

**Archaeological Resource Assessment of the Proposed
GMP Taftsville Substation Relocation Project,
Woodstock and Hartland, Windham County, Vermont**

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Abstract

The Northeast Archaeology Research Center, Inc. (NE ARC) has completed an archaeological resource assessment (ARA) of the proposed Green Mountain Power (GMP) Taftsville Substation Relocation Project as part of the section 248 review process. The Project is located in the towns of Woodstock and Hartland, Windham County, Vermont and involves the relocation of the existing substation approximately 0.5 miles east of its current location. The Project area includes: the location of the current substation and a portion of transmission line; a separate GMP-owned parcel which will include the location of the new substation; and the existing transmission line connecting these two locations. The connecting transmission line right-of-way (ROW) has been previously archaeologically studied with no archaeological sites identified. Therefore, the overall Project area was divided into two Study Areas, with the North Study Area corresponding to the location of the current substation and the South Study Area corresponding to the location of the new substation. Within each Study Area, a Project area of potential effect (APE) was defined based on the limits of disturbance (LOD) of the current Project plans for the retirement/removal of the old substation (North APE) and the construction of the new one (South APE). Both Study Areas were assessed for pre-contact Native American and historic Euroamerican archaeological sensitivity using a combination of background research, historic map review, environmental predictive modeling, and field inspection. Based on the results of this assessment, the North Study Area is not considered to be sensitive for the presence of pre-contact or historic archaeological deposits due to the intensive and continued use and industrial development of much of the area, which has substantially disturbed if not removed any intact deposits or structural remains within the North APE, plus the steep slopes in the remainder of the Study Area. The South Study Area also does not possess sensitivity for historic Euroamerican archaeological deposits given disturbance caused by 20th-century gravel extraction. However, other portions of the South Study Area include intact and elevated landforms which are considered sensitive for the presence of pre-contact archaeological deposits, and as a result, three archaeologically sensitive areas (ASAs) have been defined. These lie outside of the South APE of the Project. Overall, no areas of archaeological sensitivity are located within the Project APEs as currently defined. Within the larger Study Areas, all areas outside of the delineated ASAs are considered to have low to no sensitivity for the presence of potentially significant pre- or post-contact archaeological deposits. As such, no additional archaeological work is recommended for the Project as currently planned.

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I. Introduction

The Northeast Archaeology Research Center, Inc. (NE ARC) has completed an archaeological resource assessment (ARA) for the proposed Green Mountain Power (GMP) Taftsville Substation Relocation Project, located in the towns of Woodstock and Hartland, Windham County, Vermont (Figures 1 through 3). The proposed Project involves the relocation of the Taftsville substation from its current location at the intersection of US Route 4/East Woodstock Road and Covered Bridge Road approximately 860 m (0.53 mi) east to a new location within a parcel located in the southwest quadrant of the intersection of US Route 4 and Vermont Route 12/Skunk Hollow Road. This relocation will also likely involve the rerouting of transmission line corridors including both the Taftsville-Wilder and Taftsville-Windsor lines to the new substation.

The ARA was undertaken in the early stages of Project development and specific Project plans were not available, and as such, the assessment considered a broadly defined Project Area. This was divided into two study areas, labelled the North Study Area and the South Study Area. The transmission line corridor joining these two areas has previously been considered in various archaeological studies for the Central Vermont Public Service (CVPS), later GMP, Taftsville-Wilder Transmission Line Reconductoring Project and the GMP Transmission Line #105 Taftsville to Windsor Reconductoring and Rebuild Project, with no archaeological sites identified, and was therefore not included as a new Study Area (Beale et al. 2014, 2017; Scharoun and Bartone 2012). The North Study Area encompasses the location of the current Taftsville substation and a portion of the transmission line corridor right-of-way (ROW) connecting the Taftsville and Randolph substations, while the South Study Area includes a large GMP-owned parcel within which GMP plan to locate the new substation. Project plans have since been provided and incorporated into this assessment: based on these current plans, specific areas of potential effect (APEs) have been defined within each Study Area. These include the limits of disturbance (LOD) for the current substation retirement (North APE), which lies in the southern part of the North Study Area, and new substation construction (South APE), which lies in the north part of the South Study Area (Figures 4 and 5; see Figures 2 and 3).

This ARA was designed to identify all areas that are potentially sensitive for the presence of Native American and Euroamerican archaeological sites within the proposed APEs of the Project or to show that the Project APEs are not considered sensitive for the presence of cultural resources. The ARA included the development of brief environmental and cultural backgrounds for the Project, archaeological sensitivity modeling, and a field inspection. The combined results of this research were utilized to determine archaeological sensitivity. This archaeological work is required as part of the Section 248 review process

and meets the requirements mandated under guidelines determined by the Vermont Division for Historic Preservation (VDHP) (VTSHPO 2017).

The North Study Area in part lies directly along the Ottauquechee River in the center of the village of Taftsville, and as such has witnessed substantial historic Euroamerican development since at least the late 1700s. However, no areas of pre- or post-contact archaeological sensitivity were identified within the North Study Area, given extensive disturbance due to the industrialization along the Ottauquechee River, and the steep slopes within the transmission line ROW.

Similarly, while historic maps indicated a 19th-century occupation within the northern portion of the South Study Area, which encompasses the location of the new substation, 20th-century gravel extraction activities have completely removed any intact deposits that may have been present. South of the disturbed area, however, are several relatively level and elevated landforms which, based on environmental predictive modeling and typical locations of known sites in the region, are considered sensitive for the presence of pre-contact archaeological deposits. This led to the delineation of three archaeologically sensitive areas (ASAs), ASAs 1 through 3, within the South Study Area (Table 1, see also Figures 2 and 3). All three of the defined ASAs are located outside of the South APE and are unlikely to be impacted by Project-related activities.

As noted, the ROW between the North and South Study Areas has been previously archaeologically assessed and surveyed, with no sites identified.

No untested areas of archaeological sensitivity have been defined within the APE of the Project as currently delineated. Within the larger Study Areas, all areas outside of the delineated ASAs are considered to have low to no sensitivity for the presence of potentially significant (i.e., National Register of Historic Places (NRHP)-eligible) pre- or post-contact archaeological deposits. As such, no additional archaeological work is recommended for the Project. Should the Project plans be altered in such a way that would potentially impact any of the designated ASAs, additional work including but not limited to archaeological Phase I survey will be necessary in order to determine if potentially significant archaeological site(s) are present or to determine that such site(s) are not likely to be present.

II. Methods

The ARA involved background research, archaeological sensitivity modeling, and a field inspection of the Study Areas. The background research included reviewing available environmental, historical, and archaeological data to determine the general sensitivity of the Study Areas. Materials reviewed included soil survey data, historical maps, and relevant printed and online literature. This research aimed to establish brief environmental, cultural, and historical contexts for the proposed Project location. The Vermont Archaeology Inventory (VAI), available online through the Vermont Online Resource Center (ORC), was

reviewed for known pre- and post-contact archaeological sites near the proposed Project. Pre-contact sensitivity modeling was conducted using the VAI *Use Analysis Model* (UAM) and the *Vermont Environmental Predictive Model for Locating Pre-Contact Archaeological Sites* (EPM).

In addition to the background research, NE ARC historical archaeologist Arthur Clausnitzer, Jr. conducted a field inspection of the Study Areas on October 5, 2025. The field inspection was intended to ground truth the results of the background research and sensitivity modeling and assess the area of the Project for additional aspects of sensitivity not present on maps or aerial photographs. Features detracting from archaeological sensitivity, such as excessive slopes, wetlands, and areas of disturbance, were also noted during the field inspection. The Study Areas were photo and video-documented during the field inspection.

III. Environmental Setting

The proposed Project lies within the rolling landscape of the Southern Vermont Piedmont biophysical region (Figure 6). This is the largest physiographic region in the state and runs the entire length of the state from Canada to Massachusetts, including most of Vermont's Connecticut River Valley. The region is made up of rolling hills and valleys that form the eastern foothills of the Green Mountains and possesses a number of isolated mountains, or “monadnocks”, made of resistive granite that rise above the surrounding landscape, including Mount Ascutney (Meeks 1975; Thompson and Sorenson 2005). As a region of rolling hills cut with numerous rivers and streams, the elevation within the Southern Vermont Piedmont can vary greatly. In the area around Vernon, Vermont, the elevation averages less than 91 m (300 ft) above mean sea level (a.m.s.l.); by way of contrast, the peak of Mount Ascutney reaches 958 m (3,144 ft) a.m.s.l. (Thompson and Sorenson 2005). The proposed Project is located within the Ottauquechee River valley, with the North Study Area crossing the river in the village of Taftsville. Elevations range from 194 to 362 m (636 to 1186 ft) with the lowest elevations along the Ottauquechee River and the highest elevations in the southwest corner of the South Study Area where it ascends the northeast flank of Kent Hill. The Southern Vermont Piedmont has a relatively moderate climate, with summer temperatures comparable to the Champlain Valley, though winter temperatures can be higher. Average annual precipitation ranges from 52 inches in the highlands less than 40 inches at White River Junction (Thompson and Sorenson 2005).

The most common rock types in the Vermont Piedmont are sedimentary and metamorphic; however, igneous rocks make up the most common mineral deposits. Multiple soil types are present within the Study Areas (Figure 7). Within the North Study Area, the south bank of the Ottauquechee River is almost entirely composed of Buckland loam, a moderately well-drained soil type originating from loamy lodgment till derived from a variety of sources. On the north side of the river traveling up the transmission line ROW, soils include Hinckley sandy loam, an excessively drained soil of glaciofluvial origin, and Vershire-

Dummerston complex, an intermixed soil type containing Vershire and Dummerston fine sandy loams, which are both well-drained soils derived from loamy till.

The South Study Area primarily consists of four soil types. The northeast corner is mapped as udorthents and udipsamments, which are heavily disturbed soils possessing none of their original stratigraphic integrity. The northwest corner is primary Glover-Vershire complex, a mixture of well-drained fine sandy loams derived from loamy till. The flank of Kent Hill in the southwest corner of the Study Area is mapped as Lyman-Rock outcrop complex, which is primarily composed of a somewhat excessively drained fine sandy loam originating from loamy supraglacial till derived from a number of sources interspersed with areas of bedrock outcrop. Across the Study Areas this consists of noncarbonaceous quartz-mica schist and feldspathic quartzite of the Gile Mountain Formation (Ratcliffe et al. 2011). The final major soil type present in the South Study Area is the Berkshire-Tunbridge complex, a mixture of fine sandy loams derived from loamy supraglacial till. Much smaller patches of Ninigret fine sandy loam, Cabot silt loam, and Saco silt loam are present in the southeast corner of the South Study Area (USDA 2026).

The Project is situated within the Black River-Connecticut River watershed, one of several subbasins of the larger Connecticut River drainage basin, encompassing approximately 3,423 sq km (Figure 8). As mentioned previously, the Project is located along the Ottauquechee River, with the North Study Area crossing the river just upstream of the Taftsville Covered Bridge and Taftsville hydroelectric dam. The Ottauquechee River is a 66.6 km (41.4 mi) tributary of the Connecticut River, running from near the town of Killington, joining with the Connecticut in Hartland, a few miles south of White River Junction. The South Study Area is located between 150 and 230 m south of the river, but its eastern boundary parallels Babcock Brook, located on the east side of Skunk Hollow Road/VT Route 12.

The Connecticut River valley and many of its tributaries were flooded for an extended period during the pre-contact period, forming Glacial Lake Hitchcock, which existed from approximately 13,400 to 18,200 years ago. At the furthest estimate extent of Glacial Lake Hitchcock, it spread up the Ottauquechee River Valley; the South Study Area would have been located along its shores at this time, and the North Study Area inundated (Figure 9).

IV. Cultural Setting and Sensitivity Modeling

General Native American Context

The Native American history of Vermont and the broader New England region is divisible into four major periods (Haviland and Power 1994; Petersen 1995) (Figure 10). These include the following:

- o Paleoindian period, ca. 9000-7000 B.C.
Early Paleoindian period, ca. 9000-8300 B.C.

- Middle Paleoindian Period, ca. 8300-8100 B.C.
 - Late Paleoindian period, ca. 8100-7000 B.C.
- o Archaic period, ca. 7000-1000 B.C.
 - Early Archaic period, ca. 7000-5500 B.C.
 - Middle Archaic period, ca. 5500-4000 B.C.
 - Late Archaic period, ca. 4000-1000 B.C.
- o Woodland period, ca. 1000 B.C.-A.D. 1550
 - Early Woodland period, ca. 1000-100 B.C.
 - Middle Woodland period, ca. 100 B.C.-A.D. 1000
 - Late Woodland period, ca., A.D. 1000-1550
- o Contact period, ca. A.D. 1550-1750

The first human entrants into the region came during the Paleoindian period, which is further divided into Early, Middle, and Late subperiods based on artifact typology and patterns of resource procurement and settlement location that reflect the rapidly changing postglacial environment of the time. Paleoindian populations are generally believed to have been small groups of semi-nomadic hunter-gatherers who were adapted to residence and subsistence in tundra and tundra-woodland environments. As the Paleoindian population was low, and also in part due to the nomadic lifestyle, Paleoindian sites are relatively rare in the region. Where identified, they are commonly associated with elevated, well-drained glacial landforms that occur along the edges of former late glacial rivers and lakes.

The transition to a closed forest across most of the region after ca. 8,000-7,000 B.C. roughly corresponded with the beginning of the subsequent Archaic period. Evidence of Archaic period occupations is generally more common than that of the Paleoindian period; however, Archaic sites predating 4,000-3,000 B.C. are rare in the region. Archaic populations are generally considered hunter-gatherer groups utilizing a broad spectrum of resources in evolving, increasingly forested Holocene environments. Settlements were focused along rivers and streams, and a general trend toward larger populations became pronounced. The Archaic period is also generally subdivided into three subperiods, reflecting technological and sociological changes.

The final major pre-contact period, the Woodland period, is likewise divisible into three subperiods: Early, Middle, and Late. The introduction of ceramics into the Northeast is the primary criterion for the distinction between Archaic and Woodland cultures, and the three subperiods are again distinguished in part by changes in pottery manufacture, style, and decoration (Petersen and Hamilton 1984). Evidence of all three subperiods is present in regional contexts. However, the Middle Woodland period remains the best known, primarily from excavations of stratified sites on the Winooski and Missisquoi Rivers, and additionally due to the highly diagnostic nature of the pots of this period. These were covered entirely in surficial decoration, thus making it easy for even small sherds to be attributable to a Middle Woodland occupation (Haviland and Power 1994; Hudgell et al. 2022; Petersen 1980; Petersen and Power 1983).

The early portion of historical times is known in New England as the Contact period (ca. A.D. 1600-1750), when local Native American populations first entered recorded history through interaction with Europeans. The Contact period is typified by material culture traits of both traditional Native American and European origin. European goods rapidly replaced traditional technologies as they became available. This was a dynamic period wrought with violence, disease, and hardship, leading to the near collapse of traditional lifeways. In northern New England, some Native populations, rapidly dispossessed of much of their hunting and farming lands, moved to more remote locations away from European settlement or joined other native groups to achieve viable communities. In contrast, some populations were less successful in negotiating the disastrous times of the Contact period.

Project-Specific Native American Context

A review of the VAI identified four previously recorded pre-contact archaeological sites and a single multi-component pre-contact Native American/historic Euroamerican site within 5.0 km (3.0 mi) of the proposed Project (Table 2). These include two sites identified by NE ARC during Phase I survey and Phase II testing for the GMP Transmission Line 105 Taftsville to Windsor Reconductoring and Rebuild Project, VT-WN-0530 and VT-WN-0522 (Beale and Bartone 2018; Loftus et al. 2020; Voorhis et al. 2018). VT-WN-0530 consists of an isolated find of a single quartz flake, while VT-WN-0522 provided two quartz flakes and a single utilized quartz flake. Neither of these sites produced chronologically diagnostic material.

Both VT-WN-0060 and VT-WN-0141 were identified under the aegis of a cultural resource management study for North Hartland Lake undertaken in 1985 by the University of Vermont. Site VT-WN-0141, originally reported as FS-WN-16, is a small site identified by the recovery of two possible tools, including a rounded, softball sized cobble that was potentially used as a hammerstone and an almost rectangular object of clear quartz, also of uncertain use though it appeared to have been flaked on one edge. VT-WN-0060, the Dewey Pond Site, produced a single chert flake.

The multi-component site, VT-WN-0057, is located on the Ottauquechee River and consists of the badly disturbed remains of a historic mill complex as well as several hundred pre-contact period artifacts, including fire-cracked rock, quartz, chert, and rhyolite lithics, and a small hearth. Radiocarbon dating of charcoal recovered from the hearth produced a date of 490±120 years BP, or from approximately 450 to 690 years ago. Additional pre-contact sites in the region, located farther away from the Project, are known from along rivers and on similar landforms as those found within the overall Project area.

Native American Archaeological Sensitivity

The pre-contact Native American archaeological sensitivity of an area or location in Vermont is determined with the assistance of two predictive models developed by the VDHP, as previously described in the *Methodology* section. The UAM is a web-based model which maps the occurrence of ten

environmental factors known to influence the use of an area or location by pre-contact populations. The EPM is a paper score system which uses much of the same data but also includes cultural factors in its model and assigns a weighting mechanism to the different variables as well. Under this model, an area or location is assigned a score determined by the presence of the different environment and cultural variables, and if the score meets or exceeds a pre-determined threshold it is considered to be archaeologically sensitive.

The results of the UAM are presented in Figure 11 and suggest that there is highly variable sensitivity across the overall Project area, particularly the South Study Area. Within this study area there are anywhere from zero to five overlapping variables present, with the highest numbers in the northwest corner and along the eastern boundary in proximity to Babcock Brook. Within the North Study Area the sensitivity also somewhat variable but overall higher, with two to seven overlapping variables present. EPM scores were calculated for both study areas, with the North APE scoring 68 and the South APE scoring 78, with the differences largely being due to the variable distances to water resources, the location of portions of the South Study Area on elevated landforms, and the presence of heads of draw in the South Study Area (see Appendix I). Overall, both study areas possessed access to permanent lakes and streams, lie in a natural travel corridor created by the Ottauquechee River Valley, and are located along the margins of Glacial Lake Hitchcock. With the minimal threshold for pre-contact archaeological sensitivity being 32, this indicates a high level of sensitivity for the presence of pre-contact archaeological deposits. Due to the large size of the South Study Area, the sensitivity score changes across its area as distances to water resources and other features vary; however, outside of areas of steep slope or significant previous disturbance, such as the former gravel pit in the northeast corner, the study area is overall considered sensitive for the presence of pre-contact archaeological material.

General Post-Contact Historical Context

The towns of Woodstock and Hartland were both chartered by New Hampshire governor Benning Wentworth as part of his New Hampshire Grants, a scheme by which Wentworth sought to exert control over the disputed Vermont Territories for England, promote New Hampshire's claim to the region, and enrich himself and his allies through the granting of land within the new townships (Figure 12) (Sherman et al. 2004). Both Woodstock and Hartland (as Hertford) were chartered on July 10, 1761, with permanent settlement occurring a few years later. Both towns were noted for their abundant waterpower, provided by the Connecticut and Ottauquechee Rivers, and industries such as gristmills and sawmills quickly grew. Notably, the village of Taftsville, in Woodstock, contained a sawmill and scythe factory owned and operated by the Taft brothers, and numerous other mills dotted the riverbanks (Child 1884; Dana 1889). Like many Vermont towns, changing socioeconomic conditions led to the collapse of many of these water-powered industries, and today both towns largely rely on tourism for their economic development.

Project-Specific Post-Contact Historical Context and Archaeological Sensitivity

Establishing post-contact historic Euroamerican archaeological context relied on a combination of historic map review and background research. Specifically, the 1856 Hosea Doton *Map of Windsor County Vermont* and 1869 F.W. Beers *Atlas of Windsor County, Vermont*, both of which contained detailed inset maps of Taftsville, were examined, along with USGS maps from 1908 and 1959. All of the 19th-century maps show structures located within both Study Areas and APEs. In the South Study Area there is a structure located in the southwest quadrant of the intersection of modern US Route 4 and Vermont Route 2, labelled G. Blossom in 1856 and possibly J.H. Tracy in 1869 (the association of the structure with this name is uncertain) (Figures 13 and 14). On the 1908 USGS map the structure still appears to be located within this area, along with a portion of the Woodstock Railroad (Figure 15). However, this structure is located within the area mapped as udorthents and udipsamments; the 1959 USGS map of the Quechee, Vermont Quadrangle shows a gravel pit in this location, making it unlikely that any intact structural remains and related archaeological deposits are present (Figure 16).

Both the 1856 and 1869 maps of the village of Taftsville, however, show significant industrial development in the general vicinity of the North Study Area (Figures 17 and 18). Specifically, both maps show structures related to the Taft brothers' scythe and tool factory, which includes the factory itself, a sawmill located across the river, and a furnace for casting and forging the necessary metal components. The village of Taftsville (variously known as Taft Mills and Taft Flat) can be traced to 1793 when Stephen Taft, a blacksmith from Mendon, Massachusetts, emigrated to Woodstock and settled in the area. In short order he built a footbridge over the Ottauquechee River and a wooden crib dam, and in 1794 was joined by his younger brother David. By 1796 they built a sawmill on the north side of the river and began manufacturing tools on the south side. By 1804 David and another brother, Seth, had bought Stephen out of the business. The original factory burned in 1811, and Seth died from injuries sustained in the event (Aldrich and Holmes 1891; Child 1884; Dana 1889). This left David and his three sons to rebuild and continue the business, which constructed a new furnace adjacent to the rebuilt factory and expanded into plows, firearms, stoves, and other iron objects. The Tafts sold their businesses in 1855, but the furnace, factory, and sawmill continued operations until the late 19th century (Figure 19). It is not known when the scythe factory shut down, but in 1893 the Woodstock Electric Company was formed and acquired both the site and water rights of the former Taft factory and built a small hydroelectric station at the location (Aldrich and Holmes 1891; Child 1884; Dana 1889; Doyle-Schechtman 2000). The extant concrete gravity dam was completed in 1910. The Taftsville Historic District was established in 2001, and lists the hydroelectric station as a contributing building (Doyle-Schechtman 2000).

The historical map review and background research has shown that both the North and South study areas of the proposed GMP Taftsville Substation Project are nominally sensitive for historical archaeological deposits. In the North Study Area, this sensitivity is due to the 100-plus years of historic Euroamerican

industrial activity at Taftsville. In the South Study Area, historic archaeological sensitivity is based on the mapped G. Blossom/J.H. Tracy structure in the northeast corner; however, as mentioned previously, this location was later used as a gravel pit, apparently destroying or severely disturbing any potential archaeological deposits. An aerial photograph from 1963 shows the extent of the gravel removal operations, which corresponds with the area mapped as udorthents and udipsamments by the USDA and encompasses the approximate location of the historic structures (Figure 20; see also Figures 7, 13, and 14).

Previous Archaeological Studies

Multiple previous archaeological projects have been undertaken related to the GMP Taftsville substation and associated powerline corridors. The most pertinent are the 2012 to 2014 GMP (previously CVPS) Wilder to Taftsville Transmission Line Reconductoring Project (Beale et al. 2014; Scharoun and Bartone 2012) and the 2017 to 2019 GMP Transmission Line 105 Taftsville to Windsor Reconductoring and Rebuild Project (Beale et al. 2017; Beale and Bartone 2018; Loftus and Bartone 2019; Voorhis et al. 2018), all undertaken by NE ARC. Both projects included an ARA, Phase I survey, and Phase II testing of power line corridors which originated at the Taftsville substation and in part pass through the Study Areas of the current Project. This also includes the ROW between Study Area 1 and Study Area 2. Previously delineated ASAs within or in close proximity to the current Study Areas include ASAs 1 and 2 of the Wilder to Taftsville project, which lie within the ROW between the Study Areas, and ASA 1 of the Line 105 project (Figure 21). Phase I survey within these ASAs produced no pre-contact Native American or post-contact Euroamerican archaeological materials.

Both projects did identify previously unknown pre-contact archaeological sites. The Wilder to Taftsville project resulted in the designation of pre-contact site VT-WN-0488, located in ASA 15 near Pole 102, within the town of Hartford, approximately 8.0 km (5.0 mi) east-northeast of the South Study Area. The Line 105 project identified three sites, VT-WN-0522, VT-WN-0529 and VT-WN-0530. Pre-contact site VT-WN-0530 is located approximately 360 m (0.23 mi) south of the South Study Area within the Line 105 ROW. VT-WN-0522, another pre-contact site, is located 2.4 km (1.5 mi) south of the South Study Area, and VT-WN-0529, a mixed-context site, is located 15.4 km (9.6 mi) south. All three of these sites produced limited numbers of pre-contact Native American artifacts. Both VT-WN-0529 and -0530 are located on landforms similar to those found within the South Study Area of the current Project.

VI. Field Inspection

NE ARC historical archaeologist and Project Director Arthur R. Clausnitzer, Jr., visited the Study Areas to conduct the field inspection on October 5, 2025. The purpose of this visit was to ground truth the results of the background research and investigate the site for any features not noted on maps, aerial photos, and other research. Features detracting from archaeological sensitivity, such as excessive slopes, wetlands, and areas of disturbance, were also noted during the field inspection. Both areas of the Project were photo- and video-documented, and GIS reference points were taken using ArcGIS Field Maps during the visit.

Project Description

The proposed GMP Taftsville Substation Relocation Project involves the planned relocation of the GMP Taftsville substation from its current location at the intersection of US Route 4/East Woodstock Road and Covered Bridge Road approximately 860 m (0.53 mi) east to a new location within a GMP-owned parcel located in the southwest quadrant of the intersection of US Route 4 and Vermont Route 12/Skunk Hollow Road. This relocation will also likely involve the rerouting of transmission line corridors including both the Taftsville-Wilder and Taftsville-Windsor lines to the new substation. As a result, and as mentioned previously, the Project area is split into two different study areas, designed the North Study Area and the South Study Area. At the time of the field inspection, final Project plans were not available and no formal APEs had been defined, so the entirety of both study areas were assessed.

North Study Area

The North Study Area consists of an approximately 16,796 sq m (4.2 acre) area encompassing the current Taftsville substation along with a short section of the Taftsville-Randolph powerline corridor and the Taftsville hydroelectric facility (Figures 22 and 23). The specific North APE of the Project has been defined as the LOD for the retirement and removal of the current Taftsville substation. Located within the North Study Area are the three current substation structures, identified in the 2000 Taftsville Historic District NRHP nomination form as the Distribution, Transmission, and Transmission East, the circa 1902/1942 Woodstock Electric Company Hydroelectric Powerhouse, and circa 1909 Taftsville Dam and Intake (Figures 24 through 28). All of these structures are listed as contributing structures to the District, as is the adjacent Taftsville Covered Bridge (Figure 29). The Ottauquechee River runs through the middle of the Study Area.

The North Study Area is also the former location of the Taft mill complex, and according to the 1869 map of Taftsville both the scythe factory and the associated Brownell iron furnace were located within the North Study Area. However, with the possible exception of a small section of stone retaining wall on the south bank of the Ottauquechee River, the subsequent development of the hydroelectric facility and

electrical substation have removed all traces of these structures (Figure 30). The field inspection further identified evidence for buried utilities throughout the North Study Area (Figures 31 and 32). As a result, the North Study Area generally and North APE particularly has been determined to have no sensitivity for the presence of historic Euroamerican archaeological deposits.

As mentioned previously, background research and environmental predictive modeling also suggested that the location of the North Study Area would have some sensitivity for pre-contact archaeological deposits. However, the extensive historic industrial development on the south side of the Ottauquechee River has likely destroyed any pre-contact archaeological deposits within that portion of the Study Area. The field inspection further showed that the two areas on the north side of the Ottauquechee River where intact soils may be present, consisting of a narrow strip of land between River Road and Upper River Road, and the powerline corridor extending northwest, are both steeply sloped and very rocky (Figures 33 and 34). As a result, the North Study Area generally and North APE particularly has been determined to have no sensitivity for the presence of pre-contact archaeological deposits.

South Study Area

The South Study Area consists of an approximately 196,872 sq m (48.7 acre) GMP-owned parcel of land located in the southwest quadrant of the intersection of US Route 4/East Woodstock Road and Vermont Route 12/Skunk Hollow Road in Hartland, with a short spur extending northwest along the Wilder to Taftsville transmission line corridor, adjacent to a small solar farm (Figure 35). The parcel sits at the foot of Kent Hill, with much of the southwest corner climbing its slopes. The new Taftsville substation is to be constructed in the northwest corner, and at the time of the field inspection a temporary substation was present within the North APE (Figure 36). The specific North APE of the Project has been defined as the LOD for construction of the new Taftsville substation, in the area of the former gravel pit and temporary substation.

Overall, the parcel contains a hilly topography, with fairly steep slopes punctuated by relatively flat terraces or outcrops and generally vegetated with a dense mixture of young pine forest and thick grasses and low bushes (Figures 37 through 39). As discussed previously, the 1856 and 1869 maps documented a structure in the northeast corner of this study area, within the North APE, though both the 1959 USGS map and historic aerial photos later show a gravel pit in this area. The field inspection and a soil sample confirmed previous soil disturbance within this APE (Figures 40 and 41). While a historic feature, consisting of two small, disjointed sections of a fieldstone wall/field clearance pile, was identified during the field inspection, the disturbance caused by gravel extraction has otherwise destroyed any potential historic archaeological deposits (Figure 42). As such, the South Study Area generally and the South APE specifically is not considered sensitive for the presence of historic Euroamerican archaeological deposits. Outside of the disturbed northern portion of the South Study Area, however, are several areas of relatively

flat terrain, similar to landscape features previously found to contain pre-contact archaeological deposits; these areas are considered archaeologically sensitive for the presence of pre-contact archaeological deposits.

VII. Archaeological Sensitivity

The combination of background research, historic map review, and field inspection has determined that the North and South Study Areas of the Project are not sensitive for the presence of historic archaeological deposits, based primarily on the extensive disturbance present in both study areas. In addition, other portions of the Study Areas outside of these heavily developed locations are generally steeply sloped. In the North Study Area, the continued use and occupation of the area for the past 220-plus years means that although there was significant industrial development along the Ottauquechee River, early 20th century and later utility development has likely removed remains of the older developments; in turn, the older developments likely removed or disturbed any pre-contact archaeological deposits. The remaining areas of the North Study Area are steeply sloped, also making it unlikely that significant pre-contact archaeological deposits are present.

Within the South Study Area, while a historic structure is mapped on the 1856 and 1869 maps, the 1959 USGS map and historic aerial photos show an extensive gravel pit located within the same area, which was confirmed by the field inspection. The removal of the gravel would have destroyed any remaining archaeological and structural evidence for the previous occupation. As mentioned previously, two short, disjointed sections of fieldstone wall were identified and documented (see Figure 42). However, south of the estimated extent of the gravel pit disturbance, several relatively level, elevated landforms were located within the South Study Area. Given the results of the environmental predictive modeling discussed previously and research indicating that pre-contact Native American are often found on similar landforms, a total of three (3) ASAs were delineated within the larger South Study Area. Based on the Project plans, all three of these ASAs are located outside of the South APE.

Note that the ASAs of the previously mentioned Wilder to Taftsville project, which lie within the ROW between the Study Areas, have been previously archaeologically tested with negative results.

ASA 1

ASA 1 is located near the center of the South Study Area on a series of relatively level landforms between 720 and 752 ft (219 to 229 m) a.m.s.l. and encompassing approximately 9,302 sq m (2.3 acres) (Figure 43). These landforms overlook the valley of Babcock Brook and its associated wetlands to the east and a head of draw to the south. Soils within the ASA are very stony Berkshire-Tunbridge complex, derived

from loamy supraglacial till. A small area of ASA 1 overlaps with ASA 1 of the previous Line 105 project, which was confined to the width of the transmission corridor ROW.

ASA 2

ASA 2 is located on a relatively level landform approximately 60 m (197 ft) southeast of ASA 1 (Figure 44). Encompassing approximately 730 sq m (0.2 acres) at an elevation of 717 ft (219 m) a.m.s.l., ASA 2 overlooks the valley of Babcock Brook and its associated wetlands to the east and a head of draw to the south. Soils within the ASA are very stony Berkshire-Tunbridge complex, derived from loamy supraglacial till.

ASA 3

ASA 3 is located on a small, relatively level spur of land overlooking the valley of Babcock Brook and its associated wetlands to the east and a head of draw to the north (Figure 45). ASA 2 encompasses approximately 884 sq m (0.21 acres) and sits at an elevation of approximately 678 ft (207 m) a.m.s.l. The soil within this ASA is primarily Cabot silt loam derived from loamy lodgment till, with an area of very stony Berkshire-Tunbridge complex soils in the western portion of the ASA. A soil sample from this ASA soils an intact soil profile which generally meets this description (Figure 46).

Non-Sensitive Areas

All areas outside of the delineated ASAs have been determined to not possess sensitivity for either pre- or post-contact archaeological deposits. This determination is due either to the steep slopes present throughout the Project area or due to significant previous disturbance, including the gravel pit in the northern part of the South Study Area and the extensive historical industrialization within the North Study Area (Figure 47 and 48, see also Figures 31, 32, and 40).

VIII. Conclusions and Recommendations

NE ARC has completed an archaeological resource assessment of the proposed GMP Taftsville Substation Relocation Project, located in the towns of Woodstock and Hartland, Windham County, Vermont. The proposed Project involves the relocation of the Taftsville substation from its current location at the intersection of US Route 4/East Woodstock Road and Covered Bridge Road approximately 860 m (0.53 mi) east to a new location within a GMP-owned parcel located in the southwest quadrant of the intersection of US Route 4 and Vermont Route 12/Skunk Hollow Road. This relocation will also likely involve the rerouting of transmission line corridors including both the Taftsville-Wilder and Taftsville-Windsor lines to the new substation. As such, the Project Area is divided into two Study Areas, both of which were assessed for sensitivity for both pre-contact Native American and post-contact historic Euroamerican archaeological deposits. Although considered part of the current Project area, the ROW between these Study Areas has been previously archaeologically assessed and surveyed, with no sites identified, and thus was not included as a new Study Area.

Within the North Study Area, which encompasses the location of the current Taftsville substation and a portion of the transmission line corridor leading to the Randolph substation, it was determined that there was no pre- or post-contact archaeological sensitivity. The determination of a lack of pre-contact archaeological sensitivity was based on the extensive historic disturbance due to the industrialization along the Ottauquechee River and the sharp slopes within the transmission line ROW. Despite the documented historic industrialization along the river, a lack of sensitivity for post-contact archaeological deposits is based on the later development of the area, which has removed and/or disturbed any archaeological deposits and structural remains related to the 19th-century mills and factories associated with the Taft brothers and their successors.

Similarly, while historic maps indicated a 19th-century occupation within the northern portion of the South Study Area, which encompasses the location of the new substation, 20th-century gravel extraction has completely removed any potential archaeological deposits. South of the disturbed area, however, are several relatively level and elevated valley-edge landforms which, based on environmental predictive modeling and the findings of past archaeological excavations, are considered sensitive for the presence of pre-contact archaeological deposits. This led to the delineation of three ASAs, ASAs 1 through 3, within the South Study Area, all of which are determined to be sensitive for the presence of pre-contact Native American archaeological deposits.

No untested areas of archaeological sensitivity are located within the APE of the Project as currently defined. Within the larger Study Areas, all areas outside of the delineated ASAs are considered to have low to no sensitivity for the presence of potentially significant (i.e., NRHP-eligible) pre- or post-contact archaeological deposits. As such, no additional archaeological work is recommended for the Project. Should

the Project plans be altered in such a way that would potentially impact any of the designated and untested ASAs, additional work including but not limited to archaeological Phase I survey will be necessary in order to determine if potentially significant archaeological site(s) are present or to determine that such site(s) are not likely to be present.

References Cited

Aldrich, L.C., and F.R. Holmes

1891 *History of Windsor County, Vermont*. D. Mason & Co., Syracuse.

Beale, David W., and Robert N. Bartone

2018 *Archaeological Phase II Testing of Site VT-WN-0522 Within the Proposed GMP Transmission Line # 105 Taftsville to Windsor Reconductoring and Rebuild Project, Windsor County, Vermont, End of Field Letter Report*. Prepared for GMP by the Northeast Archaeology Research Center, Inc., Farmington, ME.

Beale, David W., Robert N. Bartone, and Ellen R. Cowie

2014 *Archaeological Phase I Survey and Phase II Testing of the Proposed Green Mountain Power Wilder to Taftsville Transmission Line Reconductoring Project, Windsor County, Vermont*. Prepared for GMP by the Northeast Archaeology Research Center, Farmington, ME.

2017 *Archaeological Resource Assessment of the Green Mountain Power Transmission Line #105 Taftsville to Wilder Reconductoring and Rebuild Project, Windsor County, Vermont*. Prepared for GMP by Northeast Archaeology Research Center, Inc., Farmington, Maine.

Child, Hamilton

1884 *Gazetteer and Business Directory of Windsor County, Vermont, for 1883-1884*. Journal Office, Syracuse.

Dana, Henry Swan

1889 *History of Woodstock, Vermont*. Houghton, Mifflin and Company, Boston.

Doyle-Schechtman, Deborah

2000 Taftsville Historic District NRHP Registration Form.

Haviland, William A., and Marjory W. Power

1994 *The Original Vermonters: Native Inhabitants, Past and Present*. Second edition. University Press of New England, Hanover.

Hudgell, Gemma-Jayne, Ellen R. Cowie, Robert N. Bartone, Rosemary A. Cyr, and Hutch M. McPheters

2022 *7,000 Years at Missisquoi: A Report on the Phase III Data Recovery Investigations at the Headquarters (VT-FR-0318) and Porcupine (VT-FR-0326) Sites in the Vermont Agency of Transportation Swanton Rt. 78 Project, NH 036-1(9), Swanton, Franklin County, Vermont*. Prepared for the Vermont Agency of Transportation by the Northeast Archaeology Research Center, Inc., Farmington, Maine.

Loftus, Sarah E., and Robert N. Bartone

2019 *GMP Line # 105 Taftsville to Windsor Reconductoring and Rebuild Project--Archaeological Phase II Testing Sites VT-WN-0529 and VT-WN-0530; End-of-Field Letter Report*. Prepared for GMP by the Northeast Archaeology Research Center, Inc., Farmington, ME.

Loftus, Sarah E., David Beale, Gemma-Jayne Hudgell, and Robert N. Bartone

2020 *Supplemental Archaeological Phase I Survey and Phase II Testing at Sites VT-WN-0529 and VT-WN-0530 within the Proposed Green Mountain Power Transmission Line # 105 Taftsville to*

Windsor Reconductoring and Rebuild Project, Windsor County, Vermont. Prepared for Green Mountain Power by the Northeast Archaeology Research Center, Inc., Farmington, Maine.

Meeks, Harold A.

1975 *The Geographic Regions of Vermont: A Study In Maps.* Special Bicentennial Publication, Geography Publications at Dartmouth No. 10, Hanover.

Petersen, James B.

1980 *The Middle Woodland Ceramics of the Winooski Site, A.D. 1-1000. Vermont Archaeological Society New Series Monograph 1.*

1995 *Preceramic Archaeological Manifestations in the Far Northeast: A Review of Current Research. Archaeology of Eastern North America* 23:207–230.

Petersen, James B., and Nathan D. Hamilton

1984. *Early Woodland Ceramic and Perishable Fiber Industries from the Northeast: A Summary and Interpretation. Annals of Carnegie Museum* 53(14):413–445.

Petersen, James B., and Marjory W. Power

1983 *The Winooski Site and the Middle Woodland Period in the Northeast.* Submitted to Interagency Archaeological Services, National Park Service, Philadelphia.

Ratcliffe, Nicholas, Rolfe Stanley, Marjorie Gale, Peter Thompson, and Gregory Walsh

2011 *Bedrock Geologic Map of Vermont. Electronic Source: <https://pubs.usgs.gov/sim/3184/> Accessed 2018.* USGS and Vermont Geological Survey.

Scharoun, Stephen R., and Robert N. Bartone

2012 *Archaeological Resource Assessment of the Proposed Central Vermont Public Service Taftsville-Wilder Transmission Line Reconductoring Project Hartford and Hartland, Windsor County, Vermont.* Submitted to Central Vermont Public Service by the Northeast Archaeology Research Center, Inc., Farmington, Maine.

Sherman, Michael, Gene Sessions, and P. Jeffrey Potash

2004 *Freedom and Unity: A History of Vermont.* Vermont Historical Society, Barre, VT.

Thompson, Elizabeth H., and Eric R. Sorenson

2005 *Wetland, Woodland, Wildland: A Guide to the Natural Communities of Vermont.* The Nature Conservancy and the Vermont Department of Fish and Wildlife. University Press of New England, Hanover and London.

USDA

2026 *Web Soil Survey.* Electronic Source, <http://websoilsurvey.nrcs.usda.gov>. Accessed 2026.

Voorhis, Sara H., Robert N. Bartone, and Ellen R. Cowie

2018 *Archaeological Phase I Survey of the Proposed Green Mountain Power Transmission Line # 105 Taftsville to Windsor Reconductoring and Rebuild Project, Windsor County, Vermont.* Submitted to GMP by the Northeast Archaeology Research Center, Inc., Farmington, ME.

VTSHPO

2017 *The Vermont State Historic Preservation Office's Guidelines for Conducting Archaeology In Vermont and Appendices.* Vermont State Historic Preservation Office, Montpelier, VT.

Tables and Figures

Table 1. Archaeological Sensitivity Areas within the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windham County, Vermont.

ASA #	Description	Area (sq. m)	Soils (Parent Material)	Pre-Contact Sensitivity	Post-Contact Sensitivity
1	Situated on a series of relatively level landforms overlooking the valley of Babcock Brook and its associated wetlands to the west and a head of draw to the south	9,302	Very Stony Berkshire-Tunbridge complex (loamy supraglacial till)	Yes	No
2	Located on a relatively level landform southeast of ASA 1, and overlooks the valley of Babcock Brook and its associated wetlands to the west and a head of draw to the south	730	Very Stony Berkshire-Tunbridge complex (loamy supraglacial till)	Yes	No
3	Situated on a small, relatively level spur of land overlooking the valley of Babcock Brook and its associated wetlands to the west and a head of draw to the north	884	Very Stony Berkshire-Tunbridge complex (loamy supraglacial till)	Yes	No

Table 2. Previously recorded pre-contact Native American archaeological sites within 5.0 km of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windham County, Vermont.

Site Number	Site Name	Time Period	Description	Cultural Materials Recovered
VT-WN-0530	n/a	undetermined pre-contact	Situated on a broad, mostly level terrace that slopes towards wetlands to the north and overlooks Babcock Brook	quartz flake
VT-WN-0522	n/a	undetermined pre-contact	Fairly level terrace overlooking Babcock Brook; the landform drops gradually in elevation to the north as a series of small, level knolls continuing for approximately 60 m to a low laying wetlands area adjacent to Babcock Brook	three quartz flakes, one utilized
VT-WN-0060	Dewey Pond Site	undetermined pre-contact	Site is on a level terrace to the east of Dewey's Mill Pond, and north of the mouth of an unnamed stream which enters the pond at its southeast corner	chert flake
VT-WN-0141	n/a	undetermined pre-contact	Site located on a high terrace on the northwest bank of a tributary stream of the Ottauquechee River	possible hammerstone and unknown rectangular quartz object
VT-WN-0057	n/a	Late Woodland/19th-century	Badly disturbed remains of historic mill, site produced several hundred pre-contact artifacts	fire-cracked rock, quartz, chert, and rhyolite lithics, and a small hearth

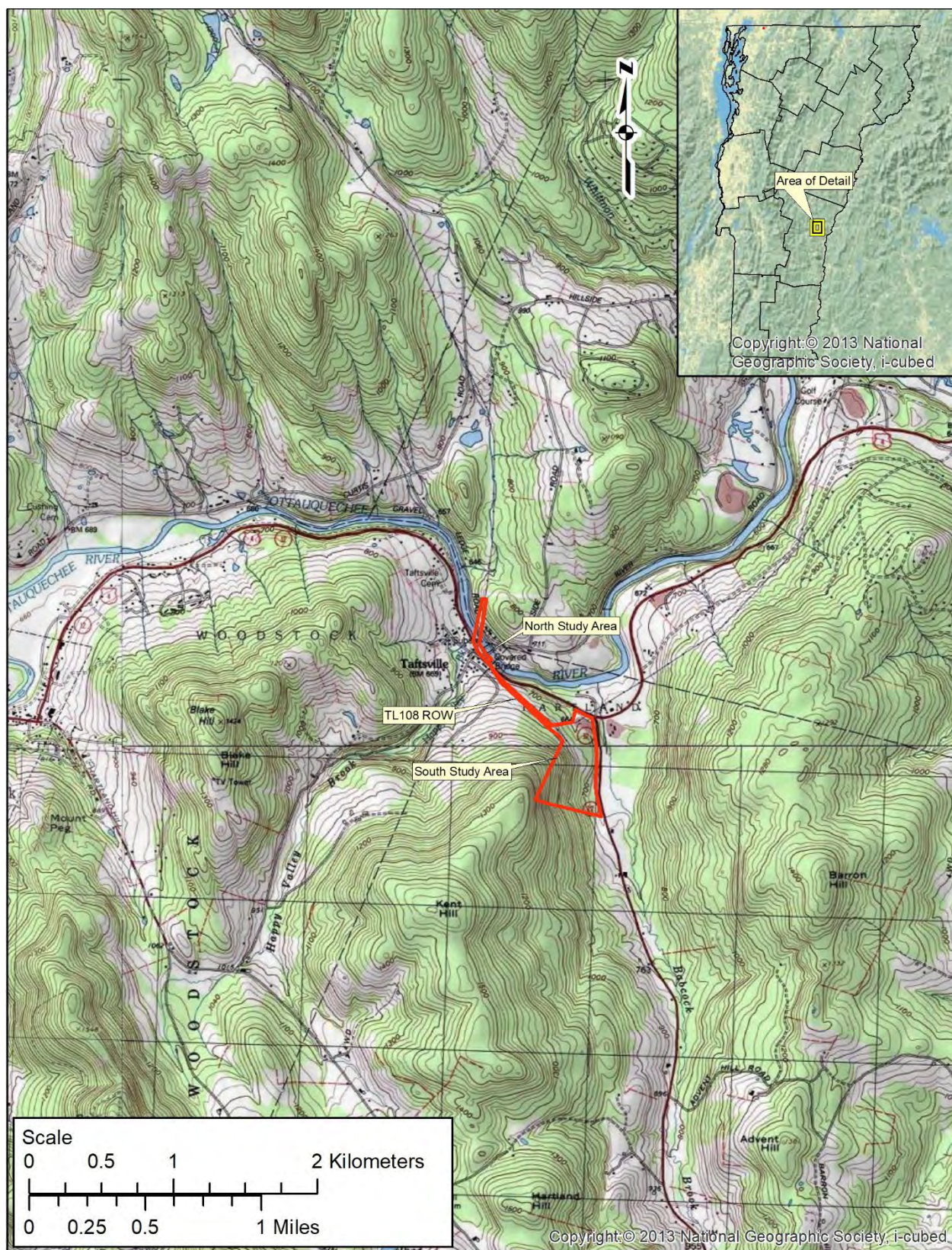


Figure 1. Topographic map showing the location of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windham County, Vermont.

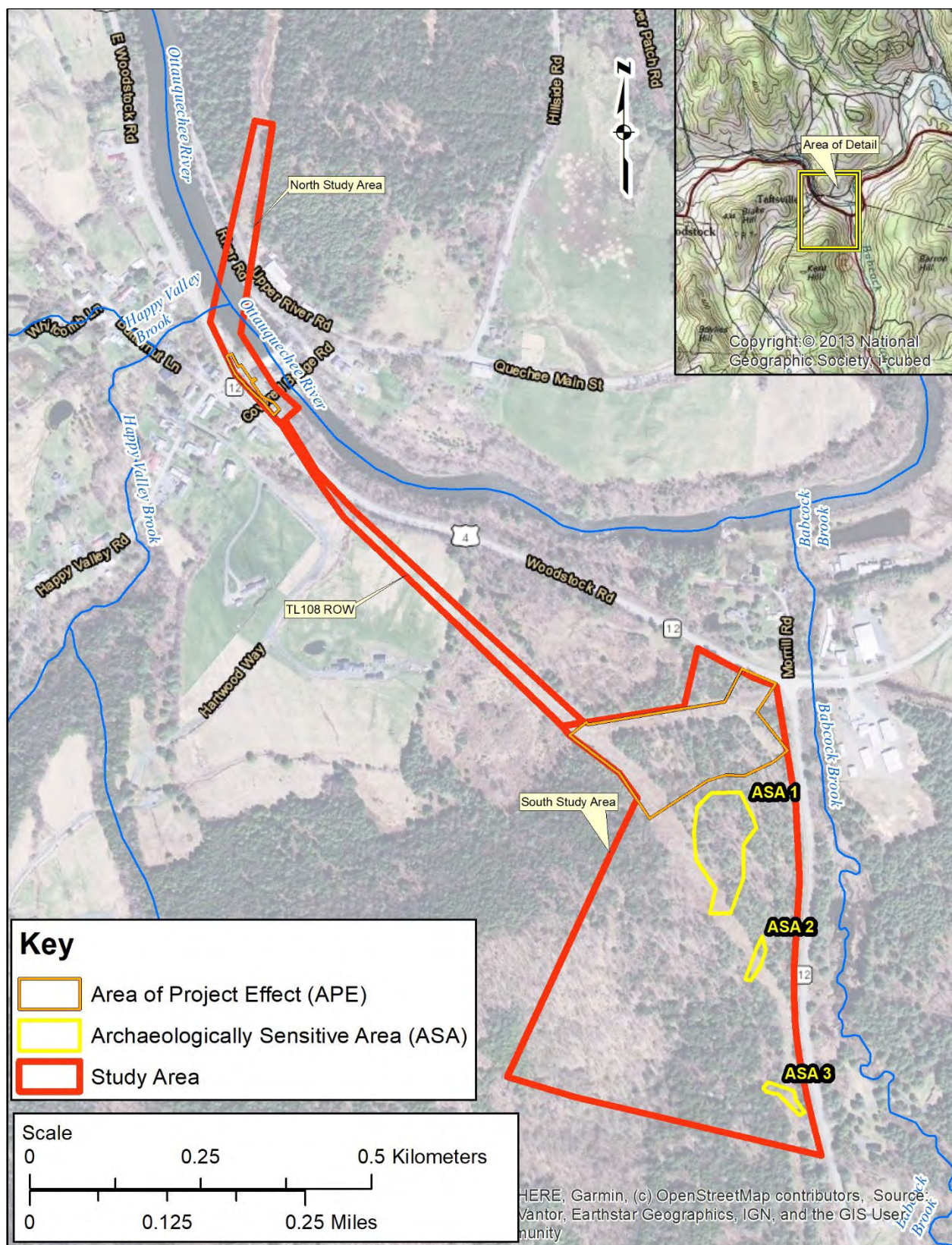


Figure 2. Aerial photograph showing the location of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windham County, Vermont. Note the location of the North and South Study Areas, the connecting ROW, and of ASAs 1 through 3.

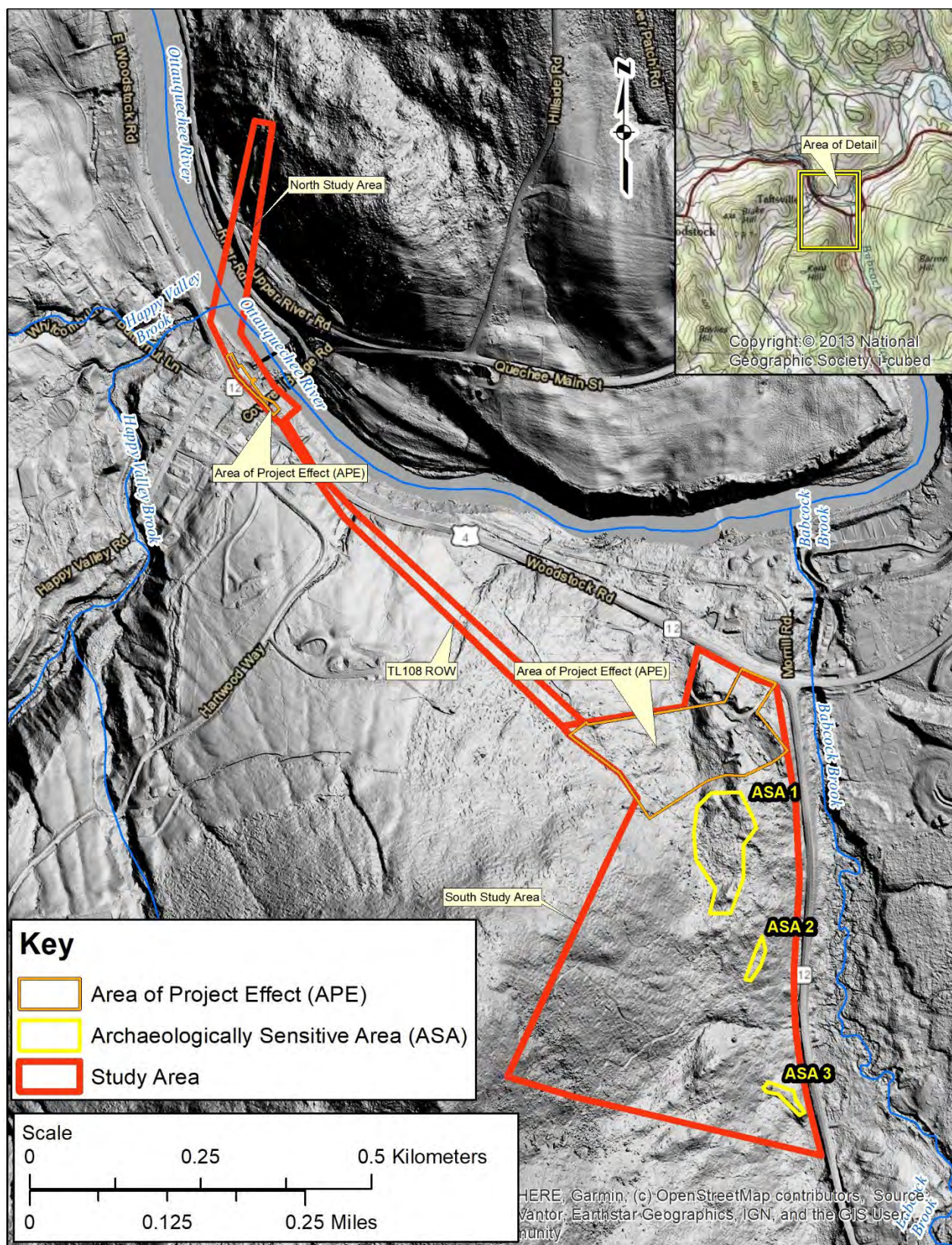


Figure 3. LiDAR imagery showing the location of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windham County, Vermont. Note the location of the North and South Study Areas, the connecting ROW, and of ASAs 1 through 3.

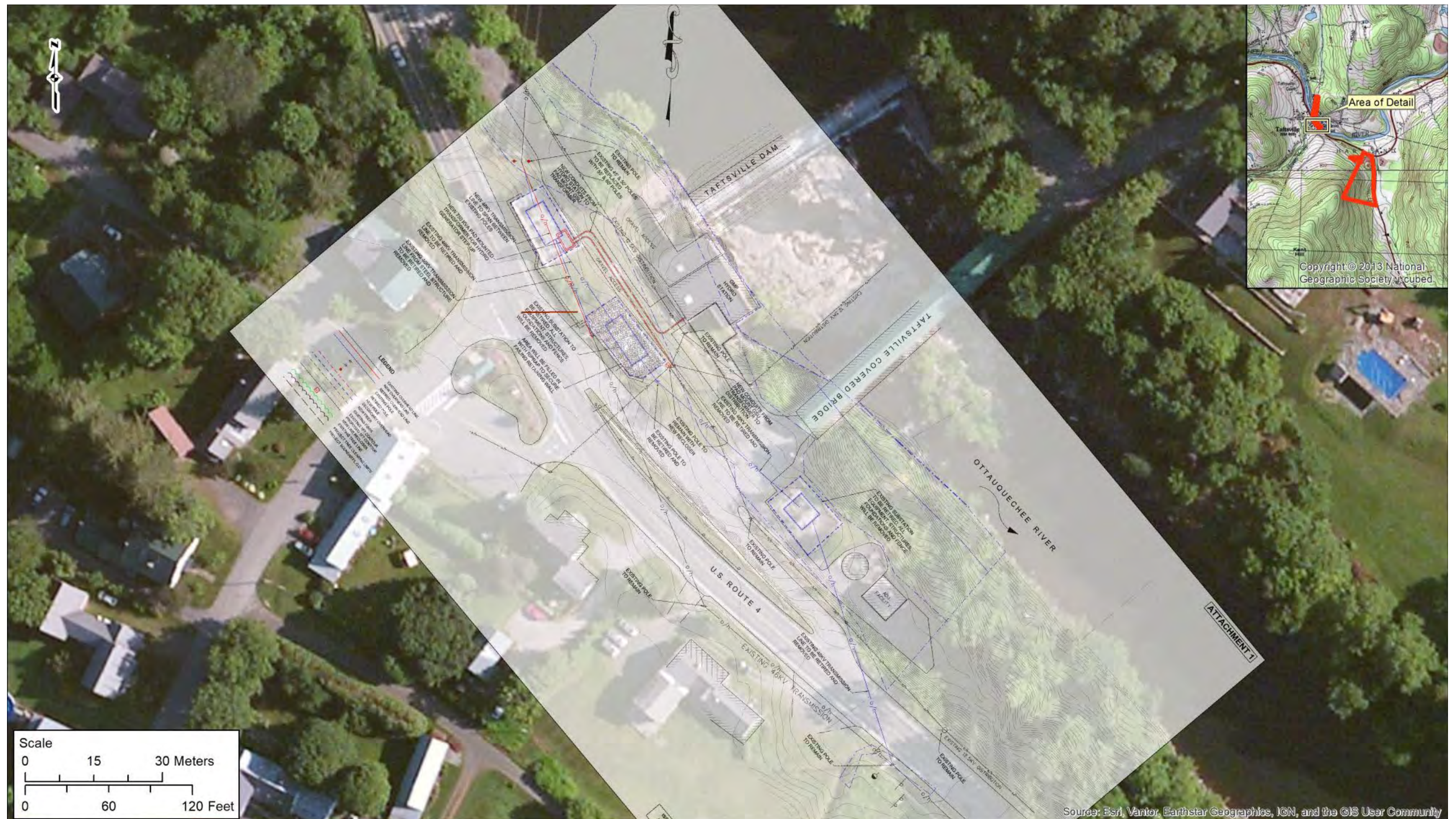


Figure 4. Georeferenced Project plans for the removal of the old GMP Taftsville Substation, part of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windham County, Vermont.



Figure 5. Georeferenced Project plans for the construction of the new GMP Taftsville Substation, part of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windham County, Vermont.

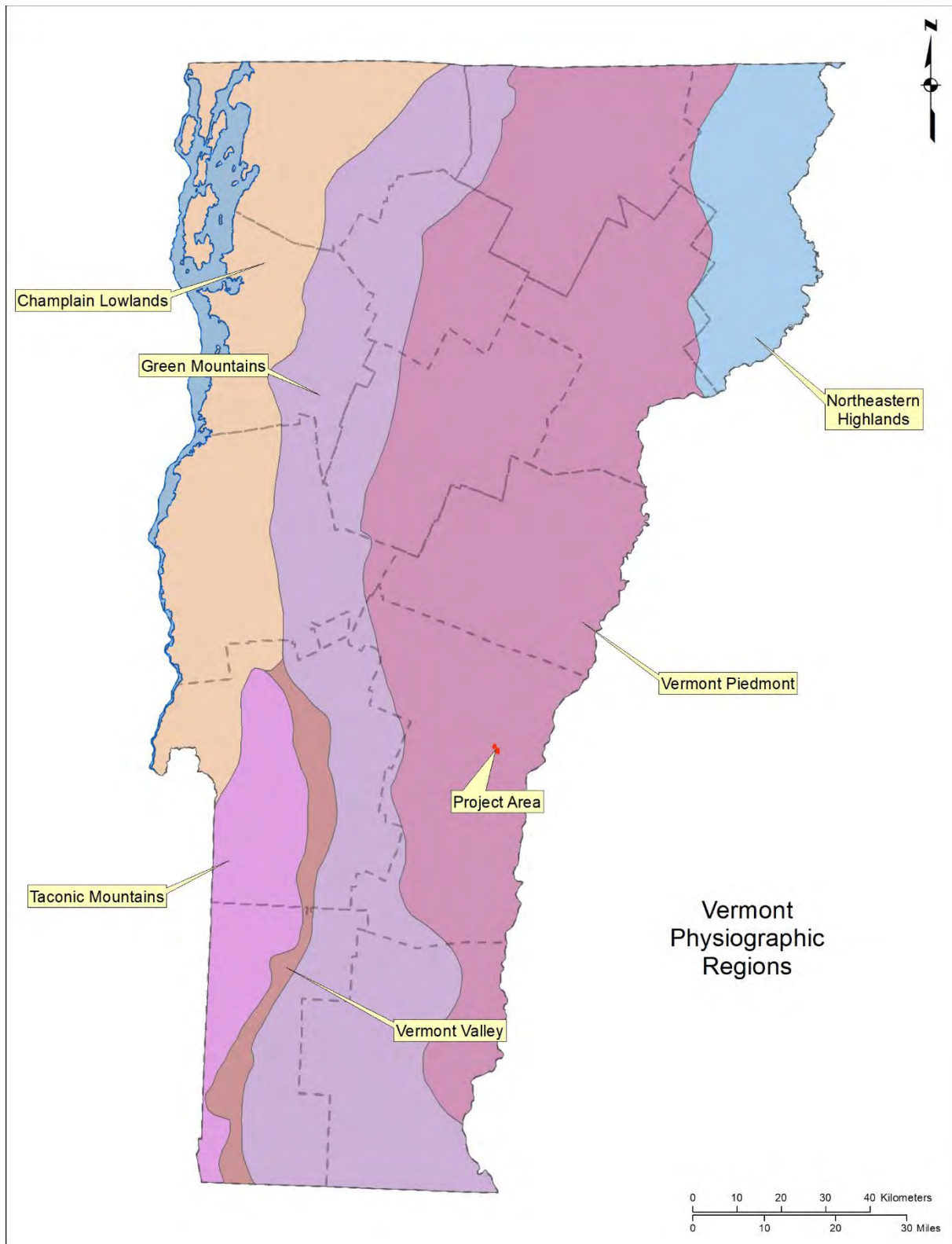


Figure 6. Map of the major biophysical regions of Vermont showing the location of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windham County, Vermont, within the Southern Vermont Piedmont biophysical region.

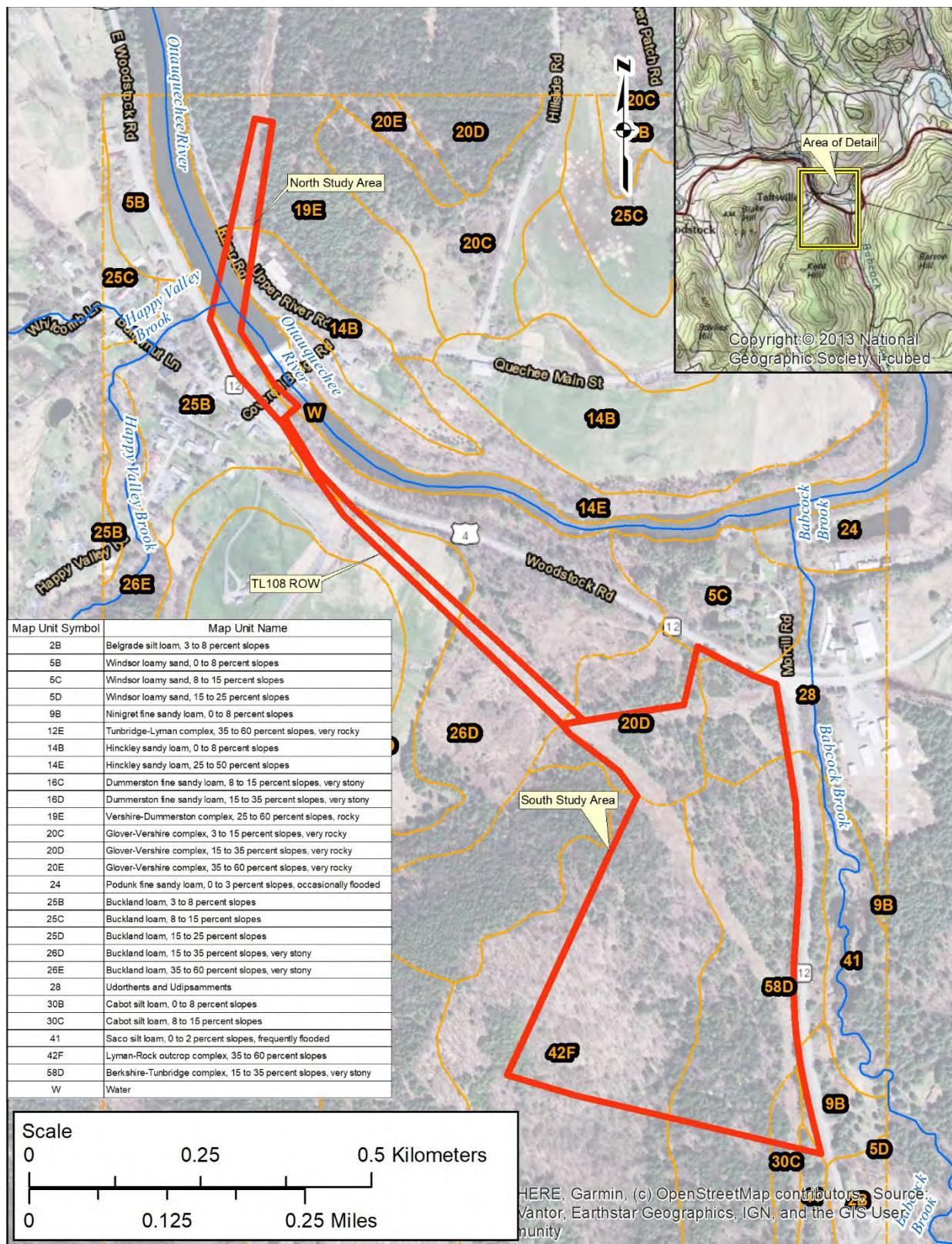


Figure 7. Map of the soil types present in the area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windham County, Vermont.

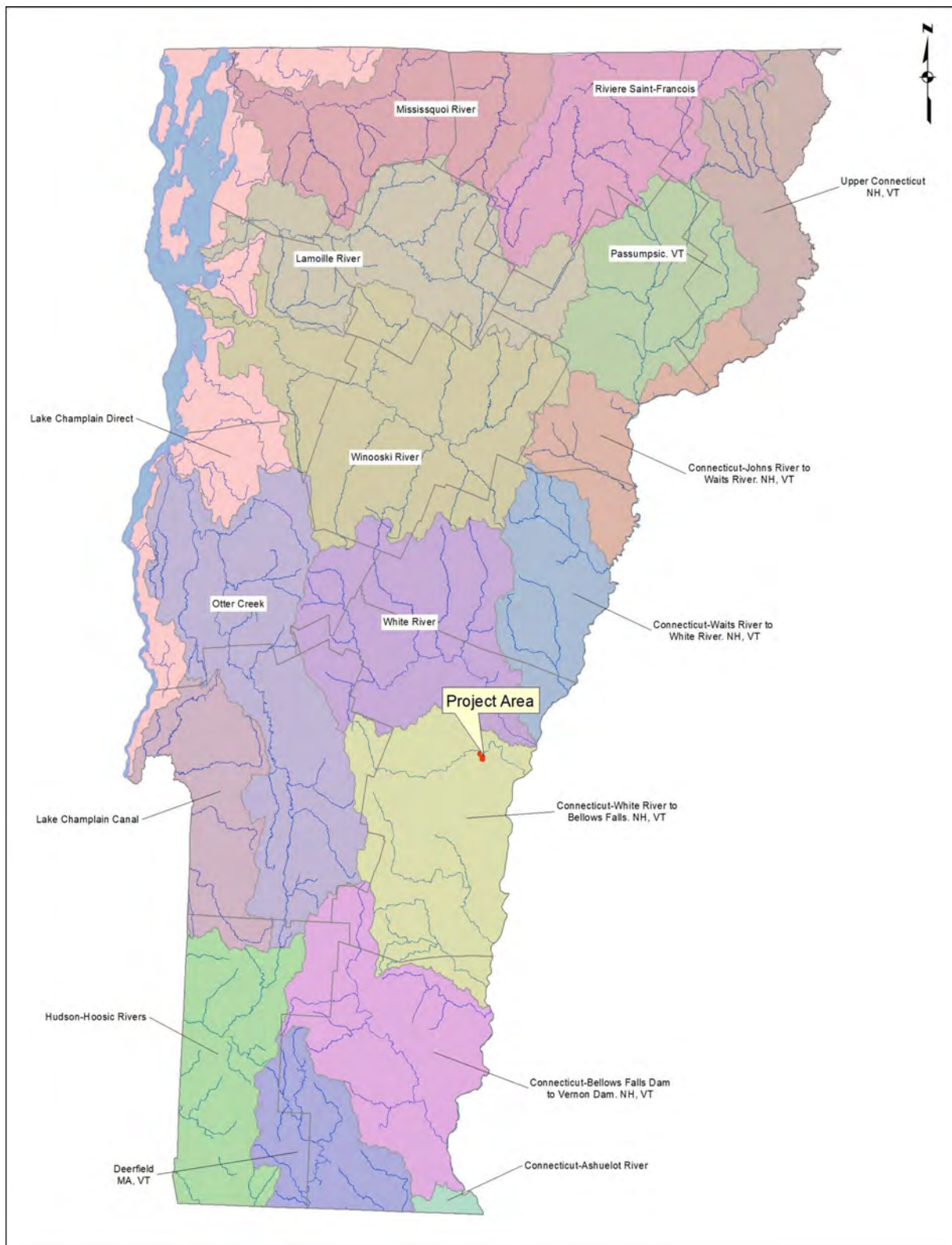


Figure 8. Map of the major watersheds of Vermont showing the location of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windham County, Vermont, within the Black River-Connecticut River watershed.

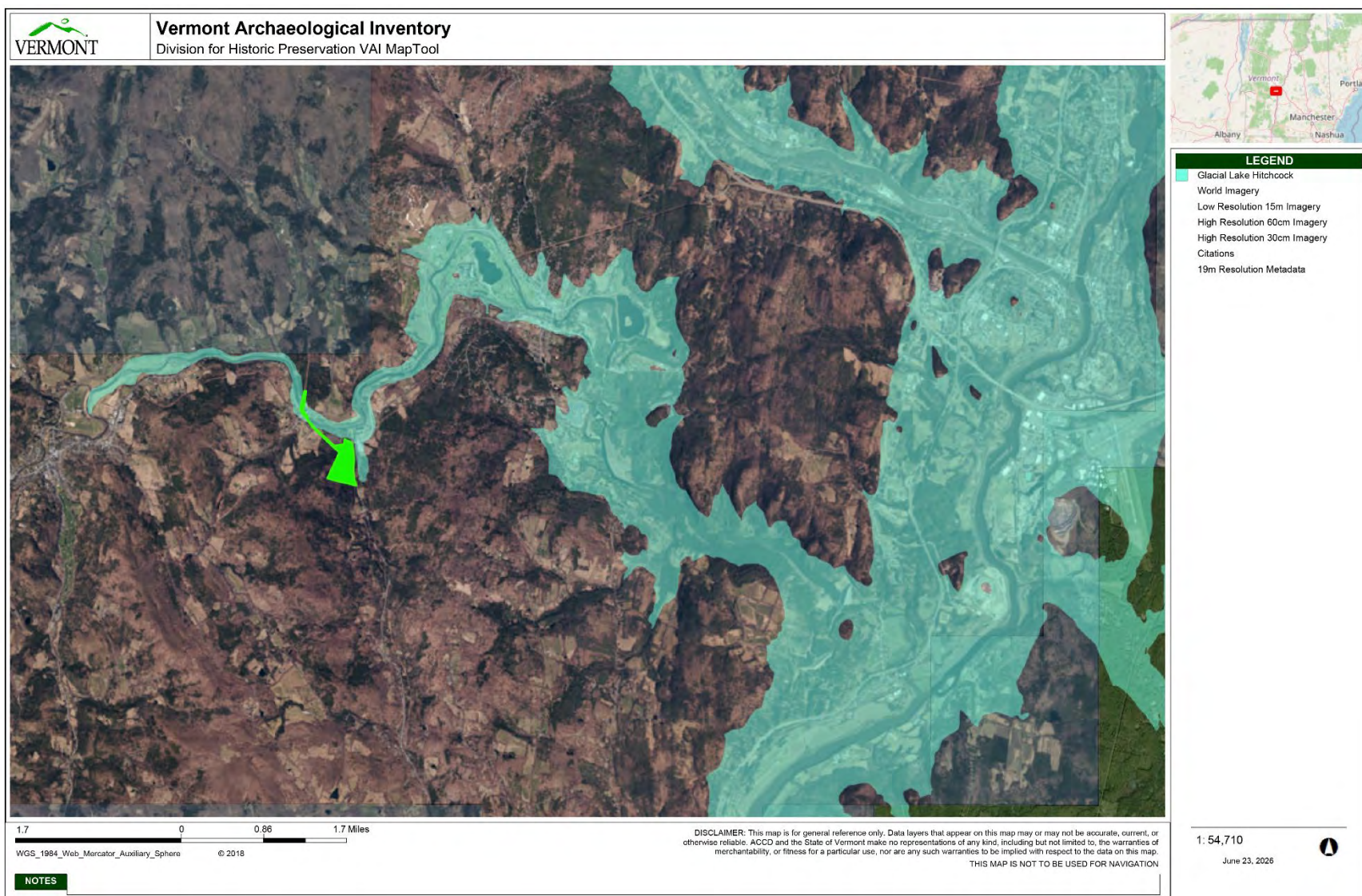


Figure 9. Map of the estimated extent of Glacial Lake Hitchcock showing the location of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windham County, Vermont, in relationship to the lake.

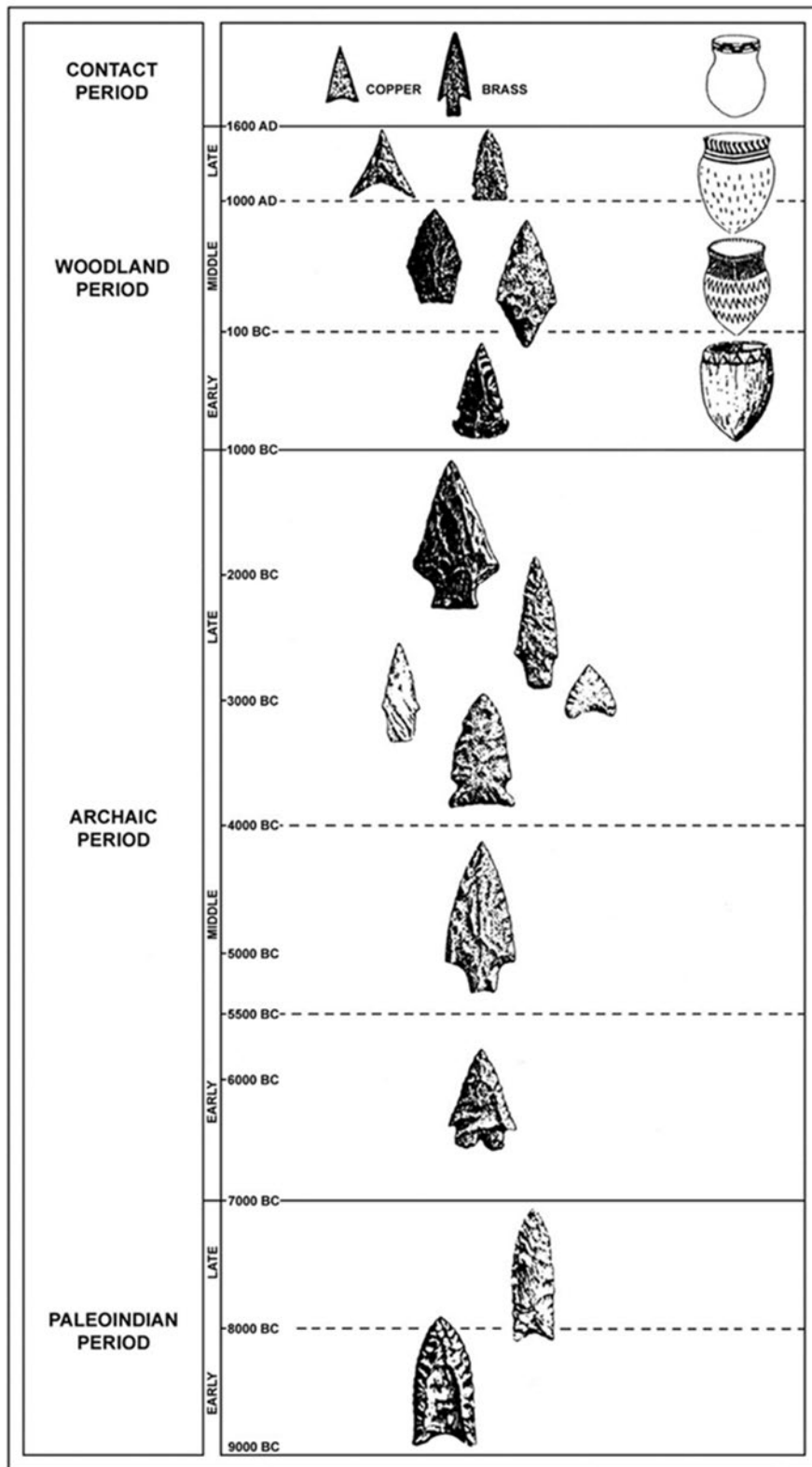


Figure 10. Cultural timeline for Northern New England Native American prehistory and early history.

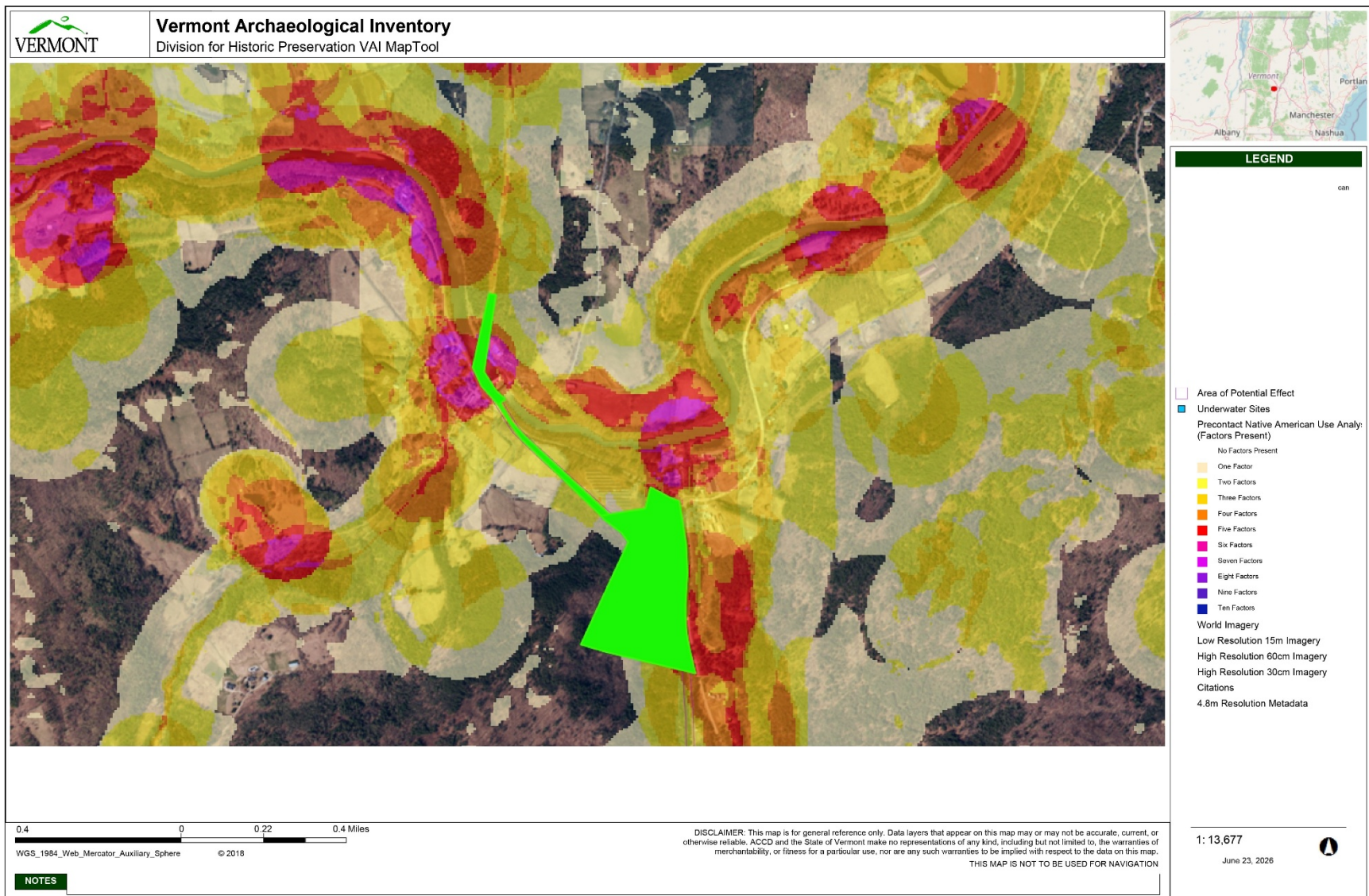


Figure 11. Map showing the distribution of pre-contact sensitivity factors mapped by the VAI *Use Analysis Model* for the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windham County, Vermont.

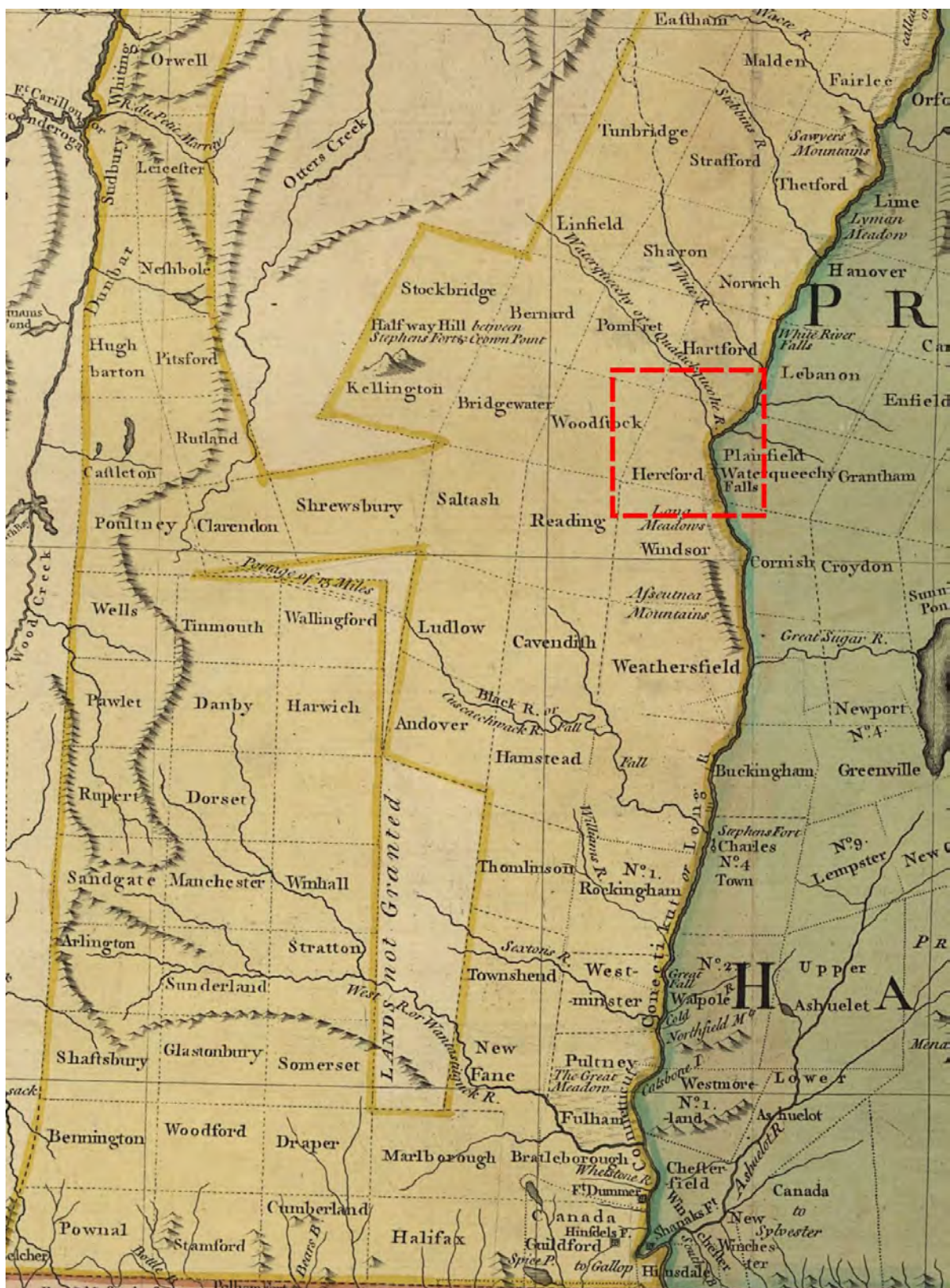


Figure 12. Excerpt from the 1774 Jefferys *A Map of the Most Inhabited Part of New England* showing the New Hampshire Grants including the town of Hereford (now Hartland).

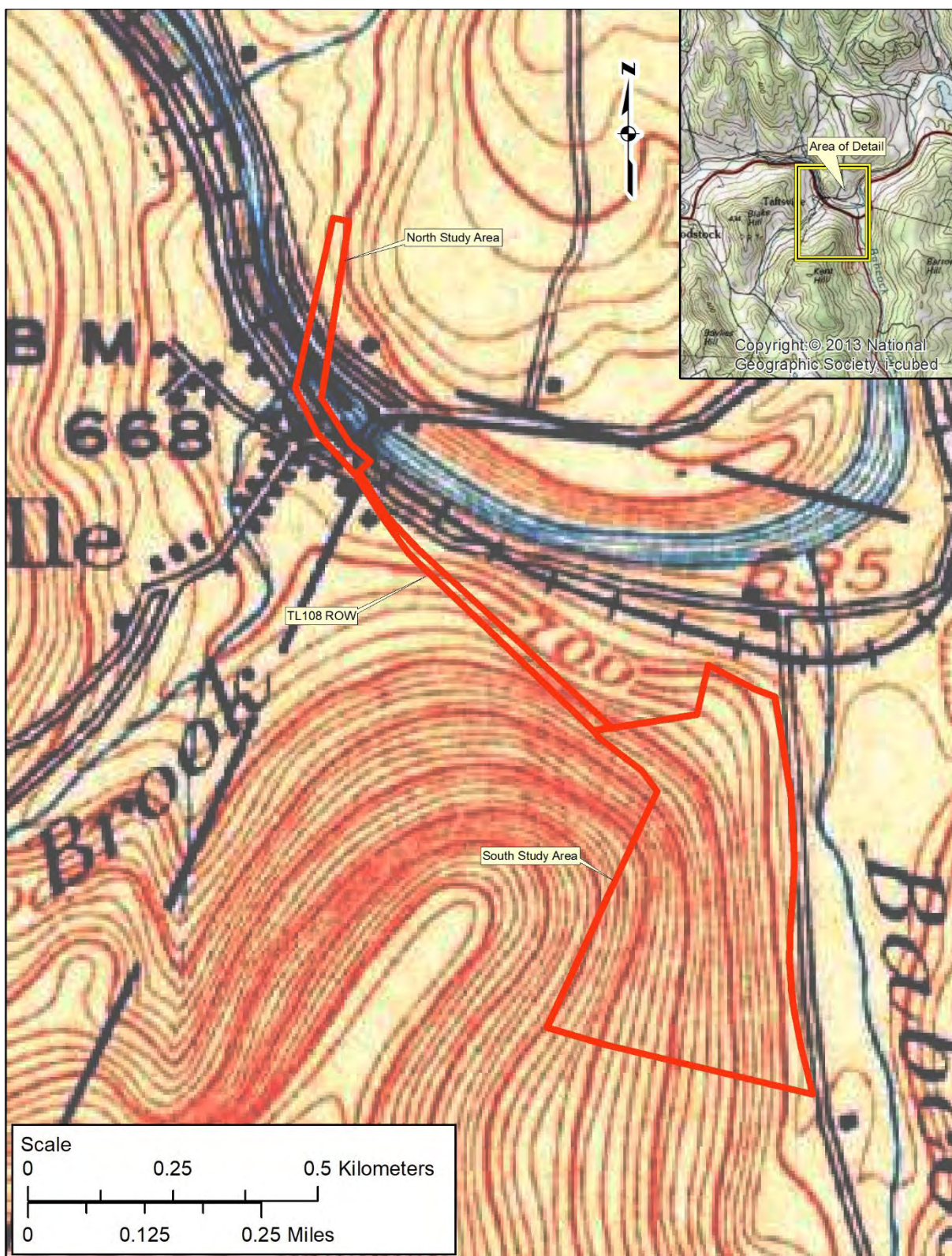


Figure 15. Excerpt from the 1908 USGS map of the Hanover, Vermont quadrangle showing the approximate location of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windham County, Vermont.

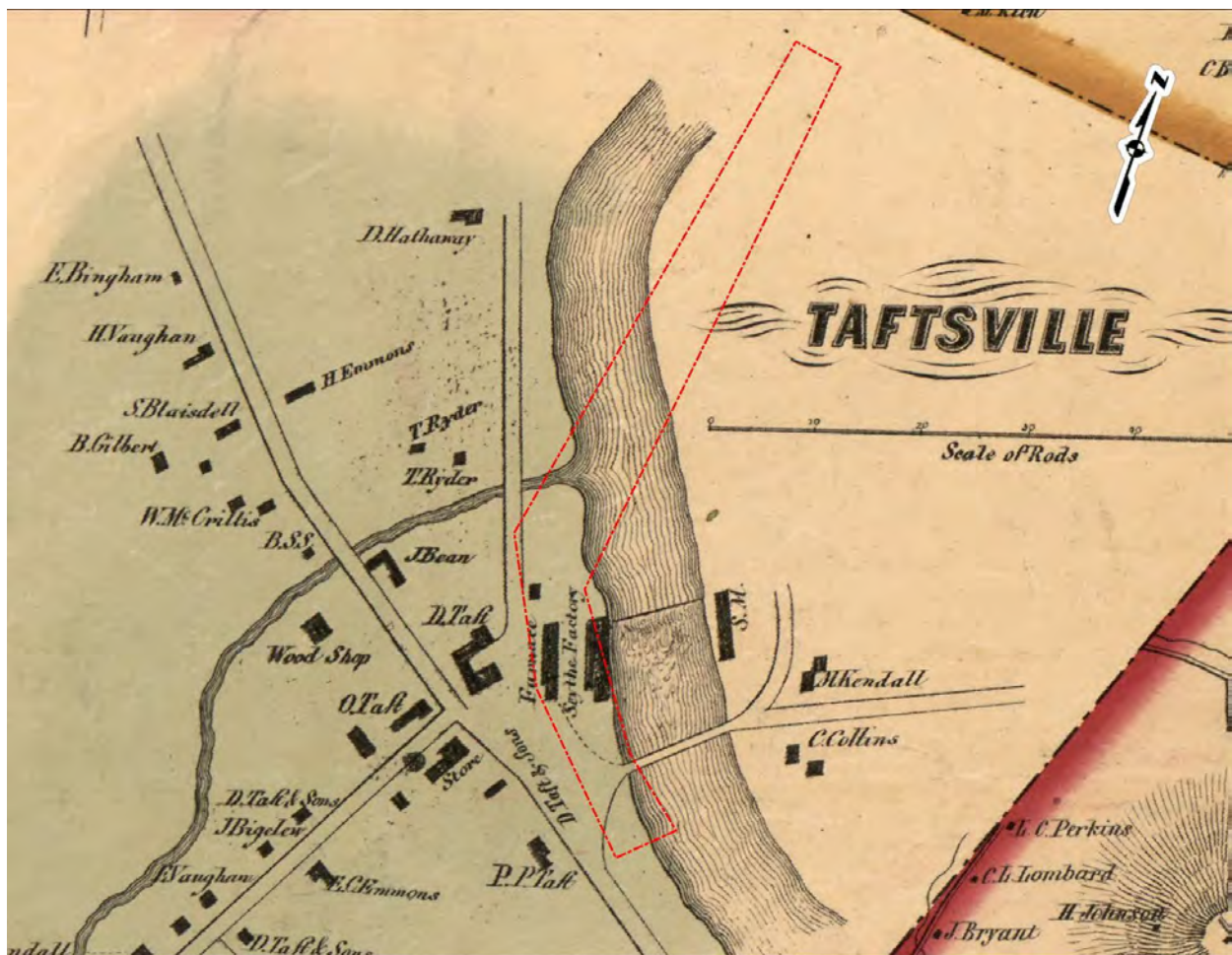


Figure 17. Inset map of Taftsville Village from the 1856 Wallings *Map of Windham County, Vermont* showing the approximate location of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windham County, Vermont. Note the location of the furnace and scythe factory within the North Study Area.



Figure 18. Inset map of Taftsville Village from the 1869 Beers *Atlas of Windham County, Vermont* showing the approximate location of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windham County, Vermont. Note the location of the furnace and scythe factory within the North Study Area.

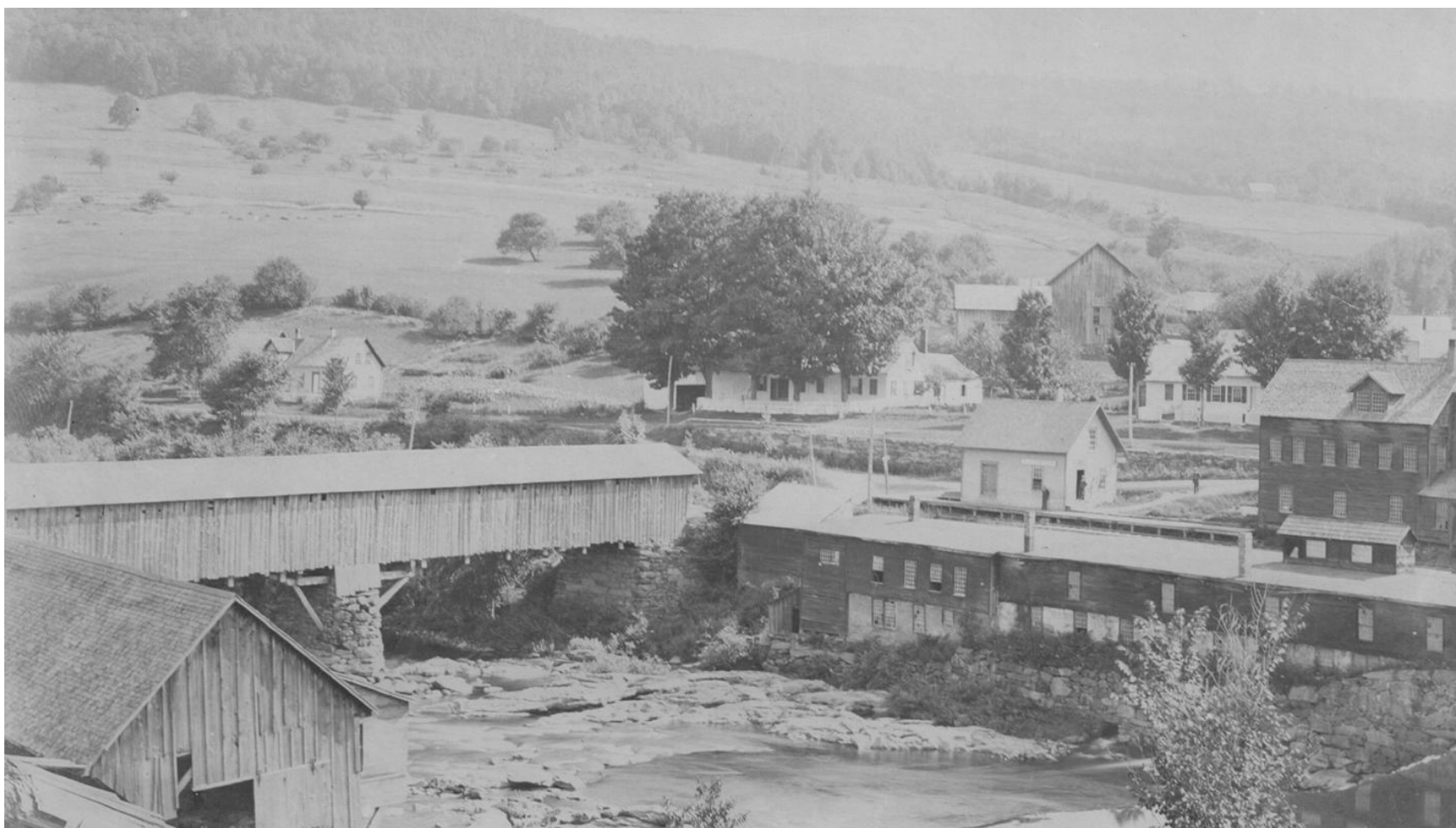


Figure 19. Late 19th century photograph of Taftsville showing the covered bridge and other structures including the scythe factory, sawmill, and furnace. The current Taftsville substation, part of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windham County, Vermont, is located in the middle right of the photo.

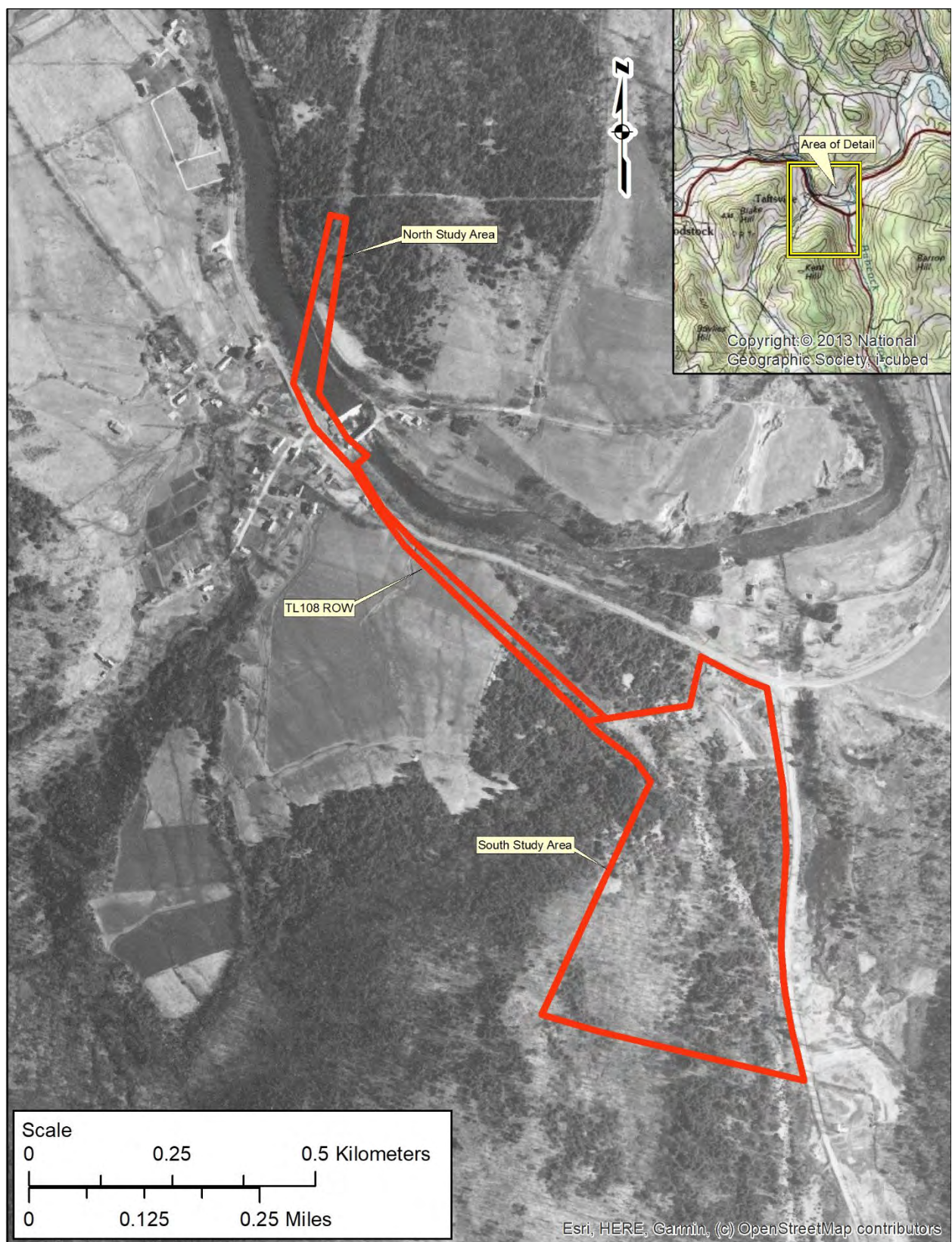


Figure 20. Aerial photograph from 1963 showing the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windham County, Vermont. Note the gravel pit in the northern part of the South Study Area.

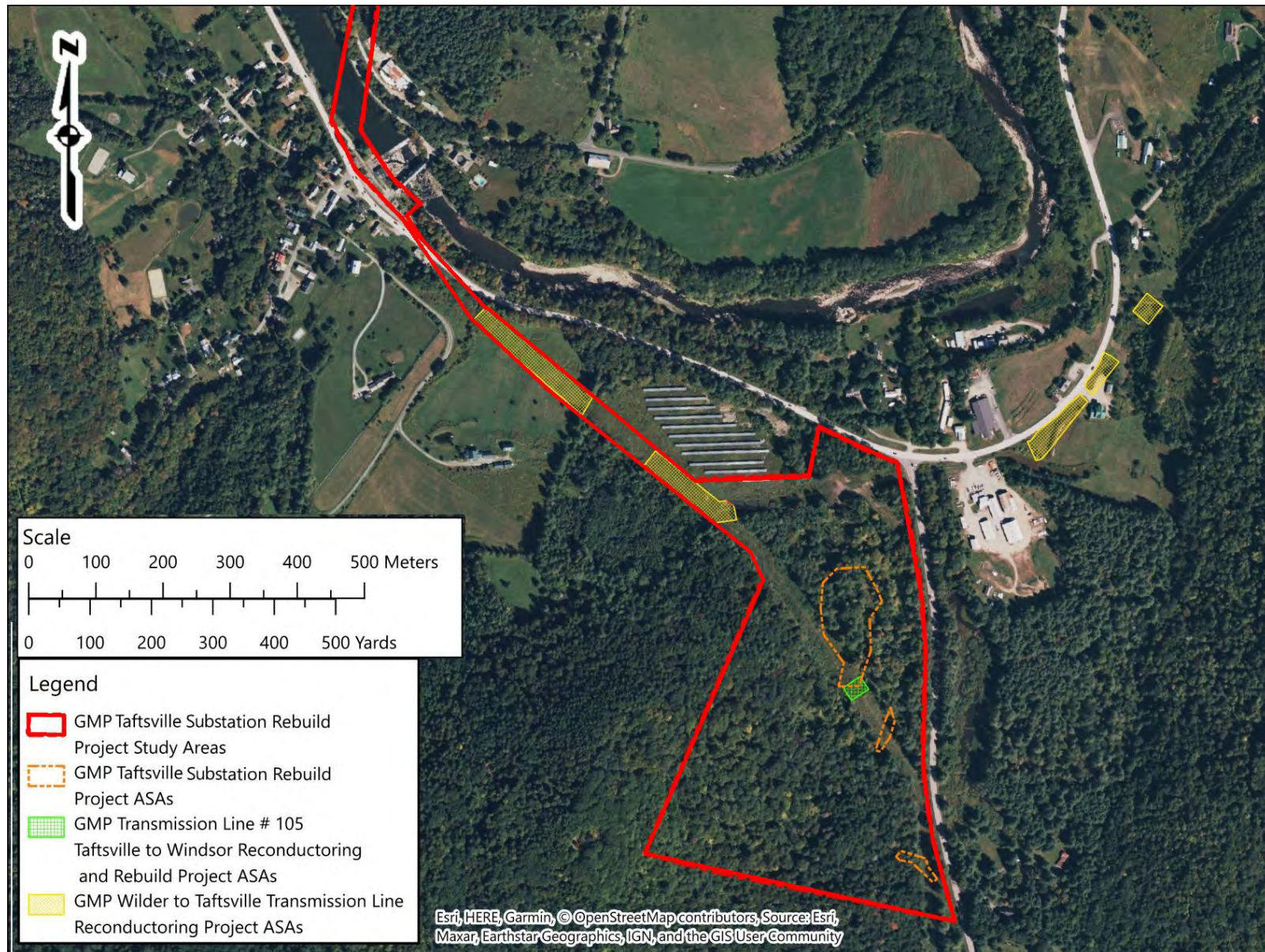


Figure 21. Aerial photo showing ASAs from previous archaeological surveys in the general vicinity of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windham County, Vermont.



Figure 22. View west of the North Study Area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windham County, Vermont. Note the current Taftsville Substation structures to the left of the photo.



Figure 23. View east of the North Study Area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windham County, Vermont. Note the current Taftsville Substation in the center midground and the Taftsville Covered Bridge to the left.



Figure 24. View east of the Transmission East substation structure of the Taftsville Substation, located in the North Study Area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windham County, Vermont.



Figure 25. View west of the Transmission substation structure of the Taftsville Substation, located in the North Study Area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windham County, Vermont.



Figure 26. View west of the Distribution substation structure of the Taftsville Substation, located in the North Study Area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windham County, Vermont.



Figure 27. View south of the hydroelectric facility located at the current GMP substation in the North APE of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windsor County, Vermont.



Figure 28. View north of the hydroelectric dam located at the current GMP substation in the North Study Area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windham County, Vermont.



Figure 29. View south of the Taftsville Covered Bridge located near the current GMP substation in the North Study Area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windham County, Vermont.



Figure 30. View south of the small section of retaining wall which may be related to the former Taft scythe factory located within the North Study Area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windsor County, Vermont.



Figure 31. View southwest showing a buried pipeline within the North Study Area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windsor County, Vermont.



Figure 32. View west showing a utility pole and indications of buried electrical conductors within the North Study Area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windsor County, Vermont.



Figure 33. View north showing the riprap reinforced bank between River Road and Upper River Road within the North Study Area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windsor County, Vermont.



Figure 34. View north up the transmission line corridor within the North Study Area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windsor County, Vermont. Note the steep slope and rocky terrain.



Figure 35. View east down the transmission line corridor towards the location of the new GMP Taftsville substation within the South Study Area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windsor County, Vermont. Note the solar farm on the left side of the photograph.



Figure 36. View south of the temporary GMP Taftsville Substation in the area of the former gravel pit in the northern portion of the South Study Area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windsor County, Vermont.



Figure 37. View north of a wooded area within the South Study Area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windsor County, Vermont. Note the slopes leading to the left and right of the photo.



Figure 38. View north along the transmission line corridor showing the slope of the landform within the South Study Area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windsor County, Vermont. ASA 2 is behind the camera and ASA 1 is located at the top of the slope.



Figure 39. View west up the flank of Kent Hill within South Study Area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windsor County, Vermont.



Figure 40. View north of the former gravel pit located in the northern portion of the South APE of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windsor County, Vermont. The temporary GMP Taftsville substation is located just to the right of the photograph.



Figure 41. Soil sample taking from just south of the temporary GMP Taftsville substation within the South Study Area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windsor County, Vermont. Note the gravelly sand just below the 'Ao' horizon.



Figure 42. View southwest of a small section of fieldstone wall/field clearance pile located south of the temporary GMP Taftsville substation within the South Study Area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windsor County, Vermont.



Figure 43. View north of ASA 1 within the South Study Area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windsor County, Vermont.



Figure 44. View south of ASA 2 within the South Study Area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windsor County, Vermont.



Figure 45. View north of ASA 3 within the South Study Area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windsor County, Vermont.



Figure 46. Soil sample from ASA 3 within the South Study Area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windsor County, Vermont. Note the apparent 'A', 'B', and 'C' soil horizons (left to right) visible within the sample.



Figure 47. View north of the degree of slope encountered in many portions of the South Study Area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windsor County, Vermont.



Figure 48. View north within the South Study Area of the GMP Taftsville Substation Relocation Project, Woodstock and Hartland, Windsor County, Vermont. Note the degree of slope to the left and off camera to the right.

Appendix I

VERMONT DIVISION FOR HISTORIC PRESERVATION
Environmental Predictive Model for Locating Pre-contact Archaeological Sites

Project Name GMP Taftsville Substation **County** Windsor **Town** Hartland
DHP No. **Map No.** **Staff Init.** **Date** 9/12/2025

Additional Information North Transmission Line

Environmental Variable	Proximity	Value	Assigned Score
A. RIVERS and STREAMS (EXISTING or RELICT):			
1) Distance to River or Permanent Stream (measured from top of bank)	0- 90 m 90- 180 m	12 6	12
2) Distance to Intermittent Stream	0- 90 m 90-180 m	8 4	
3) Confluence of River/River or River/Stream	0-90 m 90 –180 m	12 6	12
4) Confluence of Intermittent Streams	0 – 90 m 90 – 180 m	8 4	
5) Falls or Rapids	0 – 90 m 90 – 180 m	8 4	
6) Head of Draw	0 – 90 m 90 – 180 m	8 4	0
7) Major Floodplain/Alluvial Terrace		32	
8) Knoll or swamp island		32	
9) Stable Riverine Island		32	
B. LAKES and PONDS (EXISTING or RELICT):			
10) Distance to Pond or Lake	0- 90 m 90 -180 m	12 6	
11) Confluence of River or Stream	0-90 m 90 –180 m	12 6	
12) Lake Cove/Peninsula/Head of Bay		12	
C. WETLANDS:			
13) Distance to Wetland (wetland > one acre in size)	0- 90 m 90 -180 m	12 6	
14) Knoll or swamp island		32	
D. VALLEY EDGE and GLACIAL LAND FORMS:			
15) High elevated landform such as Knoll Top/Ridge Crest/ Promontory		12	
16) Valley edge features such as Kame/Outwash Terrace**		12	

17) Marine/Lake Delta Complex**		12	
18) Champlain Sea or Glacial Lake Shore Line**		32	32
E. OTHER ENVIRONMENTAL FACTORS:			
19) Caves /Rockshelters		32	
20) ☒ Natural Travel Corridor ☐ Sole or important access to another drainage ☐ Drainage divide		12	12
21) Existing or Relict Spring	0 – 90 m 90 – 180 m	8 4	
22) Potential or Apparent Prehistoric Quarry for stone procurement	0 – 180 m	32	
23)) Special Environmental or Natural Area, such as Milton aquifer, mountain top, etc. (these may be historic or prehistoric sacred or traditional site locations and prehistoric site types as well)		32	
F. OTHER HIGH SENSITIVITY FACTORS:			
24) High Likelihood of Burials		32	
25) High Recorded Site Density		32	
26) High likelihood of containing significant site based on recorded or archival data or oral tradition		32	
G. NEGATIVE FACTORS:			
27) Excessive Slope (>15%) or Steep Erosional Slope (>20)		- 32	
28) Previously disturbed land as evaluated by a qualified archeological professional or engineer based on coring, earlier as-built plans, or obvious surface evidence (such as a gravel pit)		- 32	
** refer to 1970 Surficial Geological Map of Vermont			
			Total Score: 66
Other Comments :			
0- 31 = Archeologically Non- Sensitive 32+ = Archeologically Sensitive			

VERMONT DIVISION FOR HISTORIC PRESERVATION
Environmental Predictive Model for Locating Pre-contact Archaeological Sites

Project Name GMP Taftsville Substation **County** Windsor **Town** Hartland
DHP No. **Map No.** **Staff Init.** **Date** 9/12/2025

Additional Information New Location, score for location of ASA 1

Environmental Variable	Proximity	Value	Assigned Score
A. RIVERS and STREAMS (EXISTING or RELICT):			
1) Distance to River or Permanent Stream (measured from top of bank)	0- 90 m 90- 180 m	12 6	6
2) Distance to Intermittent Stream	0- 90 m 90-180 m	8 4	
3) Confluence of River/River or River/Stream	0-90 m 90 –180 m	12 6	
4) Confluence of Intermittent Streams	0 – 90 m 90 – 180 m	8 4	
5) Falls or Rapids	0 – 90 m 90 – 180 m	8 4	
6) Head of Draw	0 – 90 m 90 – 180 m	8 4	
7) Major Floodplain/Alluvial Terrace		32	4
8) Knoll or swamp island		32	
9) Stable Riverine Island		32	
B. LAKES and PONDS (EXISTING or RELICT):			
10) Distance to Pond or Lake	0- 90 m 90 -180 m	12 6	
11) Confluence of River or Stream	0-90 m 90 –180 m	12 6	
12) Lake Cove/Peninsula/Head of Bay		12	
C. WETLANDS:			
13) Distance to Wetland (wetland > one acre in size)	0- 90 m 90 -180 m	12 6	
14) Knoll or swamp island		32	
D. VALLEY EDGE and GLACIAL LAND FORMS:			
15) High elevated landform such as Knoll Top/Ridge Crest/ Promontory		12	12
16) Valley edge features such as Kame/Outwash Terrace**		12	

17) Marine/Lake Delta Complex**		12	
18) Champlain Sea or Glacial Lake Shore Line**		32	32
E. OTHER ENVIRONMENTAL FACTORS:			
19) Caves /Rockshelters		32	
20) ☒ Natural Travel Corridor ☐ Sole or important access to another drainage ☐ Drainage divide		12	12
21) Existing or Relict Spring	0 – 90 m 90 – 180 m	8 4	
22) Potential or Apparent Prehistoric Quarry for stone procurement	0 – 180 m	32	
23)) Special Environmental or Natural Area, such as Milton aquifer, mountain top, etc. (these may be historic or prehistoric sacred or traditional site locations and prehistoric site types as well)		32	
F. OTHER HIGH SENSITIVITY FACTORS:			
24) High Likelihood of Burials		32	
25) High Recorded Site Density		32	
26) High likelihood of containing significant site based on recorded or archival data or oral tradition		32	
G. NEGATIVE FACTORS:			
27) Excessive Slope (>15%) or Steep Erosional Slope (>20)		- 32	
28) Previously disturbed land as evaluated by a qualified archeological professional or engineer based on coring, earlier as-built plans, or obvious surface evidence (such as a gravel pit)		- 32	
** refer to 1970 Surficial Geological Map of Vermont			
			Total Score: 68
Other Comments :			
0- 31 = Archeologically Non- Sensitive 32+ = Archeologically Sensitive			