Starfire Renewable Power Project

Phase II and Gen-Tie Areas

Breathitt, Knott, and Perry Counties, Kentucky

Technical Memorandum

Purpose: Cultural Resources Assessment
Confidential Information – Not for Public Disclosure

Date: September 1, 2026

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Introduction

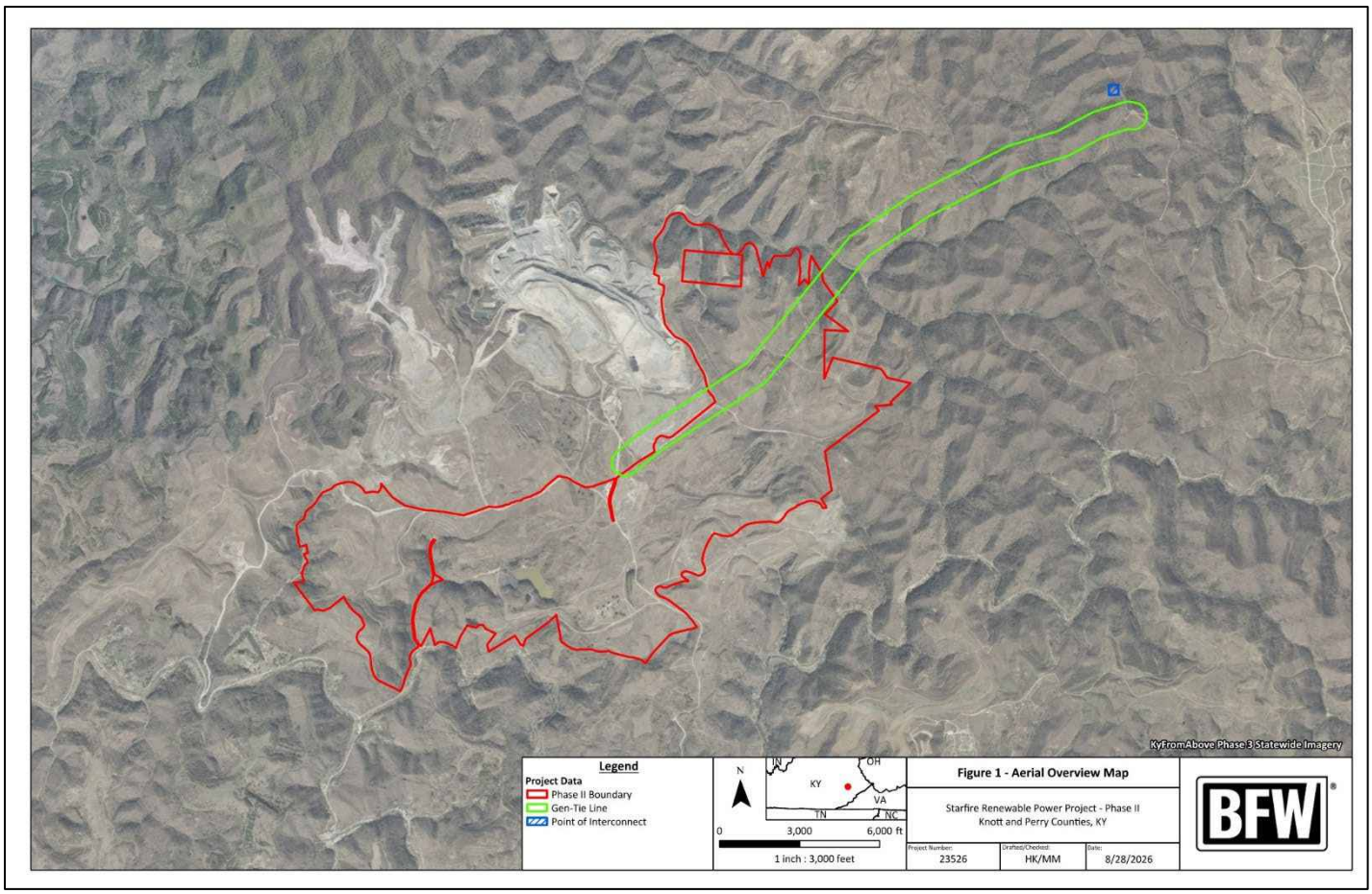
Bacon Farmer Workman Engineering & Testing, Inc. (BFW) was contracted by STMO bn, LLC (STMO) to review cultural resource conditions, including architectural history and archaeological resources, within and adjacent to the proposed Phase II and Gen-Tie areas of the Starfire Renewable Power Project (Project) in Breathitt, Knott, and Perry Counties, Kentucky. The Phase II and Gen-Tie areas are Project components where solar energy generation and transmission facilities would be constructed in Knott and Perry Counties. These areas are depicted in **Figure 1** below and in **Attachment A**. A separate memorandum addresses the Phase I area of the Project in Breathitt and Knott Counties, which is included in **Attachment B.**

The Gen-Tie component of the Project would consist of the development of 5.5 miles of transmission line through an approximately 350-yard-wide (320-meter) corridor, as well as approximately 3.2 acres of associated point-of-interconnect land in the eastern portion of the area. The landscape in the Gen-Tie area consists of rugged, steep, and forested terrain that features a system of recreational off-roading trails and two-track dirt and gravel roads maintained by the Mine Made Adventure Park. The approximate central coordinates of the Gen-Tie area are 37.42405°, -83.08493°. The Phase II component of the Project would involve the installation of solar panels and associated appurtenances across approximately 3,500 acres of reclaimed land associated with the former Starfire coal mine, which operated from the 1960s to 1990s. Development would also occur within adjacent areas of rugged, steep, and forested terrain. The central coordinates of the Phase II area are approximately 37.39702°, -83.11232°. Numerous streams, ponds, and wetlands are present within the Phase II and Gen-Tie areas and are discussed in separate BFW reports.

This memorandum provides baseline documentation of STMO's cultural resources due diligence and preparedness should the Project become a formal undertaking subject to the National Historic Preservation Act (NHPA) and its implementing regulations at 36 CFR Part 800 (Section 106). In the event that the Project constitutes a federal and/or state undertaking, additional cultural resources studies would need to be conducted in accordance with applicable regulatory requirements, including but not limited to Section 106 of NHPA; current (2017) *Specifications for Conducting Fieldwork and Preparing Cultural Resource Assessment Reports* issued by the Kentucky Heritage Council / State Historic Preservation Office (KHC / SHPO); the National Register of Historic Places (NRHP); and the Advisory Council on Historic Preservation (ACHP).

In this memorandum, **Attachment A** includes map **Figures 2** and **3,** as well as a **Photo Log**. **Attachment B** contains the 2023 Phase I Area Cultural Resources Assessment.

Figure 1. Project Area Overview



Archaeological Resources Assessment

BFW received the results of a Scoping Study Records Review from the Kentucky Office of State Archaeology (OSA) on July 10, 2026 (OSA Registration No. S214535). The review addressed data and information pertaining to documented archaeological sites and previously conducted professional archaeological studies within the Phase II and Gen-Tie areas and within a 30-meter (approximately 100-foot) radius. The records review identified 24 archaeological studies conducted within the search area. All of these investigations were completed between 1987 and 2006 for Starfire mining operations. These studies are summarized in **Table A-1**, and their coverage areas relative to the Phase II and Gen-Tie boundaries are shown in **Figure 2** in **Attachment A**. Several of the previous studies included discontinuous field survey areas that were documented within single reports on file with the SHPO and OSA. As shown in **Figure 2** in **Attachment A**, study coverage gaps are primarily concentrated in the central portion of the Phase II area and the western and eastern portions of the Gen-Tie area.

According to OSA records, no archaeological sites have been documented within the Gen-Tie area. However, approximately 70 percent of the Gen-Tie area has not been covered by previously conducted archaeological studies documented in the OSA database. OSA records indicate that three archaeological sites have been documented within the Phase II area. These sites were revisited during targeted, pedestrian field reconnaissance conducted by BFW in July 2026, during which two additional sites were recorded in the Phase II area. At the time of this memorandum, none of these sites have been assessed for NRHP eligibility or formally recorded for NRHP purposes. Of the sites documented in the OSA database, a historic-period farm / residence mapped to the east of an impoundment associated with the Lick Branch (central Phase II area) was found to be no longer present (**Photo 1** in **Attachment A**), and a rockshelter mapped to the west of West Lick Road (western Phase II area) was not located during BFW's field reconnaissance.

During the July 2026 field reconnaissance, BFW located one rockshelter documented in the OSA database on the northwestern bank of the Lick Branch impoundment area (central Phase II area) (**Photo 2**). Additionally, BFW observed a cinderblock structure with historic-age glassware (**Photos 3** and **4**), located east of Williams Branch Road (western Phase II area), and a surface scatter of historic and modern household refuse (**Photos 5** and **6**) on a disturbed hill slope west of Lick Branch Road (center-west Phase II area). **Table 1** summarizes the archaeological sites documented in the OSA database and during the July 2026 field reconnaissance and provides recommendations for the Project for further treatment relative to the current conditions. BFW's field reconnaissance did not include subsurface surveying (i.e., shovel testing) or an intensive-level survey of the total Phase II and Gen-Tie areas.

Table 1. Archaeological Sites

Documentation Information	Description	Project Area Association	NRHP Status	Recommendations
Fiegel, 1996	Rockshelter	Western Phase II, west of West Lick Road	Not Assessed	Site not observed during July 2026 field reconnaissance: attempt revisit if formal Section 106 compliance needed
Vicinity of McIlhany, 1992	Rockshelter	Central Phase II, Lick Branch Impoundment area	Not Assessed	Revisit if formal Section 106 compliance needed
McIlhany, 1993; BFW July 2026 reconnaissance	Historic Farm / Residence	Central Phase II, east of Lick Branch Impoundment area	Not Recorded	No longer present: no further work
BFW July 2026 reconnaissance	Cinderblock structure and historic refuse	Western Phase II, east of Williams Branch Road	Not Recorded	Revisit if formal Section 106 compliance needed
BFW July 2026 reconnaissance	Historic-modern refuse	Center-west Phase II, west of Lick Branch Road	Not Recorded	Redeposited dump site: no further work

It is noteworthy that the 30-meter OSA records search radius would need to be expanded for compliance with KHC/SHPO standards should the Project constitute a formal undertaking subject to review under Section 106 of the NHPA. As a formal undertaking, a 2-kilometer OSA search radius would be employed from the undertaking's limits of disturbance (LOD) rather than the preliminary project boundaries analyzed in the current initial scoping phase. The LOD would constitute the archaeological Area of Potential Effect (APE) in accordance with KHC standards and Section 106 compliance. The renewed records search would also account for any nearby and/or formally registered studies and sites documented between the date of this memorandum and initiation of the undertaking. Further, archaeological studies that have covered the Phase II and Gen-Tie areas, as well as the Phase I area discussed in **Attachment B**, are likely to be determined to be too old for Section 106 compliance based on current (2017) KHC standards. Therefore, renewed field and archival research of a 2-kilometer buffer and the Project LOD is expected to be required should the Project constitute a formal undertaking under Section 106.

To supplement the archaeological records review for the proposed project, BFW also analyzed historic maps, aerial images, and soils data to assess the potential for the presence of undocumented archaeological resources.

Available U.S. Geological Survey (USGS) 7.5-minute topographic maps dating from 1891 to 2022 (USGS, Hazard KY 1891 and 1977; Troublesome KY 1914; Noble KY and Vest KY series [1954, 2010, 2013, 2016, 2019, 2022]; and Jenkins KY 1957 and 1960) were analyzed to assess prior development, apparent impacts, and the potential presence of significant historic-era archaeological resources within the Phase II and Gen-Tie areas for NRHP evaluation purposes. Historic aerial images dating from 1952 to 2024 (NETR, 2026) were also reviewed. The results of map and imagery analysis indicate that the Phase II area and western portions of the Gen-Tie area have been extensively mined since the mid-twentieth century. The 1977 Hazard, KY topographic map provides the first clearly marked mining boundaries, which are shown to expand in subsequent decades based on aerial imagery. Areas that are not clearly stripped in aerial images feature changing gravel road alignments, likely for mining haul routes and other site access improvements. No extant structures of historic age (i.e., greater than 50 years before present) are apparent on topographic maps postdating the 1954 Noble, Jenkins, and Vest, KY depictions; however, numerous structures are shown on earlier maps that cover the Phase II area. Very little development is apparent in maps and imagery covering the majority of the rugged and remote Gen-Tie area east of the mining area, although minimally engineered gravel and dirt roads that currently bisect the area are visible beginning in the 1990s.

With respect to sites recorded in the OSA database and reinvestigated during the July 2026 field reconnaissance, the historic farm / residence recorded by McIlhany (1993) in the central Phase II area is depicted on the 1914 Troublesome, KY topographic map and the 1983 aerial image. However, the resource is no longer present in the 1995 aerial image and a gravel road overlaps its location in the next available image in 2004. The impounding of the Lick Branch in the central Phase II area occurred sometime between 1995 and 2004 and inundated the area immediately south of the rockshelter documented by McIlhany (1992). This rockshelter resource was identified during the July 2026 field reconnaissance. The area west of West Lick Road, where a rockshelter was documented by Fiegel (1996), appears to be heavily mined as of 2004 and rehabilitated to the current conditions by 2022. This resource was not located during BFW's 2026 field reconnaissance and is presumed to no longer be present due to mining activities. The historic-modern refuse scatter identified by BFW on a hill slope west of Lick Branch Road could not be associated with any mapped or photo-indicated development, and the origin of this deposit is unclear. Lastly, the cinderblock structure and glassware observed by BFW in the western Phase II area near Williams Branch Road are not visible in available imagery. However, the resource appears to correspond to a structure located at the eastern end of an unnamed drive mapped on the 1954 Noble, KY map and is no longer plotted on the 1960 Jenkins, KY map.

According to the U.S. Department of Agriculture (USDA) Web Soil Survey database (USDA, 2026), numerous mapped soil types are present within the Phase II and Gen-Tie areas. The reclaimed mine land is mapped as Fiveblock, Kaymine, Fairpoint, and Bethsheda soils, with some areas mapped as Earthen Dam or Dumps (mine and tailings). Most of these soils are characterized as stony or very stony inceptisols and entisols deposited in upland settings that may have archaeological potential if undisturbed. The rugged wooded ridges and valleys are mapped as Shelocta-Cutshin-Gilpin complex, Sheloctoa-Highsplint-Gilpin complex, Handshoe-Fedscreek-Shelocta complex, Matewan-Gilpin-Marrowbone complex, and Cloverlick-Shelocta-Kimper complex. These soils are mapped as very rocky or very stony inceptisols deposited in upland settings and also have archaeological potential if undisturbed.

Current archaeological research indicates that the earliest human occupation of the region dates to transitional Pleistocene-Holocene times (ca. 10,500 years ago), and archaeological site formation is scarce prior to the Holocene. Therefore, archaeological potential is considered to be very low in transitional Pleistocene-Holocene soils and theoretically increases during the Holocene. The archaeological potential of landforms in the region is also related to the depth of A and B soil horizons (i.e., those contemporaneous with human occupation in the region) and the degree of disturbance affecting those horizons. Further, the level of disturbance influences whether archaeological materials are likely to be found intact or occur in redeposited contexts. This, in turn, factors into a site or deposit's significance and integrity for NRHP evaluation and SHPO conservation objectives, as well as a project's anticipated effects on archaeological resources. Soil A horizons have the greatest potential

to contain archaeological deposits on or near the ground surface, whereas Soil B horizons have lower potential but may contain older deposits buried by long-term or punctuated natural colluvial, fluvial, or alluvial processes or more recent built environment earthworks.

Much of the Project footprint within the Phase II and western Gen-Tie area has been extensively mined. Although the vertical and horizontal extent of ground disturbance within reclaimed mine lands in the Phase II and western Gen-Tie areas remains unclear based on available soil mapping and other reviewed sources, A and B soil horizons in these areas are mapped to depths of approximately 20 inches (50 centimeters) below ground surface (bgs). Given the mining history and the relatively shallow depth of these horizons, the potential for archaeological sites and deposits to be present and retain integrity within reclaimed mine lands is considered low. In areas not clearly impacted by mining, such as the eastern Gen-Tie area, A and B horizons of gravelly and rocky sediments are mapped to approximately 8 inches bgs (20 centimeters) and 50 inches bgs (1.5 meters), respectively. As noted above, archaeological potential is greatest in the shallow A horizons and diminishes by depth in the B horizons. Therefore, archaeological potential in the eastern Gen-Tie area is anticipated to be greatest at or near the ground surface. However, trail maintenance associated with the Mine Made trail system, along with erosion of exposed trails is likely to have impacted near-surface contexts in this area.

As a result of the mining activity in the Phase II and western Gen-Tie areas, there is low to moderate potential for significant, intact historic-era or precontact archaeological resources. Review of map and imagery sources and soils data support the assessment that the majority of this landscape has been stripped of theoretically archaeologically sensitive soils. Additionally, BFW's July field reconnaissance in the Phase II area found that a historic farm / residence (McIlhany, 1993) has been destroyed and entirely removed, and that a rockshelter (Fiegel, 1996) is also likely no longer present. However, a rockshelter mapped in the Phase II area along the northern bank of the Lick Branch Impoundment (McIlhany, 1992) remains intact, indicating that the archaeological potential of the Phase II area cannot be entirely discounted. Accordingly, this site warrants further study should the Project require compliance with Section 106 of the NHPA. During BFW's field reconnaissance, two historic-era archaeological resources were identified: a cinderblock structure with glassware near Williams Branch Road and a historic-modern refuse scatter near Lick Branch Road. The presence of these resources convey additional potential for historic archaeological sites within the Phase II area. Further field survey would elucidate their extents and NRHP eligibility. It is anticipated that the historic-modern refuse scatter would be recommended as not eligible for the NRHP due to the nature of its materials, unknown provenance, and degree of disturbance.

The Gen-Tie area east of the mining area may pose a higher degree of archaeological potential than the rest of the Project area since it is minimally developed and contains soils that may be amenable to site preservation where trails have not impacted the area. If present, archaeological materials in this setting of the Project would be expected from the ground surface to approximately 50 inches bgs (1.5 meters) and would be less likely to be present on steep slopes.

Regardless of low archaeological potential inferred from BFW's desktop study and limited field reconnaissance, a Phase I archaeological survey would need to be conducted within the LOD in the Phase II and Gen-Tie areas, should the Project constitute a formal undertaking subject to compliance with Section 106 of the NHPA. The following guidance aligns with the KHC's 2017 specifications for conducting archaeological research:

A Phase I survey would facilitate the evaluation of archaeological sites that were recorded in prior studies but have not been assessed for NRHP eligibility. Due to the age of prior field studies in the Phase II and western Gen-Tie areas, those coverage areas would need to be revisited where there is not substantial and demonstrable mining-related disturbance. The new survey would require a mixed strategy of pedestrian coverage and shovel testing, with wetlands and inundated areas, slopes greater than 20 degrees, and demonstrably disturbed mining areas omitted. Given the expansive Project area and the presence of steep terrain, desktop geomorphological research is recommended before the field survey to determine areas in which slope angles preclude coverage and to devise the appropriate coverage strategy. Areas in which vegetation or other ground cover obscures less than 50 percent of the ground surface would satisfy KHC standards for pedestrian survey methods, with the exception of rockshelters, where a minimum of five shovel probes would be required. Pedestrian survey transects

would be conducted at intervals no greater than 20-meters, and shovel probes would generally be spaced at 20-meter intervals. However, because the Gen-Tie area consists of a linear corridor approximately 350 yards (320 meters) wide, shovel probe spacing would be expanded to 30-meter intervals along both edges of the LOD.

Historic Architectural Resources Assessment

BFW conducted a records search via the KHC Cultural Resource Portal Web Service on July 24, 2026, to determine the number, nature, and location of known historic architectural resources within and adjacent to the Phase II and Gen-Tie Areas. A 0.25-mile buffer around these areas was employed to account for potential indirect impacts (e.g., obstruction of viewshed) on historic architectural resources that may result from Project activities (**Figure 3** in **Attachment A**). The buffer defines the architectural study area and serves as a preliminary delineation of the architectural APE, which would be applied should the Project need to comply with regulatory conditions summarized in the introduction of this memorandum.

The significance of the historic architectural resources identified within the desktop architectural study area was evaluated using NRHP eligibility criteria outlined in 36 CFR Part 60.6. Under these criteria, districts, sites, buildings, structures, and objects may be considered significant if they retain sufficient integrity of location, design, setting, materials, workmanship, feeling, and association, and if they meet one or more of the following conditions: association with events that contributed to broad patterns of American history; association with the lives of significant persons; embodiment of distinctive characteristics of a type, period, or method of construction, representation of the work of a master, or possession of high artistic values; representation of a significant and distinguishable entity; or the potential to yield important information about prehistory or history. For the purposes, of this survey, “historic age” was defined as resources constructed on or before the 50-year NRHP age threshold (i.e., 1976).

A desktop review of the KHC Cultural Resource portal identified one previously identified resource, PE124 (Bridge #097B00007N) over KY476 / Ball Fork Road within the southwest corner of the buffer for the Phase II area. The bridge was documented in 2019 and recommended as eligible for the NRHP. However, it was destroyed by flooding in 2022 and has been replaced with a new bridge. In addition, one coded property, the Chestnut Gap Cemetery, was identified by the KHC portal. The cemetery falls within the northwest edge of the 0.25-mile buffer for the Phase II area. This cemetery was documented as part of the Phase I area of the Project in the Breathitt and Knott Counties report, which is included in **Attachment B**.

Supplemental archival and cartographic research identified two additional cemeteries within the Phase II and Gen-Tie study areas. The Campbell Cemetery (37.42655°, -83.08462°) is located on Buckhorn Road approximately 0.05 miles (80 meters) north of the Gen-Tie area. The cemetery is in a remote area but is well kept and contains 27 documented internments (**Photo 7**). The Stacy Family Cemetery (37.8504°, 83.13871°) is located within the Phase II area (**Photos 8** to **12**). The cemetery contains 26 documented internments ranging from 1928 to1993. The site also includes a primitive open-air church clad with wood plank siding, a metal roof, wooden pews, and a pulpit. There is also an outhouse constructed of the same materials. Review of aerial imagery indicates that there are several residential structures along the south side of Balls Fork Road along the southern boundary of the 0.25-mile buffer for the Phase II area. A bluff line runs along the majority of the north side of the road in this setting, thus hindering any viewshed of the currently proposed Project. A hunting lodge and RV camp associated with BA Outdoors is located within the Phase II area (37.39012°, -83.11512°) but was constructed sometime between 2018 and 2020 (**Photo 13**).

If the proposed project constitutes an undertaking subject to Section 106 review, the previously identified cultural resources must be reexamined to confirm their NRHP eligibility and to assess the Project’s potential effects on those historic properties in accordance with 36 CFR 800.

Summary and Recommendations

As a result of the OSA records review and BFW’s limited archaeological field reconnaissance in July 2026, five archaeological resources have been documented in the Phase II area and no resources have been identified in

the Gen-Tie area. None of the resources documented in prior studies or during BFW's reconnaissance in July 2026 have been assessed for NRHP eligibility. Prior archaeological field study coverage was conducted in the 1980s and 1990s for Starfire mining undertakings and the documented coverage areas indicate that there are gaps concentrated in the central Phase II area and eastern Gen-tie area. Due to the age of these studies, current KHC requirements for archaeological field research would require renewed investigation of those study areas. Soils data and other archival sources indicate that there is low to moderate potential for the Phase II and Gen-Tie area to contain significant (for the purposes of the NRHP) and intact archaeological resources, with this potential expected to be greater in the Gen-Tie area.

Among the documented resources, one (a historic farm / residence) is known to be no longer present, and one (a rockshelter) has likely been destroyed by mining activity. The three additional resources remain in the Phase II area and include a rockshelter, a cinderblock structure with historic-age glassware, and a historic-modern refuse deposit. The historic-modern refuse deposit is likely to be ineligible for the NRHP due to the nature of its materials, uncertainty about its provenance, and its degree of disturbance. However, this resource should be revisited during any future Section 106-driven field survey in order to collect data for NRHP eligibility recommendations. Similarly, the extant rockshelter and cinderblock structure will require further field investigation to evaluate their NRHP eligibility. Future field surveys should also attempt to relocate the rockshelter that research indicates to have been destroyed by mining activities.

The desktop research and limited field reconnaissance findings presented in this memorandum provides a preliminary overview of the Phase II and Gen-Tie areas' archaeological potential but does not provide sufficient resolution or assurance for KHC review should the Project become a formal undertaking subject to compliance with Section 106 of the NHPA. Pursuant to Section 106, current KHC standards typically require a Phase I archaeological field survey of the APE. Therefore, should the Project constitute a formal undertaking, additional archaeological research would need to be conducted. This additional research would include, but not be limited to, defining the Project's scope and LOD for delineation of an archaeological APE, registering the Project with the KHC, conducting a renewed records search of the APE and a 2-kilometer buffer to characterize regional archaeological conditions and the NRHP status of documented resources in the search area, completing a Phase I survey as described in the *Archaeological Resources Assessment* section of this memorandum, and preparing an archaeological report for KHC review and approval prior to submission to the OSA.

The review of KHC records and supplemental archival sources within the architectural study area (i.e., the Phase II and Gen-Tie areas and a 0.25-mile buffer) identified three undocumented cemeteries, associated structures, and several residences that fall under the 50-year age criterion for NRHP eligibility. Cemeteries in the Project area would need to be avoided during Project implementation in accordance with applicable Kentucky and federal laws. Due to the preliminary identification of historic architectural resources in the Project area, additional field reconnaissance is recommended to ensure a reasonable and good-faith effort to identify NRHP-eligible historic properties consistent with Section 106 requirements. Such investigation would facilitate the evaluation of previously undocumented or unevaluated resources for eligibility under the NRHP criteria and determine whether historic properties are present that may be affected by the proposed Project. In accordance with Section 106 of the NHPA and KHC standards, this field study would include (but not be limited to) coordination with the KHC for establishment of a formal architectural APE that encompasses all areas subject to potential direct and indirect impact resulting from the undertaking, the assignment of KHC Historic Survey Numbers to any newly documented resources, and preparation of an Architectural Cultural Resource Report with NRHP eligibility assessments for KHC's for review, commenting, and approval.

References

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Table A-1. Prior Archaeological Investigations

SHPO ID	Author	Year Completed	Description	Project Area Association
060-006	McIlhany, C.W.	1987	A Phase I Investigation of Archaeological Resources at the Star Fire Mining Company Expansion Area on Lick Branch in Knott County, Kentucky	South-central Phase II
060-102	McIlhany, C.W.	1989	A Phase I Investigation of Archaeological Resources at the Star Fire Mining Company Revised Expansion Area on Lick Branch in Knott County, Kentucky	Central Phase II
060-102	McIlhany, C.W.	1989	A Phase I Investigation of Archaeological Resources at the Star Fire Mining Company Revised Expansion Area on Lick Branch in Knott County, Kentucky	South-central Phase II
060-012	McIlhany, C.W.	1989	A Phase I Investigation of Archaeological Resources at the Star Fire Mining Company, Addition to Permit Application No. 860-0047 On Lick Branch in Knott and Perry Counties, Kentucky	North-central Phase II
060-012	McIlhany, C.W.	1989	A Phase I Investigation of Archaeological Resources at the Star Fire Mining Company, Addition to Permit Application No. 860-0047 On Lick Branch in Knott and Perry Counties, Kentucky	North-central Phase II
060-012	McIlhany, C.W.	1989	A Phase I Investigation of Archaeological Resources at the Star Fire Mining Company, Addition to Permit Application No. 860-0047 On Lick Branch in Knott and Perry Counties, Kentucky	North-central Phase II
060-037	McIlhany, C.W.	1992	A Phase I Investigation of Archaeological Resources at the Star Fire Coal Company Mine Site on Hurricane Branch in Knott County, Kentucky	Northeast Phase II

SHPO ID	Author	Year Completed	Description	Project Area Association
097-044	McIlhany, C.W.	1992	A Phase I Investigation of Archaeological Resources at the Star Fire Coal Company Permit Application No. 860-0047, Amendment No. 3 on Lick Branch in Perry County, Kentucky	Central Phase II
097-044	McIlhany, C.W.	1992	A Phase I Investigation of Archaeological Resources at the Star Fire Coal Company Permit Application No. 860-0047, Amendment No. 3 on Lick Branch in Perry County, Kentucky	Central Phase II
060-041	McIlhany, C.W.	1992	A Phase I Investigation of Archaeological Resources at the Star Fire Coal Company Permit Application No. 860-0047, Amendment No. 3 on Lick Branch in Perry and Knott Counties, Kentucky	Central Phase II
060-041	McIlhany, C.W.	1992	A Phase I Investigation of Archaeological Resources at the Star Fire Coal Company Permit Application No. 860-0047, Amendment No. 3 on Lick Branch in Perry and Knott Counties, Kentucky	Central Phase II
060-057	McIlhany, C.W.	1993	A Phase I Investigation of Archaeological Resources at the Star Fire Coal Company Permit Application No. 460-0080, Amendment No. 2 on Lick Branch in Perry and Knott Counties, Kentucky	North-central Phase II
060-057	McIlhany, C.W.	1993	A Phase I Investigation of Archaeological Resources at the Star Fire Coal Company Permit Application No. 460-0080, Amendment No. 2 on Lick Branch in Perry and Knott Counties, Kentucky	North-central Phase II
060-057	McIlhany, C.W.	1993	A Phase I Investigation of Archaeological Resources at the Star Fire Coal Company Permit Application No. 460-0080, Amendment No. 2 on Lick Branch in Perry and Knott Counties, Kentucky	Central Phase II

SHPO ID	Author	Year Completed	Description	Project Area Association
060-057	McIlhany, C.W.	1993	A Phase I Investigation of Archaeological Resources at the Star Fire Coal Company Permit Application No. 460-0080, Amendment No. 2 on Lick Branch in Perry and Knott Counties, Kentucky	South-central Phase II
060-057	McIlhany, C.W.	1993	A Phase I Investigation of Archaeological Resources at the Star Fire Coal Company Permit Application No. 460-0080, Amendment No. 2 on Lick Branch in Perry and Knott Counties, Kentucky	South-central Phase II
060-057	McIlhany, C.W.	1993	A Phase I Investigation of Archaeological Resources at the Star Fire Coal Company Permit Application No. 460-0080, Amendment No. 2 on Lick Branch in Perry and Knott Counties, Kentucky	Central Phase II
060-064	Fiegel, K.H.	1994	An Archaeological Survey Report of the Proposed Star Fire Mining Company Mining Operation Between Hurricane Branch and Buckhorn Creek Near Ary, Knott County, Kentucky	Eastern Phase II and western Gen-Tie
060-075	Hand, R.B.	1996	A Coal Mine Survey Along Buckhorn Creek in Knott County, Kentucky	Eastern Phase II and western Gen-Tie
097-067	Fiegel, K.H.	1996	An Archaeological Survey Report of Star Fire Mining Company's Proposed Strip Mine in Perry County, Kentucky	Western Phase II
013-069	Hand, R.B.	1997	A Coal Mine Survey along Spring Gap Branch in Perry, Breathitt & Knott Counties, Kentucky	North-central Phase II

SHPO ID	Author	Year Completed	Description	Project Area Association
013-076	Hand, R.B.	1997	A Coal Mine Survey along Long Fork and Buckhorn Creek in Knott and Breathitt Counties, Kentucky	Northeastern Phase II and western Gen-Tie
013-101	Hand, R.B.	2022	An Archaeological Survey of a Proposed Coal Mine Operation along Chestnut Gap Branch in Breathitt County, Kentucky	Northwestern Phase II
060-162	Hand, R.B.	2006	An Archaeological Survey of the Proposed ICG Hazard, LLC Coal Mine Operation along Balls Fork in Knott County, Kentucky	Southeastern Phase II

Attachment A
Maps and Photo Log

Maps

KyFromAbove Phase 3 Statewide Imagery

Legend

Project Data

- Phase II Boundary
- Gen-Tie Line
- Point of Interconnect

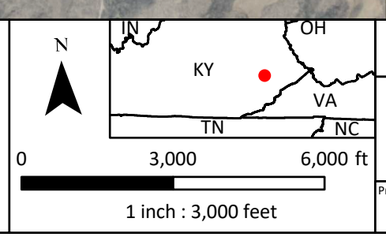
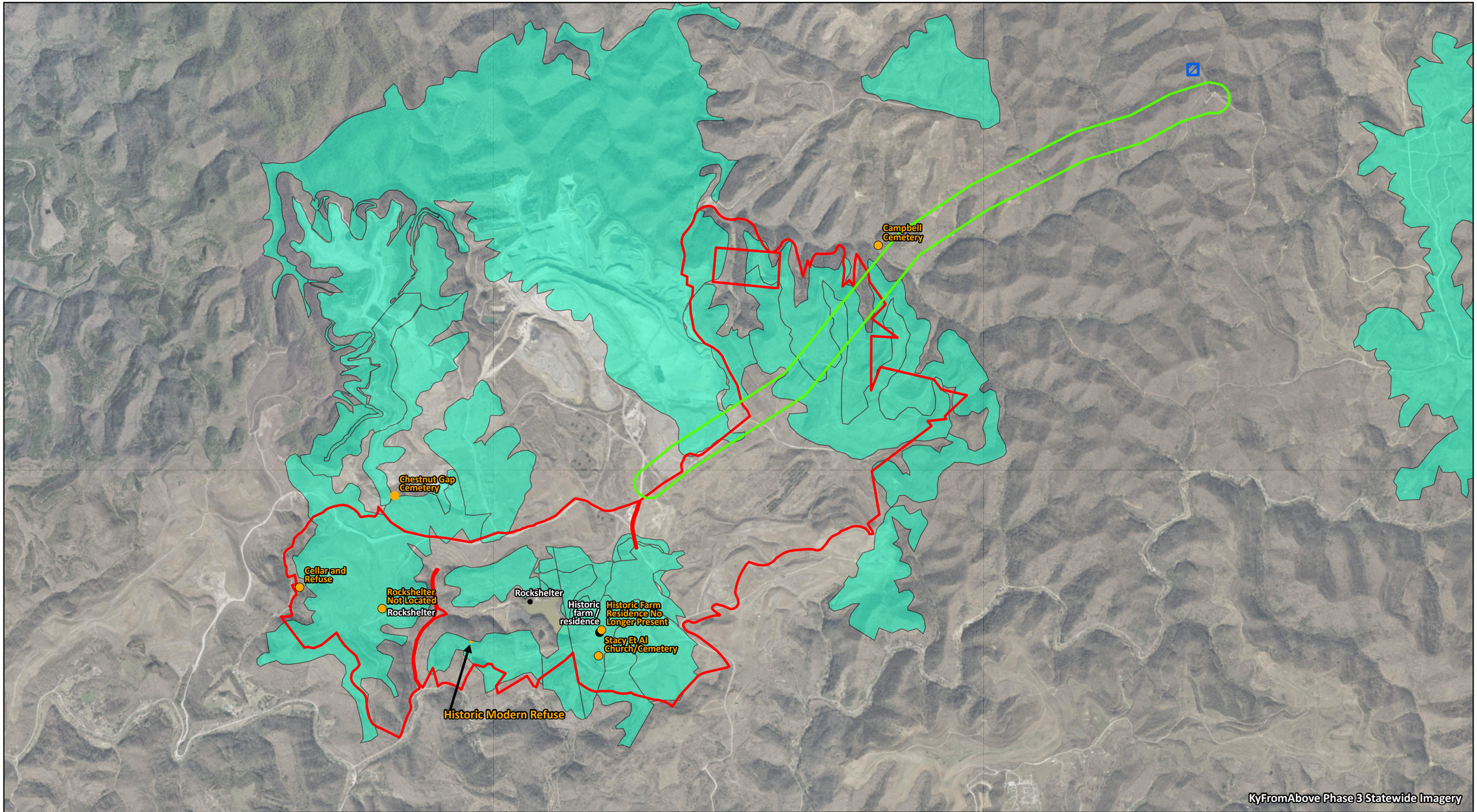


Figure 1 - Aerial Overview Map

Starfire Renewable Power Project - Phase II
Knott and Perry Counties, KY

Project Number:	Drafted/Checked:	Date:
23526	HK/MM	8/28/2026

BFW®



Legend

Project Data
- Phase II Boundary
- Gen-Tie Line
- Point of Interconnect

Field Data
- Cultural Point
- Cultural Polygon

OSA Data
- Archaeological Site Locations
- Archaeological Project Areas

N

IN OH KY VA TN NC

0 3,000 6,000 ft

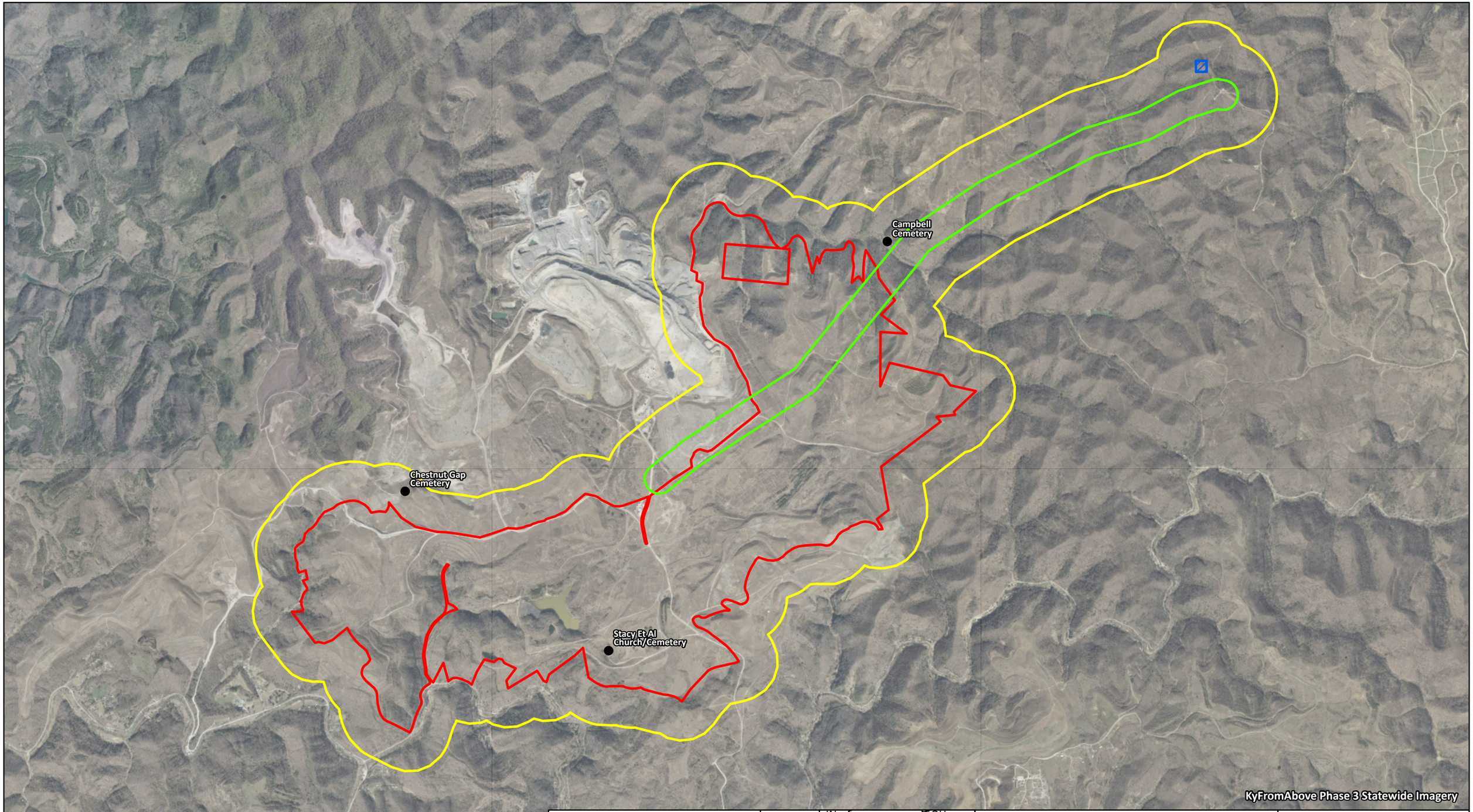
1 inch : 3,000 feet

Figure 2 - Archaeological Overview Map

Starfire Renewable Power Project - Phase II
Knott and Perry Counties, KY

Project Number:	Drafted/Checked:	Date:
23526	HK/MM	8/28/2026

BFW®



Legend

Project Data

- Cemeteries
- Phase II Boundary
- 0.25 Mile Buffer
- Gen-Tie Line
- Point of Interconnect

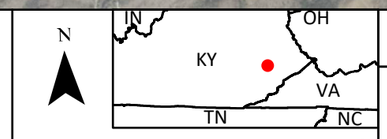


Figure 3 - Architectural Overview Map

Starfire Renewable Power Project - Phase II
Knott and Perry Counties, KY

Project Number:	Drafted/Checked:	Date:
23526	HK/MM	8/28/2026

BFW®

Photo Log



Photograph 1: Former location of a historic farm / resident site documented in the OSA database within the central Phase II area, view southwest. July 28, 2026.



Photograph 2: Rockshelter at the northern bank of the Lick Branch impoundment in the central Phase II area, view northwest. July 29, 2026.



Photograph 3: Cinderblock structure in the western Phase II area east of Williams Branch Road, view east. July 30, 2026.



Photograph 4: Glassware in the cinderblock structure in the western Phase II area, east of Williams Branch Road. July 30, 2026.



Photograph 5: Historic-modern refuse scatter on hillslope east of Lick Branch in the center-west Phase II area. July 30, 2026.



Photograph 6: Representative historic and modern beverage cans at the hillslope refuse scatter east of Lick Branch in the center-west Phase II area. July 30, 2026.



Photograph 7: Overview of the Campbell Cemetery located north of the Gen-Tie area, view northwest. Photo obtained from online sources on August 17, 2026.



Photograph 8: Overview of the Stacy Family Cemetery and church in the Phase II area, view north. July 29, 2026.



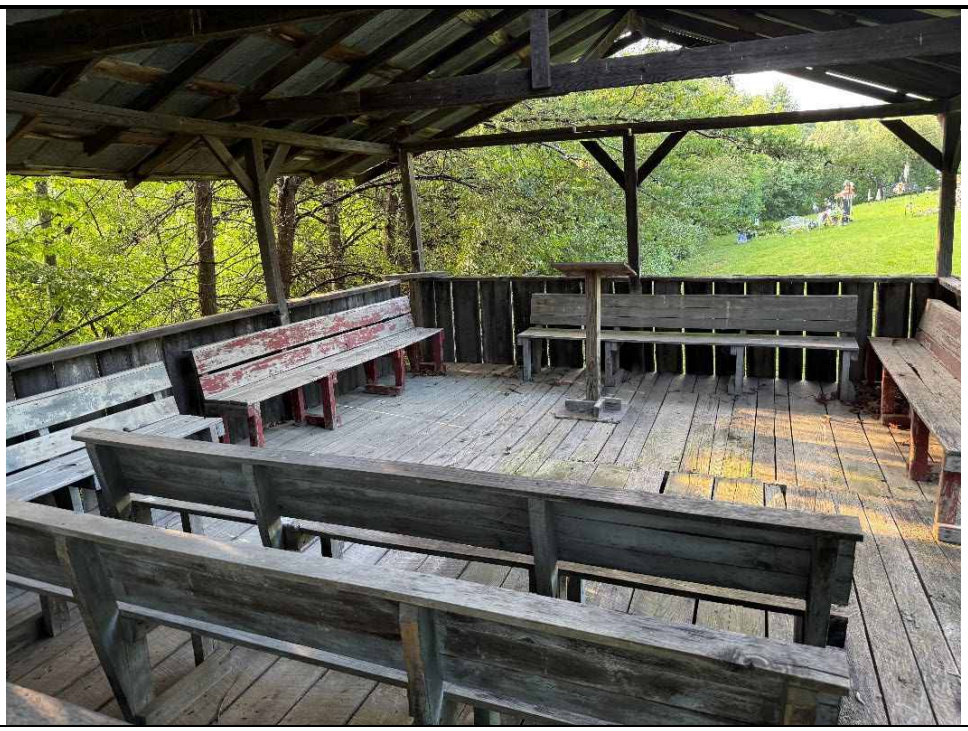
Photograph 9: Outhouse at that Stacy Family Cemetery and church in the Phase II area, view west. July 29, 2026.



Photograph 10: Overview of the church at the Stacy Family Cemetery in the Phase II area, view north. July 29, 2026.



Photograph 11: Interior of the church at the Stacy Family Cemetery in the Phase II area, view west. July 29, 2026.



Photograph 12: Interior of the church at the Stacy Family Cemetery in the Phase II area, view east. July 29, 2026.



Photograph 13: Modern construction at the BA Outdoors Hunting Lodge and RV Park in the Phase II area, view east. July 29, 2026.

Attachment B
Starfire Renewable Power Project – Phase I Area – Cultural Resource Assessment, 2023

BACON | FARMER | WORKMAN
ENGINEERING & TESTING, INC.
500 SOUTH 17TH STREET | PADUCAH, KY 42003

Technical Memorandum

Cultural Historic Review

In October of 2023, Bacon Farmer Workman Engineering and Testing, Inc. (BFW) was contracted by STMO bn, LLC and BrightNight, LLC (BN) to evaluate potential NRHP eligible non-archaeological resources in the proposed project area in Breathitt, Knott, and Perry Counties, Kentucky. The subject property encompasses approximately 1,800 acres consisting of 17 parcels owned by the same entity. These properties are part of a mining site that is referred to as the Starfire site and include properties owned by Liberty Land, LLC. This area is currently under varying stages of mining and reclamation. As part of this undertaking and in anticipation of a federal nexus, a preliminary Cultural Historic survey was completed to begin the process for Section 106 review. As the project becomes more defined, a more detailed report will need to be completed in accordance with the National Historic Preservation Act (NHPA) and its implementing regulations, 36 CFR Part 800 to identify, document, and assess National Register of Historic Places (NRHP) eligibility and effect for historic-age architectural resources.

Property data records were collected from the Breathitt, Knott, and Perry County Property Valuation Administrator (PVA) Offices. BFW also reviewed historic-period aerial photographs, and topographic maps. Due to the rural nature of the area, historical records, histories, and PVA records provided limited information. This area is also unmapped for any historic Sanborn Fire Insurance maps.

A site check was initiated with the Kentucky Heritage Council Site Check Web Service which identified no previously recorded historic resources within the proposed project Boundary. A reconnaissance level survey of the built environment was conducted to identify and evaluate non-archaeological resources. The area is primarily rural and there are no additional above ground resources within the defined project boundary.

The survey identified one documented cemetery, Chestnut Gap Cemetery located at the southwest corner of the project boundary (37°24’16.80”, -83°08’27.57”). The site is located on a hillside and protected by a chain link fence (See Photos 1-3). The survey concluded there are approximately 22 identifiable internments ranging from 1883-1983.

During onsite reconnaissance for the Phase I Environmental Site Assessment (ESA) which occurred on October 18, 2023, one undocumented cemetery was also identified. This cemetery was the Smokey Hollow Cemetery and lies approximately 600 feet from the project boundary. It appears to have approximately eight internments ranging from 1937-2018. The site was also protected by a chain link fence (See Photos 4-6).

The potential for adverse effects to the two identified cemeteries can be considered low due to the topographic locations and current steps which have already been taken to secure the locations with chain link fencing. Recommendations may include documentation of the internments in the cemeteries if permission is granted by trustees and additional research and evaluation to determine if the cemeteries may be potentially eligible for listing on the National Register of Historic Places under Criteria A, B, C, or D.

Archaeological Review

Kentucky Office of State Archaeology illustrates 13 previously recorded archaeological sites within two km of the project corridor and none within the project area. Eight of these sites are recorded as prehistoric, four historic, and one mixed component historic and prehistoric. The closed recorded site (15Br207) is a cemetery which lies roughly 50 m outside the northwest boundary of the project area. This cemetery was further discussed in the preliminary above ground cultural resource assessment. All other previously recorded sites are no closer than 400 m to the project boundaries. Six previous cultural surveys have included parts of the current project area. None of these surveys recorded culturally significant resources within the bounds of the project.

Review of available historic USGS Topographic Quadrangles illustrates several homesteads within the project area as early as the 1914 Troublesome, KY 15' Quad. These are reduced to a single homestead on the 1954 Noble, KY 7.5' map. This structure is illustrated at the confluence of the Chestnut Gap Branch and Spring Gap Branch in the Breathitt County portion of the project. These maps also indicate that the area had been used for mining activities as early as the 1960 Jenkins 1° x 2° Quadrangle.

Historic aerials of the area are available dating back to 1952 (available through www.HistoricAerial.com). The 1952 aerial of the area reveals no obvious mining activity at the time of the photograph. However, from at least 1983 and all available aerials since, it is evident that mining activities have significantly affected the project area. Based on this imagery it is apparent that no areas within the project boundaries, with the exception of the extant Chestnut Gap Cemetery (briefly described in the above ground assessment), were untouched by the mining.

Based on the above desktop review of the area, it is unlikely that any archaeological survey would produce any culturally significant resources.



Photo 1 - Chestnut Gap Cemetery – View of Wooded Parcel on Hillside

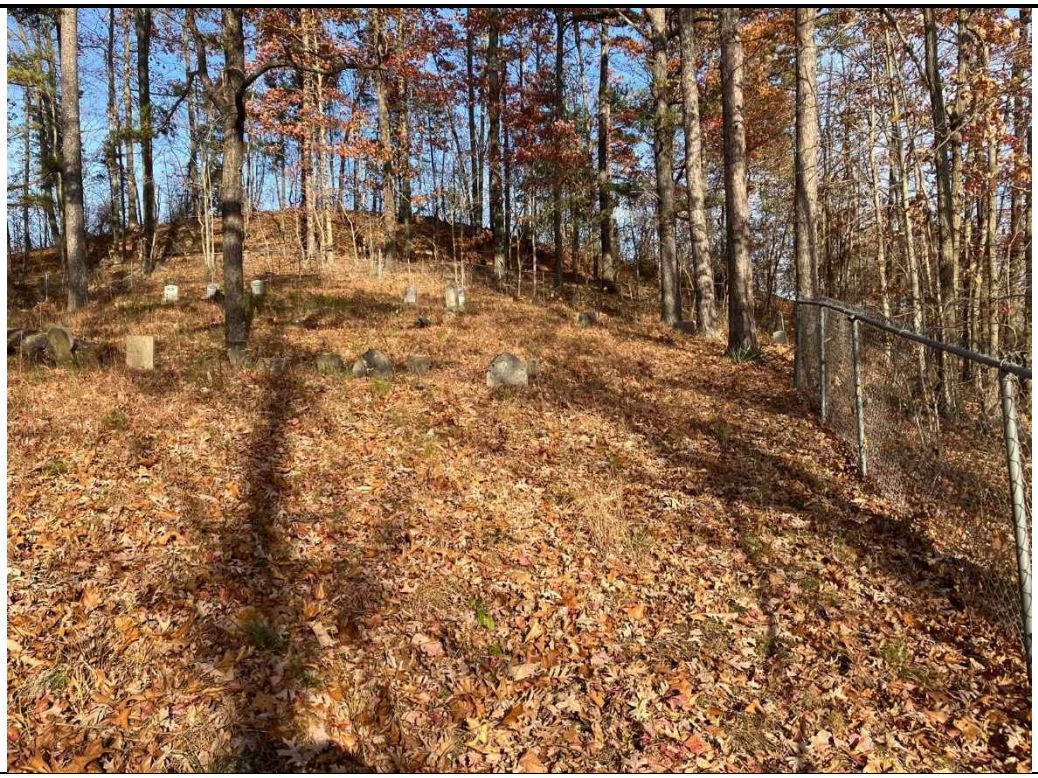


Photo 2 – Chestnut Gap Cemetery



Photo 3 – Chestnut Gap Cemetery



Photo 4 – Smokey Hollow Cemetery



Photo 5 - Smokey Hollow Cemetery



Photo 6 - Smokey Hollow Cemetery