will be prepared on the MHPC *Architectural Survey Report Form* according to MHPC guidelines. The report will include an executive summary, research design and background research, survey findings, bibliography, and finding of effects. Following the receipt of client and agency comments, the report will be finalized and will meet or exceed MHPC guidelines.

Please let me know if you have any questions or need additional information.

Sincerely,

David Price
Senior Architectural Historian
dprice@trccompanies.com

DOWNEAST WIND PROJECT

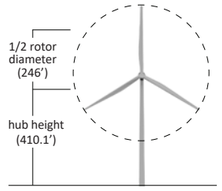
MAP 1 • STUDY AREA CONTEXT

LEGEND

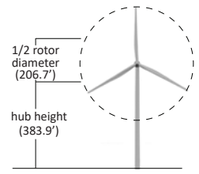
- Downeast Wind Turbine (proposed)
- Adjacent Wind Projects (see map labels)
- Township
- County Boundary
- Conservation Land-Public
  - WMA (Wildlife Management Area
  - BPL (Bureau of Parks and Lands)
  - IF&W (Inland Fisheries and Wildlife)
- Conservation Land-Private
  - DRLT (Downeast Rivers Land Trust)
  - TNC (The Nature Conservancy)
  - MASC (Maine Atlantic Salmon Commission)
- Structure on National Register of Historic Places
- Boat Launch
- Campsite
- Great Pond (rated as Outstanding (O) or Significant (S)) Scenic Rivers and Streams
- ITS (Interconnected Trail System)
- Major Road
- Scenic Byway

PROJECT LOCATION

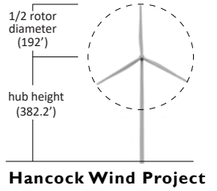
TURBINES



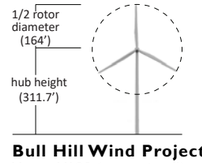
Downeast Wind Project
Vestas V150 (proposed)



Weaver Wind Project
Vestas V126 (permitted)



Hancock Wind Project
Vestas V117 (operational)



Bull Hill Wind Project
Vestas V100 (operational)

NOTES

- Downeast Wind Project turbine layout dated November 11, 2019
- World Street Map, January 2018
- Interconnected Trail System (ITS) from Northern Geomantics dated 2018
- Conservation Land, townships, county boundaries, boat launches, and roads from ME OGIS
- Structures on National Register of Historic Places from National Park Service

NORTH

0 2 4 6
MILES

APEX CLEAN ENERGY

tjd&a

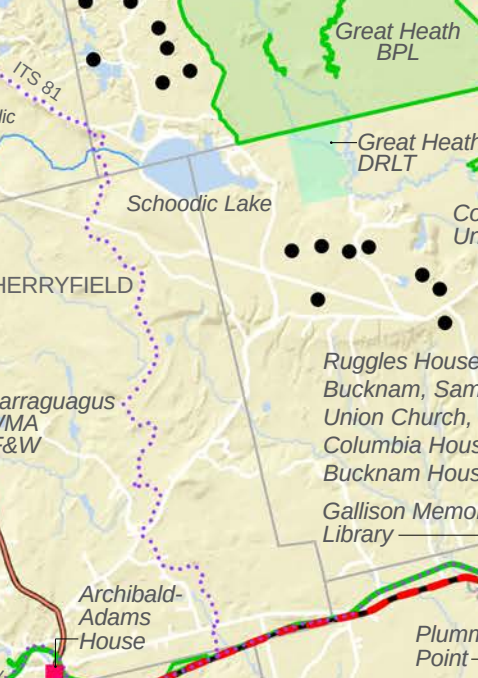
Appendix _
December 13, 2019

DOWNEAST WIND PROJECT

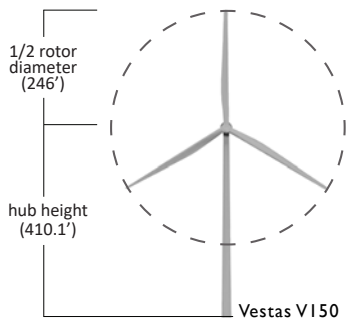
MAP 2 • PROJECT STUDY AREA

LEGEND

- Downeast Wind Turbine (proposed)
- Township
- County Boundary
- Conservation Land-Public
  - WMA (Wildlife Management Area)
  - BPL (Bureau of Parks and Lands)
  - IF&W (Inland Fisheries and Wildlife)
- Conservation Land-Private
  - DRLT (Downeast Rivers Land Trust)
  - TNC (The Nature Conservancy)
  - MASC (Maine Atlantic Salmon Commission)
- Scenic Byway
- Structure on National Register of Historic Places
- Boat Launch
- Campsite
- Great Pond (rated as Outstanding (O) or Significant (S)) Scenic Rivers and Streams
- ITS (Interconnected Trail System)
- Major Road



TURBINE



NORTH

0 1 2 3 MILES

APEX CLEAN ENERGY

tjd&a

December 13, 2019

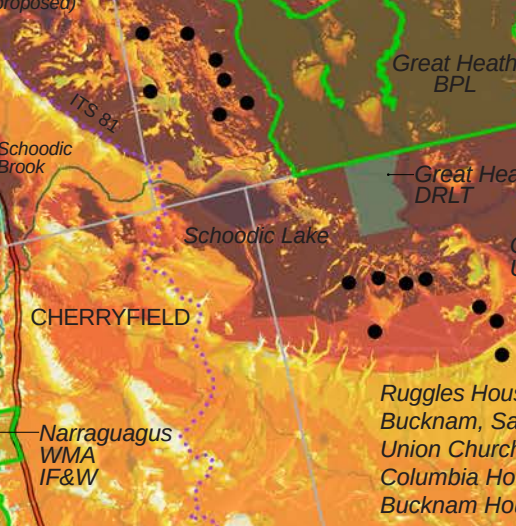
DOWNEAST WIND PROJECT

MAP 3 • TOPOGRAPHY VIEWSHED FOR BLADES

LEGEND

- Downeast Wind Turbine (proposed)
- Township
- County Boundary
- Conservation Land-Public
  - WMA (Wildlife Management Area)
  - BPL (Bureau of Parks and Lands)
  - IF&W (Inland Fisheries and Wildlife)
- Conservation Land-Private
  - DRLT (Downeast Rivers Land Trust)
  - TNC (The Nature Conservancy)
  - MASC (Maine Atlantic Salmon Commission)
- Scenic Byway
- Structure on National Register of Historic Places
- Boat Launch
- Campsite
- Great Pond (rated as Outstanding (O) or Significant (S)) Scenic Rivers and Streams
- ITS (Interconnected Trail System)
- Major Road

TURBINE



TURBINE VISIBILITY

- 1-6 Turbines Visible
- 7-12 Turbines Visible
- 13-18 Turbines Visible
- 19-24 Turbines Visible
- 25-30 Turbines Visible
- 31-40 Turbines Visible

NORTH

0 1 2 3 MILES

VIEWSHED NOTES

Map shows potential areas of visibility for turbine blade tips, relying on the screening effects of topography alone (without accounting for vegetation and structures such as buildings).

The analysis is based on a Digital Terrain Model (DTM) processed at 10-foot resolution from first return Lidar point cloud data acquired from the USGS National Map. The viewer height is set at 3 feet above ground level elevation.

The viewshed represents where a viewer may see at least one turbine blade tip of any turbine (Downeast Wind Project only) within 8 miles.

Potential turbine visibility needs to be confirmed with field investigations and other visualization techniques.

APEX CLEAN ENERGY

tjd&a

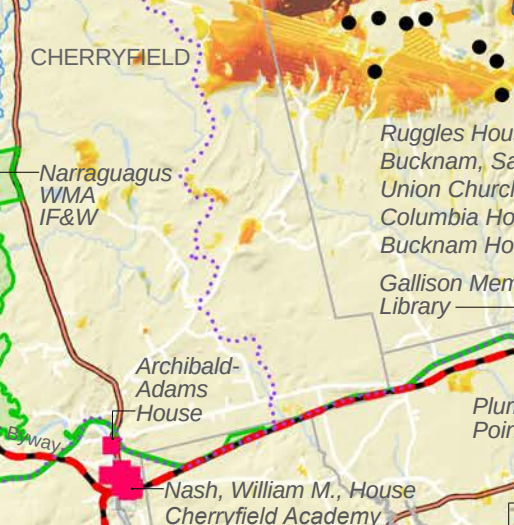
DOWNEAST WIND PROJECT

MAP 4 • LANDCOVER VIEWSHED FOR BLADES

LEGEND

- Downeast Wind Turbine (proposed)
- Township
- County Boundary
- Conservation Land-Public
  - WMA (Wildlife Management Area)
  - BPL (Bureau of Parks and Lands)
  - IF&W (Inland Fisheries and Wildlife)
- Conservation Land-Private
  - DRLT (Downeast Rivers Land Trust)
  - TNC (The Nature Conservancy)
  - MASC (Maine Atlantic Salmon Commission)
- Scenic Byway
- Structure on National Register of Historic Places
- Boat Launch
- Campsite
- Great Pond (rated as Outstanding (O) or Significant (S))
- Scenic Rivers and Streams
- ITS (Interconnected Trail System)
- Major Road

TURBINE



TURBINE VISIBILITY

- 1-6 Turbines Visible
- 7-12 Turbines Visible
- 13-18 Turbines Visible
- 19-24 Turbines Visible
- 25-30 Turbines Visible
- 31-40 Turbines Visible

VIEWSHED NOTES

Map shows potential areas of visibility for turbine blade tips, The analysis relies on the screening effects of both topography and surface data (accounting for vegetation and structures such as buildings).

The analysis is based on a Digital Surface Model (DSM) processed at 10-foot resolution from first return Lidar point cloud data acquired from the USGS National Map. The viewer height is set at 3 feet above ground level elevation.

The viewshed represents where a viewer may see at least one turbine blade tip of any turbine (Downeast Wind Project only) within 8 miles.

Potential turbine visibility needs to be confirmed with field investigations and other visualization techniques.

NORTH

0 1 2 3

MILES

APEX CLEAN ENERGY

tjd&a

December 13, 2019

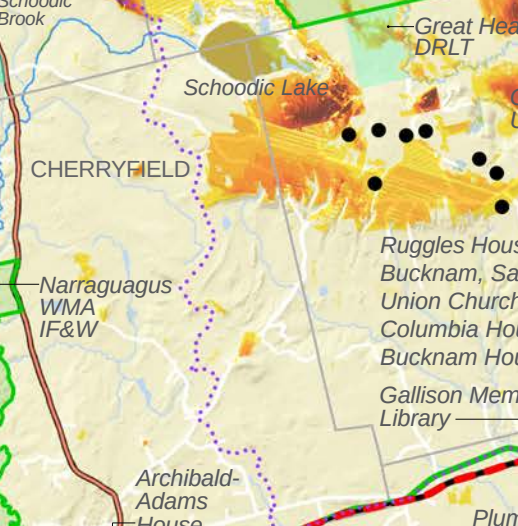
DOWNEAST WIND PROJECT

MAP 5 • LANDCOVER VIEWSHED FOR NACELLES

LEGEND

- Downeast Wind Turbine (proposed)
- Township
- County Boundary
- Conservation Land-Public
  - WMA (Wildlife Management Area)
  - BPL (Bureau of Parks and Lands)
  - IF&W (Inland Fisheries and Wildlife)
- Conservation Land-Private
  - DRLT (Downeast Rivers Land Trust)
  - TNC (The Nature Conservancy)
  - MASC (Maine Atlantic Salmon Commission)
- Scenic Byway
- Structure on National Register of Historic Places
- Boat Launch
- Campsite
- Great Pond (rated as Outstanding (O) or Significant (S))
- Scenic Rivers and Streams
- ITS (Interconnected Trail System)
- Major Road

TURBINE



TURBINE VISIBILITY

- 1-6 Turbines Visible
- 7-12 Turbines Visible
- 13-18 Turbines Visible
- 19-24 Turbines Visible
- 25-30 Turbines Visible
- 31-40 Turbines Visible

VIEWSHED NOTES

Map shows potential areas of visibility for turbine nacelles, The analysis relies on the screening effects of both topography and surface data (accounting for vegetation and structures such as buildings).

The analysis is based on a Digital Surface Model (DSM) processed at 10-foot resolution from first return Lidar point cloud data acquired from the USGS National Map. The viewer height is set at 3 feet above ground level elevation.

The viewshed represents where a viewer may see a nacelle of any turbine (Downeast Wind Project only) within 8 miles.

Potential turbine visibility needs to be confirmed with field investigations and other visualization techniques.

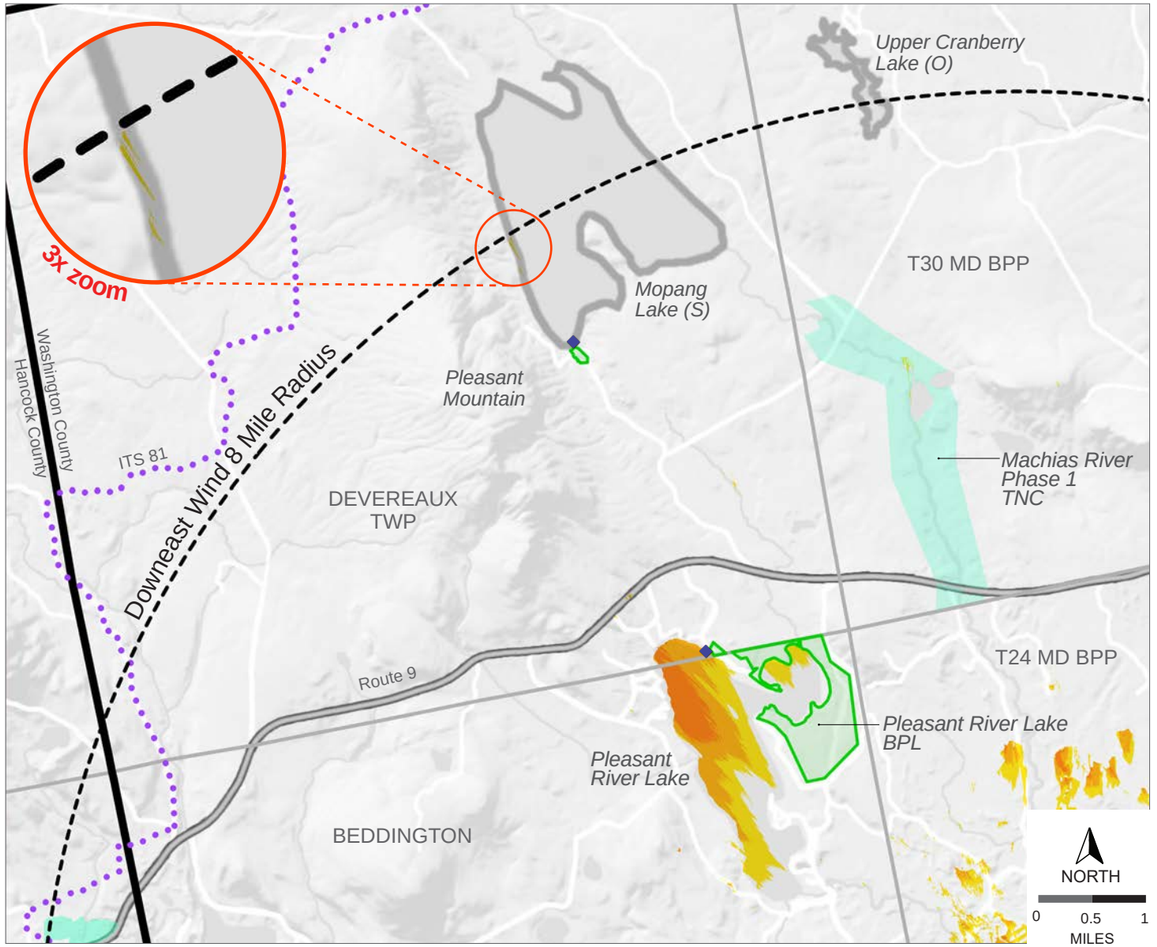
NORTH

0 1 2 3 MILES

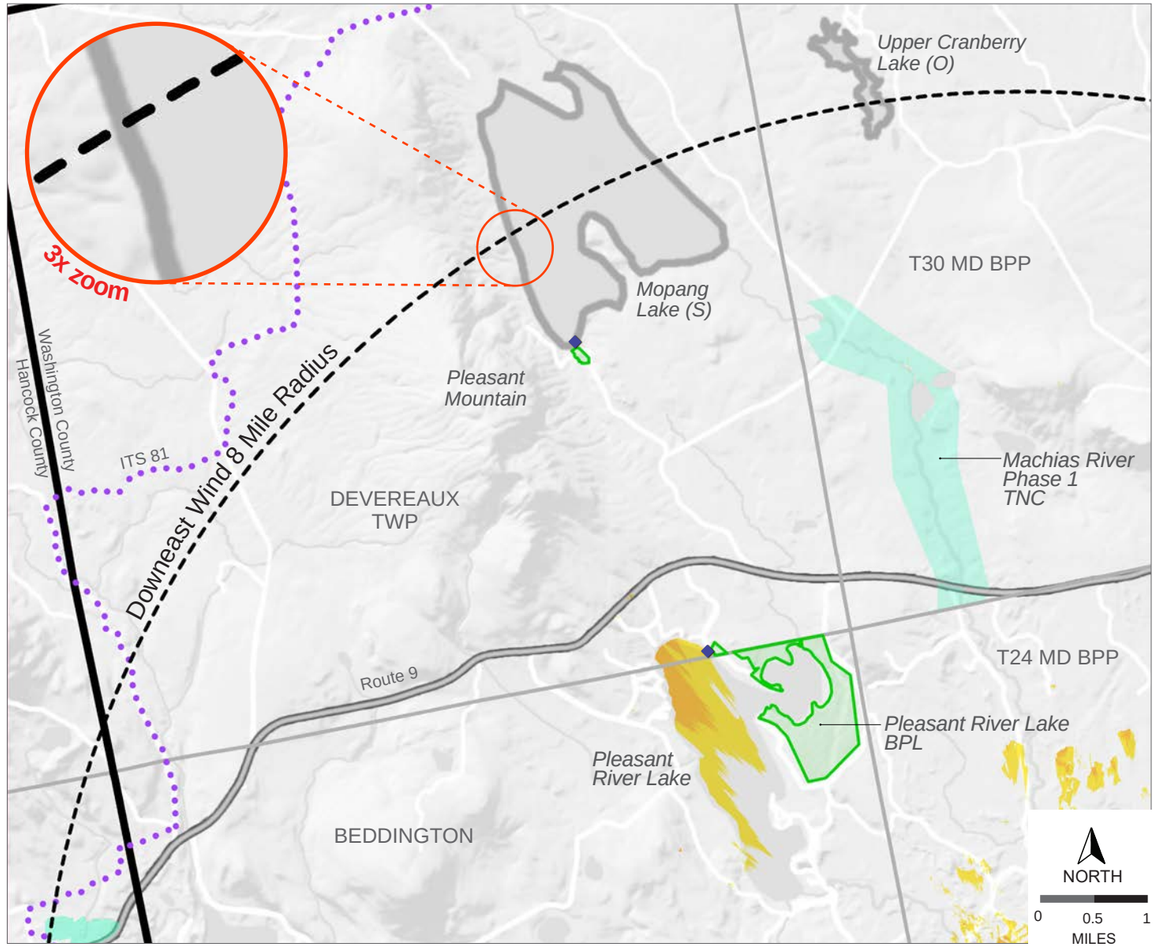
APEX CLEAN ENERGY

tjd&a

December 13, 2019



MAP 6A • LANDCOVER VIEWSHED FOR BLADES



MAP 6B • LANDCOVER VIEWSHED FOR NACELLES

TURBINE VISIBILITY

- 1-6 Turbines Visible
- 7-12 Turbines Visible
- 13-18 Turbines Visible
- 19-24 Turbines Visible
- 25-30 Turbines Visible
- 31-40 Turbines Visible

TURBINE VISIBILITY

Map shows potential areas of visibility for turbine blade tips, The analysis relies on the screening effects of both topography and surface data (accounting for vegetation and structures such as buildings).

The analysis is based on a Digital Surface Model (DSM) processed at 10-foot resolution from first return Lidar point cloud data acquired from the USGS National Map. The viewer height is set at 3 feet above ground level elevation.

The viewshed represents where a viewer may see at least one turbine blade tip of any turbine (Downeast Wind Project only) within 8 miles.

Potential turbine visibility needs to be confirmed with field investigations and other visualization techniques.

TURBINE VISIBILITY

- 1-6 Turbines Visible
- 7-12 Turbines Visible
- 13-18 Turbines Visible
- 19-24 Turbines Visible
- 25-30 Turbines Visible
- 31-40 Turbines Visible

TURBINE VISIBILITY

Map shows potential areas of visibility for turbine nacelles, The analysis relies on the screening effects of both topography and surface data (accounting for vegetation and structures such as buildings).

The analysis is based on a Digital Surface Model (DSM) processed at 10-foot resolution from first return Lidar point cloud data acquired from the USGS National Map. The viewer height is set at 3 feet above ground level elevation.

The viewshed represents where a viewer may see at a nacelle of any turbine (Downeast Wind Project only) within 8 miles.

Potential turbine visibility needs to be confirmed with field investigations and other visualization techniques.

DOWNEAST WIND PROJECT

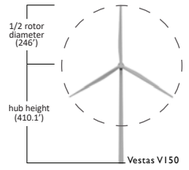
ENLARGEMENTS

LANDCOVER VIEWSHEDS FOR BLADES AND NACELLES

TURBINE

Downeast Wind Project

Vestas V150



LEGEND

- Township
- County Boundary
- Major Roads
- ITS (Interconnected Trail System)
- Conservation Land-Public
  - WMA (Wildlife Management Area
  - BPL (Bureau of Parks and Lands)
  - IF&W (Inland Fisheries and Wildlife)
- Conservation Land-Private
  - DRLT (Downeast Rivers Land Trust)
  - TNC (The Nature Conservancy)
  - MASC (Maine Atlantic Salmon Commission)
- Boat Launch
- Great Pond (rated as Outstanding (O) or Significant (S)) Scenic Rivers and Streams

APEX CLEAN ENERGY

tjd&a

MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

JANET T. MILLS
GOVERNOR

KIRK F. MOHNEY
DIRECTOR

April 3, 2020

Mr. David Price
TRC
1865 Air Lane Drive
Suite 9
Nashville, TN 37210

Project: MHPC # 1839-17 APEX; Downeast Wind Project
Architectural Survey

Town: Columbia, ME

Dear Mr. Price:

In response to your recent request, we have reviewed the information received March 26, 2020 to continue consultation on the above referenced project in accordance with Section 106 of the National Historic Preservation Act, as amended.

Our office has reviewed the scope of work dated March 26, 2020 and we concur with the scope of work outlined for the architectural survey. Please note that the maps included with the submittal do not include the National Register listed Cherryfield Historic District.

We look forward to continuing consultation on this project. Please contact Megan M. Rideout of our office if we can be of further assistance in this matter.

Sincerely,

Kirk F. Mohney
State Historic Preservation Officer

PHONE: (207) 287-2132 FAX: (207) 287-2335

From: Spiess, Arthur
To: Mack, Karen E.; Richard Will
Subject: [EXTERNAL] Archaeological Phase 1A report, Downeast Wind Project
Date: Thursday, July 23, 2020 9:31:18 AM

Hello Karen and Rick:
We concur with your Phase I Archaeological Assessment for the Downeast Wind Project (dated May 5, received June 20 with your memo dated June 16th). The predictive model you use for possible Paleoindian sites (well drained soils, breaks in slope) seems to be the optimal Paleoindian site location model for the area. We accept the list of test areas in Table 4 (Turbine areas T30, 37, 38 and 39) and road/corridor areas B, C, D, E, G and H) as the limits of what Phase IB fieldwork will be needed to find archaeological sites that may be impacted by the project. Thus, Phase IB fieldwork must be completed before we can issue further comment on project impact on archaeological sites (if any).
Please forward this email as necessary. If you wish me to put the comments on letterhead in a formal letter, please let me know.

Regards, Arthur Spiess
Senior Archaeologist
Maine Historic Preservation Commission

MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

JANET T. MILLS
GOVERNOR

KIRK F. MOHNEY
DIRECTOR

April 21, 2021

Mr. David Price
TRC
1187 Vultee Blvd
Suite 101
Nashville, TN 37217

Project: MHPC# 1839-17 APEX Downeast Wind Project
Architectural Survey

Town: Columbia, ME

Dear Mr. Price:

In response to your recent request, I have reviewed the information received April 7, 2021 to continue consultation on the above referenced project in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

Based on the information submitted, I have concluded that the proposed undertaking will have **no adverse effect** upon historic properties (architectural or archaeological), as defined by Section 106.

Please contact Megan Rideout at (207) 287-2992 or megan.m.rideout@maine.gov if we can be of further assistance in this matter.

Sincerely,

Kirk F. Mohney

Kirk F. Mohney
State Historic Preservation Officer

PHONE: (207) 287-2132

FAX: (207) 287-2335

EXHIBIT 8-3: MHPC ARCHITECTURAL SURVEY REPORT

Architectural Survey Report

Downeast Wind Project
Washington and Hancock Counties
MHPC # 1839-17

David L. Price - Senior Architectural Historian
TRC Environmental Corporation
1865 Air Lane Drive
Nashville, Tennessee 37210
dprice@trccompanies.com
615-428-4484

Prepared for:
Sponsoring agency or entity
Downeast Wind, LLC

Dates:
Provide the dates from when the project was started up through when the report was written and/or revised and submitted.
March 26, 2020 through February 24, 2021

Level:
Reconnaissance or Intensive
Reconnaissance

Name of surveyors:
(If different from author, provide contact information for each surveyor.)
David L. Price

Continuing project?
If so, please summarize previous efforts.
No

I. EXECUTIVE SUMMARY

TRC Environmental Corporation (TRC) conducted a reconnaissance-level architectural resources survey of the Downeast Wind Project (the Project) in Washington County. This survey was completed in compliance with the Maine Site Location of Development Act (06-096 CMR 375.11) and Maine Historic Preservation Commission (MHPC) guidelines for architectural surveys. TRC completed the survey to document historic and architectural resources aged 50 years or older within the Project's area of potential effects (APE), and to assess possible direct and/or indirect effects (primarily visual) on those resources listed or eligible for listing in the National Register of Historic Places (NRHP).

In consultation with the MHPC, the APE was defined as the Project area where the proposed wind turbines will be located, and any areas connected to it via viewshed within an 8.0-mile survey radius. Architectural resources located within the survey radius that have no visibility of the Project due to topography, vegetation, or modern development were excluded from the APE. TRC used a GIS-based viewshed analysis map during background research and field work to identify areas of Project visibility. Due to the ongoing COVID-19 pandemic, background research for the survey was conducted online in the MHPC's online Cultural & Architectural Resource Management Archive (CARMA). TRC and the MHPC agreed via email communication on July 2, 2020, that no in-person site file research at the agency's headquarters in Augusta was necessary. The survey was completed

during the week of July 27, 2020, under the direction of David L. Price, Senior Architectural Historian.

Background research and fieldwork revealed that all architectural resources in the APE have been surveyed and evaluated for previous wind energy project studies during the last 10 years. TRC did not identify any newly surveyed resources in the APE. TRC documented nine (9) previously surveyed resources in the APE, including four that have been found not eligible by MHPC staff (Map Resources 1-4) and five that MHPC staff found eligible for listing on the NRHP (Map Resources 6-10). The eligible resources include five of the seven stone survey markers associated with the Epping Base Line, a survey base line established in 1857 to use as a reference point for the geographical survey of Maine. The Project location and surveyed resource locations are shown on the attached maps in Figures 1 and 2 and the attached survey matrix provides a summary of the surveyed resources.

The proposed wind energy Project will not result in the demolition or alteration of any NRHP-listed or eligible properties, and therefore TRC recommends that it will have no direct effects on historic resources. TRC finds the Project will result in the construction of seven wind turbines that will be visible from the Epping Base Line, as shown in Figures 1 and 2. Following consultation with the MHPC on the nature of this resource and potential indirect effects, TRC finds the visibility of the turbines will have No Adverse Effect on the Epping Base Line's historic setting or any of the other characteristics that make it eligible for listing in the NRHP. Aside from the Epping Base Line, there are no other NRHP eligible properties with visibility of the proposed Project. As a result, TRC recommends the proposed Project will have No Adverse Effect on historic resources and no additional architectural studies are required for the Project as it is currently designed.

II. RESEARCH DESIGN AND BACKGROUND RESEARCH

A. Basis:

Describe the purpose of this survey. Identify the Federal or State regulations mandating this survey, or any Programmatic Agreements associated with this project.

The purpose of the architectural survey was to document and evaluate the NRHP eligibility of architectural resources in the Project APE, and to assess the Project's direct and indirect effects on historic resources. This survey was completed in compliance with the Maine Site Location of Development Act (06-096 CMR 375.11) and MHPC guidelines for architectural surveys, including those contained in the MHPC's "Above Ground Cultural Resources Manual, Guidelines for Identification: Architecture and Cultural Landscapes – Federal and State Regulatory Project Review Specific."

B. Project Description / Scope of Work:

Describe the underlying project, specifically citing the type of project and duration of project. Summarize planned or anticipated alterations to landscapes, buildings, structures, districts, objects or sites.

The Downeast Wind Project is an approximately 126-megawatt (MW) grid-scale wind energy facility in Township 24, Middle Division, Binghams Penobscot Purchase (T24 MD BPP) and Township 18, Middle Division, Binghams Penobscot Purchase (T18 MD BPP), and in the town of Columbia in Washington County, Maine (Figure 1). The Project consists of 30 Vestas V150 4.2 megawatt turbines (with three spare locations) with hub heights of 125 meters, rotor diameter of 150 meters, with a direct tap line into a 115-

kilovolt (kV) line running through the Project area. The proposed turbines are roughly divided into three clusters; a cluster of turbines in the Thousand Hills area north of Schoodic Lake; and a cluster to the north of Baseline Road in the town of Columbia. The Project also includes 3 existing temporary meteorological towers, a collector substation, an Operations and Maintenance building (O&M), underground electrical collection lines, access roads, and temporary laydown areas. There is no new transmission line associated with the Project since the Project substation will connect to an adjacent existing 115kV electric transmission line. The O&M building will be located along Route 1 in the town of Columbia. In addition, the Project includes new bridges and improvements to existing access roads and culverts.

C. Area of Potential Effect:

1. On a USGS topographic map draw the outermost boundary of the area of potential effect in red. Label this line "Project APE". If necessary, additional topographic maps or overlays may be submitted showing the limits of each specific APE if more than one potential effect is present within the project area.

2. List all the potential effects associated with the above cited scope of work. Distinguish between direct and indirect effects when applicable.

TRC assessed both direct (physical) and indirect (in this case, visual) effects from the Project on surveyed NRHP-listed and eligible historic resources. There are no audible effects anticipated from the Project. Potential direct effects could be caused by alteration or removal of a property from its physical location. Indirect effects could be caused by a change in the character of a property's use or of physical features within the property's setting that contribute to its historical significance, and/or the introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features that contribute to its eligibility for listing in the NRHP.

3. Provide a narrative of how the geographical limit of each potential effect within the project area was established.

In consultation with the MHPC, the direct APE for the Project was defined as the locations of the proposed wind turbines, as shown in Figure 1. The indirect APE includes any areas connected to the Project turbines via viewshed within an 8.0-mile survey radius. Architectural resources located within the survey radius that have no visibility of the Project due to topography, vegetation, or modern development were excluded from the indirect APE. TRC used a GIS-based viewshed analysis map prepared for the Project during background research and field work to identify areas of Project visibility (Figures 1 and 2).

D. Survey Boundaries:

1. Draw the boundaries of the survey on the topographic map in blue or black and label this line "Survey Boundaries." The boundaries of a survey map include portions of a property that lie outside the APE.

2. Describe the limits of the surveyed area. The survey boundary may be larger then the APE. Make reference to geographic landmarks, addresses or political boundaries. Utilize reasonable demarcations – tree lines, back lots.

The survey area for the Project corresponds with the 8.0-mile survey radius and is shown on the USGS map that accompanies this report in Figure 1. Within this boundary only those resources that have visibility of the Project were surveyed.

E. Survey Methodology:

1. Describe background research method.

Prior to fieldwork, TRC conducted background research to identify properties within the 8.0-mile survey radius that are listed or eligible for listing in the NRHP or have been recorded in the MHPC's online CARMA database. TRC

began research in the online National Register Information System (NRIS), an online database maintained by the National Park Service (NPS). Following the NRIS search, TRC conducted research in the online CARMA database and worked with the MHPC's National Register and Survey Coordinator to locate associated survey reports. TRC made copies of the MHPC survey forms and reports for the previously-surveyed resources and these were taken into the field to assess the resources' current conditions.

2. Describe field research method.

The reconnaissance-level survey was designed to identify all above ground historic properties, including districts, buildings, structures, objects, and sites within the Project APE that are listed or eligible for listing in the NRHP. The survey was conducted in accordance with the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation, as amended (48 FR 44716); the MHPC's Above Ground Cultural Resources Survey Manual, Guidelines for Identification: Architecture and Cultural Landscapes, Federal and State Regulatory Project Review Specific (MHPC 2013); the NPS's National Register Bulletin No. 24, Guidelines for Local Survey: A Basis for Preservation Planning (NPS 1985); and the NPS's National Register Bulletin No. 15, How to Apply the National Register Criteria for Evaluation (NPS 1997).

TRC conducted the architectural survey during the week of July 27, 2020. Using the results of background research and the viewshed analysis mapping, TRC drove all accessible public roads in the APE and surveyed properties aged 50 years or older that have visibility of the Project or were included in previous surveys. During the course of the survey, TRC confirmed that the areas of visibility and non-visibility illustrated on the viewshed assessment map were accurate. TRC also found that all architectural resources in the visual APE have been previously surveyed and are documented in CARMA with NRHP eligibility evaluations completed by MHPC staff within the past 10 years. No newly surveyed resources were found in the APE. Data regarding the current condition of each previously surveyed resource were recorded and the information on the previously completed survey inventory forms was verified.

3. Did you undertake a file search at MHPC for NR or previously recorded properties?

Due to the ongoing COVID-19 pandemic, background research for the survey was conducted online in the MHPC's CARMA database, and via phone and with the MHPC National Register and Survey Coordinator, Michael Goebel-Bain. In an email dated July 23, 2020, Mr. Goebel-Bain confirmed that no in-person site file research at the agency's headquarters in Augusta was necessary.

III. SURVEY FINDINGS

A. Acres:

Provide the total number of acres within the survey boundaries.

The entire 8.0-mile survey radius boundary contains 274,082 acres.

B. Setting:

Provide a general overview of the setting, including topography, development, and landscape.

The Project is located in the Downeast region of coastal Maine in T24 MD BPP, T18 MD BPP, and the town of Columbia in Washington County. Towns in the surrounding 8.0-mile survey radius include Beddington, Deblois, Cherryfield, Harrington, Columbia Falls, Milbridge, and Addison. The area is characterized by its sparsely-populated rural landscape with large expanses of dense forest, rivers, lakes, and a rolling topography. The Project's proposed wind turbines are divided into three clusters located on hilltops and ridges in the blueberry barrens of Washington County, which feature large rolling plains of sandy soil created by glacial deposits. Today, the barrens are privately owned and operated as large farms growing wild lowbush variety blueberries. The farm parcels contain occasional small modern storage buildings and are divided by forested areas and rows of trees planted as windbreaks. The farms are accessed via gravel roads such as Cherryfield Ridge Road and Schoodic Road north of Cherryfield. Photographs of the barrens and Project setting are shown in Figures 3-6.

Another significant natural feature adjacent to the barrens is the Great Heath, an approximately 7,000-acre peatland located on both sides of the Pleasant River that drains the area. The Great Heath and Pleasant River divide the northern and southern sections of the Project. Other natural water bodies in the area include Schoodic Lake and Montegail Pond.

Residential and small-town development in the area is concentrated in the south of the 8.0-mile survey radius along Route 1 in the small towns of Cherryfield, Harrington, and Columbia Falls. State Route 193 runs between Cherryfield and Beddington on the west side of the area.

C. Number of Resources Recorded:

Count each individually recorded building, structure, object, or site. Do not include continuation sheets in this count.

TRC identified nine previously surveyed resources within the Project APE, including three blueberry fields (Map Resources 1-3), one military flight strip (Map Resource 4), and five Epping Base Line boundary markers (Map Resources 5-9). TRC did not record any newly surveyed resources in the APE.

D. Previously Inventoried Properties:

Address whether any of the resources had been previously surveyed. If so, how many, and how were these properties represented and evaluated within the current project?

The results of the background research and viewshed analysis showed that the nine previously surveyed resources were recorded in CARMA and reviewed by the MHPC for the Bull Hill Wind Project (MHPC #1112-09), the Hancock Wind Project (MHPC # 1721-12), and an in-house MHPC investigation of the Epping Base Line (MHPC # M15590). All of these previously inventoried properties have been evaluated for NRHP eligibility by MHPC staff. TRC visited each of these resources to assess their current conditions and compare them to the existing survey data in CARMA. TRC found no change in the surveyed properties since they were last entered into CARMA. Only one of the Epping Base Line milestone markers (Milestone 5) was located in the field and a new photograph of it was uploaded into CARMA. The remaining six milestone markers could not be located in the field and may not be extant.

E. Types of Properties:

1. Summarize general trends within the project area: commercial, residential, urban, rural, etc.

The area within the 8.0-mile survey radius is sparsely settled and rural. All of the small towns in the southern part of the survey radius are approximately four to six miles away from the nearest proposed wind turbines and are outside of the visual APE due to intervening topography and vegetation. The one developed area that is adjacent to the Project area and within the APE is Schoodic Lake, which contains small, lakefront cottages and recreational camps along narrow private drives that were not accessible from the public right-of-way during survey. The few cottages that were partially visible indicate they are of recent construction and made with modern materials.

2. Summarize the age, style, and condition of the resources within the project area.

Areas within the survey radius to the west, east, and north of the Project are rural and agricultural with large undeveloped areas of wilderness and heath. Blueberry cultivation is a major land use but there are no associated farm buildings or processing facilities located within the visual APE. Previously surveyed properties identified in the survey include blueberry fields, a 1942 military flight strip, and stone markers associated with the 1857 Epping Base Line.

3. Describe in detail any eligible individual properties or historic districts.

Epping Base Line

The Epping Base Line is a 5.4-mile long, perfectly straight line established between 1853 and 1857 on an area known as Pineo Ridge just west of the community of Columbia. Located along what is now called Baseline Road, the line featured a series of seven stone base markers placed in 1857, including East and West Base markers at either end. The field survey for Downeast Wind located remnants of Milestone 5, which is composed of a squared stone base with a copper plug in the middle. Field photographs of Milestone 5 are provided in Figures 7-8. The remaining six base markers could not be located in the field and appear to be non-extant due to road maintenance and widening activities.

The East Base marker originally had a 4.5-foot tall marble obelisk that was removed to the Cherryfield-Narraguagus Historical Society according to information on file at the MHPC. Baseline Road was created by the survey crew as the line was laid out and has existed as a road since that time, with certain portions only accessible via four-wheel-drive vehicle. The road was shown on topographic maps throughout the twentieth century, as shown in Figures 9 and 10.

F. NR Eligibility:

1. Address resource integrity, NR criteria, area of significance and period of significance.

The Epping Base Line was one of seven survey lines used by the U.S. Coast Survey (USCS) to create benchmarks for mapping the Atlantic coast by the triangulation survey method. It is the only base line in northern New England and is the line on which all Maine surveys are based. The USCS was responsible for establishing precise basic control for the U.S. and its territories to create accurate mapping and horizontal and vertical surveys. Initial reconnaissance for the line was begun in 1853 by Charles O. Boutell and Major Henry Prince of the U.S. Army, and was taken over by Professor Alexander Dallas Bache of the USCS in 1857 (Hinson n.d.).

Due to the lack of long and straight beaches on the Maine coast to establish a survey line, the USCS survey party searched inland for an appropriate site. The area on Pineo Ridge near Epping was chosen for its relatively level ground, sandy soil, and lack of trees. The base line was used to construct a triangulation net for establishing points of known location, “the first step in preparing an accurate map of any region” (Hinson n.d.).

In the triangulation survey method, the base line must be precisely measured within 1/1000th of a foot (1/12th of an inch). Local farmers and lumbermen were hired to grade a 12-foot wide path along the proposed line, which is now known as Baseline Road. Specially designed bars of iron and brass were kept in an insulated tube that maintained a constant temperature and length. The bars were placed end to end and carried forward progressively along the line until it was complete. The east and west bases of the line were conspicuously marked with marble obelisk monuments measuring 3.28 feet high and 1.64 feet square. Over time vandals defaced and destroyed the markers, the remains of which were eventually removed to the Maine State Museum and the Cherryfield-Narraguagus Historical Society (Andres 2007).

There is no formal survey report or NRHP determination letter summarizing the Epping Base Line on file at the MHPC. Based on email communications with the MHPC National Register and Survey Coordinator, the MHPC found the base line eligible in 1995 and asked the landowner at that time for their stance on nominating it to the NRHP. Due to landowner objection the line was not nominated. MHPC files contain a variety of background history materials, correspondence, and articles about the line. Based on these materials, the MHPC considers the line eligible for listing under Criterion A with significance in the areas of engineering and transportation. The NRHP boundary is assumed to be a 12-foot wide corridor along Baseline Road from the west to east bases (Goebel-Bain 2020).

Intact features of the Epping Base Line documented for this survey include Baseline Road and Milestone 5. No other intact milestone markers were located in the field, and they appear to be non-extant. The line retains its original alignment and integrity of location, setting, feeling, and association. Due to its missing milestone markers the line has poor integrity of design, materials, and workmanship.

MHPC staff have previously reviewed each of the four remaining surveyed properties (Map Resources 1-4) in the APE within the past ten years and found them not eligible. Additional background research on these properties in available sources did not reveal associations with a historic event or series of events, nor did it reveal associations with a significant person or people. TRC agrees with the previous MHPC evaluations and recommends they are not eligible for listing in the NRHP under Criteria A or B. These resources do not embody the distinctive characteristics of types, periods, or methods of construction, nor do they represent the works of a master, or possess high artistic values. As a result, TRC recommends that they are not eligible for listing in the NRHP under Criterion C for architecture.

2. For a historic district provide a topographic map showing the limits of the proposed district illustrating street or landscape views and all non-historic or non-contributing resources.

IV. BIBLIOGRAPHY

Andres, Burni
2007 "150th Anniversary of the Epping Baseline." Available online at http://www.cherryfieldhistorical.com/2007/07/150th-anniversary-of-the-epping-baseline/; accessed October 29, 2020.

Colby, George N.
1881 Atlas of Washington County, Maine. Geo. N. Colby & Co., Houlton and Machias, ME.

Goebel-Bain, Michael
2020 Email communication with author. October 27,2020.

Hinson, Jay
n.d. "Lonely Down East Road Important to Whole State." Manuscript on file at the Maine Historic Preservation Commission."

Jones, Carey L.
2009 Bull Hill Wind Historic Architectural Reconnaissance Survey, T16 MD, Hancock County, MHPC # 1112-09. The Public Archaeology Laboratory, Inc., Pawtucket, RI.

Stuart, Quinn R.
2012 Hancock Wind Historic Architectural Reconnaissance Survey, TD16 MD BPP and T22 MD BPP, Hancock County, MHPC # 1721-12. The Public Archaeology Laboratory, Inc., Pawtucket, RI.

National Park Service (NPS)
1983 Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 Fed. Reg. 44716-42). United States Department of the Interior, Washington, D.C.

1985 National Register Bulletin No. 24, Guidelines for Local Survey: A Basis for Preservation Planning. United States Department of the Interior, Washington, D.C.

1997 National Register Bulleting No. 15, How to Apply the National Register Criteria for Evaluation. United States Department of the Interior, Washington, D.C.

V. FINDING OF EFFECTS

TRC assessed potential effects from the Project on the NRHP-eligible Epping Base Line using the Section 106 Criteria of Adverse Effect. Guidelines for this evaluation are set forth in the Advisory Council on Historic Preservation (ACHP)'s regulations at 36 CFR, Part 800. According to 36 CFR 800.5 (a)(1) an Adverse Effect occurs when an undertaking may directly or indirectly alter the characteristics of a historic property that qualify it for inclusion in the NRHP. Reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative also need to be considered. Examples of adverse effects include, but are not limited to, physical destruction or damage, alteration not consistent with the

Secretary of the Interior's Standards; relocation of a property; change of use or physical features of a property's setting; visual, atmospheric, or audible intrusions; neglect resulting in deterioration; or transfer, lease, or sale of a property out of federal ownership or control without adequate protections. A finding of No Adverse Effect occurs when the undertaking's effects do not meet the criteria listed above. Where the effect is nonexistent or negligible, a No Effect Finding occurs.

As part of this effects assessment, TRC conducted a field investigation to verify the nature of any visual effects on the Epping Base Line. The field review was important in evaluating the degree of any visual impacts to the resource and its setting, the existence of tree cover and intervening buildings that might mitigate these impacts, and establishing sight lines from the historic resource to the Project.

The proposed wind energy Project will not result in the demolition or alteration of the Epping Base Line or any other NRHP-listed or eligible properties, and therefore TRC recommends that it will have no direct effect on this historic resource.

TRC also assessed possible indirect visual effects on the resource. The Project will result in the construction of seven wind turbines north of the Epping Base Line. On the north, the distance between the proposed turbines and the line will vary from approximately 1,800 feet to 3,500 feet. As a result, the Epping Base Line will have a clear view of the proposed Project turbines. Photographic simulations looking toward the proposed wind turbines from Baseline Road and Milestone 5 (Map Resource No. 8) of the Epping Base Line are shown in Figures 11-14.

Following phone and email consultation with the MHPC on the nature of the Epping Base Line and potential indirect effects on it, TRC finds the visibility of the turbines will have No Adverse Effect on the line's historic setting or any of the other characteristics that make it eligible for listing in the NRHP. The proposed turbines would not prevent the ability of an individual or group to re-create the line in the present day, nor would the turbines impede the ability to survey distant reference points based on the line's location. Aside from the Epping Base Line, there are no other NRHP eligible properties with visibility of the proposed Project. As a result, TRC recommends the proposed Project will have No Adverse Effect on historic resources and no additional architectural studies are required for the Project as it is currently designed.

REPORT FIGURES

ARCHITECTURAL RESOURCE SURVEY
DOWNEAST WIND PROJECT
WASHINGTON COUNTY, MAINE
MHPC # 1839-17

Figure 1. Project Location Map, MHPC # 1839-17

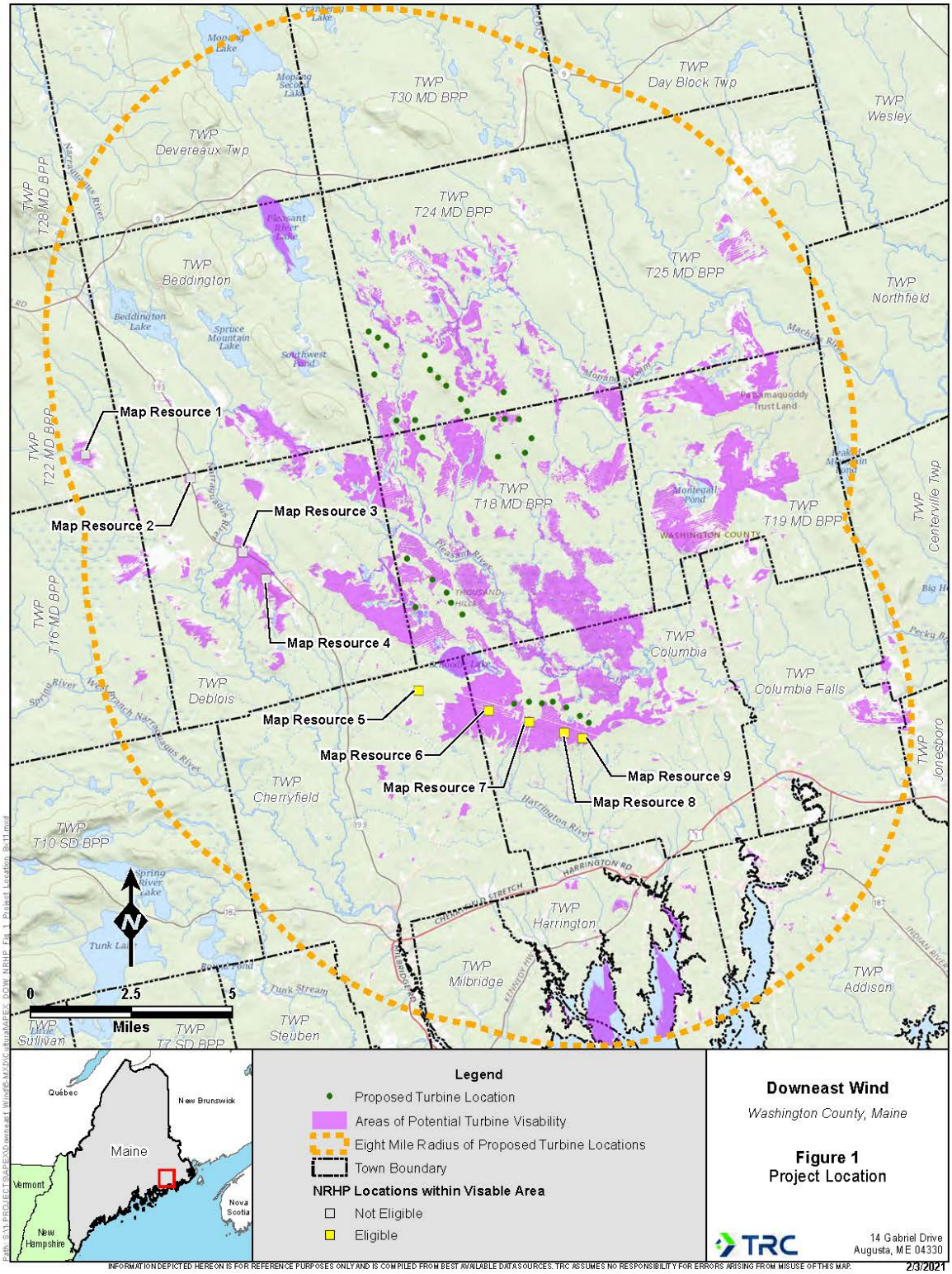


Figure 2. Project detail map (1 of 6), MHPC # 1839-17

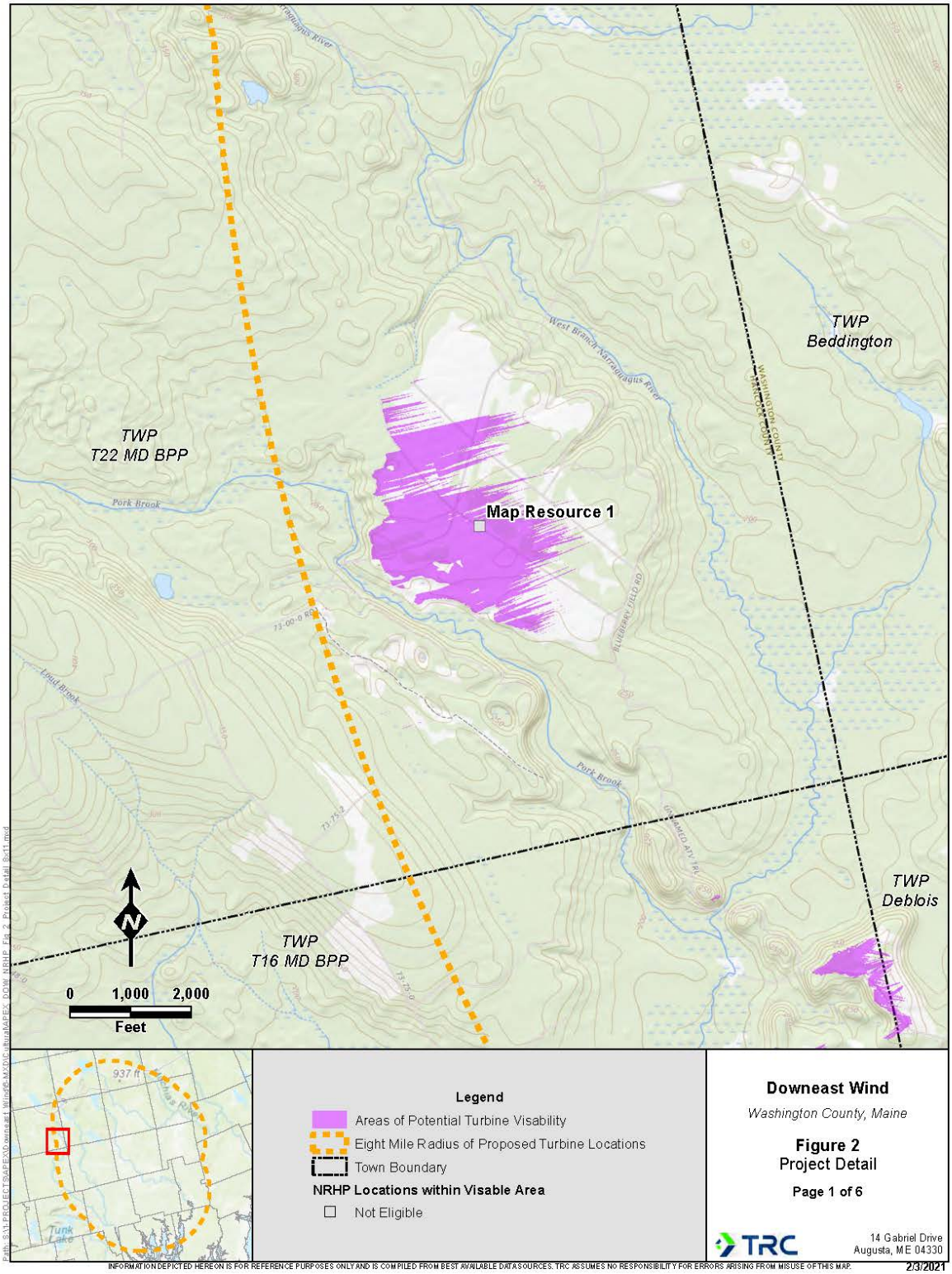


Figure 2. Project detail map (2 of 6), MHPC # 1839-17

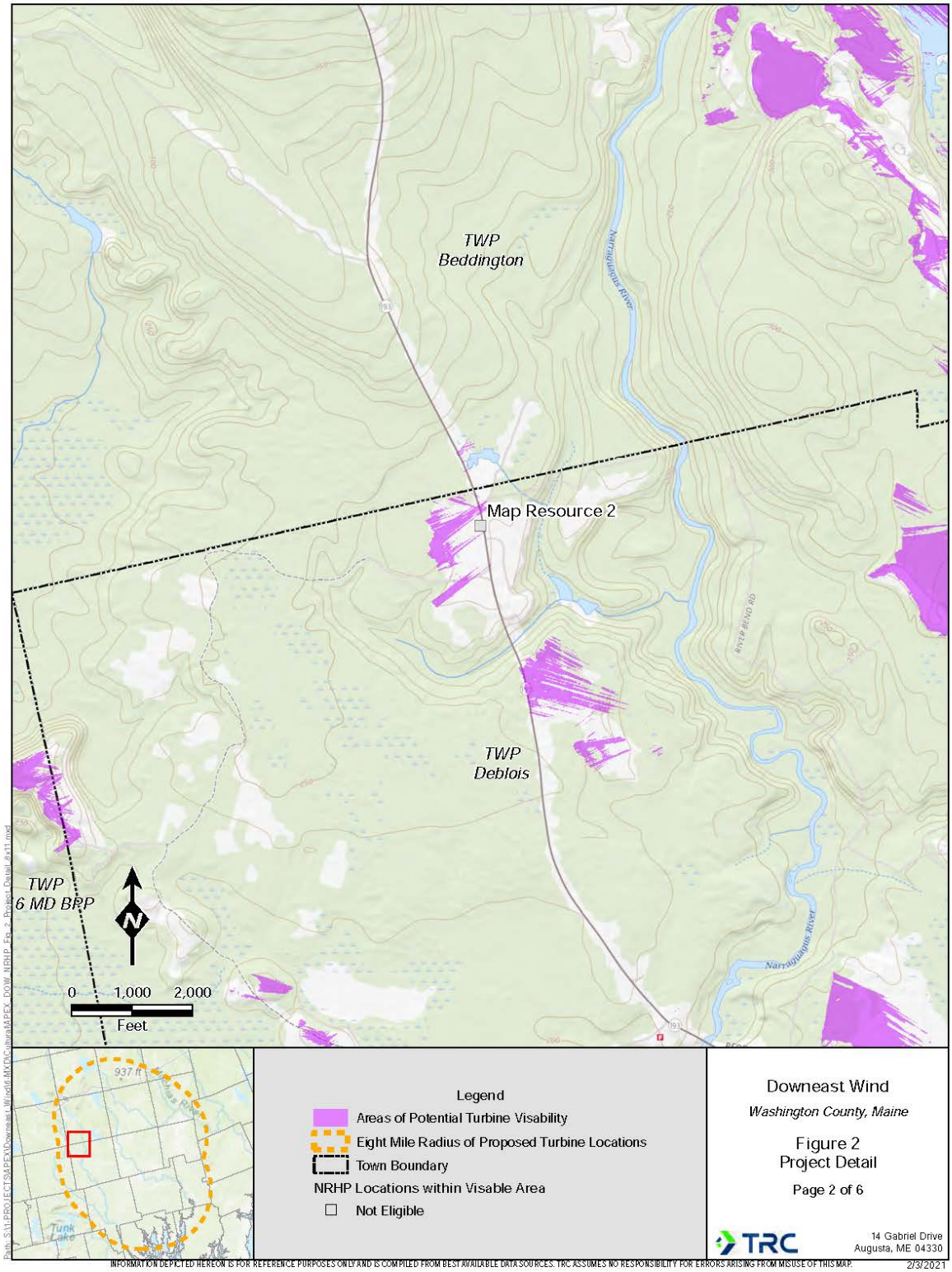


Figure 2. Project detail map (3 of 6), MHPC # 1839-17

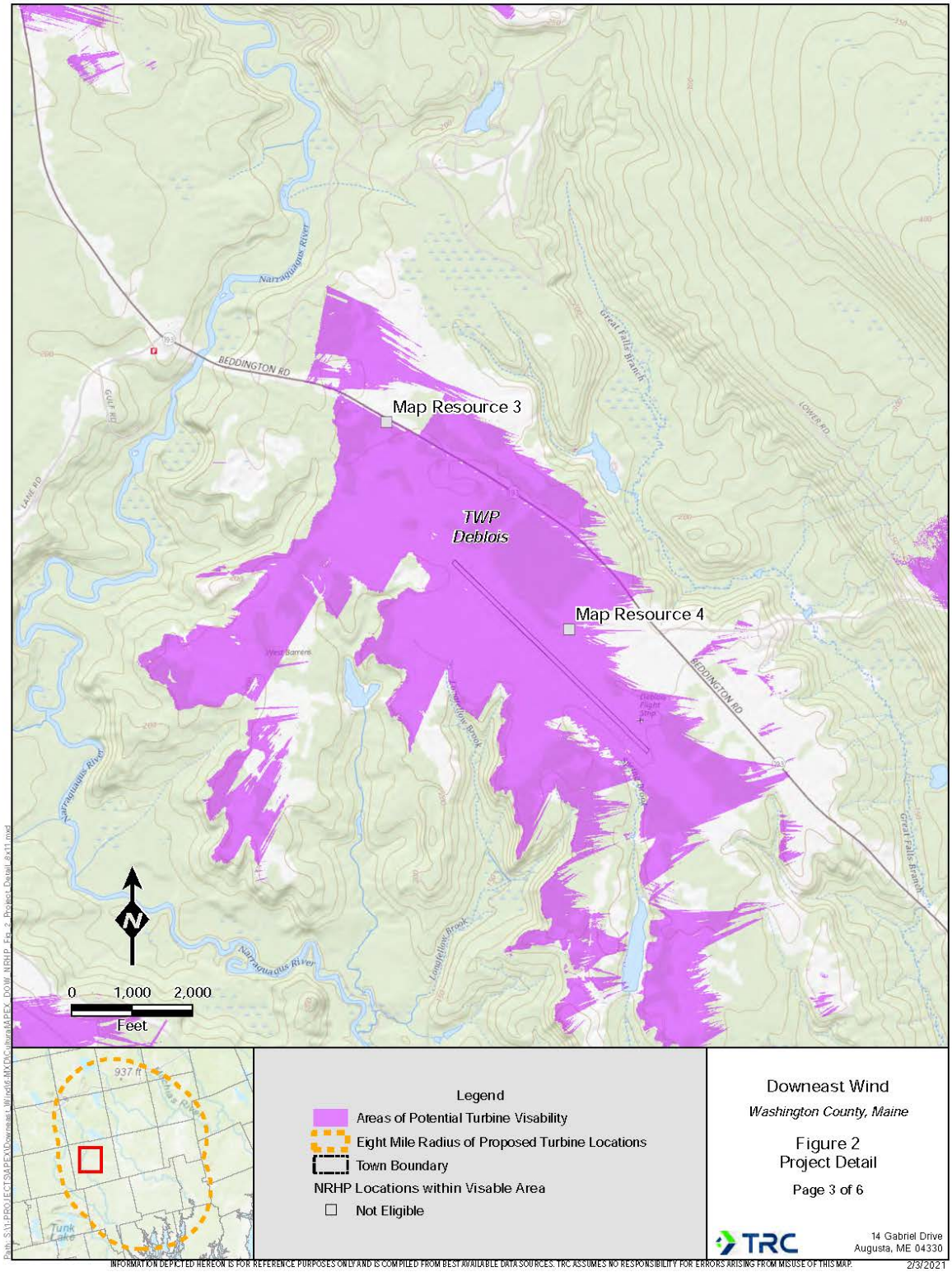


Figure 2. Project detail map (4 of 6), MHPC # 1839-17

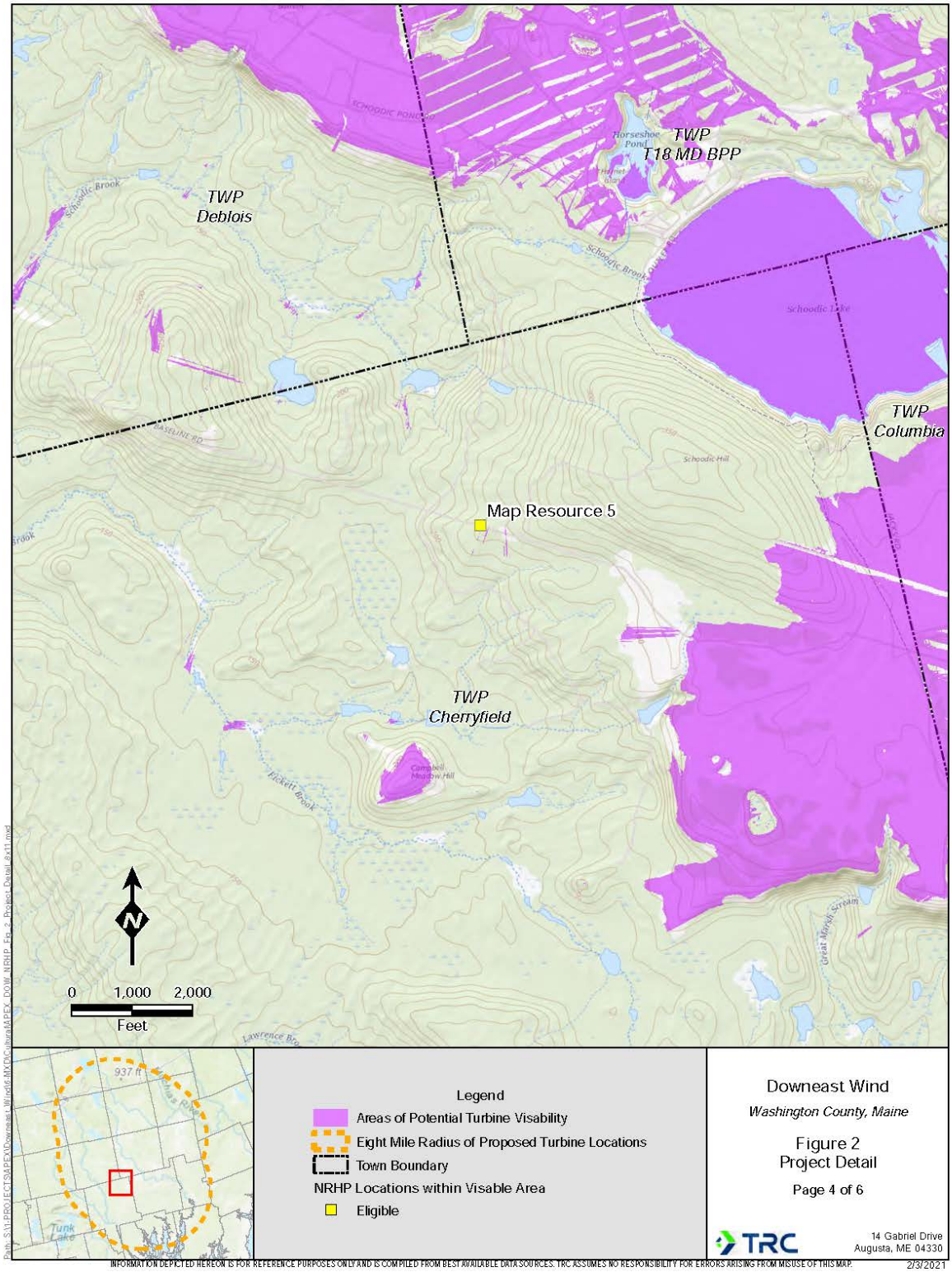


Figure 2. Project detail map (5 of 6), MHPC # 1839-17

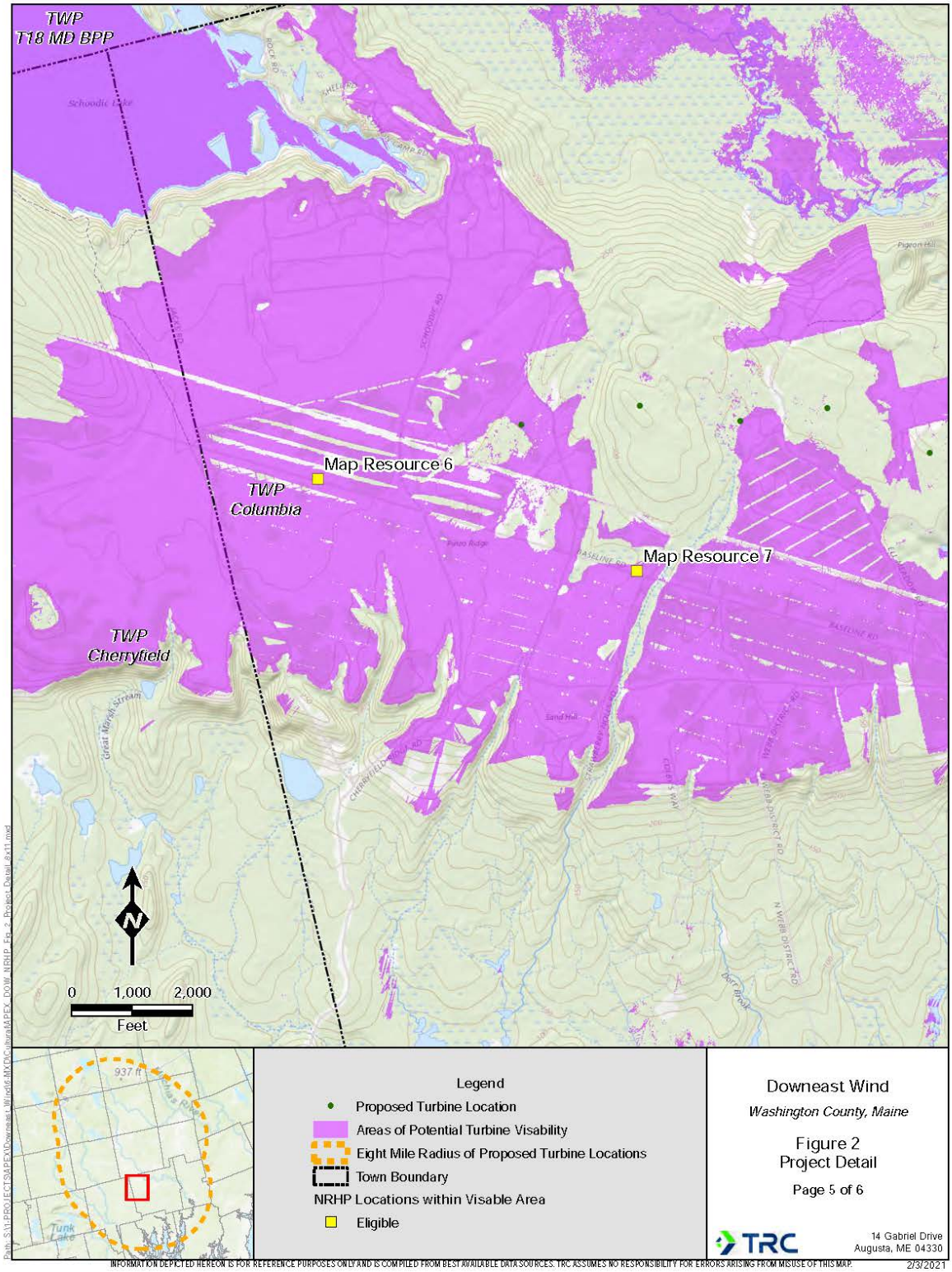


Figure 2. Project detail map (6 of 6), MHPC # 1839-17

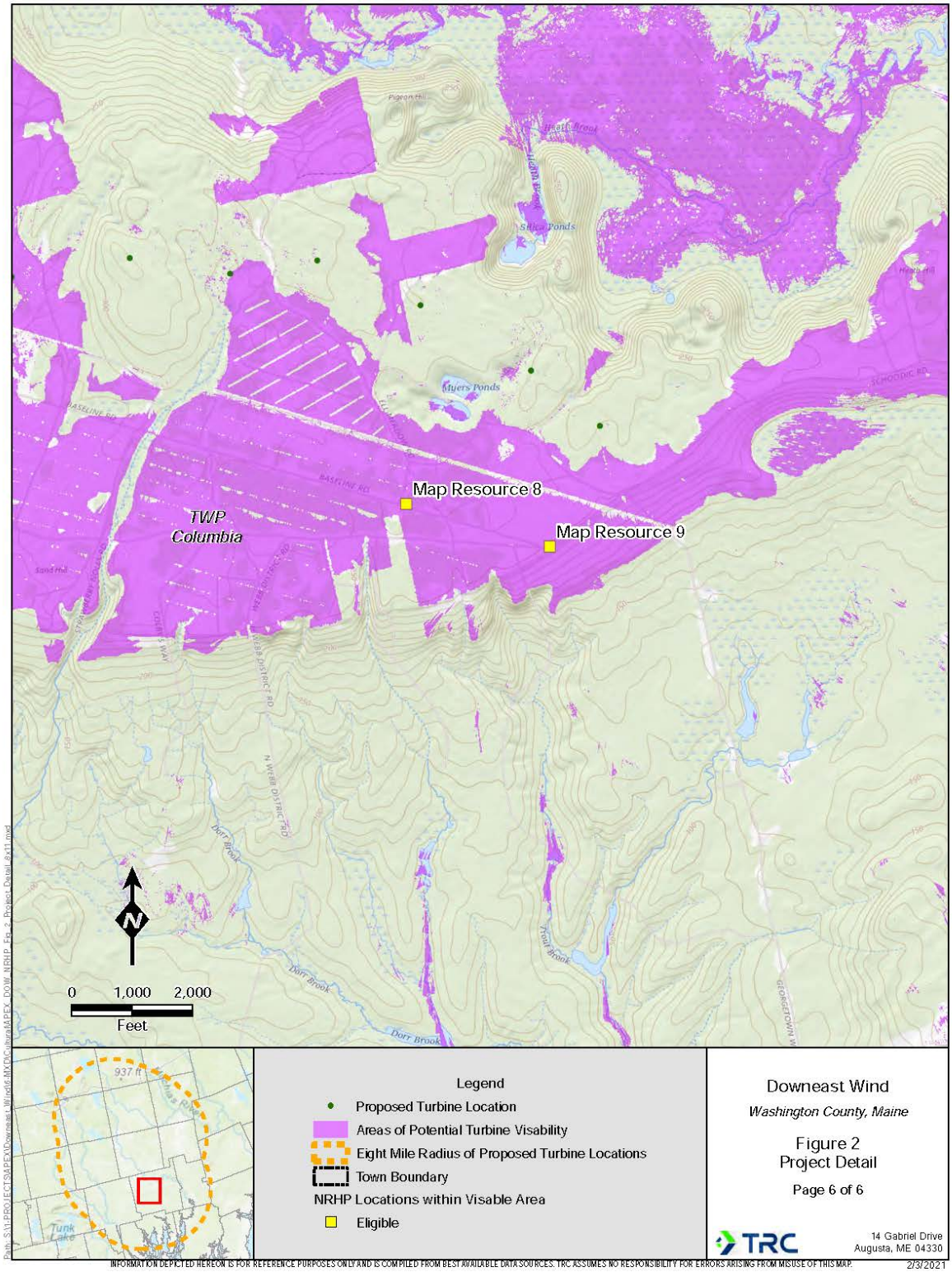


Figure 3. General view of the Blueberry Barrens from Schoodic Road, looking west.

Figure 4. General view of the Blueberry Barrens from Schoodic Road, looking southeast.

Figure 5. View of tree windbreaks between blueberry fields in the Project area, looking south along Schoodic Road.

Figure 6. Windbreaks between blueberry fields in the Project area, looking northwest along Schoodic Road.

Figure 7. Baseline Road showing Milestone 5, looking west.

Figure 8. Epping Base Line, Milestone 5, looking northwest.

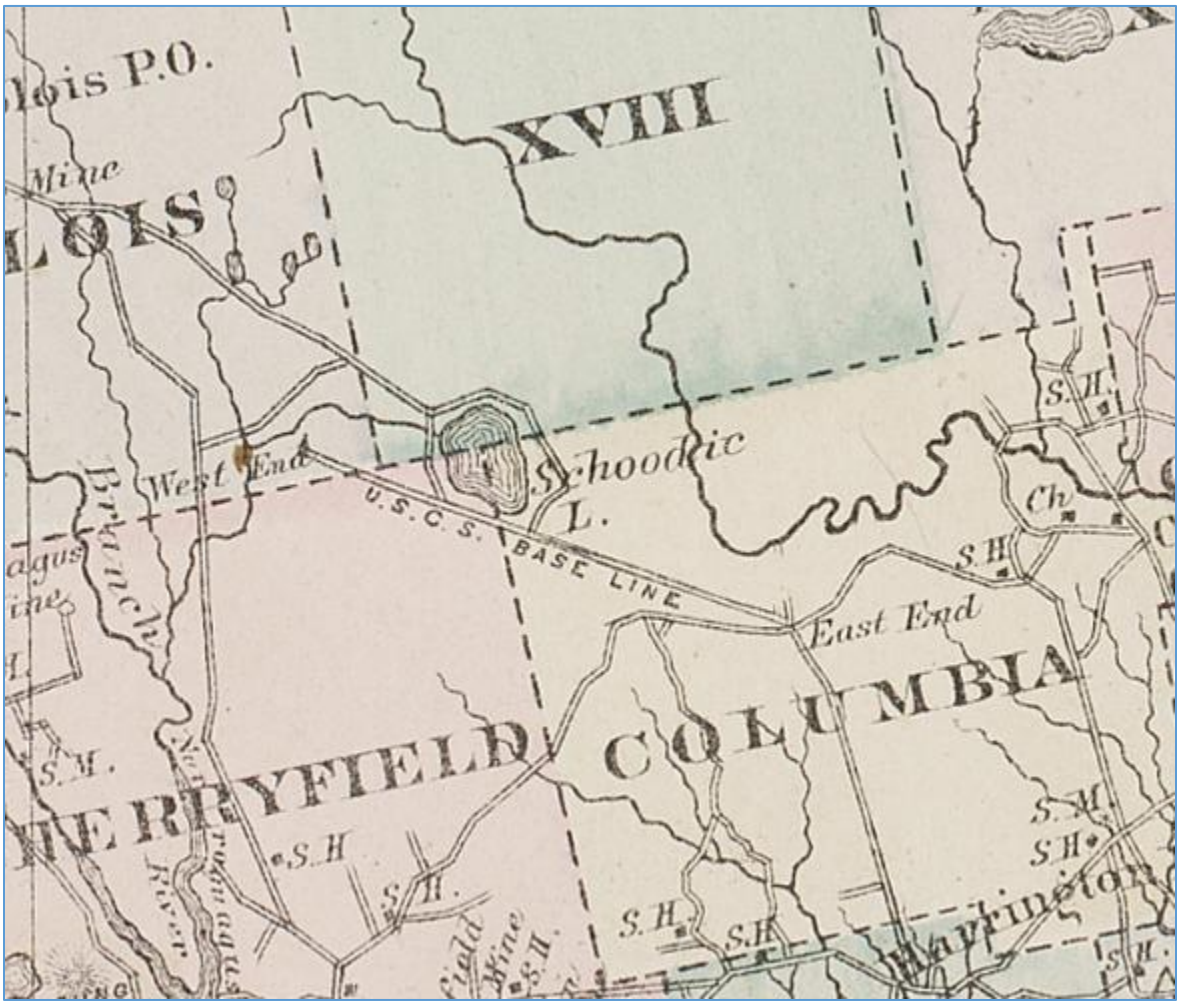


Figure 9. 1881 Atlas of Washington County, showing Epping Base Line (Source: Colby 1881).

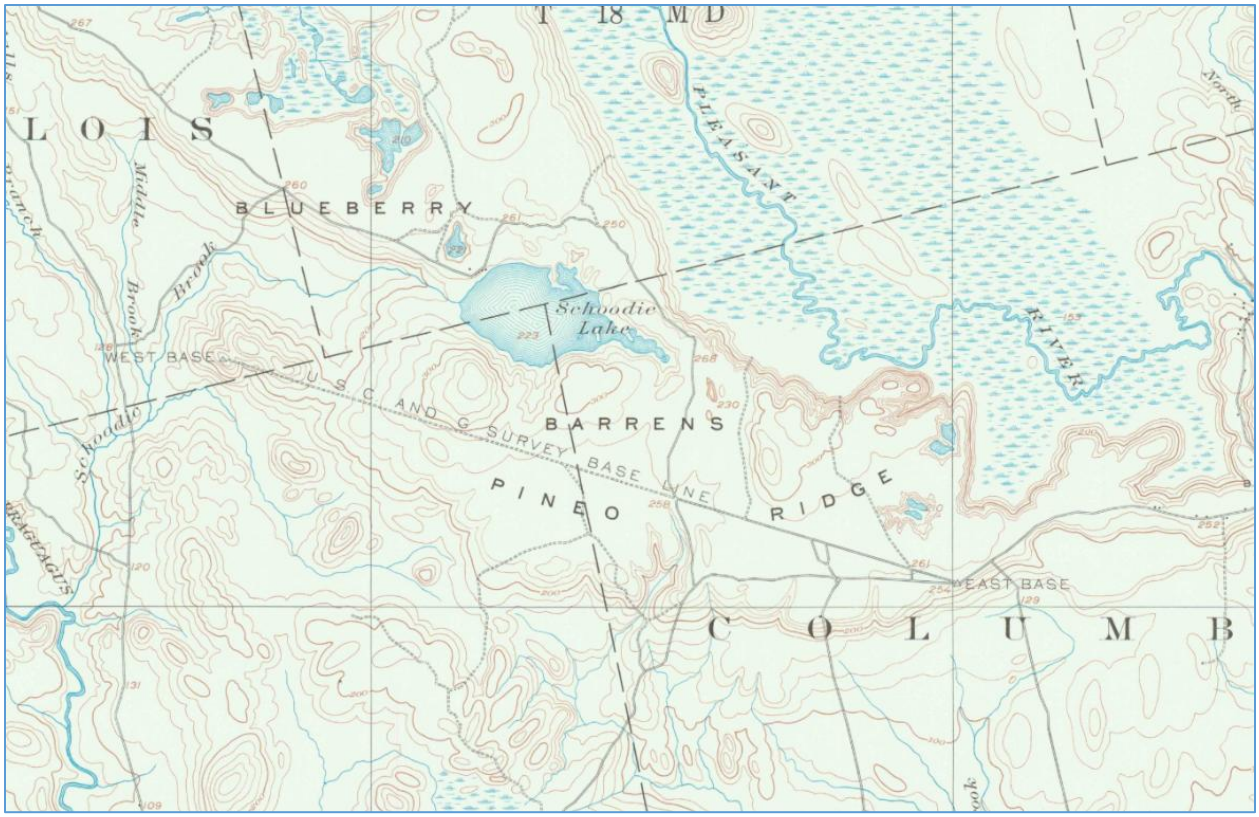


Figure 10. 1902 Cherryfield topographic quad map showing the Epping Base Line.

Figure 11. Photographic simulation showing wind turbine locations from Epping Base Line, Milestone 5 and Baseline Road, looking west.

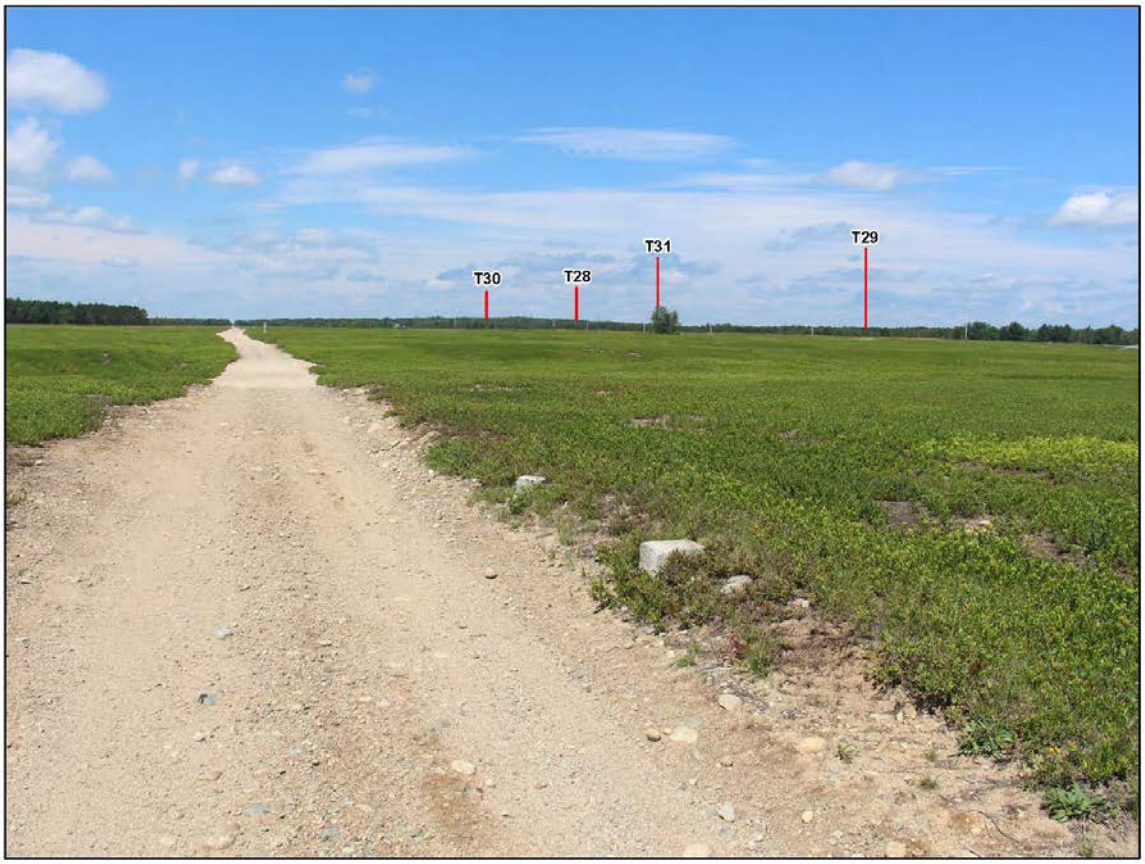


Figure 12. Photographic simulation showing wind turbine locations from Epping Base Line, Milestone 5 and Baseline Road, looking northwest.

Figure 13. Photographic simulation showing wind turbine locations from Epping Base Line, Milestone 5 and Baseline Road, looking north.

Figure 14. Photographic simulation showing wind turbine locations from Epping Base Line, Milestone 5 and Baseline Road, looking northeast.

Downeast Wind Project
Architectural Resource Survey
Washington County, Maine
MHPC # 1839-17
Prepared by TRC Environmental Corporation
David L. Price – Senior Architectural Historian and Author

SURVEY MAP #	ADDRESS/ LOCATION	TOWN	NR IND	NR DIST	CRITERIA	INTEGRITY	MHPC #	NOTES
1	West side of Route 193	T22 MD BPP	No	No	N/A	Good	37295	Blueberry field, determined Not Eligible by MHPC, 1-5-2011
2	East and West sides of Beddington Road, Route 193	Deblois	No	No	N/A	Good	62102	Wyman & Sons blueberry field, determined Not Eligible by MHPC, 2-26-2013
3	West side of Beddington Road	Deblois	No	No	N/A	Good	37165	Blueberry field, determined Not Eligible by MHPC, 1-5-2011
4	Beddington Road	Deblois	No	No	N/A	Good	37166	Deblois Flight Strip, determined Not Eligible by MHPC, 1-5-2011
5	Baseline Road	Columbia	Yes	No	Criterion A, Engineering and Transportation	Unknown	80514	Milestone 1, Epping Base Line, determined Eligible by MHPC, 5-19-1995
6	Baseline Road	Columbia	Yes	No	Criterion A, Engineering	Not extant	80513	Milestone 3,

SURVEY MAP #	ADDRESS/ LOCATION	TOWN	NR IND	NR DIST	CRITERIA	INTEGRITY	MHPC #	NOTES
					and Transportation			Epping Base Line, determined Eligible by MHPC, 5-19-1995
7	Baseline Road	Columbia	Yes	No	Criterion A, Engineering and Transportation	Not extant	80517	Milestone 4, Epping Base Line, determined Eligible by MHPC, 5-19-1995
8	Baseline Road	Columbia	Yes	No	Criterion A, Engineering and Transportation	Fair	80515	Milestone 5, Epping Base Line, determined Eligible by MHPC, 5-19-1995
9	Baseline Road	Columbia	Yes	No	Criterion A, Engineering and Transportation	Poor	80504	East Base Marker, Epping Base Line, determined Eligible by MHPC, 5-19-1995