

**ATLANTIC COAST PIPELINE, LLC
ATLANTIC COAST PIPELINE**

and

**DOMINION ENERGY TRANSMISSION, INC.
SUPPLY HEADER PROJECT**

**Supplemental Filing
December 1, 2017**

APPENDIX D

Cultural Resources Report



November 30, 2017

Mr. Roger Kirchen, Director
Review and Compliance Division
Virginia Department of Historic Resources
2801 Kensington Ave.
Richmond, VA 23221

Subject: Section 106 Review – Treatment Plan for the Warminster Rural Historic District (062-5160)

Dear Mr. Kirchen:

Atlantic Coast Pipeline, LLC (Atlantic) is requesting review of the enclosed Warminster Historic District Treatment Plan prepared for the proposed Atlantic Coast Pipeline (ACP). The Federal Energy Regulatory Commission (FERC) is the lead Federal agency for this Project. Atlantic's consultant, ERM, prepared the enclosed Plan pursuant to the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended.

Atlantic would appreciate your comments on the enclosed document, and we look forward to continuing to work with you on this Project. If you have any questions regarding the enclosed Plan, please contact me at (804) 273-2814 or Richard.B.Gangle@dominionenergy.com, or by letter at:

Richard B. Gangle
Dominion Energy Services, Inc.
5000 Dominion Boulevard
Glen Allen, Virginia 23060

Respectfully submitted,

A handwritten signature in black ink, appearing to be "R. Gangle", written over a horizontal line.

Richard B. Gangle
Environmental Manager, Atlantic Coast Pipeline

Enclosure: Treatment Plan for the Warminster Rural Historic District (062-5160), CD

CC: Augusta County Administration, Timothy Fitzgerald
Nelson County Administration, Steve Carter



**DOMINION ENERGY TRANSMISSION, INC.
ATLANTIC COAST PIPELINE PROJECT**

**TREATMENT PLAN FOR NRHP ELIGIBLE HISTORIC RESOURCE:
THE WARMINSTER RURAL HISTORIC DISTRICT (062-5160)**



Prepared by



December 2017

**DOMINION ENERGY TRANSMISSION, INC.
ATLANTIC COAST PIPELINE PROJECT**

**TREATMENT PLAN FOR NRHP ELIGIBLE HISTORIC RESOURCES:
THE WARMINSTER RURAL HISTORIC DISTRICT (062-5160)**

Prepared for

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December 2017

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INTRODUCTION

This document presents a treatment plan to mitigate adverse effects on historic resource 062-5160 (The Warminster Rural Historic District), which occurs along the Atlantic Coast Pipeline project (Project) corridor in Nelson County, Virginia (Figure 1). The Federal Energy Regulatory Commission (FERC) is the lead federal agency and pursuant to the Natural Gas Act (NGA) has issued an Order for the Project. Therefore, FERC is obligated to meet the requirements of Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended. Environmental Resources Management (ERM) and its subconsultant, Dovetail Cultural Resources Group, conducted Phase I cultural resource investigations in an effort to assist FERC with its review (Anderson and Staton 2016; Lesiuk et al. 2016; Staton et al. 2016; Tucker-Laird et al. 2017a, 2017b, 2017c, 2017d; Voisin George et al. 2017).

The Warminster Rural Historic District is one of three previously recorded resources identified in Virginia in the Area of Potential Effects (APE) for the Project during cultural resource investigations conducted in 2016 and 2017 (Lesiuk et al. 2016; Tucker-Laird et al. 2017a; Voisin George et al. 2017), and for which treatment plans have been prepared to address adverse effects. Two of the resources are listed in the National Register of Historic Places (NRHP)—008-0011 (Wilderness Farm) and 062-5119 (The South Rockfish Valley Rural Historic District)—while the Warminster Rural Historic District (062-5160) has been determined eligible for listing by the Virginia Department of Historic Resources (DHR). Following an assessment of effects (Tucker-Laird et al. 2017e), it was determined that the Warminster Rural Historic District would likely be adversely affected by the Project. This report suggests details for the implementation of a number of mitigative measures pertaining to the Warminster Rural Historic District.

PROJECT OVERVIEW

Dominion Energy Transmission, Inc. (DETI) will build and operate approximately 600 miles of natural gas transmission pipeline and associated laterals on behalf of Atlantic, which is a company consisting of subsidiaries of Dominion Energy, Inc., Duke Energy, Piedmont Natural Gas, and Southern Company Gas. The pipeline system extends from West Virginia to southern North Carolina, and the Project will also include access roads, meter stations, compressor stations, and other above-ground facilities. The Virginia segment is 308.1 miles long and passes through Highland, Bath, Augusta, Nelson, Buckingham, Cumberland, Prince Edward, Nottoway, Dinwiddie, Brunswick, Greensville, and Southampton counties, as well as the cities of Suffolk and Chesapeake (Figure 1).

The Phase I cultural resource survey identified 357 resources in the APE that are recommended ineligible for the NRHP; an additional 95 resources were surveyed over the course of the Project that are no longer in the APE due to Project changes. The subsequent assessment of effects report (Tucker-Laird et al. 2017e) examined 51 historic resources eligible for, potentially eligible, or listed in the NRHP, as well as seven historic resources within the APE that could not be accessed for survey, and thus were assumed NRHP-eligible pending survey and evaluation. The assessment of effects involved viewshed analysis, 3-D modeling, and photo simulation to determine if direct or indirect effects to the resources would be adverse with respect to the character-defining qualities important to the resources' NRHP eligibility. ERM recommended that the proposed Project would have no adverse effect on any of the resources. However, based on comments from the DHR, three resources will be adversely affected by the Project, including the Warminster Rural Historic District.

NEED FOR MITIGATION AND TREATMENT

According to DHR, the traditional rural landscape that characterizes the Warminster Rural Historic District (062-5160) would be adversely affected by changes to agricultural fields and stands of mature trees resulting from the construction, operation, and maintenance of the proposed pipeline in a manner that will be visible from contributing resources in the district.

A treatment plan is presented for the district that includes a number of direct and indirect measures, tailored to the conditions and characteristics of the district, that could be implemented to mitigate the adverse effects of the Project. These measures include documentation, vegetative plantings, interpretation, and contributions to historic preservation.

METHOD OF ASSESSMENT

NRHP EVALUATION

During the Phase I architectural resource survey, sufficient information was collected on all resources identified in the APE to make recommendations regarding eligibility for listing on the NRHP. According to 36 CFR 60.4 (Andrus and Shrimpton 2002), cultural resources eligible for listing on the NRHP are defined as buildings, structures, objects, sites, and districts that have “integrity” and that meet one or more of the criteria outlined below. Criterion D is typically relevant to archaeological sites.

Criterion A (Event). Association with one or more events that have made a significant contribution to the broad patterns of national, state, or local history.

Criterion B (Person). Association with the lives of persons significant in the past.

Criterion C (Design/Construction). Embodiment of distinctive characteristics of a type, period, or method of construction; or representation of the work of a master; or possession of high artistic values; or representation of a significant and distinguishable entity whose components may lack individual distinction.

Criterion D (Information Potential). Properties that yield, or are likely to yield, information important in prehistory or history. Criterion D is most often (but not exclusively) associated with archaeological resources. To be considered eligible under Criterion D, sites must be associated with specific or general patterns in the development of the region. Therefore, sites become significant when they are seen within the larger framework of local or regional development.

“Integrity” is perhaps the paramount qualification of NRHP eligibility, and can be related to any or all of the following (Andrus and Shrimpton 2002):

Location: the place where the historic property (or properties) was/were constructed or where the historic event(s) occurred;

Design: the combination of elements that create the form, plan, space, structure, and style of a property (or properties);

Setting: the physical environment of the historic property (or properties);

Materials: the physical elements that were combined to create the property (or properties) during the associated period of significance;

Workmanship: the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory;

Feeling: the property’s (or properties’) expression of the aesthetic or historic sense of the period of significance; and

Association: the direct link between the important historic event(s) or person(s) and the historic property (or properties).

POTENTIAL EFFECTS ANALYSIS

Once ERM received concurrence from DHR on the eligibility of the resource, ERM assessed the nature of potential Project effects through desktop review, field studies, and computer modeling. ERM used these assessments to determine whether the resource would experience visual effects based on the nature of the topography, vegetation, and modern infrastructure between it and the proposed Project facilities. Desktop review assessments consisted of a detailed review of topographic maps and aerial photographs, along with utilizing Google Earth imaging software with 3-D terrain modeling. When using this software, a pin was placed at the location of each listed, eligible, and inaccessible resource, and a viewshed analysis toward the Project was run. The altitude feature was set to the lowest possible elevation (2 meters, relative to ground) for both the resource and the Project. Although the Project will be below ground, the 2-meter elevation analysis was necessary to supply adequate data and to account for above ground effects such as tree cuts. The viewshed analysis produces a 3-D terrain model and a 2-D viewshed map. The 3-D terrain modeling only captures topography and not vegetation, but because the resulting imagery retains the coloring from the original aerial photographs, the viewer can visualize areas where tree cover might limit the view to the Project. The 2-D viewshed map shows the areas visible from the resource in the direction of the Project. These images are presented in Appendix A with the photographs of the resource.

After review of the results of the Google Earth terrain modeling, a more sophisticated modeling technique was performed that includes a viewshed analysis from discrete observation points. The viewshed analysis tool was used to determine how visible an object will be by identifying areas that can be seen from one or more observation locations. For the viewshed analysis, the observation location is the resource under consideration, and the viewshed was analyzed to assess the visibility of the proposed permanent centerline of the deforested corridor. In order to run a viewshed analysis, a high resolution digital elevation model (DEM) was used to model the terrain and natural barriers of the bare earth such as hills. A DEM is also called a bare earth model because it only accounts for the ground level and does not include above ground barriers such as trees and buildings that often block visibility. Because the area around all three of the resources under consideration is heavily wooded, excluding tree barriers would not provide a realistic output. To compensate for this limitation; all forested locations were modeled using GIS classification methods. The forested areas were then added to the DEM to create a more realistic terrain model. The areas surrounding the resources are dominated by mixed hardwood forest with an average tree height of 60 feet and greater, so each wooded area adds 60 feet to the DEM. Because the survey corridor will be cleared, trees were eliminated from the Project corridor for all wooded areas in the model. The ESRI ArcGIS viewshed tool was used to show all areas that are visible to and from the centerline that fall in non-forested areas.

The viewshed output shows areas that can view the centerline, but do not show what part of the centerline is visible and to what extent it is visible. The ArcGIS Observer point tool was used for each resource to show what areas are visible to the input locations. All the buildings within the boundaries of the resource to the extent possible were digitized as an input resource. This shows how each resource is affected and what parts of the Project are visible. For the analysis, each building is assumed to be viewing its surroundings from two stories or 20 feet. The output results show all locations visible to each resource.

Once the computer modeling was complete, using both the viewshed results and the observer points, each resource was reviewed to determine the degree of impact within the parameters of the study, which did not account for limitations such leaf off vegetation in the winter.

TREATMENT PLAN

BACKGROUND

Previous Investigations

The NRHP-eligible Warminster Rural Historic District was first documented by Cabell Smith in 2015 in a Preliminary Information Form (Smith 2015). Smith discussed the district as the former location of various plantation homes built by prominent members of the Cabell family. Two of these plantation homes, Bon Aire and Edgewood, are located along Cabell Road, the main road that runs through the district. Smith also discussed the former town of Warminster, which was the district's central place of commerce. In 2016, the DHR Evaluation Committee evaluated and approved the expansion of the Warminster Rural Historic District's boundaries to include a number of African-American resources.

The resource was resurveyed by Laura Voisin George in 2016 as part of the cultural resources investigations for the current Project (Voisin George et al. 2017). ERM recommended 062-5160 eligible for the NRHP under Criterion A for its settlement and development patterns, and for its association with transportation development. Further, it is considered eligible under Criterion A for its contribution to Black Ethnic History, social history, and commerce in the mid twentieth century. It is also considered potentially eligible under Criterion B for its association with the Cabell family, one of the preeminent families of Virginia, serving in all branches of government and overseeing a business empire of agricultural, industrial, and trade interests. The district is also potentially eligible under Criterion C for the two extant Cabell homes, Edgewood (062-0004) and Bon Aire (062-0089), which are not within the Project APE. In a letter dated March 14, 2017, the DHR concurred with this recommendation. ERM submitted an assessment of effects report in 2017 that recommended that vegetation removal associated with the Project would have an effect on the setting, but this tree removal would be one additional modern element within a landscape that already contains modern infrastructure, including overhead transmission lines (Tucker-Laird et al. 2017e). In a letter dated September 11, 2017, the DHR stated that there will be an adverse effect to this resource. Due to this determination, a treatment plan, described below, has been developed to mitigate the Project effects.

Historical Context

The NRHP-eligible Warminster Rural Historic District encompasses 3,665 acres on the west bank of the James River in Nelson County. The district was formerly the location of five plantation homes, built in the late eighteenth century by members of the Cabell family, which was prominent in Nelson County and Virginia history. The district also contains smaller farmsteads that were carved from the original plantations, tenant houses, African-American institutions and cemeteries, industrial sites, and historic transportation corridors (Smith 2015).

As Euro-American settlement pushed west beyond the Blue Ridge Mountains, William Cabell and his cousin William Mayo served as surveyors, which provided them with knowledge of the unsettled lands on the upper James River. Cabell acquired vast holdings along the river, as well as a large number of slaves, whose labor supported his family for several generations. He built his home at Warminster in 1742. His main plantation was Swan Creek, near the mouth of the creek of the same name. Cabell bequeathed land around his plantation to his four sons, who established their own plantation houses around the town of Warminster and the family's mills, a tobacco inspection station and port, and other businesses oriented toward the James River and

Kanawha Canal, and later the rail line that succeeded it on the west bank of the river. Cabell's grandson, William H. Cabell, came into possession of Midway Plantation, consisting of 600 acres that had been a part of the original Swan Creek Plantation. He reportedly had Midway Mill built in 1787, but he did not reside at Midway until 1801. The mill was a massive 4½-story ashlar masonry structure reportedly built by Italian shipwrights from stone quarried nearby. It was a prominent landmark on the James River and Kanawha Canal and produced flour and meal that were transported by barge on the canal. William H. Cabell was elected to the Virginia Assembly in 1802 before serving as Governor from 1805–1808. He then served as a judge in the Virginia Supreme Court of Appeals for more than four decades before passing away in 1853. Cabell appears to have spent much of his life in Richmond where he is buried, but he evidently maintained the 600-acre Midway Plantation in Nelson County (Barney 2008; Brock 1888; Smith 2015; Virginia Historic Landmarks Commission 1973). The Simpson family operated Midway Mill in the nineteenth century, and their house (062-0092) was located adjacent to the mill. The mill operated until the 1920s, when it could no longer compete with modern industrial mills. The mill building was demolished in 1998 (Bailey 2015; Virginia Historic Landmarks Commission 1973). Many of the former slaves of the Cabell plantations of Liberty Hill, Bonaire, and Edgewood remained on or near the plantation lands after the Civil War, while others who left later returned to their former homes. A number of resources associated with the postbellum African-American community are located in the southwest portion of the historic district, including Woodson's Store, the Black Odd Fellows Hall, and five cemeteries.

RESOURCE DESCRIPTION

Location and Setting

The 3,665-acre Warminster Rural Historic District is located on the west bank of the James River in southern Nelson County (Figure 2). An evaluation of potential Project effects in the Warminster Rural Historic District related to a previous route was included in the February 2016 Addendum 1 report for this Project (Staton et al. 2016:25–29). Following a shift in the Project alignment, further field studies were conducted by ERM (Voisin George et al. 2017) to determine the potential Project effects to the district as a whole. Subsequent to these two studies, the Warminster Rural Historic District was expanded on its south side, encompassing 14 additional properties and increasing the length of the Project within the district by 1.9 miles. The additional area was addressed by ERM in Addendum 4 (Tucker-Laird et al. 2017a). The current proposed route intersects the Warminster Rural Historic District in its northwest corner for approximately 0.8 miles and in its southwest corner, including the expanded portion of the district, for 2.2 miles. The Warminster Rural Historic District's current setting is rural, with a series of low, wooded ridges descending to the river, and homes widely spaced along the few public roads in the area (Figure 3).

Individual Resources

Field investigations indicated that six contributing or individually eligible resources identified within the Warminster Rural Historic District are potentially within the visual APE of the proposed Project (Figure 4). These resources are summarized in Table 1 and are discussed below.

Table 1.			
Warminster Rural Historic District Resources in the Project APE			
Resource Name	Description	Approximate Distance to Project	Individual Eligibility
Simpson House	Folk Victorian, ca. 1880	545 feet south	Eligible
Simpson Mausoleum	Stone mausoleum, unknown date	160 feet south	Contributing
Pauline White House	House, ca. 1950	450 feet northeast	Contributing
Scott Cabin	Unknown Date	607 feet south-southwest	Eligible*
Scott Cemetery	Unknown Date	292 feet south-southwest	Eligible*
Dillard House	Unknown Date	676 feet north-northeast	Eligible*

* These resources were inaccessible at the time of survey and are considered eligible for the purposes of the Project.

NRHP ELIGIBILITY AND ASSESSMENT OF EFFECTS

The Warminster Rural Historic District has been determined eligible for listing in the NRHP under Criterion A for its settlement and development patterns, and for its association with transportation development. Further, it is considered eligible under Criterion A for its contribution to Black Ethnic History, social history, and commerce in the mid twentieth century. It is also considered potentially eligible under Criterion B for its association with the Cabell family, one of the preeminent families of Virginia, serving in all branches of government and overseeing a business empire of agricultural, industrial, and trade interests. The district is also potentially eligible under Criterion C for the two extant Cabell homes, Edgewood (062-0004) and Bon Aire (062-0089), which are not within the Project APE.

In order to more precisely evaluate the effects that the Project would have on the Warminster Rural Historic District, computer modeling visual simulations utilizing ArcGIS and DEM modeling were performed from 57 discrete building locations within the NRHP boundary of the district, including some cases in which multiple buildings belong to one property (Figures 5 and 6). Through this modeling, it was found that the Project will be minimally visible from 11 discrete locations in the district. These 11 observation points include all six resources identified from field investigations to be within the Project APE.

Along the two segments of Project corridor that intersect the district, the resources that are most likely to be affected by the Project are those located closest to the corridor. In most cases, trees block much of the view so resources would likely only be affected in the winter. The two sections of the historic district that would be traversed by the Project are mostly comprised of woodlands, although some open pastureland would be crossed in the northwestern portion of the district. In the context of the extensive area encompassed by the Warminster Valley Rural Historic District, the expected impacts to the overall visual character and NRHP integrity of the district are minor, and do not affect the district's NRHP status. However, because the viewshed will be altered as a result of the Project, affecting the setting of the rural landscape, DHR determined there would be an adverse effect to the resource. Project effects on specific resources associated with the district are discussed below.

The Simpson House (062-0092) was recommended eligible for the NRHP under Criteria A and C in 2017. The results of the viewshed analysis utilizing Google Earth imaging software are illustrated in Figures 7 and 8. A photographic view from the resource toward the Project is shown in Figure 9. The Project would pass through a wooded area in the southern portion of the parcel containing the Simpson House (062-0092) within the Warminster Historic District. This

tree cut would not be visible from buildings that comprise the resource. The tree cut would be visible at a distance to the south of the resource where the corridor crosses the James River and ascends the ridge on the south side of the valley.

The Simpson Mausoleum is located in Midway Mills Cemetery about 0.5 miles west of the Simpson House. It is not considered eligible for the NRHP as an individual property; however, Midway Mills Cemetery is closely associated with the Cabell and Simpson families and is recommended as a contributing resource to the Warminster Historic District under Criterion B (Tucker-Laird et al. 2017e). The results of the viewshed analysis utilizing Google Earth imaging software indicated that there would be some views from the Simpson Mausoleum to the Project (Figure 10). The Project traverses woodlands to the south of the mausoleum. Although mature trees would remain standing between the resource and the proposed pipeline, the tree cut associated with the Project would likely be visible as an area of sunlight along the Project corridor seen through the trees.

The Pauline White House is not individually eligible for the NRHP under Criterion C. However, the resource was included as one of 14 in the district boundary expansion that contributes to the district in the area of African-American ethnic, social, and economic history after the Civil War. ERM concurred that it be considered a contributing resource (Tucker-Laird et al. 2017e). The resource's relationship to the Project is shown in Appendix A, Figure 4. In order to analyze the impact the Project will have on the resource, computer modeling visual simulations utilizing ArcGIS and DEM modeling were performed. The simulations indicated that there would be some views from the Simpson Mausoleum to the Project (Figure 11). The Project traverses woodlands to the northeast of the Pauline White House. Although mature trees would remain standing between the resource and the proposed pipeline, the tree cut associated with the Project would likely be visible from certain vantage points within the resource.

Scott Cabin was inaccessible during the most recent survey on June 29, 2017. It was constructed in 1960 according to tax records, but is shown on an aerial photograph dated 1959. Field survey is necessary to evaluate the resource's eligibility for the NRHP under Criterion C, and additional detailed historical research is needed to define the resource's connection to the historical themes that form the basis for the district's significance. However, the resource was included as one of 14 in the district boundary expansion that contributes to the Warminster Rural Historic District in the area of African-American ethnic, social, and economic history after the Civil War. ERM concurred that it be considered a contributing resource (Tucker-Laird et al. 2017e). Its relationship to the Project is shown in Figure 4. In order to analyze the impact the Project will have on the resource, computer modeling visual simulations utilizing ArcGIS and DEM modeling were performed. The simulations indicated that there would be some views from the Scott Cabin to the Project (Figure 12). The Project traverses woodlands to the southwest of the Scott Cabin approximately 500 feet from the resource. Although the resource is surrounded by mature trees, the tree cut associated with the Project would likely be visible from certain vantage points at the resource.

Scott Cemetery was identified as part of a boundary expansion of Warminster Rural Historic District approved by DHR in July 2016 that highlights African-American ethnic, social and economic history after the Civil War. Therefore, ERM recommends that it be considered a contributing resource to the Warminster Rural Historic District (Tucker-Laird et al. 2017e). No information is available on the resource in V-CRIS, and it was inaccessible during the most recent survey on June 29, 2017. According to information from DHR, the cemetery is located in a wooded area west of Scott Cabin (see Figure 4). In order to analyze the impact the Project will

have on the resource, computer modeling visual simulations utilizing ArcGIS and DEM modeling were performed. The simulations indicated that there would be some views from the Scott Cemetery to the Project (see Figure 12). The Project would traverse woodlands just southwest of the Scott Cemetery. Although the resource is surrounded by mature trees, the tree cut associated with the Project would be visible, most obtrusively in the southern corner of the cemetery.

The Dillard House property contains three residences according to county tax records. Information is not available on each of the residences, and no date of construction is given for the primary residence. Additional detailed historical research would be needed to define the resource's connection to the historical themes that form the basis for the district's significance. However, the resource was included as one of 14 in the district boundary expansion approved by DHR in July 2016 that contributes to the Warminster Rural Historic District in the area of African-American ethnic, social, and economic history after the Civil War. Its relationship to the Project is shown in Figure 4. In order to analyze the impact the Project will have on the resource, computer modeling visual simulations utilizing ArcGIS and DEM modeling were performed. Observable points to the Project from the area near the Dillard House (Figures 13 and 14) and Dillard Cemetery (Figure 15) will predominantly be blocked by trees during months when leaves are on trees; however, during leaf-off season, the corridor may be visible. The Project traverses woodlands to the northeast of the Dillard House. Although mature trees would remain standing between the resource and the proposed pipeline, the tree cut associated with the Project would likely be visible from certain vantage points within the resource. However, the viewshed of the resource has already been affected by the construction of an electric transmission line immediately north of the resource.

TREATMENT PLAN COMPONENTS

The Treatment Plan is designed to mitigate the adverse effects on the Warminster Rural Historic District through both direct and indirect methods. This plan has been developed to support FERC, DHR, and other consulting parties in fulfilling the conditions of the Programmatic Agreement (PA) for the Project. All work carried out will meet the Secretary of the Interior's Standards for Archaeology and Historic Preservation and will be done by or under the supervision of an individual meeting that agency's professional qualification standards. In developing components of the treatment plan, several objectives were pursued. These include an interest in highlighting the NRHP significance of the resource, ensuring the public benefit of the plan, considering the needs of all stakeholders in the process, and arriving at a plan for mitigation that will enhance our knowledge of the resource and ensure its protection. The Treatment Plan will specify the general measures that will be implemented prior to, during, and after construction; it will also include a research and public outreach element. Specific details on the plan's execution will be provided once the consulting parties have reviewed the document and the signatories have agreed to its content.

- *Documentation Component.* Provide pre- and post-construction digital photo documentation of the district where it is traversed by the Project. Conduct historic research to present information about settlement patterns and land use over time, using historic and contemporary photographs as well as visual simulations to illustrate historic and current landscapes. Also, a NRHP nomination for the district would be prepared, including the recently added African-American resources. Historic research, oral history, and historic architectural documentation and assessment would be conducted as part of this effort.

- *Revegetation Component.* Because the permanent right-of-way must remain free of trees and brush, some tree removal will occur within the NRHP boundary and surrounding viewshed. In order to restore the viewshed close to its pre-construction setting, trees consistent with native vegetation will be planted within the construction right-of-way, to visually block the view of the permanent corridor to the extent possible. The revegetation plan will concentrate on areas where trees will have to be removed for construction as well as areas where planting vegetation will aid in blocking the view of the permanent right-of-way from significant vantage points in the district(Figure 16, 17, and 18).
- *Public Outreach.* The adverse effect will be further mitigated by preparing additional material that could be used for an interactive map or to augment existing websites and maps. Map preparation will be underpinned by additional historic research on individual resources, historic themes and events, and important changes through time that have occurred within the district. Emphasis will be placed on African-American resources, which are not as well known or documented. Some of the research would focus on deeds and cemetery data to establish settlement trends and timelines. The resulting interactive map will be professionally designed and illustrated, and can be displayed at the library, on the county website, and/or at the Nelson County Historical Society's Oakland Museum, where it will be available to local interest groups and visitors interested in the resource. The interpretive materials can also be used by teachers within the county as an instruction tool. Interpretive materials for use on websites can be created in HTML with hyperlinks to associated pages, allowing exploration of individual resources or themes; the map also could utilize platforms such as Google Earth with each resource marked on the map along with current and historic images as well as text-based historical information.
- *Local History Support.* Coordinate with the Nelson County Historical Society to develop plans and solicit donations for their use under the 501(c)(3) non-profit status.

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- Smith, Cabell
2015 *Warminster Rural Historic District Preliminary Information Form*. On file, Virginia Department of Historic Resources, Richmond.
- Staton, Heather D. (contributions by Candice Myruski and Richard Meyer)
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Tucker-Laird, Emily, Laura Voisin George, Jeffrey L. Holland, and Larissa A. Thomas
2017a *Phase I Historic Architectural Survey of the Atlantic Coast Pipeline Project: Virginia Addendum 4 Report*. DHR File No. 2014-0710. ERM, Duluth, Georgia. Prepared for Atlantic Coast Pipeline, Inc., Richmond, Virginia.

Tucker-Laird, Emily, David Castell, Jessica Wobig, Jeffrey L. Holland, Laura Voisin George, Mary Beth Derrick, and Larissa A. Thomas
2017b *Phase I Historic Architectural Survey of the Atlantic Coast Pipeline Project: Virginia Addendum 5 Report*. DHR File No. 2014-0710. ERM, Duluth, Georgia. Prepared for Atlantic Coast Pipeline, Inc., Richmond, Virginia.

Tucker-Laird, Emily, Jessica Wobig, Kimberly Barnard, Jeffrey L. Holland, and Larissa A. Thomas
2017c *Phase I Historic Architectural Survey of the Atlantic Coast Pipeline Project: Virginia Addendum 6 Report*. DHR File No. 2014-0710. ERM, Duluth, Georgia. Prepared for Atlantic Coast Pipeline, Inc., Richmond, Virginia.

Tucker-Laird, Emily, Danielle Ross, Mary Beth Derrick, and Larissa A. Thomas
2017d *Initial Assessment of Potential Effects for Architectural Resources - Atlantic Coast Pipeline Project: Resources Not Affected Due to Topography and Screening*. DHR File No. 2014-0710. ERM, Duluth, Georgia. Prepared for Atlantic Coast Pipeline, Inc., Richmond, Virginia.

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2017e *Phase I Historic Architectural Survey of the Atlantic Coast Pipeline Project: Virginia Assessment of Effects Report*. DHR File No. 2014-0710. ERM, Duluth, Georgia. Prepared for Atlantic Coast Pipeline, Inc., Richmond, Virginia.

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1973 Midway Mill National Register of Historic Places Inventory Nomination Form. On file, Virginia Department of Historic Resources, Richmond.

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APPENDIX A – FIGURES

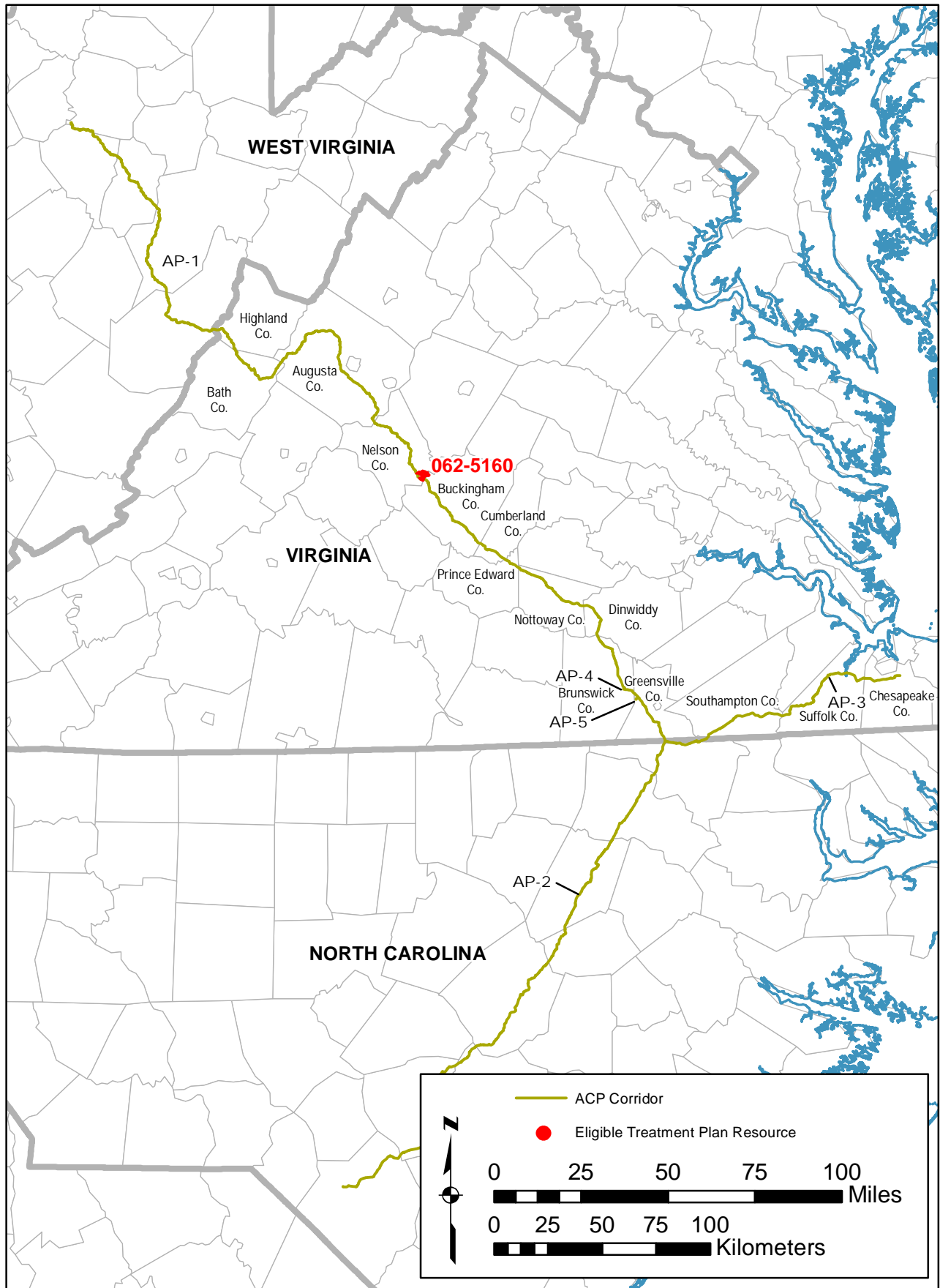


Figure 1. Location of Project and resource in Virginia.

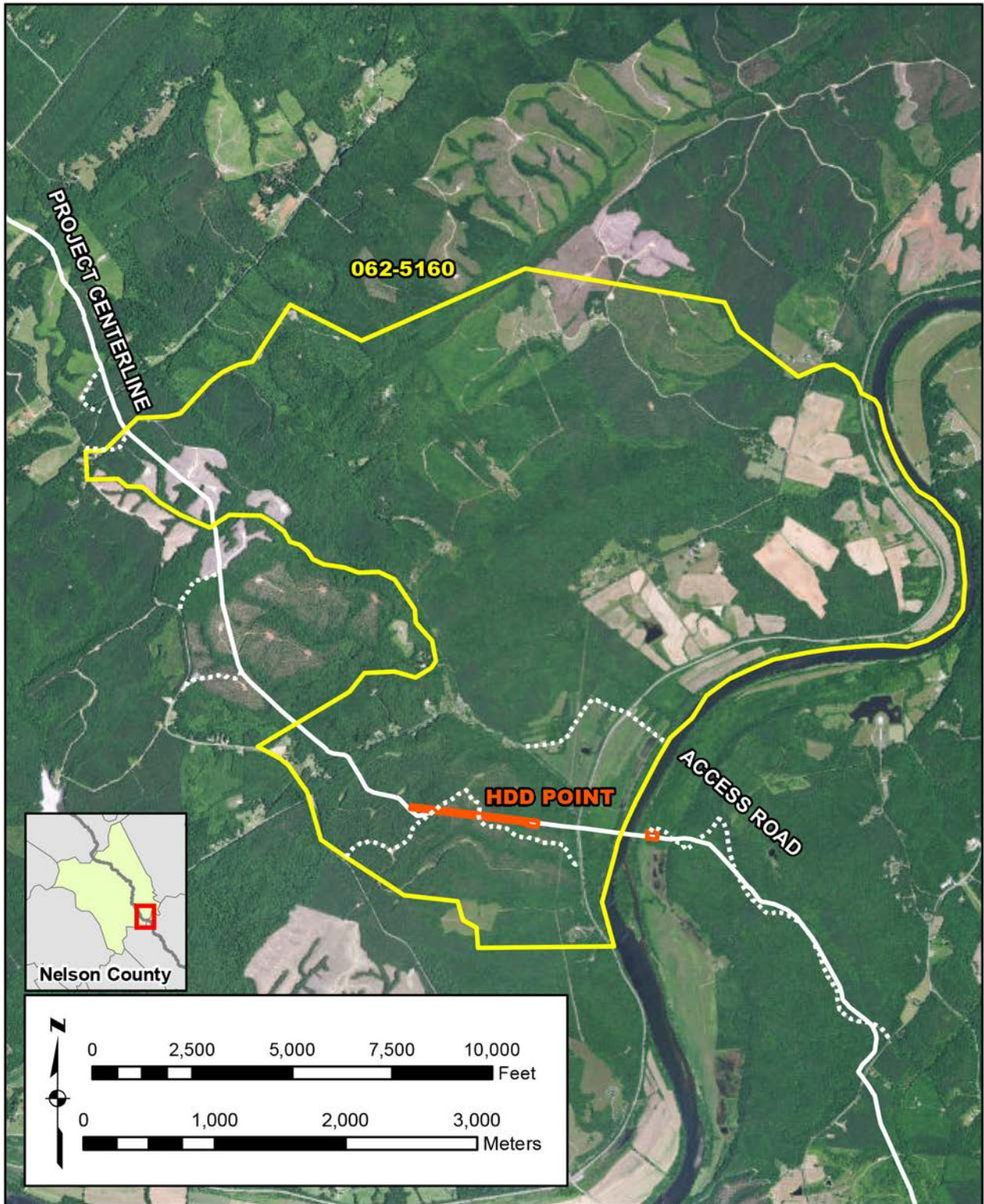


Figure 2. Warminster Rural Historic District (062-5160), NRHP boundary and relationship to the Project.



Figure 3. Warminster Rural Historic District (062-5160), view to south-southeast from unnamed access.

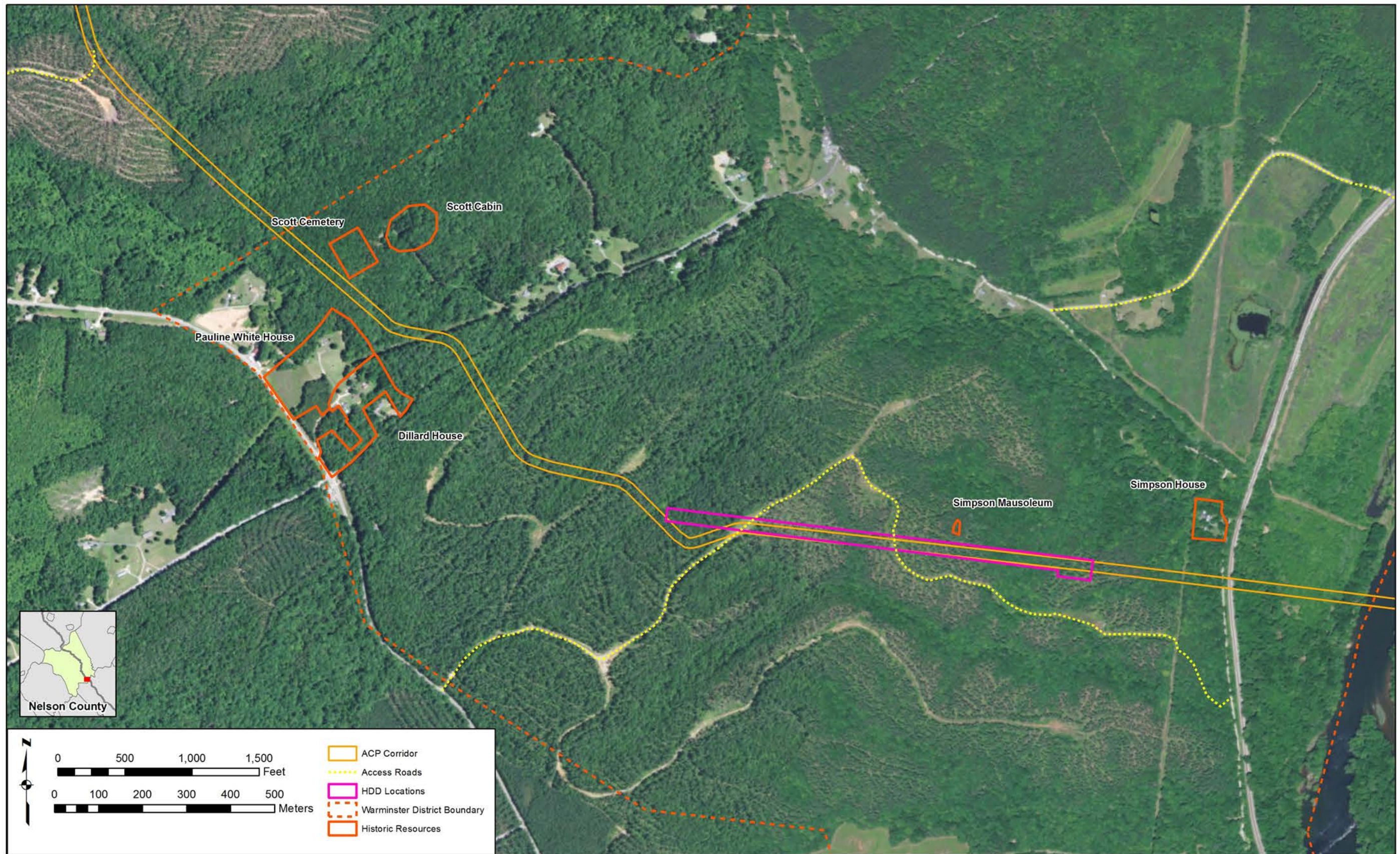


Figure 4. Warminster Rural Historic District (062-5160), showing proposed boundaries for contributing resources and their relationship to the Project.



Legend

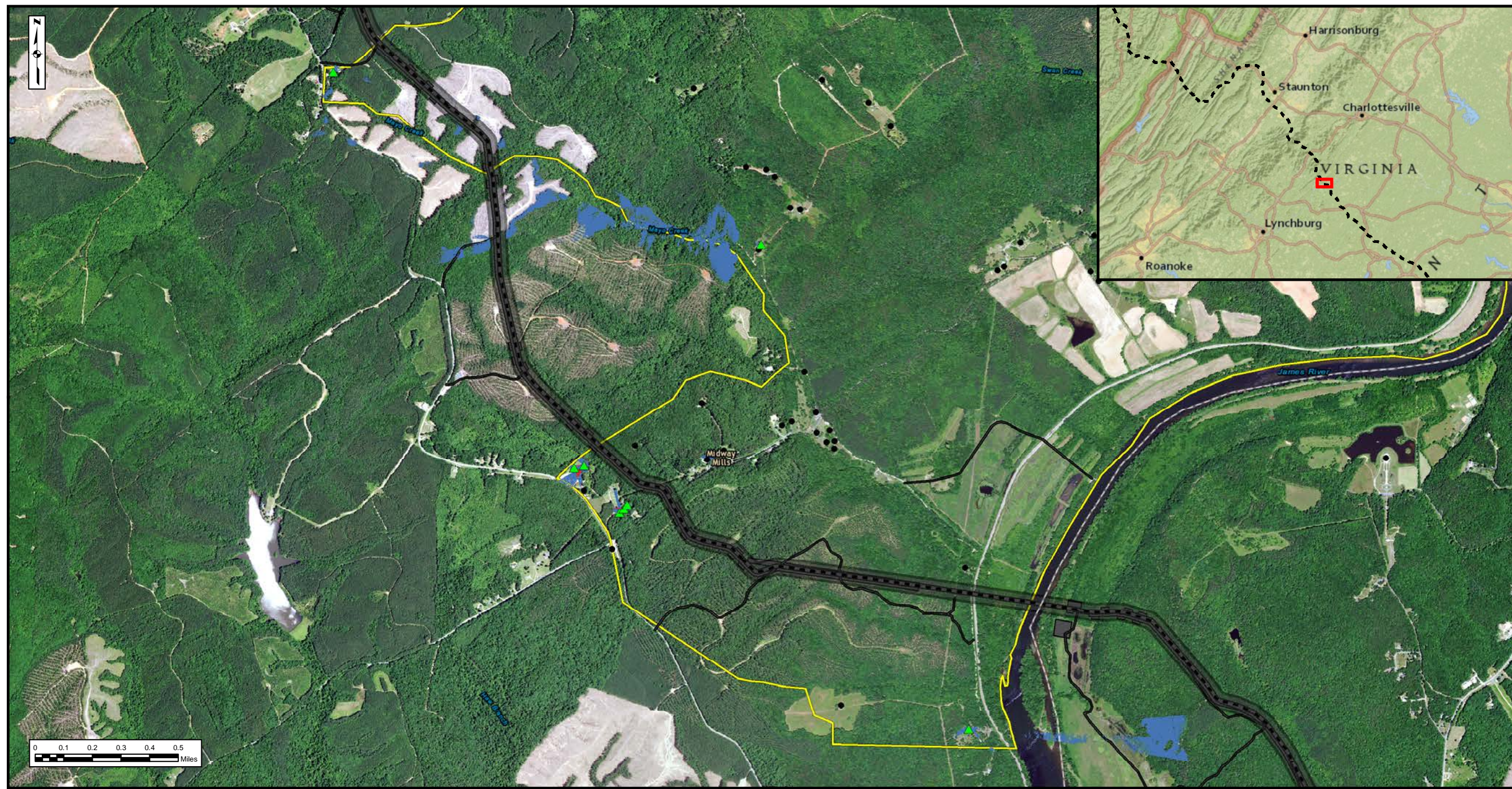
- Resources in Historic District
- ▬ Survey Corridor
- ▬ ACP Workspace

Warminster Historic District:
 Overview
 ACP
 Virginia



C:\TOWER_GIS\Dom_ACP2_HR\Cultural Heritage\MXD\Warminster\WarminsterOverview_07192017.mxd - north.mxd - 7/20/2017

Figure 5. Warminster Rural Historic District (062-5160), overview of resource locations for viewshed analysis.



- Legend**
- - - ACP Centerline
 - █ Survey Corridor
 - █ ACP Workspace
 - Unaffected Resources
 - ▲ Resources that can potentially view the ACP Centerline
- Observable Areas from Resources Near ACP**
- Visible to 3 Resources
 - Visible to 1 Resources

Warminster Historic District:
 Observable Areas from Resources That
 Can Potentially View the ACP Centerline
 ACP
 Virginia



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Figure 6. Warminster Rural Historic District (062-5160), observable areas from resources potentially affected by Project.



Figure 7. Warminster Rural Historic District (062-5160), 3-D view toward Project from Simpson House (062-0092).

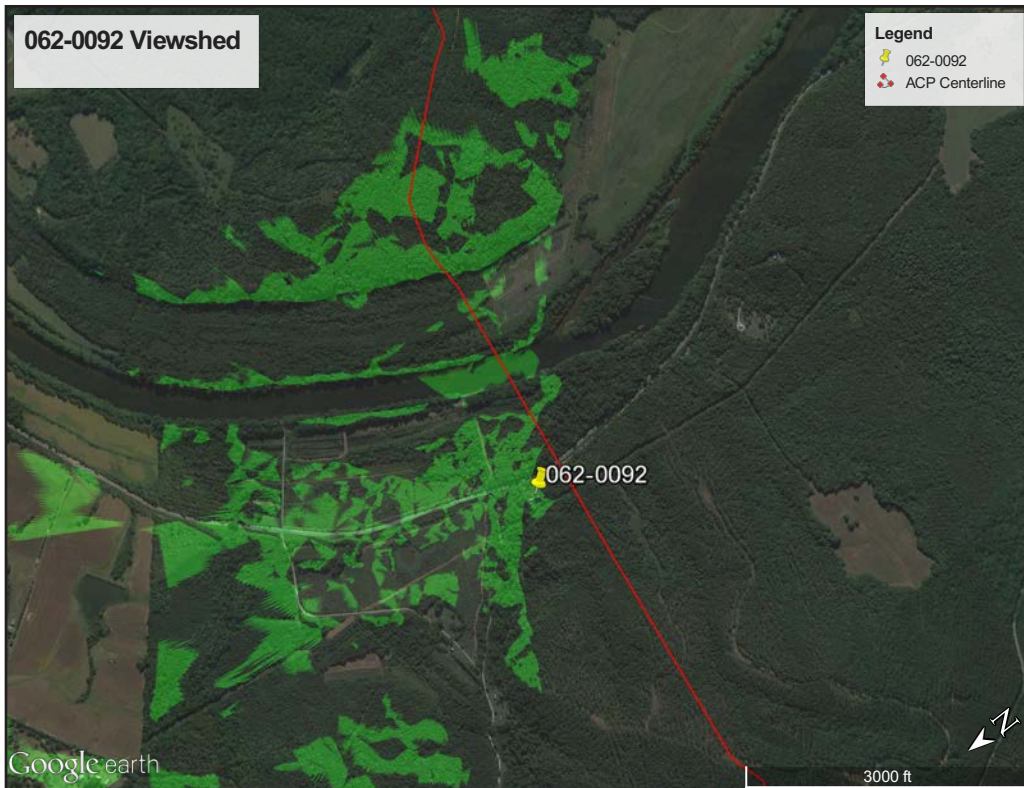


Figure 8. Warminster Rural Historic District (062-5160), viewshed from Simpson House (062-0092).



Figure 9. Warminster Rural Historic District (062-5160), view toward Project from Simpson House (062-0092), view southwest.



Legend

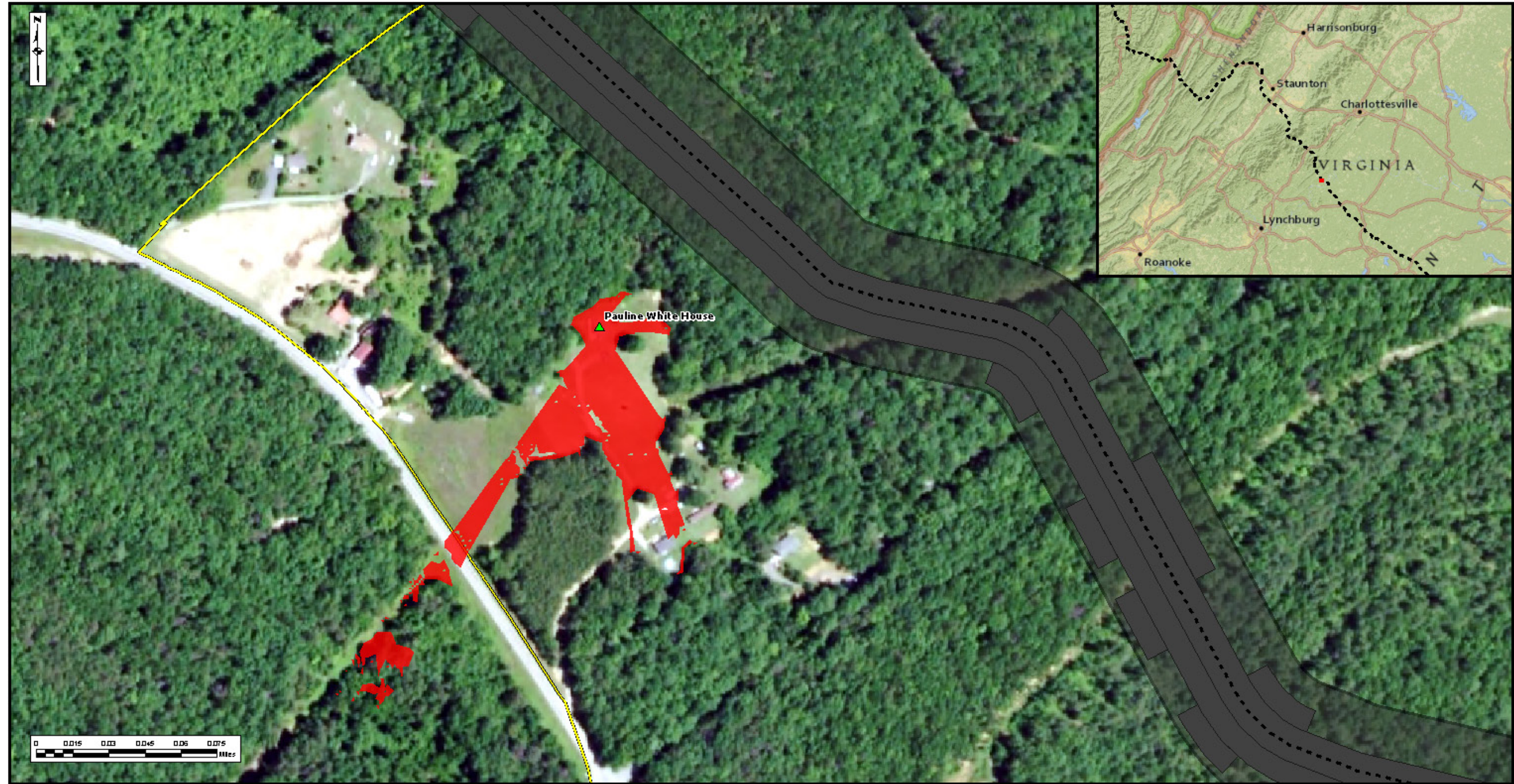
- ACP Centerline
- Survey Corridor
- ACP Workspace
- Resources in Historic District

Warminster Historic District:
 Simpson Mausoleum
 ACP
 Virginia



Figure 10. Warminster Rural Historic District (062-5160), observable area from Simpson Mausoleum.

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- Legend**
- - - ACP Centerline
 - █ Survey Corridor
 - █ ACP Workspace
 - ▲ Resources in Historic District
 - █ Observer View

Warminster Historic District:
 Pauline White House
 ACP
 Virginia



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Figure 11. Warminster Rural Historic District (062-5160), observable area from Pauline White House.



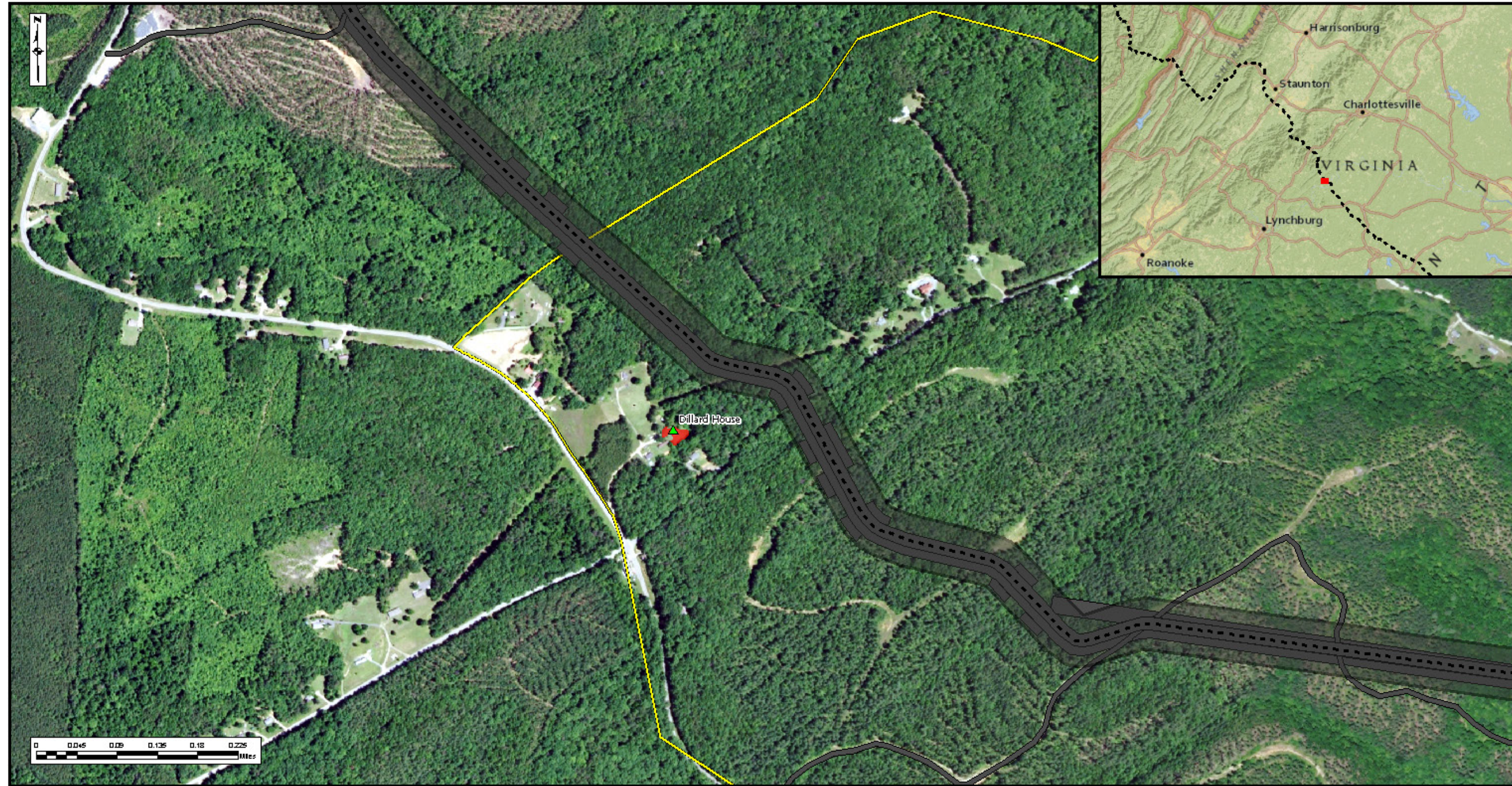
- Legend**
- ACP Centerline
 - █ Survey Corridor
 - █ ACP Workspace
 - ▲ Resources in Historic District
 - Observer View

Warminster Historic District:
 Scott Cabin and Scott Cemetery
 ACP
 Virginia



C:\TDC\ER_GIS\Shm_JAG\ER_Warminster_Heritage\Map\Warminster_Observable_Area_Sc_Cabin_and_Sc_Cemetery_072520_Trim.tif - name.mxd - 7/25/2017

Figure 12. Warminster Rural Historic District (062-5160), observable area from Scott Cemetery and Scott Cabin.



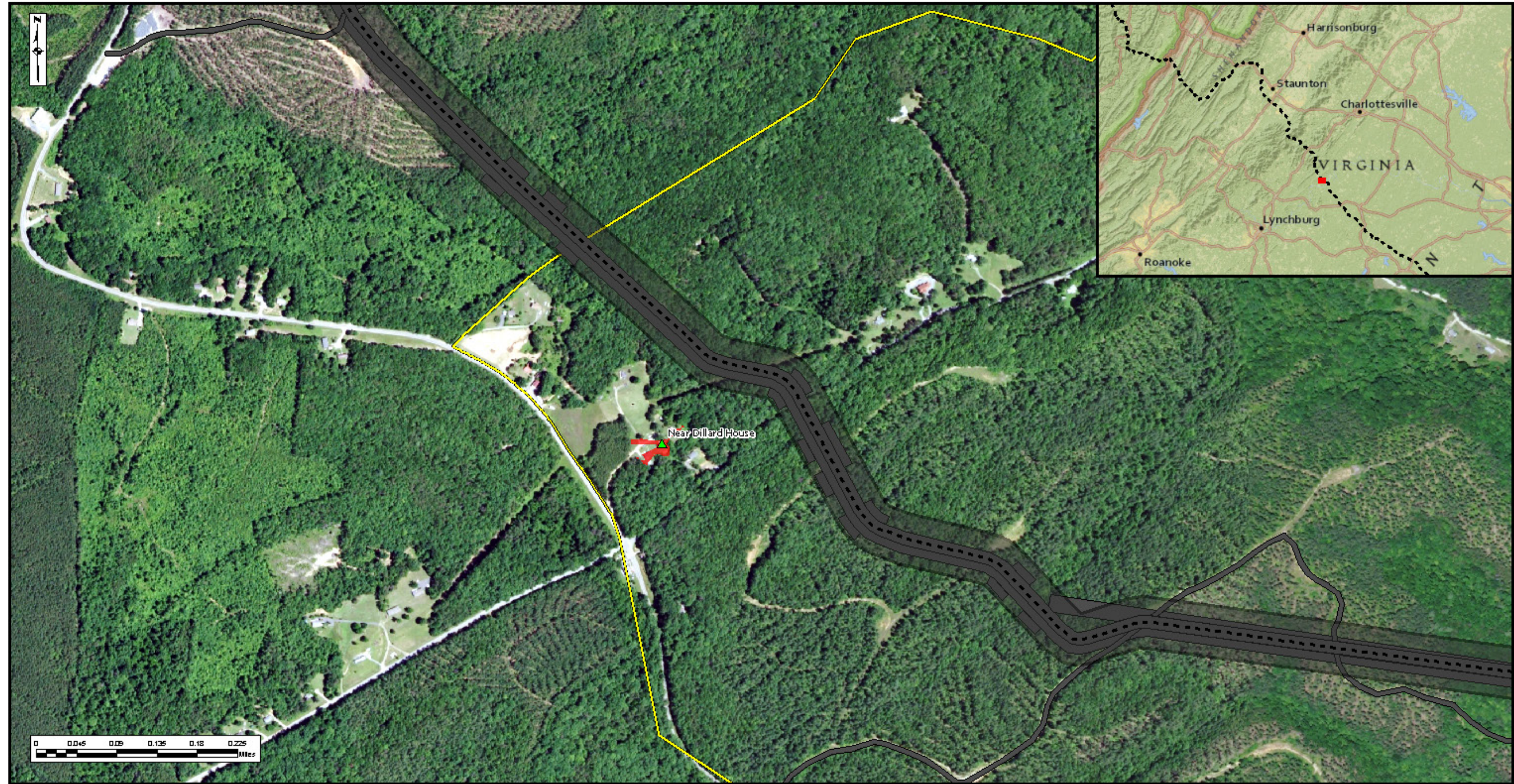
- Legend**
- - - ACP Centerline
 - █ Survey Corridor
 - █ ACP Workspace
 - ▲ Resources in Historic District
 - █ Observer View

Warminster Historic District:
 Observable Area: Dillard House
 ACP
 Virginia



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Figure 13. Warminster Rural Historic District (062-5160), observable area from Dillard House.



- Legend**
- - - ACP Centerline
 - █ Survey Corridor
 - █ ACP Workspace
 - ▲ Resources in Historic District
 - █ Observer View

Warminster Historic District:
 Observable Area: Near Dillard House (Not Dillard House)
 ACP
 Virginia



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Figure 14. Warminster Rural Historic District (062-5160), observable area from near Dillard House.



- Legend**
- ACP Centerline
 - █ Survey Corridor
 - █ ACP Workspace
 - ▲ Resources in Historic District
 - █ Observer View

Warminster Historic District:
 Observable Area: No VCR #2
 ACP
 Virginia



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Figure 15. Warminster Rural Historic District (062-5160), observable area from Dillard Cemetery.

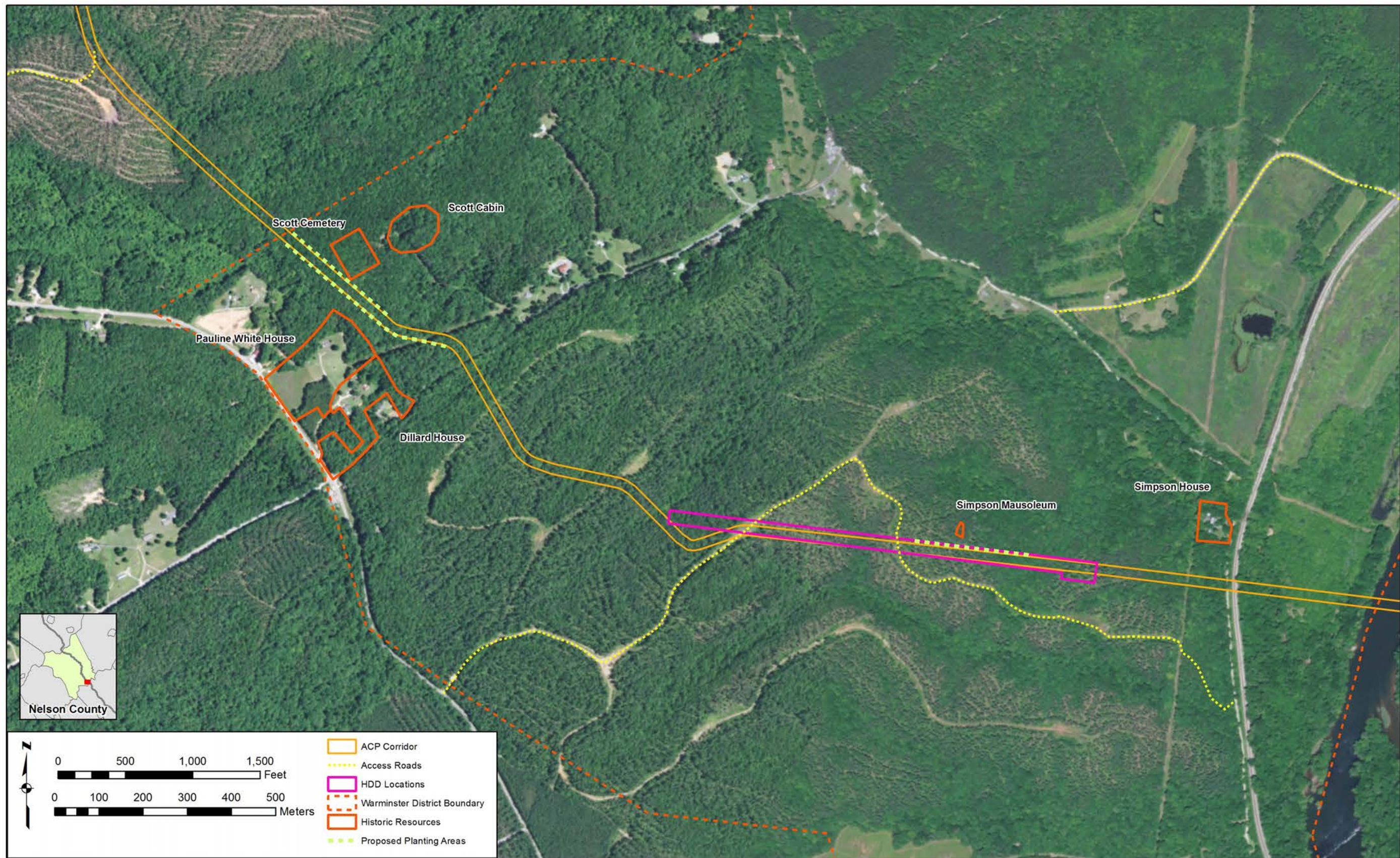


Figure 16. Warminster Rural Historic District (062-5160), vegetative treatment plan.

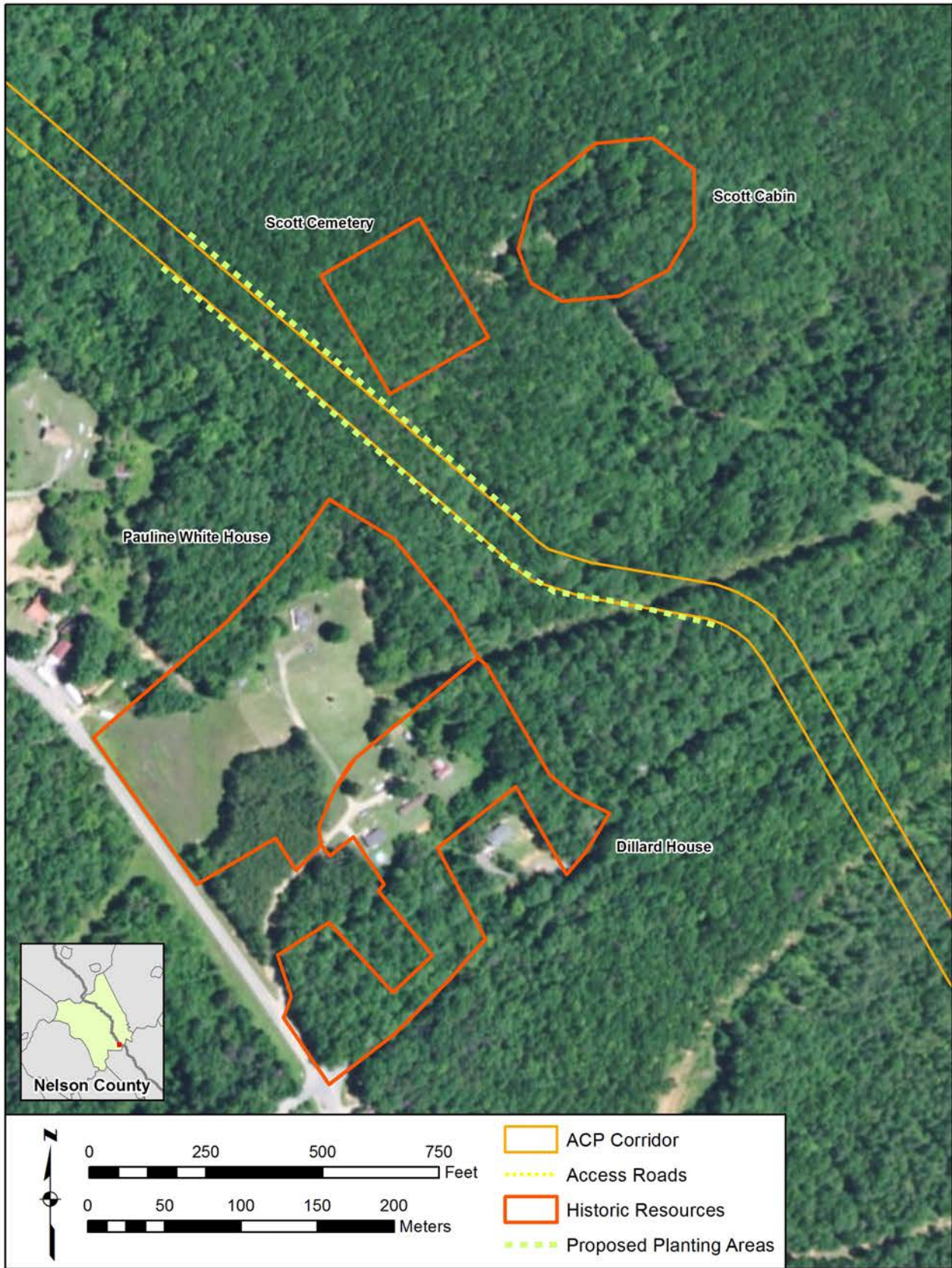


Figure 17. Warminster Rural Historic District (062-5160), vegetative treatment plan for Dillard-Scott-White houses.



Figure 18. Warminster Rural Historic District (062-5160), vegetative treatment plan for Simpson Mausoleum.

APPENDIX B – RESUME OF PRINCIPAL INVESTIGATOR

Emily Tucker-Laird

Senior Architectural Historian/Archaeologist



Ms. Tucker-Laird has over ten years of experience in cultural resources management, and is Secretary of the Interior Qualified as an architectural historian and archaeologist. Emily has extensive experience working as a Principal Investigator. Her projects have included intra and interstate pipelines, electrical transmission lines, wind projects, solar projects, microwave towers, and treatment plans. In addition to field work, Emily has experience supervising and coordinating for complex projects. Emily has participated in the consultation process and has worked with a wide range of state and federal agencies.

Ms. Tucker-Laird has worked on projects in Alabama, Arkansas, Georgia, Illinois, Indiana, Louisiana, Maine, Mississippi, North Carolina, Ohio, Oklahoma, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, and West Virginia. These projects involved private sector clients, county and municipal governments, state agencies, and federal clients. Ms. Tucker-Laird has been involved in all aspects of project tasks. She has coordinated with clients, state, and federal agencies. She has conducted background research and field studies, written reports, and prepared relevant state and federal forms.

Fields of Competence

- Architectural surveys and evaluations
- Development of research and fieldwork designs for cultural resource and historic preservation compliance projects
- National Register of Historic Places eligibility evaluation and assessments for historic resources
- Compliance with state, and federal cultural resource regulations, including guidelines set forth by various State Historic Preservation Offices, the National Historic Preservation Act and the National Environmental Policy Act
- Phase I, II, and III Archaeological Field Investigations and report preparation

Education and Training

- M.A., Anthropology, Ball State University, 2013
- M.S., Historic Preservation, Ball State University, 2003
- B.S., Social Sciences, University of Pittsburgh, 1999

Certificates

- Federal Energy Regulatory Commission Environmental Review and Compliance for Natural Gas Facilities (FERC, February 25-27, 2014)
- Introduction to NEPA and Transportation Decision Making (web-based, National Highway Institute, January 7, 2013)
- NEPA Cumulative Effects Analysis and Documentation (The Shipley Group, August 30 and 31, 2012)
- Identification and Management of Traditional Cultural Places (National Preservation Institute, June 19 and 20, 2012)
- NEPA and the Transportation Decision Making Process (National Highway Institute, June 12-14, 2012)
- Section 4f: Compliance for Historic Properties (National Preservation Institute, December 8 and 9, 2011)
- Section 106: Principles and Practice (SRI Foundation, January 12 and 13, 2010)

Key Industry Sectors

- Power
- Oil & Gas
- Telecommunications

Registrations & Professional Affiliations

- Register of Professional Archaeologists (RPA)

Key Projects

With ERM

Atlantic Coast Pipeline, LLC and Dominion Energy Transmission, Inc.

Architectural historian and task lead 2016-2017 for 556-mile long natural gas pipeline extending from Harrison County West Virginia to Robeson County, North Carolina. Responsible for overseeing the Phase I architectural survey and consultation with the FERC, FCC, and SHPOs.

Mt. Storm Wind Force, LLC, a subsidiary of NextEra Energy Resources, LLC

Architectural historian 2016 for a 72 turbine wind project in Grant and Tucker County West Virginia. Key tasks included field survey and reporting. Project was completed to meet the requirements of the West Virginia Public Service Commission, and Section 106 of the National Historic Preservation Act.

Driftwood LNG Project, Driftwood LNG LLC and Driftwood LNG Pipeline LLC

Architectural Historian 2016 for a 96 mile natural gas pipeline in Calcasieu, Jefferson Davis, Acadia, and Evangeline parishes. Completed architectural survey to meet the requirements of the FERC and LASHPO.

Telecommunications Client - Nationwide

Architectural Historian and Archaeologist for a nationwide NEPA Program Management Team serving a major national telecommunications carrier, provide QA/QC oversight on cultural resources submittals and client deliverables. Key tasks include assuring that all compliance submittals conform to regulatory requirements as well as meeting client standards, and assuring that required documentation of compliance is included in all client deliverables. This includes SHPO, tribal, local government, and public consultation under the National Historic Preservation Act and the National Environmental Policy Act.

Anadarko Petroleum Corporation -

2015: NEPA and Section 106 efforts to support 64 telecommunications projects within existing Wattenberg, CO facilities. Served as co-tribal consultant, researcher and report writer.

Representative Historical Architectural Studies with Other Companies

Architectural Historian for the HABS Level II documentation of selected resources of the Tennessee Valley Authority Muscle Shoals Reservation, Alabama. The architectural survey included a detailed survey of both the interior and exterior of 20 resources.

Architectural Historian for 55.18-miles of proposed transmission line in Burke, Jefferson, McDuffie, and Warren counties, GA. The architectural survey involved identifying all historic resources, both newly and previously recorded that could fall within the viewshed of the proposed project.

Architectural Historian during the Georgetown Historic District Survey, including fieldwork to record 900 resources within the National Register-listed historic district.

Architectural Historian for a conditions assessment of the 13-acre Linwood Cemetery in Macon, Georgia. Containing over 4,000 burials, this historic African-American Cemetery had succumbed to neglect over a period of decades.

Representative Archaeological Studies with Other Companies

Environmental Coordinator and TRC Health and Safety Lead, acting as a liaison between the crew, subcontractors, and client for this 80-mile long project in Illinois and Indiana.

Co-field director for the Phase III Spirit Hill Site excavations, in Alabama. The site included both formal burial areas and intensively used residential zones that were occupied during the Late Woodland and Mississippian periods.

Field director for the removal of 357 individuals from 362 graves at the Wells Cemetery in Tennessee. Duties included crew supervision and coordination, assuring that burials were removed with consistent methodology, photography, and organizing excavation notes. Following the field effort, created a burial database.