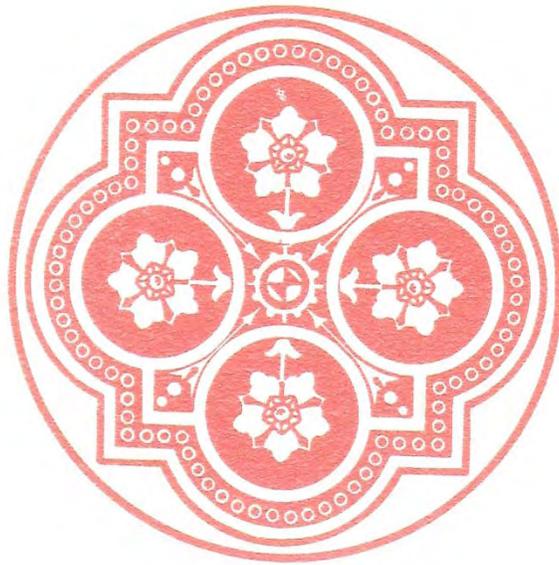


Cricket Valley Energy Laydown Site

Phase 1A Literature Review and Sensitivity Analysis

(OPRHP 07PR03272)



Route 22 at County Route 6 (Old Route 22)
Town of Dover, Dutchess County, New York

Prepared for:

Cricket Valley Energy, LLC.
31 Milk Street, Suite 1001
Boston, MA 02109

By:

CITY/SCAPE: Cultural Resource Consultants
166 Hillair Circle
White Plains NY 10605

December 2010

CRICKET VALLEY ENERGY LAYDOWN SITE

Route 22 at County Route 6 (Old Route 22)
Town of Dover. Dutchess County, New York

TABLE OF CONTENTS

Management Summary

Map List

Phase 1A Literature Review & Sensitivity Analysis

Introduction.....	1
Project Area Description.....	1
Environmental Conditions	5
Documentary Research	6
Prehistoric & Historic Sites Located in Vicinity of Project Area	6
History of the Site	7
Additional Research Undertaken	14
Sensitivity Assessment & Site Prediction.....	14
Conclusions & Recommendations	15
Bibliography	16

Appendices:

Appendix A: Photographs

Appendix B: Soil Description Map

Management Summary

SHPO Project Review Number (if available): **OPRHP 07PR03272**

Involved State and Federal Agencies (DEC, CORPS, FHWA, etc): DEC

Phase of Survey: **Phase 1A Literature Review & Sensitivity Analysis**

Location Information:

Location: **Route 22 at County Route 6 (Old Route 22)**

Minor Civil Division: **Town of Dover**

County: **Dutchess**

Survey Area (Metric & English)

Length:

Width:

Depth (when appropriate):

Number of Acres Surveyed: **±30 acres (12 hectares)**

Number of Square Meters & Feet Excavated (Phase II, Phase III only): **N/A**

Percentage of the Site Excavated (Phase II, Phase III only):

USGS 7.5 Minute Quadrangle Map: **Dover Plains**

Archaeological Survey Overview

Number & Interval of Shovel Tests

Number & Size of Units: **N/A**

Width of Plowed Strips: **N/A**

Surface Survey Transect Interval: **N/A**

Results of Archaeological Survey

Number & name of prehistoric sites identified: **0**

Number & name of historic sites identified: **0**

Number & name of sites recommended for Phase II/Avoidance: **N/A**

Results of Architectural Survey

Number of buildings/structures/cemeteries within project area: **0**

Number of buildings/structures/cemeteries adjacent to project area: **0**

Number of previously determined NR listed or eligible buildings/structures/cemeteries/districts:

Number of identified eligible buildings/structures/cemeteries/districts: **N/A**

Report Author (s): **Gail T. Guillet, Stephanie Roberg-Lopez M.A., R.P.A. and Beth Selig**

Date of Report: **December 2010**

MAP LIST

Maps

- Map 1: 1989 USGS Topographical Map. Dover Plains Quadrangle. 7.5 Minute Series. Red line indicates property boundaries. Blue line indicates APE. Scale: 1"=1500'.
- Map 2: Location map showing the Cricket Valley Energy Laydown Site. Source: Hagstrom's *Dutchess County Street Atlas* 2004. Red line indicates property boundaries. Blue line indicates APE. Scale: 1"=2250'.
- Map 3: J. C. Sidney's 1850 *Map of Dutchess County, New York*. Red line indicates property boundaries. Blue line indicates APE. Scale: 1" = 1800'
- Map 4: Corey & Bachmann's 1858 *Map of Town of Dove*. In John E. Gillette's *Map of Dutchess County, New York*. Red line indicates property boundaries. Blue line indicates APE. Scale: 1" = 1500'.
- Map 5: F. W. Beers' 1867 *Map of Town of Dover*. In Beer's *Atlas of New York & Vicinity*. Red line indicates property boundaries. Blue line indicates APE. Scale: 1" = 1800'.
- Map 6: O. W. Gray & Sons' 1876 *New Illustrated Atlas of Dutchess County, New York*. Red line indicates property boundaries. Blue line indicates APE. Scale: 1" = 1500'.
- Map 7: 1901 USGS Topographical Map. Clove Valley Quadrangle. 15 Minute Series. Red line indicates property boundaries. Blue line indicates APE. Scale: 1" = 2250'.
- Map 8: 1947 USGS Topographical Map. Dover Plains, NY Quadrangle. 7.5 Minute Series. Red line indicates property boundaries. Blue line indicates APE. Scale: 1" = 1500'.

Figures

- Fig. 1: Aerial Image of Cricket Valley Laydown Site. (Source: The Chazen Companies). Scale: 1"=750'.
- Fig. 2: Soil Map for the Cricket Valley Laydown Site. (Source: Natural Resources Conservation Service Web Soil Survey) Scale shown on map.

CRICKET VALLEY ENERGY LAYDOWN SITE

Route 22 at County Route 6 (Old Route 22)

Town of Dover. Dutchess County, New York

Introduction

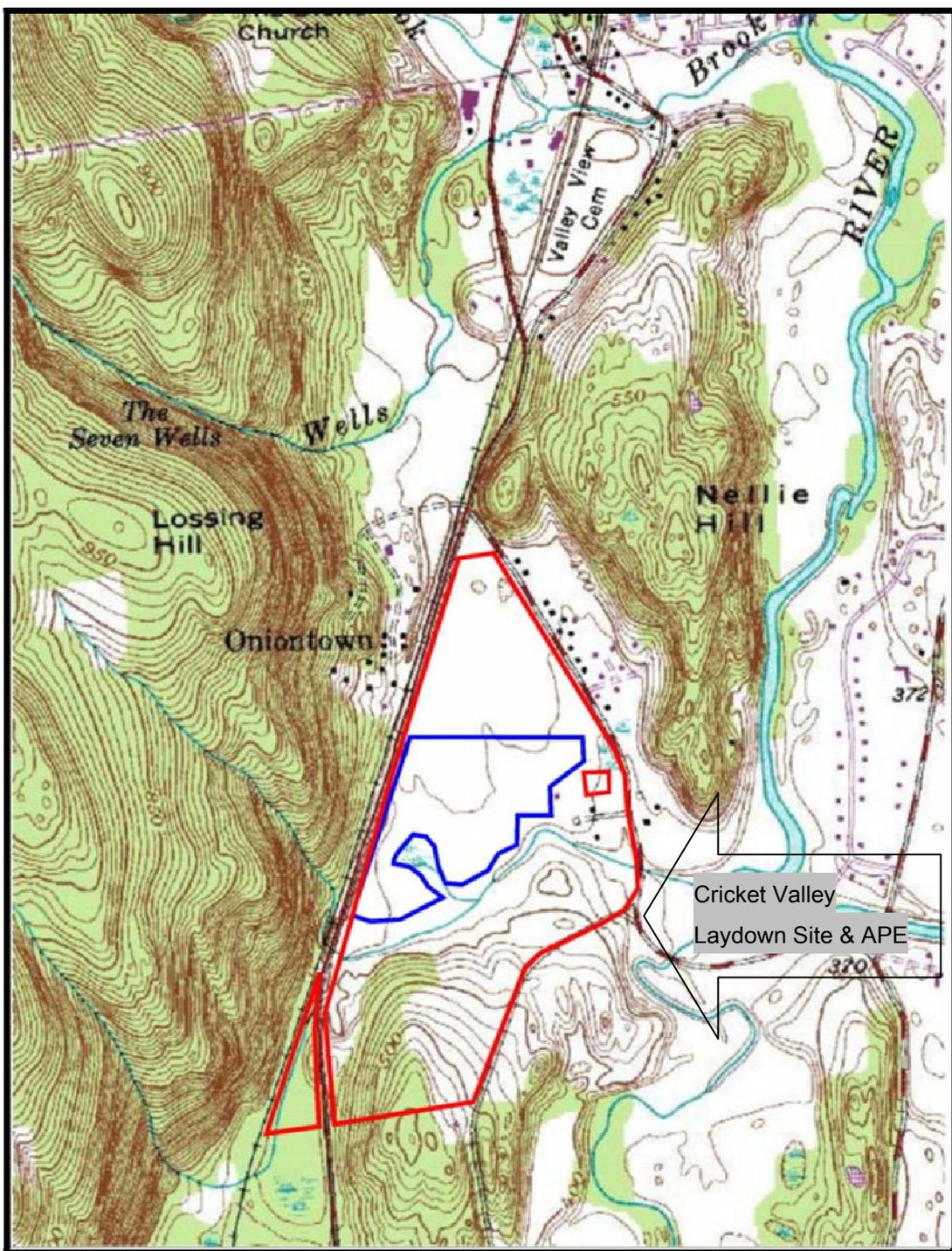
The following report presents the results of a Phase 1A Literature Review & Sensitivity Analysis prepared for Cricket Valley Energy LLC, by CITY/SCAPE: Cultural Resource Consultants. For the purposes of the Phase 1A report, the entirety of the project parcel was considered, however, the Phase 1B Field Reconnaissance Survey will be limited to the Cricket Valley Energy Laydown Site's Area of Potential Effect (APE).

The Phase 1A Literature Review and Sensitivity Analysis was performed in accordance with the guidelines established by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) and the *Standards for Cultural Resource Investigations and the Curation of Archeological Collections* published by the New York Archeological Council (2005 & 1994). The field investigation and technical report meet the specifications of the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (*Federal Register* 48:190:44716-44742) (United States Department of the Interior 1983). All work performed meets the requirements of the relevant federal standards (36 CFR 61) and of the State Environmental Quality Review Act (SEQRA) 6NYCRR, part 617 of the New York State Environmental Conservation Law. In addition, the qualifications of the Principal Investigator, who supervised the project, meets or exceeds the qualifications described in the Secretary of the Interior's Professional Qualifications Standards (*Federal Register* 48:190:44738-44739) (United States Department of the Interior 1983).

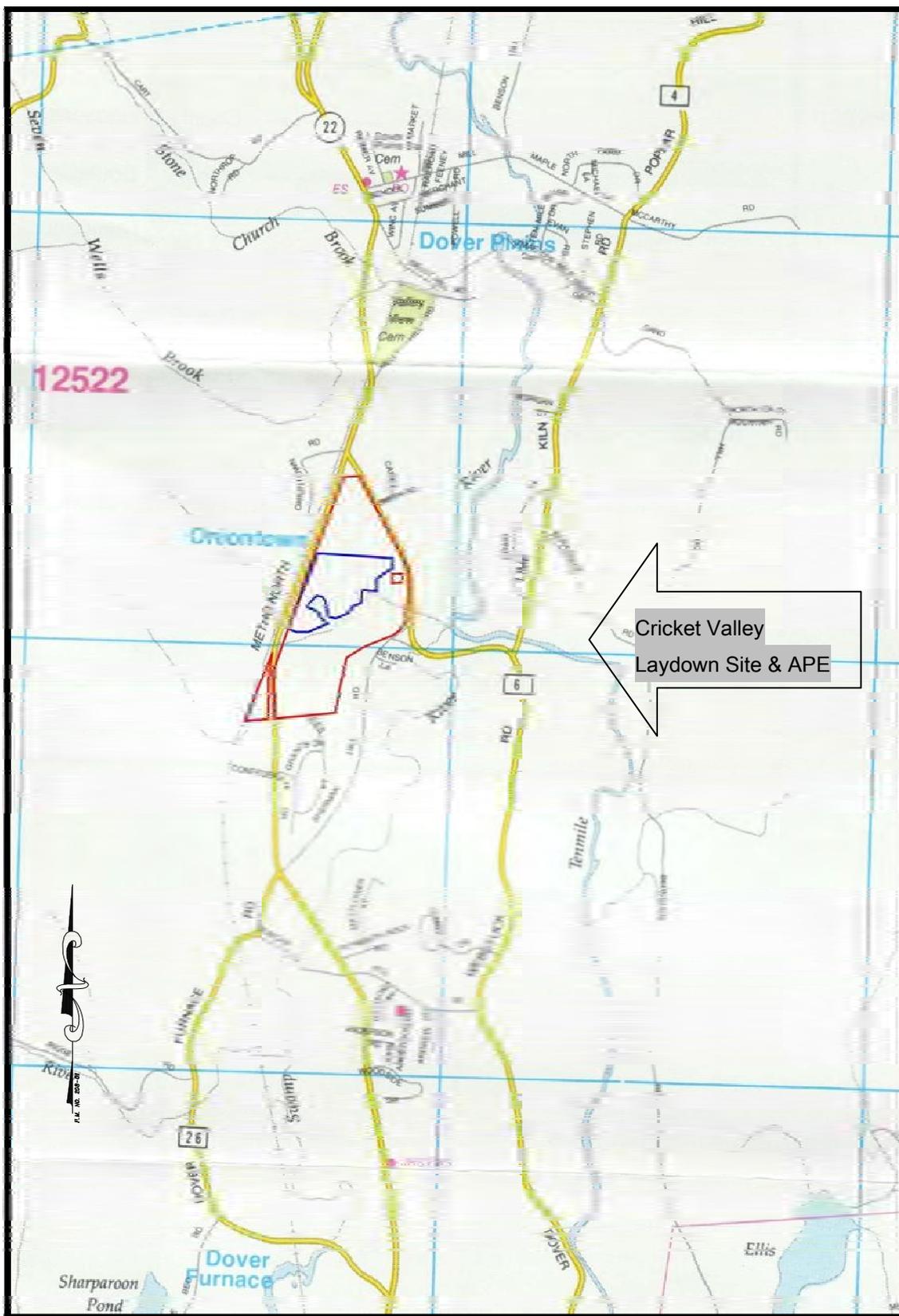
Project Area

The Cricket Valley Energy Laydown Site (Laydown Site) is located on the east side of NYS Route 22 in the Town of Dover, Dutchess County, New York. (Maps 1-2 & Fig. 1) The Laydown Site's Area of Potential Effect (APE) consists of a generally triangular shaped parcel of land with a keyhole shaped outparcel on the southern boundary. The northern boundary extends west to east through a series of agricultural fields planted with corn and rye. The eastern boundary extends to County Route 6 (CR 6/Old Route 22) north of the farmstead located on the west side of CR 6. The southern boundary is an irregular line that generally follows a small stream that flows from the west side of Route 22 along the base of the hill located south of the Laydown Site. The entire Laydown Site consists of ± 30 acres (12 hectares). The Laydown Site appears completely level, but topographical maps indicate that the land slopes gently from the north to the south and west to east. The Laydown Site is vacant, but is associated with the dwellings and farm buildings that front on CR 6 (Old Route 22).

It is proposed to use the Laydown Site to store construction material and to provide parking for approximately 850 vehicles. Three stormwater management basins are proposed along the southern boundary of the site. Two of the three will be located on either side of the keyhole shaped outparcel, while the third is to be located directly behind the large barn associated with the farmstead. There will be an entrance into the site from Route 22.



Map 1: 1989 USGS Topographical Map. Dover Plains Quadrangle. 7.5 Minute Series. Red line indicates property boundary. Blue line indicates APE. Scale: 1"=1500'.



Map 2: Location Map showing Project Area. Source: Hagstrom's *Dutchess County Street Atlas* 2004. Red line indicates property boundary. Blue line indicates APE. Scale: 1''=2250'.

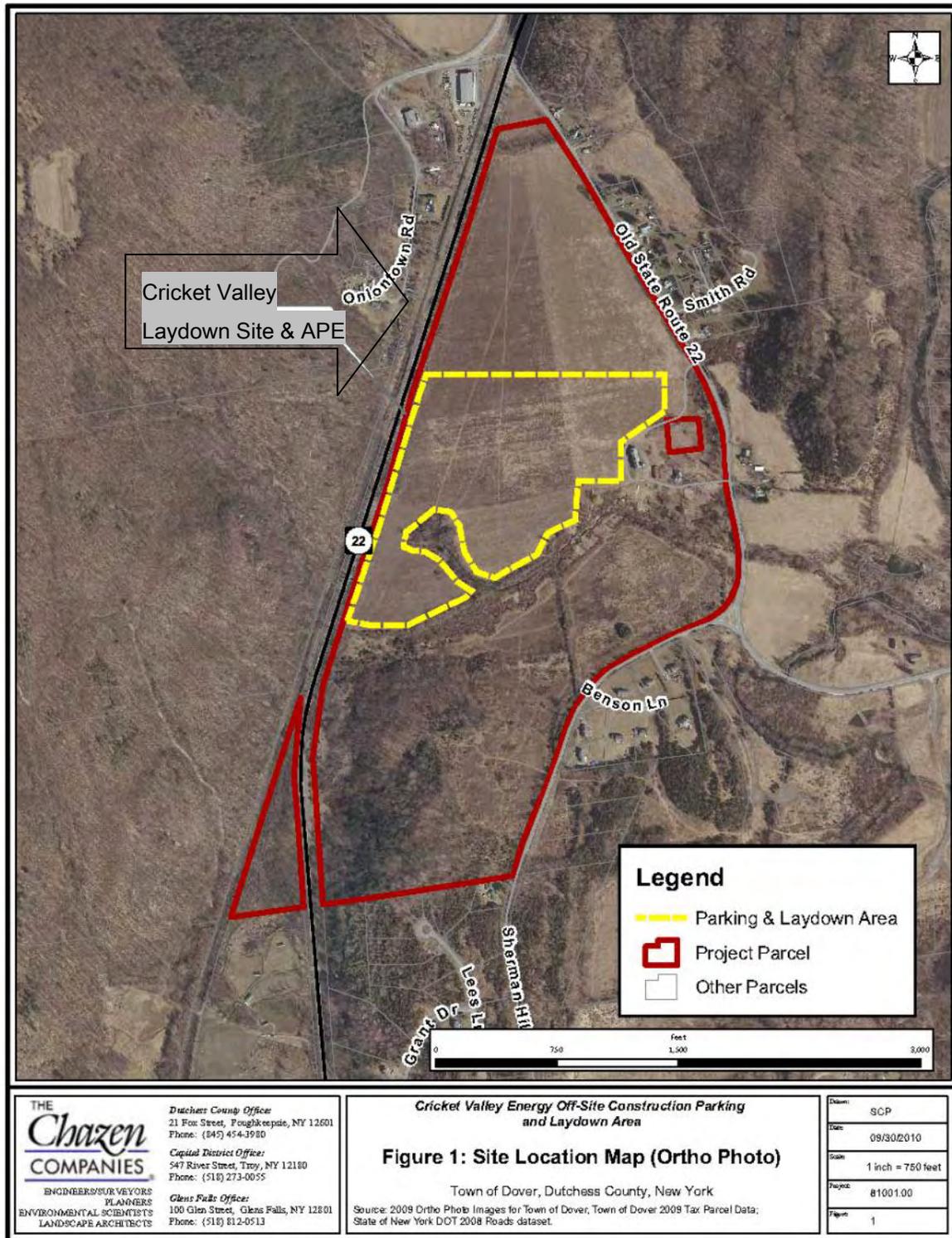


Fig. 1: Aerial photo of Cricket Valley Energy Laydown Site. Source: The Chazen Companies. Red line indicates property boundary or project parcel. Yellow dashed line indicates project area APE. Scale: 1"=750'.

Environmental Conditions

As stated above, the Laydown Site is generally level, but elevations on the site slope gently from 412' (125.6 m) Above Mean Sea Level (AMSL) in the center of the field to 399' (121.6 m) in the southwestern corner of the site and 380' (115.8 m) in the southeastern portion of the site.

The Laydown Site is situated within the Ridge and Valley physiographic province, which extends from Lake Champlain to Alabama. The portion of the Ridge and Valley Province in which the Laydown Site is located is specifically identified as the Taconic Allochthon -- bordered on the east by the Manhattan Prong and on the west by the Great Valley province (Schuberth 1968). As reflected by the topography of the town, the bedrock geology of the Town of Dover is almost exclusively composed of elongate formations of sedimentary rock (graywacke and shale) running in a generally north-south direction. Smaller formations in the eastern part of the town are composed of shale, limestone, conglomerate, argillite, siltstone, chert, and Taconic Mélange (a formation of various rock fragments that have been cemented together (Fisher et al. 1970). The [APE] [Laydown Site] is underlain by Stockbridge marble.

The characteristics of the soils within the Laydown Site have an important impact on the potential for the presence of cultural material, since the types of soils present affected the ability of an area to support human populations. Topographically, the Laydown Site is located in an area characterized by level plains with slopes ranging from 0 to 2 percent. With the exception of a small steeper area along Route 22, which contains Copake gravelly silt loam (CuC), the soil complex of the Laydown Site APE is Copake gravelly silt loam (CuA). Copake gravelly silt loam, formed in glaciofluvial deposits, is very deep to bedrock and well drained. It is found on valley floors and outwash plains. The keyhole outparcel and the land immediately to the north, along the stream corridor, is Pawling silt loam complex (Pg) and Wayland silt loam complex (Wy); a small portion of these soils are within the APE. Pawling silt loam complex is associated with floodplains; it is very deep to bedrock and moderately well drained. Wayland silt loam complex is identified in the *Soil Survey of Dutchess County* as a wetland soil that is very deep to bedrock, nearly level, and poorly to very poorly drained. The soils within the APE, being level and well drained, would have been attractive to prehistoric peoples, particularly since there is fresh water immediately to the south.

The forest zone in which the project area is located is the Appalachian Oak-Northern Hardwood Zone, which is characterized by red and white oak intermingled with northern hardwoods, such as beech, sugar maple and birch, and evergreens, such as hemlock (Küchler 1964). Oak and beech, as well as other hardwoods, including chestnut and shagbark hickory, provide nuts that would have been an attraction for wildlife, as well as providing an important food resource for Native American peoples.

Drainage on the Laydown Site is southward into the unnamed stream that flows along the southern boundary of the site. This stream rises in the hills to the west of NYS Route 22 and flows into the Swamp River, which flows north from the Town of Pawling, to join the Ten Mile River in the Town of Dover southeast of the site. The Ten Mile River flows south and east into Connecticut's Housatonic River, in contrast to the Croton River system, which flows south and west into the Hudson River. Prehistoric sites have been identified at the intersection of Route 22 and Old State Route 22 (CR 6) and to the south along the banks of the Swamp River. The two sites in the vicinity of the project area will be discussed in greater detail below.

Documentary Research

Documentary research for the Phase 1A report included an examination of the archaeological site maps housed at Peebles Island and several historic maps located in the New York State Library in Albany. These maps show the Laydown Site and the area surrounding it. Professional archaeological surveys conducted in the vicinity were also consulted, two of which were located within a 1-mile (5280'/1609 m) radius of the project area. Research indicates that there are professionally excavated prehistoric sites located along the Swamp River, and an anecdotal site located on the former Lossing Farm on Dover Furnace Road southwest of the project area. Map research indicates that, although there is an historic farmstead associated with the project area, no Map Documented Structures (MDS) were located within the project area's boundaries. The results of the site map research are discussed in greater detail below.

Prehistoric and Historic Sites Located in the Vicinity of the Project Area

As part of the initial research for the Phase 1A literature review, CITY/SCAPE: Cultural Resource Consultants examined the archaeological site maps housed at Peebles Island. These files indicate that neither OPRHP nor New York State Museum (NYSM) prehistoric sites have been reported within the boundaries of the Laydown Site. There are, however, two prehistoric sites within a ¼ mile (1320'/402 m). These sites are included in the table below. Both of these sites were identified on the River Valley Estates site, which is on the south side of CR 6 east of the intersection with Sherman Hill Road. The sites, identified as the Jasper Site and the Corn Snake Site, were investigated at the level of a Stage 1 and Stage 2, with the result that it was determined that the Jasper Site lacked research potential, and that the Corn Snake Site, while significant, could be protected through the redesign of the septic system on one of the house lots. Neither of these sites will be impacted by the proposed work on the Laydown Site. One historic archaeological site was identified in the literature review: the Seven Wells Brook Historic Site (A02704.000141). This was described as a sheet midden of undetermined date. This site is located more than 2600' from the laydown site, to the west of Route 22, and will not be impacted by the work proposed on the Cricket Valley Energy Laydown Site. The sites identified in the OPRHP archaeological site files are presented in tabular form below:

Number	Name	Description	Distance
A02704.000145	Jasper Site	Stray find	1320' (402 m)
A02704.000146	Corn Snake Site	Workshop/Tool manufacture	1320' (402 m)
A02704.000141	Seven Wells Brook Historic Site	Sheet midden	2640' (805 m)
NYSM 3140	"in Dover on Lossing Farm"	Village	1320' (402 m)
NYSM 7857	No information	Camp	3960' (1207 m)

There are no National Registered listed structures in the vicinity of the Laydown Site. In the literature review, only one structure within a one mile radius was identified as National Register (NR) eligible, a Greek Revival farmhouse on the north side of Old Route 22 (CR 6) east of the intersection with Sherman Hill Road (A027.04.00144). That building will not be impacted either physically or visually by the proposed project. The windshield survey of Route 22, Old Route 22 (CR 6), and Sherman Hill Road identified a Greek Revival farmhouse

on the east side of Sherman Hill Road that may be NR eligible, but, like the Greek Revival farmhouse above, it is protected from visual and physical impacts by distance and topography. None of the other structures located on Old Route 22 (CR 6) or Sherman Hill Road are NR eligible. Photos of structures on properties on or adjacent to the Laydown Site that are more than 50 years old are included in Appendix A.

History of the Site

The material presented below is not intended to be an exhaustive examination of the history of the site, but is, rather, an exercise to locate and identify Map Documented Structures (MDS) located on the site and structures adjacent to the project area that may be of historic significance. For this purpose, a group of historic maps available at the State Museum in Albany has provided the basis for the discussion.

The earliest map examined for this report is the J. C. Sidney 1850 *Map of Dutchess County, New York*. (Map 3) Route 22 is shown on this map, but in 1850 the alignment of the highway differed from that of today. The road that is now identified as County Route 6 was then Route 22, and the farmstead located on the west side of CR 6 fronted a major north-south highway that had served as a drovers' road since before the American Revolution. In 1850 the farm was owned by the Waller family. Although there may have been outbuildings associated with the Waller farm, there is no indication that there were any structures associated with the Laydown Site APE. There were no other dwellings on the east side of the highway until the point where CR 6 intersects with present-day Route 22, where a dwelling owned by J. Ensign was located. To the south, along the southern portion of Sherman Hill Road, were the homes of O. F. Taber and M. Preston, both on the east side of the highway, with the dwellings of S. Jones and W. White on the west side. This was also the location of the district school. Further to the south, was White's Furnace, a saw mill, a store, a blacksmith shop and several houses. The Swamp River, which rises in the Town of Pawling and enters the Ten Mile River to the southeast of the project area, is shown on this map. Stone's Mill on the Ten Mile River is shown, as are several marble quarries located along Lime Kiln Road to the northeast of the project area. In 1850 Dover Plains was a substantial village, with mills, stores, two hotels, a blacksmith shop, a school at the northern end of the village, and the railroad depot.

In 1858, Charles Bachman and G. H. Corey surveyed the Town of Dover for the John E. Gillette *Map of Dutchess County, New York*. (Map 4) This map indicates that the Waller family owned the project area, and that there were no structures located within the Laydown Site APE.

F. W. Beers published an *Atlas of New York and Vicinity* in 1867 that included the Town of Dover and the project area. (Map 5) The Laydown Site was owned by J. Waller. This map, unlike the earlier maps, shows a stream flowing across the Waller farm to the south of the dwelling. The stream entered the Swamp River a short distance north of the intersection of CR 6 and Sherman Hill Road. This is the stream that now flows along the southern boundary of the APE. To the north, on the west side of CR 6, the house owned by J. Ensign was no longer shown, but two dwellings, owned by J. Ensign and J. Whalen, were shown on the east side of the highway. On Ten Mile River a mill pond was shown; it is associated with the former stone mill, which was now identified as a "Marble Mill." Three marble quarries and a kiln, likely a limestone kiln, were on Lime Kiln Road to the northeast of the Laydown Site. The area where White's Furnace had been located in 1850 was now the location of the Dutchess County Iron Works, which had a mill pond and a furnace on the stream. There was an office, which may have been associated with the Dutchess County Iron Works, and a blacksmith shop, as well as several dwellings. At