REPORT >

Phase I Cultural Resources Survey of the Rocky Forge Wind Project

LOCATION > Botetourt County

DATE> APRIL 2016

Detail of map of Botetourt, 1860s. Source: LOC

PREPARED BY >
Dutton + Associates, LLC

PROJECT REVIEW # >
2015-0666

Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

PHASE I CULTURAL RESOURCES SURVEY OF THE ROCKY FORGE WIND PROJECT

BOTETOURT COUNTY, VIRGINIA

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ABSTRACT

Dutton + Associates, LLC (D+A) conducted a Phase I Cultural Resources Survey for the Rocky Forge Wind Project in Botetourt County, Virginia. The project consists of the construction of a series of wind turbines along a mountain ridge in the northern part of the county, and includes a road system, electrical collection system with up to two permanent towers, a substation to produce wind-powered electricity, and a construction laydown area, covering approximately 39.89 acres. The D+A effort was conducted in October 2015, and in January and April, 2016. The survey was designed to identify and evaluate the National Register of Historic Places (NRHP) eligibility for archaeological and architectural resources located within the project area of potential effect (APE), as well as assess potential impacts to them brought about by the proposed project.

This Phase I survey was designed and implemented to adhere to the Virginia Department of Historic Resources (VDHR)'s Guidelines for Conducting Historic Resources Surveys in Virginia (2011). As a result, it would also comply with Section 106 of the NHPA of 1966 (Public Law 89-655, as amended), as implemented by 54 U.S.C. 300101 et seq and professional guidelines set forth in the Secretary of Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44716, as amended and annotated), if required via federal nexus.

The APE was defined as the area in which the project, or components and elements thereof may introduce impacts, both direct and indirect, into the cultural environment. The APE for archaeological resources includes the footprint of where project construction will take place, and for architectural resources includes the area within 5-miles of proposed turbine locations for previously identified resources that have been listed in- or determined eligible for listing in the NRHP and within 1.5 miles to identify previously unrecorded resources and assess them for NRHP eligibility and impacts.

A review of VDHR and VCRIS data revealed the presence of three previously recorded architectural resources that are listed in or determined eligible for the NRHP within the 5-mile viewshed analysis area. This includes two archaeological sites (Gala and Bessemer) that were recorded with architectural inventory numbers, and the nineteenth century Emanuel Episcopal Church. The church is located within a proposed Eagle Rock Historic District, and therefore while the district has not been formally evaluated, it was included as an eligible property for the 5-mile viewshed analysis. Of the four NRHP-listed or eligible resources within five miles, setting and viewshed is not considered to be a component of significance for the two archaeological sites, and while setting is an important aspect of the Emanuel Episcopal Church and Eagle Rock Historic District, GIS modeling and subsequent site-visit confirmation indicated that neither would have any visibility of the proposed project.

The architectural resources survey for the project within 1.5 miles of the turbine locations resulted in the identification and recordation of ten resources greater than 50 years of age. The ten resources surveyed as part of this effort include a late-eighteenth/early-nineteenth century single dwelling, two early-nineteenth century iron furnaces, a mineral spring that served as the focus of an early-nineteenth century resort, the ruins of a late-nineteenth/early-twentieth century mining community, the site of an early-twentieth century logging camp, and several early-

twentieth century domestic buildings. Of these resources, the two iron furnaces (Rebecca and Jane) and the late-eighteenth/early-nineteenth century single dwelling (Tredegar House) that is reportedly associated with them are recommended as eligible for listing in the NRHP. The remaining resources are either common resource types, lack integrity, and/or lack individual or group distinction and are considered not eligible for the NRHP. Of the resources within the 1.5-mile survey area recommended as eligible for the NRHP, assessment of potential visual impacts from these resources determined that both furnaces will likely have no more than a minimal seasonal and/or obscured view towards a limited number of proposed wind turbines and therefore not be adversely affected by the proposed project. The Tredegar House will likely have a more unobstructed view towards a limited number of wind turbines and potentially have an adversely affected viewshed.

Archaeological survey of the proposed Rocky Forge Wind project APE included a combination of systematic pedestrian survey, systematic shovel testing, and judgmental shovel testing. Project components surveyed included the Laydown Yard/Operations and Maintenance (O&M) Area 1, O&M Area 2, the Substation Site, Access Roads 1 and 2, the underground electric (UGE) line rights-of-way, and the locations of 25 wind turbines.

Shovel testing within both the Laydown Yard/O&M 1 and O&M 2 resulted in the recovery of slag glass, a byproduct of the iron smelting process at nearby Rebecca Furnace (44BO0191). Historically, slag glass was dispersed in areas away from the furnace in order that build-up of the byproduct would not impede operation of the furnace. While the presence of slag glass in these areas does demonstrate an association with the nearby Rebecca Furnace (44BO0191), the distance between the areas of the finds and the furnace site, which has not been archaeologically surveyed and is not part of the APE, makes it problematic to expand the current site boundaries of 44BO0191 to include these finds. Further, it is difficult to determine conclusively whether or not the slag glass deposits are primary or are redeposited as a result of more modern earth moving known to have occurred in the area. ***Given the absence of other types of artifacts and cultural materials, it is D+A's recommendation that the slag glass deposits identified in the Laydown Yard/O&M 1 and O&M 2 be treated as non-eligible discontiguous components of the Rebecca Furnace site (44BO0191), and that no further archaeological investigations of these areas is warranted****.*

Archaeological survey of the Substation, UGE, and turbine sites did not result in the identification of any cultural materials. ***Therefore, it is D+A's recommendation that no further archaeological survey is warranted for these areas****.*

Survey of Access Roads 1 and 2 involved a combination of systematic shovel testing, judgmental shovel testing, and pedestrian survey. Archaeological finds adjacent to the Tredegar House (011-0215,) in the area of the proposed Access Road 1 ROW, meet the VDHR's definition of an archaeological site and are therefore recorded as such. Archaeological finds at Site 44BO0617 were recovered from a single transect of positive shovel tests along the edge of the proposed ROW expansion. Artifacts recovered include nineteenth-century ceramics, modern pressed glass, an iron spike, cut nail fragments, and a Woodland Period projectile point. With the exception of the projectile point, these artifacts are consistent with the nineteenth and twentieth century domestic occupation and use of Tredegar House. It is likely that additional

archaeological deposits and possibly features are present closer to the extant structure but outside of the project APE. Given the age of the artifacts and their association with the Tredegar House (011-0215), ***it is D+A's opinion that site 44BO0617 is potentially eligible for listing in the NRHP****. D+A recommends that given the proximity of the finds relative to the overall ROW expansion and existing topography that consideration be given to controlled site burial of the deposits prior to road construction. In the event controlled site burial is not possible, then Phase II evaluation of the site is recommended.*

A summary of our findings and recommendations are provided in the table below.

Summary of survey findings and recommendations.

VDHR ID #	Resource Name/Address	NRHP/VLR Status	Distance from Project	Visual/Direct Impacts
1.5-Mile Survey Area				
011-0213	Jane Furnace	VLR/NRHP-Eligible	1.0-miles	No Adverse Impact – seasonal and obstructed
011-0215	Tredegar House	VLR/NRHP-Eligible	0.7-miles	Adverse Impact
011-0216	Rebecca Furnace	VLR/NRHP-Eligible	0.7-miles	No Adverse Impact – seasonal and obstructed
5-Mile Visual Buffer				
011-0109	Emanuel Episcopal Church	VLR/NRHP-Eligible	4.75-miles	No Adverse Impact – Not visible
011-0146	Eagle Rock Historic District	Proposed	4.75-miles	No Adverse Impact – Not Visible
011-0188 (44BO0026)	Bessemer Archaeological Site	VLR/NRHP-Listed	5.0-miles	No Adverse Impact – Setting not significant
011-5155 (44BO0048)	Gala Site	VLR/NRHP-Listed	4.0-miles	No Adverse Impact – Setting not significant
Archaeological Resources within the APE				
44BO0617	Archaeological site at Tredegar House	Potentially Eligible	Within APE	TBD

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1. INTRODUCTION

Dutton + Associates, LLC (D+A) conducted a Phase I Cultural Resources Survey for the Rocky Forge Wind Project (hereafter, "project") in Botetourt County, Virginia. The project consists of the construction and operation of a series of wind turbines along a mountain ridge in the northern part of the county, along with roads, electrical collection with up to two permanent towers, an Operations and Maintenance (O&M) building, a temporary construction laydown area, and a substation to interconnect to an existing transmission line. The D+A effort was conducted in October 2015, January 2016, and April 2016, and was designed to identify and evaluate the National Register of Historic Places (NRHP) eligibility for archaeological and architectural resources located within the project area of potential effect (APE), as well as assess potential impacts to them brought about by the proposed project.

This Phase I survey was designed and implemented to adhere to the Virginia Department of Historic Resources (VDHR)'s Guidelines for Conducting Historic Resources Surveys in Virginia (2011). As a result, it would also comply with Section 106 of the NHPA of 1966 (Public Law 89-655, as amended), as implemented by 54 U.S.C. 300101 et seq and professional guidelines set forth in the Secretary of Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44716, as amended and annotated), if required via federal nexus.

Principal Investigators meet the Secretary of the Interior's Professional Qualification Standards (48 FR 44716) for archaeology, history, architecture, architectural history, or historic architecture. Architectural resource investigations were conducted under the direction of Robert J. Taylor, Jr. M.A. and archaeological investigations were conducted under the direction of David H. Dutton, M.A. They were assisted with fieldwork and reporting by Architectural Historian Dara Friedberg, M.S., Research Historian Arthur Striker, M.A., and Archaeologist Cara Metz, M.A. Resumes and qualifications of project team members are provided in Appendix A.

PROJECT DESCRIPTION

The Rocky Forge Wind Project is intended to help address Virginia's growing electricity demand with clean, homegrown energy, while diversifying Botetourt County's economy and supporting jobs in the local community. Apex Clean Energy of Charlottesville, Virginia, is actively developing the project, which is expected to generate up to 75 MW of electricity, or enough energy to power up to 20,000 homes annually. The project will consist of up to 25 roughly 550-foot tall wind turbines spaced approximately ¼ mile apart and spinning at an average rate of about 15 RPM. Power will be delivered to the Virginia electrical grid by tying into an existing high-voltage power line, which will minimize transmission line construction. To the extent possible, access roads will utilize existing jeep trails and fire roads, further limiting the need for additional infrastructure.

Located in rural Botetourt County, adjacent to existing transmission lines on private land, the area under consideration for the project is ideal for a wind energy project based on local wind data, existing high-voltage power lines, expansive private land, and proximity to state highways. The project will also provide up to 150 FTE jobs and significant local spending during

construction, about 7 full-time jobs created for operations and maintenance, and would represent a significant investment in the local economy, with revenues for property owners, local government services, and schools for up to 30 years.

PROJECT LOCATION

The proposed Rocky Forge Wind Project will be located in the Eagle Rock area of northern Botetourt County, Virginia (Figure 1-1). Specifically, the project will be located on Botetourt County property parcels 13-2 and 20-3, two large, private parcels totaling 7,355 acres located just northeast of unincorporated Dagger Springs (Figure 1-2). The project includes up to 25 wind turbines constructed along the ridge and fork of North Mountain along with access roads leading up the mountain and between turbine locations. At the base of the mountain along Dagger Spring Road (Route 622) will be a substation, operations and maintenance area, and a laydown area used during construction. The substation will allow the project to connect to the Virginia electric grid along an existing transmission line that crosses through the area.

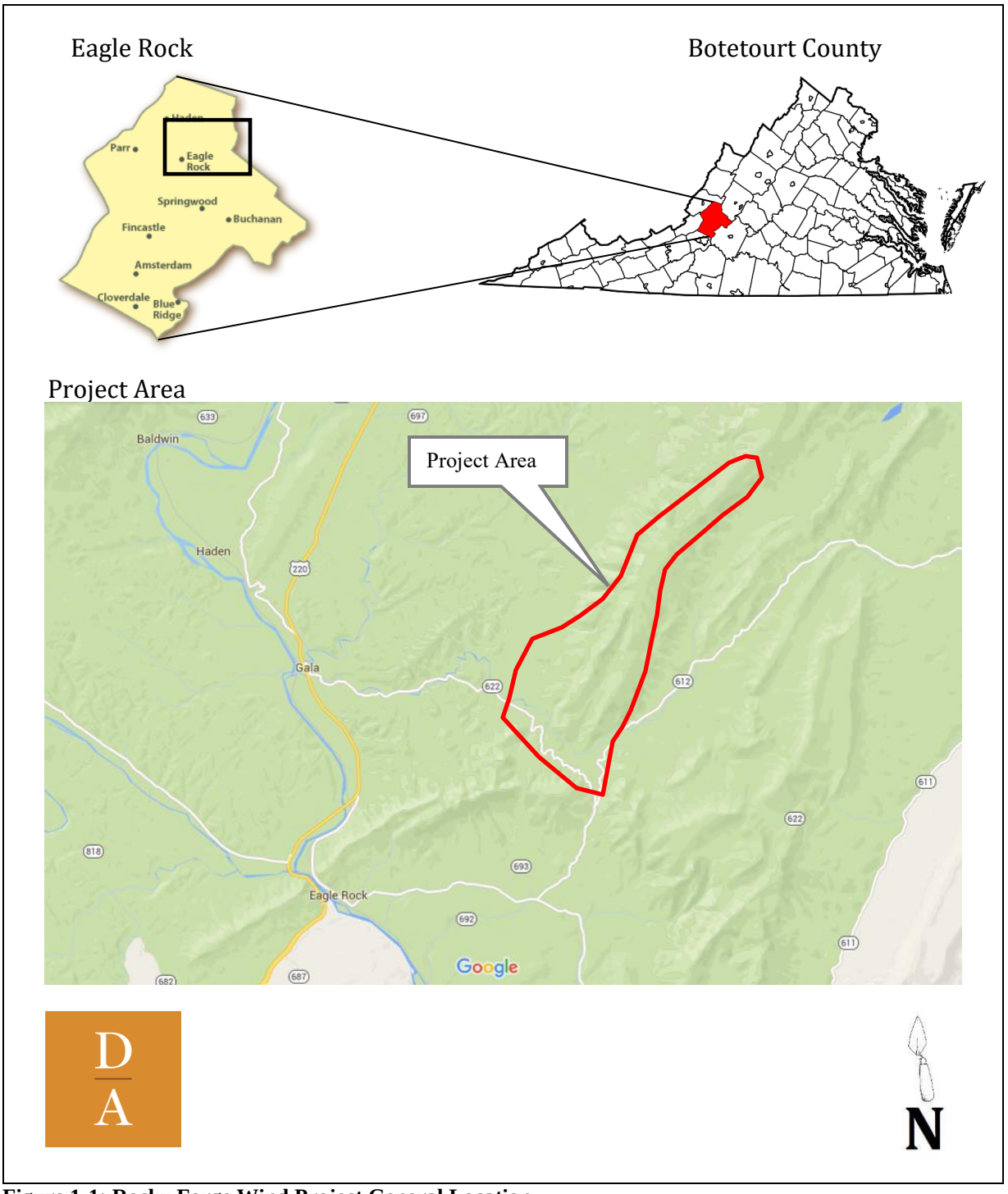

Figure 1-1: Rocky Forge Wind Project General Location

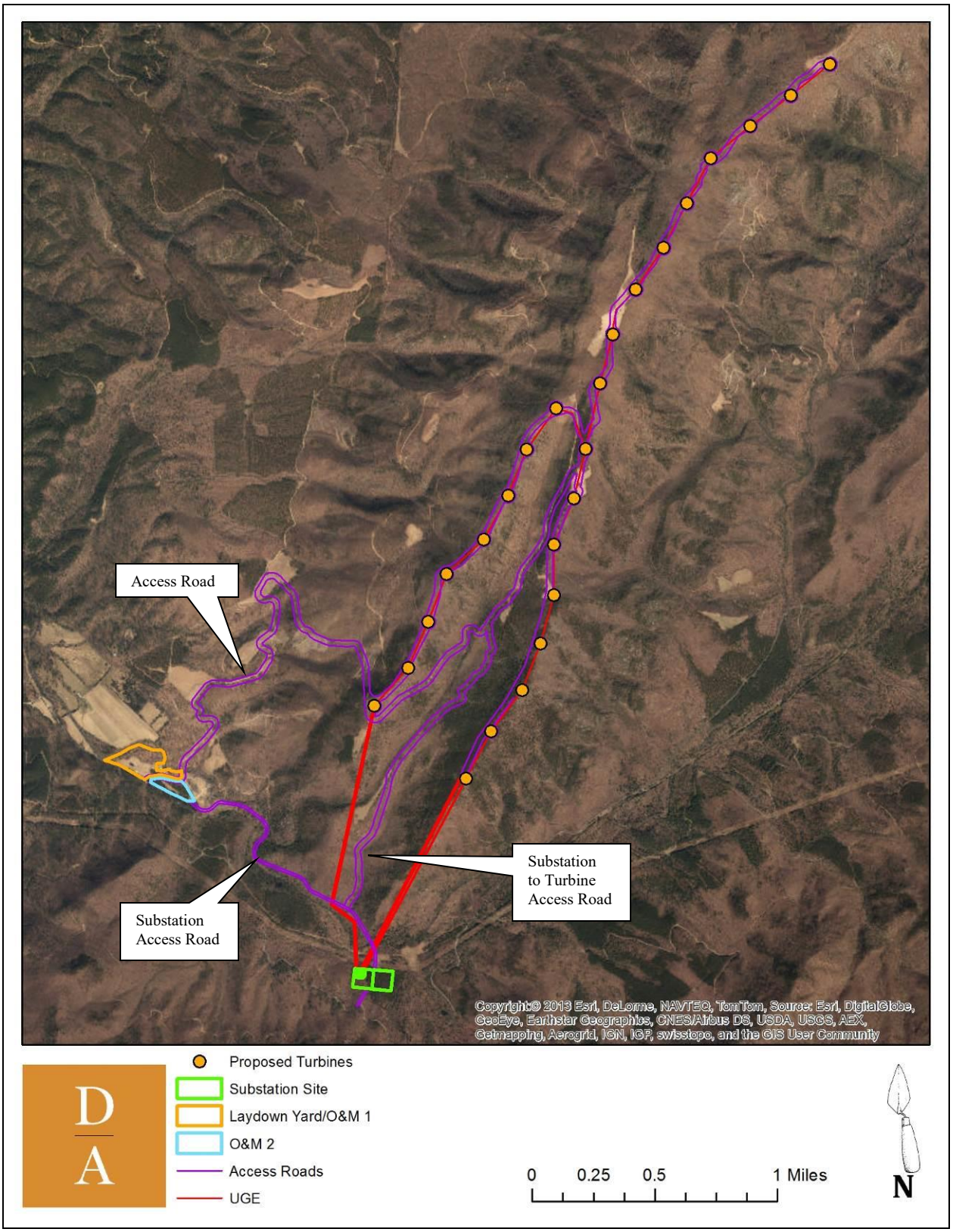

Figure 1-2: Proposed project plans. Source: APEX Clean Energy.

2. AREA OF POTENTIAL EFFECT

The area of potential effect (APE) related to the Rocky Forge Wind Project is defined as the area in which the project, or components and elements thereof may introduce impacts, both direct and indirect, into the cultural environment. The cultural resource APE for this project was established through a variety of methods including coordination with the VDHR, consideration of previous constructed similar projects, and geographic information system (GIS) viewshed modeling. It takes into consideration the height of the proposed wind turbines, the topography and nature of the surrounding landscape, and the vegetative cover. Therefore, the project APE was created using a tiered system to allow for the most comprehensive consideration of resources while providing a reasonable and effective survey effort.

The APE for archaeological resources includes the footprint of where project construction will take place. This includes turbine locations, the substation, access roads, utility easements and rights-of-way (ROW)s, the laydown area, and any other areas around the project requiring clearing and/or ground disturbance (Figure 2-1).

The APE for architectural resources includes those areas surrounding the project area in which the project, or components and elements thereof may be visible (limited to those resources in which setting is characterized as a significant aspect). Because of the dynamic nature of the landscape, it is difficult to set a defined perimeter or buffer. Models and field visits indicate that in many locations, the project may not be visible in close proximity due to slope and vegetation while it may be seen from a distance where the topography opens up. In other locations, the project may only be seen from very close proximity however obscured from greater distances. Therefore, the APE was selected using a combination of GIS-based viewshed analysis, preliminary field assessment, and previous precedent from similar projects. As such, a 5-mile viewshed analysis area was established for previously identified resources that have been listed in- or determined eligible for listing in the NRHP. The APE to identify previously unrecorded resources and assess them for NRHP eligibility and impacts was set at 1.5-miles from each of the proposed turbine structures.

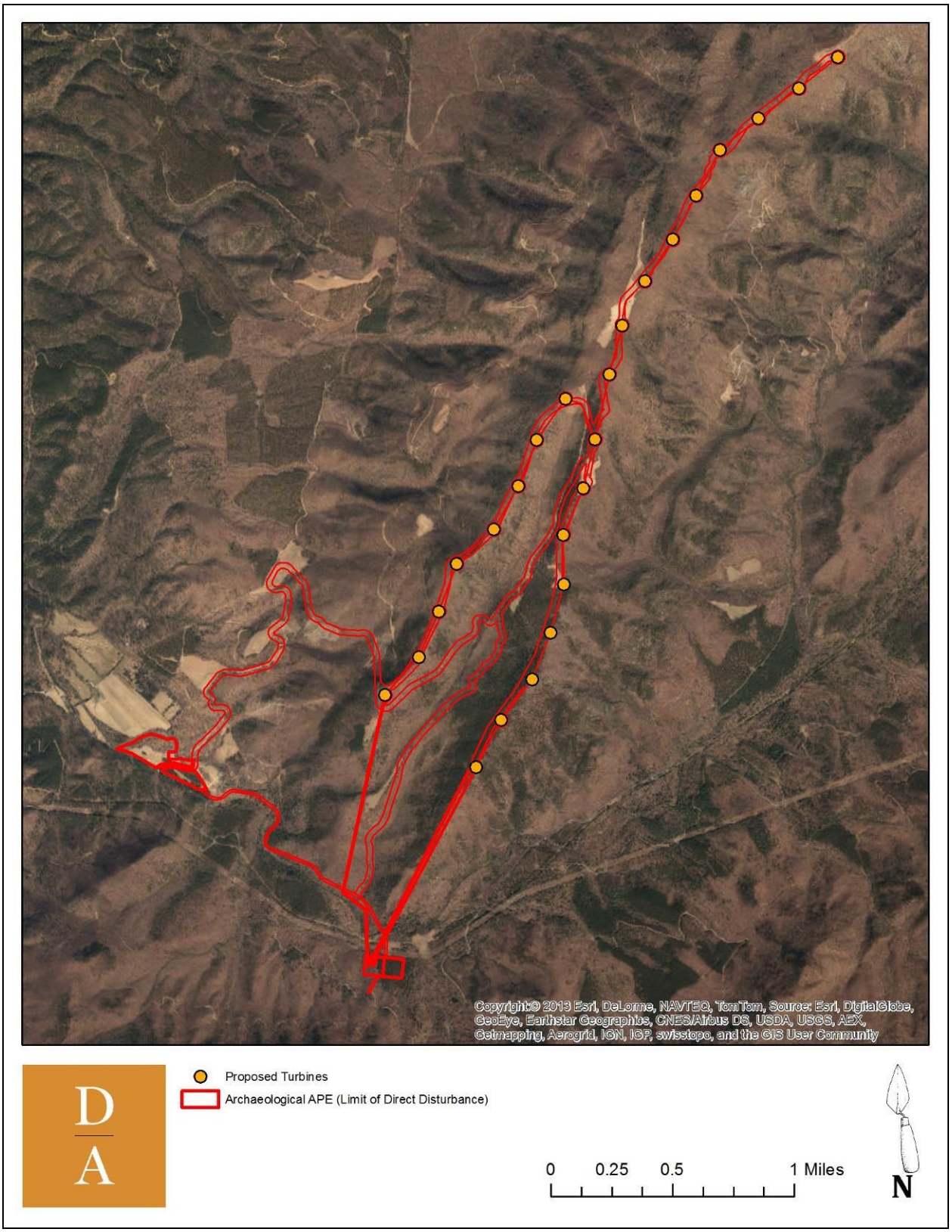

Figure 2-1: Rocky Forge Wind Project Archaeological APE

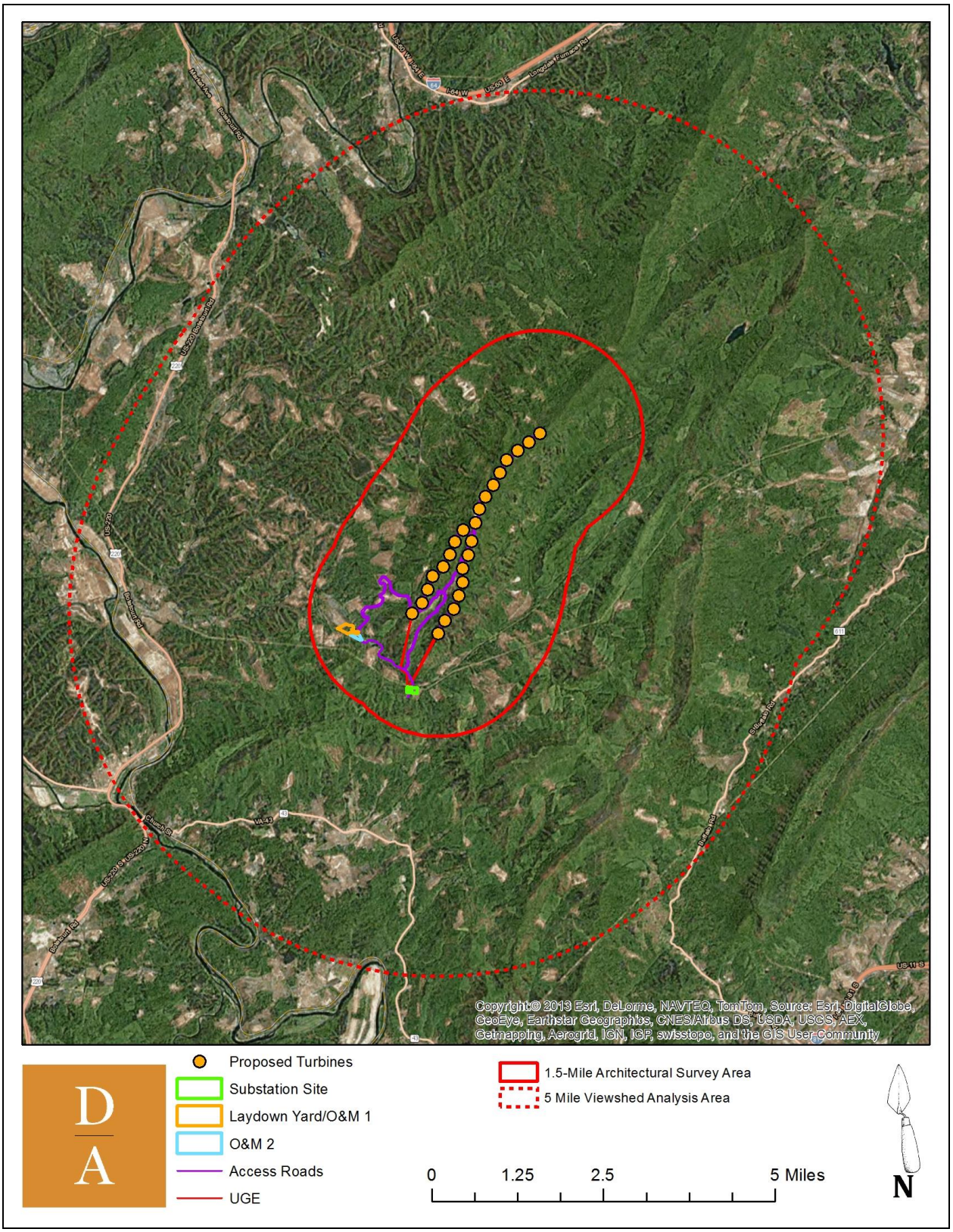

Figure 2-2: Rocky Forge Wind Project Architectural APE

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3. RESEARCH DESIGN

ARCHIVAL RESEARCH

A comprehensive literature review and background search was performed to gain an understanding of existing survey data pertaining to the project APE. The focus of the background search was to identify which, if any resources within the APE have been surveyed and what the previous recommendation of eligibility was for each. To this end, the VDHR archives and the VCRIS database were searched to identify previously conducted cultural resource studies and known architectural or archaeological resources in the vicinity of the project.

In further preparation for the fieldwork, D+A conducted additional review of the following documents and sources for information relative to previously recorded and unrecorded historic property locations within and adjacent to the project APE:

- County Tax Assessors records;
- USDA Historic Aerial Imagery;
- U.S. Geological Survey Topographic Maps;
- Local historical society archives; and
- Consultation with local informants and other professionals with intimate knowledge of the region

The additional review conducted in support of the Phase I survey was designed to identify all resources greater than 50 years of age located within the project APE. For the purposes of this survey, historic properties include architectural and archaeological resources, historic and cultural landscapes, battlefields, and historic districts.

CONTEXT DEVELOPMENT

Information from the literature review and background search was used in conjunction with additional research to develop a cultural and historical context to place the project APE and any identified historic resources within their appropriate context for evaluations of historical significance. This context was developed through review of previous cultural resource studies, published and unpublished manuscripts, historic maps, aerial photographs, local histories, and a variety of internet sources. Background investigations took place in local archival facilities, as well as the traditional state archival repositories. Research was conducted at or through the archives at the VDHR, the Library of Virginia, the Virginia Historical Society, Botetourt County, and any other repositories of archival materials deemed appropriate during the course of the project.

FIELD SURVEY

Architectural Resources

Using information derived from archives search and additional background research, a reconnaissance field survey was undertaken to identify and document all buildings, objects,

structures, sites, and districts within the APE that were constructed in 1967 or earlier and meet (or will soon) the 50-year threshold for NRHP-consideration. Construction dates for resources were established through a combination of archival search, property records data, map analysis, and field inspection.

For each identified resource, field forms were completed with information from site observations including a physical description of the resource with information such as relationship to adjacent buildings and structures, general condition, surrounding setting, description of exterior materials, identifiable architectural or structural treatments, and retention of historic physical integrity. Site plans depicting the built environment around each property were sketched. Each identified resource was then marked on both USGS 7.5-Minute Quadrangle maps and current aerials photographs. Representative digital photographs were taken to document each property's existing conditions, setting, and secondary resources.

All field survey identification and documentation was conducted from public ROW and included exterior features only unless additional access was granted by property owners. Interior inspections were only conducted when feasible and permitted. In cases where a resource was not visible or accessible from the public ROW, the property was noted as such and an attempt was made to contact the property owner. All field documentation was organized and labeled with a unique identification number. Previously recorded resources were numbered using their existing VDHR ID# while newly recorded resources were assigned a field record number.

All architectural resources surveyed as part of this study were documented in accordance with VDHR's standards and guidelines and evaluated to determine potential significance in accordance with NRHP criteria. Concentrations of historic resources within or adjacent to the survey area were assessed in terms of the potential for inclusion in historic districts. Each resource's present condition, location relative to other resources, and distinguishing neighborhood characteristics were noted and photographed for accurate assessment of *NRHP* Historic District eligibility.

Archaeological Resources

Archaeological fieldwork entailed a combination of pedestrian reconnaissance and systematic shovel testing of the APE around project components including proposed turbine pads, access roads, and associated construction staging and materials storage areas (disturbance zone) to conclusively determine the presence or absence of subsurface archaeological resources. Pedestrian survey included visual inspection of all accessible portions of the disturbance zone. Because of the nature of the project area, special attention was paid to identification of prehistoric rock shelters and surface evidence of historic mining activity, domestic occupation, and cemeteries. In addition, areas identified within the disturbance zone with soils and minimal slope that have the potential to contain buried cultural deposits were identified. Areas determined to have the potential for intact subsurface cultural deposits were shovel tested at 15 meter (50-ft) intervals along transects spaced no farther apart than 15 meter (50-ft). The soil excavated from all shovel tests was passed through 1/4-inch mesh screen and all shovel tests were approximately 38-centimeters (1.3 ft) in diameter and excavated to sterile subsoil. When archaeological materials were identified within a shovel test, radial shovel tests (1/2 the distance

between positive and negative shovel tests) were excavated in all four cardinal directions to determine site boundaries. Excavation did not occur beyond limits of the project property lease, nor was excavation undertaken in statutory wetlands or waterlogged soils, or in areas of visible severe soil disturbances and documented strip mining.

For all archaeological resources identified during the survey, photographs were taken of the general vicinity and any visible features. A field map was prepared showing site limits, feature locations, permanent landmarks, topographic and vegetational variation, sources of disturbance, and all surface and subsurface investigations. Sufficient information was included on each map to permit easy relocation of the site. GPS coordinates were taken of boundaries for all identified sites. Notes were taken on surface and vegetational conditions, soil characteristics, dimensions and construction of features evident, and the amount and distribution of cultural materials present. All subsurface archaeological excavations were backfilled and returned to pre-survey conditions at the conclusion of the effort.

LABORATORY ANALYSIS

All artifacts generated in the course of the survey were provenienced in the field and recorded. Following fieldwork, the artifacts were transported to the D+A laboratory facility where they were cleaned, sorted, and identified. After processing, all artifacts were inventoried. A computer-printed artifact inventory of prehistoric and historic artifacts will be included as an appendix to this report (Appendix B).

Identification of diagnostic artifacts was made by consulting existing comparative collections and available regional literature regarding artifact types. Artifacts were assigned dates through the comparison of identified artifacts with other material culture classes having documented use-popularity patterns. Ceramics and glass provided primary chronological information. All artifacts were placed in polyethylene re-sealable storage bags and placed in acid free boxes suitable for permanent curation. At the conclusion of the survey, arrangements will be made with the client regarding final deposition of the artifacts.

ASSESSMENT OF POTENTIAL IMPACTS

Potential impacts from the project were assessed for those resources identified within the APE that are recommended eligible for listing in the NRHP. Potential impacts are based upon the resource's current integrity and the potential for the project to alter or diminish those qualities or characteristics which may qualify the property for listing in the NRHP. Field testing and observation coupled with soils data, and project schematics were used to analyze archaeological disturbance. GIS-based software was used in conjunction with field observation to analyze topography and vegetation to define those areas where the proposed turbines or project components will be visible and adversely affect a resource (when setting is defined as an aspect of its significance).

A powerful tool to assist in understanding the general patterns of the visual landscape, GIS was used by Hill Studio to assist in the prediction of potential visibility. Using this process, the Spatial Analyst program is used to generate a Digital Terrain Model (DTM) in the computer,

resulting in a three-dimensional model simulating the topography in the study area. This virtual landscape is represented by a series of cells or pixels, 3 meters x 3 meters (10ft x 10ft in size. Then the proposed windmills are placed in the model. Cells at the proposed windmill locations are elevated to proposed windmill height. Two height studies were performed; one measuring from the tip of the blade at its highest point above the ground (167.6 meters [(550ft]) and the other at hub height (99 meters [325ft]).

The computer is then queried to report which cells in the study area are visible from each of the elevated locations. The computer performs a radial scan from the elevated cell representing the windmill height. The query results in a color map of the cells that are potentially visible. The query is repeated for each of the 25 proposed windmills, and then all cells visible from all windmills are all processed into a composite montage.

Of the two studies, the 167.6 meters (550ft) height resulted in the more extensive area of visual effect, so this was study used as a base for the historic resources analysis. The resulting color overlay map of the Area of Potential Visual Effect is provided to the historic resources expert, who overlays this map onto the map of cultural and historic resources, predicting the visual impact to these archaeological and historic sites. Discussion and characterization of potential impacts were assembled and provided for each resource as appropriate.

REPORT AND RECORD PREPARATION

Information from field observations was used in conjunction with background research and context development to assess each identified cultural resource for potential NRHP-eligibility. A results section was prepared that summarizes the field findings, assessment of significance and NRHP-eligibility, assessments of potential impacts, and recommendations for further study. The results of the effort are accompanied by maps and photographs as appropriate and were synthesized and summarized in this report along with the research design, archives search, and cultural contexts. All research material and documentation generated by this project are on file at D+A's office in Midlothian, Virginia. VDHR site forms (Virginia Cultural Resources Information System (V-CRIS)) were completed for all cultural resources, 50 years of age or older, identified during the survey and are include as an appendix to this report (Appendix C).

4. ARCHIVES SEARCH

This section includes a summary of efforts to identify previously known and recorded cultural resources within the project APE. It includes lists, maps, and descriptive data on all previously conducted cultural resource surveys, and previously recorded architectural resources and archaeological sites according to the VDHR archives and VCRIS database.

PREVIOUSLY SURVEYED AREAS

VDHR and VCRIS records indicate that there has been one prior archaeological survey within the project APE. This effort was conducted in 2010 and included several small and discrete areas in the north end of the APE. The records also indicate that there have not been any targeted architectural surveys within the APE; however there have been two county-wide reconnaissance surveys that identified resources within the APE; one in 1988 and the second in 2008. The following table identifies the previous cultural surveys within the project APE and provides relevant bibliographical data.

Table 4-1: Previously conducted cultural resource surveys within the Project APE. Source: VDHR.

VDHR Survey #	Title	Author	Date
AY-014	*Phase I Archaeological Survey for the Proposed Black Gap Timber Sale Located on the James River Ranger District George Washington National Forest*	Martin, Mark	1993
BO-033	*Botetourt County Reconnaissance Survey*	Worsham, Gibson	1988
BO-059	*Architectural Survey of Botetourt County, Virginia*	Hill Studio, P.S.	2008

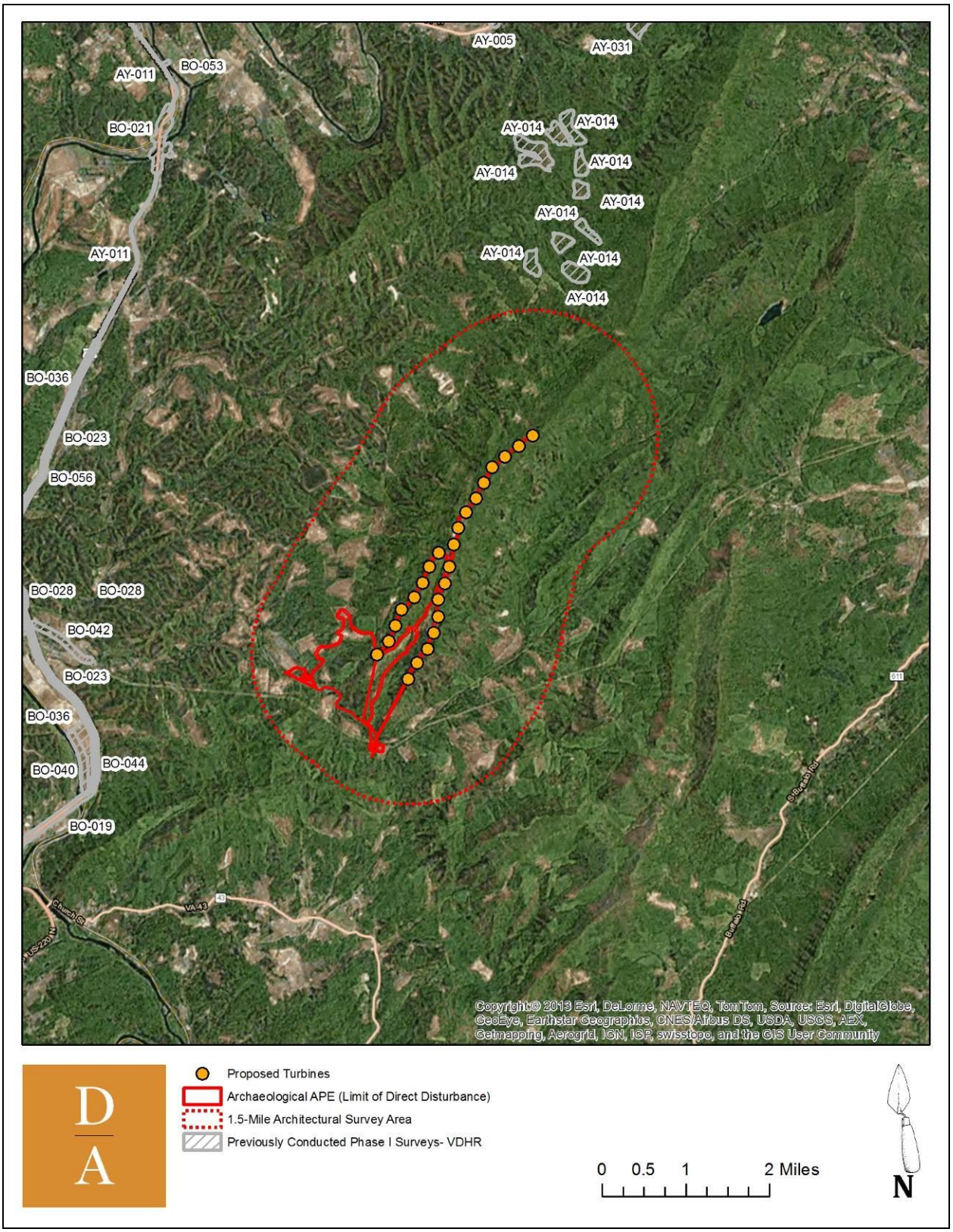

Figure 4-1: Previously conducted surveys in the vicinity of the project APE. Source: VCRIS (County-wide surveys not illustrated in VCRIS)

ARCHITECTURAL RESOURCES

Review of the VDHR V-CRIS inventory records revealed that three (3) previously recorded resources that are either listed or determined eligible for the NRHP are located within 5 miles of the project. This includes two NRHP-listed archaeological sites that were assigned architectural inventory numbers, and one architectural resource that has been determined eligible for listing in the NRHP. This resource, the Emanuel Episcopal Church, is located within a proposed historic district in the town of Eagle Rock. While the district has not been formally evaluated, it has been recommended as eligible for the NRHP and therefore for the purposes of this effort, was assessed for visual impacts.

Review of VCRIS revealed eight (8) previously recorded architectural properties are located within the 1.5-mile project APE. This includes a variety of resources and resource types including single dwellings and farmsteads, a mineral spring resort community, a mining community, sawmill/logging site, and iron furnaces. These resources range in date from the early-nineteenth century through the second quarter of the twentieth century and vary in condition range from standing and occupied to deteriorated or ruinous sites. None of the resources have been formally evaluated for NRHP-eligibility by the VDHR; however, several have been recommended as eligible by previous surveyors.

Table 4-2 lists the NRHP-listed and eligible previously recorded resources within the 5-mile viewshed analysis area and Table 4-3 lists all previously recorded architectural resources within the 1.5-mile project APE. Figure 4-3 illustrates the locations of NRHP-listed and eligible resources within the 5-mile viewshed analysis area and Figure 4-4 illustrates the locations of all previously recorded resources within the 1.5-mile project APE.

Table 4-2: NRHP-listed and eligible architectural resources within 5 miles of the project. Source: VCRIS

VDHR ID #	Resource Name/ Address	Year Built	NRHP Status
011-0109	Emanuel Episcopal Church	1884	NRHP-Eligible (VDHR: 9-14-1979)
011-0146	Eagle Rock Historic District	Nineteenth/Twentieth Century	Proposed
011-0188 (44BO0026)	Bessemer Archaeological Site	Prehistoric	VLR/NRHP-Listed (12-15-1984)
011-5155 (44BO0048)	Gala Site	Prehistoric	VLR/NRHP-Listed (3-17-2010)

Table 4-3: All previously recorded architectural resources within the 1.5-mile project APE. Source: VCRIS

VDHR ID #	Resource Name/ Address	Year Built	NRHP Status
011-0206	Dagger Springs (Historic)	No Data	Not Evaluated
011-0207	New Town Historic District (Current)	Early-Twentieth Century	Not Evaluated
011-0208	House, Route 622 (Function/Location)	c.1910	Not Evaluated
011-0209	House, Route 622 (Function/Location)	c.1875	Not Evaluated
011-0213/ (44BO0192)	Jane Furnace (Historic)	Pre-1835	Not Evaluated
011-0214	Logging Camp Site (Historic)	Twentieth Century	Not Evaluated
011-0215	Rebecca House (Current), Tredegar House (Historic/Current)	c.1825	Not Evaluated
011-0216/ (44BO0191)	Rebecca Furnace (Historic)	1819-1826	Not Evaluated

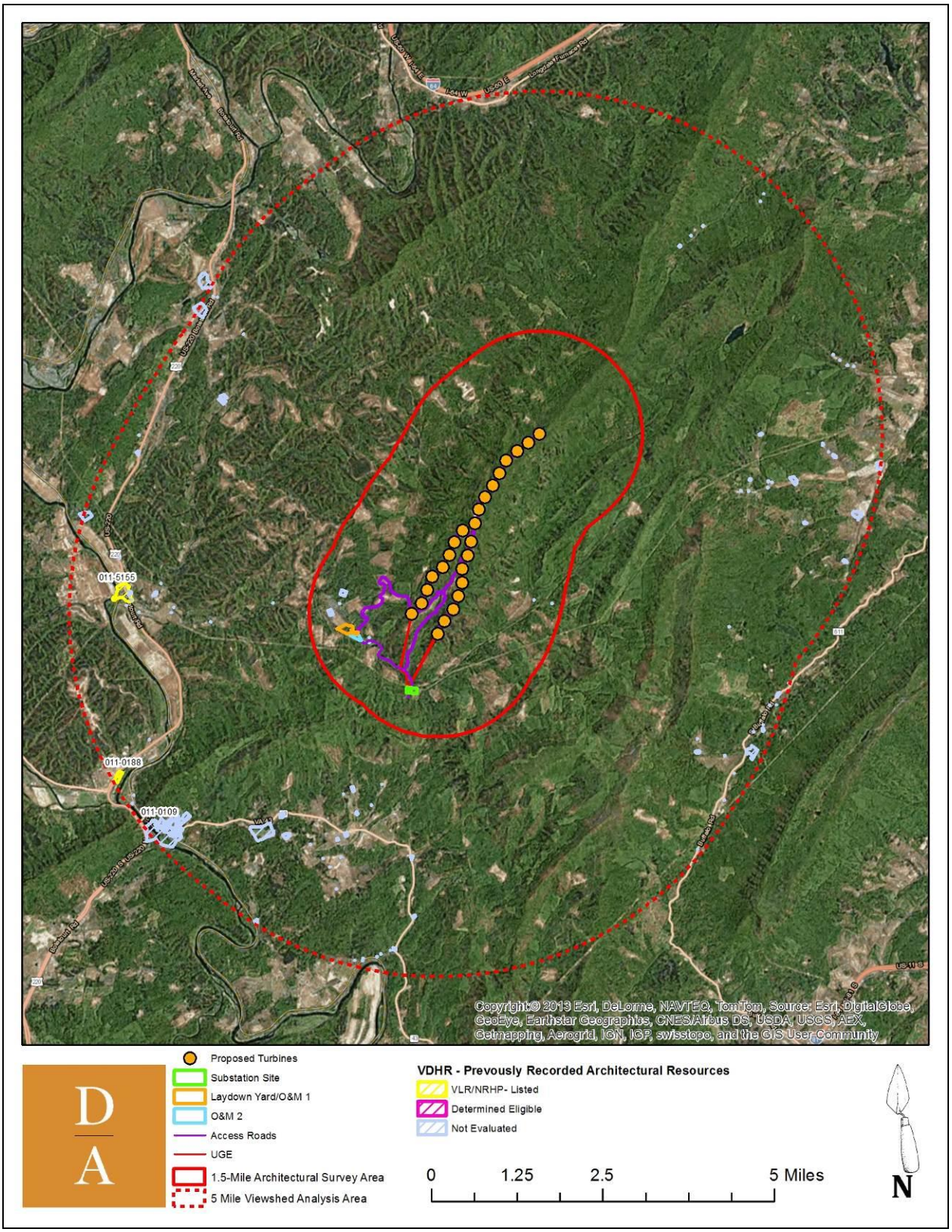

Figure 4-2: Previously recorded architectural resources within the 5-mile viewshed analysis area (NRHP-listed and VDHR-determined eligible resources include VDHR #). Source: VCRIS

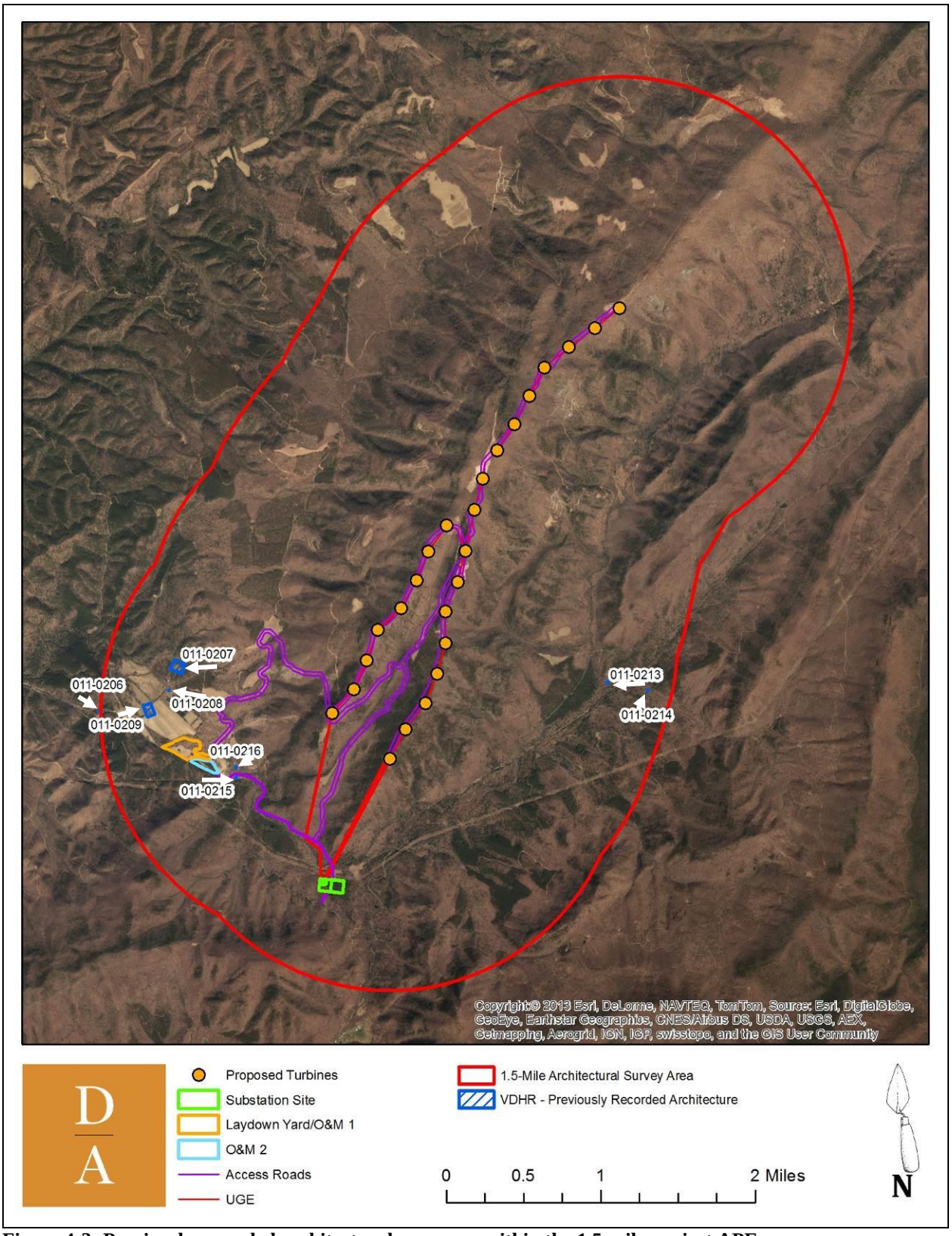

Figure 4-3: Previously recorded architectural resources within the 1.5-mile project APE

ARCHAEOLOGICAL SITES

Review of the VDHR VCRIS records reveals there are two previously recorded archaeological sites within one mile of the project archaeological APE (Table 4-3 and Figure 4-5). These include two early- to mid-nineteenth century iron furnace sites, which have not been formally evaluated for the NRHP-eligibility. Neither of these sites are located directly within the archaeological APE; however, one of them, 44BO0091 is located in close proximity to a proposed access road alternative.

Table 4-4 lists the previously recorded archaeological resources within one-mile of the project APE and Figure 4-4 illustrates the locations of the previously recorded resources in relation to the project APE.

Table 4-4: Previously recorded archaeological resources within one mile of the archaeological APE.

VDHR ID #	Type	Cultural Designation	Temporal Association	NRHP Status
44BO0191	Iron Furnace	Euro-American	19th Century (1800 - 1899)	Not Evaluated
44BO0192	Iron Furnace	Euro-American	19th Century (1800 - 1899)	Not Evaluated

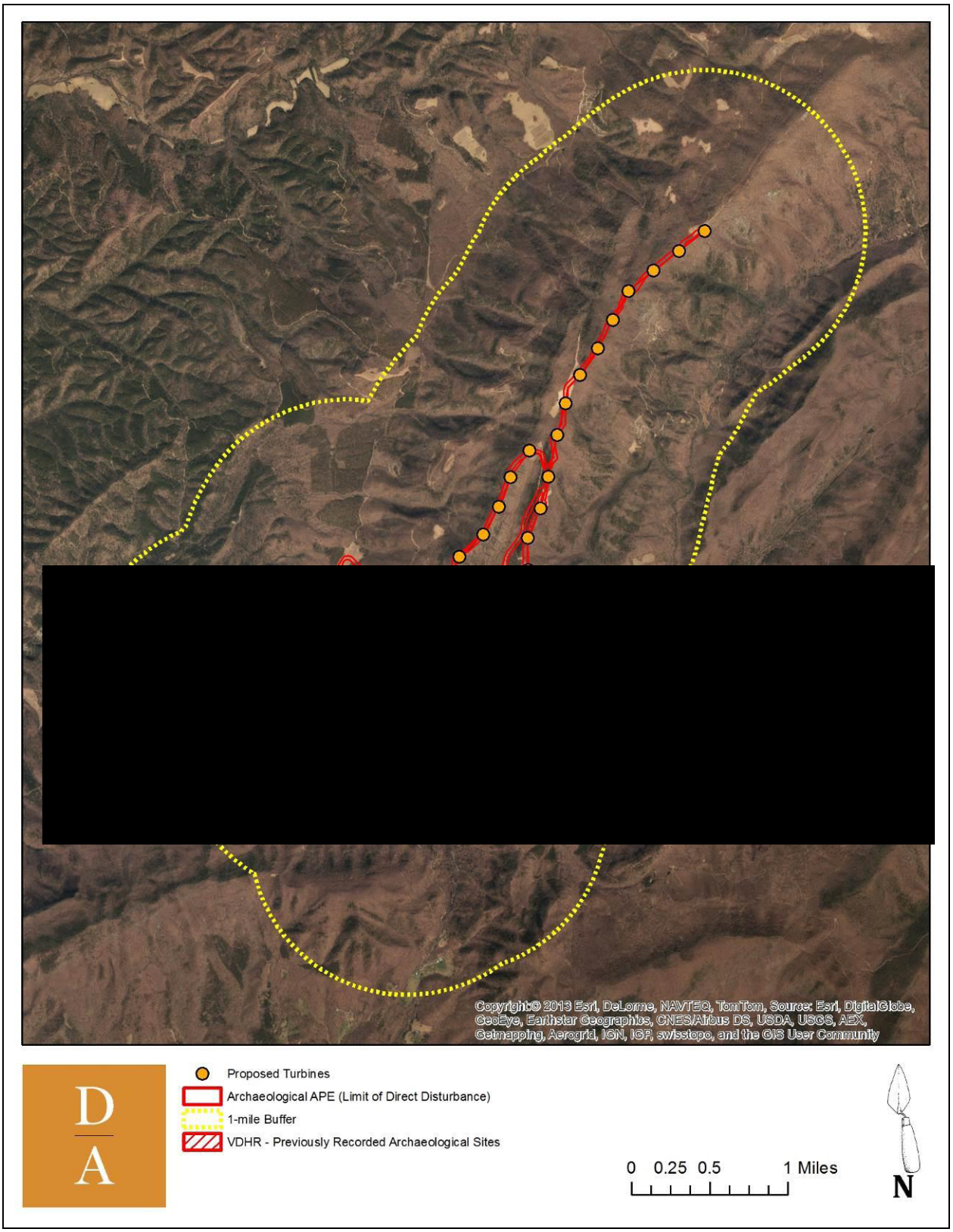

Figure 4-4: Previously recorded archaeological sites within one-mile of the project APE

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5. ENVIRONMENTAL SETTING

PHYSICAL DESCRIPTION AND LOCATION

For the purposes of the environmental setting and context, the Rocky Forge Wind Project Location is defined as the two leased property parcels on which the project will be located (Figure 5-1). These two, large parcels contain a total of 7,355 acres in northern Botetourt County. Located in the Ridge and Valley physiographic province, the project location is a mostly wooded and mountainous area surrounding the ridge of North Mountain. There are some areas of flat or relatively flat valley surround the base of the mountain, particularly at the southern base along Mill Creek. The sides of the ridge are moderately to heavily dissected with a number of creeks and drainages that begin as springs on the mountain and flow downhill to Mill Creek.

GEOLOGY AND TOPOGRAPHY

The project location topography is characterized by characterized by narrow, elongated, forested knobs and ridges, which are parallel to one another associated with the Ridge and Valley region. The area is underlain by underlain by folded Paleozoic sedimentary rock. Generally, a dendritic drainage pattern occurs throughout this region with low finger ridges separated by unnamed tributaries and dry washes. The elevation of the project area is between approximately 360 meters (1,180 feet) and 991 meters (2,350 feet) above mean sea level.

HYDROLOGY

The project location is drained by a number of small, unnamed and intermittent tributaries that flow downhill into one of two primary creeks. In general, the west side of North Mountain drains into Sinking Creek and the east side drains in Mill Creek. Both of these creeks drain into the James River, which flows into the Chesapeake Bay before ultimately draining into the Atlantic Ocean.

PEDOLOGY

The project area is dominated by soils of the Ridge and Valley region which are characterized by slopes from 0-80%, are well drained, and are extremely stony. Soils consist primarily of Dekalb-Rock outcrop complex - 35 to 80 percent slopes, comprising 27% of the project location. The next most prominent soil type is Dekalb channery fine sandy loam/ very stony - 30 to 60 percent slopes comprising 16% of the project location. The remainder of the project location is comprised of a variety of rocky outcrop complexes and sandy loams (see Figure 5-2 and Table 5-1).

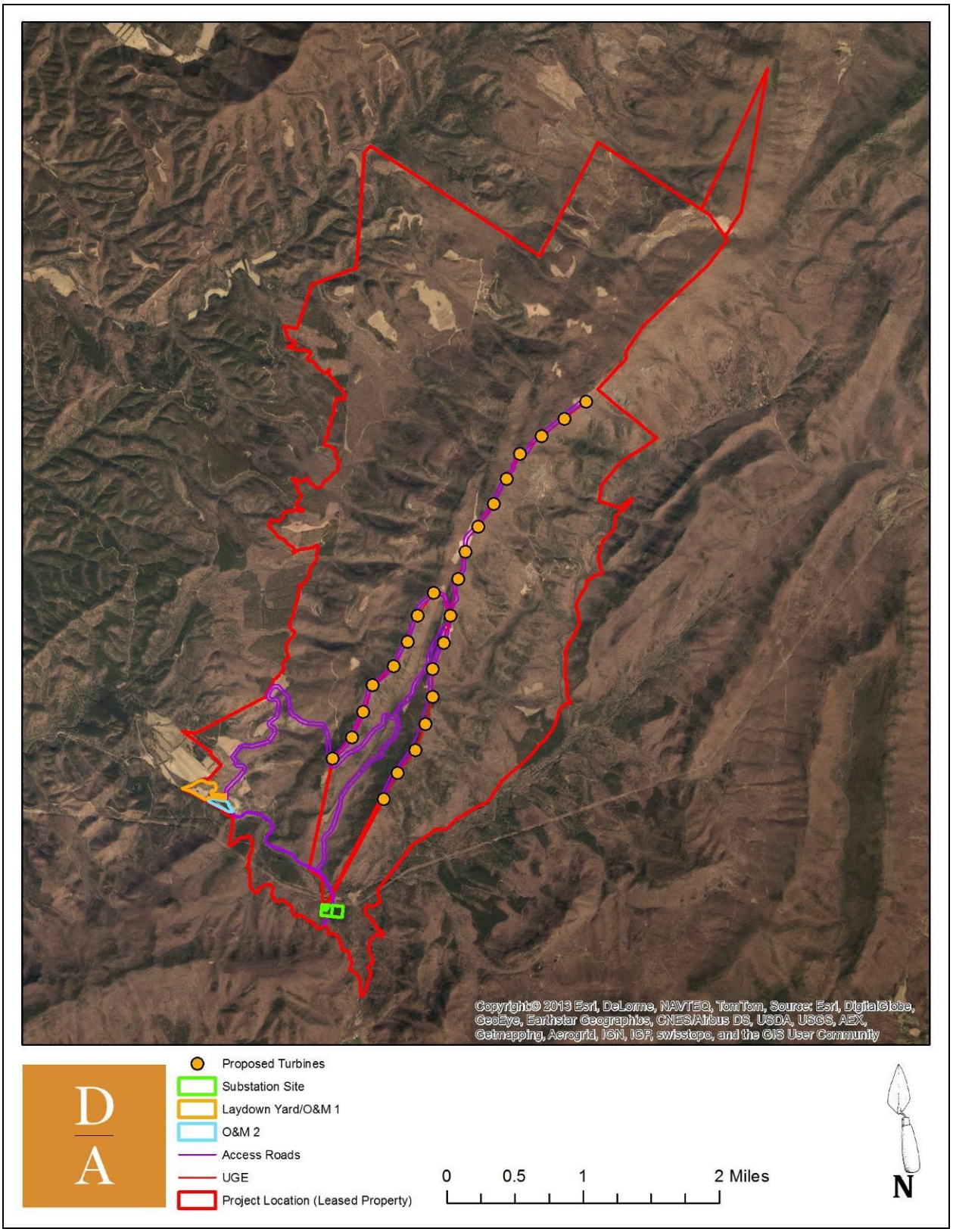

Figure 5-1: Aerial View of the Rocky Forge Project Location (lease area) shown in red. Source: Apex Energy.

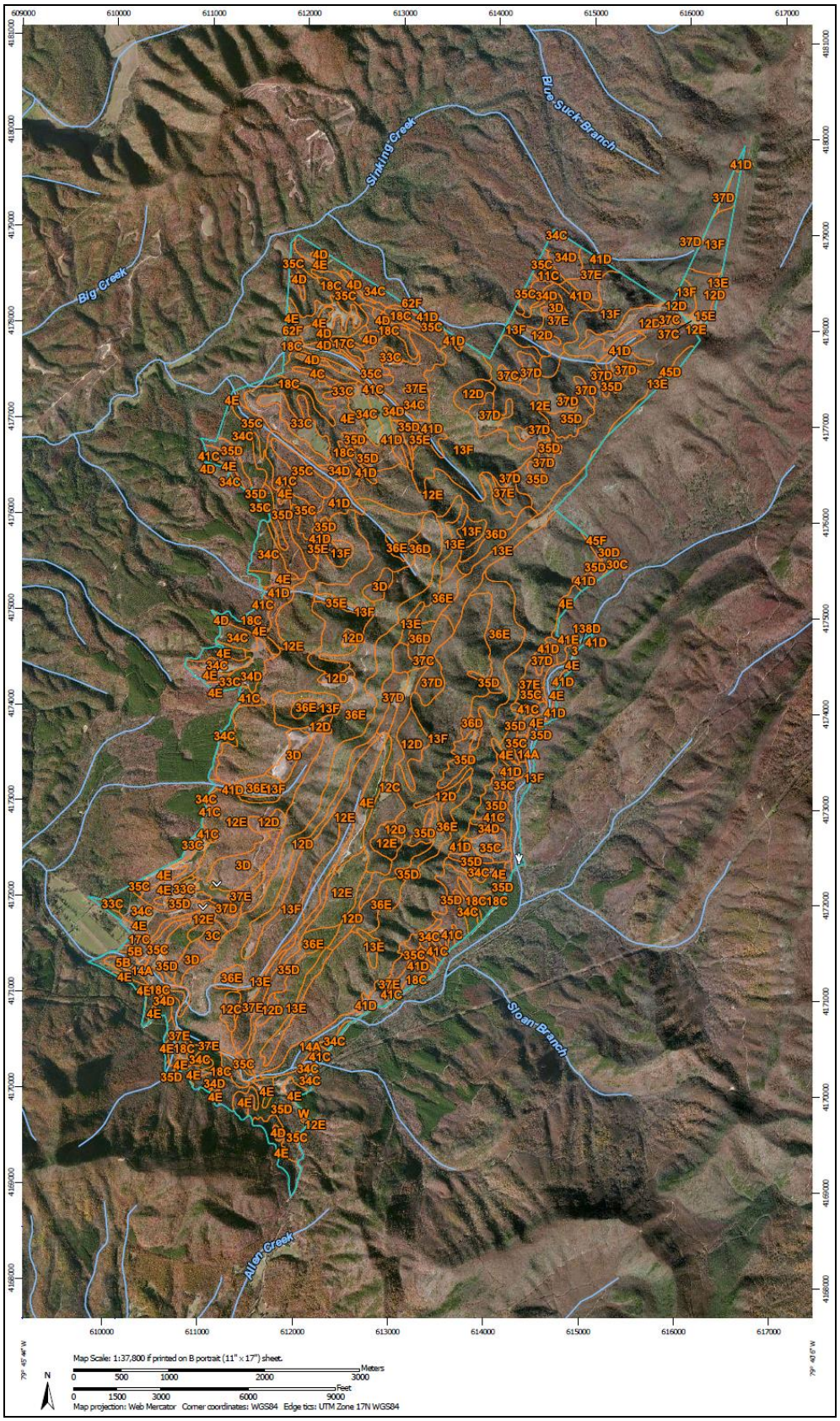

Figure 5-2: Soil survey of the Rocky Forge Project Location.

Table 5-1. Unit Summary of Soils within the Rocky Forge Project Location (AOI).

Botetourt County, Virginia (VA023)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
3C	Bailegap cobbly fine sandy loam, 7 to 15 percent slopes	19.4	0.3%
3D	Bailegap cobbly fine sandy loam, 15 to 30 percent slopes	122.6	1.6%
4C	Berks-Weikert channery silt loams, 8 to 15 percent slopes	6.7	0.1%
4D	Berks-Weikert complex, 15 to 30 percent slopes	78.3	1.1%
4E	Berks-Weikert complex, 30 to 60 percent slopes	590.4	7.9%
5B	Botetourt loam, 2 to 7 percent slopes, rarely flooded	14.4	0.2%
11C	Chiswell-Groseclose complex, 7 to 15 percent slopes	13.2	0.2%
12C	Dekalb channery fine sandy loam, 2 to 15 percent slopes, very stony	94.2	1.3%
12D	Dekalb channery fine sandy loam, 15 to 30 percent slopes, very stony	281.8	3.8%
12E	Dekalb channery fine sandy loam, 30 to 60 percent slopes, very stony	1,124.3	15.1%
13E	Dekalb-Rock outcrop complex, 10 to 35 percent slopes	165.7	2.2%
13F	Dekalb-Rock outcrop complex, 35 to 80 percent slopes	2,004.2	26.9%
14A	Derroc cobbly loam, 0 to 4 percent slopes, occasionally flooded	140.9	1.9%
17C	Ernest silt loam, 7 to 15 percent slopes	22.4	0.3%
18C	Ernest cobbly loam, 0 to 15 percent slopes, very stony	123.2	1.7%
33C	Laidig fine sandy loam, 7 to 15 percent slopes	79.5	1.1%
34C	Laidig cobbly fine sandy loam, 7 to 15 percent slopes	331.5	4.4%
34D	Laidig cobbly fine sandy loam, 15 to 30 percent slopes	135.6	1.8%
35C	Laidig cobbly fine sandy loam, 2 to 15 percent slopes, very stony	211.6	2.8%

Botetourt County, Virginia (VA023)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
35D	Laidig cobbly fine sandy loam, 15 to 30 percent slopes, very stony	485.8	6.5%
35E	Laidig cobbly fine sandy loam, 30 to 45 percent slopes, very stony	19.0	0.3%
36D	Lehew-Dekalb complex, 15 to 30 percent slopes, extremely stony	63.2	0.8%
36E	Lehew-Dekalb complex, 30 to 60 percent slopes, extremely stony	505.7	6.8%
37C	Lily gravelly sandy loam, 2 to 15 percent slopes, very stony	50.4	0.7%
37D	Lily gravelly sandy loam, 15 to 30 percent slopes, very stony	164.0	2.2%
37E	Lily gravelly sandy loam, 30 to 60 percent slopes, very stony	239.9	3.2%
41C	Oriskany very cobbly sandy loam, 2 to 15 percent slopes, extremely bouldery	147.7	2.0%
41D	Oriskany very cobbly sandy loam, 15 to 30 percent slopes, extremely bouldery	197.6	2.7%
62F	Weikert-Rock outcrop complex 45 to 80 percent slopes	5.3	0.1%
W	Water	0.5	0.0%
Subtotals for Soil Survey Area		**7,439.1**	**99.8%**
Totals for Area of Interest		**7,452.3**	**100.0%**

Jefferson National Forest, Virginia (VA606)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
3	Craigsville cobbly sandy loam, 0 to 5 percent slopes, frequently flooded	0.5	0.0%
30C	Laidig cobbly fine sandy loam, 3 to 15 percent slopes	1.1	0.0%
30D	Laidig cobbly fine sandy loam, 15 to 35 percent slopes	6.8	0.1%
41E	Berks-Weikert complex, 35 to 60 percent slopes	0.1	0.0%
45D	Dekalb, shallow-Rock outcrop complex, 15 to 35 percent slopes, extremely stony	0.1	0.0%
45F	Dekalb, shallow-Rock outcrop complex, 60 to 80 percent slopes, extremely stony	3.5	0.0%

Jefferson National Forest, Virginia (VA606)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
138D	Oriskany very cobbly sandy loam, 15 to 35 percent slopes, very stony	0.8	0.0%
Subtotals for Soil Survey Area		**13.0**	**0.2%**
Totals for Area of Interest		**7,452.3**	**100.0%**

Rockbridge County, Virginia (VA163)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
15E	Dekalb-Lehew-Rock outcrop complex, 15 to 35 percent slopes, extremely stony	0.3	0.0%
Subtotals for Soil Survey Area		**0.3**	**0.0%**
Totals for Area of Interest		**7,452.3**	**100.0%**

6. CULTURAL CONTEXT

The following section provides a brief summary of the general overarching regional prehistoric and historic themes relevant to Virginia and Botetourt County. The primary emphasis of this context focuses on the anthropological and material culture trends in prehistory and history, and describes how people throughout time could have left their archaeological mark on the landscape of the project area specifically. Prehistoric and historic occupation statistics and trends were analyzed, as were historic maps and available first-hand accounts which aided in establishing the appropriate cultural context for the project area as defined by the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation* and the Virginia Department of Historic Resources' *How to use Historic Contexts in Virginia: A Guide for Survey, Registration, Protection, and Treatment Projects* (VDHR 2011).

PALEOINDIAN (PRIOR TO 8000 B.C.)

The Paleoindian occupation of the greater southeastern United States began between 15,000 and 11,000 years ago, during the late glacial era when sea levels were approximately 230 feet below modern sea levels (Anderson et al. 1996:3). Within Virginia, the Paleoindian occupation is commonly accepted as beginning prior to 8,000 B.C. or 10,000 BP (years before present) (Dent 1995; Ward and Davis 1999). This projected drop in sea level would have exposed the majority of the continental shelf along the eastern coastline of North America. During the Late Pleistocene period (14,000 to 10,000 years ago) the Laurentide Ice Sheet still covered large portions of northern North America, and in Virginia the predominant forest type consisted of a mixture of a Jack Pine and Spruce (Delcourt and Delcourt 1981, 1983). These combined lines of evidence indicate that the Paleoindian period predates the formation of the Chesapeake Bay.

The strongest case for the pre-Clovis occupation of Virginia comes from the Cactus Hill site (44SX0202). The site, located along the Nottoway River, has provided evidence of potential Native American habitation in Virginia prior to the widely accepted date of 10,000 BP. The site has also produced artifacts that may predate the development Clovis technology: materials supporting the existence of a non-fluted lithic blade technology were recovered below stratigraphic levels associated with fluted Clovis points (McAvoy and McAvoy 1997).

The majority of Paleoindian materials recovered in the Eastern United States, as well as Virginia, represent isolated projectile point finds (Dent 1995; Ward and Davis 1999). Although some larger, notable base camps are present within the state, these sites are relatively rare and usually associated with sources of preferred high quality lithic materials. Many Paleoindian sites may have been located along the Late Pleistocene coastline of Virginia, which was subsequently flooded during the formation of the Chesapeake Bay (Blanton 1996). There were 25 known Paleoindian sites located within the Chesapeake Region recorded up through the mid-1990s (Dent 1995).

Less than 75 Paleoindian sites have been identified in Virginia; however a number of these are located within the Valley of Virginia area, including at least one known in Botetourt County (Turner 1989). Recent work at the Cactus Hill site in Sussex County (44SX202) has provided evidence of the earliest known occupation in Virginia (McAvoy and McAvoy 1997).

Investigations at this site yielded information suggesting that Native Americans occupied the Nottoway River basin as early as 15,000 years B.P. This site, along with several other sites in Virginia has provided a framework for Paleoindian occupation.

Preservation biases have also had a substantial impact on our understanding of the Paleoindian period. After 10,000 years, few artifacts survive the ravages of time besides stone tools and the debris associated with their manufacture. When compared to the wealth of archaeological materials contained on late prehistoric sites, there are relatively few traces remaining from the Paleoindian occupation of Virginia. There remains a general level of uncertainty for the period based on the extant lines of data (Kane and Keeton 1994).

Paleoindians favored the use of cryptocrystalline material for making projectile points and lithic tools, probably because of its flaking qualities and longer potential use-life (the capability of reworking and reusing the material). The Paleoindian tool kit included well-made bifaces, various scrapers, gravers, adzes, and a few other tool types. These tools were curated and carried from place to place, due to the durability of the preferred lithic material (Binford 1980; Goodyear 1979). Although lacking specialized tools for processing plants in most assemblages, work in the Upper Delaware Valley has produced carbonized plant remains, suggesting that plants played at least a minor role in the diet of the Paleoindians of the Middle Atlantic (Custer 1989). The Native American tool kit associated with the Paleoindian period is still not well understood. Most of the tools associated with Paleoindian projectile points are also found in association with diagnostic artifacts from the Early Archaic period. A further complication in understanding the tool kit of the Paleoindian is the assertion that the tools created by the Paleoindians may have been used for over 3,000 years, since they were made of cryptocrystalline lithic material (Goodyear et al. 1989:41).

The Paleoindians employed a collector strategy to take advantage of seasonally available flora and fauna throughout the year. This strategy included a seasonal base camp located either in a diverse environmental ecozone or near high-quality lithic quarries, supplemented by smaller procurement camps located some distance from the base camp (Goodyear 1979; Daniel 1996; Anderson et al. 1996). The procurement camps were seasonal and temporary stations where the Paleoindians would gather lithic material and/or flora, or hunt fauna (Binford 1980; Anderson et al. 1996). It is generally accepted that the range of a band of Paleoindians covered a relatively large area (Gardner 1989; Anderson et al. 1996).

Some researchers discuss the Paleoindian period as a single entity (Dent 1995) while others, mostly in the southeast, divide it into three sub-periods based on morphological differences in projectile point manufacture and technology (Anderson 1990; Custer 1989; Ward and Davis 1999).

Early Paleoindian (9500 to 9000 B.C.)

The earliest occupation of the southeast and eastern North America occurred sometime before 9000 B.C. The most prominent artifact associated with this sub-period is the fluted Clovis projectile point, thought to have been hafted on the end of a wooden shaft and utilized as a spear to be thrown or thrusted (Ward and Davis 1999, Chapman 1994). Sites associated with Clovis

projectile points are scattered in low densities across the eastern seaboard, with notable concentrations around Tennessee, the Cumberland and Ohio River Valley, western South Carolina, southern Virginia, and the northern Piedmont of North Carolina (Anderson 1990:164-71; Daniel 1998; Ward and Davis 1999). Some areas with ephemeral or even no traces of Paleoindian occupation may have only been occupied briefly at this time. Anderson (1990) has hypothesized that these areas of concentrated activity were staging areas or base camps occupied at particular times of the season, with smaller procurement camps located elsewhere throughout the region (Anderson 1990; Ward and Davis 1999).

Middle Paleoindian (9000 to 8500 B.C.)

During the Middle Paleoindian sub-period several other projectile points become characteristic of the changing environment and reuse of earlier projectile point forms. Typical projectile point types include Clovis variants, Cumberland points, Simpson points, and Suwannee points. Some of these projectile points are fluted (Cumberland, Simpson, and Clovis variants) while others are not (Suwannee). Most of the Middle Paleoindian projectile points are slightly "eared" at the base (Anderson et al. 1996; Ward and Davis 1999:31). Anderson (1990) sees the morphological changes in form and increased number of points associated with this sub-period as signifying a change in settlement patterning and subsistence strategies. During the Middle Paleoindian period, Native American peoples began to radiate out from their home ranges and exploit new environments (Ward and Davis 1999).

Late Paleoindian (8500 to 7900 B.C.)

By the end of the Late Pleistocene, the Laurentide Ice Sheet had retreated to the north and the forest cover had changed to a mixture of conifers and northern hardwoods. As a result of the glacial melting, it is also presumed that numerous Paleoindian sites were submerged with the rising sea levels of the last glacial period (approximately 10,000 years ago) (Anderson et al. 1996:3, Schuldenrein 1996). Dalton projectile points and Hardaway projectile points are typical of the Late Paleoindian sub-period, with some variants (Coe 1964; Daniel 1998; Goodyear 1974, 1982). With the climate and environment changing to one more similar to the present and with the associated rise in sea levels more Late Paleoindian sites are present across the Southeast and Mid-Atlantic regions, suggesting a possible increase in population density.

ARCHAIC (8000 TO 1200 B.C.)

The beginning of the Archaic period coincided with the start of the Holocene period around 8,000 B.C. The Holocene is a geological period that began with the recession of the ice sheets that covered large portions of North America. The start of the Archaic is marked by a shift from a moist, cool climate to a warmer, dryer climate within the region, more similar to the temperate ecosystem of today. This warming trend was gradual and somewhat continuous throughout the first 5,000 years of the Archaic period. The shift in climate allowed for the development of diverse plant and animal communities, as currently found throughout the Middle Atlantic region. These changes in flora and fauna had a marked impact on the hunter-forager subsistence base of the Archaic period (Dent 1995: 147, 164-5). The retreat of the ice sheets also caused the sea levels to rise, leading to the gradual formation of the Chesapeake Bay. Prior to the Archaic

period the Chesapeake Bay was merely an extension of the Susquehanna River, emptying into the Atlantic Ocean several miles east of Virginia Beach, Virginia.

As with the Paleoindian period, our understanding of the cultural chronology of the Archaic is based primarily upon lithic artifacts: chipped-stone tools and the debris associated with their manufacture. More "biodegradable" forms of material culture have simply not survived in the archaeological record of the region and the items recovered are biased towards lithic materials (Geier 1990:82-83). The basic chronology of Archaic projectile points for the Mid-Atlantic region and the southeastern United States closely follows the sequence outlined by Joffre Coe (1964) for the North Carolina Piedmont, with regional variants. Coe's chronology has been modified and fine-tuned over the past 40 years but the basic typology remains intact (Dent 1995; Hranicky 2001; Justice 1987; Ward and Davis 1999).

It is believed that Archaic populations were characterized primarily by band-level social organization with seasonal movements that corresponded to the availability of specific resources. Settlement during the Archaic period probably involved the occupation of relatively large regions by single, band-sized groups living in base camps during part of the year. These band-sized groups would disperse on an as-needed or seasonal basis, creating smaller microband camps that may have consisted of no more than single families. Two settlement models have projected the seasonal range and focus of Archaic bands.

Anderson and Hanson (1988) propose that the distribution of Archaic sites (primarily Early and Middle Archaic) were based along single river drainages. The Band-Macroband Model, as it has become better known, suggests that a base camp was established in a rich environmental area near the Fall Line, and smaller procurement camps were established seasonally towards the coast and further inland to take advantage of seasonally available resources such as fish, shellfish, nuts and berries. An alternative model takes into account a continued, albeit gradually declining reliance upon high-quality cryptocrystalline lithic resources during the Early Archaic period. Daniel (1996, 1998) proposes that high-quality lithic resources were the central focus around which seasonal movements were geared, and that Early Archaic Native American bands traversed river drainages to gain access to high-quality lithic outcrops and quarries. During the Middle and Late Archaic wider range of lithic materials are found in the artifact assemblages (Custer 1989:128).

The Archaic period can be characterized by the development of more specialized resource procurement activities as well as the development of new technologies to accomplish these activities. These differences in the material culture are believed to reflect larger, more localized populations and changes in methods of food procurement and processing. Furthermore, Middle and Late Archaic site are found in a much wider range of environmental locations, as opposed to the locations of sites during the Paleoindian and Early Archaic time periods (Custer 1989:128).

Prehistoric sites that consist of lithic debitage, no diagnostic artifacts, and an absence of ceramic artifacts likely date to the Archaic Period. These sites are described in the records as "Prehistoric/Unknown," however they are most likely to date to the Archaic Period despite not having a specific temporal designation.

Early Archaic (8000 to 6500 B.C.)

Corner and side notching became a common characteristic of projectile points at the beginning of the Early Archaic, indicating potential changes in hafting technology and possibly the invention of the spear-thrower (atlatl). Notched point forms include Palmer and Kirk Corner-Notched and, in localized areas, various side-notched types. The end of the Early Archaic and the start of the Middle Archaic are marked by the appearance of a variety of bifurcate base projectile point forms which, within this area, are primarily represented by Lecroy points (Dent 1995, Justice 1997).

Some researchers see the Early Archaic as a continuation of the Paleoindian period, with a continued reliance on cryptocrystalline lithic material and similar settlement and subsistence patterns (Gardner 1989). In the James River Valley, the increase in Archaic population appears to begin during the Early Archaic (Mouer 1990:24), as opposed to the Middle Archaic as suggested throughout most of the Middle Atlantic region (Dent 1995).

Although only one Early Archaic archaeological site was specifically identified within one mile of the project area, any of the six previously identified prehistoric archaeological sites designated as "prehistoric/unknown" could be affiliated with this period.

Middle Archaic (6500 to 3000 B.C.)

As a whole, the Middle Archaic is marked by the appearance of stemmed projectile point forms. In this area of Virginia, the most common Middle Archaic projectile point types are (from oldest to most recent) Lecroy, Stanly, Morrow Mountain and Guilford, followed by the side-notched Halifax type as the Middle Archaic transitions into the Late Archaic period between ca. 3500 and 3000 B.C. There is also a notable increase in the number of identified Middle Archaic components over the preceding Early Archaic period, which appears to indicate a rise in Native American population levels during this period (Dent 1995; Justice 1995).

Late Archaic (3000 to 1200 B.C.)

The Late Archaic is dominated by stemmed and notched knife and spear point forms, including various large, broad-bladed stemmed knives and projectile points that generally diminish in size by the start of the Early Woodland (e.g. Savannah River points and variants). Other point forms, while less common, include stemmed and notched-stem types identical to examples more commonly associated with Pennsylvania and adjoining parts of the northeastern United States (e.g. Susquehanna and Perkiomen points) (Dent 1995, Justice 1995).

Marked increases in population density, and decreased mobility in some areas, appear to characterize the Late Archaic in the Middle Atlantic region and eastern North America as a whole. Locally, there is an increase in the number of late Middle Archaic (Halifax) sites and Late Archaic (Savannah River) sites over those of preceding periods, suggesting a population increase and/or an increasing use of this area of Virginia between about 3500 B.C. and ca. 1200 B.C.

The origins of agriculture within the Middle Atlantic region may have had its start during the Late Archaic period. Yarnell (1976:268), for example, states that sunflower, sump weed, and possibly goosefoot may have been cultivated as early as 2000 B.C. In the lower Little Tennessee River Valley, the remains of squash have been found in Late Archaic Savannah River contexts (ca. 2400 BC), with both squash and gourd recovered from Iddins period contexts of slightly more recent date (Chapman and Shea 1981: 70).

Based on the work of Barber et al. (1992), as well as on studies conducted within nearby northern and western Virginia counties, sites dating to the Middle Archaic and the Late Archaic periods are the most likely Native American archaeological sites to be found within the project area. Early Archaic and Middle Archaic sites are found on both the largest streams and on small headwater tributaries, indicating movement from the major rivers to the interior headwaters and the exploitation of a broad range of both riverine and forest resources; Late Archaic sites are found in a wider range of environments (Barber et al. 1992:46-48).

WOODLAND (1200 B.C. TO A.D. 1600)

The Native Americans of the Woodland Period began to maintain a greater reliance on horticulture and agriculture based on the cultivation of maize, imported from Mesoamerica via the Mississippi Valley, as well as squash, beans, and other crops. This increased sedentism and the nucleating of societies (Klein and Klatka 1991; Mouer 1991). Populations during this time began to consolidate into villages near rivers and floodplains with fertile soil, favorable terrain, and access to fauna. Satellite procurement camps are far less frequent than in the Archaic Period.

The Woodland Period is defined foremost by the development of a ceramic technology. Although archaic people had carved out vessels from soft soapstone, prehistoric Americans did not begin shaping ceramic vessels until around 1200 B.C. The earliest pottery produced on the coastal plain, the Marcey Creek Plain, and other types, in fact resembled those soapstone vessels, suggesting that they were used for similar purposes. Woodland peoples, however, modified the square- or oval-shape, soapstone inspired vessels. They began decorating the pieces with cord and tempering them with soapstone and other types of grit to make them stronger.

The period is divided into three smaller sub-periods based on changing projectile points and ceramics, as well as settlement patterns: Early Woodland (1200-500 B.C.), Middle Woodland (500 B.C.-A.D. 1000), and Late Woodland (1000-1600). These time spans, however, do not quite correspond with the delayed developments in the far removed southwestern Virginia.

While the beginning of the Early Woodland Sub-period (1200-500 B.C.) is defined by the appearance of ceramics from prehistoric archaeological context in other locations, in southwestern Virginia this sub-period remains largely aceramic. According to Egloff, it was not until 600 B.C. that pottery of Appalachian Summit and Tennessee Valley origin are introduced to the region. Additionally, the use of the Savannah River point lessens and is eventually replaced by small lanceolate, notched and stemmed forms produced from quartz and chert, such as the Swannanoa Stemmed type (Kerr n.d.: 16-17).

Early woodland peoples continued to use rockshelters, but it appears that the trend of settlement along rivers also continues to grow during this sub-period. Ridge, hilltops, plateaus, and upland valleys were used but on a more transient basis. The small rock clusters and large rock platforms seen in the Archaic Period continued to be used in settlements during the Early Woodland Sub-period (Kerr n.d.: 17).

The typical middle woodland (500 B.C.-1000 A.D.) site consisted of a small group of people who used an area semi-permanently as they became more sedentary (Kerr n.d.: 18). The middle woodland diet becomes more complex as people begin to exploit nuts, amaranth, and chenopod seeds in addition to fish, deer, waterfowl, and turkey. Evidence of rank societies emerges more clearly with the spreading of religious and ritual behavior including symbols and regional styles apparent in ceramic styles and other sociotechnic and ideotechnic artifacts.

During this sub-period, southwestern Virginia was fairly permeable. The material culture of groups of indigenous people living in the area were influenced by those passing through. The typical ceramics during this time was limestone-tempered and cord-marked or fabric-impressed (Flood et al. 2013: 3-5). Ceramics identified largely include those identified in the Tennessee River drainage system: the limestone-tempered Long Branch Fabric Marked and Candy Creek Cordmarked, Wright Check Stamped, Bluff Creek Simple Stamped and Mulberry Creek Plain. There are also sand-tempered Connestee ceramics as defined in the Appalachian Summit (Kerr n.d.: 19).

By the Late Woodland Sub-period (1000-1600 A.D.), the Mississippian Woodland culture had edged its way up the Tennessee drainage system into southwestern Virginia (*Woodland Indians in Virginia* n.d.). Prehistoric people living in the Mississippi, Ohio, and Illinois Valleys made shell-tempered pottery, constructed platform mounds, had settlements arranged in a hierarchical manner, grew maize, and had a political system or chiefdom (Kerr n.d.: 32).

The use of domesticated plants assumed a role of major importance in the prehistoric subsistence system and changed prehistoric settlement patterns. Expanses of arable land became a dominant settlement factor, and sites were located on fertile floodplain soils or, in many cases, on higher terraces or ridges adjacent to them. Native Americans began to organize into villages and small hamlets that were highly nucleated and occasionally fortified with palisades. The fortifications demonstrate inter-group conflict. In Tazewell County, the most noteworthy palisaded site is the Crab Orchard (44TZ0001, 092-0013). Rockshelters also continued to be used as transient and base camps (Flood et al. 2013: 3-6).

Southwestern Virginia was also being influenced by three major ceramic traditions: Eastern Woodland, Southern Appalachian, and Mississippian. The most common pottery, from the Eastern Woodland tradition was a cord-marked, net-impressed and corncob-impressed pottery with either sand, soapstone, or limestone temper (Kerr n.d.: 33). The Southern Appalachian Tradition, which is more typical of areas to the south, had a sand-tempered ware with either rectilinear or curvilinear stamped exterior. Finally, the Mississippian Tradition is represented by plain or cord-marked, shell-tempered pottery (Flood et al. 2013: 3-6). Other artifacts found from this time period include bone beamers, awls, flakers, fish hoods, hoes, projectile points, needles,

scrapers, cups, and bone handles, as well as beads, hairpins and pendants from bone (Kerr n.d.: 33).

In this culture, religion evidently served to enhance the power of the chief and distinctive burial mounds were created according to the Mississippian tradition. In southwestern Virginia, however, the culture was not strong enough to have definitive mounds and in cases, limestone fissures were used for burials rather than mounds, such as Higgenbothan Cave (*Woodland Indians in Virginia* n.d.). Some burials, including those in substructure mounds, contain exotic items such as shell gorgets and effigies, copper celts, slate pendants, and other items that represent social status. Most, however, contain few or no funerary offerings (Wild 2005: 57).

SETTLEMENT TO SOCIETY (1607-1750)

At the time settlers first landed on Jamestown Island, the area which would become Botetourt County was occupied by several tribes of Native Americans who used the area seasonally for hunting and gathering. The majority of tribes were of the Monacan people who were at war with the Powhatan Indians from the east. William Strachey described this situation as, "an enmity and open wars between the high and low country, going by the names of Monocans and Powhatans" (Strachey 1612 in Haile 1998: 597). Strachey goes on to describe the Monacans, "Beyond the rivers and at the heads of the rivers upon the head of the Powhatans, are the Monacans, whose chief habitation is at Rassawek, unto whom the Mowhemenchughes, the Massinnacacks, the Monahassanughes, and other nations pay tribute." Strachey continues to describe a possible alliance with the Monacans, "And the Monacans, as I said, have been deadly enemies ever unto the Powhatan, and may easily be joined friendship with by us to be so again until when we shall ever have Powhatan at these proud and insolent terms at which he now stands" (Strachey 1612 in Haile 1998: 663-664).

Eventually, the Monacan population dwindled. It is speculated that many Monacans suffered from diseases brought by the Europeans when they began exploring the area, and that many of the remaining Monacan people eventually merged with other tribes such as the Saponi, Tutelo, Catawba, and Totera.

The first European exploration into the Shenandoah Valley and Botetourt County did not occur until 1669, and settlement in earnest did not begin for several more decades due to threat from attack by the Native people. In 1701, the Colonial Council of Virginia passed an act to fortify the frontier against Indian attack by providing land grants to settlers; however, it was not until the late-1730s, by which time the colonial frontier was being pushed westward beyond the Appalachians that settlers began arriving in substantial numbers.

The vast majority of early settlers to the region were Scots-Irish and German immigrants, most of whom came from Pennsylvania and Maryland, although Anglo settlers from eastern parts of Virginia did arrive in the area as well.

In 1737, Benjamin Borden, who had acquainted himself with Virginia governor William Gooch, became the first large-scale land speculator in the area as he secured large land grants that were wellsprings from which other tracts of land were bought and sold in the upper (southern)

Shenandoah Valley, including across the future county of Botetourt provided he could induce other families to settle within their boundaries in two years. In November 1739, Borden secured his first grant in what would become Botetourt County consisting of 8,100 acres on Catawba Creek. He received two more grants—one for 3,553 acres, and another for 2,880 acres—to which he added smaller grants on Borden's Run and Spreading Spring Branch of the James River. That same year a grant of 1,600 acres was made to John Matthews on Mill Creek. Beginning in 1740, John McPharron, James Montgomery and James Davis settled on Catawba lands purchased from Borden. (Stoner 1962: 160; Kegley 1938: 73). Other settlers followed these first few, and by 1740 Borden had fulfilled the terms of the land grant. The grant was officially signed and sealed that year in Williamsburg.

By 1738, the influx of settlers to the area prompted the creation of a new county, named Augusta which included the land area of the future Botetourt. Beginning in the 1740s, the colonial government of Virginia encouraged settlement of Southwestern Virginia, and gave incentives to speculators and settlers. If a settler agreed to build a cabin, he was given 100 acres of land and the option to buy additional land at a set price. These incentives lead to additional grants and settlements within what would become Botetourt. In addition to the original Borden lands, numerous grants were made in the ―Forks of James community, an area between the North and South branches of the James River, east of Purgatory and North Mountains. Early grants were also made in the Fincastle Community, which included lands on the south side of the James River, including the valley of Looney's Mill Creek, Catawba, Craig's Creek and the upper James River (Fulwiler 1980:12; Kegley 1938:137; Stoner1962:16-17).

Typically, the amount and quality of land grantees and lessees were able to acquire was dependent on their social and economic status. The majority of grantees attempted to procure the rich and fertile land along the streams and rivers for farming while also securing as many springs as possible by acquiring the hilly land behind. In general, the surveyed land parcels followed the ridge lines where roads and fences were also typically placed to avoid intruding upon the more fertile valley land (Kegley 1938: 63, JMU ARC 1987).

COLONY TO NATION (1750-1789)

The region continued to develop throughout the second half of the eighteenth century. Scotch-Irish and German settlers continued to arrive from Maryland and Pennsylvania while the increasing population of the Tidewater and Piedmont areas of Virginia pressed westward into the Shenandoah Valley and ridges beyond in an effort to open new areas for farming as soil became depleted further east. Settlement was focused along the system of roads that had slowly evolved from Native trails and trade routes. One such road, the main road up the Shenandoah Valley (modern-day U.S. 11) crossed through what would become Botetourt County by the mid-eighteenth century (Figure 6-1).

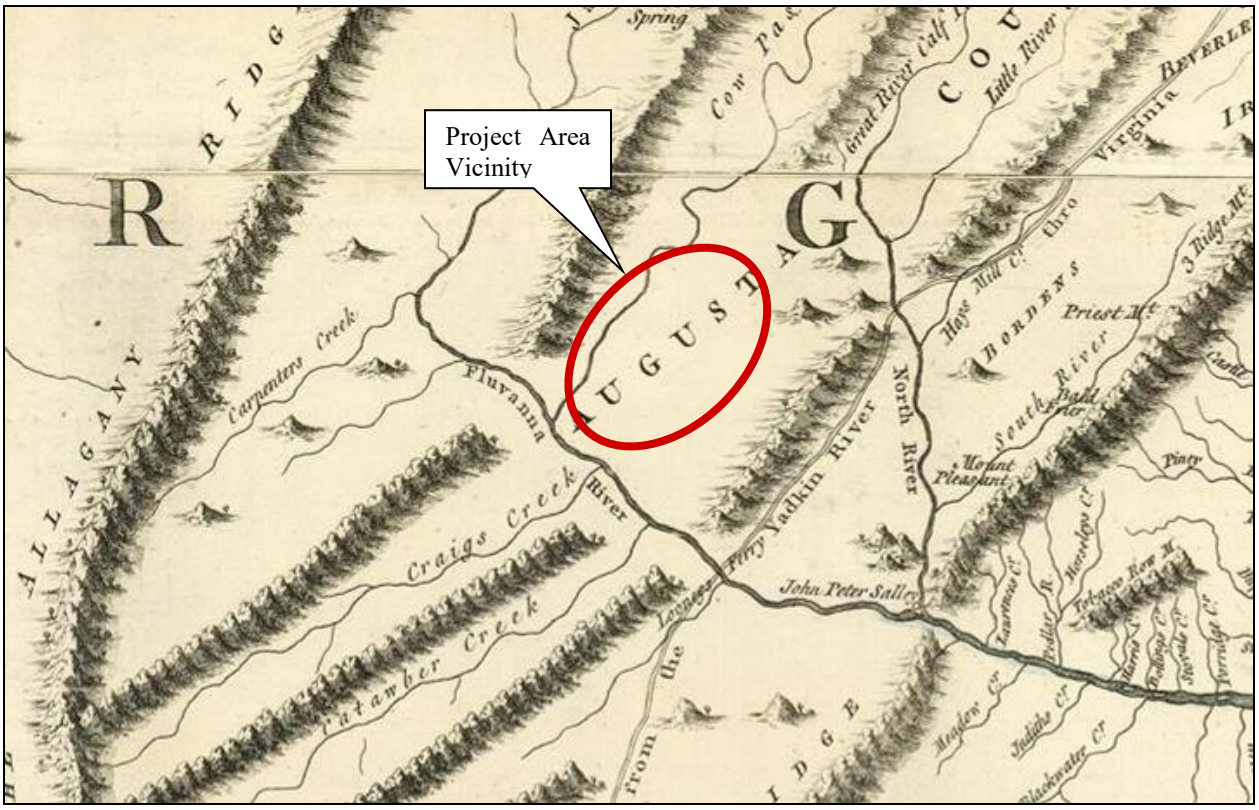

Figure 6-1: Detail of 1751 Fry-Jefferson map showing vicinity of the project area. Source: Library of Virginia

However, the French and Indian War briefly interrupted efforts at settlement due to sporadic hostilities along Virginia's western frontier. During the war from 1754-1763, the frontier was a hostile environment and many settlers fled to more developed areas in the east for safety. In March 1756, the inhabitants of Augusta County (still including Botetourt) petitioned the House of Burgesses to fund and construct a chain of forts to be built to protect the frontier. They lobbied that the forts would serve not only as defensive outposts, but also as centers of trade and commerce (Kegley 1938 234-245). The Virginia Assembly supported the motion and a number of forts were constructed, including one at the junction of the James River and Craig Creek, near present-day Eagle Creek, just west of the project area.

To further quell the hostilities in the area, Colonel George Washington was placed in command of the colony's forces charged with repelling Indian attacks. Washington deployed bands of men to man the line of forts and seek out hostile people in the region. In 1756, Captain William Preston set out on an expedition against the Shawnee, with a party comprised of several companies of men, including some Cherokee Indians who were allied with the colonists against the French and northern Indians. In 1760, Colonel William Byrd led another expedition against Natives in the area and worked to improve the old Buffalo Trail into a wagon road, the first major road improvement through the area that used government money (Worsham 1988).

With the return to peace following the French and Indian War, settlement of the area resumed and expanded. Although settlers could buy land from other individuals who already had obtained a land grant, most settlers acquired land through direct patent from the English crown. Since settlers could take land in single small surveys, family homesteads in Botetourt were more

scattered than they had been in present Augusta and Rockbridge counties, where large land grants confined homesteading to a more well-defined geographic area (Stoner 16-17).

As more homesteads became established in the area, so too did the need additional roads. Until that point, the Wagon Road was the primary means of transportation, providing an artery down the valley from Pennsylvania and Maryland into North Carolina. While this road brought settlers to and through what would become Botetourt County, an expanded network of roads throughout the area was needed to aid in permanent development. A number of roads were built during this time connecting homesteads, churches, mills, ferry crossings, and commercial centers (JMU ARC 1987). The geography determined the location of the early roads and older Indian paths along ridges, creek and river crossings, and mountain passes were improved into primitive roads or paths. By this time, Craigs Creek and Patterson Creek, just west of the project area and present-day Eagle Rock had become a thriving area of settlement and many of the roads came through this area from villages and towns to the south and east (Figure 6-2).

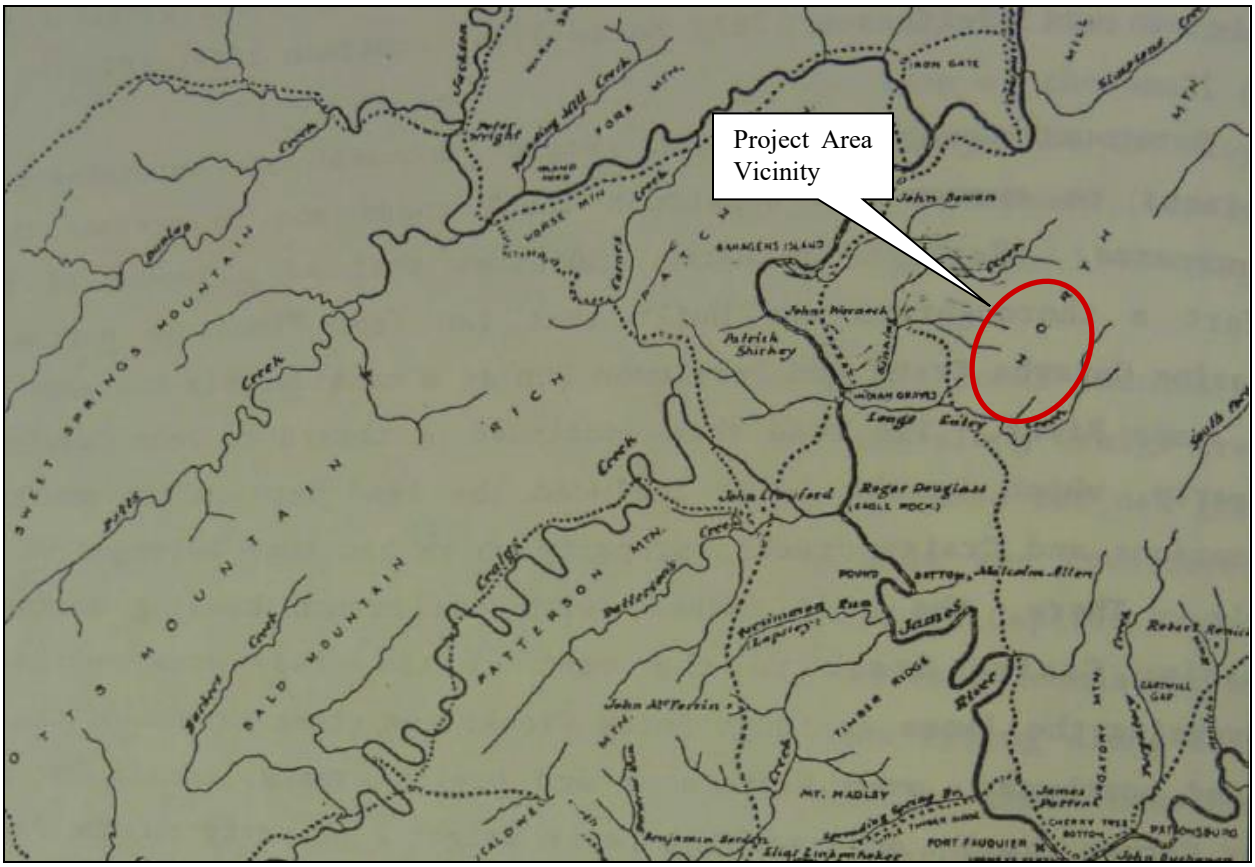

Figure 6-2: Detail of "Map of the Fincastle Community 1740-1760, Kegler 1938. Source: JMU ARC

By 1770, population in the area had become extensive enough that the House of Burgesses separated off the lower part of Augusta County to become Botetourt County. The county was named for Norborne Berkeley, known as Lord Botetourt, the popular governor of Virginia from 1768 to 1770. At the time of its creation, Botetourt County encompassed a tremendous amount of land from the newly acquired Northwest Territory, including much of present-day West Virginia, Kentucky, Ohio, Indiana, and Illinois (Figure 6-3). The county seat was established at

Fincastle, a small frontier village that served as the last outpost for pioneers moving westward down the Shenandoah Valley. Local resident and County Surveyor William Preston laid out a plat for Fincastle to become an organized town that year, and the Virginia Assembly officially established the town in 1772. The county was reduced in size that year when much of what would become Kentucky was separated off to become Fincastle County. In 1777, Rockbridge County was also formed from part of Botetourt County (Tompkins 1952:38). Additional towns and villages evolved in the following years including the village of Pattonsburg in 1788, which was established along the north bank of the James River at the bases of Purgatory and Cove Mountains where the Great Wagon Road crossed the James River.

Figure 6-3: Map of Botetourt County Boundaries in 1770. Source: Botetourt History

EARLY NATIONAL PERIODS (1789-1830)

Following the Revolutionary War, the population of Botetourt County continued to rise. Between 1789 and 1830, the number of residents increased by 55% from 10,524 to 16,354. Agriculture was the primary economic driver of the county, with crops of wheat, rye, corn, and flax being the most important cash crops, followed by barley, oats, hemp, and tobacco. Corn production also grew as important feed crop to support the county's growing livestock numbers. Fruit orchards, particularly apple and peach also expanded greatly during this period.

The majority of early Botetourt settlers operated small farms consisting of between 100 and 400 acres, with only 10 or 12 acres cleared and available for farming (Mitchell, 1940: 135-136). The

relatively small amount of cultivated land is a reflection of the low number of slaves present in the county during this period, as compared to the eastern and northern parts of Virginia.

The focus on grain crops in the region as opposed to tobacco slowly resulted in the establishment of a large number of grist mills along the counties many streams and watercourses. The development of mills lead to further expansion of the county road network as well as additional villages and commercial centers. The village of Buchanan was established in 1811 on the south bank of the James River where it was crossed by the Wagon Road and served as an important trade and transportation center. Other industries such as paper milling, tanning, and distilling also flourished

This period also saw the rise of another important industry in Botetourt County. Mining and the processing of iron began to increase, particularly in the northern, more mountainous portion of the county. Iron furnaces and foundries were established along the courses of the county's waterways, and were used to process iron mined from the mountains prior to being shipped downstream to Lynchburg and Richmond (McClung 1939:30-33). One such facility, Rebecca Furnace, was established between 1816 and 1819 near Daggers Springs, in the vicinity of the project area.

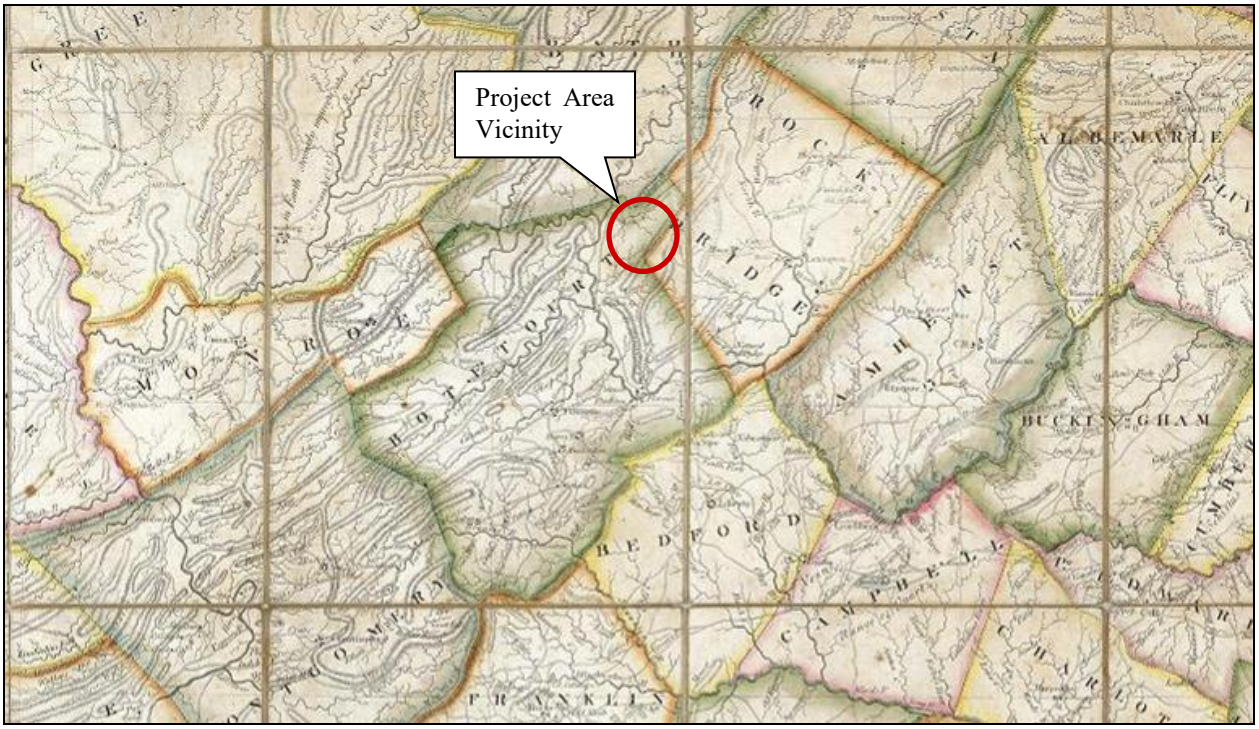

Figure 6-4: Detail of *A map of Virginia : formed from actual surveys, and the latest as well as the most accurate observations,* 1807. Source: Library of Virginia

Land values in the county increased in the early decades of the nineteenth century as settlers continued to move westward and new settlers arrived from the east. Many of the new settlers from the eastern part of Virginia brought substantial wealth and were able to build more permanent houses. These families also brought additional slave labor with resulting in larger

farms, more agricultural production, and an increased county economy. By 1830, the slave population was 4,170, up from 1,259 slaves recorded in 1790 (VCU ARC 1988).

Road construction and improvement also expanded, as Virginia reevaluated its network of poor roads and inadequate supply routes through the Shenandoah Valley (Hill Studio 2008). During the 1780s the state provided funds to widen the Old Wagon Road, and in 1816 the Board of Public Works was created to supervise the state's internal improvements, which included construction of roads and turnpikes, and canals.

It was during this period that canals and improved water transportation first arrived to Botetourt County, allowing for easier shipment of grains and flour from the county's mills as well as iron from its furnaces to population centers in the east. Although George Washington proposed the idea for a commercial canal link that would facilitate travel between the Tidewater region and the Ohio River by way of the James, Greenbrier, New and Kanawha Rivers in 1785, it took nearly ten years for the canal to stretch between Richmond and just seven miles west. By 1816, a subsidiary canal reached Buchanan in Botetourt Count, however it lacked a good connection to the main line canal in the east and therefore provided little transportation improvement.

ANTEBELLUM PERIOD (1830-1860)

Botetourt and all of Virginia enjoyed enormous economic prosperity in the antebellum period. Agriculture continued as the primary occupation in Botetourt County. The county's farmers practiced a diversified agriculture, producing cattle, corn, oats, wool, and cheese for market. Other crops, such as hay, wheat, and rye, were grown for local consumption (Hill Studio 2008). Commerce and industry grew at a faster rate after the completion of turnpikes between 1820 and 1850.

In 1835, Martin's *Gazetteer of Virginia* lists 13 towns, villages, and post offices in the county, with a population of 16,354. Several of the communities were in proximity to the project area including Rebecca Furnace, Daggers Spring, and Craigs Creek. Other communities in the county included Amsterdam, Botetourt Springs, Buchanon, Cloverdale, Fincastle, Flukes, Hendersons, Newcastle, Pattonsburg, and Salem.

The community of Rebecca Furnace was centered on the iron processing facility of the same name; however a second furnace, called Jane Furnace, was also in operation in the vicinity. Due to abundant iron ore deposits, iron smelting ranked high among early industries in Botetourt County, where 14 furnaces operated for much of the nineteenth century. Prior to the Civil War, iron furnaces employed scores of residents, as well as many slaves. According to the Gazetteer, The Rebecca and Jane Furnaces together employed 150 operatives, 87 of which were slaves. Both furnaces manufactured an average of 800 to 850 tons of pig metal per annum. The two furnaces and community were located three and a half miles from the James River, which was defined as "navigable thus far for boats of from four to seven tons burthen".

By 1835, both furnaces were owned by D. J. Wilson; who by that time had also purchased much of the property around the small community of Daggers Springs. Dagger Spring itself was a mineral spring well known for its medicinal and healing properties. By this time, the spring was

the nucleus of a hotel and resort run by Charles Dibrell. The resort was a popular tourist destination for those wishing to rest, relax, and heal. It was said that no quarter of the world presented a greater variety of mineral waters, than the western portion of Virginia where medicinal springs are plentiful. Several of the springs in the area became popular destinations during this time period, however Daggers (sometimes called Dibrell's) Springs was considered one of the finest. According to the 1835 Gazetteer, "the water is similar in quality of the White Sulphur Springs in Greenbrier, and are held in the highest estimation by those who use them. Accommodations are provided for 70 to 80 persons. This property has lately been sold to a gentleman of Richmond, who has improved it in a handsome style, so as to afford first rate accommodations. It must become a place of considerable resort, as it has for several years past been visited by from 200 to 300 persons, and has given relief where other springs have been known to fail" (1835 Virginia Gazetteer) (Figure 6-5).

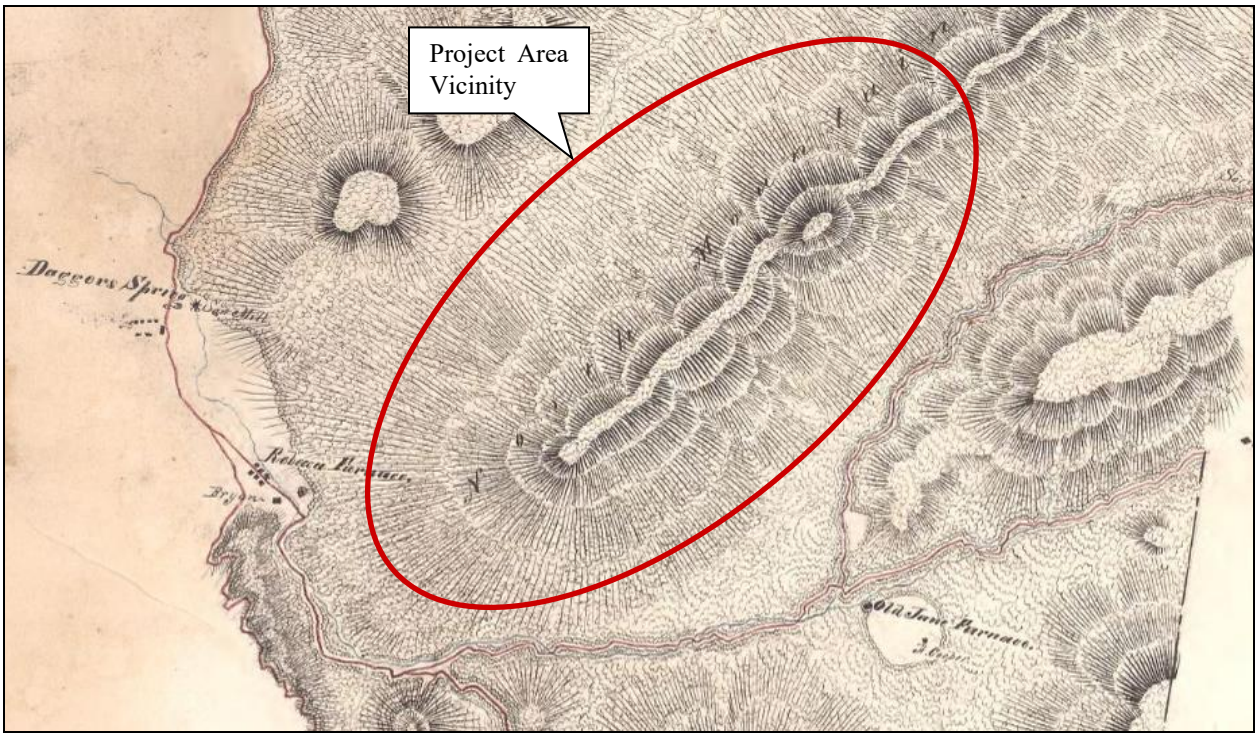

Figure 6-5: Detail of *Map of Botetourt,* 186-. Source: Library of Congress

The third community in the vicinity of the project area, Craig's Creek was one of the older settled areas of Botetourt County, focused at the junction of Craig's Creek and the James River at the base of Crawford Mountain (present-day Eagle Rock). The gazetteer does not say much about the community except that it had a post office, indicating it was substantial and populous.

In 1838, the size and population of Botetourt were both reduced when Roanoke County was formed from it. The population of Botetourt County decreased from 16,354 in 1830 to 11,679 in 1840, but rebounded to 14,908 in 1850 following continued settlement. The number of slaves also fell from 4,170 in 1830 to 2,925 in 1840, but climbed to 3,736 in 1850. The current boundaries of Botetourt were finally set in 1851 when Craig County was created from the counties of Botetourt, Roanoke, Giles, and Monroe (Hill Studio 2008).

The town of Fincastle continued to evolve as a crossroads and transportation hub with the construction of turnpikes through the county. The Fincastle and Blue Ridge Turnpike, was incorporated on February 20, 1830 and four years later, the first toll road crossed the Blue Ridge through Noffsinger's Gap. The Fincastle to Cumberland Gap Turnpike (1841) ran from the Kentucky border to central Botetourt County. As the county seat, Fincastle was considered a flourishing and wealthy village with four churches, several schools, numerous shops and industries, and 260 dwelling with a population of 703 including 192 slaves, and 43 free blacks (Martin, 1836: 327-328).

These and other turnpikes also crossed through Buchanan resulting in increased development there. The Buford's Gap and Buchanan Turnpike was incorporated in 1854 as a 14-mile toll road constructed by Paschal Buford. Buford operated a stage line from Buford's Station to Buchanan and Pattonsburg, as well as a tavern at the intersection of the Fincastle and Blue Ridge Turnpike (present-day S.R. 606) and the Lynchburg and Salem Turnpike (present-day S.R. 640) (Sarvis, ―Turnpike Tourism in West Virginia, 1830-1860). The last of Virginia's major turnpike arteries, the Southwestern Turnpike, was chartered in 1848; this turnpike roughly followed the present route of U.S. 11 between Buchanan, via Salem, and Bristol (Newlon et al., 25-26).

As an important crossroads community, Buchanan was the focus of maritime infrastructure as well. Increased river traffic and better roads during the 1830s brought new commercial activity to the area and in 1830, the combined population of the towns of Buchanan and Pattonsburg on the other side of the river included 350 free residents. By 1850, the two towns had a combined population of 900 people, including 250 slaves (Hill Studio 2008). In 1851, Buchanan's role as a transportation was greatly expanded when the James River and Kanawha Canal reached Buchanan. Even though many roads, bridges and canals were completed throughout the first half of the nineteenth century, Botetourt's infrastructure improvements during this period were dominated by the arrival of the James River and Kanawha Canal. The canal system was built to provide a link between the James and the Ohio River via the Kanawha River through present-day West Virginia. Although the canal had been started in Richmond in 1785, it took a number of decades before it reached the Piedmont and mountains beyond. The canal reached Lynchburg in 1840, and in November of 1851, a 50-mile extension from Lynchburg to Buchanan in Botetourt was completed. The canal was projected to reach Covington, but it never opened beyond Buchanan. The canal brought an influx of new development in the form of warehouses, hotels and docks to the thriving community of Buchanan. In 1853, construction began on a 15-mile stretch of the canal from Buchanan to Eagle Rock, but the project was halted for lack of funds. Even without its projected connection to the west, the James River and Kanawha Canal system was one the most important trade and transportation routes in Virginia throughout the Antebellum period. It was also the longest and most extensive canal system built in the South; encompassing 283 miles of canal and river navigation, dozens of bridges, aqueducts, and locks, as well as 217.5 miles of turnpike road. (Hill Studio 2008).

Unfortunately, the gains brought about by the canal were short lived as tensions across the nation were mounting. South Carolina seceded from the Union on December 20, 1860 and fired upon Union troops at Fort Sumter in Charleston Harbor on April 12, 1861. The following day, the Virginia convention elected to hold a state vote on the issue of secession. Botetourt County voted in favor, 1207 to 2.

CIVIL WAR (1861-1865)

Botetourt County's location in the western part of Virginia, far-removed from Washington D.C. and the Confederate capital in Richmond, as well as the strategically important roads and railways around and between them; Botetourt County did not experience extensive military action or presence, but still mobilized its manpower and industry in support of the Confederate cause. The county raised several companies of troops, including the Botetourt Dragoons, the Fincastle Rifles, the Blue Ridge Rifles, and the Botetourt Artillery (Anderson's Battery). Woolen mills throughout the county provided wool for hundreds of Confederate uniforms, and grist mills ground flour and feed for the army. Wagons, saddles, and harnesses were supplied by Fincastle manufacturers (Cohen et al., 1942. pp.16-21).

The largest role Botetourt played during the Civil War was through the supply of pig iron from the many furnaces throughout the county. Several new furnaces were built during the war while a number of older furnaces that had since been shut-down were reactivated. Arcadia Furnace, built in 1862, was one of four furnaces constructed during the war to supply iron to the Confederacy. Catawba Furnace, built in 1830 had been used as a cold blast charcoal furnace until 1850, but was revived during the Civil War. Both Rebecca and Jane Furnaces, near the project area had also been inactive for a number of years when the war broke out, however both were acquired by Tredegar Iron Works of Richmond and reactivated (Figure 6-6).

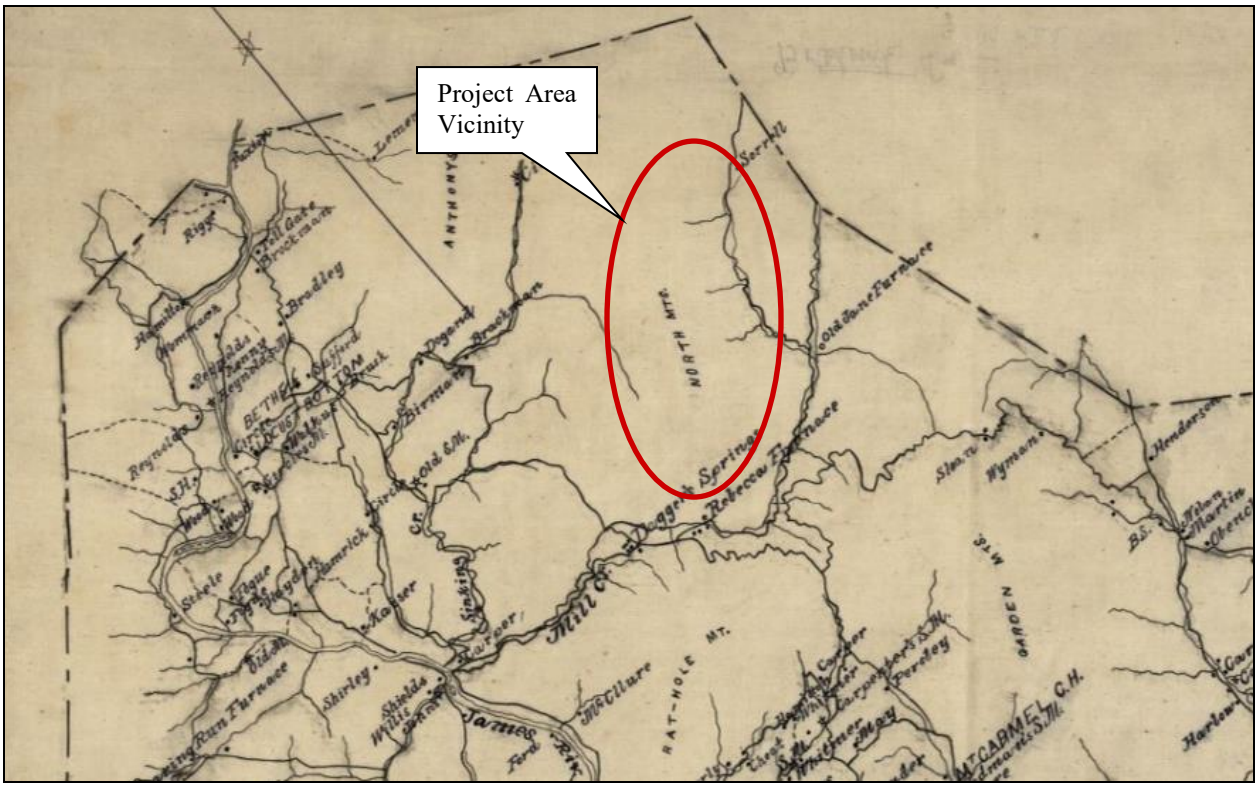

Figure 6-6: Detail of *Map of Botetourt, County from surveys and reconnaissance,* 1860s. Source: Library of Congress

Together, Botetourt County iron furnaces supplied approximately 50 tons of pig iron per week to the Tredegar Iron Works in Richmond who also took over management of many of the furnaces themselves, such as at Rebecca and Jane, during the war. The iron was shipped downriver to Tredegar via the James River and Kanawha Canal to Tredegar where it was forged into cannons and heavy artillery. Botetourt County also had a number of mines that supplied the potassium nitrate, also known as saltpetre, to Richmond where it was used to make gunpowder for the Confederate army (Hill Studio 2008).

The most direct impact the war had on Botetourt County came in June of 1864 as part of Hunter's Raid. Union Army Maj. Gen. David Hunter had received orders from Grant to "live off the land" following Hunter's occupation of Staunton in earlier that month. As he and his troops moved south through the Shenandoah Valley, they raided the countryside along the route which led them into Botetourt County (Salmon 2001:330, Driver 1989:70-72). Once there, Hunter turned his sights on Buchanan, which was a major supply depot and shipping point. Following heavy skirmishing, much of the town was burned when Confederate forces set fire to the bridge in an attempt to stop a Union advance across the James River. Hunter's forces inflicted further damage on the town with artillery and cannon fire. Before leaving the area, the Union troops also burned Mount Joy estate, home of Confederate Colonel John Anderson and eventually destroyed much of the James River & Kanawha Canal.

RECONSTRUCTION AND GROWTH (1865-1917)

The Civil War affected Botetourt County severely. There was a heavy loss of life, the economy was devastated, and many soldiers returned home to find their farms and properties destroyed. Even though Botetourt County was not the scene of intense fighting during the war, its resources in terms of men and materials were depleted. Land was nearly worthless, and many of the owners having no capital, farm animals, or implements struggled to adapt to the loss of slave labor. Like much of Virginia, economic realities following the end of the Civil War resulted in slow redevelopment of the county's agricultural and industrial capabilities. Road and infrastructure was slowly rebuilt as industry and agriculture struggled to gain a foothold in the post-Civil War south.

Agriculture in the county was transformed as farms became smaller, more numerous, and more diversified. The average size of Botetourt County farms decreased from 429 acres in 1860 to 119 acres in 1910, although the number of farms in the county tripled during the same period. Plantations were then replaced with a sharecropper and tenant farm system. Orchards, vineyards, "truck farming", and the raising of beef, dairy cattle, and sheep replaced large slave-operated wheat and tobacco farms. Peach farming, particularly grew drastically during this period, when for a brief time, Botetourt led the state in peach production. Tomato growing and canning also rose during this time with Troutville at the center of tomato production in the county (Hill Studio 2008).

The continued importance of extractive industries including iron production and limestone quarrying also aided in the recovery of the Botetourt economy. During the 1880s, the Virginia iron industry underwent a boom which directly aided those counties where extensive mining operations were in place including Botetourt. In Glen Wilton, the Princess Iron Company

became the only modern blast furnace in Botetourt County. A hot-blast charcoal furnace, the Callie Furnace, also just outside of Glen Wilton. The older Cloverdale Furnace property was purchased by the Pulaski Iron Company who operated two new iron ore mines in the area including in Lithia (Spec) and Buchanan (Pico). A new development during this period was the development of the workers' town, in which the operation owners built a number of homes, businesses, and other structures in the vicinity (Hill Studio 2008).

Throughout Botetourt, the expansion of the county's iron and coal mining industries generated a renewed interest in the construction of railroads, especially since the James River and Kanawha Canal which had been the primary means of transporting minerals had been destroyed during the Civil War. Although there had initially been plans to rebuild the canal, these efforts were eventually abandoned and the canal right-of-way was purchased by the Richmond and Allegheny Company Railroad in 1880. The company built railroad along the side of the canal that stretched 100 miles along the James River from Richmond to Clifton Forge, with a portion through Botetourt. The line was later purchased by the Chesapeake and Ohio Railroad. In 1882, a second railroad, the Shenandoah Valley Railroad leading from Roanoke to Hagerstown, Maryland, was constructed through the county with a stop at Buchanan. It later became the Norfolk and Western Railway (Hill Studio 2008).

The railroads also replaced turnpikes as a major means of transportation. In 1871, the General Assembly ceded state control of the turnpikes to the counties, who became responsible for their upkeep and construction. Turnpike construction and maintenance in Botetourt slowed drastically following this shift, and although several new turnpikes were built in the late nineteenth century, turnpike construction never returned to its pre-Civil War levels (Hill Studio 2008).

Villages such as Bessemer, Nace, Eagle Rock, and Glen Wilton, among others in previously underdeveloped regions of the county with nearby mines and furnaces, emerged as minor industrial centers as a result of the railroads. The railroads also led to further growth and popularity of the mineral springs and resort communities in the county, allowing more people to access these formerly remote areas. By the late-1880s, there were 22 post offices throughout the county. In the vicinity of the project area, this included at Daggers Springs, Gala, and Glen Wilton (both Daggers Springs and Gala post offices were later shut down, in 1907 and 1932 respectively and merged with Eagle Rock). In addition to post offices, many of the small villages throughout Botetourt expanded with general stores, banks, and other places of business (Figure 6-7).

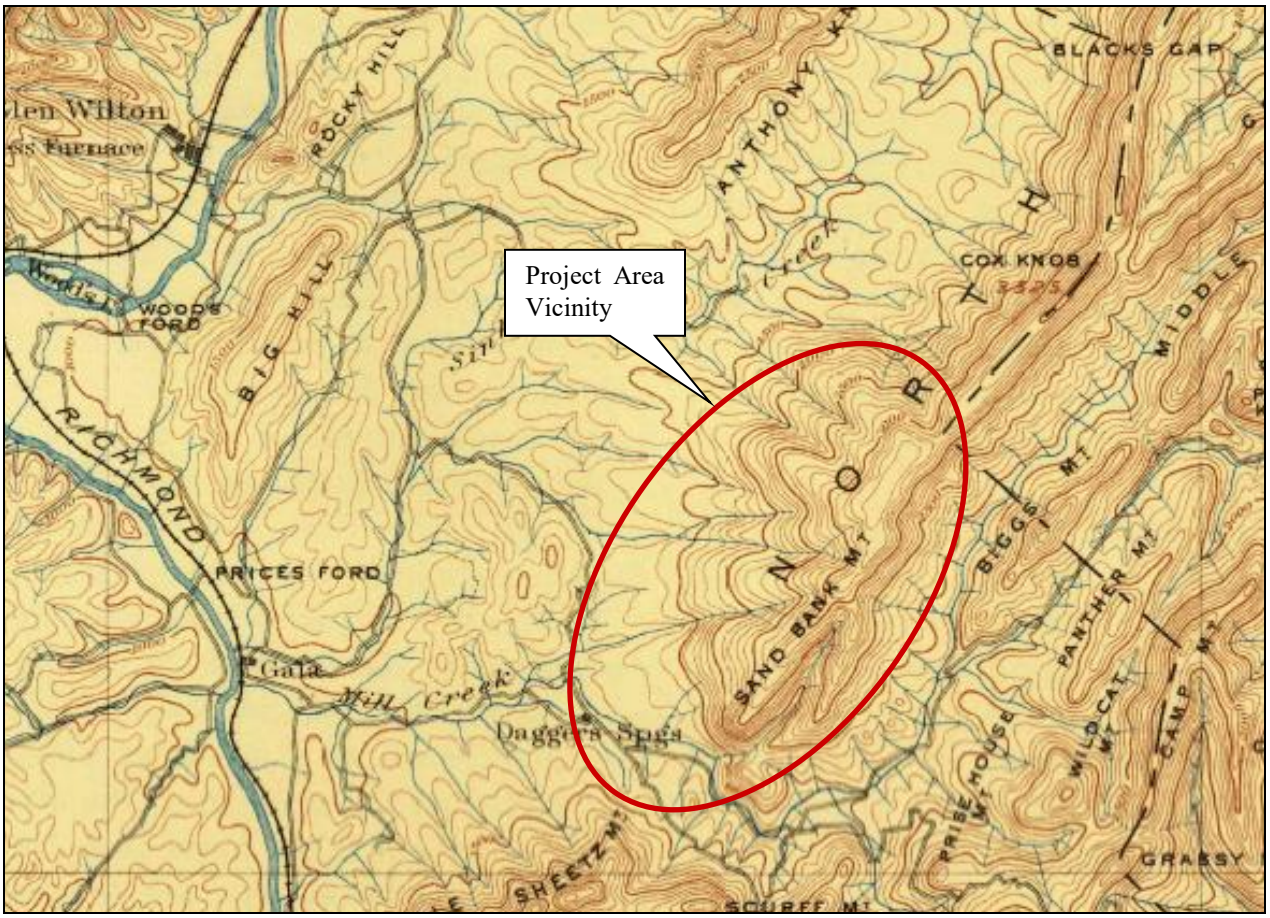

Figure 6-7: Detail of *Natural Bridge, VA* Topographical Quadrangle, 1894. Source: USGS

In addition to the iron industry, several mineral spring resorts sprang up throughout the county during the years following the Civil War. These resorts provided visitors and guests with facilities such as hotels and bath houses, and were intended to serve for the recuperation and relaxation of wealthy patrons as well as a destination for summertime vacationers. The Daggers Springs resort continued to operate during this era, expanding their operations to include bottling the spring water to ship to patrons in the cities (Worsham 1987) (Figure 6-8). Located throughout the county, these resorts fell into disuse as the prevalence of the automobile made it possible for families and individuals to travel longer distances for recreation (Tompkins 1952:125).

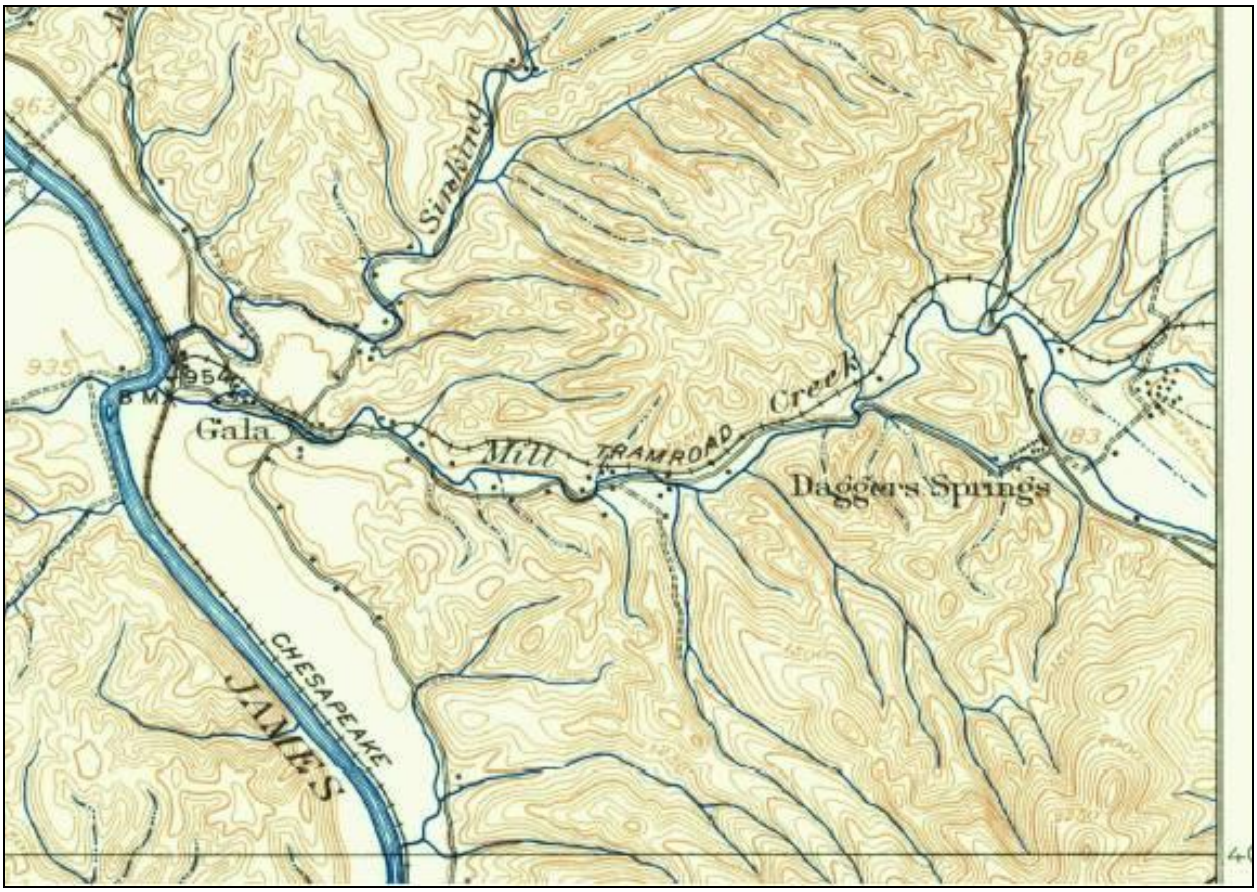

Figure 6-8: Detail of *Eagle Rock, VA* Topographical Quadrangle, 1913. Source: USGS

WORLD WAR I TO WORLD WAR II (1917 – 1945)

The period between the World Wars marked a distinct change in the evolution of Botetourt County. The population began to decline substantially after 1920 and likewise, the total number of farms and their crop value began to decline as well although agriculture continued to dominate the Botetourt economy. Animal husbandry was also on the rise with the increase of poultry and poultry products, beef, and pork. These shifts led to further development of processing plants and facilities throughout the county.

Industry based on extraction and production also continued to play a significant role in the economy of the county. Mining expanded to include a variety of stones and ores. A manganese mine operated near Troutville in the early 1940s, and other minerals such as iron ore, lead and zinc were mined, while marble, building stones, lithographic stone, and limestone for burning were all quarried in Botetourt County. The Liberty Limestone Corporation opened near Buchanan producing crushed stone and the James River Hydrate and Supply Company opened at Indian Rock producing agricultural lime and crushed stone.

Rail service continued to be frequent and reliable in the early twentieth century, particularly related to the shipment of iron and ore, but the introduction of the automobile and paved roads during this time would prove to be the most far reaching and enduring development of the period. The State Highway Commission was commissioned in 1906, and slowly, the state road

system began to improve as many of the older muddy, and rut-filled highways throughout Botetourt County were widened and paved. In 1918, the state purchased the Valley Turnpike north of Staunton and began a widening and rebuilding effort that continued for many years. In 1933, Lee Highway, which was the portion of the Valley Turnpike south of Staunton, was widened and paved through Botetourt.

While still remaining rural, small commercial downtowns continued to grow along the roads and railroads and there was an increase in commercial and domestic building construction. Development slowed in the 1930s though when like people everywhere, those of Botetourt County were affected by the Great Depression. Owners defaulted on their properties and stores and businesses closed. Farmers were less able to sell their produce and there was less of a need for raw materials including iron and other minerals. The coming of World War II revived the economy however, as farmers were encouraged to increase production and the need for iron expanded greatly.

NEW DOMINION (1945 – PRESENT)

As the twentieth century progressed, Virginia transitioned from an agricultural society to an urban one. More and more farmland was subdivided and developed, particularly surrounding larger cities and the earlier suburban movement grew with such force the Commonwealth's landscape would forever be altered. In Botetourt, this shift occurred slower than other parts of Virginia, however slowly became more developed in the southern portion of the county closer to Roanoke.

Overall, the county remained and continues to be predominantly rural. The number of farms, associated acreage, and agricultural production increased following World War II. Dairy farming became more prevalent during this time as agricultural practices shifted from a diversified method to a single cash crop or product. The mining and production industries slowly began to decline during this period as much of the ore became depleted, and that which remained was considered inferior to that extracted from the growing mining industry in Pennsylvania. Stone and shale mining did continue to be lucrative and remains an important industry in Botetourt. Communities based on the mines and furnaces struggled to remain viable and many of the businesses, schools, and churches in these communities closed as residents relocated to more lucrative parts of the county and state.

By the 1980s, suburban and commercial development increased substantially with the construction of Interstate Highway 81. The interstate drew the focus of development away from the state highways, railroads, and James River where it had been focused for centuries to the single artery traversing primarily through the southern portion of the county. Thus, the small towns and communities throughout the other portions of the county continued to decline in population and relevance. Throughout the last few decades, suburban development has continued to rise as Roanoke has grown and expanded.

7. FIELD RESULTS

ARCHITECTURAL SURVEY

The architectural resources survey for the Rocky Forge Wind Project resulted in the identification and recordation of ten resources greater than 50 years of age. Of the surveyed resources, eight were previously recorded (VDHR # 011-0206/011-0209; 011-0213/011-0216) and two were newly recorded (VDHR # 011-5634 through 011-5635) as part of this project. All of the previous recorded resources within the 1.5-mile APE were initially documented through a comprehensive county survey in 1987. The methodology of the county-wide survey was to survey a representative sampling of historic buildings and structures throughout the county, and therefore while the three resources newly recorded as part of this effort would have all been at least 50 years of age at the time of the county-wide effort, they were likely either intentionally skipped as not being the best representative resource or unintentionally missed due to vegetation. Most of the sites had not been revisited or updated since then although two, including 011-0215 and 011-0216 were inspected by VDHR staff in 2006 and again in 2009.

The ten resources surveyed as part of this effort include a late-eighteenth/early-nineteenth century single dwelling, two early-nineteenth century iron furnaces, a mineral spring that served as the focus of an early-nineteenth century resort, the ruins of a late-nineteenth/early-twentieth century mining community, the site of an early-twentieth century logging camp, and several early-twentieth century domestic buildings. VCRIS site file forms were prepared or updated for each recorded resource.

Overall, the APE landscape is characterized by rugged, wooded terrain surrounding North Mountain, the ridge of which the project will be located. Much of the APE is moderately to heavily sloped hillside; although there are discrete areas of relatively flat or gently sloped valleys and floodplains, particularly at the south end of the APE in the vicinity of the unincorporated Dagger Springs area where the majority of recorded historic resources are located. Small creeks and streams are pervasive throughout the APE. Vegetation includes a variety of young and old growth forests with hardwood, deciduous trees; as well as pockets of planted pine. There are several areas recently cleared by timbering activity as well as several small cleared fields used for agriculture in the Dagger Springs vicinity.

The rugged nature of the APE has limited cultural use and occupation of the area. State-maintained gravel roads cross the southern and southeastern portions of the APE generally following Mill Creek (historically Long's Entry Creek), while the vast majority of the land area is accessible only by modern dirt fire roads and jeep trails. Most of the historic development of the APE is focused along Mill Creek which served as an important source of water, transportation, and power for early development.

Overall, the area retains a relatively lightly developed character with several overlapping periods of use and developmental associations. The earliest reported development in the area was focused around Daggers Springs sometime prior to 1820. Daggers Springs (VDHR ID# 011-0206), later known as Dibrell's Springs, was the center of a substantial resort hotel and community throughout the nineteenth century, with accommodations for 150 people (Burke

1846; Moorman 1857; Worsham 1987: 103). The springs still flow from a later concrete box, although little to nothing remains of the resort community. The ruins and foundation of what appears to have been an early- to mid-nineteenth century building were observed in the vicinity and reportedly a gravestone for Henry Verdier, dated 1832 and referring to the resort as Dibrell's Springs is in the area, but was not relocated as part of this effort.

Also in the area is a substantial two-story, Federal-style single dwelling (VDHR ID# 011-0215) roughly a half-mile away along Mill Creek that reportedly was constructed as part of Rebecca Iron Furnace operation in 1816, although inspection of the home and the property owner indicated that it could possibly be earlier. If the building does in fact predate the furnace operation, it is unclear whether it was associated with the springs and resort, or the home of an unassociated early settler.

The earliest development within the APE with a known date of construction is the Rebecca Iron Furnace (VDHR ID# 011-0216), built from 1816-1819, and located at the base of the southwestern end of North Mountain, adjacent to Mill Creek. The Rebecca Iron Furnace operation entailed a large-scale iron-ore extraction mine and all of the necessary facilities and improvements to process the ore into pig iron which could subsequently be hauled down what is now Dagger Springs Road to the James River Canal near Gala. What remains of the operation are the furnace chimney with the foundations and ruins of several adjacent structures and features, as well as a road trace leading up the mountain. The previously mentioned early two-story dwelling is located just across Mill Creek from Iron Furnace and was reportedly associated with the furnace operation, likely serving as the home of the iron master. It cannot be determined at this level of effort whether the building was constructed earlier and then repurposed by the iron company, or if was purpose-built by the company. In 1834, the operation expanded to include a second furnace that also remains within the APE, called Jane. Jane Furnace (VDHR ID# 011-0213) was built roughly a half-mile further up Mill Creek at the base of the southeastern end of North Mountain.

No further known development occurred within the APE until the Civil War erupted in 1861 at which time the Tredegar Ironworks in Richmond reopened Rebecca Furnace to supply iron for arms manufacturing and the war effort. After the war, the furnace once again ceased operations, this time permanently. By the late-nineteenth century, the timbering had grown into a substantial industry in the region and according to period maps, a saw mill was located within the APE in the Daggers Spring vicinity; however, no resources directly related to logging were identified in the course of the survey. A previously recorded logging camp site (VDHR ID# 011-0214) is also located within the APE near Jane Furnace; however, all that remains of the site is a pile of cut lumber.

One previously recorded resource dated to 1875 (VDHR 011-0209) and was a large residence that also functioned as a tavern and hotel along the stage road connecting the area to Gala and the railroad, but it has since been demolished and all that remains are several outbuildings.

Mining also resumed during the late-nineteenth/early-twentieth century and the remains of a mining community from this era remain in the Daggers Springs vicinity of the APE. Known as "New Town," this community reportedly had housing for hundreds of workers, a company store,

a commissary, a church, and other worker support facilities in addition to a cable-car tram railway and associated infrastructure for transporting the mined iron ore down the mountain to Gala and the railroad (Worsham 1987). All that currently remain of the community are a number of stone building foundations, the tram railway trace, and a large stone bulkhead possibly related to the railway (VDHR ID# 011-0207).

Additionally, there are several other buildings in the Daggers Springs area dating from the early-twentieth century that may or may not have been related to the mining community, the spring resort, or an unassociated use. These include a frame I-house (VDHR 011-0208) just downhill from the New Town site, a log-dwelling (VDHR 011- 011-5635) set roughly between Daggers Springs and New Town, and a frame building of unknown use or association (VDHR 011- 011-5634) located about one-quarter of a mile further up Daggers Springs Road.

Survey found no further construction throughout the mid-twentieth century and there has been little development since then, limited to two homes constructed within the last decade. Overall, the area retains much of its historic character and has been subject to only minimal modern infill. Many of the surveyed resources are reflective of the multiple layers of history and use of the area. Unfortunately, most of the resources related to various businesses and operations have been demolished and the few resources that remain are piecemeal and in poor or ruinous condition. The most intact resources that represent significant aspects of the area's history are the two iron furnaces and the associated Tredegar House. Each of these three resources retains moderate to high historic integrity and are therefore considered eligible for listing in the NRHP for their associations to the early iron industry of Botetourt County. The remaining surveyed resources are either common resource types with no significant association, have poor historic physical integrity, or are too isolated and/or disconnected from their related associations to convey historic significance. While the surveyed resources do collectively reflect the historic development of the APE, the low-density and diverse yet discontiguous time periods and associations they represent limit their ability to convey the historic significance of the area and therefore do not in whole or part represent a historic district. These resources are therefore recommended not eligible for listing in the NRHP individually or as part of a historic district.[1]

Visual assessment in the vicinity of the three NRHP-eligible resources indicated that portions of the proposed project will be clearly visible from the Tredegar House and moderately visible from the Rebecca Furnace (limited primarily to seasonal views). Views from the Jane Furnace will likely be minimal if it all.

Provided in the following pages are a table of all surveyed resources (Table 7-1), a map with the location of each resource surveyed (Figure 7-1), and descriptive narratives and photographs of each of the identified historic resources. Resource narratives include a physical description, discussion of history, integrity, and NRHP-eligibility; and for eligible resources, a discussion of visual impacts.

[1] Several resources, including the Daggers Spring Resort community and the New-Town community are now ruinous and may present the opportunity for archaeological investigation or be eligible for the NRHP as a site; however such investigation and assessment was beyond the scope or purpose of this effort,

Table 7-1: Architectural resources identified in the APE. Listed, eligible, and potentially eligible resources have been highlighted in orange.

VDHR ID#	Resource Name/Address	Year Built	NRHP-Eligibility
011-0206	Dagger Springs	n/a	Not Eligible
011-0207	New Town Site	c.1900	Not Eligible
011-0208	House/Dagger Springs Vicinity	c.1910	Not Eligible
011-0209	Dwelling/2919 Dagger Springs Road	c.1875	Not Eligible (demolished)
011-0213	Jane Furnace	Pre-1835	Recommended Eligible
011-0214	Logging Camp Site	c.1925	Not Eligible- No Access
011-0215	Tredegar House	c.1800	Recommended Eligible
011-0216	Rebecca Furnace	1816	Recommended Eligible
011-5635	Dwelling/2905 Dagger Springs Road	1910	Not Eligible
011-5634	Dwelling/3229 Dagger Springs Road	1910	Not Eligible

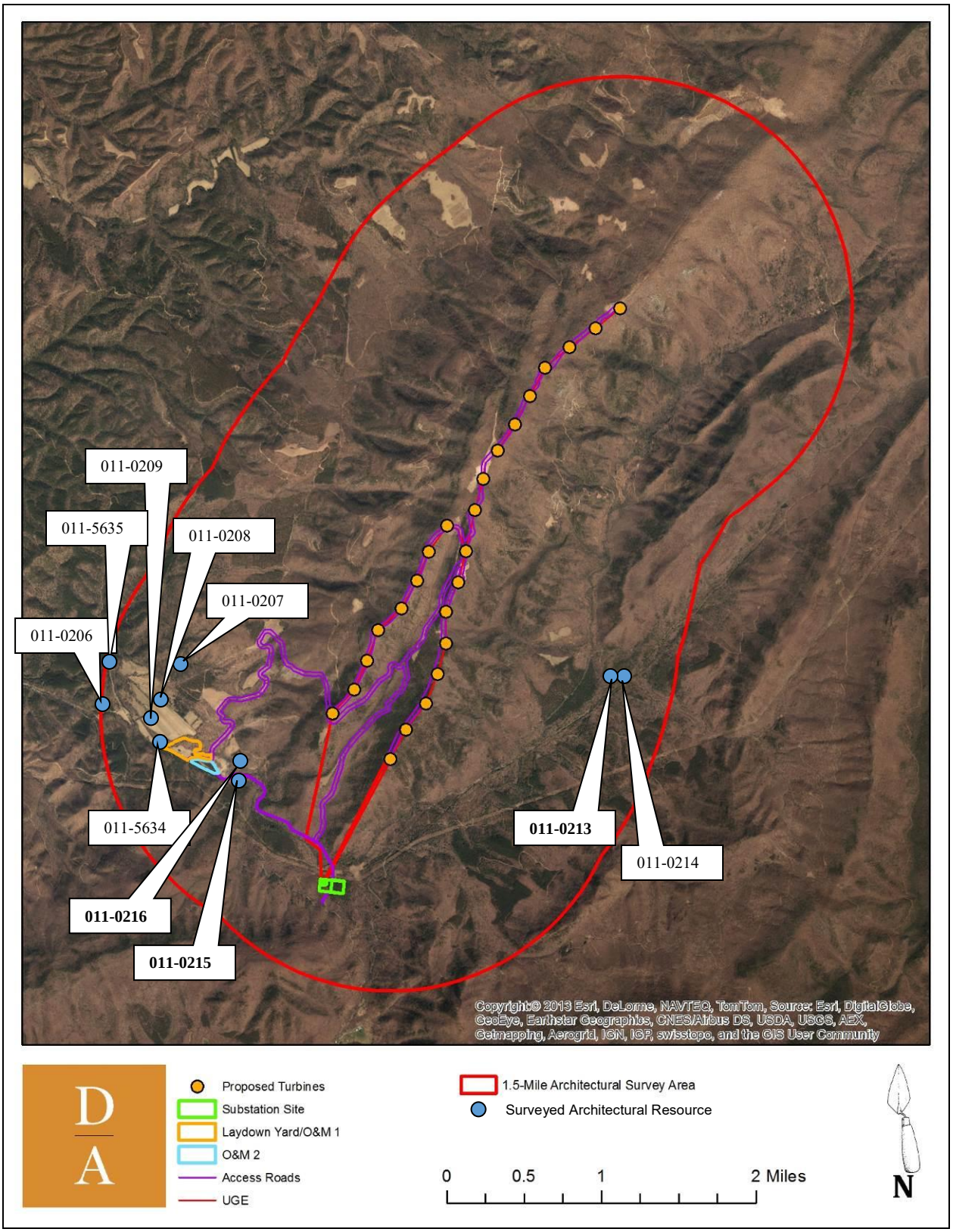

Figure 7-1: Location of identified architectural resources within the 1.5 mile APE (Bold callouts depict NRHP-listed or eligible resources).

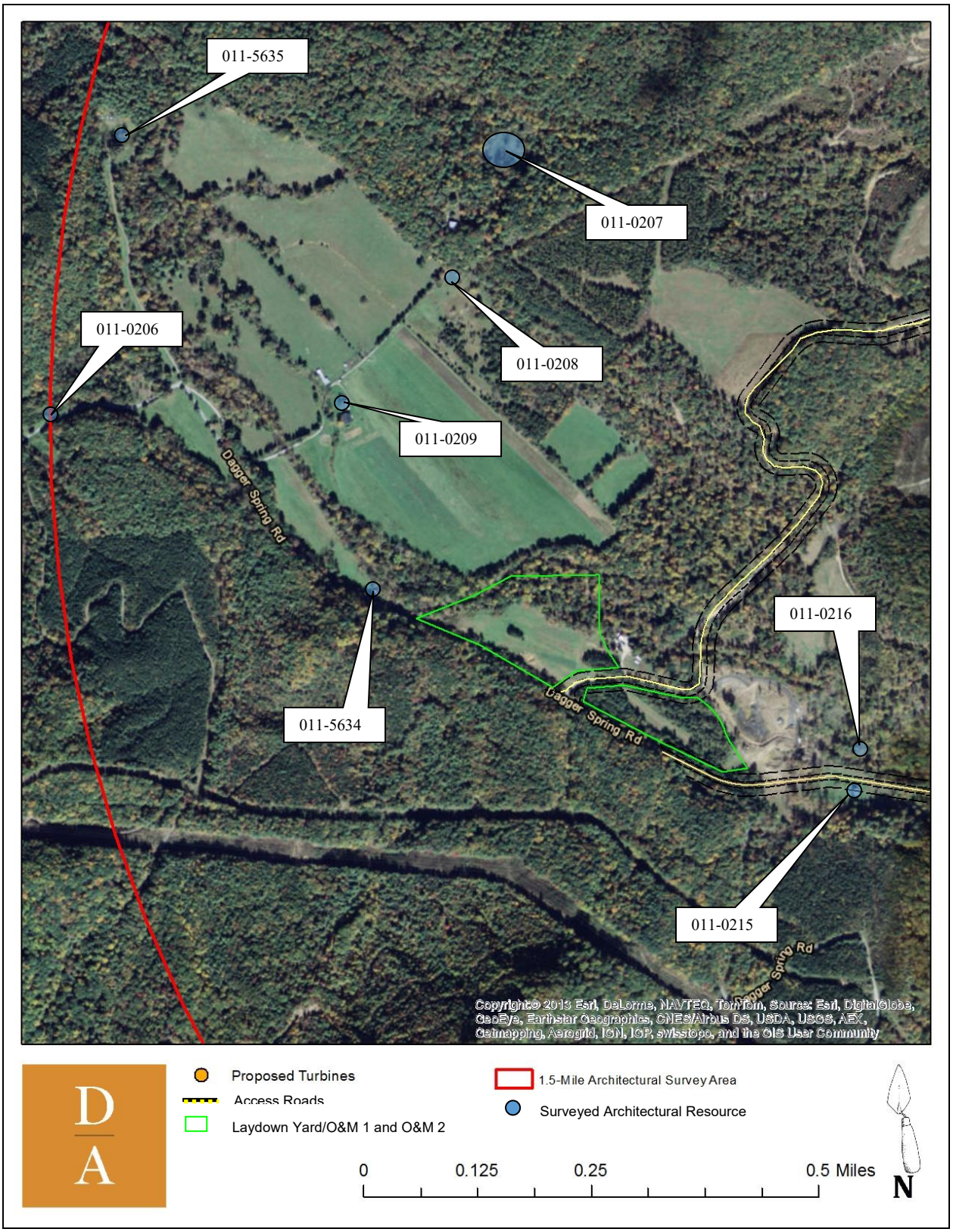

Figure 7-2: Detail of Surveyed Resources in Dagger Springs Area

NRHP-ELIGIBLE HISTORIC RESOURCES

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VDHR ID# 011-0213
Jane Furnace

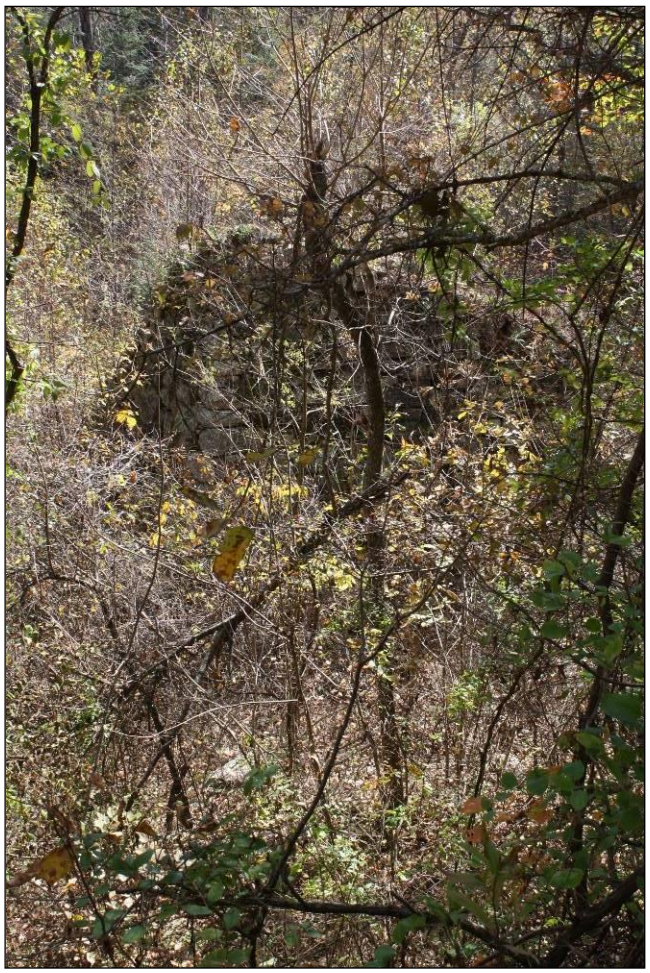

Figure 7-3: Jane Furnace, facing south

Jane Furnace is located along Mill Creek about ¼ -mile from Bluegrass Trail (Route 612) in the rural northeastern Botetourt County. The furnace sits roughly 100-feet from the creek, downhill from a private, gravel lane leading off of Bluegrass Trail. The site is heavily wooded and the structure is overgrown with vegetation (Figure 7-3). All that remains of Jane Furnace is the stacked and coursed stone furnace chimney. The large structure is approximately 15-feet square at its base and tapers as it rises to roughly 20-feet. Close inspection of the structure was not permitted; however inspection from the road did not reveal any openings on the south or east sides and the south wall is collapsing. Assumingly the furnace was accessed by roads both from iron mines up the mountain as well as from Rebecca Furnace further down the creek, however inspection did not identify the presence of any such road traces in the vicinity.

According to the 1835 Gazetteer, Jane Furnace began operations in conjunction with nearby Rebecca Furnace in 1834. Originally built by William Ross, both furnaces were sold to David J. Wilson who subsequently leased them in 1839 to Jordan and Davis Company (Brady 1977). Together, the two furnaces employed more than 150 operatives, the vast majority of which were

slaves. Each furnace produced an average of 800 to 850 tons of pig iron per year while in operation. Both furnaces ceased operations by 1850 at which time they were abandoned. While it is known that Rebecca Furnace was reopened by the Tredegar Ironworks of Richmond during the Civil War, it is less clear whether Jane Furnace was as well. The fact that it is labeled as "old Jane Furnace" while Rebecca Furnace was labeled simply as such on Civil War-era maps indicates that Jane may likely have not been reopened.

The historic physical integrity of Jane Furnace is slightly less than Rebecca Furnace due to its partially collapsing side; however the structure still retains enough form and integrity to convey its function and original design as an early iron furnace. As one of the few remaining iron furnaces in the county, Jane Furnace remains as an important reminder and representation of the historically significant iron industry in Botetourt County and throughout Virginia in the first half of the nineteenth century. It is therefore considered eligible for listing in the NRHP under the *Iron Industry of Virginia, 1620-1920* Multiple Property cover.

Jane Furnace is approximately 1-mile east of the nearest proposed wind turbine location. An assessment of visual impacts from the proposed project to the resource could not be conducted as access to the site was not permitted. Views toward the project from the gravel road above the resource were generally obscured by the topography and dense vegetation although it is possible that interrupted views of one or more turbines may be seasonally possible from this location (Figure 7-4). It is assumed that views from the resource which is downhill from the road in a narrow gulley by the creek are likely to be further obscured or inhibited by the landscape. As the iron operation occupied and directly relied on the surrounding mountain and ridge, setting is considered an important component of the property. However, because the resource is not likely to have more than a minimal and obstructed view, if any, towards the project, it is recommended that the Rocky Forge Wind Project will have no adverse effect on Jane Furnace.

Figure 7-4: View from vicinity of Jane Furnace towards the project location (red arrow), facing north

VDHR ID# 011-0215
Tredegar House

Figure 7-5: Tredegar House, east façade, facing northwest

Tredegar House is a late-eighteenth/early-nineteenth century home located off of Daggers Springs Road (Route 622) in rural northern Botetourt County (Figure 7-5). The house sits in a cleared grassy field near the southwestern base of North Mountain. Mill Creek flows along the northwestern edge of the cleared field and divides it from the wooded and mountainous terrain beyond. Just across Mill Creek, roughly 300-feet from the house are the remains of Rebecca Furnace, built around 1816. The building now sits on a large, 1,500-acre property that includes much of North Mountain. The historic size or limits of the property associated with the home is unknown.

The exact date of construction of the Tredegar House is unknown. According to local history, the home was associated with the Rebecca Furnace operation, serving as the home of the iron master. While it was typical for iron furnace compounds to include a home, typically large and well-situated for the iron master, this association would place the construction date for the building circa 1816. The current owner and previous investigator reports that the date "1801" has been observed carved into the south chimney. Inspection of the building as part of this effort was unable to observe this carving due to overgrown vegetation; although revealed that a circa 1800 or earlier date of construction is possible as evidenced by the design and construction techniques of the building.

The two-story dwelling exhibits a typical late-Georgian form with Federal period characteristics. It has identical, symmetrical front and rear facades consisting of three-bays with a central

entrance on the first floor. The log structure rests on a continuous stacked stone foundation and is flanked by a stone chimney at each end. The coursed stones are exposed on the northern chimney but parged and scored to resemble ashlar on the southern chimney. The building is mostly clad with board and batten siding that was installed in the 1930s. The gables are clad with clapboard, but it could not be determined whether these are original or from the 1930s. The building is topped by a gable roof covered with relatively recent standing seam metal. The cornices on both the front and rear facades are embellished with a dentiled molding. The entrances to the building on the both the front and rear facades consist of unornamented, single doorways. The doors and framing are modern replacements and there is no evidence of porticos, entry stoops, or other embellishment. There is an additional doorway on the south end of the building that according to the previous owner, historically provided access to an attached kitchen ell. Fenestration consists of replacement six-over-six double hung sash windows set within 1930s-era frames. The front and rear facades exhibit typical 3-bay window patterning. There is also a single window on the second floor of the south end above the doorway. All of the primary windows are protected by board and batten shutters added in the 1930s. Additionally, there are two small windows on each end of the building flanking the chimney on the garret level. These windows are fixed pane and appear to have been added later.

The interior of the building is in disrepair but retains a high degree of historic integrity and original character. The first floor layout consists of a single large room at the north end and two smaller rooms to the south end, with a central stairwell. Both the front (west) and rear (east) entrances lead directly into the large main room of the house, occupying the entire north half of the building. The larger room to the left has a central fireplace that has been converted to use with a wood stove (remaining). The surround is minimally ornamental with a simply piece of molded trim and a plain board mantel. Walls throughout the room are embellished with horizontal plank wainscoting with a molded chair rail that doubles as the sill for the windows. The wall surfaces above are clad with early-twentieth century wallboard, although missing sections reveal the hand-split lath covering the log structure beneath. Just inside the front entrance is a doorway from this room that leads into a small, enclosed stair landing, which is up one step. Through the stair landing is a doorway and one step back down that leads into the front room in the south end of the building. This room also has a fireplace that has been converted to use with a woodstove. The surround is smaller, but slightly more elaborate with Federal-influences. This room is also ornamented with horizontal plank wainscoting below early-twentieth century wallboard. The enclosed stairway ascends the inside wall of this room with a doorway connecting it to the larger room underneath. Another door at the rear of this room leads into a yet smaller room at the rear corner of the building. The interior doorways, including from each side of the stair nave into the rooms, as well as between the rooms, feature original molded surrounds but no doors. Some sections of original wide-plank wood floor remain throughout the first floor, but many sections have been pulled up and removed as part of a recent effort to stabilize the foundation and floor joists. The removed sections revealed the floor joists which are large timbers that have only been planed on the top side.

The second floor of the building is divided into four rooms set around a central hall. The two front rooms are larger and both contain fireplaces. The fireplace in the southern room has a stone arch firebox however the mantel is missing. The room is finished with plastered walls and a molded wood chair rail. The fireplace in the northern room also has an arched stone firebox and

retains a simple wood mantel. In this room, the ceiling joists were left exposed and beaded and whitewashed. The two small rooms along the rear of the building originally were finished simply by whitewashing the exposed log walls, however appear to have later been plastered with chair rails added. In the central hallway on the second floor is an enclosed, dog-leg flight of stairs that lead to the garret level above. The garret is unfinished other than some sections of wide-plank flooring.

While a detailed history of the Tredegar House and its original owner and use cannot be determined at this level of investigation, the building remains as an excellent and relatively unaltered example of late-eighteenth/early-nineteenth century form and construction. Whether or not the home was initially constructed be an early planter and therefore representative of the early settlement of Botetourt County is unclear; however, it is believed to have important associations to the Rebecca Iron Furnace. During the early- to mid-nineteenth century, iron furnaces such as Rebecca were the center of large operations complete with associated mines, charcoal pits, and buildings and structures including the typically nice home of the resident Iron master. Whether repurposed to this role or originally built as such, a review of the state archives reveals that few buildings exist in Virginia with associations to the pre-Civil War iron industry (Worsham 1987). Architecturally, the building retains much of its historic character and is a rare surviving example of rural residential construction from this period in Botetourt County. For these reasons, staff from VDHR that visited the property on 2008 informed the property owner that the building was likely eligible for listing in the NRHP. At this time, the Tredegar House is still considered eligible for listing in the NRHP.

Tredegar House is approximately 0.7 miles southwest of the southernmost proposed wind turbine location. An assessment of visual impacts from the proposed project to the resource was conducted and revealed that views toward the project from the building and surrounding yard will be generally unobstructed although at a distance. Computer-aided photo simulation revealed that because the project extends along the ridgeline far to the north of the building, the majority of the turbines will be out of view; however several may be observed on the ridgeline immediately to the rear (east) of the house (Figure 7-6). As the house is significant not only for architecture, but its association with the Rebecca Furnace iron operation that occupied and directly relied on the surrounding mountain and ridge, setting is considered an important component of the property. Therefore, it is recommended that the Tredegar House may be adversely affected by the proposed Rocky Forge Wind Project.

Figure 7-6: Photo Simulation from the west (front) of Tredegar House towards the project turbines

VDHR ID# 011-0216
Rebecca Furnace

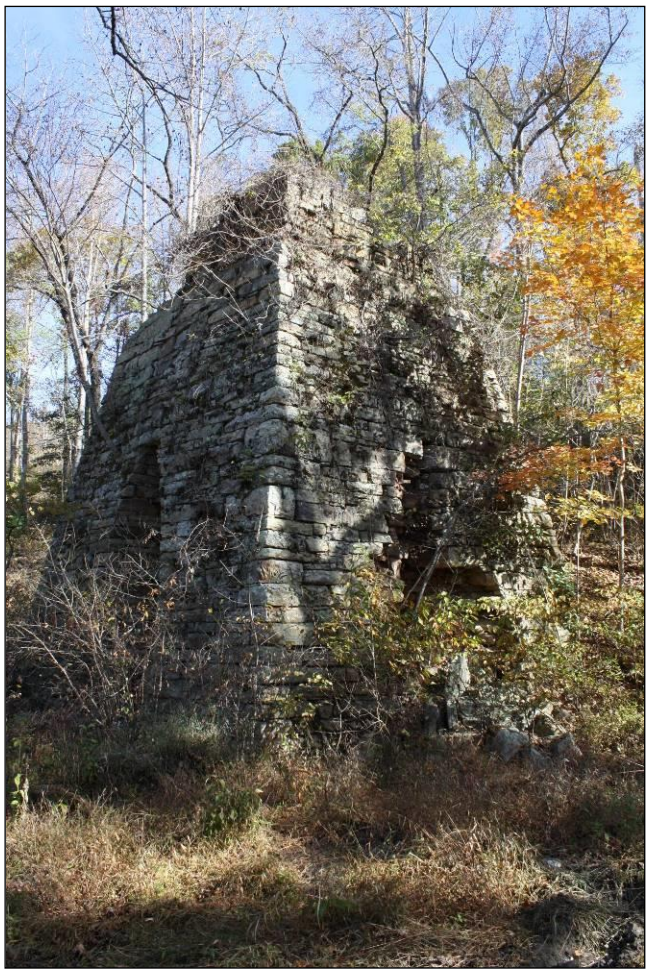

Figure 7-7: Rebecca Furnace, facing north

Rebecca Furnace is located along Mill Creek about 0.15-miles from Daggers Springs Road (Route 622) in the rural northeastern Botetourt County. The furnace sits roughly 165-feet from the creek, along a private jeep-trail off the driveway from the property at 150 Tate Road. The site is heavily wooded and the structure is moderately overgrown with vegetation (Figure 7-7). Several features associates with Rebecca Furnace remain including the stacked and coursed main stone furnace chimney, a stone-lined trough between the furnace and the creek, a stacked stone retaining wall above the furnace, and a stacked stone chimney from a former building approximately 100-feet downhill to the west. Additionally, there are numerous piles of slag in the immediate vicinity.

The large furnace chimney structure is approximately 15-feet square at its base and tapers as it rises to roughly 20-feet. There are arched openings on three sides; the west, south, and east, although the opening on the south wall is beginning to collapse. The interior of the structure has an arched ceiling with a glazed surface. Beginning about 10-feet from the opening on the south wall is a stone-line trough cut through the ground. The trough is about 3-feet deep and extends

roughly 10-feet south before doglegging west and downhill towards the creek. Uphill from the east wall of the chimney is a stacked stone retaining wall that may have supported a road and/or ramp accessing the top of the structure. Located downhill to the west of the chimney is a stacked stone chimney that appears to have been related to a small, one-story building of unknown function.

According to the 1835 Gazetteer, Rebecca Furnace began operations between 1818 and 1819. Initially built by William Ross and operated for roughly 10 years, it was subsequently purchased by Pott & Jenkins in the late 1820s. By 1834, a second furnace, called "Jane" was in operation in conjunction with Rebecca. Both furnaces were sold to David J. Wilson who subsequently leased them in 1839 to Jordan and Davis Company (Brady 1977). Together, the two furnaces employed more than 150 operatives, the vast majority of which were slaves. Each furnace produced an average of 800 to 850 tons of pig iron per year while in operation. Both furnaces ceased operations by 1850 at which time they were abandoned. During the Civil War, Rebecca Furnace was reopened by the Tredegar Ironworks of Richmond to produce iron used for the manufacture of arms and equipment.

The historic physical integrity of Rebecca Furnace is higher than associated Jane Furnace, and relatively high for contemporary iron furnace structures throughout the state. Overall, the structure retains form and integrity to convey its function and original design as an early iron furnace; and additionally retains several associated features including the trough, stone wall, secondary chimney, and slag piles. As one of the few remaining iron furnaces in the county, Rebecca Furnace remains as an important reminder and representation of the historically significant iron industry in Botetourt County and throughout Virginia in the first half of the nineteenth century. It is therefore considered eligible for listing in the NRHP under the *Iron Industry of Virginia, 1620-1920* Multiple Property cover.

Rebecca Furnace is approximately 0.7-miles southwest of the southernmost proposed wind turbine location. An assessment of visual impacts from the proposed project to the resource was conducted and revealed that views toward the project from Rebecca Furnace were generally obscured by the topography and dense vegetation although it is possible that interrupted views of one or more turbines may be seasonally possible (Figure 7-8). Because the project extends along the ridgeline far to the north of the furnace, it is anticipated that the majority of the turbines will be out of view. As the iron operation occupied and directly relied on the surrounding mountain and ridge, setting is considered an important component of the property. However, because the resource is not likely to have more than a minimal and obstructed view, if any, towards the project, it is recommended that the Rocky Forge Wind Project will have no adverse effect on Rebecca Furnace.

Figure 7-8: View from Rebecca Furnace towards the project location (red arrow), facing east

RESOURCES NOT ELIGIBLE FOR THE NRHP

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VDHR ID# 011-0206
Daggers Springs

Figure 7-9: Daggers Springs, facing northeast

Daggers Springs is a natural mineral spring that feeds into Mill Creek in rural northern Botetourt County. The spring forms the nucleus of the small, unincorporated community of the same name and is located roughly 100-feet off of Daggers Springs Road (Route 622). The surrounding area is wooded and dissected by other creeks and drainages. The spring still flows from within a poured concrete box of unknown date. The box is roughly a foot and a half square and open at the top with an additional small opening on the west side from which the spring water flows into a shallow rocky basin. The spring emits a strong sulfurous odor from the heavy mineral content.

The spring was the focal point of a resort community during the nineteenth century for travelers wishing to partake of the mineral water's healing abilities. The earliest use of the spring as a destination was sometime in the 1820s at which time it was owned by the Dagger family. By the 1830s, the property had been acquired by James W. Dibrell, Esq. who expanded the operation into a hotel and resort, called Dibrell's Spring, with accommodations for roughly 150 visitors, although it was not uncommon for 180-200 patrons to be there at any given time (Moorman 1857: 241). The accommodations and improvements were described as "neat, appropriate, and comfortable." In his book on the mineral springs of Virginia, Dr. William Burke described the property in 1842, as "the lawn is a very beautiful slope, descending from the Hotel to the spring some 300 yards, and is well shaded by fine indigenous trees. Altogether, it is an interesting spot, and affords to the weary traveler, after a long day's journey, a sweet haven of repose and quietude, from whence he may retrace, with his mind's eye, the magnificent scenery he has just passed, and especially that most sublime of all the creations of Nature in Virginia – the passage

of the James River through the Blue Ridge Mountain" (Burke 1846: 365-366). Regarding its healing abilities, Dr. Moorman wrote in 1857 that, "it is a valuable dyspeptic water, rarely failing to produce beneficial effects in the simple forms of that disease. In derangements of the biliary organs, unattended with obstinate obstructions, it may be used to great advantage. In all cases in which a gentle diuretic is demanded, it will be found serviceable. It is a mineral water upon the use of which the invalid, who desires to induce gentle alterative effects upon his system, may enter with much hope, and without that fear of over-stimulating the organs which demands a prompt and decided caution in the use of our stronger sulphur waters" (Moorman 1857: 241).

How long the resort at Daggers Springs remained in operation is unclear. By the late-nineteenth century, the resort was reportedly still successful as leisure travel expanded throughout the state and nation. By that time, the then owner of the spring also began bottling the water and shipping it to markets in the cities as a medicinal beverage (Worsham 1987). A map in 1913 still shows a number of buildings and structures in the immediate vicinity; although whether the resort was still in operation at that time could not be determined. By 1960, aerial photography reveals just one building in the vicinity of the spring. Inspection of the site of this building revealed the ruins of a building with a brick foundation and chimney that may date to the early- to mid-nineteenth century, but could not be conclusively linked to the operation of the Daggers Springs resort. No other buildings, structures, or evidence of the resort community could be located. A previous investigator recorded the presence of a gravestone nearby for Henry Verdier, dated 1832 and referring to the resort as Dibrell's Springs, however this stone was not relocated as part of this survey.

Daggers Spring represents an important aspect of local history associated with the early tourism industry in Virginia. However, because all that remains aboveground of the resort community is the spring itself, which lacks historic integrity as it has been placed within a nonhistoric concrete box. Additional investigations at the site may reveal research potential from an archaeological perspective; however such an effort was beyond the scope or ability of this survey. As such, Daggers Spring is considered ***not eligible*** for listing in the NHRP on an individual basis or as part of a historic district as an architectural resource, but may warrant archaeological investigation.

VDHR ID# 011-0207
New Town

Figure 7-10: New Town foundation, facing southwest

New Town is the site of a former mining community located in the Daggers Springs vicinity of rural northern Botetourt County. The site is located on a terrace near the base of North Mountain, roughly half a mile from Daggers Springs Road (Route 622) on a small parcel behind the property located at 2919 Daggers Springs Road. The parcel is approached by a gravel driveway off of Daggers Springs Road that traverses an open agricultural field before ascending uphill into the woods. A dirt road then branches off into an open clearing where the New Town site is located. The limits of the site are not delineated, but is visibly spread across the open field as well as into the wooded area beyond.

The New Town site consists of the foundations and ruins of a number of buildings and structures associated with a late-nineteenth/early-twentieth century mining community and operation. The community reportedly had housing for hundreds of workers, a company store, a commissary, a church, and other worker support facilities in addition to a cable-car tram railway and associated infrastructure for transporting the iron ore from up the mountain to the railroad mainline in Gala. The dates of operation are unclear, although the heyday appears to have been during the first few decades of the twentieth century. By the 1960s, very few buildings remained standing in the core area, and currently all are ruinous. The extent of the community is also less than clear. The bulk of the community was on the small terrace at the base of the mountain, although a previous owner of the property states that the company store was further downhill, near Daggers Springs Road. The cable-car tram traversed from Gala along the James River uphill through the Daggers Springs vicinity and up the mountain past the New Town community to the mines near the ridge.

All that currently remain of the community core are stone building foundations of at least five buildings, a stone-lined well, and several piles of wood and building debris. There is also a standing frame dwelling nearby and downhill that may or may not have been associated with the operation (recorded as VDHR ID# 011-0208), and a trace of the tram railway with a large stone bulkhead where it appears to have ascended a steep slope was also observed nearly 1,000-feet away.

New Town represents an important aspect of local history associated with the ongoing mining industry at the turn of the twentieth century. However, very little aboveground, tangible evidence of the community or operation remain. Additional investigations at the site may reveal research potential from an archaeological perspective; however, such an effort was beyond the scope or ability of this survey. As such, New Town is considered ***not eligible*** for listing in the NHRP on an individual basis or as part of a historic district as an architectural resource, but may warrant archaeological investigation.

VDHR ID# 011-0208
Dwelling, Daggers Springs Vicinity

Figure 7-11: Dwelling, front façade, facing north

This former dwelling is located off of Daggers Springs Road (Route 622) in rural northern Botetourt County. The house sits at the back edge of a cleared grassy field near the southwestern base of North Mountain. A gravel driveway extends from Daggers Springs Road, past the home located at 2919 Daggers Springs to this dwelling. It is located on the same 252-acre property parcel as 2919 Daggers Springs; although the original property size and boundary are not known.

This former dwelling was built circa 1910 and exhibits a typical I-house form. It appears to have been abandoned for an extended time and remains in a severely deteriorated condition. The two-story building has a wood frame structural system clad with clapboards that rests on a pier foundation and is topped by a side-gabled roof covered with 5V sheet metal. The main entrance is located centrally on the three-bay front façade although the door has been removed. There is evidence of a gable-roof portico over the door, although this has also been removed. All of the windows are missing. The building appears to have been vernacular with little to no embellishment or ornamentation. The roofline is unadorned and the door and window surrounds are plain board. Any decorative treatment may likely have been limited to the portico which is now gone.

As an early-twentieth century building in the Daggers Springs vicinity, this dwelling may have been associated with the New Town mining operation and community located just 800-feet uphill; however, this association cannot be confirmed at this time. The building is an undistinguished example of an early-twentieth century dwelling and does not embody distinctive

characteristics or possess significant or unique architectural or design features. Further, the building is in an advanced state of deterioration and collapsing. Because of the building's poor historic physical integrity coupled with its location in an area of discontiguous historic resources, this dwelling is considered ***not eligible*** for listing in the NHRP on an individual basis or as part of a historic district.

VDHR ID# 011-0209
Dwelling/2919 Dagger Springs Road

Figure 7-12: 2919 Dagger Springs Road, agricultural buildings, facing southwest

This property is located at 2919 Daggers Springs Road (Route 622), in the Daggers Spring vicinity of rural northern Botetourt County. The property contains 250 acres consisting of cleared agricultural fields in a low valley near the road, and a wooded slope leading up North Mountain to the rear. When initially recorded in 1987, the property contained a Victorian-inspired I-House built in 1875 as well as a variety of outbuildings; however the house has since been demolished and replaced by a modern log dwelling. Currently what remains on property are the modern house, a modern stone spring house, a modern garage, and two older agricultural sheds of unknown age. According to the previous record, a cemetery also remains on the property, however this was not located as part of this effort.

Because the original house and most historic outbuildings on this property have been demolished, the few remaining sheds and cemetery do not collectively or in part convey any sense of historic development, use, or occupation of the property. As such, this property and the resources located there are considered ***not eligible*** for listing in the NHRP on an individual basis or as part of a historic district.

VDHR ID# 011-0214
Logging Camp Site

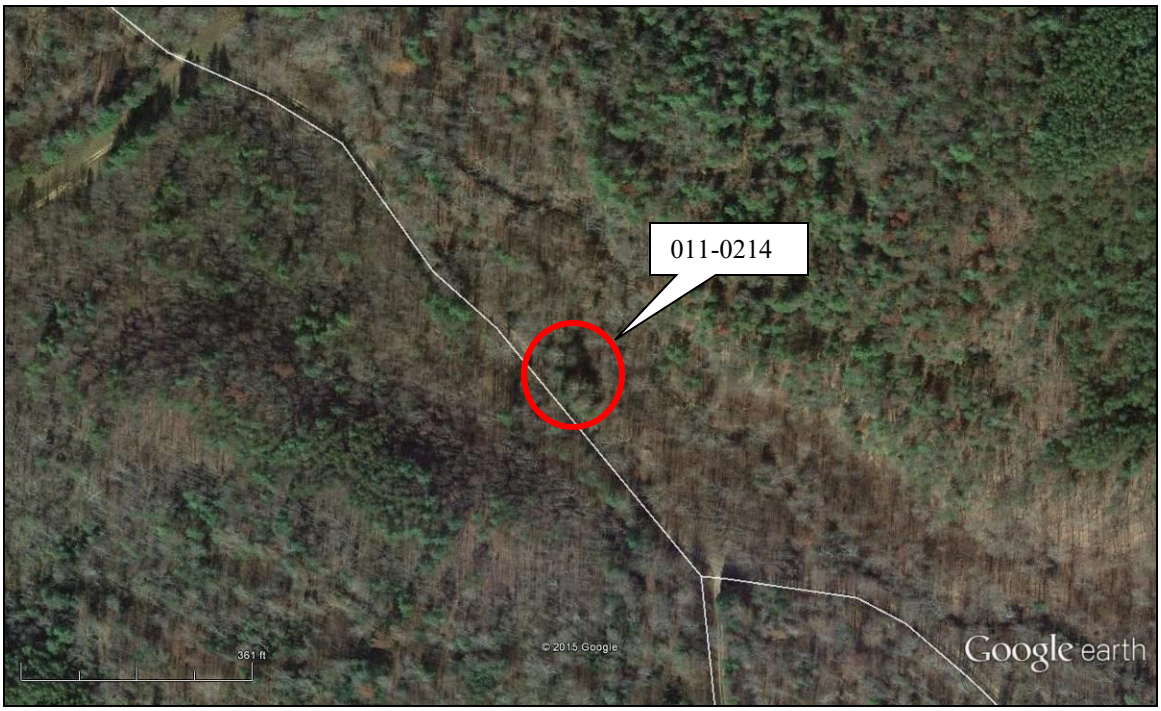


Figure 7-13: Logging/Saw-Mill Site recorded location, aerial 2015

This purported logging camp site is located on a private gravel road roughly ½ mile off of Bluegrass Trail (Route 612) in rural northern Botetourt County. The property is gated and the site was not visible from public right-of-way. Several attempts to contact the property owner were unsuccessful. The site is located on a large, 7,280-acre property consisting primarily of wooded mountainside and aerial photography indicates the site is heavily wooded. When initially documented in 1987, the site consisted of just several pieces of cut lumber, several planted varieties of trees, and evidence of grading/ground moving. Aerial photograph could not confirm the presence of any such features nor any other signs of cultural occupation.

Logging was prevalent throughout Botetourt County in the late-nineteenth/early-twentieth century and in many cases involved temporary logging camps as the workers moved from site to site. There is no evidence on maps or other records to indicate that a saw-mill or any more permanent resource was ever located at the recorded site of VDHR ID# 011-0214. As all that remained of this site when initially recorded was several pieces of lumber, and there is no indication of any other cultural features, this property is considered ***not eligible*** for listing in the NHRP on an individual basis or as part of a historic district.

VDHR ID# 011- 011-5635
Dwelling, 2905 Daggers Springs Road

Figure 7-14: 2905 Daggers Springs Road, front and west side, facing northeast

This dwelling is located at 2905 Daggers Springs Road (Route 622) in the Daggers Springs vicinity of rural northern Botetourt County. The house sits at the end of a quarter-mile gravel driveway on a 14-acre property. Several large pits that according to a local informant historically served as ice-storage pits are located along the side of the driveway. The majority of the property is wooded although the home sits in a small grassy clearing and faces south. The driveway passes by the west side of the house and leads to a small outbuilding of unknown function just downhill to the rear.

This dwelling was built circa 1910 and exhibits a vernacular log form. The house is used just seasonally but remains in good condition. The two-story building has an exposed log structural system with v-notched corner joints and clapboard in the gable ends. The building rests on a continuous poured concrete foundation and is topped by a side-gabled roof covered with asphalt shingles. An exterior concrete block chimney pierces the rear slope of the east end of the roof. There is a full-width shed roof porch on the front façade supported by wood posts set on a wood floor. The main entrance is located centrally under the front porch and consists of a single, paneled wood door. It is flanked by single double-hung-sash windows with six-over-one light configurations on each side. Two additional windows are located on second story of the front façade. There is a full-width, wood frame and clapboard ell with a shed roof ell attached to the rear. Extending from the ell is a full-width porch with a shed roof supported by wood posts on a wood floor.

Just downhill from the house is a small historic outbuilding. The wood frame building is clad with asbestos shingles and rests on a wood pier foundation. It is topped by a hipped roof covered with asphalt shingles. The building has a single board and batten door on the front façade.

This building is an undistinguished example of an early-twentieth century log dwelling and limited research revealed no known significant historical associations. Located in the Daggers Springs vicinity of Botetourt County, it cannot be conclusively determined at this time whether the home was simply part of a small farmstead, or if it was associated with either the nearby Daggers Spring resort or the New Town mining community. The building retains moderate historic physical integrity; however as a common resource type located in an area of discontiguous historic resources, it is considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

VDHR ID# 011- 011-5634
Dwelling, 3229 Daggers Springs Road

Figure 7-15: Dwelling, Daggers Springs Road, front and west side, facing southeast

This building is located at 3229 Daggers Springs Road (Route 622) in the Daggers Springs vicinity of rural northern Botetourt County. The building sits just back from the road on a cleared but overgrown 1-acre property. The building faces south towards the road. A narrow tree line extends along the rear of the property bordering Mill Creek.

This building was constructed circa 1910 and exhibits an organic form indicative of several periods of construction and/or use. It appears that the building may have initially been built as a single dwelling in a typical I-house form, and later expanded with a side wing. There is a one-story rear ell attached to the back of the original block. The building appears to have been abandoned for an extended time and is a severely deteriorated condition with section of collapsing structure and roof. The two-story building has a wood frame structural system clad with a combination of clapboard and drop-siding topped by a side-gabled roof covered with 5V sheet metal. An exterior brick chimney extends up the rear wall of the building near the junction of the original block and side wing. The foundation of the building is obscured by debris and vegetation. There are three entrances spaced across the front façade consisting of the original I-house central doorway, the conversion of one of the original windows to a door opening, and a third door on the attached side wing. All of these entrances are single doorways although the doors have either been removed or fallen off the hinges. Fenestration includes double-hung sash windows with six-over-six light configurations on the first floor and smaller openings, likely filled by casement windows on the second floor, although all the sashes have been removed or broken.

The historic function of the building is unclear due to unusual form and configuration. It appears that the building may have initially been built as a single dwelling, however, the three doorways on the front façade indicate the building may have been repurposed to serve either as a multiple dwelling, such as workers housing, or some sort mixed or commercial use. Located in the Daggers Springs vicinity of Botetourt County, it cannot be conclusively determined at this time whether the home was simply part of a small farmstead, or if it was associated with either the nearby Daggers Spring resort or the New Town mining community. This building is an undistinguished example of an early-twentieth century vernacular dwelling and limited research revealed no known significant historical associations. Further, the building remains in an advanced state of deterioration and collapse. It is therefore considered ***not eligible*** for listing in the NRHP on an individual basis or as part of a historic district.

ARCHAEOLOGICAL SURVEY

Archaeological survey for the Rocky Forge project included the investigation of various components that are part of the project. These consisted of:

1. Laydown Yard/O&M 1
2. O&M 2
3. Substation Site
4. Access Road 1
5. Access Road 2
6. UGE (underground electric) Lines
7. Turbine Locations (25 total)

The survey goal was to identify areas that had potential for archaeological resources, while recognizing that some areas were likely to be inaccessible due to steep slopes. Pedestrian survey was supplemented with subsurface testing in areas where the terrain warranted this. D+A archaeologists also considered the potential for rock shelters in areas where rock overhangs were present.

One previously unrecorded archaeological site was identified in the course of survey, and a total of 146 artifacts were recovered from three of the areas surveyed. Artifacts were found in areas that are in close proximity to each other, including the Laydown Yard/O&M 1, O&M 2, and Access Road 1. Of the 146 artifacts recovered, 98 consisted of slag glass. This type of slag is a byproduct of iron smelting, which is known to have been conducted at Rebecca Furnace (44BO0191). While the areas where glass was recovered are not directly adjacent to the Rebecca Furnace property, it is likely the origin of the slag is from the operation of the furnace. Significant earth moving is also known to have taken place in the past few years in the general area of the furnace, as evidenced by the recent excavation for ponds that are outside of the project area. Other artifacts recovered include one isolated prehistoric artifact, a Woodland Period projectile point, and a light scatter of historic period ceramics, glass, faunal material, and iron all apparently associated with Tredegar House (011-0215).

A description of existing conditions in the area of each component of the project, the survey strategy used, and the results, is summarized below. An inventory of artifacts recovered is located in Appendix B.

Laydown Yard/O&M 1

The site of the proposed Laydown Yard and O&M 1 (operations and maintenance) is north of Dagger Springs Road and bounded by a gravel access road to the east and Mill creek on the west and north. The area is level and the southern portion is a grassy field and the northern portion is wooded (Figure 7-16).

Figure 7-16: Looking east from west edge of the Laydown Yard/O&M 1

At the time of survey, soil disturbance was noted in a portion of the Laydown Yard/O&M 1, and additional earth moving was being conducted near Dagger Spring Road in the central part of the area (Figures 7-17 and 7-18). The northern portion of the Laydown Yard/O&M 1 was wooded with brambles and young growth hardwoods (Figure 7-19).

Figure 7-17: Graded area in Laydown Yard/O&M 1, looking east.

Figure 7-18: Graded area in Laydown Yard/O&M 1, looking west.

Figure 7-19: Northern, wooded portion of Laydown Yard/O&M 1, looking west.

Subsurface testing of the Laydown Yard/O&M 1 was conducted by excavating shovel tests in a grid pattern. A total of 12 transects were placed at 15 meter (50-ft) intervals running roughly east-west across the site and shovel tests were excavated in 15 meter (50-ft) intervals along each transect. Areas with standing water, slope, bedrock, or obvious ground disturbance were not tested. In addition, three judgmental shovel tests were excavated in a stand of pine trees in the

easternmost part of the project area, as the ground in this area was slightly higher and not waterlogged consistent with the eastern boundary of the area (Figure 7-20).

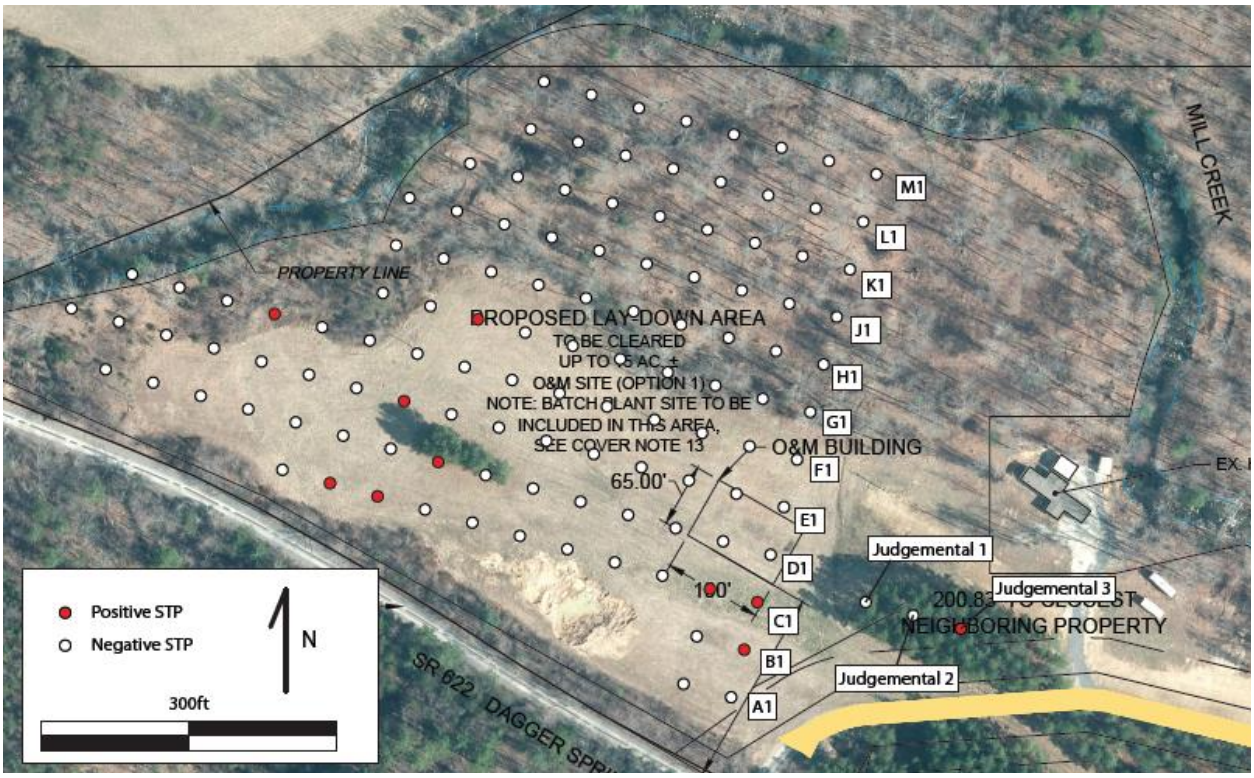
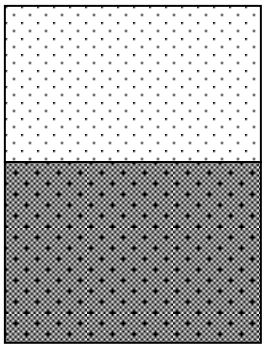


Figure 7-20: Shovel test locations within the proposed Laydown Area/O&M 1.

A total of 119 STPs were excavated in the Laydown Yard/O&M 1. Some of the soil profiles showed evidence of disturbance with redeposited fill over plowzone. Soil profiles with relatively natural stratigraphic profiles consisted of approximately 22-45-cm of 10YR4/4 silty clay loam topsoil over 7.5YR4/6 silty clay subsoil (Figure 7-21).



10YR4/4 silty clay loam
0-42cmbs

7.5YR4/6 silty clay
46 cmbs

Figure 7-21: STP C-3, Laydown Yard/O&M 1

Of the 119 shovel tests excavated within the area of the Laydown Yard/O&M 1, ten (10) were positive, yielding a total of 59 artifacts, one of which was an iron fragment that appears to be part of a nail. The remaining artifacts consisted of slag glass fragments (Figure 7-22).

The slag glass, which is a byproduct of the iron smelting process, most likely originated at Rebecca Furnace (44BO0191), which is east of the Laydown Yard/O&M 1. It is unclear whether the material was deposited while the furnace was in use or whether it is a secondary deposit resulting from more recent earth moving activity. The considerable distance between the Laydown Yard/O&M 1 and the furnace makes it impossible to establish a direct connection, and it is known that modern ponds have been created just west of the furnace relatively recently, and it is possible that the spoils from the excavated ponds were re-deposited in the area.

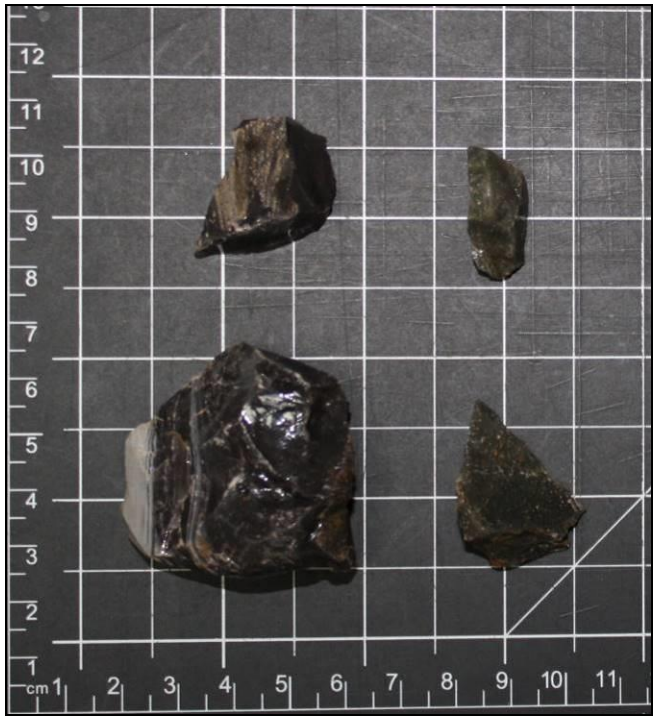


Figure 7-22: Representative glass slag fragments recovered from shovel testing in Laydown Yard.

O&M 2

O&M 2 is roughly triangular in shape parcel located immediately southeast of the Laydown Yard/O&M 1. O&M 2 is bounded by Dagger Spring Road on the south and by a gravel driveway on the northeast. The northwestern boundary consists of an existing gravel driveway that is proposed for widening as part of the Rocky Forge project (Access Road 2).

A total of 123 shovel tests were excavated along seven transects, which were laid out in a grid parallel to Dagger Spring Road. The length of each transect varied due to the shape of the parcel, with the longest transect extending along Dagger Spring Road for a distance of 320 meters (1,050 ft) (Figure 7-23).

The majority of the area is presently wooded, with a swath of grass in the center (Figure 7-24). Several areas within O&M 2 were disturbed, as evidenced by push piles in the wooded sections

in the northeastern portion of the site and in the wooded portion along Dagger Spring Road (Figure 7-25). In addition to soil disturbances from past timbering, in the northwestern portion of O&M 2 there was evidence of disturbed and exposed soils as a result of grading and general clearing (Figure 7-26).

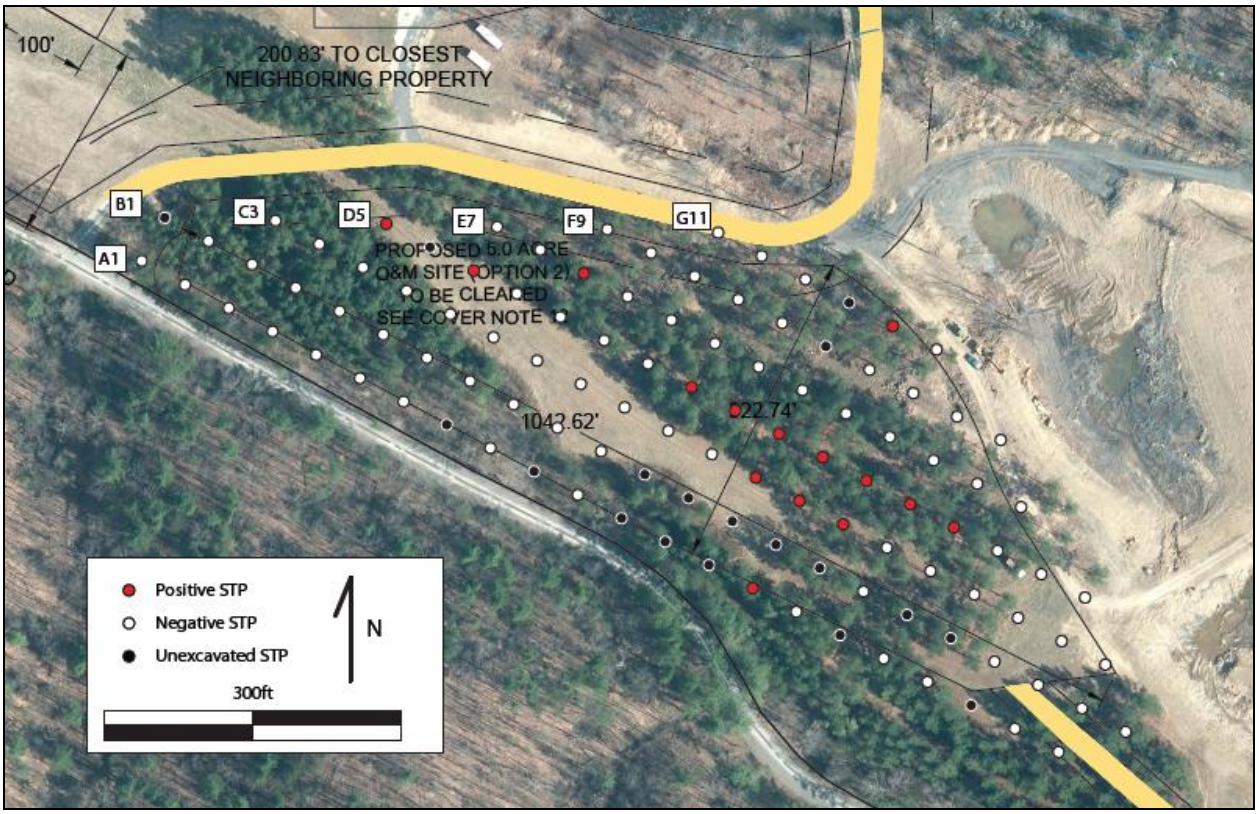


Figure 7-23: Shovel test locations within the proposed O&M 2 area.

Figure 7-24: Looking east-southeast from STP C-6, O&M 2.

Figure 7-25: Push pile between STP F-13 and G-13, O&M 2

Figure 7-26: Area in the northeast corner of O&M 2 showing graded and exposed soils.

Soils within O&M 2 generally consisted of a 10YR4/4 silty clay loam overlying a 7.5YR4/4 silty clay (Figure 7-27). Little variation in soil profiles were noted except in areas of previously documented disturbances.

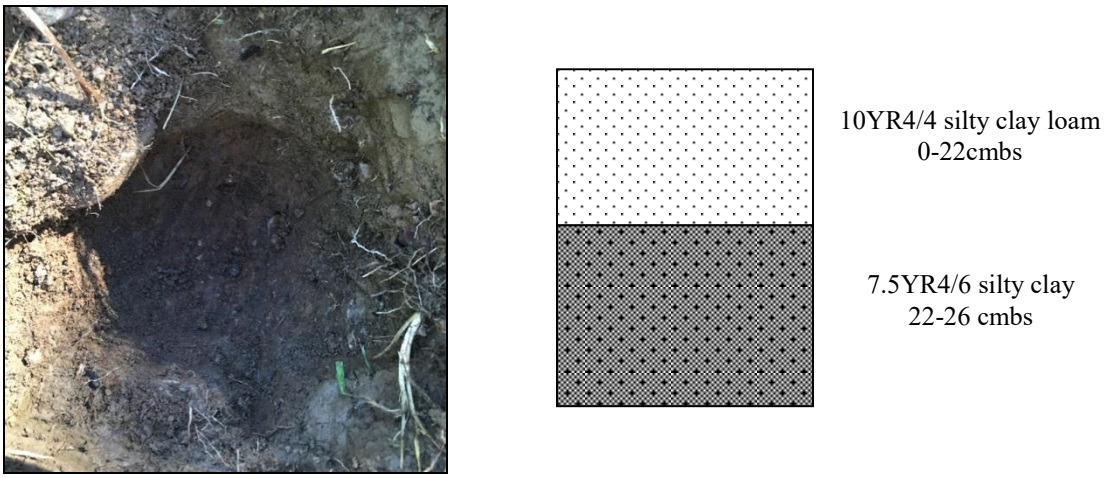


Figure 7-27: Representative soil profile from shovel test D-13 in O&M 2.

A total of 15 shovel tests excavated within O&M 2 were positive for cultural material yielding 37 artifacts. Other than a galvanized or highly-corroded copper alloy pipe-fitting, the artifacts all consisted of slag glass fragments. As with the slag glass recovered from the Laydown Yard/O&M 1 to the west, the source of the slag glass is likely the nearby Rebecca Furnace (44BO0191), although the distance between O&M 2 and the furnace is substantial and due to the earthmoving and grading evident at the site, their provenience cannot be definitively confirmed. It is possible that the excavation of soil associated with ponds east of O&M 2 in recent years

resulted in the slag glass being re-deposited, similar to what may have occurred at the Laydown Yard/O&M 1. No evidence of surface features, other than modern push piles was found, and no subsurface features were identified within O&M 2.

Substation

The site of the proposed substation is located in the eastern portion of the Rocky Forge project area and is in the vicinity of existing power and gas corridors. The substation parcel consists of approximately 8 acres, and project plans indicate that half of the area will be occupied by a Collection Substation and the other half will be used for an Interconnection Station (Figure 7-28).

Figure 7-28: Locations of STPs in area of proposed substation.

Mill Creek is to the north of the substation parcel and Dagger Spring Road is to the south. Located approximately 275 meters (902 ft) to the east of the substation, the Blue Grass Trail (SR 612) bounds the area. The substation parcel is characterized by steeply sloped ridges and is currently wooded (Figures 7-29 and 7-30). Approximately half of the area consists of a pine plantation. Tire ruts and some push piles are present, indicating that the area has been logged in the recent past. Several large rock outcrops are also present in the area.

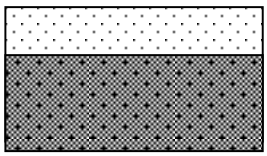
A gravel road connecting the substation to Dagger Spring Road is also associated with this option. The proposed road extends south-southwest from the southwest corner of the substation and ties into the existing Dagger Spring Road, as are proposed utility lines that will connect the substation to the wind turbines.

Figure 7-29: Terrain and pine plantation in eastern portion of substation area.

Figure 7-30: Terrain in western portion of substation area.

Due to the presence of sloped terrain in access of 15-20%, systematic pedestrian survey and judgmental subsurface testing was conducted in lieu of systematic shovel testing. Five (5) judgmental shovel tests were in the area to determine soil profiles (Figure 7-31).

Judgmental shovel tests revealed soils consisting of a 10YR3/3 silty clay loam overlying a 5YR4/6 silty clay (Figure 7-25).

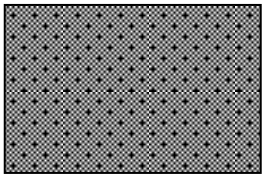


10YR3/3 silty clay loam
0-19 cmbs

10YR5/6 silty clay
19-26 cmbs

Figure 7-31: Soil profile from Judgmental STP-1, eastern portion of substation site.

Visual inspection of the substation site revealed no evidence of cultural activity other than modern logging impacts including push piles and evidence of soil disturbance associated with timbering and site grading. In some areas, soils were deflated and appear to have been compromised by erosion, and little topsoil was present (Figure 7-32). This was the case in the western portion of the parcel, which did not have a lot of organic material and was more exposed No cultural material or subsurface features were identified during shovel testing and no artifacts were recovered from the judgmental shovel tests.



10YR5/6 clay
0-22 cmbs

Figure 7-32: Soil profile from shovel test STP B-2 at the Substation Site

No artifacts were found either on the surface or in any of the subsurface tests placed at the site of the substation and no cultural resources were noted in the vicinity. No further archaeological testing is recommended in the area of the proposed substation.

Access Roads

Two access roads are proposed as part of the Rocky Forge project. Both of these begin at Dagger Spring Road and lead to other sections of the project, including the substation site and the ridgelines where the turbines are to be located (Figure 7-33). In some areas, project plans call for improvements to existing gravel or dirt roads, and in other areas, new construction is proposed.

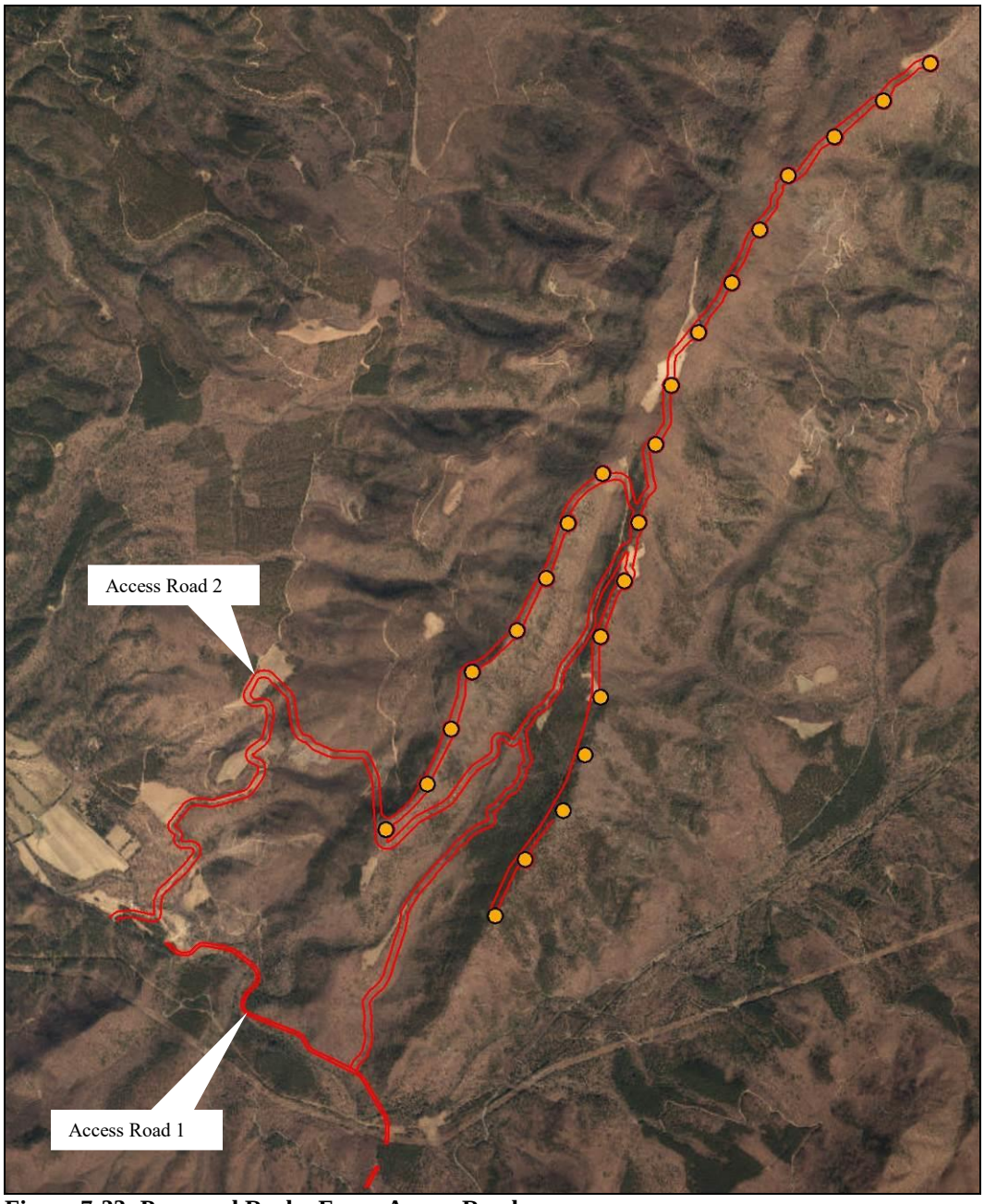


Figure 7-33: Proposed Rocky Forge Access Roads.

The survey strategy for the roads included subsurface testing in areas that had potential for archaeological resources. In areas where existing roads and trails were present, pedestrian survey was conducted. It should be noted, however, that in some cases the existing roadways are quite narrow, and that plans call for widening. In many cases, significant slope was present both uphill and downhill of the existing, narrow roads. Areas determined to be extremely sloped were not surveyed.

Access Road 1

The proposed access road extending from the Laydown Yard/O&M 1 to the eastern portion of the project area was designated Access Road 1. At its southern terminus, the road begins at Dagger Spring Road and parallels the southern bank of Mill Creek until it enters Limestone Hollow (Figure 7-34). An existing gravel road is present in portions of the southern terminus, and the project would widen this ROW.

Figure 7-34: Access Road 1 east of ford crossing Mill Creek.

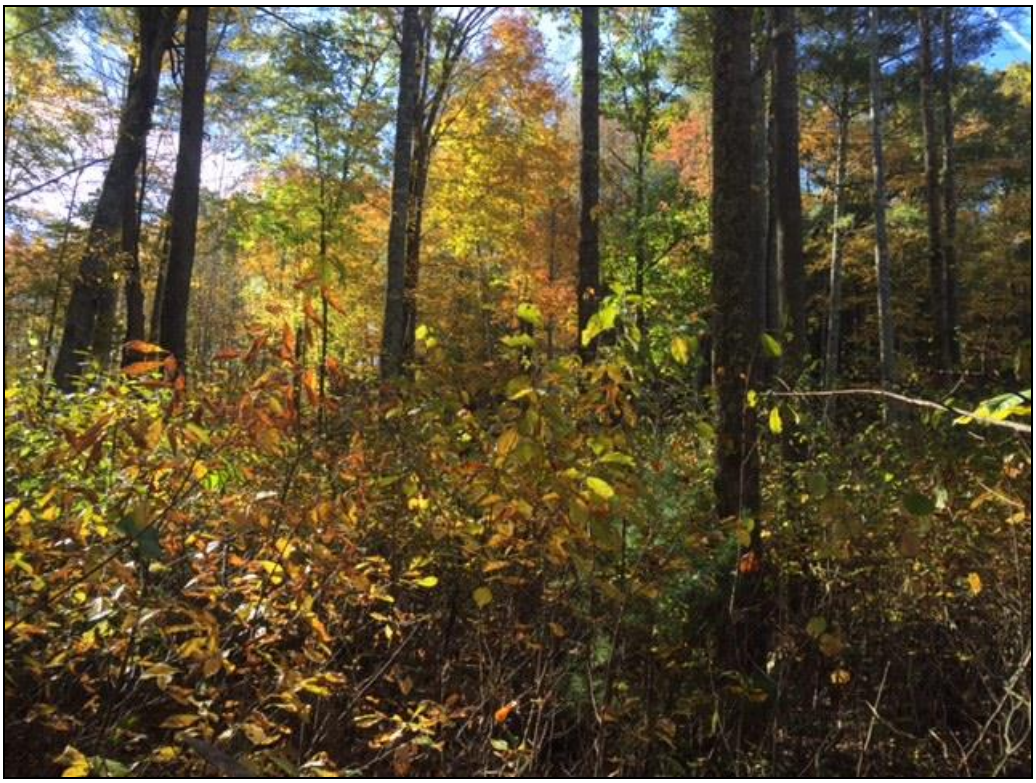


Figure 7-35: Looking south west from shovel test 10 on Access Road 1.

The majority of Access Road 1 is sloped and has exposed rock surfaces as it winds through Limestone Hollow. Only the area near Rebecca Furnace and Tredegar House was level enough to warrant subsurface testing (Figure 7-36).

A total of 19 shovel tests were excavated along the proposed ROW near Rebecca Furnace (44BO0191) (Figure 7-37). Six (6) shovel tests were placed adjacent to the Tredegar House east of Mill Creek. These were excavated in a single transect at 15 meter 50-ft) intervals. Additional shovel tests were excavated further north-east along the road, with gaps between shovel tests due to an area of wetlands. South of Tredegar House, a series of manmade ponds and gravel roads were present, along with graded areas likely associated with the construction of the ponds. In these areas, shovel tests were excavated to confirm that no intact soils were present.

Figure 7-36: Shovel test locations in area of southern terminus of Access Road 1.

Figure 7-37: Access road in area of ponds near Tredegar House.

In undisturbed areas, soils generally consisted of 10YR3/3 silty clay loam plowzone ranging from 16-34-cm in depth sealing subsoil, 5YR3/3 silty clay (Figure 7-38).

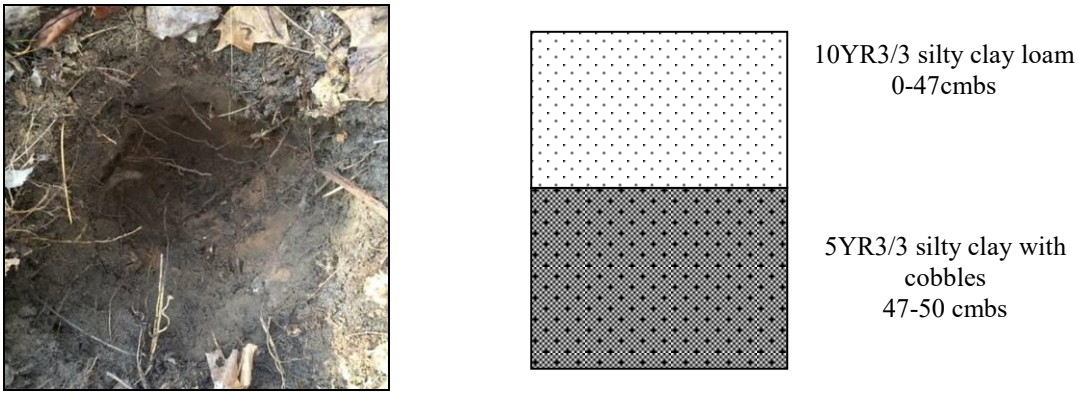


Figure 7-38: Representative soil profile from shovel test 5 along Access Road 1.

Artifacts were recovered from four (4) of the subsurface tests along Access Road 1 in the immediate vicinity of the Tredegar House (011-0215). Among the finds were a number of ceramics dating to the late eighteenth through the twentieth centuries, including shell-edge pearlware. Molded glassware that appears to be from the twentieth century was also recovered, confirming the long period over which the property has been in use. A single projectile point was recovered from STP 4, and is likely a Jack's Reef Pentagonal point, which dates to the Woodland period. The recovery of a projectile point, without any other associated prehistoric material, is likely due to hunting activity in the area and is not indicative of a prehistoric occupation in the area (Figure 7-39).

Figure 7-39: Representative artifacts recovered from shovel testing of Access Road 1 in vicinity of the Tredegar House (011-0215).

The historic-period artifacts recovered from the area are likely related to domestic occupation and use of Tredegar House during the nineteenth and twentieth centuries. No subsurface features were identified, and the artifacts consist of highly fragmented sheet refuse. The density and temporal affiliation of the recovered artifacts meet the VDHR's definition of an archaeological site. Given the presence or cultural material along the edge of the proposed ROW expansion, it is reasonable to expect that additional cultural material and features are likely present closer to the extant structure outside of the proposed ROW expansion.

Access Road 2

The western access road, Access Road 2, begins at Dagger Spring Road and follows a current gravel road, which after crossing Mill Creek climbs towards the ridge, eventually terminating in an open field near the location of proposed turbines number seven and eight. The existing road is used primarily for hunting access to higher elevations of the property.

The majority of the road has steep slopes on either side as it climbs to the ridge; however, a few level terraces are present (Figures 7-40 through 7-42). Most of these have been plowed and planted with grain and may have been subject to grading in the past. While pedestrian survey of the entire roadway was conducted, only the areas that were level were subjected to subsurface testing.

Figure 7-40: Example of road profile, Access Road 2

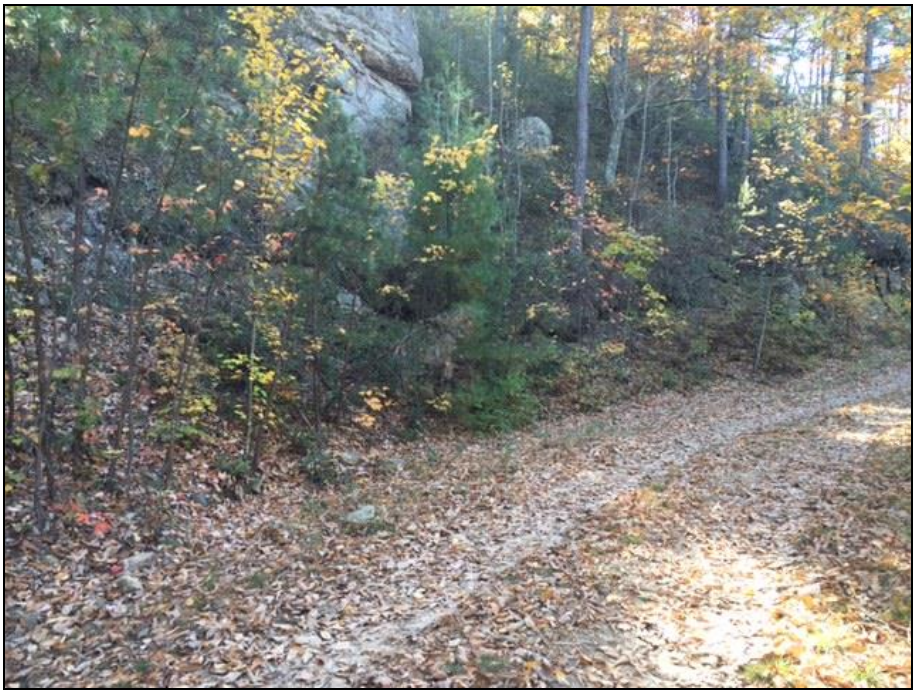


Figure 7-41: Example of slope adjacent to Access Road 2.

Figure 7-42: Slope adjacent to Access Road 2

A total of 10 shovel tests were excavated along Access Road 2. Six shovel tests were placed in close proximity to the field encountered at the lowest elevation (ca. 432.8 meters [1420-ft] amsl). Three shovel tests were laid out on the eastern side of the road, and three were placed on the western side. The shovel tests on the east were located in a wooded stretch along the existing gravel road. Higher in elevation along the road, one shovel test was placed at each of two small level areas. Both of these were placed on the eastern side of the road; shovel test 7 (at ca.475.4 meters [1560-ft] amsl) and shovel test 8 (at ca.493.7 meters [1620-ft] amsl). The final two shovel tests along Access Road 2 were placed in an open field known as the "Muster Field," located at an elevation of ca. 518.1 meters (1700-ft) amsl. This area abuts the western boundary of the property and is divided into several large fields planted with grains (Figure 7-43).

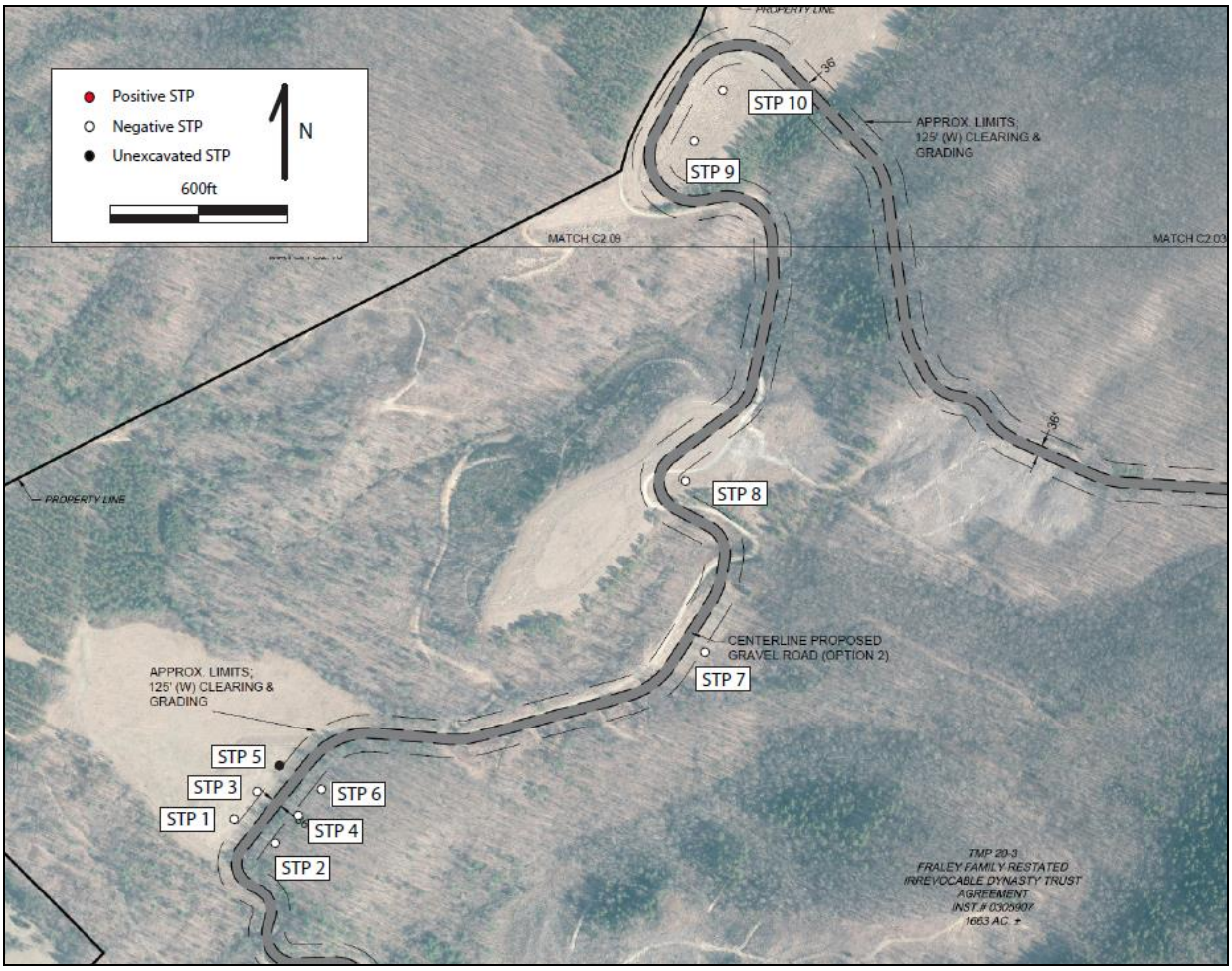
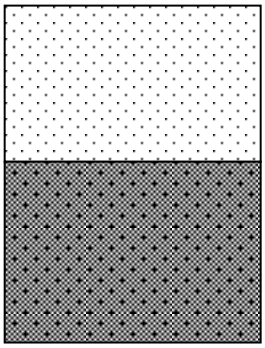


Figure 7-43: Shovel test location within Access Road 2

Soils in testable areas along the Access Road 2 ROW expansion consisted of a 10YR4/4 silty clay loam with rock inclusions overlying a 10YR4/6 clay (Figure 7-44). No cultural material or evidence of surface or subsurface features was identified in areas where subsurface testing was completed along Access Road 2.



10YR4/4 silty clay loam
0-6cmbs

7.5YR4/6 silty clay
with rock inclusions
6-10 cmbs

Figure 7-44: Representative soil profile from shovel test 1 located along Access Road 2.

No additional areas for subsurface testing were identified at higher elevations along Access Road 2 as the existing roadway and areas of proposed ROW expansion were characterized by steep slopes and rock outcrops. Visual inspection of these areas did not result in the identification of any evidence of cultural activity or material.

Underground Electric (UGE)

Two underground electric cables connecting the wind turbines to the substation site are also proposed as part of this project (Figure 7-45). The proposed location of these cables was observed on topographic maps as well as in the field. The cables are to be placed in areas that are significantly sloped and no subsurface testing was conducted in these areas (Figures 7-46 and 7-47). Areas of less slope north of the substation site were visually inspected. These areas consisted of pine trees and evidence of severe soil disturbances associated with recent timbering and erosion, as well as the presence of rocky soils and bedrock outcrops. These areas were also not shovel tested due to visible soil conditions and the lack of potential for intact subsurface archaeological deposits to be present.

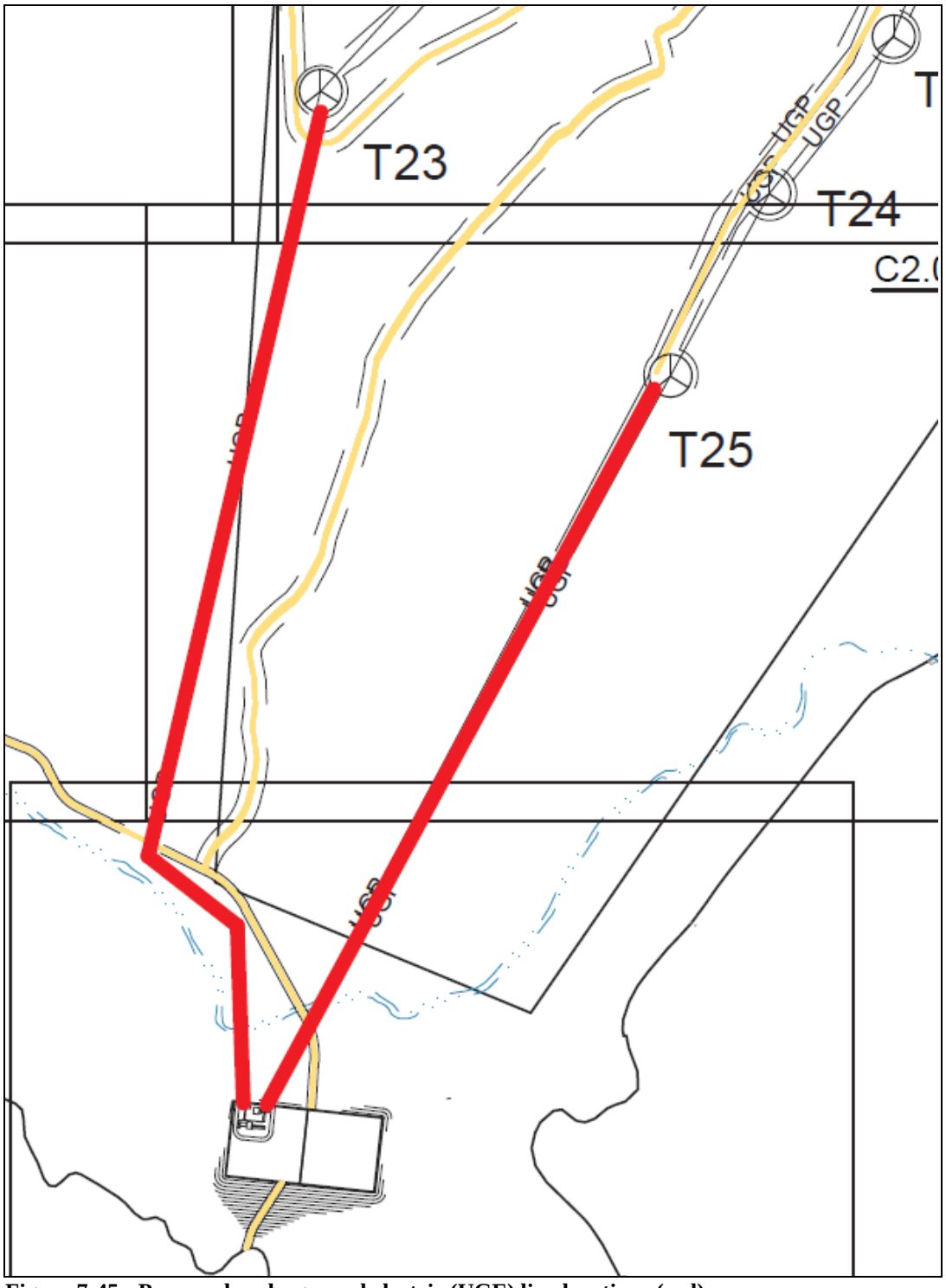


Figure 7-45: Proposed underground electric (UGE) line locations (red).

Figure 7-46: Looking south in area of proposed underground electric lines near substation.

Figure 7-47: Looking Northeast in area of proposed underground electrical lines near substation.

Turbine Locations

The Rocky Forge Wind project includes the construction of a total of 25 turbines. Nine (9) of the turbines (numbered 1-9) are planned along a northeast-southwest running ridge. The ridge naturally forks, and an additional 8 (eight) turbines are proposed for each branch, east and west. The turbines are to be constructed approximately 0.4 km (0.25-miles) apart and each turbine footprint is approximately 45.7 meters (150-ft) in diameter (Figure 7-48).

Survey of the turbine locations generally consisted of hiking to the ridge top to observe surface conditions, conduct judgmental shovel testing, and determine whether archaeological potential existed. Of the 25 turbine locations, 19 were surveyed. The remaining turbine locations were too difficult and/or dangerous to access. Despite the lack of direct observation of six (6) turbine locations, the consistency of conditions at those that were surveyed and the remote nature of the ridge top, it is unlikely that those locations not visited would present conditions that would make them more suitable for human habitation. They were therefore not considered to have greater potential for archaeological resources. The following section summarizes the investigation at each proposed turbine location.

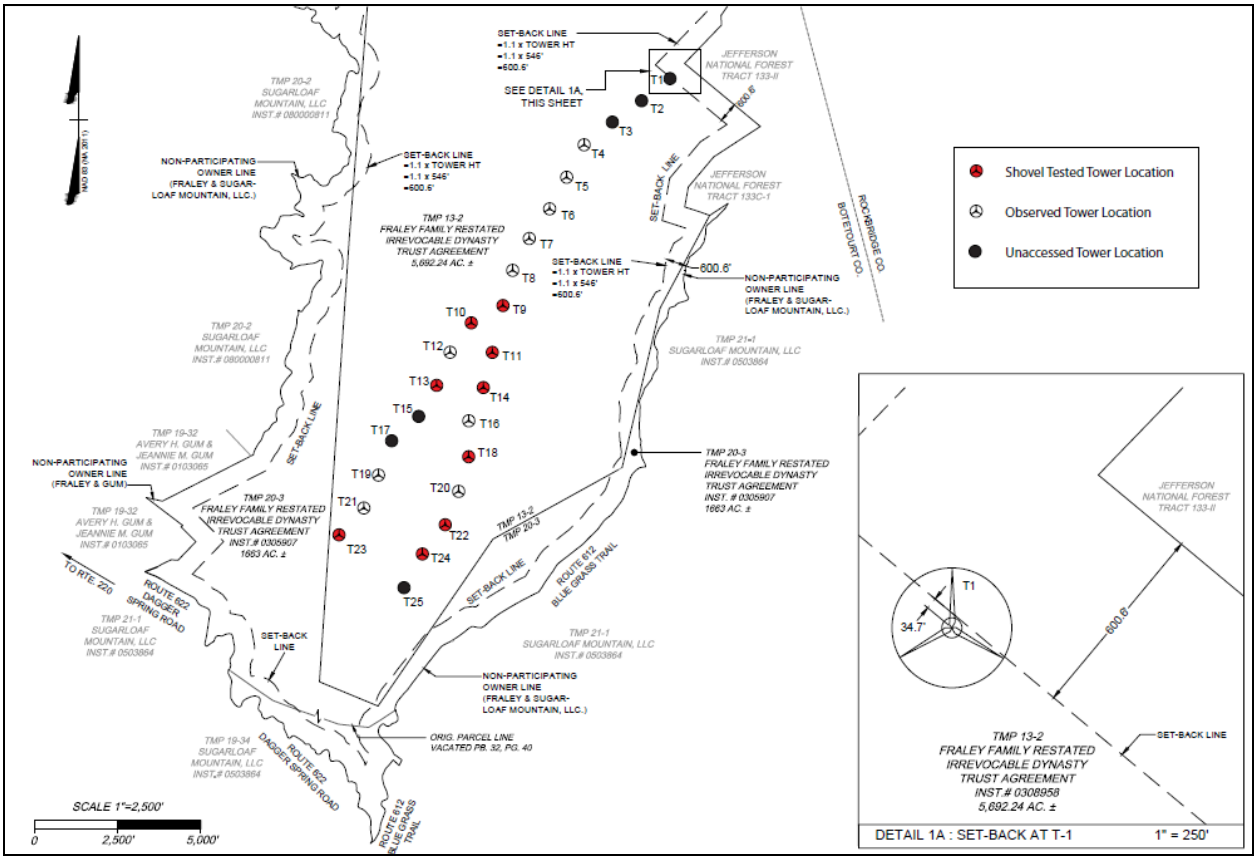


Figure 7-48: Shovel test locations at proposed turbine sites.

Turbines 1, 2 and 3

Turbines 1, 2 and 3 were not observed due to their inaccessible location at the end of a narrow, rocky ridge.

Turbines 4, 5 and 6

Turbine locations 4, 5, and 6 were all similar in terms of vegetation and surface conditions. The ground surface consisted of weathered bedrock with lichens and low-growing shrubs. Some larger, craggy trees indicate that the area is subjected to wind and extremes in weather conditions (Figure 7-49). As such, these locations were not subject to subsurface testing. No surface evidence of cultural activity in the form of landscape features, rock shelters, or artifacts was observed.

Figure 7-49: View of Turbine 4 location.

Turbine 7

Turbine 7 is located within a large, man-made grassy field along the ridge top (Figure 7-50). According to owner interviews, the field has been cleared and graded to enhance use of the area for hunting purposes. A few small structures used for hunting have also been constructed in this area. Due to the lack of suitable water sources and natural rock shelters in this area, it was deemed to have low potential for prehistoric resources. Further, background research did not reveal evidence of any historic domestic or industrial use of this ridge top area. As a result, no subsurface archaeological testing was undertaken.

Figure 7-50: View of Turbine 7 location.

Turbine 8

The location of Turbine 8 is along a very narrow section of the ridge with steep slopes descending on either side (Figure 7-51). Due to topographic and visible soil conditions, no shovel tests were placed in the area. No visible evidence of cultural activity or material was observed.

Figure 7-51: View of Turbine 8 location.

Turbine 9

Turbine 9, the southernmost of the single line of towers, is located within the wooded ridge line. The ridge drops very steeply on the east and somewhat more gradually on the west (Figure 7-60). One shovel test was excavated in the area of Tower 9, revealing decomposing bedrock immediately beneath a thin layer of humus (Figure 7-52). No surface evidence of cultural activity or material was observed in the area of Turbine 9 and no artifacts were recovered from the shovel test.

Figure 7-52: View of Turbine 9 location.

Figure 7-53: View of soils at Turbine 9 location.

Turbine 10

Turbine 10 is located along a narrow section of the western ridge, directly after the single line of turbines forks into two separate lines (Figure 7-54). One shovel test was excavated in this location revealing a shallow root mat with bedrock underneath (Figure 7-55). No surface evidence of cultural activity or material was identified at the location of Turbine 10 and no artifacts were recovered from the shovel test.

Figure 7-54: View of Turbine 10 location.

Figure 7-55: View of shovel test at turbine 10 revealing rock at surface.

Turbine 11

The first turbine on the eastern ridge after the single line of turbines separates into two is Turbine 11. The area is relatively level, and the ridge is somewhat wider than in other areas due to the fact that this is place where the two ridges divide (Figure 7-56). One shovel test was placed in the area, revealing rock beneath a thin humus layer (Figure 7-57). No surface evidence of cultural activity or material was noted and no artifacts were recovered from the shovel test.

Figure 7-56: View of Turbine 11 location.

Figure 7-57: View of shovel test at Turbine 11 revealing soil conditions.

Turbine 12

In the area of Turbine 12, large outcrops of rock are present (Figures 7-58 and 7-59). These were examined from the center of the ridge, but due to the presence of bears in the area, they were not entered. It does not appear, however, that they are likely to have archaeological potential as rock shelters as the majority of the blocks have very little protected area and many of them appear to have cleaved off. No evidence of cultural activity or material was noted in the area and no subsurface testing was undertaken.

Figure 7-58: View of Turbine 12 location.

Figure 7-59: View of rock outcrop at Turbine 12.

Turbine 13

The location of Turbine 13, along the western ridge, was characterized by rocky outcrops on the eastern side of the ridge and slope along the western side (Figure 7-60 and 7-61).

One shovel test was excavated at Turbine 13. The soil profile was relatively deep at 30-cm below surface (Figure 7-62). The depth of the soil is interpreted as being the result of the flat terrain that is in the center of the ridge between the area of slope and the rocky ridge. No visual evidence of cultural activity or material was noted and no artifacts were recovered from the shovel test.

Figure 7-60: View of Turbine 13 location.

Figure 7-61: Rocky, eastern side of ridge near Turbine 13.

Figure 7-62: View of shovel test soils at Turbine 13.

Turbine 14

The location of Turbine 14 is in a grassy field along the ridge (Figure 7-63). The area has been maintained for hunting. Despite the presence of grassy, exposed bedrock was visible in several areas (Figure 7-64).

Figure 7-63: View of Turbine 14 location.

Figure 7-64: Exposed bedrock in the area of Turbine 14.

Two shovel tests were excavated at Turbine 14 and both revealed a shallow root mat/humus over bedrock (Figure 7-65). No cultural activity or material was observed at the location of Turbine 14 and no artifacts were recovered from the two shovel tests.

Figure 7-65: Shovel test soils at location of Turbine 14.

Turbine 15

Turbine 15 was not observed as it was too difficult to access, with large rock outcrops and extreme slopes.

Turbine 16

Turbine 16 is located in a very narrow portion of the ridge, and steep slopes are present on either side (Figures 7-66 and 7-67). No shovel tests were placed in the location of Tower 16. No surface evidence of cultural activity or material was noted at the location of Turbine 16.

Figure 7-66: View of Turbine 16 location.

Figure 7-67: View of severe slopes at Turbine 16.

Turbine 17

Turbine 17 is located on a steep slope at one of the highest elevations on the western ridge (Figure 7-68). Pedestrian survey was only conducted to within approximately 76.2 meters (250-ft), as a bear was located in the tower location. Based upon this limited visual inspection, no cultural activity or material was noted nor is expected within the location of Turbine 17.

Figure 7-68: View of Turbine 18 location from a distance of ±76.2 meters (250-ft).

Turbine 19

The area around Turbine 19, which is located on the western ridge, consists of a narrow spine of the ridge. Several large outcrops of rock are present, and the ground surface was bedrock (Figure 7-69). No shovel tests were excavated at the location of Turbine 19. Further, visual inspection of the area did not reveal any surface evidence of cultural activity or material in the area of Turbine 19.

Figure 7-69: View of Turbine 19 location.

Turbine 20

Exposed rock was present at Turbine 20, along with severe slopes (Figure 7-70). For this reason, no shovel tests were excavated in the location of Turbine 20. No cultural activity or material was observed in the location of Turbine 20.

Figure 7-70: View of Turbine 20 location.

Turbine 21

Turbine 21, southwest of Turbine 19 along the western ridge, is in an area dominated by bedrock, large outcrops of rock, and steep slopes (Figure 7-71 and 7-72). This narrow, rocky spine is characteristic of this portion of the ridge. No shovel tests were excavated due to the presence of rock and lack of archaeological potential. No evidence of cultural activity or material was observed in the area of Turbine 21.

Figure 7-71: Outcrop at Turbine 21.

Figure 7-72: Slope in area of Turbine 21.

Turbine 22

Near the southern end of the eastern ridge, Turbine 22 is located in an area with dense scrub undergrowth over a rocky surface (Figure 7-73). The terrain gently slopes towards the end of the ridge in this location. One shovel test was excavated and the soil consisted of a root mat over a mixture of subsoil and dense rock which was reached approximately 20-cm below the surface (Figure 7-74). No surface evidence of cultural activity or material was observed and no artifacts were recovered from the shovel test.

Figure 7-73: View of Turbine 22 location.

Figure 7-74: View of shovel test soils at Turbine 22.

Turbine 23

Turbine 23 is the last in the line of turbine locations along the western ridge. The terrain slopes towards the end of the ridge in this area and there are fewer large outcrops of rock than further up the ridge (Figure 7-75). One shovel test was excavated at Turbine 23. This shovel test revealed a more defined topsoil, which is likely the result of soil washing from the higher elevations. Subsoil mixed with rock was encountered at 22-cm below the ground surface (Figure 7-76). No surface evidence of cultural activity or material was noted and no artifacts were recovered from the shovel test.

Figure 7-75: View of sloping terrain at Turbine 23.

Figure 7-76: View of soils from shovel test Turbine 23.

Turbine 24

The location of Turbine 24 was the last tower that was surveyed along the eastern ridge. The area was characterized by large rock outcrops and slope (Figure 7-77). The terrain was uneven due to the presence of rock. One shovel test was placed in the area of the turbine despite moderate slope. The soil profile consisted of silty clay with chunks of rock in the profile and in the base of the shovel test (Figure 7-78). No surface evidence of cultural activity or material was observed and no artifacts were recovered from the shovel test.

Figure 7-77: Ground surface in area of Turbine 24.

Figure 7-78: View of soils from shovel test at location of Turbine 24.

Turbine 25

Turbine 25 was not observed as it was too difficult to access, with large rock outcrops and extreme slopes.

8. CONCLUSIONS AND RECOMMENDATIONS

In October 2015, and in January and April, 2016, D+A undertook a Phase I Cultural Resource survey of the proposed Rocky Forge Wind Project in Botetourt County, Virginia. The purpose of the effort was to identify cultural resources within the project APE, evaluate them for potential NRHP eligibility, and assess potential impacts brought about by the proposed project on those resources considered eligible for listing in the NRHP.

ARCHITECTURAL RESOURCES

As part of the survey effort, nine architectural resources were identified and evaluated within the 1.5-mile project APE. Of these, three resources (Rebecca Furnace, Jane Furnace, and the Tredegar House) are recommended eligible for listing in the NRHP. The two furnaces were in operation during the early- to mid-nineteenth century and represent a significant aspect of the iron industry heritage of Botetourt County and Virginia during that period. The Tredegar House is significant for its association with Rebecca Furnace, purportedly serving as the residence of the iron master during the furnace's operation, but also as a rare and relatively intact example of late-eighteenth/early-nineteenth century domestic architecture in the county. ***Assessment of potential visual impacts from these resources determined that both furnaces will likely have no more than a minimal seasonal and/or obscured view towards a limited number of proposed wind turbines and therefore will not be adversely affected by the proposed project. Photo simulation revealed that the Tredegar House will have a more unobstructed view towards a limited number of wind turbines, which will potentially adversely affect its viewshed***.

Due to the dynamic nature of the landscape surrounding the proposed project, and the potential for it to be visible at distances greater than the 1.5-mile survey area, the viewshed assessment was extended out to a 5-mile viewshed analysis area. An archives search was conducted to identify previously recorded architectural resources that are listed or determined eligible for listing in the NRHP, and computer GIS modeling was coupled with pedestrian inspection to determine if any of these resources may be affected by the project. Of the four NRHP-listed or eligible resources within five miles, two are archaeological sites of which setting and viewshed is not considered to be a component of significance. ***With regards to the Emanuel Episcopal Church and Eagle Rock Historic District, setting is an important aspect; however, GIS modeling indicate that neither would have any visibility of the proposed project***, confirmed by a site visit and pedestrian inspection. Computer-assisted viewshed models are provided in Figure 8-1 and 8-2.

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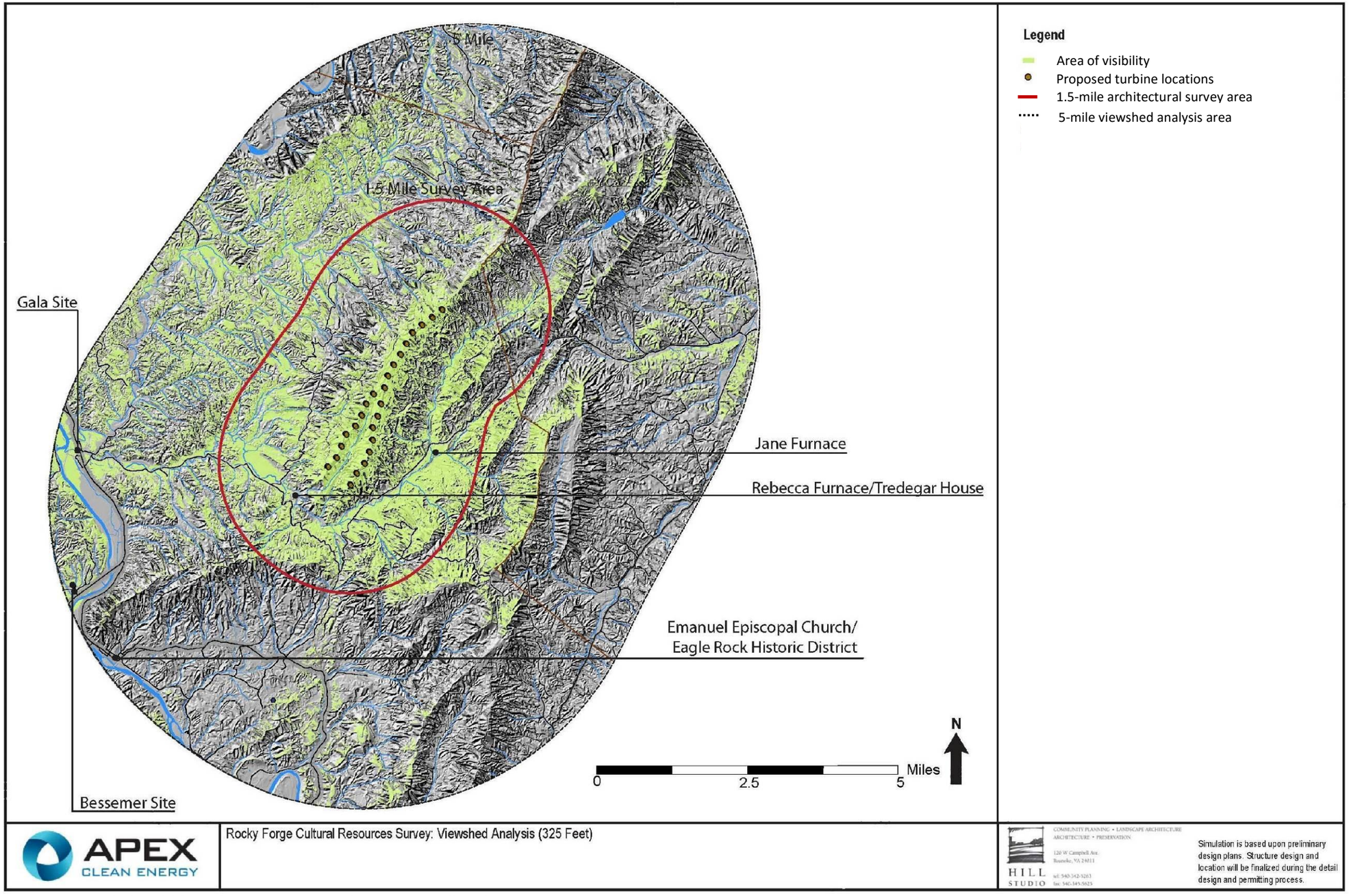

Figure 8-1: Viewshed model for turbine structures (325-feet). Source: Hill Studio

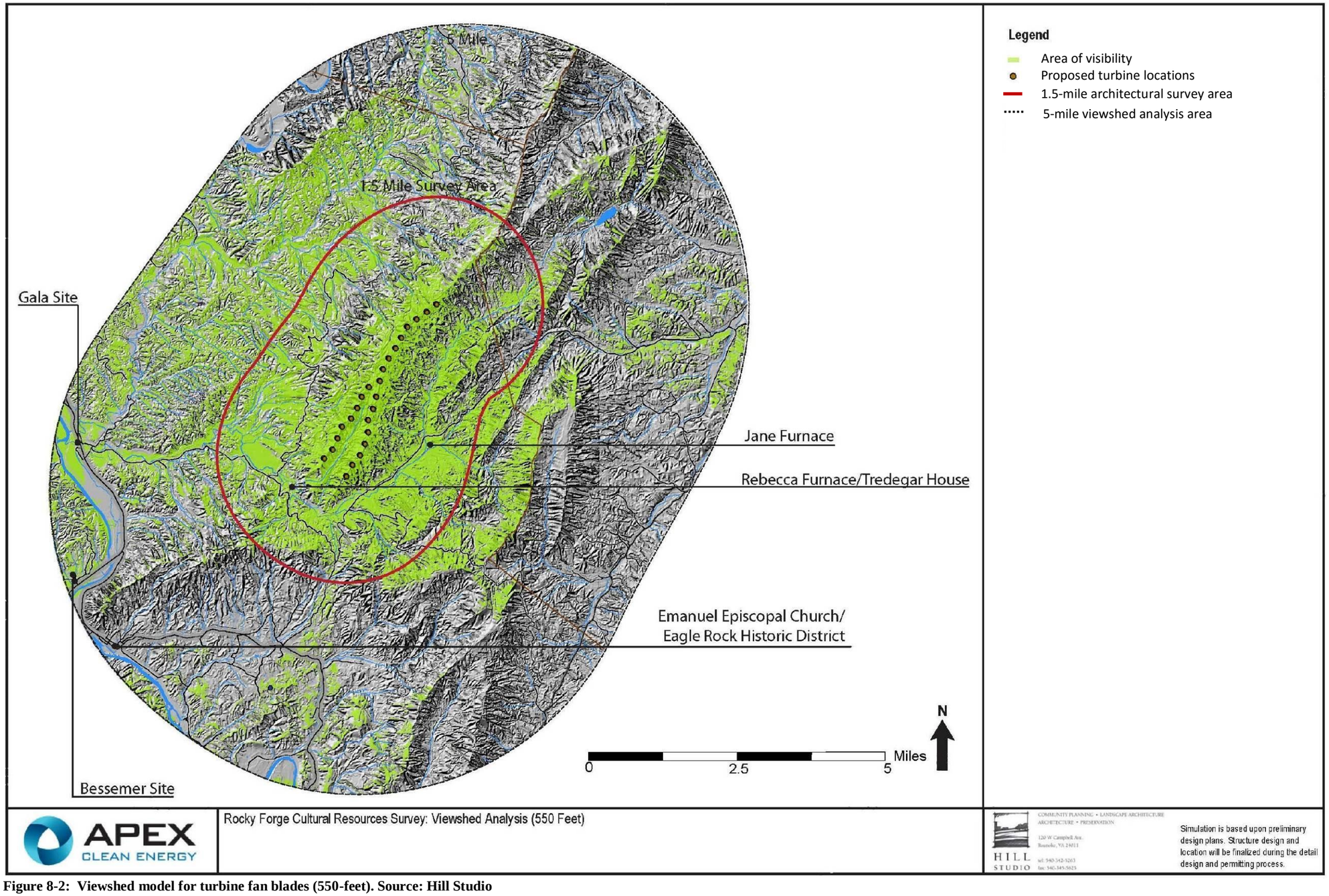

Figure 8-2: Viewshed model for turbine fan blades (550-feet). Source: Hill Studio

ARCHAEOLOGICAL RESOURCES

Archaeological survey of the proposed Rocky Forge Wind project APE included a combination of systematic pedestrian survey, systematic shovel testing, and judgmental shovel testing. Project components surveyed included the Laydown Yard/O&M 1, O&M 2, the Substation Site, Access Roads 1 and 2, underground electric (UGE) line ROWs, and the turbine tower locations.

Due to their location in the lower elevations and more level terrain of the overall project area, the Laydown Yard/O&M 1, O&M 2, the Substation, and portions of Access Roads 1 and 2 were systematically tested by means of pedestrian survey and subsurface shovel testing. Other portions of the access roads, the majority of the location of the UGE, and some of the turbine locations were visually inspected if access was possible along with judgmental shovel testing as conditions warranted.

Shovel testing in the vicinity of the Laydown Yard/O&M 1 and O&M 2 resulted in the recovery of notable amounts of slag glass, a byproduct of the iron smelting process at nearby Rebecca Furnace (44BO0191). Historically, slag glass was dispersed in areas away from the furnace in order that build-up of the byproduct would not impede operation of the furnace. While the presence of slag glass in these areas does demonstrate an association with the nearby Rebecca Furnace (44BO0191), the distance between the areas of the finds and the furnace site, which has not been archaeologically surveyed and is not part of the APE, makes expansion of site 44BO0191's current boundaries to include these finds problematic. Further, it is difficult to determine conclusively whether or not the slag glass deposits are primary or are redeposited as a result of more modern earth moving that is documented to have occurred in the general area. ***Given the absence of other classes of artifacts and materials, it is D+A's recommendation that the slag glass deposits identified in the Laydown Yard and O&M Areas 1 and 2 be treated as non-eligible, discontiguous components of the Rebecca Furnace site (44BO0191), and that no further archaeological investigations of these areas is warranted***.

Archaeological survey of the substation site, the UGE, and turbine sites did not result in the identification of archaeological material and ***therefore it is D+A's recommendation that no further archaeological survey is warranted for these areas***.

Survey of Access Roads 1 and 2 involved a combination of systematic shovel testing, judgmental shovel testing, and pedestrian survey. Archaeological finds adjacent to the Tredegar House (011-0215) in the area of the proposed Access Road 1 ROW expansion meet the VDHR's definition of an archaeological site and are therefore recorded as such. Site 44BO0617 was surveyed through the excavation of a single line of shovel tests along the edge of the proposed ROW expansion. Recovered artifacts include nineteenth-century ceramics, modern pressed glass, an iron spike and cut nail fragments, and a Woodland Period projectile point. With the exception of the projectile point, the recovered artifacts are consistent with nineteenth and twentieth century domestic occupation and use of the Tredegar House. It is also reasonable to assume that additional archaeological deposits and possibly features exist closer to the extant structure, outside of the project APE. Given the age of the artifacts and their association with the Tredegar House (011-0215), ***it is D+A's opinion that site 44BO0617 is potentially eligible for listing on the NRHP***. D+A further recommends that given the proximity of the finds relative to the overall ROW

expansion and existing topography that consideration be given to controlled site burial of the deposits prior to road construction. In the event controlled site burial is not possible, then Phase II evaluation of the site is recommended.

A summary of our findings and recommendations are provided in Table 8-1.

Table 8-1. Summary of survey findings and recommendations.

VDHR ID #	Resource Name/Address	NRHP/VLR Status	Distance from Project	Visual/Direct Impacts
1.5-Mile Survey Area				
011-0213	Jane Furnace	VLR/NRHP-Eligible	1.0-miles	No Adverse Impact – seasonal and obstructed
011-0215	Tredegar House	VLR/NRHP-Eligible	0.7-miles	Adverse Impact
011-0216	Rebecca Furnace	VLR/NRHP-Eligible	0.7-miles	No Adverse Impact – seasonal and obstructed
5-Mile Visual Buffer				
011-0109	Emanuel Episcopal Church	VLR/NRHP-Eligible	4.75-miles	No Adverse Impact – Not visible
011-0146	Eagle Rock Historic District	Proposed	4.75-miles	No Adverse Impact – Not Visible
011-0188 (44BO0026)	Bessemer Archaeological Site	VLR/NRHP-Listed	5.0-miles	No Adverse Impact – Setting not significant
011-5155 (44BO0048)	Gala Site	VLR/NRHP-Listed	4.0-miles	No Adverse Impact – Setting not significant
Archaeological Resources within the APE				
44BO0617	Archaeological site at Tredegar House	Potentially Eligible	Within APE	TBD

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APPENDIX A

RESUMES OF PRINCIPAL INVESTIGATORS

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DAVID H. DUTTON
Managing Partner

Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

Education

Master of Arts, 1990
Archaeological Studies
Boston University
Boston, Massachusetts

Bachelor of Science, 1986
Anthropology and Sociology
Virginia Commonwealth University
Richmond, Virginia

Appointments

Historic Advisory Committee, Woodrow Wilson Bridge Design Competition, 1998

Dept. of the Army Counterpart Regulations Task Force, NCSHPO, 1999

Virginia Department of Historic Resources Archaeology Advisory Group, 2000

Advisory Committee, River District, Richmond, Virginia, 2004

Historic Preservation Committee Chesterfield County, Virginia 2011

Mr. Dutton has over 25 years of professional historic preservation experience throughout the East Coast, with a focus on Section 106 coordination and review. He directed the Virginia Department of Historic Resources Division of Project Review where he managed all federal and state environmental reviews, rehabilitation tax credit project certification, historic preservation easements, covenants, and archaeological permits. Prior to his work at the state, Mr. Dutton served as a project review archaeologist for the President's Advisory Council on Historic Preservation. His geographic responsibility was the southeastern United States.

Mr. Dutton has managed the successful completion of multiple cultural resource projects for public and private clients including identification, evaluation, and data recovery efforts for archaeological and architectural properties, HABS documentation, Battlefield Cultural Heritage Plans, Interpretive Concept Plans, and Integrated Cultural Resource Management Plans (ICRMP). In addition, he has negotiated successful agreements under Section 106 for a wide variety of projects. Specific examples include a regional programmatic agreement for Naval installations in Hampton Roads, which included National Historic Landmark housing on Admirals Row, and a programmatic agreement for the closure of Fort Monroe, a National Historic Landmark District.

Mr. Dutton brings clients both experience and expertise ensuring cultural resource requirements are successfully and efficiently integrated into project planning and construction.

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Professional Experience

Dutton + Associates, LLC, Managing Partner, Richmond, Virginia, 2005 – Present.
Directs the firm's technical services which include review of projects pursuant to federal and state historic preservation regulations, cultural resource plan development, field investigations, laboratory processing and analyses, and report preparation.

American Civil War Center *at Historic Tredegar*, Chief Operating Officer, Richmond, Virginia, 2002 – 2006. Managed the Tredegar Iron Works site, the financial performance of the Foundation and construction of the Foundation's new exhibition facility and exhibit *In the Cause of Liberty*.

Cultural Resources Inc., President and Principal Investigator, Williamsburg, Virginia, 1999 – 2002. Managed the firm's financial and technical performance. Directed and authored several cultural resource management studies including identification, evaluation, and data recovery efforts.

Virginia Department of Historic Resources, Director, Division of Project Review; Richmond, Virginia, 1994-1999. Managed all federal and state review and compliance programs; generated policies, specifications, and standards; directed the state historic preservation easement program; interfaced with federal and state executives, elected officials, developers, architects, and engineers on project development and implementation; managed the review and certification of plans for federal and state rehabilitation tax credits; and commented on proposed federal and state legislation and regulations as well as on national and regional historic preservation issues.

Virginia Department of Historic Resources, Archaeologist Planner; Richmond, Virginia, 1992-1994. Planned, coordinated, and supervised the statewide program in archaeological preservation planning; developed and implemented historic preservation plans; and managed, monitored, and evaluated grantee performance for departmental grants awarded in preservation planning.

Advisory Council on Historic Preservation, Historic Preservation Specialist, Staff Archaeologist; Washington, D.C. 1989 – 1992. Reviewed federal projects under Section 106 of the National Historic Preservation Act for the southeast United States; consulted with Congressional offices, federal and state agencies, local governments, and members of the general public; developed and reviewed historic property management plans; and assisted in development of federal policy for the identification and treatment of historic property.

Example Projects and Publications

2007 Project Management of cultural resource team for King William Reservoir Archaeological Services Contract.

2008 Programmatic Agreement for the Closure of Fort Monroe and the Management of Historic Properties.

2010 Cultural Landscape Plan and Interpretive Concept Plan for the Totopotomoy Creek Battlefield, Richmond National Battlefield Park.

2013 Phase III Archaeological Data Recovery at the Spring Hill Plantation House Site, Chesterfield County, Virginia.

ROBERT J. TAYLOR, JR
Senior Architectural Historian

Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

Education

Master of Arts, 2009
Historic Preservation
Savannah College of Art and Design
Savannah, Georgia

Bachelor of Arts, 2005
Historic Preservation
University of Mary Washington
Fredericksburg, Virginia

Awards

Eagle Scout, 2001

Mr. Taylor holds a B.A. in Historic Preservation from University of Mary Washington and a M.A. in Historic Preservation from Savannah College of Art and Design. He has over 7 years of Cultural Resource Management Experience and has taken part in projects in Florida, California, Virginia, Maryland, and New Jersey.

His experience in Cultural Resource Management includes working on both Architectural and Archaeological projects while participating in all phases of compliance from project development to completion. His work includes conducting field surveys, researching and documenting historic resources, completing Site File forms, writing reports, preparing *NRHP* evaluations and documentation for both individual resources and historic districts, compiling HABS/HAER documentation packages, and conducting archaeological testing. Recently, he has been involved with a large number of Government and Department of Defense-related projects and surveys, including Cultural Resource Management Plans and Programmatic Agreements and has a thorough understanding of the laws and regulations that govern cultural resources. Outside of CRM, he has worked for the Thomas Jefferson's Monticello Foundation where he was a field archaeologist and assisted with the long-term, Plantation Survey Project on Monticello Mountain. Mr. Taylor's primary interests lie in Architectural Forensics and the study of building evolution.

As an Architectural Historian for Dutton + Associates, Mr. Taylor works on all aspects of historic and architectural resource projects including project management, field work, and authoring reports. He has authored or co-authored over 50 Cultural Resource Management (CRM) Compliance Reports and numerous National Register of Historic Places (NRHP) nominations and Historic American Buildings Survey (HABS) Documentation Packages.

Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

ROBERT J. TAYLOR, JR
Senior Architectural Historian

Professional Experience

Dutton + Associates, LLC, Architectural Historian, Richmond, Virginia, March 2009- present.
Conducts Historic Resources Surveys, prepares DSS Site Forms for Historic Resources, performs background research, and authors project reports.

Thomas Jefferson Monticello Foundation, Field Archaeologist, Charlottesville, Virginia, February 2009- March 2009. Conducted archaeological testing, assisted with site research, performed lab work

Janus Research, Inc, Architectural Historian, Tampa, Florida, August 2005- May 2008.
Conducted field surveys, Prepared HABS/HAER documentation packages, authored Cultural Resource Assessment Survey Reports

Example Projects and Publications

National Register of Historic Places (NRHP) Nominations
Oakwood High School, Dayton, Ohio – 2008
Palmetto Beach Historic District, Tampa, Florida – 2007
Rosemere Historic District, Orlando, Florida – 2007
Thomas Picton Warlow, Sr. House, Orlando, Florida – 2007
Hermitage Road Historic District, Richmond, Virginia – 2005

Historic American Buildings Survey (HABS) Packages
Faith Temple Missionary Baptist Church, Tampa, FL, HABS # FL-542
Griffin Park Historic District, Orlando, FL, HABS # FL-529
1st Street Bridge update package, Los Angeles, CA HAER # CA-175
James K. Hill and Sons Pickle Works Building, Los Angeles, CA, HABS # CA-2792
1009 ½ E. 14th Avenue, Ybor City, Tampa, Florida HABS # FL-541

Cultural Resource Survey and Compliance Reports
Phase I Assessment of Cold War-era Resources (1948-1962), at Navy Hampton Roads Bases, Virginia
Phase I Architectural Survey of the Hayes-Yorktown 230 kV Transmission Line, Gloucester and York Counties, Virginia
Phase II Architectural Evaluation for the Boulevard Modernization Project in Colonial Heights, Virginia
Phase I Architectural Survey of the NASA Langley Research Center (LaRC), Hampton, Virginia
Phase I Architectural Survey and Evaluation at Naval Joint Expeditionary Base Fort Story, Virginia Beach, Virginia
Intensive-Level Architectural Survey of the Vice Admiral James H. Doyle Jr, Combat System Engineering Development Site (CSEDS), Moorestown, New Jersey
Review and Evaluation of the Adaptive Rehabilitation of Quarters D&E and G&H at the Norfolk Naval Shipyard, Portsmouth, Virginia
Cultural Resource Assessment Survey (CRAS) of the I-395 Advance Acquisition #2 in Miami-Dade County, Florida
Reconnaissance Survey and CRAS of the Wekiva Parkway Corridor in Lake, Orange, and Seminole Counties, Florida
CRAS of the I-4/Crosstown Connector Interchange Design in Hillsborough County, Florida
Historic Resource Survey for the Bushnell Multimodal Transportation Enhancement Project in Sumter County, Florida
Florida East Coast (FEC) Railroad Corridor Alternatives Analysis Study in Palm Beach, Broward, and Miami-Dade Counties, Florida
Historic Resource Assessment Survey of the Perry Paint and Glass Building in Hillsborough County, Florida
Historical Documentation Survey of the John N. Huttig Estate

Technical and Research Papers
"New Use for an Old Gas Station: Rehabilitation Plan and Feasibility Assessment for the Fry's Spring Service Station in Charlottesville, Virginia"
"Historic Structure Report for the Edward Valentine House (Redland Club Building) in Charlottesville, Virginia"
"Historic Linear Resources: Challenges and the Practical Applicability of NRHP Criteria"
"'A Country Doctor for Forty Years' A Historic Structure Report for the Dr. J.E. Wilson House in Haywood County, North Carolina"

APPENDIX B

ARTIFACT INVENTORY

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Provenience	Stratum	Total #	Artifact(s)
Lay Down Yard/O&M 1			
STP B-1	I	1	Slag glass frag
STP C-1	I	16	Slag glass frags (small)
STP C-2	I	13	Slag glass frags (small)
STP C-9	I	6	Slag glass frags (small)
STP C-10	I	1	Slag glass frag (small)
STP D-8	I	1	Slag glass frag
“	I	1	Iron frag (nail?)
STP E-9	I	3	Slag glass frags (small)
STP F-12	I	8	Slag glass frags (small)
STP G-8	I	2	Slag glass frags (small, one larger)
Judgmental 3	I	7	Slag glass frags (small, one larger)
O&M 2			
STP A-15	I	1	Slag glass frag
STP C-15	I	1	Slag glass frag
STP C-16	I	4	Slag glass frags (small)
STP C-14	I	1	Slag glass frag
STP D-5	I	7	Slag glass frags (small)
STP D-7	I	1	Slag glass frag
STP D-12	I	1	Slag glass frag (small)
STP D-13	I	4	Slag glass frags (small, one larger)
STP D-14	I	2	Slag glass frags (one larger)
STP D-15	I	1	Slag glass frag
STP D-16	I	4	Slag glass frags (small)
STP D-17	I	6	Slag glass frags (small)
STP D-18	I	1	Slag glass frag
STP E-9	I	1	Metal (indeter. Poss. Galvanized) fitting for pipe?
STP G-15	I	3	Slag glass frag
Access Road 1			
STP 2	I	1	Slag glass frag
“	“	1	Tooth (animal) frag
“	“	1	Bone (faunal) frag
“	“	1	Earthenware frag, indet. Spalled, blue glaze, white reverse
STP 3	1	2	Bone (faunal) frag
“	“	3	Iron nail frags (cut)
“	“	3	Pale aqua glass, flat, window?
“	“	2	Slag glass frag
“	“	1	Colorless bottle glass frag
“	“	2	Refined earthenware, shell edge pearlware frags
“	“	7	Refined earthenware, white, spalled,

Provenience	Stratum	Total #	Artifact(s)
			indeterminate, poss. Pearlware
“	I	2	Earthernware, yelloware
“	I	1	Earthenware, pearlware, mocha?
“	I	1	Plaster?
“	I	1	Earthenware, pearlware? Transferprint
STP 4	I	2	Earthenware, pearlware?, transferprint
“	“	1	Slag glass frag
“	“	1	Stoneware, Albany/Bristol slip
“	“	1	Earthenware, whiteware?
“	“	3	Colorless glass, molded, ribbed (same vessel)
“	“	8	Colorless bottle glass
“	“	1	Very pale aqua glass, bottle/jar
“	“	1	Colorless bottle glass, molded, modern?
STP 6	“	1	Iron hinge pin
“	“	1	Earthenware, graniteware?
“	“	1	Quartzite, projectile point, poss. Jack’s Reef Pentagonal, Woodland period

APPENDIX C

VCRIS FORMS

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Property Information

Property Names

Name Explanation	Name
Alternate Spelling	Daggar Springs
Historic	Dagger Springs
Historic	Dibrell Springs

Property Evaluation Status

Not Evaluated

Property Addresses

Current - Dagger Springs Road Route 622

County/Independent City(s): Botetourt (County)
Incorporated Town(s): *No Data*
Zip Code(s): 24085
Magisterial District(s): *No Data*
Tax Parcel(s): *No Data*
USGS Quad(s): EAGLE ROCK

Additional Property Information

Architecture Setting: Rural
Acreage: *No Data*

Site Description:

November 2015: Daggers Springs is a natural mineral spring that feeds into Mill Creek in rural northern Botetourt County. The spring forms the nucleus of the small, unincorporated community of the same name and is located roughly 100-feet off of Daggers Springs Road (Route 622). The surrounding area is wooded and dissected by other creeks and drainages.

Surveyor Assessment:

November 2015: The spring was the focal point of a resort community during the nineteenth century for travelers wishing to partake of the mineral water's healing abilities. The earliest use of the spring as a destination was sometime in the 1820s at which time it was owned by the Dagger family. By the 1830s, the property had been acquired by James W. Dibrell, Esq. who expanded the operation into a hotel and resort, called Dibrell's Spring, with accommodations for roughly 150 visitors, although it was not uncommon for 180-200 patrons to be there at any given time (Moorman 1857: 241). The accommodations and improvements were described as "neat, appropriate, and comfortable." In his book on the mineral springs of Virginia, Dr. William Burke described the property in 1842, as "the lawn is a very beautiful slope, descending from the Hotel to the spring some 300 yards, and is well shaded by fine indigenous trees. Altogether, it is an interesting spot, and affords to the weary traveler, after a long day's journey, a sweet haven of repose and quietude, from whence he may retrace, with his mind's eye, the magnificent scenery he has just passed, and especially that most sublime of all the creations of Nature in Virginia – the passage of the James River through the Blue Ridge Mountain" (Burke 1846: 365-366). Regarding its healing abilities, Dr. Moorman wrote in 1857 that, "it is a valuable dyspeptic water, rarely failing to produce beneficial effects in the simple forms of that disease. In derangements of the biliary organs, unattended with obstinate obstructions, it may be used to great advantage. In all cases in which a gentle diuretic is demanded, it will be found serviceable. It is a mineral water upon the use of which the invalid, who desires to induce gentle alterative effects upon his system, may enter with much hope, and without that fear of over-stimulating the organs which demands a prompt and decided caution in the use of our stronger sulphur waters" (Moorman 1857: 241).

How long the resort at Daggers Springs remained in operation is unclear. By the late-nineteenth century, the resort was reportedly still successful as leisure travel expanded throughout the state and nation. By that time, the then owner of the spring also began bottling the water and shipping it to markets in the cities as a medicinal beverage (Worsham 1987). A map in 1913 still shows a number of buildings and structures in the immediate vicinity; although whether the resort was still in operation at that time could not be determined. By 1960, aerial photography reveals just one building in the vicinity of the spring. Inspection of the site of this building revealed the ruins of a building with a brick foundation and chimney that may date to the early- to mid-nineteenth century, but could not be conclusively linked to the operation of the Daggers Springs resort. No other buildings, structures, or evidence of the resort community could be located. A previous investigator recorded the presence of a gravestone nearby for Henry Verdier, dated 1832 and referring to the resort as Dibrell's Springs, however this stone was not relocated as part of this survey.

Daggers Spring represents an important aspect of local history associated with the early tourism industry in Virginia. However, because all that remains aboveground of the resort community is the spring itself, which lacks historic integrity as it has been placed within a nonhistoric concrete box. Additional investigations at the site may reveal research potential from an archaeological perspective; however such an effort was beyond the scope or ability of this survey. As such, Daggers Spring is considered not eligible for listing in the NHRP on an individual basis or as part of a historic district as an architectural resource, but may warrant archaeological investigation.

Surveyor Recommendation: Recommended Not Eligible

Ownership

Ownership Category	Ownership Entity
Private	*No Data*

Primary Resource Information

Resource Category: Domestic
Resource Type: Spring/Spring House
Date of Construction: 1930Ca
Historic Time Period: World War I to World War II (1917 - 1945)
Historic Context(s): Recreation/Arts
Architectural Style: No discernible style
Form: *No Data*
Number of Stories: 0.0
Condition: Rebuilt
Interior Plan: *No Data*
Threats to Resource: None Known
Architectural Description:

October 1987: Concrete box with sulpher water., see recon. survey.

November 2015: The spring still flows from within a poured concrete box of unknown date. The box is roughly a foot and a half square and open at the top with an additional small opening on the west side from which the spring water flows into a shallow rocky basin. The spring emits a strong sulfurous odor from the heavy mineral content.

Exterior Components

Component	Component Type	Material	Material Treatment
Foundation	Solid/Continuous	Concrete	Stuccoed/Parged

Secondary Resource Information

Secondary Resource #1

Resource Category: Archaeology Site
Resource Type: Archaeological Site
Architectural Style: *No Data*
Form: *No Data*
Date of Construction: *No Data*
Condition: *No Data*
Threats to Resource: *No Data*
Architectural Description:

October 1987: No standing structures remain in the labeled village. see recon. survey.

Secondary Resource #2

Resource Category: Funerary
Resource Type: Cemetery
Architectural Style: *No Data*
Form: *No Data*
Date of Construction: *No Data*
Condition: *No Data*
Threats to Resource: *No Data*
Architectural Description:

October 1987: An elaborate gravestone with inscription. Henry Verdier., see recon. survey.

November 2015: A cemetery was not observed at the time of this survey

Current Use: *No Data*
Historic Religious Affilitation: *No Data*
Ethnic Affiliation: *No Data*
Has Marked Graves: *No Data*
Has Unmarked Graves: *No Data*

Enclosure Type: *No Data*
Number Of Gravestones: *No Data*
Earliest Marked Death Year: *No Data*
Latest Marked Death Year: *No Data*

Historic District Information

Historic District Name: *No Data*
Local Historic District Name: *No Data*
Historic District Significance: *No Data*

CRM Events

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: Robert Taylor
Organization/Company: Dutton + Associates, LLC
Sponsoring Organization: *No Data*
Survey Date: 10/21/2015
Dhr Library Report Number: *No Data*
Project Staff/Notes:

The Phase I architectural resource survey related to the Rocky Forge Wind Farm project was conducted by D+A Architectural Historians Robert J. Taylor, Jr. and Dara Friedberg.

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: Worsham, Gibson; Martin, Ken
Organization/Company: Unknown (DSS)
Sponsoring Organization: *No Data*
Survey Date: 10/1/1987
Dhr Library Report Number: *No Data*
Project Staff/Notes:

No Data

Bibliographic Information

Bibliography:

No Data

Property Notes:

No Data

Project Bibliographic Information:

Phase I Cultural Resources Survey of the Rocky Forge Wind Farm, Botetourt County, Virginia.

Property Information

Property Names

Name Explanation	Name
Historic	New Town
Current	New Town Historic District

Property Evaluation Status

Not Evaluated

Property Addresses

Current - Dagger Spring Road Route 622

County/Independent City(s): Botetourt (County)
Incorporated Town(s): *No Data*
Zip Code(s): 24085
Magisterial District(s): *No Data*
Tax Parcel(s): *No Data*
USGS Quad(s): EAGLE ROCK

Additional Property Information

Architecture Setting: Rural
Acreage: 1

Site Description:

1987: Several small frame outbuildings still stand., per recon. survey.

November 2015: New Town is the site of a former mining community located in the Daggers Springs vicinity of rural northern Botetourt County. The site is located on a terrace near the base of North Mountain, roughly half a mile from Daggers Springs Road (Route 622) on a small parcel behind the property located at 2919 Daggers Springs Road. The parcel is approached by a gravel driveway off of Daggers Springs Road that traverses an open agricultural field before ascending uphill into the woods. A dirt road then branches off into an open clearing where the New Town site is located. The limits of the site are not delineated, but is visibly spread across the open field as well as into the wooded area beyond.

Surveyor Assessment:

1987: Site of important cultural features.

1988: The site of New Town (011-0207). near Dagger's Spring, includes the foundations of several houses associated with the early twentieth-century mining town. The community at one time .supported a commissary and a church and was served by a branch line of the railroad. The ore was brought down from the mines by cable car.

The industrial development of the Valley, especially of its mineral resources. led to the establishment of numerous company towns in the last decades of the nineteenth century and first decade of the twentieth century. Among these was New Town near Gala, a mining community located near the ore deposits in the northern part of the county. Again, little research of these towns in Botetourt County has been done to document the forms and plans which they assumed. In most cases, however, the companies erected much of the housing as well as a variety of commercial, social, and cultural resources. Many of these towns were removed from older, settled areas, and the company employees depended heavily on the new towns' facilities. Settlements such as New Town are said to have provided a company store or commissary, churches and schools. Fraternal organizations such as the Masons and the Odd Fellows founded lodges and chapters in the larger communities in the upper Valley. No resources from this period documented in the study area.

November 2015: The New Town site consists of the foundations and ruins of a number of buildings and structures associated with a late-nineteenth/early-twentieth century mining community and operation. The community reportedly had housing for hundreds of workers, a company store, a commissary, a church, and other worker support facilities in addition to a cable-car tram railway and associated infrastructure for transporting the iron ore from up the mountain to the railroad mainline in Gala. The dates of operation are unclear, although the heyday appears to have been during the first few decades of the twentieth century. By the 1960s, very few buildings remained standing in the core area, and currently all are ruinous. The extent of the community is also less than clear. The bulk of the community was on the small terrace at the base of the mountain, although a previous owner of the property states that the company store was further downhill, near Daggers Springs Road. The cable-car tram traversed from Gala along the James River uphill through the Daggers Springs vicinity and up the mountain past the New Town community to the mines near the ridge.

New Town represents an important aspect of local history associated with the ongoing mining industry at the turn of the twentieth century. However, very little aboveground, tangible evidence of the community or operation remain. Additional investigations at the site may reveal research potential from an archaeological perspective; however such an effort was beyond the scope or ability of this survey. As such, New Town is considered not eligible for listing in the NHRP on an individual basis or as part of a historic district as an architectural resource, but may warrant archaeological investigation.

Surveyor Recommendation: Recommended Not Eligible

Ownership

Ownership Category	Ownership Entity
Private	*No Data*

Primary Resource Information

Resource Category: Other
Resource Type: Historic District
Date of Construction: 1900Ca
Historic Time Period: Reconstruction and Growth (1866 - 1916)
Historic Context(s): Domestic, Industry/Processing/Extraction
Architectural Style: No Discernable Style
Form: *No Data*
Number of Stories: *No Data*
Condition: Ruinous
Interior Plan: *No Data*
Threats to Resource: Demolition, Deterioration
Architectural Description:

October 1987: Stone foundations to five structures with three to North of the trace of road and two to the South.

November 2015: All that currently remain of the community core are stone building foundations of at least five buildings, a stone-lined well, and several piles of wood and building debris. There is also a standing frame dwelling nearby and downhill that may or may not have been associated with the operation (recorded as VDHR ID# 011-0208), and a trace of the tram railway with a large stone bulkhead where it appears to have ascended a steep slope was also observed nearly 1,000-feet away.

Secondary Resource Information

Secondary Resource #1

Resource Category: *No Data*
Resource Type: *No Data*
Architectural Style: *No Data*
Form: *No Data*
Date of Construction: *No Data*
Condition: *No Data*
Threats to Resource: *No Data*
Architectural Description:

No Data

Historic District Information

Historic District Name: *No Data*
Local Historic District Name: *No Data*
Historic District Significance: *No Data*

CRM Events

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: Robert Taylor
Organization/Company: Dutton + Associates, LLC
Sponsoring Organization: *No Data*
Survey Date: 10/21/2015
Dhr Library Report Number: *No Data*
Project Staff/Notes:

The Phase I architectural resource survey related to the Rocky Forge Wind Farm project was conducted by D+A Architectural Historians Robert J. Taylor, Jr. and Dara Friedberg.

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: Worsham, Gibson; Martin, Ken
Organization/Company: VA Dept. of Historic Resources
Sponsoring Organization: *No Data*
Survey Date: 10/1/1987
Dhr Library Report Number: BO-033
Project Staff/Notes:

Botetourt County Reconnaissance Level Survey
Gibson Worsham, Architect
July 1988
BO-033

Sponsored by the Virginia Division of Historic Landmarks and the Museum of American Frontier Culture

Bibliographic Information

Bibliography:

No Data

Property Notes:

No Data

Project Bibliographic Information:

Phase I Cultural Resources Survey of the Rocky Forge Wind Farm, Botetourt County, Virginia.

Property Information

Property Names

Name Explanation	Name
Function/Location	House, off Dagger Springs Road (Route 622)
Function/Location	Single Dwelling, Dagger Springs vicinity

Property Evaluation Status

Not Evaluated

Property Addresses

Current - Dagger Springs Road Route 622

County/Independent City(s): Botetourt (County)
Incorporated Town(s): *No Data*
Zip Code(s): 24085
Magisterial District(s): *No Data*
Tax Parcel(s): *No Data*
USGS Quad(s): EAGLE ROCK

Additional Property Information

Architecture Setting: Rural
Acreage: *No Data*
Site Description:

November 2015: This former dwelling is located off of Daggers Springs Road (Route 622) in rural northern Botetourt County. The house sits at the back edge of a cleared grassy field near the southwestern base of North Mountain. A gravel driveway extends from Daggers Springs Road, past the home located at 2919 Daggers Springs to this dwelling. It is located on the same 252-acre property parcel as 2919 Daggers Springs; although the original property size and boundary are not known.

Surveyor Assessment:

Good example of regionally popular form., per recon. survey.

November 2015: As an early-twentieth century building in the Daggers Springs vicinity, this dwelling may have been associated with the New Town mining operation and community located just 800-feet uphill; however this association cannot be confirmed at this time. The building is an undistinguished example of an early-twentieth century dwelling and does not embody distinctive characteristics or possess significant or unique architectural or design features. Further, the building is in an advanced state of deterioration and collapsing. Because of the building's poor historic physical integrity coupled with its location in an area of discontiguous historic resources, this dwelling is considered not eligible for listing in the NHRP on an individual basis or as part of a historic district.

Surveyor Recommendation: Recommended Not Eligible

Ownership

Ownership Category	Ownership Entity
Private	*No Data*

Primary Resource Information

Resource Category: Domestic
Resource Type: Single Dwelling
Date of Construction: 1910Ca
Historic Time Period: Reconstruction and Growth (1866 - 1916)
Historic Context(s): Domestic
Architectural Style: Vernacular
Form: I-House
Number of Stories: 2.0
Condition: Poor
Interior Plan: Central Passage, Single Pile
Threats to Resource: Structural Failure, Vacant
Architectural Description:

August 1987: no description provided.

November 2015: This former dwelling was built circa 1910 and exhibits a typical I-house form. It appears to have been abandoned for an extended time and remains in a severely deteriorated condition. The two-story building has a wood frame structural system clad with clapboards that rests on a pier foundation and is topped by a side-gabled roof covered with 5V sheet metal. The main entrance is located centrally on the three-bay front façade although the door has been removed. There is evidence of a gable-roof portico over the door, although this has also been removed. All of the windows are missing. The building appears to have been vernacular with little to no embellishment or ornamentation. The roofline is unadorned and the door and window surrounds are plain board. Any decorative treatment may likely have been limited to the portico which is now gone.

Exterior Components

Component	Component Type	Material	Material Treatment
Roof	Gable	Metal	Standing Seam
Windows	Sash, Double-Hung	Wood	6/6
Structural System and Exterior Treatment	Frame	Wood	Weatherboard
Foundation	Piers	Unknown	Not Visible

Secondary Resource Information

Secondary Resource #1

Resource Category: DSS Legacy
Resource Type: Shed
Architectural Style: *No Data*
Form: *No Data*
Date of Construction: *No Data*
Condition: Demolished
Threats to Resource: *No Data*
Architectural Description:

August 1987: no description provided.

November 2015: A shed was not present on the property at the time of this survey and is assumed to have been demolished.

Number of Stories: *No Data*

Secondary Resource #2

Resource Category: Domestic
Resource Type: Well/Well House
Architectural Style: *No Data*
Form: *No Data*
Date of Construction: *No Data*
Condition: Demolished
Threats to Resource: *No Data*
Architectural Description:

August 1987: no description provided.

November 2015: A well house was not present on the property at the time of this survey and is assumed to have been demolished.

Number of Stories: *No Data*

Historic District Information

Historic District Name: *No Data*
Local Historic District Name: *No Data*
Historic District Significance: *No Data*

CRM Events

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: Robert Taylor
Organization/Company: Dutton + Associates, LLC
Sponsoring Organization: *No Data*
Survey Date: 10/21/2015
Dhr Library Report Number: *No Data*
Project Staff/Notes:

The Phase I architectural resource survey related to the Rocky Forge Wind Farm project was conducted by D+A Architectural Historians Robert J. Taylor, Jr. and Dara Friedberg.

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: Worsham, G.
Organization/Company: Unknown (DSS)
Sponsoring Organization: *No Data*
Survey Date: 8/1/1987
Dhr Library Report Number: *No Data*
Project Staff/Notes:

No Data

Bibliographic Information

Bibliography:

No Data

Property Notes:

No Data

Project Bibliographic Information:

Phase I Cultural Resources Survey of the Rocky Forge Wind Farm, Botetourt County, Virginia.

Property Information

Property Names

Name Explanation	Name
Function/Location	House, 2919 Dagger Springs Road (Route 622)

Property Evaluation Status

The Primary Resource is no longer extant.

Property Addresses

Current - 2919 Dagger Springs Road Route 622

County/Independent City(s): Botetourt (County)
Incorporated Town(s): *No Data*
Zip Code(s): 24085
Magisterial District(s): *No Data*
Tax Parcel(s): *No Data*
USGS Quad(s): EAGLE ROCK

Additional Property Information

Architecture Setting: Rural
Acreage: *No Data*
Site Description:

November 2015: This property is located at 2919 Daggers Springs Road (Route 622), in the Daggers Spring vicinity of rural northern Botetourt County. The property contains 250 acres consisting of cleared agricultural fields in a low valley near the road, and a wooded slope leading up North Mountain to the rear. When initially recorded in 1987, the property contained a Victorian-inspired I-House built in 1875 as well as a variety of outbuildings; however the house has since been demolished and replaced by a modern log dwelling. Currently what remains on property are the modern house, a modern stone spring house, a modern garage, and two older agricultural sheds of unknown age. According to the previous record, a cemetery also remains on the property, however this was not located as part of this effort.

Surveyor Assessment:

November 2015: Because the original house and most historic outbuildings on this property have been demolished, the few remaining sheds and cemetery do not collectively or in part convey any sense of historic development, use, or occupation of the property. As such, this property and the resources located there are considered not eligible for listing in the NHRP on an individual basis or as part of a historic district.

Surveyor Recommendation: Recommended Not Eligible

Ownership

Ownership Category	Ownership Entity
Private	*No Data*

Primary Resource Information

Resource Category: Domestic
Resource Type: Single Dwelling
Date of Construction: 1875Ca
Historic Time Period: Reconstruction and Growth (1866 - 1916)
Historic Context(s): Domestic
Architectural Style: No discernible style
Form: *No Data*
Number of Stories: 2.0
Condition: Demolished
Interior Plan: Central Passage, Double Pile
Threats to Resource: *No Data*
Architectural Description:

2/2 sash w/ molded back bands; beaded baseboard; 4 panel doors; pierced and decorated mantel with arch in SE room; 2-story ell., per intensive survey.

November 2015: This house has been demolished an replaced by a modern log dwelling in the same location.

Exterior Components

Component	Component Type	Material	Material Treatment
Roof	Hipped	Metal	Standing Seam
Windows	Sash, Double-Hung	Wood	2/2
Structural System and Exterior Treatment	Frame	Wood	Weatherboard
Foundation	Solid/Continuous	Stone	*No Data*
Porch	Other	Wood	Other
Chimneys	Interior	Brick	*No Data*

Secondary Resource Information

Secondary Resource #1

Resource Category: Education
Resource Type: School
Architectural Style: *No Data*
Form: *No Data*
Date of Construction: *No Data*
Condition: Demolished
Threats to Resource: *No Data*
Architectural Description:
November 2015: The school house building was demolished in the late-1990s as part of property renovations.
Number of Stories: *No Data*

Secondary Resource #2

Resource Category: Domestic
Resource Type: Spring/Spring House
Architectural Style: No discernible style
Form: *No Data*
Date of Construction: 2000
Condition: Rebuilt
Threats to Resource: None Known
Architectural Description:
November 2015: Small stone structure with gable roof.
Number of Stories: *No Data*

Secondary Resource #3

Resource Category: Domestic
Resource Type: Well/Well House
Architectural Style: *No Data*
Form: *No Data*
Date of Construction: *No Data*
Condition: Demolished
Threats to Resource: *No Data*
Architectural Description:
November 2015: The well house was demolished in the late-1990s as part of property renovations.
Number of Stories: *No Data*

Secondary Resource #4

Resource Category: Commerce/Trade
Resource Type: Blacksmith Shop
Architectural Style: *No Data*
Form: *No Data*

Date of Construction: *No Data*
Condition: Demolished
Threats to Resource: *No Data*
Architectural Description:
November 2015: The blacksmith shop building was demolished in the late-1990s as part of property renovations.
Number of Stories: *No Data*

Secondary Resource #5

Resource Category: Agriculture/Subsistence
Resource Type: Corncrib
Architectural Style: *No Data*
Form: *No Data*
Date of Construction: *No Data*
Condition: Demolished
Threats to Resource: *No Data*
Architectural Description:
November 2015: The corn crib building was demolished in the late-1990s as part of property renovations.

Secondary Resource #6

Resource Category: DSS Legacy
Resource Type: Shed
Architectural Style: No discernible style
Form: *No Data*
Date of Construction: 1940
Condition: Fair
Threats to Resource: None Known
Architectural Description:
2 sheds

November 2015: Two mid-twentieth century agricultural sheds/barns remain on the property. Both have been enlarged, expanded, and otherwise altered numerous times through the present day.
Number of Stories: 1
Exterior Components

Component	Component Type	Material	Material Treatment
Foundation	Post-in-ground	Wood	*No Data*
Structural System and Exterior Treatment	Wood Frame	Wood	Vertical Board
Roof	Shed	Metal	*No Data*

Secondary Resource #7

Resource Category: Agriculture/Subsistence
Resource Type: Chicken House/Poultry House
Architectural Style: *No Data*
Form: *No Data*
Date of Construction: *No Data*
Condition: Demolished
Threats to Resource: *No Data*
Architectural Description:
November 2015: The chicken house building was demolished in the late-1990s as part of property renovations.
Number of Stories: *No Data*

Secondary Resource #8

Resource Category: Funerary
Resource Type: Cemetery
Architectural Style: *No Data*

Form: *No Data*
Date of Construction: *No Data*
Condition: *No Data*
Threats to Resource: *No Data*
Architectural Description:

Remains of cemetery.

November 2015: A cemetery was not observed at the time of this survey effort.

Current Use: Family
Historic Religious Affilitation: *No Data*
Ethnic Affiliation: *No Data*
Has Marked Graves: False
Has Unmarked Graves: False
Enclosure Type: *No Data*
Number Of Gravestones: *No Data*
Earliest Marked Death Year: *No Data*
Latest Marked Death Year: *No Data*

Secondary Resource #9

Resource Category: Domestic
Resource Type: Garage
Architectural Style: No discernible style
Form: *No Data*
Date of Construction: 2000
Condition: Fair
Threats to Resource: None Known
Architectural Description:

November 2015: A partially enclosed, concrete block garage with shed roof is located to the rear of the modern house.

Number of Stories: 1
Exterior Components

Component	Component Type	Material	Material Treatment
Foundation	Solid/Continuous	Concrete	Block
Structural System and Exterior Treatment	Masonry	Concrete	Block
Roof	Shed	Metal	*No Data*

Historic District Information

Historic District Name: *No Data*
Local Historic District Name: *No Data*
Historic District Significance: *No Data*

CRM Events

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: Robert Taylor
Organization/Company: Dutton + Associates, LLC
Sponsoring Organization: *No Data*
Survey Date: 10/21/2015
Dhr Library Report Number: *No Data*

Project Staff/Notes:

The Phase I architectural resource survey related to the Rocky Forge Wind Farm project was conducted by D+A Architectural Historians Robert J. Taylor, Jr. and Dara Friedberg.

Event Type: Survey:Phase II/Intensive

Project Review File Number: *No Data*
Investigator: *No Data*
Organization/Company: Unknown (DSS)
Sponsoring Organization: *No Data*
Survey Date: *No Data*
Dhr Library Report Number: *No Data*
Project Staff/Notes:

No Data

Bibliographic Information

Bibliography:

No Data

Property Notes:

No Data

Project Bibliographic Information:

Phase I Cultural Resources Survey of the Rocky Forge Wind Farm, Botetourt County, Virginia.

Property Information

Property Names

Name Explanation	Name
Historic	Jane Furnace

Property Evaluation Status

Not Evaluated

Property Addresses

Current - Bluegrass Trail Route 612

County/Independent City(s): Botetourt (County)
Incorporated Town(s): *No Data*
Zip Code(s): 24085
Magisterial District(s): *No Data*
Tax Parcel(s): *No Data*
USGS Quad(s): SUGARLOAF MOUNTAIN

Additional Property Information

Architecture Setting: Rural
Acreage: *No Data*
Site Description:

November 2015: Jane Furnace is located along Mill Creek about ¼ -mile from Bluegrass Trail (Route 612) in the rural northeastern Botetourt County. The furnace sits roughly 100-feet from the creek, downhill from a private, gravel lane leading off of Bluegrass Trail. The site is heavily wooded and the structure is overgrown with vegetation

Surveyor Assessment:

The Jane and Rebecca Furnaces on Longs Entry Creek employed 150 operatives. Jane Furnace was founded in 1834 and was in operation at that time. It was out of operation by 1850, may have been rebuilt before 1863 and used by Tredegar Iron Works during the Civil War.

November 2015: According to the 1835 Gazetteer, Jane Furnace began operations in conjunction with nearby Rebecca Furnace in 1834. Originally built by William Ross, both furnaces were sold to David J. Wilson who subsequently leased them in 1839 to Jordan and Davis Company (Brady 1977). Together, the two furnaces employed more than 150 operatives, the vast majority of which were slaves. Each furnace produced an average of 800 to 850 tons of pig iron per year while in operation. Both furnaces ceased operations by 1850 at which time they were abandoned. While it is known that Rebecca Furnace was reopened by the Tredegar Ironworks of Richmond during the Civil War, it is less clear whether Jane Furnace was as well. The fact that it is labeled as "old Jane Furnace" while Rebecca Furnace was labeled simply as such on Civil War-era maps indicates that Jane may likely have not been reopened.

The historic physical integrity of Jane Furnace is slightly less than Rebecca Furnace due to its partially collapsing side; however the structure still retains enough form and integrity to convey its function and original design as an early iron furnace. As one of the few remaining iron furnaces in the county, Jane Furnace remains as an important reminder and representation of the historically significant iron industry in Botetourt County and throughout Virginia in the first half of the nineteenth century. It is therefore considered eligible for listing in the NRHP under the Iron Industry of Virginia, 1620-1920 Multiple Property cover.

Surveyor Recommendation: Recommended Eligible

Ownership

Ownership Category	Ownership Entity
Private	*No Data*

Primary Resource Information

Resource Category: Industry/Processing/Extraction
Resource Type: Furnace
Date of Construction: 1835Pre
Historic Time Period: Antebellum Period (1830 - 1860)
Historic Context(s): Industry/Processing/Extraction
Architectural Style: Vernacular
Form: *No Data*
Number of Stories: *No Data*
Condition: Ruinous

Interior Plan: *No Data*
Threats to Resource: Neglect
Architectural Description:

August 1987: Tapered stone structure with collapsed southwall.

November 2015: All that remains of Jane Furnace is the stacked and coursed stone furnace chimney. The large structure is approximately 15-feet square at its base and tapers as it rises to roughly 20-feet. Close inspection of the structure was not permitted; however inspection from the road did not reveal any openings on the south or east sides and the south wall is collapsing. Assumingly the furnace was accessed by roads both from iron mines up the mountain as well as from Rebecca Furnace further down the creek, however inspection did not identify the presence of any such road traces in the vicinity.

Secondary Resource Information

Secondary Resource #1

Resource Category: *No Data*
Resource Type: *No Data*
Architectural Style: *No Data*
Form: *No Data*
Date of Construction: *No Data*
Condition: *No Data*
Threats to Resource: *No Data*
Architectural Description:

No Data

Historic District Information

Historic District Name: *No Data*
Local Historic District Name: *No Data*
Historic District Significance: *No Data*

CRM Events

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: Robert Taylor
Organization/Company: Dutton + Associates, LLC
Sponsoring Organization: *No Data*
Survey Date: 10/21/2015
Dhr Library Report Number: *No Data*
Project Staff/Notes:

The Phase I architectural resource survey related to the Rocky Forge Wind Farm project was conducted by D+A Architectural Historians Robert J. Taylor, Jr. and Dara Friedberg.

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: Worsham, Gibson
Organization/Company: Unknown (DSS)
Sponsoring Organization: *No Data*
Survey Date: 8/1/1987
Dhr Library Report Number: *No Data*

Project Staff/Notes:

No Data

Bibliographic Information

Bibliography:

No Data

Property Notes:

No Data

Project Bibliographic Information:

Phase I Cultural Resources Survey of the Rocky Forge Wind Farm, Botetourt County, Virginia.

Property Information

Property Names

Name Explanation	Name
Descriptive	Logging Camp Site, SE of Bluegrass Trail (Route 612)

Property Evaluation Status

Not Evaluated

Property Addresses

Current - Bluegrass Trail Route 612

County/Independent City(s): Botetourt (County)
Incorporated Town(s): *No Data*
Zip Code(s): 24085
Magisterial District(s): *No Data*
Tax Parcel(s): *No Data*
USGS Quad(s): SUGARLOAF MOUNTAIN

Additional Property Information

Architecture Setting: Rural
Acreage: *No Data*
Site Description:

November 2015: This purported logging camp site is located on a private gravel road roughly ½ mile off of Bluegrass Trail (Route 612) in rural northern Botetourt County. The property is gated and the site was not visible from public right-of-way. The site is located on a large, 7,280-acre property consisting primarily of wooded mountainside and aerial photography indicates the site is heavily wooded.

Surveyor Assessment:

November 2015: Logging was prevalent throughout Botetourt County in the late-nineteenth/early-twentieth century and in many cases involved temporary logging camps as the workers moved from site to site. There is no evidence on maps or other records to indicate that a saw-mill or any more permanent resource was ever located at this site. As all that remained of this site when initially recorded was several pieces of lumber, and there is no indication of any other cultural features, this property is considered not eligible for listing in the NHRP on an individual basis or as part of a historic district.

Surveyor Recommendation: Recommended Not Eligible

Ownership

Ownership Category	Ownership Entity
Private	*No Data*

Primary Resource Information

Resource Category: Archaeology Site
Resource Type: Archaeological Site
Date of Construction: 1925Ca
Historic Time Period: World War I to World War II (1917 - 1945)
Historic Context(s): Industry/Processing/Extraction
Architectural Style: *No Data*
Form: *No Data*
Number of Stories: *No Data*
Condition: Demolished
Interior Plan: *No Data*
Threats to Resource: *No Data*
Architectural Description:

August 1987: Logging/sawmill camp site. Pile of timber revealed one piece of trimmed lumber. Nearby apple tree and oak confirm building site.

November 2015: When initially documented in 1987, the site consisted of just several pieces of cut lumber, several planted varieties of trees, and evidence of grading/ground moving. When inspected at this time, aerial photograph could not confirm the presence of any such features nor

any other signs of cultural occupation.

Secondary Resource Information

Secondary Resource #1

Resource Category: *No Data*
Resource Type: *No Data*
Architectural Style: *No Data*
Form: *No Data*
Date of Construction: *No Data*
Condition: *No Data*
Threats to Resource: *No Data*
Architectural Description:
No Data

Historic District Information

Historic District Name: *No Data*
Local Historic District Name: *No Data*
Historic District Significance: *No Data*

CRM Events

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: Robert Taylor
Organization/Company: Dutton + Associates, LLC
Sponsoring Organization: *No Data*
Survey Date: 10/21/2015
Dhr Library Report Number: *No Data*
Project Staff/Notes:
The Phase I architectural resource survey related to the Rocky Forge Wind Farm project was conducted by D+A Architectural Historians Robert J. Taylor, Jr. and Dara Friedberg.

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: Worsham, Gibson
Organization/Company: Unknown (DSS)
Sponsoring Organization: *No Data*
Survey Date: 8/1/1987
Dhr Library Report Number: *No Data*
Project Staff/Notes:
No Data

Bibliographic Information

Bibliography:
No Data

Property Notes:

No Data

Project Bibliographic Information:

Phase I Cultural Resources Survey of the Rocky Forge Wind Farm, Botetourt County, Virginia.

Property Information

Property Names

Name Explanation	Name
Function/Location	Single Dwelling, Daggers Springs Road
Current	Rebecca House
Historic/Current	Tredegar House

Property Evaluation Status

Not Evaluated

Property Addresses

Current - Dagger Spring Road
Alternate - Route 622

County/Independent City(s): Botetourt (County)
Incorporated Town(s): *No Data*
Zip Code(s): 24085
Magisterial District(s): *No Data*
Tax Parcel(s): *No Data*
USGS Quad(s): SUGARLOAF MOUNTAIN

Additional Property Information

Architecture Setting: Rural
Acreage: *No Data*

Site Description:

2006: The Rebecca Furnace and associated 2-story log house known as the Tredegar House are located within close proximity to each other, but the stone furnace, now in ruins, is difficult to find because it is overgrown with vegetation, and is across Mill Creek to the north of the house. The house is located in a small clearing. The site is about one mile southeast of the location marked Dagger Springs on USGS topographic maps, and is reached via a private, unpaved road on the north side of Route 622.

2006: There are no known surviving resources historically associated with the Tredegar House, but there are traces of a historic iron mining operation on the mountain uphill from the house and furnace.

November 2015: Tredegar House is a late-eighteenth/early-nineteenth century home located off of Daggers Springs Road (Route 622) in rural northern Botetourt County. The house sits in a cleared grassy field near the southwestern base of North Mountain. Mill Creek flows along the northwestern edge of the cleared field and divides it from the wooded and mountainous terrain beyond. Just across Mill Creek, roughly 300-feet from the house are the remains of Rebecca Furnace, built around 1816. The building now sits on a large, 1,500-acre property that includes much of North Mountain. The historic size or limits of the property associated with the home is unknown.

Surveyor Assessment:

1987 survey: Important example of a regionally popular style.

Interviewed Mr. Hazlett of Gala, Virginia: "I used to live in the house. We called it Tredegar House. The metal roof and present siding were put on in 1937. The kitchen stood at the south end of the house. The Sole family lived there before."

November 2015: While a detailed history of the Tredegar House and its original owner and use cannot be determined at this level of investigation, the building remains as an excellent and relatively unaltered example of late-eighteenth/early-nineteenth century form and construction. Whether or not the home was initially constructed be an early planter and therefore representative of the early settlement of Botetourt County is unclear; however it is believed to have important associations to the Rebecca Iron Furnace. During the early- to mid-nineteenth century, iron furnaces such as Rebecca were the center of large operations complete with associated mines, charcoal pits, and buildings and structures including the typically nice home of the resident Iron master. Whether repurposed to this role or originally built as such, a review of the state archives reveals that few buildings exist in Virginia with associations to the pre-Civil War iron industry (Worsham 1987). Architecturally, the building retains much of its historic character and is a rare surviving example of rural residential construction from this period in Botetourt County. For these reasons, staff from VDHR that visited the property on 2008 informed the property owner that the building was likely eligible for listing in the NRHP. At this time, the Tredegar House is still considered eligible for listing in the NRHP.

2006-7: This is unquestionably one of the earliest standing log houses in the region and is highly significant for its historic construction techniques research value.

Surveyor Recommendation: Recommended Eligible

Ownership

Ownership Category	Ownership Entity
Private	*No Data*

Primary Resource Information

Resource Category:	Domestic
Resource Type:	Single Dwelling
Date of Construction:	1803Ca
Historic Time Period:	Early National Period (1790 - 1829)
Historic Context(s):	Architecture/Community Planning, Domestic
Architectural Style:	Federal/Adamesque
Form:	*No Data*
Number of Stories:	2.0
Condition:	Fair
Interior Plan:	Irregular, Three Room
Threats to Resource:	None Known

Architectural Description:

2006-7: The building has been purchased and is being repaired and stabilized by a new owner, who may rehabilitate it as a weekend house. Structurally, the house retains its original fabric, but doors, windows, etc. are missing. The structure footprint measures 33.5 by 26 feet. The hardwood logs are up to 16 inches in diameter and are V-notched at the corners. On the first and second floors are walls of vertical, hand-planed and beaded boards and plaster on split lath. Rosehead hand-wrought nails are predominate in the attic, especially in the roof sheathing, which supports the 1803 date provided by the owner. The furnace apparently dates from that period as well. The roof sheathing is of vertically-sawn boards, one-inch thick and up to 15 inches wide. The roof rafters are vertically-sawn and measure 3 3/16 inches by 4 9/10 inches in cross section, on average. The attic floor joists measure 4 5/8 inches by 8 3/4 inches in cross section, on average, and are hand-planed and beaded on the bottom edges. The attic flooring is of one-inch thick tongue-and-groove boards up to 13 inches wide.

1987 survey: Two-story, three-bay, three-room plan dwelling. House is now clad in board and batten siding added in 1937. Early dentillated cornice survives on front and rear of building. Large coursed rubblestone chimneys at both ends. Southeast chimney only has stucco, scored and pencilled to resemble ashlar. South chimney has historic graffiti.

Interior Description: Heavily vandalized. Large room to northwest with space to southeast taken up by two rooms; one very small at east east corner. Enclosed stair with door to each room rises between two larger rooms. Board partitions in 1st floor with lath and paster added over; early horizontal board wainscot and molded door and window trim in 1st floor; large shelf and architrave mantel in large room, Federal style mantel with plain frieze and molded shelf in southeast room. All doors are gone.

2nd floor: Mantels are gone; divided into two larger heated rooms and two small unheated rooms; all seperated by vertical board partitions with added plaster and Greek Revival perior chairrail; enclosed stair to garrett. On both floors logs originally whitewashed on interior and ceiling joists exposed. Ghosts of H. L. hinges at doors (one survives); unusual door on end wall beside chimney appears to be early; common rafter roof; some trace of missing dentils on beaded rake board. In poor condition at time of survey.

November 2015: The exact date of construction of the Tredegar House is unknown. According to local history, the home was associated with the Rebecca Furnace operation, serving as the home of the iron master. While it was typical for iron furnace compounds to include a home, typically large and well-situated for the iron master, this association would place the construction date for the building circa 1816. The current owner and previous investigator reports that the date “1801” has been observed carved into the south chimney. Inspection of the building as part of this effort was unable to observe this carving due to overgrown vegetation; although revealed that a circa 1800 or earlier date of construction is possible as evidenced by the design and construction techniques of the building.

The two-story dwelling exhibits a typical late-Georgian form with Federal period characteristics. It has identical, symmetrical front and rear facades consisting of three-bays with a central entrance on the first floor. The log structure rests on a continuous stacked stone foundation and is flanked by a stone chimney at each end. The coursed stones are exposed on the northern chimney but parged and scored to resemble ashlar on the southern chimney. The building is mostly clad with board and batten siding that was installed in the 1930s. The gables are clad with clapboard, but it could not be determined whether these are original or from the 1930s. The building is topped by a gable roof covered with relatively recent standing seam metal. The cornices on both the front and rear facades are embellished with a dentiled molding. The entrances to the building on the both the front and rear facades consist of unornamented, single doorways. The doors and framing are modern replacements and there is no evidence of porticos, entry stoops, or other embellishment. There is an additional doorway on the south end of the building that according to the previous owner, historically provided access to an attached kitchen ell. Fenestration consists of replacement six-over-six double hung sash windows set within 1930s-era frames. The front and rear facades exhibit typical 3-bay window patterning. There is also a single window on the second floor of the south end above the doorway. All of the primary windows are protected by board and batten shutters added in the 1930s. Additionally, there are two small windows on each end of the building flanking the chimney on the garret level. These windows are fixed pane and appear to have been added later.

The interior of the building is in disrepair but retains a high degree of historic integrity and original character. The first floor layout consists of a single large room at the north end and two smaller rooms to the south end, with a central stairwell. Both the front (west) and rear (east) entrances lead directly into the large main room of the house, occupying the entire north half of the building. The larger room to the left has a central fireplace that has been converted to use with a wood stove (remaining). The surround is minimally ornamental with a simply piece of molded trim and a plain board mantel. Walls throughout the room are embellished with horizontal plank wainscoting with a molded chair rail that doubles as the sill for the windows. The wall surfaces above are clad with early-twentieth century wallboard, although missing sections reveal the hand-split lath covering the log structure beneath. Just inside the front entrance is a doorway from this room that leads into a small, enclosed stair landing, which is up one step. Through the stair landing is a doorway and one step back down that leads into the front room in the south end of the building. This room also has a fireplace that has been converted to use with a woodstove. The surround is smaller, but slightly more elaborate with Federal-influences. This room is also ornamented with horizontal plank wainscoting below early-twentieth century wallboard. The enclosed stairway ascends the inside wall of this room with a doorway connecting it to the larger room underneath. Another door at the rear of this room leads into a yet smaller room at the rear corner of the building. The interior doorways, including from each side of the stair nave into the rooms, as well as between the rooms, feature original molded surrounds but no doors. Some sections of original wide-plank wood floor remain throughout the first floor, but many sections have been pulled up and removed as part of a recent effort to stabilize the foundation and floor joists. The removed sections revealed the floor joists which are large timbers that have only been planed on the top side.

The second floor of the building is divided into four rooms set around a central hall. The two front rooms are larger and both contain fireplaces. The fireplace in the southern room has a stone arch firebox however the mantel is missing. The room is finished with plastered walls and a molded wood chair rail. The fireplace in the northern room also has an arched stone firebox and retains a simple wood mantel. In this room, the ceiling joists were left exposed and beaded and whitewashed. The two small rooms along the rear of the building originally were finished simply by whitewashing the exposed log walls, however appear to have later been plastered with chair rails added. In the central hallway on the second floor is an enclosed, dog-leg flight of stairs that lead to the garret level above. The garret is unfinished other than some sections of wide-plank flooring.

Exterior Components

Component	Component Type	Material	Material Treatment
Roof	Gable	Metal	Standing Seam
Chimneys	Exterior End	Limestone	Other
Structural System and Exterior Treatment	Log	Wood	Other
Foundation	Solid/Continuous	Stone	Coursed
Windows	Double-hung	Wood	*No Data*

Secondary Resource Information

Secondary Resource #1

Resource Category: Agriculture/Subsistence
Resource Type: Barn
Architectural Style: *No Data*
Form: *No Data*
Date of Construction: *No Data*
Condition: Demolished
Threats to Resource: Demolition
Architectural Description:

1987 survey noted a "Ruinous log building which may have been a barn."

2006: The ruinous log building has vanished.

Number of Stories: *No Data*

Historic District Information

Historic District Name: *No Data*
Local Historic District Name: *No Data*
Historic District Significance: *No Data*

CRM Events

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: Robert Taylor
Organization/Company: Dutton + Associates, LLC
Sponsoring Organization: *No Data*
Survey Date: 10/21/2015
Dhr Library Report Number: *No Data*
Project Staff/Notes:

The Phase I architectural resource survey related to the Rocky Forge Wind Farm project was conducted by D+A Architectural Historians Robert J. Taylor, Jr. and Dara Friedberg.

Event Type: Survey:Phase II/Intensive

Project Review File Number: *No Data*
Investigator: Pulice, Michael
Organization/Company: Unknown (DSS)
Sponsoring Organization: *No Data*
Survey Date: 5/9/2006
Dhr Library Report Number: *No Data*
Project Staff/Notes:
DHR Roanoke region architectural historian

Event Type: Survey:Phase II/Intensive

Project Review File Number: *No Data*
Investigator: K. Martin, Gibson Worsham
Organization/Company: Unknown (DSS)
Sponsoring Organization: *No Data*
Survey Date: 9/1/1987
Dhr Library Report Number: *No Data*
Project Staff/Notes:
No Data

Bibliographic Information

Bibliography:
No Data
Property Notes:
No Data
Project Bibliographic Information:
Phase I Cultural Resources Survey of the Rocky Forge Wind Farm, Botetourt County, Virginia.

Property Information

Property Names

Name Explanation	Name
Historic	Rebecca Furnace

Property Evaluation Status

Not Evaluated

Property Addresses

Current - Dagger Springs Road Route 622

County/Independent City(s): Botetourt (County)
Incorporated Town(s): *No Data*
Zip Code(s): 24085
Magisterial District(s): *No Data*
Tax Parcel(s): *No Data*
USGS Quad(s): SUGARLOAF MOUNTAIN

Additional Property Information

Architecture Setting: Rural
Acreage: *No Data*
Site Description:

1987: Located 2/10 of a mile northeast of Route 622, 3/4 mile east of hamlet of Dagger Springs.

November 2015: Rebecca Furnace is located along Mill Creek about 0.15-miles from Daggers Springs Road (Route 622) in the rural northeastern Botetourt County. The furnace sits roughly 165-feet from the creek, along a private jeep-trail off the driveway from the property at 150 Tate Road. The site is heavily wooded and the structure is moderately overgrown with vegetation (Plate 5). Several features associates with Rebecca Furnace remain including the stacked and coursed main stone furnace chimney, a stone-lined trough between the furnace and the creek, a stacked stone retaining wall above the furnace, and a stacked stone chimney from a former building approximately 100-feet downhill to the west. Additionally, there are numerous piles of slag in the immediate vicinity.

Surveyor Assessment:

1987: Substantial structure of regionally popular form.

The Jane and Rebecca Furnaces on Longs Entry Creek employed 150 operatives (together). Rebecca Furnace in operation for 9 years with average output of 800-850 tons of pig metal per annum.

The Rebecca was operated by the Tredegar Iron Works during the War Between the States. It was built between 1819-1826, and was abandoned in 1852, then rebuilt during the war, before 1863.

November 2015: According to the 1835 Gazetteer, Rebecca Furnace began operations between 1818 and 1819. Initially built by William Ross and operated for roughly 10 years, it was subsequently purchased by Pott & Jenkins in the late 1820s. By 1834, a second furnace, called "Jane" was in operation in conjunction with Rebecca. Both furnaces were sold to David J. Wilson who subsequently leased them in 1839 to Jordan and Davis Company (Brady 1977). Together, the two furnaces employed more than 150 operatives, the vast majority of which were slaves. Each furnace produced an average of 800 to 850 tons of pig iron per year while in operation. Both furnaces ceased operations by 1850 at which time they were abandoned. During the Civil War, Rebecca Furnace was reopened by the Tredegar Ironworks of Richmond to produce iron used for the manufacture of arms and equipment.

The historic physical integrity of Rebecca Furnace is higher than associated Jane Furnace, and relatively high for contemporary iron furnace structures throughout the state. Overall, the structure retains form and integrity to convey its function and original design as an early iron furnace; and additionally retains several associated features including the trough, stone wall, secondary chimney, and slag piles. As one of the few remaining iron furnaces in the county, Rebecca Furnace remains as an important reminder and representation of the historically significant iron industry in Botetourt County and throughout Virginia in the first half of the nineteenth century. It is therefore considered eligible for listing in the NRHP under the Iron Industry of Virginia, 1620-1920 Multiple Property cover.

Surveyor Recommendation: Recommended Eligible

Ownership

Ownership Category	Ownership Entity
Private	*No Data*

Primary Resource Information

Resource Category: Industry/Processing/Extraction
Resource Type: Furnace

Date of Construction: 1819Ca
Historic Time Period: Early National Period (1790 - 1829)
Historic Context(s): Industry/Processing/Extraction
Architectural Style: No Discernable Style
Form: *No Data*
Number of Stories: *No Data*
Condition: Fair
Interior Plan: *No Data*
Threats to Resource: Deterioration, Vacant
Architectural Description:

1987: Intact stone iron furnace with partially collapsed stone lining showing glazed interior, original openings on three sides.

Built 1819-1826, random rubble; abandoned.

November 2009

Stone foundation directly to the southwest and a brick chimney further southwest. Extensive remains along terrace to northwest.

November 2015: The large furnace chimney structure is approximately 15-feet square at its base and tapers as it rises to roughly 20-feet. There are arched openings on three sides; the west, south, and east, although the opening on the south wall is beginning to collapse. The interior of the structure has an arched ceiling with a glazed surface. Beginning about 10-feet from the opening on the south wall is a stone-line trough cut through the ground. The trough is about 3-feet deep and extends roughly 10-feet south before doglegging west and downhill towards the creek. Uphill from the east wall of the chimney is a stacked stone retaining wall that may have supported a road and/or ramp accessing the top of the structure. Located downhill to the west of the chimney is a stacked stone chimney that appears to have been related to a small, one-story building of unknown function.

Secondary Resource Information

Secondary Resource #1

Resource Category: *No Data*
Resource Type: *No Data*
Architectural Style: *No Data*
Form: *No Data*
Date of Construction: *No Data*
Condition: *No Data*
Threats to Resource: *No Data*
Architectural Description:

No Data

Historic District Information

Historic District Name: *No Data*
Local Historic District Name: *No Data*
Historic District Significance: *No Data*

CRM Events

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: Robert Taylor
Organization/Company: Dutton + Associates, LLC
Sponsoring Organization: *No Data*

Survey Date: 10/21/2015
Dhr Library Report Number: *No Data*
Project Staff/Notes:

The Phase I architectural resource survey related to the Rocky Forge Wind Farm project was conducted by D+A Architectural Historians Robert J. Taylor, Jr. and Dara Friedberg.

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: Lienhardt, Jack
Organization/Company: Unknown (DSS)
Sponsoring Organization: *No Data*
Survey Date: 11/5/2009
Dhr Library Report Number: *No Data*
Project Staff/Notes:

The printed photos, supplied by Mr. Lienhardt to the property owner, Jerry Fraley, were borrowed and scanned by DHR Roanoke region architectural historian, Mike Pulice. The photos were taken at the optimal time of year when the overgrowth is minimal.

Event Type: Survey:Phase II/Intensive

Project Review File Number: *No Data*
Investigator: Worsham, Gibson
Organization/Company: Unknown (DSS)
Sponsoring Organization: *No Data*
Survey Date: 8/1/1987
Dhr Library Report Number: *No Data*
Project Staff/Notes:

No Data

Bibliographic Information

Bibliography:

No Data

Property Notes:

No Data

Project Bibliographic Information:

Phase I Cultural Resources Survey of the Rocky Forge Wind Farm, Botetourt County, Virginia.

Property Information

Property Names

Name Explanation	Name
Function/Location	House, 3229 Dagger Springs Road

Property Evaluation Status

Not Evaluated

Property Addresses

Current - 3229 Dagger Springs Road Route 622

County/Independent City(s): Botetourt (County)
Incorporated Town(s): *No Data*
Zip Code(s): 24085
Magisterial District(s): *No Data*
Tax Parcel(s): *No Data*
USGS Quad(s): EAGLE ROCK

Additional Property Information

Architecture Setting: Rural
Acreage: *No Data*
Site Description:

November 2015: This building is located at 3229 Daggers Springs Road (Route 622) in the Daggers Springs vicinity of rural northern Botetourt County. The building sits just back from the road on a cleared but overgrown 1-acre property. The building faces south towards the road. A narrow tree line extends along the rear of the property bordering Mill Creek.

Surveyor Assessment:

November 2015: The historic function of the building is unclear due to unusual form and configuration. It appears that the building may have initially been built as a single dwelling, however, the three doorways on the front façade indicate the building may have been repurposed to serve either as a multiple dwelling, such as workers housing, or some sort mixed or commercial use. Located in the Daggers Springs vicinity of Botetourt County, it cannot be conclusively determined at this time whether the home was simply part of a small farmstead, or if it was associated with either the nearby Daggers Spring resort or the New Town mining community. This building is an undistinguished example of an early-twentieth century vernacular dwelling and limited research revealed no known significant historical associations. Further, the building remains in an advanced state of deterioration and collapse. It is therefore considered not eligible for listing in the NRHP on an individual basis or as part of a historic district.

Surveyor Recommendation: Recommended Not Eligible

Ownership

Ownership Category	Ownership Entity
Private	*No Data*

Primary Resource Information

Resource Category: Domestic
Resource Type: Single Dwelling
Date of Construction: 1910Ca
Historic Time Period: Reconstruction and Growth (1866 - 1916)
Historic Context(s): Domestic
Architectural Style: No discernible style
Form: *No Data*
Number of Stories: 2.0
Condition: Deteriorated
Interior Plan: *No Data*
Threats to Resource: Neglect, Structural Failure
Architectural Description:

November 2015: This building was constructed circa 1910 and exhibits an organic form indicative of several periods of construction and/or use. It appears that the building may have initially been built as a single dwelling in a typical I-house form, and later expanded with a side wing. There is a one-story rear ell attached to the back of the original block. The building appears to have been abandoned for an extended time and is a severely deteriorated condition with section of collapsing structure and roof. The two-story building has a wood frame structural system clad

with a combination of clapboard and drop-siding topped by a side-gabled roof covered with 5V sheet metal. An exterior brick chimney extends up the rear wall of the building near the junction of the original block and side wing. The foundation of the building is obscured by debris and vegetation. There are three entrances spaced across the front façade consisting of the original I-house central doorway, the conversion of one of the original windows to a door opening, and a third door on the attached side wing. All of these entrances are single doorways although the doors have either been removed or fallen off the hinges. Fenestration includes double-hung sash windows with six-over-six light configurations on the first floor and smaller openings, likely filled by casement windows on the second floor, although all the sashes have been removed or broken.

Exterior Components

Component	Component Type	Material	Material Treatment
Structural System and Exterior Treatment	Wood Frame	Wood	Weatherboard
Roof	Side Gable	Metal	*No Data*
Windows	Double-hung	Wood	*No Data*
Foundation	Not Visible	*No Data*	*No Data*

Secondary Resource Information

Secondary Resource #1

Resource Category: *No Data*
Resource Type: *No Data*
Architectural Style: *No Data*
Form: *No Data*
Date of Construction: *No Data*
Condition: *No Data*
Threats to Resource: *No Data*
Architectural Description:
No Data

Historic District Information

Historic District Name: *No Data*
Local Historic District Name: *No Data*
Historic District Significance: *No Data*

CRM Events

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: Robert Taylor
Organization/Company: Dutton + Associates, LLC
Sponsoring Organization: *No Data*
Survey Date: 10/21/2015
Dhr Library Report Number: *No Data*
Project Staff/Notes:
The Phase I architectural resource survey related to the Rocky Forge Wind Farm project was conducted by D+A Architectural Historians Robert J. Taylor, Jr. and Dara Friedberg.

Bibliographic Information

Bibliography:
No Data

Property Notes:

No Data

Project Bibliographic Information:

Phase I Cultural Resources Survey of the Rocky Forge Wind Farm, Botetourt County, Virginia.

Property Information

Property Names

Name Explanation	Name
Function/Location	House, 2905 Dagger Springs Road

Property Addresses

Current - 2905 Dagger Springs Road Route 622

County/Independent City(s): Botetourt (County)
Incorporated Town(s): *No Data*
Zip Code(s): 24085
Magisterial District(s): *No Data*
Tax Parcel(s): *No Data*
USGS Quad(s): EAGLE ROCK

Property Evaluation Status

Not Evaluated

Additional Property Information

Architecture Setting: Rural
Acreage: *No Data*
Site Description:

November 2015: This dwelling is located at 2905 Daggers Springs Road (Route 622) in the Daggers Springs vicinity of rural northern Botetourt County. The house sits at the end of a quarter-mile gravel driveway on a 14-acre property. Several large pits that according to a local informant historically served as ice-storage pits are located along the side of the driveway. The majority of the property is wooded although the home sits in a small grassy clearing and faces south. The driveway passes by the west side of the house and leads to a small outbuilding of unknown function just downhill to the rear.

Surveyor Assessment:

November 2015: This building is an undistinguished example of an early-twentieth century log dwelling and limited research revealed no known significant historical associations. Located in the Daggers Springs vicinity of Botetourt County, it cannot be conclusively determined at this time whether the home was simply part of a small farmstead, or if it was associated with either the nearby Daggers Spring resort or the New Town mining community. The building retains moderate historic physical integrity; however as a common resource type located in an area of discontiguous historic resources, it is considered not eligible for listing in the NRHP on an individual basis or as part of a historic district.

Surveyor Recommendation: Recommended Not Eligible

Ownership

Ownership Category	Ownership Entity
Private	*No Data*

Primary Resource Information

Resource Category: Domestic
Resource Type: Single Dwelling
Date of Construction: 1910Ca
Historic Time Period: Reconstruction and Growth (1866 - 1916)
Historic Context(s): Domestic
Architectural Style: No discernible style
Form: *No Data*
Number of Stories: 2.0
Condition: Good
Interior Plan: *No Data*
Threats to Resource: None Known
Architectural Description:

November 2015: This dwelling was built circa 1910 and exhibits a vernacular log form. The house is used just seasonally but remains in good condition. The two-story building has an exposed log structural system with v-notched corner joints and clapboard in the gable ends. The building rests on a continuous poured concrete foundation and is topped by a side-gabled roof covered with asphalt shingles. An exterior concrete block chimney pierces the rear slope of the east end of the roof. There is a full-width shed roof porch on the front façade supported by

wood posts set on a wood floor. The main entrance is located centrally under the front porch and consists of a single, paneled wood door. It is flanked by single double-hung-sash windows with six-over-one light configurations on each side. Two additional windows are located on second story of the front façade. There is a full-width, wood frame and clapboard ell with a shed roof ell attached to the rear. Extending from the ell is a full-width porch with a shed roof supported by wood posts on a wood floor.

Exterior Components

Component	Component Type	Material	Material Treatment
Foundation	Solid/Continuous	Concrete	Uncoursed
Structural System and Exterior Treatment	Horizontal Log	Wood	Other
Roof	Side Gable	Metal	*No Data*
Windows	Double-hung	Wood	*No Data*
Porch	1-Story Full-Width	Wood	Screened/Enclosed

Secondary Resource Information

Secondary Resource #1

Resource Category: Domestic
Resource Type: Shed
Architectural Style: No discernible style
Form: *No Data*
Date of Construction: 1910
Condition: Fair
Threats to Resource: None Known
Architectural Description:

November 2015: Just downhill from the house is a small historic outbuilding. The wood frame building is clad with asbestos shingles and rests on a wood pier foundation. It is topped by a hipped roof covered with asphalt shingles. The building has a single board and batten door on the front façade.

Number of Stories: 1

Historic District Information

Historic District Name: *No Data*
Local Historic District Name: *No Data*
Historic District Significance: *No Data*

CRM Events

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: Robert Taylor
Organization/Company: Dutton + Associates, LLC
Sponsoring Organization: *No Data*
Survey Date: 10/21/2015
Dhr Library Report Number: *No Data*
Project Staff/Notes:

The Phase I architectural resource survey related to the Rocky Forge Wind Farm project was conducted by D+A Architectural Historians Robert J. Taylor, Jr. and Dara Friedberg.

Bibliographic Information

Bibliography:

No Data

Property Notes:

No Data

Project Bibliographic Information:

Phase I Cultural Resources Survey of the Rocky Forge Wind Farm, Botetourt County, Virginia.

Snapshot

Date Generated: April 29, 2016

Site Name: Tredegar House
Site Classification: Terrestrial, open air
Year(s): No Data
Site Type(s): Dwelling, single
Other DHR ID: No Data
Temporary Designation: Site 1

Site Evaluation Status
Not Evaluated

Locational Information

USGS Quad: SUGARLOAF MOUNTAIN
County/Independent City: Botetourt (County)
Physiographic Province: Valley and Ridge
Elevation: 1251
Aspect: Facing North
Drainage: James
Slope: 2 - 6
Acreage: 0.210
Landform: Terrace, Interior Stream
Ownership Status: Private
Government Entity Name: No Data

Site Components

Component 1

Category: Domestic
Site Type: Dwelling, single
Cultural Affiliation: Euro-American
DHR Time Period: Antebellum Period, Civil War, Early National Period, Reconstruction and Growth, World War I to World War II
Start Year: No Data
End Year: No Data
Comments: No Data

Bibliographic Information

Bibliography:
No Data
Informant Data:
No Data

CRM Events

Event Type: Survey:Phase I

Project Staff/Notes:

David Dutton, Principal Investigator
Cara Metz, Project Archaeologist

Project Review File Number: No Data

Sponsoring Organization: No Data

Organization/Company: Dutton + Associates, LLC

Investigator: Arthur Striker

Survey Date: 10/1/2015

Survey Description:

Dutton + Associates, LLC (D+A) conducted a Phase I Cultural Resources Survey for the Rocky Forge Wind Project (hereafter, "project") in Botetourt County, Virginia. The project consists of the construction and operation of a series of wind turbines along a mountain ridge in the northern part of the county, along with roads, electrical collection, and Operatons and Maintenance (O&M) building, a temporary construction laydown area, and a substation to interconnect to an existing transmission line. The D+A effort was conducted in October 2015, and was designed to identify and evaluate the National Register of Historic Places (NRHP) eligibility for archaeological and architectural resources located within the project area of potential effect (APE), as well as assess potential effects to them brought about by the proposed project.

Archaeological fieldwork entailed a combination of pedestrian reconnaissance and systematic shovel testing of the APE around project components including proposed turbine pads, access roads, and associated construction staging and materials storage areas (disturbance zone) to conclusively determine the presence or absence of subsurface archaeological resources. Pedestrian survey included visual inspection of all accessible portions of the disturbance zone. Because of the nature of the project area, special attention was paid to identification of prehistoric rock shelters and surface evidence of historic mining activity, domestic occupation, and cemeteries. In addition, areas identified within the disturbance zone with soils and minimal slope that have the potential to contain buried cultural deposits were identified. Areas determined to have the potential for intact subsurface cultural deposits were shovel tested at 15 meter (50-ft) intervals along transects spaced no farther apart than 15 meter (50-ft). The soil excavated from all shovel tests was passed through 1/4-inch mesh screen and all shovel tests were approximately 38-centimeters (1.3 ft) in diameter and excavated to sterile subsoil. When archaeological materials were identified within a shovel test, radial shovel tests (1/2 the distance between positive and negative shovel tests) were excavated in all four cardinal directions to determine site boundaries. Excavation did not occur beyond limits of the project property lease, nor was excavation undertaken in statutory wetlands or waterlogged soils, or in areas of visible severe soil disturbances and documented strip mining.

Current Land Use	Date of Use	Comments
Dwelling, single	10/1/2015 12:00:00 AM	*No Data*

Threats to Resource: Public Utility Expansion

Site Conditions: Unknown Portion of Site Destroyed

Survey Strategies: Subsurface Testing

Specimens Collected: Yes

Specimens Observed, Not Collected: No

Artifacts Summary and Diagnostics:

Slag glass frag
Earthenware frag, indet. Spalled, blue glaze, white reverse
Iron nail frags (cut)
Pale aqua glass, flat, window?
Slag glass frag
Colorless bottle glass frag
Refined earthenware, shell edge pearlware frags
Refined earthenware, white, spalled, indeterminate, poss. Pearlware
Earthernware, yelloware
Earthenware, pearlware, mocha?
Plaster?
Earthenware, pearlware? Transferprint
Earthenware, pearlware?, transferprint
Slag glass frag
Stoneware, Albany/Bristol slip
Earthenware, whiteware?
Colorless glass, molded, ribbed (same vessel)
Colorless bottle glass
Very pale aqua glass, bottle/jar
Colorless bottle glass, molded, modern?
Iron hinge pin
Earthenware, graniteware?
Quartzite, projectile point, poss. Jack's Reef Pentagonal, Woodland period

Summary of Specimens Observed, Not Collected:

No Data

Current Curation Repository: D+A

Permanent Curation Repository:	VDHR
Field Notes:	Yes
Field Notes Repository:	D+A
Photographic Media:	Digital
Survey Reports:	Yes
Survey Report Information:	PHASE I CULTURAL RESOURCES SURVEY OF THE ROCKY FORGE WIND TURBINE PROJECT BOTETOURT COUNTY, VIRGINIA November 2015 Dutton+Associates, LLC
Survey Report Repository:	VDHR
DHR Library Reference Number:	No Data
Significance Statement:	Archaeological finds adjacent to the Tredegar House (011-0215) in the area of the proposed Access Road 1 ROW expansion meet the VDHR's definition of an archaeological site and therefore are recorded as such. Site 1 consists of a single line of positive shovel tests along the edge of the proposed ROW expansion. Recovered artifacts include nineteenth-century ceramics, modern pressed glass, an iron spike and cut nail fragments, and a Woodland Period projectile point. With the exception of the projectile point, the recovered artifacts are consistent with nineteenth and twentieth century domestic occupation and use of the Tredegar House. It is also reasonable to assume that additional archaeological deposits and possibly features exist closer to the extant structure located to the south of the project APE.
Surveyor's Eligibility Recommendations:	Recommended Potentially Eligible
Surveyor's NR Criteria Recommendations, :	A
Surveyor's NR Criteria Considerations:	No Data