BURNS McDONNELL

EAST KENTUCKY POWER COOPERATIVE

SITE ASSESSMENT REPORT

LIBERTY RICE PROJECT

PROJECT NO. 157785

REVISION 0

SEPTEMBER 9, 2024

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FIGURES

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List of Abbreviations

Abbreviation	Term/Phrase/Name
BMCD	Burns & McDonnell
BMP	Best Management Practices
EKPC	East Kentucky Power Cooperative
ft	Foot
KPDES	Kentucky Pollutant Discharge Elimination System
KRS	Kentucky Revised Statutes
kV	Kilovolts
kW	Kilowatt
KY	Kentucky
M&R	Metering and Pressure Regulating
MW	Megawatt
psig	Pounds per square inch (gauge)
RICE	Reciprocating Internal Combustion Engine
SAR	Site Assessment Report
SCR	Selective Catalytic Reduction
SWPPP	Storm Water Pollution Prevention Plan
ULSD	Ultra Low Sulfur Diesel

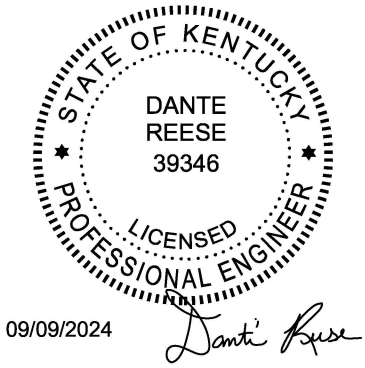
Index and Certification

East Kentucky Power Cooperative
Site Assessment Report
Project No. 157785

Report Index

Certification

I hereby certify, as a Professional Engineer in the state of Kentucky, that the information in this document was assembled under my direct personal charge. This report is not intended or represented to be suitable for reuse by the East Kentucky Power Cooperative or others without specific verification or adaptation by the Engineer.



Dante Reese, P.E. (KY 39346)

Date: September 9, 2024

1.0 INTRODUCTION

East Kentucky Power Cooperative (Owner) plans to construct a new greenfield Reciprocating Internal Combustion Engine (RICE) power plant facility located near Liberty, KY. The facility will produce approximately 214 MW net of peak loaded generation.

The facility will utilize twelve (12) Wärtsilä 18V50DF engines. Each engine will produce approximately 18,132 kW of power for a combined production of approximately 214 MW net. The engines will be located within an enclosed engine hall along with other ancillary equipment necessary for the operation and maintenance of the engines.

The engines will be designed to burn multiple fuels to provide operational flexibility during emergency situations. The primary fuel source will be pipeline quality natural gas (also referred to as fuel gas), and the secondary fuel source will be Ultra-Low Sulfur Diesel (ULSD) fuel that is stored on site. The fuel gas will be filtered and regulated on site to meet pressure and cleanliness requirements for the engines. Pipeline supply pressure will be 200psig and further compression is not required for engine operations.

A new 161 kV switchyard and transmission line will be installed to interconnect the output from the generating plant to match the high voltage transmission lines located approximately one mile from the facility.

1.1 Applicable Statutes

This Site Assessment Report (SAR) has been prepared for Owner by Burns & McDonnell (BMCD), to meet Kentucky Revised Statutes (KRS) 278.708. KRS 278.708 requires "*any person proposing to construct a merchant electric generating facility shall file a site assessment report with the board as required by KRS 278.706(2)(1)".* As such, the following information is intended to fulfill the requirements of the statute.

1.1.1 Facility Description (278.708(3)(a))

A description of the proposed facility that shall include a proposed site development plan that describes the following:

1.1.1.1 Surrounding Land Uses

Define the surrounding land uses for residential, commercial, agricultural, and recreational purposes.

1.1.1.2 Proposed Site Legal Boundaries

Define the legal boundaries of the proposed site.

1.1.1.3 Proposed Site Access Control

Identify proposed access control to the site.

1.1.1.4 Facility General Arrangements

The location of facility buildings, transmission lines, and other structures.

1.1.1.5 Facility Accessways, Roads, and Railways

Location and use of access ways, internal roads, and railways.

1.1.1.6 Existing or Proposed Utilities for Facility

Identify existing or proposed utilities to service the facility.

1.1.1.7 Applicable Setback Requirements

Compliance with applicable setback requirements as provided under KRS 278.704(2), (3), (4), or (5).

1.1.1.8 Noise Evaluation

Evaluation of Noise levels expected to be produced by the facility.

1.1.2 Site Compatibility with Scenic Surroundings (278.708(3)(b))

The Site Compatibility with Scenic Surroundings will be addressed to identify components of the facility that would otherwise impact the cultural or scenic aesthetics of the surrounding areas. This section will identify if there are features of the facility that could affect visual perception of the surrounding area.

1.1.3 Property Value Impact (278.708(3)(c))

This section identifies the potential impacts to property values and land use as a result of the siting, construction, and operation of the facility for owners adjacent to the facility.

1.1.4 Acoustical Evaluation (278.708(3)(d))

This section discusses the anticipated noise levels for the surrounding areas during operation of the facility.

1.1.5 Impact on Road and Rail Traffic (278.708(3)(e))

This section addresses the potential impact of the facility's operation on road and rail traffic to and within the facility, including anticipated levels of fugitive dust created by the traffic and any anticipated degradation of roads and lands in the area near the facility.

2.0 FACILITY DESCRIPTION

The Liberty RICE facility will be located on a 93± acre lot at a greenfield location approximately 4 miles north of Liberty, Kentucky. Access to the site is from KY-49 on Carr Sasser Road. A new site entrance with a security building and double lanes for entrance and exit will be located at approximately 528 Carr Sasser Road. The engine hall, administration building, and other major facilities will be located approximately 700 feet from the guard shack into the center of the property boundary. The site layout considers access roads for delivery of equipment and materials during construction as well as operation, while also considering the privacy and road use of the nearby landowners.

All engines will be placed in a single engine hall, with engines' axis running east and west, and a common centerline along the north and south. The generator side of the engines is on the east and the exhaust side of the engines is on the west. The arrangement was selected to provide the shortest path to a new switchyard from the engine generators and to mitigate noise pollution from the exhaust stacks and radiator sets. Adequate spacing between engines is included to allow access for maintenance and major overhauls. The Engine Hall Building will house the engine hall, mechanical room, tank room, maintenance/shop room, electrical room and battery room.

External to the engine hall are the engine exhaust trains (including the ductwork and SCRs), intake air filters, two common stacks, radiators for the closed cooling water system, as well as the fuel oil tanks and concrete containment. The site layout considers access roads for delivery of equipment and material during construction to the various laydown yards, as well as during operation for the warehouse and storage facility, the fuel oil containment, and the tank room.

South of the engine hall incorporates 5 acres of space for future expansion, capable of doubling the quantity of engines considered during this scoping assessment. The area will be used as a laydown during the construction of the current facility. An asphalt paved loop road is included around the current engine hall building, warehouse and admin space, as well as the future area for expansion.

On the far south side of the property, a new Meter and Regulating (M&R) station will be installed, owned and operated by the pipeline operator. Access is provided for the pipeline operator to access their facilities without being able to access Owner's facilities.

A new switchyard is located to the east of the new units. Two medium voltage switchgear located in medium voltage buildings will collect power from up to 6 engine generators. The two switchgear will then connect to generator step up transformers located in containments between the medium voltage buildings and the new switchyard. The new switchyard and transmission lines will then connect to existing lines further to the east of the property approximately 1 mile away.

2.1 Surrounding Land Use

BMCD performed a Site Selection Study (Appendix A) in late 2023 that identified multiple potential locations for the new facility. The area northwest of Liberty, Kentucky was identified as an area primarily used as farmland and has a very low density of residential and rural

buildings including mainly houses and barns. The selected location is located along State Highway 49 (KY-49) on Carr Sasser Rd. The Liberty location is near existing farmhouses and structures but is located more than 1 mile from any establishment of worship or business.

The use of the surrounding land can be broken down into the following categories and percentage of use.

Table 2-1: Adjoining Use Breakdown

	Acreage	Parcels
Agricultural	66.12%	27.27%
Agri / Res	31.37%	27.27%
Residential	2.21%	36.36%
Commercial	0.30%	9.09%
Total	100%	100%

The full Site Selection Study can be found in Appendix A. Additional information regarding surrounding land use can be found in the Property Value Impact Study located in Appendix B.

2.2 Proposed Site Legal Boundaries

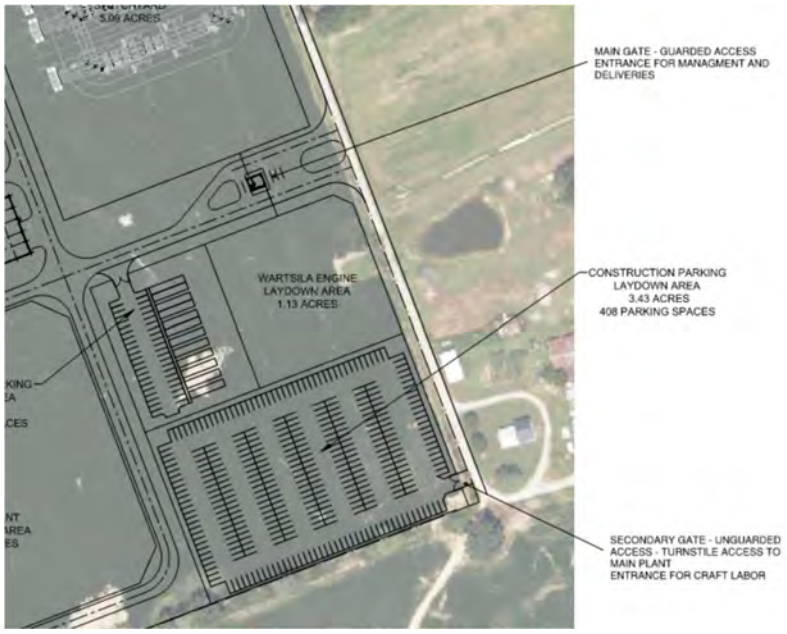
The Siting Study Liberty 3 Plan, found in Appendix C, shows the proposed 90-acre plot for this project in Casey County Kentucky. The Property Value Impact Study in Appendix B also outlines the proposed site boundaries identified with this tract of land. Owner currently holds an option on the land for purchase and official boundary definitions have not been provided.

2.3 Proposed Site Access Control

Access to the site will be provided via two (2) gated access points off of Carr Sasser Rd. The main facility gate will be controlled access and include security building and security personnel to minimize unauthorized access to the facility. This main entrance will be located at approximately 528 Carr Sasser Rd. All deliveries will access the site through this main entrance.

All craft labor and vendor access will be through a gated entrance at the southeast corner of the property. Labor and vendor access will be through a gated turnstile or through check in at the main entrance to the facility. The Project site will be surrounded by a security fence.

Figure 2-1: Site Access Locations



A larger size Site Plan is included in Appendix C, that includes the detail cut above for frame of reference.

2.4 Facility General Arrangements

The Site Plan and General Arrangement Drawings can be located in Appendix C. The Site Plan details the overall proposed plant layout in relation to the property lines and adjacent roads. The General Arrangement Drawings detail the proposed plant layout as well as the new Switchyard.

2.5 Facility Accessways, Roads, Railways

As previously stated, access to the site will be provided via State Highway 49 and Carr Sasser Rd. Two gates will be provided off of Carr Sasser Rd for access to the facility. The main gate will include a security building and personnel to provide security to the site. The second gate will be for craft labor to park and gain access through the facility turnstile.

The engine hall, administration building, and other major facilities within the facility will be located approximately 700 feet from the guard shack into the center of the property boundary. Access roads for delivery of equipment and materials during construction as well as operation of the facility. An asphalt paved loop road will enclose the areas of the engine hall, warehouse and administrative space. Traffic in the area of the facility should only see an impact when employees are coming to work and leaving at the end of shift. All other traffic will be contained within the project boundaries.

For security and safety, the site will be fenced and include appropriate signage warning trespassers of the potential dangers.

There are currently no railways near the project site. Railway use is not anticipated as part of this project.

2.6 Existing or Proposed Utilities for Facility

The location of the Liberty RICE project was chosen, in part, due to the proximity to the existing electrical and natural gas utilities in the area.

The existing natural gas pipelines are located approximately 0.28 miles south and east of the proposed facility. The pressure and flow through these lines are adequate to supply the new facility without need for further gas compression. Owner will contract with a gas pipeline company to bring a new gas pipeline branch to the site boundary complete with a new dew point heater and M&R station. The facility will have further fuel gas conditioning and treatment equipment for cleanliness prior to use in the engines.

The electrical transmission lines are located to the north and east and are approximately 0.41 miles from the new switchyard connections. The lines are 161kV and will be routed overhead on new transmission structures.

Water for the facility will be supplied by the East Casey County Water District existing distribution system. A new 4" potable water line will be installed on the nearest existing main trunk line and routed to the facility. At the facility this line will supply potable quality water to supply fire protection water, service water and potable water needs at the facility buildings and safety equipment.

2.7 Applicable Setback Requirements

KRS Section 278.704 subsections (2), (3), (4) and (5) identify requirements for the necessary setback provisions for the application and award of a construction certificate. This Project will include installation of two exhaust stacks and will not utilize coal as a fuel source, nor has the site previously used coal for any purpose.

The current requirements as listed in KRS 278.704 are:

1. 1,000ft setbacks from property boundaries of any adjoining property owner – applies to the centerline location of the exhaust stacks.

2. 2,000ft setbacks from any residential neighborhood, school, hospital, or nursing home facility – applies to all proposed structures or facilities used for generation of electricity.

Per the Siting Study included in Appendix A, the chosen Liberty site is not near any residential neighborhoods, schools, hospitals, or nursing home facilities. The area is primarily agricultural with residences and commercial facilities bordering the property to the north, east, and west. The 2,000ft setback requirement was therefore not applicable to this site.

There are two exhaust stacks for this RICE facility. A 1,000ft radius circle was drawn from the centerline of each stack and the overall site was adjusted to fit within the required setback area. The Site Plan, see Appendix C, shows these setback circles and how the plant has been arranged to fit within the chosen site boundaries.

2.8 Noise Evaluation

An evaluation was performed to determine the expected noise levels for the site once the facility is constructed. The analysis of those sound levels can be found in the Sound Study Report found in Appendix D and summarized in Section 5.0.

3.0 SITE COMPATIBILITY WITH SCENIC SURROUNDINGS

The Project, as previously stated in Section 2.0, is located on a 93± acre lot at a greenfield location approximately 4 miles north of Liberty, Kentucky. Access to site is from KY-49 highway on Carr Sasser Road. The area on this 90-acre plot is open terrain used primarily for agriculture. The area is relatively low, flat farmland with minimal sloping to the southwest and a tree line on the south and west property that will be left in its current state at the completion of the project.

Residents, and traffic heading either north or south, along the KY-49 highway will not have direct line of sight of the facility, or it would be limited, based upon the setback on the 90-acre property and the presence of trees along a natural riverine along the southwest portion of the property. During the fall and winter as the trees lose their foliage, visibility of the facility may increase, but would be heavily obstructed by the density of the tree line. Visibility would typically be limited to the two stacks that could be visible above the tree line along KY-49 highway.

Scenic elements along Carr Sasser Rd and Ronald Clements Rd would be most impacted by the facility. Sparse traffic would be expected in this area, limited mainly to residents owning homes along these two roads. To mitigate scenic disturbances, new trees will be planted along Carr Sasser Rd as well as incorporation of an earthen berm near the residences and businesses in that area.

Buildings, equipment, and storage facilities at the site will be neutral colored in order to blend with the local surroundings. Construction laydown and parking areas will be remediated to a natural condition and new grass seed will be planted to restore the area and blend with the local surroundings. The project will work to minimize disturbance and incorporate the facility into the area with minimal visual impact.

4.0 PROPERTY VALUE IMPACT

A Property Value Impact Study was executed by Kirkland Appraisals, LLC, as part of this SAR. The completed Property Value Impact Study is included in Appendix B.

The study utilized baseline research looking at existing RICE projects throughout the country, and nearby sales of residences in those areas for paired sales analysis. Fourteen locations were evaluated nationally to form the baseline, comparing sales of properties adjoining or near RICE sites with those that do not adjoin a RICE facility to determine potential impact of the proposed project.

The Study concluded that the Project would not negatively impact the local property values. It was noted that impact of appearance would need to be addressed through setbacks and landscaping buffers.

5.0 ACOUSTICAL EVALUATION

BMCD conducted a sound study for the Owners Liberty RICE Power Plant Project. The study can be found in Appendix D. The objectives of this study were to identify the applicable noise regulations, model operational sound levels of the Project, and compare Project-generated sound levels to the applicable noise regulations. The State of Kentucky has not adopted noise statutes which limit noise levels according to defined standards. In the absence of these regulatory limits, the Project sound levels were modeled and compared to industry guidelines to limit noise impacts on the surrounding community. For this evaluation, the Environmental Protection Agency (USEPA) and the American National Standards Institute (ANSI) standard, ANSI S12.9 were used to define the targeted noise limits at the site boundary. The study determined that the projected sound levels from the completed facility are consistent with the intent of the recommended guidelines assuming noise mitigation provisions identified in the report are performed.

Figure 5-1 below shows the eight noise receptor points that were modeled as part of this study. Table 5-1 contains the modeled sound level results at each of the eight receptor points.

Figure 5-1: Noise Receptor Locations

Table 5-1: Modeled Sound Level Results

Location	Assumed Ambient Sound Level[a]		Model Predicted Project-Only Sound Level[b]		Project Target Noise Criteria	
	dBA	dBC	dBA	dBC	dBA	dBC
R1	32	53	49	65	48.6	68
R2	32	53	52	68	48.6	68
R3	32	53	47	63	48.6	68
R4	32	53	43	60	48.6	68
R5	32	53	42	59	48.6	68
R6	32	53	45	63	48.6	68
R7	32	53	52	71	48.6	68
R8	32	53	51	69	48.6	68

(a) Lowest of the daytime/nighttime measured sound levels from Campbellsville measurements
(b) Model-predicted Project sound level

6.0 IMPACTS ON ROAD AND RAIL TRAFFIC

A Traffic Study, see Appendix E, was performed by BMCD as part of this SAR. The study used existing traffic data to establish historical daily traffic volumes along KY-49 highway and Carr Sasser Rd, and to estimate the additional volume created during construction and post-construction activities. This data was used to determine the impact of the facility's operation on road traffic near the Project. Results of the Traffic Study showed that traffic would increase during peak construction, a period of approximately 3-6 months, during weekday morning hours between 5:00am and 8:00am, and in the evenings between 4:00pm and 6:00pm. These hours are the scheduled start and end times for the work schedule. Weekend work is currently not anticipated for this Project. The site will only be accessible from KY-49 highway and Carr Sasser Rd. Carr Sasser Rd will experience congestion during the peak construction phase of the project. During the post-construction phase of the project, it is expected that traffic conditions will return to more normal levels with slight increases for deliveries to the facility.

The full Traffic Study can be found in Appendix E.

7.0 MITIGATION MEASURES

Potential impacts to the environment and the surrounding community will be mitigated and minimized by actions taken during the design, construction, operation, and maintenance of the facility.

7.1 Mitigation Measures During Design

The Project will adhere to the specified setback rules as required in KRS278-704. The Project will also work to minimize impact on existing riverine formation, trees, and stormwater runoff in the area. The Engineer will work to design the facility within the setback restrictions to mitigate stigma and appearance concerns with the local residents.

The tree line along KY-49 highway will be left as-is to help retain tree cover and to minimize impact on scenic surroundings. Where identified, Engineer will install sound walls and visual buffers to prevent scenic degradation in the area. Low growing trees and shrubs will be planted along these buffers to provide a more appealing visual acuity to the area. A detailed Landscaping Plan will be developed as the Project develops.

7.2 Mitigation Measures During Construction

Prior to construction, the selected contractor will obtain all required federal, state, and local regulatory permits. Storm Water Pollution and Prevention Plan (SWPPP) and Kentucky Pollutant Discharge Elimination System (KPDES) to manage erosion and storm runoff associated with construction activities. The SWPPP will identify specific Best Management Practices (BMPs) to be installed prior to earth moving activities, such as silt fencing, sediment basins, rock check dams, and construction entrances. Stormwater management structures will be installed prior to installation of any equipment to control runoff during the construction phase of the Project.

7.3 Mitigation Measures During Operations

Upon completion of construction, vegetation, including vegetative buffers with trees, shrubs and grass cover, will be installed according to a yet to be developed Landscaping Plan. The landscaping as identified in that plan will be maintained and supplemented as necessary after construction.

An Emergency Response Plan will also be developed with input from the Owner and local authorities and first responders to protect site workers and the surrounding community.

APPENDIX A – PRELIMINARY SITE DEVELOPMENT PLAN

Site Selection Study

1898 & CO. PART OF BURNS & MCDONNELL

EAST KENTUCKY POWER COOPERATIVE
A Touchstone Energy® Cooperative

East Kentucky Power Cooperative

Site Selection Study
Project No. 148883

Revision 3
9/9/2024

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LIST OF ABBREVIATIONS

Abbreviation	Term/Phrase/Name
1898 & Co.	1898 & Co., a division of Burns & McDonnell Engineering Company, Inc.
BACT	Best Available Control Technology
BGEPA	Bald and Golden Eagle Protection Act
Cooper	John Sherman Cooper Plant
EJSCREEN	EPA Environmental Justice Online Mapping and Screening Tool
EKPC	East Kentucky Power Cooperative
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
FAA	Federal Aviation Administration
Facility	Approximately 214-net-megawatt, natural gas, reciprocating engine generating facility
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Maps
GIS	Geographic Information System
IPaC	Information for Planning and Consultation
KDAQ	Kentucky Division for Air Quality
km	Kilometer
kV	Kilovolt
kW	Kilowatt

Abbreviation	Term/Phrase/Name
kWh	Kilowatt hour
LAER	Lowest Achievable Emission Reduction
MBTA	Migratory Bird Treaty Act
MMBtu	Million British Thermal Units
MS4	Municipal Separate Storm Sewer System
MW	Megawatt
NAAQS	National Ambient Air Quality Standards
NNSR	Non-Attainment New Resource Review
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
O&M	Operations and Maintenance
PDR	Project Definition Report
POI	Point of Interconnection
Project	The development of new natural gas generation in Kentucky
PSD	Prevention of Significant Deterioration
psig	Pounds per square inch, gauge
RICE	Reciprocating Internal Combustion Engine
SCR	Selective Catalytic Reduction
SSURGO	Soil Survey Geographic Database

Abbreviation	Term/Phrase/Name
Study	Site Selection Study
T&E	Threatened or Endangered
TARA	Transmission Adequacy & Reliability Assessment
TMDL	Total Maximum Daily Load
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

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1.0 EXECUTIVE SUMMARY

1898 & Co., a division of Burns & McDonnell Engineering Company, Inc., ("1898 & Co.") assisted East Kentucky Power Cooperative ("EKPC") with a Site Selection Study ("Study") for the development of new natural gas generation within the Casey County, Kentucky region ("Project"). The objectives, methodology and results of this Study are described in the following sections.

1.1 Study Objectives and Methodology

1898 & Co. conducted the Study to determine suitable locations for the development of an approximately 214 net-megawatt ("MW") natural gas, reciprocating internal combustion engine ("RICE") facility ("Facility") within EKPC's service territory.

This Study investigated suitable locations in EKPC's service territory in and surrounding Casey County, Kentucky and was completed in three phases:

- 1898 & Co. first utilized Geographic Information System ("GIS") software to identify potentially suitable parcels of land within the target region.
- Each candidate site was evaluated site using a quantitative scoring process to identify the sites with the most potential to support the Project.
- Lastly, field reconnaissance was performed for the top three areas identified through the quantitative scoring process to identify the recommended sites for EKPC to carry forward with advanced development activities.

1.2 Selection of Candidate Site Areas

1898 & Co. first identified areas of interest located within and surrounding Casey County, Kentucky. 1898 & Co. focused on this area based on EKPC's internal analysis of its transmission system and the potential need for additional generation in the region. 1898 & Co. also analyzed major natural gas pipelines throughout the region to identify what pipelines in the area potentially have available capacity to support the Project. Based on these factors, 1898 & Co. identified five areas of interest for the Project.

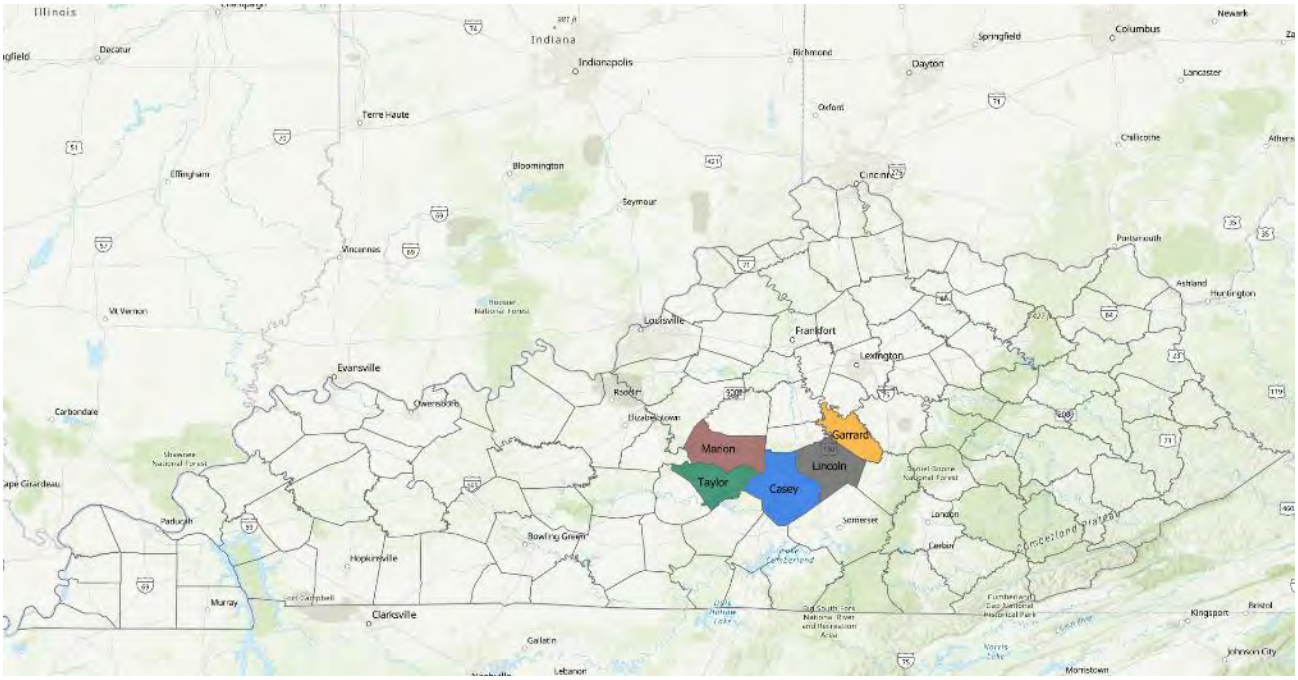
Candidate sites were then selected within the areas of interest based on a review of relative distance to electrical transmission and natural gas infrastructure as well as a review of GIS software and aerial photography. The following parameters were taken into consideration during the identification of candidate sites:

- Proximity to electric transmission infrastructure.

- Proximity to natural gas pipeline infrastructure potentially suitable to supply the contemplated generation.
- Existing and surrounding land uses.
- Existence of on-site environmental resources, such as previously documented historic structures, potential habitat suitable for threatened or endangered species, and proximity to wetlands and floodplains.
- Accessibility and constructability of the property
- Access to potential interconnection routing corridors or zones for natural gas, transmission, and water infrastructure facilities.

The 20 candidate sites carried forward for detailed analysis are located in the following counties, shown in Figure 1-1: Casey, Garrard, Lincoln, Marion, and Taylor.

Figure 1-1: Candidate Site Areas



1.3 Candidate Site Evaluation

A quantitative decision matrix was used to rank the candidate sites. In total, 22 different criteria were used to evaluate the candidate sites. These criteria were first organized into five major categories, and these major categories were allocated weights that reflect the importance to the Project and totaled 100 percent. Within each major category, the criteria were assigned sub-weights indicative of each criterion's relative importance. The composite weight for each individual criterion was then calculated as an aggregate of all sub-weighted

criteria within a major category. The evaluation categories, category weights, criteria, criteria sub-weights, and composite weights are summarized in Table 1-1 and Table 1-2.

Table 1-1: Candidate Site Evaluation Criteria

Major Category	Category Weight	Criterion	Scoring	Criterion Weight	Equivalent Pts (100 Pt Scale)
Electrical Transmission	25%	Transmission Interconnection Cost		30.0%	7.5%
		Low anticipated substation & transmission line cost	50		
		Moderate anticipated substation & transmission line cost	30		
		High anticipated substation & transmission line cost	10		
		Transmission System Upgrade Cost (214 net MW)		20.0%	5.0%
		Low anticipated transmission system upgrade cost	50		
		Moderate anticipated transmission system upgrade cost	30		
		High anticipated transmission system upgrade cost	10		
		Transmission System Support		50.0%	12.5%
		No violations without added capacity banks	50		
		No violations with added capacity banks	30		
		Violations remain with added capacity banks	10		
Fuel Supply Delivery	30%	Natural Gas Pipeline Distance		40.0%	12.0%
		< 1 Miles	50		
		1 - 3 Miles	30		
		> 3 Miles	10		
		Natural Gas Pipeline Preference		40.0%	12.0%
		Columbia Gulf Transmission Co	50		
		Tennessee Gas Pipeline Co	30		
		Texas Eastern Transmission LP	10		
		Fuel Supply Competition		20.0%	6.0%
		Multiple gas pipelines within 2 miles	50		
		Multiple gas pipelines within 5 miles	30		
		Multiple gas pipelines not available within 5 miles	10		
Site Development	15%	Potential Community Conflict		20.0%	3.0%
		Park, Churches, Meeting Hall, Hospital > 4 miles	50		
		Park, Churches, Meeting Hall, Hospital 1-4 miles	30		
		Park, Churches, Meeting Hall, Hospital < 1 mile	10		
		Accessibility		20.0%	3.0%
		Highly accessible site (Entry Road(s), Highways)	50		
		Moderately accessible site (Entry Road(s), Highways)	30		
		Non-accessible site (Entry Road(s), Highways)	10		
		Constructability		25.0%	3.8%
		Favorable terrain / Clearing impacts	50		
		Moderate terrain / Clearing impacts	30		
		Unfavorable terrain / Clearing / Floodplain impacts	10		
		Existing Use		15.0%	2.3%
		Industrialized / Brownfield site area	50		
		Agricultural site area	30		
		Undisturbed site area	10		
		Useful Acreage		15.0%	2.3%
		> 45 Acres	50		
		25-45 Acres	30		
		< 25 Acres	10		
		Expandability		5.0%	0.8%
		> 400 Acres Adjacent (total parcels)	50		
		100 - 400 Acres Adjacent	30		
		< 100 Acres Adjacent	10		

Table 1-2: Candidate Site Evaluation Criteria

Major Category	Category Weight	Criterion	Scoring	Criterion Weight	Equivalent Pts (100 Pt Scale)
Environmental	15%	Nearest Noise Receptor		10.0%	1.5%
		> 1 Mile	50		
		0.25 - 1 Mile	30		
		< 0.25 Mile	10		
		Environmental Justice		10.0%	1.5%
		Demographic Index falls within the 0 to 35th percentile	50		
		Demographic Index falls within the 35th to 67th percentile	30		
		Demographic Index falls within the 67th to 100th percentile	10		
		Wetlands		25.0%	3.8%
		High Probability of Avoiding Wetlands	50		
		Moderate Probability of Avoiding Wetlands	30		
		Low Probability of Avoiding Wetlands	10		
		Floodplains		25.0%	3.8%
		Entire Site Outside of 100-year Floodplain	50		
		Portion of Site within 100-year Floodplain/Floodplain Avoidable	30		
		Site Within 100-year Floodplain	10		
		Archeological & Cultural Resource Risk		20.0%	3.0%
		Low Potential for Impacts	50		
		Moderate Potential for Impacts	30		
		High Potential for Impacts	10		
		Sensitive Species Risk		10.0%	1.5%
		Low Potential for Impacts	50		
		Moderate Potential for Impacts	30		
		High Potential for Impacts	10		
Permitting	15%	Water Permitting		30.0%	4.5%
		Low Potential for Impacts	50		
		Moderate Potential for Impacts	30		
		High Potential for Impacts	10		
		Air Permitting		30.0%	4.5%
		Attainment Zone	50		
		Non-Attainment; Moderate Potential for Schedule Impacts	30		
		Non-Attainment; Major Potential for Schedule Impacts	10		
		Class 1 Areas		30.0%	4.5%
		Greater than 150 kilometers from Class I Areas	50		
		100 to 150 from a Class I Areas	30		
		Less than 100 kilometers from Class I Area	10		
		FAA Considerations		10.0%	1.5%
		> 4 miles away from the nearest airport w/ runway > 3,200 ft	50		
		3 - 4 miles away from the nearest airport w/ runway > 3,200 ft	30		
		< 3 miles away from the nearest airport w/ runway > 3,200 ft	10		

The individual scores for each candidate site and criteria were used along with the corresponding weights to calculate a weighted composite score for each site. These composite scores are calculated as the sum of the products of each individual score and criterion weight. Figure 1-2 provides a graphical representation of the weighted composite scores for the candidate site evaluation.

Figure 1-2: Candidate Site Evaluation Scores

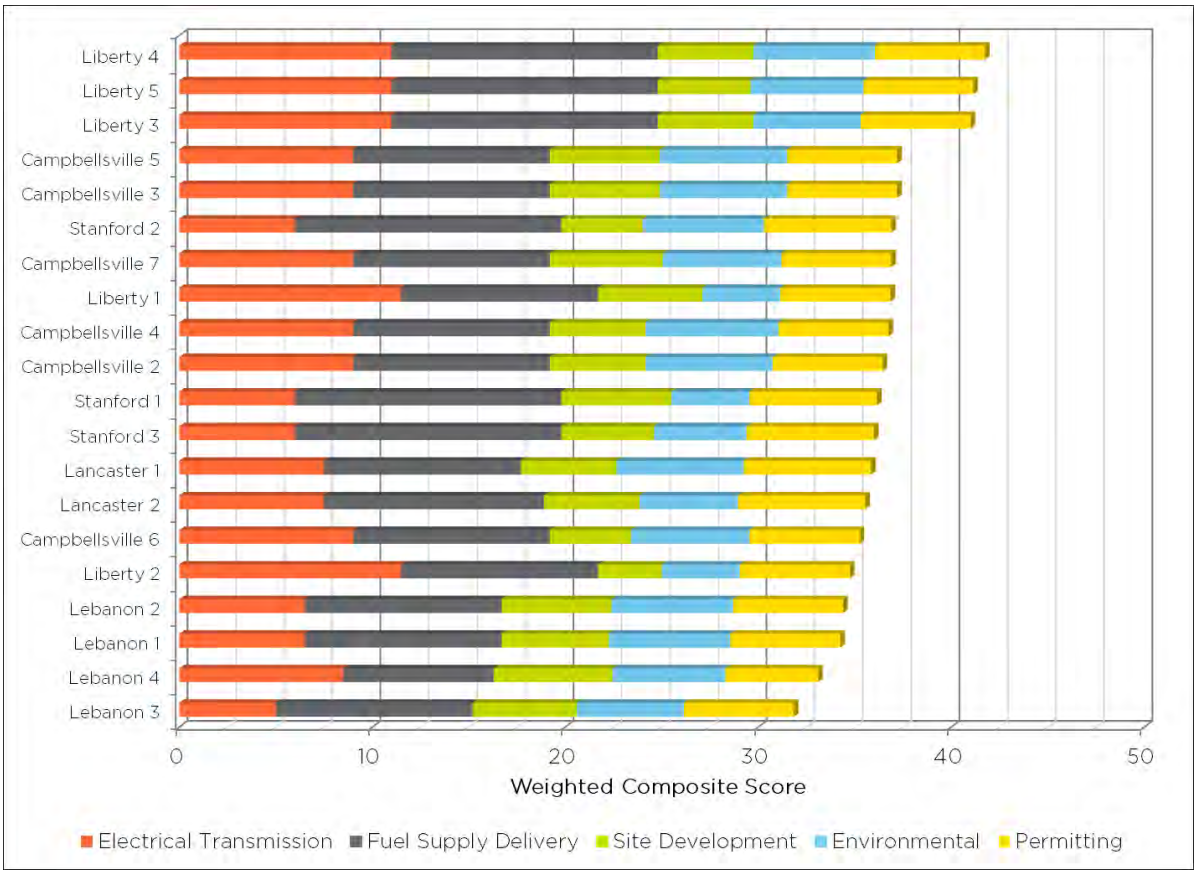


Figure 1-2 shows that the base composite evaluation scores range from a low of 31.85 for Lebanon 3, and a high of 41.75 for Liberty 4 out of a possible score of 50. The average and median scores are 36.47 and 36.30, respectively.

1.4 Selection of Preferred Sites

After the initial scoring process was completed, field reconnaissance was performed of the highest scoring potential areas. The field reconnaissance consisted of an automobile survey along public roads in the vicinity of each potential site area, the electrical interconnection point, and the natural gas interconnection point.

Following the field reconnaissance of the potential site areas and subsequent analyses, the project team evaluated the relative strengths and weaknesses of each site with respect to the major criteria.

1.5 Conclusions

The conclusions reached from this Study are presented below.

- There are multiple sites available within the project study area that can accommodate the development of the Project.
- The following sites are recommended as the top, preferred sites to proceed with advanced development activities.
    - Liberty 4
    - Liberty 5
    - Liberty 3
    - Campbellsville 5
    - Campbellsville 3
- 1898 & Co. recommends EKPC conduct further due diligence on the top sites which should include:
    - Determining the true land cost through discussions with the current owners and beginning further property due diligence.
        - Property due diligence would include performing boundary and topography surveys, Phase 1 Environmental Site Assessment, title research, and environmental critical issues assessment.
    - Determining the true gas transportation and interconnection costs through discussions with the pipeline owners.
    - Completing and submitting the interconnection application.
    - Performing a Project Definition Report ("PDR") that more accurately estimates project costs, timeline, layout, etc.
    - Performing detailed environmental permitting activities with local, state, and federal agencies to determine air, water, and storm/wastewater permit requirements.
    - All of the potential sites are located in counties that are in attainment for National Ambient Air Quality Standards ("NAAQS") for all criteria pollutants. Therefore, it should be practical to obtain a permit for the air emissions from the proposed plant at any of these sites; however, additional review will be required to verify this statement.

2.0 INTRODUCTION

1898 & Co. was retained by EKPC to perform a Study to evaluate the potential development and construction of a new natural gas generating facility in Kentucky. This introduction details the Study objective, an overview of the methodology, and identifies the project team.

2.1 Background

EKPC is planning to develop dispatchable generation within Kentucky. Reciprocating engine facilities allow power generators to quickly respond to the demands of the grid. This Study was initiated by EKPC in order to investigate the feasibility of developing an approximately 214 net MW greenfield facility consisting of up to 12 RICE units.

2.2 Study Methodology

The objective of the Study was to identify potential sites that would be capable of supporting development of 214 net MW of new reciprocating engine generation. Previously undeveloped, or greenfield sites were considered. 1898 & Co. restricted the evaluation to sites that are located within Kentucky, in or around EKPC's service territory, and near natural gas pipelines.

The site identification and selection efforts were completed in three phases. A brief description of these phases is included below.

- Phase 1: Preliminary candidate sites were identified with consideration of the required infrastructure (electrical transmission and natural gas pipelines). Within these areas, preliminary sites were identified, and an initial screening of these preliminary sites, using readily available maps and aerial photography was completed to eliminate sites with development constraints.
- Phase 2: The preliminary sites were evaluated against 22 criteria organized into five major categories. The major categories used for evaluation were electrical transmission, fuel supply delivery, site development, environmental, and permitting. The results of this evaluation were used to rank the sites to determine where to focus future development efforts.
- Phase 3: Following the quantitative site evaluation, the top three areas by their weighted composite scores were selected for site reconnaissance. These site visits were conducted to confirm characteristics of each site (constructability, accessibility, electric and gas interconnection, nearest neighbors, etc.). The project team used the information collected during the reconnaissance along with consideration of strategic factors to identify and recommend the top preferred sites.

2.3 Project Team

This study was completed by a multi-disciplinary team of professionals from EKPC and 1898 & Co. The project team included individuals with expertise in planning, permitting, design, and operation of electric generating and transmitting facilities.

3.0 CANDIDATE AREA AND SITE SELECTION

The first step in the site selection process was the identification of candidate sites. Candidate sites possess the necessary infrastructure and characteristics to support the development of a reciprocating engine generating facility. The methodology and results of these investigations are described in the following sections.

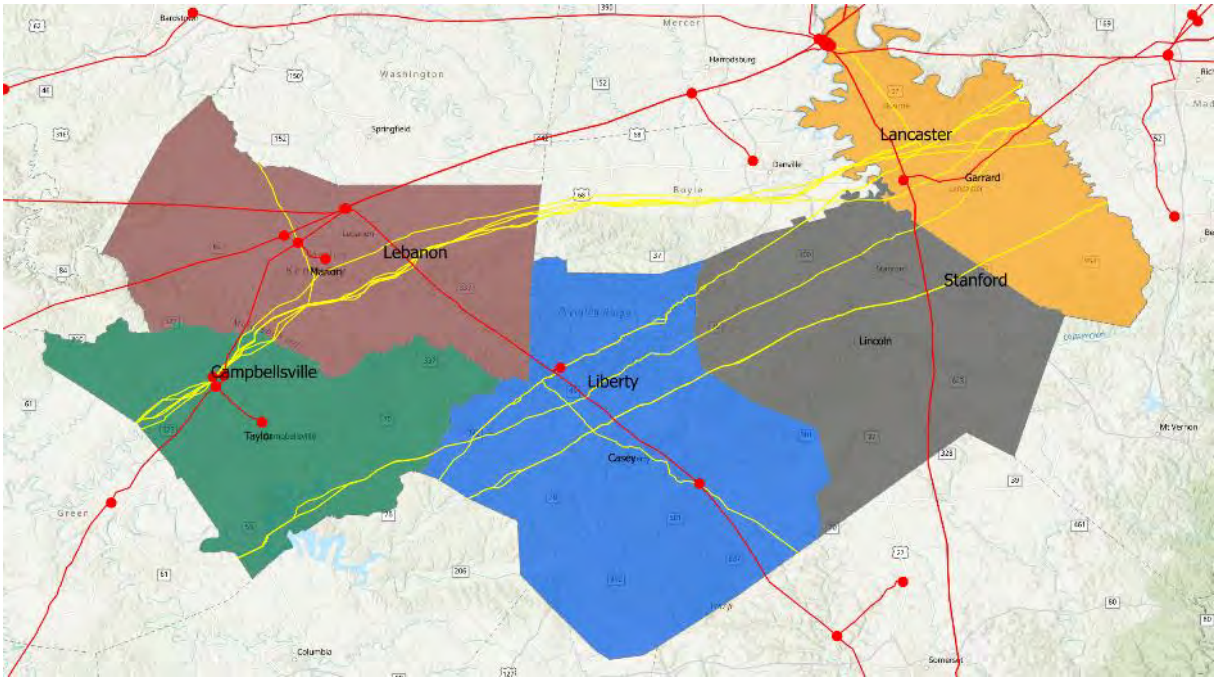
3.1 Areas of Interest

EKPC requested 1898 & Co. consider sites in and around Casey County, Kentucky. The five areas of interest are:

- Campbellsville, located in Taylor County, Kentucky
- Lancaster, located in Garrard County, Kentucky
- Liberty, located in Casey County, Kentucky
- Lebanon, located in Marion County, Kentucky
- Stanford, located in Lincoln County, Kentucky

These locations were selected based on consideration of the necessary infrastructure to support the Project. Figure 3-1 shows the areas of interest with the critical infrastructure overlayed.

Figure 3-1: Preliminary Site Areas



3.2 Regional Infrastructure

In order to minimize the potential impacts and costs of plant development, prospective site areas should be located as near as practical to supporting infrastructure or physical resources.

3.2.1 Electric Transmission

The generating units at the proposed power plant must be connected into the regional transmission network in order to deliver reliable electric power from these facilities to EKPC's customers. For this Study, it was assumed that a minimum transmission voltage of 115 kilovolt ("kV") would be required. Thus, the search for prospective plant sites was concentrated in areas including transmission facilities with voltages greater than 115 kV. Lower voltage lines were excluded during the site identification process.

3.2.2 Natural Gas Pipelines

For this Study, it was assumed that the facility would be comprised of up to 12 reciprocating engines. To determine whether prospective natural gas pipelines had enough capacity to support the Project, 1898 & Co. calculated the full load fuel usage of 12 engines over an hour as well as one day utilizing heat rate and load information. For all 12 reciprocating engines, this equated to roughly 1,800 Million British Thermal Units ("MMBtu") per hour which is equivalent to 43,200 MMBtu per day. This usage was then communicated to EKPC to solicit natural gas pipeline owners to determine whether adequate capacity exists to support a new Facility.

3.2.3 Water and Wastewater Utilities

Reciprocating engine facilities do not require a substantial amount of water for operation. Water will be required for Operation and Maintenance ("O&M") activities at the Facility, but water and wastewater utilities are not critical to the overall evaluation. As such, 1898 & Co. did not focus on water availability and wastewater treatment capacity as part of the site selection process.

3.3 Land Availability

Based on comparison to existing, similar sized RICE facilities, 1898 & Co. estimates that a site of approximately 45 acres would be required for the facility including construction laydown and parking areas.

3.4 Preliminary Site Areas

In order to identify preliminary sites, 1898 & Co. developed a composite map that overlaid the necessary infrastructure to determine potential areas of interest. Once these areas were identified, specific candidate sites were selected by considering topography and the presence

of wetlands, residences, parcel sizes, or other nearby development concerns. From this analysis, 1898 & Co. identified 20 representative candidate sites for evaluation. These sites are not intended to be the only viable sites in the area, but are considered the most viable in the area of interest.

4.0 CANDIDATE SITE AREA DESCRIPTION

This chapter contains narrative descriptions of the five candidate site areas with an emphasis on characteristics that are important in the subsequent evaluation process. With consideration of future real estate conditions and further analyses, the site boundaries for a specific site could be modified. Detailed maps of each site can be found in Appendix A.

4.1 Campbellsville Site Area

The Campbellsville area has seven sites located approximately five miles northwest of the city of Campbellsville in the small city of Saloma in Taylor County, Kentucky. All Campbellsville sites are currently used primarily as farmland.

Saloma has a moderate density of residential and rural buildings including houses, barns, churches, and commercial buildings. Campbellsville 1, 2, 3, 5, and 7 are located on State Highway 744, which is the main road through Saloma, and therefore are located in close proximity to residential buildings. Campbellsville 4 is the farthest site from any surrounding structures. 1898 & Co. identified the closest potential community conflict to any of the sites, which is the Saloma Baptist Church, located 0.21 miles northeast of Campbellsville 3.

Wetlands data from the National Wetlands Inventory ("NWI") indicate that the Campbellsville sites are free of wetlands that would have an impact on the development of the Project. NWI maps are useful tools for high-level planning purposes, but further investigation may be necessary to identify all wetlands that exist within each site.

Campbellsville 1, 4, 6, and 7 have a small riverine wetland located on the edges of the parcels. Wetlands at Campbellsville 1 and 4 would be easily avoided, but Campbellsville 6 and 7's wetlands would be moderately difficult to avoid. Flood Zone data acquired through the Federal Emergency Management Agency ("FEMA") show that no floodplains are present within any of the potential sites in Campbellsville.

According to parcel ownership information obtained from the online AcreValue map, only one landowner would be affected at each site by the development of the Facility. Campbellsville 3 is the smallest parcel, which is 48 acres, but does have adjacent properties that could be used for expansion. The largest parcel is Campbellsville 4 at 130.2 acres.

The Campbellsville area is very desirable due to the proximity to the Tennessee Gas Pipeline Co natural gas compression station, low electrical interconnection costs due to the planned construction of the North Taylor County substation, and the favorable constructability due to

flat, clear land in the area. The only negative developmental aspect, that 1898 & Co. identified in the area, are the proximity to residential buildings and the Saloma Baptist Church. 1898 & Co. selected candidate sites in the area by reviewing GIS databases to determine high-scoring sites with regards to the scoring criteria described in Section 3.0 of this report.

4.1.1 Current Site Conditions

Campbellsville 1, 2, 3, 5, and 7 are all located on State Highway 744, which is a 2-laned, paved highway and would offer easy accessibility to the site. Campbellsville 6 is located on Pleasant Hill Church Road, which is a paved, 1-lane road, and Campbellsville 4 is located on Sanders Road, which is a gravel, 1-lane road. These two smaller, less-traveled roads would potentially require road construction to provide easy accessibility to the site. 1898 & Co. does not anticipate zoning to be an issue for the development of a generating facility at the Campbellsville sites.

Constructability at the Campbellsville sites would be moderately favorable. The sites are rolling hills with relatively minimal land undulation. None of the sites would require land clearing, wetland mitigation, or floodplain avoidance measures.

No archeological sites or notable or outstanding resources were identified at any of the Campbellsville sites. The United States Fish and Wildlife Service's Information for Planning and Conservation tool ("IPaC") review indicated that the northern long-eared bat, Indiana bat, and gray bat are potentially occurring in the Campbellsville sites and avoidance measures and/or presence/absence surveys may be required. The potential for developmental impact from sensitive species is moderate.

4.1.2 Natural Gas Pipeline

The Campbellsville sites were chosen due to their proximity to the Tennessee Gas Pipeline Co natural gas compression station in Saloma. Each site was measured to their respective, nearest natural gas pipeline to determine the potential distance for natural gas interconnection. All sites are located within one mile of their respective nearest pipeline. Campbellsville 2 and 6 are the closest, with multiple pipelines located on the parcel. EKPC will need to confirm with Tennessee Gas Pipeline Co that the pipelines located on Campbellsville 2 and 6 can be re-routed to provide adequate area for site development.

Natural gas competition for the Campbellsville sites is minimal, as the second closest natural gas pipeline (also Tennessee Gas Pipeline Co.) is located over nine miles from the Campbellsville sites.

4.1.3 Electric Transmission

EKPC conducted a transmission study to determine relative magnitudes (low, moderate, and high) of interconnection and system upgrade costs at each site.

Assuming 214 net MW was injected into the current transmission system in Campbellsville, the system upgrade costs were estimated to be moderate. EKPC is preparing to build a substation and associated required facilities to establish a POI for the Pennsylvania, New Jersey, Maryland Interconnection ("PJM") Queue in the Campbellsville area, so the additional cost for interconnection at this new North Taylor County substation was estimated to be low.

The distance from each potential site was measured to the location of this new substation to determine the potential length of a generation-tie line. Campbellsville 3 and 4 are closest, being located 0.25 and 0.27 miles, respectively, from the approximate location of the new North Taylor County substation. Campbellsville 6 is the farthest, at 2.46 miles from the approximate location of the new North Taylor County substation.

It is desirable for the Project to provide voltage support to the electric grid, and sites located in Campbellsville would require the installation of capacitor banks to ensure no violations occur when one or both of the units at EKPC's John Sherman Cooper Power Plant ("Cooper") are not running.

4.2 Lancaster Site Area

The Lancaster area has two sites located approximately five miles northwest of the city of Lancaster, in Garrard County, Kentucky. Two additional sites were originally evaluated but were ultimately eliminated during the field reconnaissance due to development in the area. The Lancaster sites are primarily grassy pastures.

Lancaster has a moderate density of residential, rural, and commercial buildings including houses, barns, churches, and small shops. Lancaster 1 is located on Lexington Rd, which is the main road through Lancaster and is near a few small residential and agricultural buildings. Lancaster 2 is located along the west side of Fox Church Rd, which has a small residential community located on the east side of the road. Both sites are in relatively close proximity to residential buildings. The closest community conflict to the sites is the Camp Dick Robinson Elementary School which is 0.86 miles northwest of Lancaster 1.

Wetlands data from NWI indicated Lancaster 1 has a small riverine wetland that is located on the eastern edge of the parcel that would be easy to avoid and would not have an impact on the development of the Project. However, Lancaster 2 has a small riverine wetland that runs

through the parcel from the southwest corner and ending in the northeastern quarter of the site, which would be difficult to avoid, and would likely have an impact on development. Flood Zone data from FEMA show that no floodplains are present within either Lancaster site.

According to parcel ownership information obtained from AcreValue, only one landowner would be affected at each site by the development of the Facility. Both sites are of adequate size and have adjacent parcels that could potentially be used for expansion. The larger parcel is Lancaster 1 at 136.8 acres and the smaller parcel is Lancaster 2 at 55.3 acres.

4.2.1 Current Site Conditions

Lancaster 1 is located on Lexington Rd, which is a 2-lane, paved highway that would offer easy accessibility to the site. Lancaster 2 is located on Fox Church Rd, which is a 1-lane, paved road that would offer moderate accessibility to the site. 1898 & Co. does not anticipate zoning to be an issue for the development of a generating facility at the Lancaster sites.

Constructability at the Lancaster sites would be moderately favorable. The sites have moderate sloping with relatively minimal land undulation. Neither site would require land clearing or floodplain avoidance measures. Lancaster 1 is free of wetlands, but Lancaster 2 would likely require wetland mitigation or avoidance measures for development.

No archeological sites or notable outstanding cultural resources were identified at any of the Lancaster sites. The IPaC review indicated that the northern long-eared bat, Indiana bat, and gray bat are potentially occurring in the Lancaster sites and avoidance measures and/or presence/absence surveys may be required. The potential for developmental impact from sensitive species is moderate.

4.2.2 Natural Gas Pipeline

The Lancaster sites are located near the Tennessee Gas Pipeline Co. natural gas pipeline and moderately close to the Texas Eastern Transmission LP pipeline. Each site was measured to the nearest pipeline to determine the potential distance for natural gas interconnection. Lancaster 1 is located 1.31 miles northwest, and Lancaster 2 is located 0.23 miles north of the Tennessee Gas Pipeline Co pipeline.

Natural gas competition for the Lancaster sites is relatively favorable due to their moderate proximity to the Texas Eastern Transmission LP pipeline, which is located within 5 miles of both sites.

4.2.3 Electric Transmission

EKPC's transmission study results estimated that the system upgrade costs, assuming 214 net MW was injected into the current transmission system in Lancaster, would be moderate. The cost for interconnection, which would require the construction of additional facilities at the West Garrard substation, was estimated to be low.

The distance from both sites was measured to the West Garrard substation to determine the potential length of a generation-tie line from each site. Lancaster 1 is 3.77 miles and Lancaster 2 is 2.77 miles from the West Garrard substation.

The Lancaster sites would require the installation of capacitor banks to ensure no violations occur when one or both of the units at Cooper are not running.

4.3 Liberty Site Area

The Liberty area has five sites located approximately three to nine miles northwest of the city of Liberty, in Casey County, Kentucky. The Liberty sites are primarily used as farmland. Additionally, two other sites were evaluated during initial screening but were ruled out for further evaluation. These two sites did not meet minimum site requirements due to their location in mountainous terrain.

Liberty has a very low density of residential and rural buildings including mainly houses and barns. Liberty 1 and 2 are located along State Highway 49 which is the main highway connecting Liberty and Lebanon. Liberty 3, 4, and 5 are located farther southeast on Carr Sasser Rd and Upper Brush Creek Rd, small roads off State Highway 49. All sites in Liberty are relatively close to surrounding farmhouses. The closest community conflict to Liberty 1 and 2 is the Lighthouse Church, which is 1.04 miles southeast of Liberty 2. The closest community conflict to Liberty 3 and 4 is the Carr Chapel First Church of God, which is 2.03 miles northwest of Liberty 3. The closest community conflict to Liberty 5 is Wilson Cemetery, which is located 3.19 miles northwest of Liberty 5.

Wetlands data from NWI indicate that Liberty 1, 2, and 3 have small riverine wetlands and ponds located on the parcels which would be moderately difficult to avoid. Liberty 4 has a small riverine wetland located along the northern corner and southeastern edge of the parcel, which would be easily avoidable. Liberty 5 has no wetlands located on the parcel. Flood Zone data from FEMA show that Liberty 1 and 2 are mostly covered with a one percent annual chance flood hazard associated with Big South Fork River, which would likely be unavoidable. No floodplains are present within either Liberty 3 or 4. The southern tip of Liberty 5 is located

within the one percent annual chance flood hazard from Brush Creek, which would be easily avoided.

According to parcel ownership information obtained from AcreValue, only one landowner would be affected at Liberty 1-4 by the development of the Facility, and two landowners would be affected by development of the Facility at Liberty 5. Liberty 1 and 2 do not have adequate usable space available due to the presence of high sloping land, tree coverage, and floodplains. Liberty 3, 4, and 5 are of adequate size, and Liberty 3 and 4 have adjacent parcels that could potentially be used for expansion. Liberty 5 is the largest parcel with a total acreage of 313.7, but Liberty 3, 4, and 5 each have sufficient area for development.

4.3.1 Current Site Conditions

Liberty 1 and 2 are located on State Highway 49, which is a 2-lane, paved highway that would offer easy accessibility to the sites. Liberty 3 and 4 are located on Carr Sasser Rd, which is a 1-lane, paved and gravel road that would provide moderate accessibility to the sites. Liberty 5 is located on Upper Brush Creek Rd, which is a 1-lane, gravel road that would provide moderate accessibility to the site. 1898 & Co. does not anticipate zoning to be an issue for the development of a generating facility at the Liberty sites.

Constructability at the Liberty sites would be moderately favorable for Liberty 1, 3, 4, and 5 and would be unfavorable for Liberty 2. Liberty 1, 3, 4, and 5 have moderate sloping, minimal land undulation, and scarce tree coverage. Liberty 2 has relatively high sloping hills with moderate tree coverage and does not have adequate space available for construction laydown areas. Both Liberty 1 and 2 would also likely require extensive floodplain avoidance measures.

No archeological sites or notable outstanding cultural resources were identified at any of the Liberty sites. The IPaC review indicated that the northern long-eared bat, Indiana bat, and gray bat are potentially occurring in the Liberty sites and avoidance measures and/or presence/absence surveys may be required. The potential for developmental impact from sensitive species is moderate.

4.3.2 Natural Gas Pipeline

The Liberty sites are located near the Tennessee Gas Pipeline Co, Columbia Gulf Transmission Co, and Texas Eastern Transmission Co natural gas pipelines. Each site was measured to the nearest pipeline to determine the potential distance for natural gas interconnection. Liberty 1 and 2 were measured to the Texas Eastern Transmission Co pipeline, which is 0.75 and 0.07

miles away, respectively. Liberty 3, 4, and 5 were measured to the Columbia Gulf Transmission Co pipeline, which is 0.28, 0.08, and 0.62 miles away, respectively, to the southwest.

Natural gas competition for the Liberty sites is very favorable due to their proximity to three major natural gas pipelines within approximately 5 miles of each site.

4.3.3 Electric Transmission

EKPC's transmission study results estimated that the system upgrade costs, assuming 214 net MW was injected into the current transmission system in Liberty, would be moderate at Liberty 1 and 2, and low at Liberty 3, 4, and 5. The cost for interconnection, for Liberty 1 and 2, which would require the construction of additional facilities to the Casey County substation, was estimated to be low. The cost for interconnection, for Liberty 3, 4, and 5, which would require the construction of a new substation, South Casey County, was estimated to be moderate.

The distance from Liberty 1 and 2 was measured to the Casey County substation to determine the potential length of a generation-tie line from each site if interconnection would be made at this substation. Liberty 1 is 0.81 miles and Liberty 2 is 0.23 miles from the Casey County substation.

1898 & Co. approximated the distance from Liberty 3, 4, and 5 sites to the nearest high voltage transmission line to determine the potential length of a generation-tie line from each site, representing the potential of a new substation being constructed at each site. Liberty 3 is 0.41 miles, Liberty 4 is 0.03 miles, and Liberty 5 is 2.03 miles from the nearest transmission line.

The Liberty sites are the only sites in this study that would not require the installation of capacitor banks to ensure no violations occur when one or both of the units at Cooper are not running.

4.4 Lebanon Site Area

The Lebanon area has four sites, located northwest and southeast of the city of Lebanon, in Marion County, Kentucky. The Lebanon sites are primarily used as farmland.

The sites are located outside of the higher density residential areas in Lebanon and are in areas with low density residential and agricultural buildings. Lebanon 1, 2 and 3 are located southeast of the city of Lebanon and are in very low-density residential areas mainly used for agricultural. Lebanon 4 is located on State Highway 2154 to the northwest of the city of Lebanon and is closer to the residential, agricultural, and industrial areas. The closest

community conflicts to Lebanon 1 and 2 is Glasscock Elementary School, which is located 1.64 miles northwest of Lebanon 1. The closest community conflict to Lebanon 3 is Calvary Elementary School, which is located 2.60 miles west of the site. The closest community conflict to Lebanon 4 is the Spring View Hospital, which is 0.87 miles southeast of the site.

Wetlands data from NWI indicate that Lebanon 1, 2, and 3 have small wetlands located on the parcels which would be easily avoidable. Lebanon 4 has a pond and riverine wetland running along the eastern portion of the parcel that would be moderately difficult to avoid. Flood Zone data from FEMA show no floodplains are present on Lebanon 1, 2, or 4. Lebanon 3 has a one percent annual chance flood hazard located on the northeastern edge of the parcel that would likely be avoidable.

According to parcel ownership information obtained from AcreValue, only one landowner would be affected at each site by the development of the Facility. All Lebanon sites are of adequate size and have adjacent parcels that could potentially be used for expansion. Lebanon 3 is the largest parcel at 250.8 acres and Lebanon 1 is the smallest at 70.2 acres.

4.4.1 Current Site Conditions

Lebanon 1 is located on Sulphur Springs Rd, which is a 1-lane, paved road that would offer moderate accessibility to the site. Lebanon 2 is located on Penick Rd, which is a 1-lane, gravel road that would potentially require road construction to provide easy accessibility to the site. Lebanon 3 and 4 are both located on 2-lane, paved roads that would provide easy accessibility to the sites. 1898 & Co. does not anticipate zoning to be an issue for the development of a generating facility at the Lebanon sites.

Constructability at the Lebanon sites would be favorable for Lebanon 1, 2, and 4 and moderately favorable for Lebanon 3. Lebanon 1, 2, and 4 all have low sloping, minimal tree coverage, have avoidable wetlands, are relatively flat, and would not require floodplain avoidance measures. Lebanon 3 has slightly higher sloping, more tree coverage, is moderately flat, and would potentially require floodplain avoidance measures.

No archeological sites or notable outstanding resources were identified at any of the Lebanon sites. The IPaC review indicated that the northern long-eared bat, Indiana bat, and gray bat are potentially occurring in the Liberty sites and avoidance measures and/or presence/absence surveys may be required. The potential for developmental impact from sensitive species is moderate.

4.4.2 Natural Gas Pipeline

The Lebanon sites are located near the Tennessee Gas Pipeline Co natural gas pipeline. Each site was measured to the nearest pipeline to determine the potential distance for natural gas interconnection. Lebanon 1, 2, and 3 all have pipelines located on the parcel. Lebanon 4 is 2.76 miles from its nearest pipeline.

Natural gas competition for the Lebanon sites is unfavorable due to there being no other major natural gas pipelines within five miles.

4.4.3 Electric Transmission

EKPC's transmission study results estimated that the system upgrade costs, assuming 214 net MW was injected into the current transmission system in Lebanon, would be high at Lebanon 1, 2, and 3, and low at Lebanon 4. The cost for interconnection, for all Lebanon sites would require the construction of a new substation, was estimated to be moderate.

1898 & Co. approximated the distance from each Lebanon site to their respective nearest high voltage transmission line to determine the potential length of a generation-tie line, representing the potential of a new substation being constructed at each site. The farthest site from its respective transmission line is Lebanon 3 at 2.83 miles, and the closest site to its respective transmission line is Lebanon 4 at 0.42 miles.

Due to the high cost of electrical system upgrades, the Lebanon sites were not included in EKPC's study to determine if they would require the installation of capacitor banks when one or both of the units at Cooper are not running.

4.5 Stanford Site Area

The Stanford area has three sites located approximately four miles west of the small city of Stanford, in Lincoln County, Kentucky. The Stanford sites are primarily grassy pastures.

Stanford is mainly an area with agricultural, small commercial buildings, and scattered residential areas. Stanford 1 is located on Preachersville Rd, which has very scarce residential and agricultural buildings. Stanford 2 and 3 are both located on State Highway 1770, which is a 2-lane paved road with a low density of residential, commercial, and agricultural buildings. All Stanford sites are in relatively close proximity to residential buildings. The closest community conflict to any of the sites is Lincoln County Middle and High School, which is located 3.02 miles west of Stanford 2.

Wetlands data from NWI indicate that Stanford 1 has riverine wetlands that surround the parcel and a small pond, but these wetlands would all be easily avoidable. Stanford 2 has two ponds located on the parcel which would be difficult to avoid. Stanford 3 has a riverine wetland located on the northern edge of the parcel and four ponds located on the parcel, which would be moderately difficult to avoid. Flood Zone data from FEMA show that Stanford 1 and 3 have a one percent annual chance flood hazard located on the parcel that would likely be easily avoided at Stanford 3 and moderately difficult to avoid at Stanford 1. No floodplains are present within Stanford 2.

According to parcel ownership information obtained from AcreValue, only one landowner would be affected at each site by the development of the Facility. Stanford 1 and 3 are of adequate size and have adjacent parcels that could potentially be used for expansion. Stanford 2 is a smaller parcel at 30 acres that would not be suitable for expansion, and Stanford 1 is the largest parcel at 259.3 acres.

4.5.1 Current Site Conditions

Stanford 1 is located on Preachersville Rd, which is a paved, 1-lane road and would offer moderate accessibility to the site. Both Stanford 2 and 3 are located on State Highway 1770, which is a 2-lane paved road that would offer easy accessibility to the site. Stanford 2 is also accessible via John Sims Highway, which is a 2-lane, paved highway that would offer easy access to the site.

Constructability at the Stanford sites would be moderately favorable at Stanford 1 and unfavorable at Stanford 2 and 3. Stanford 1 has moderate sloping, minimal tree coverage, and is moderately flat. Stanford 2 and 3 have moderate sloping, moderate tree coverage, wetlands that would likely require mitigation or avoidance measures, and are moderately hilly.

No archeological sites or notable outstanding resources were identified at any of the Stanford sites. The IPaC review indicated that the northern long-eared bat, Indiana bat, and gray bat are potentially occurring in the Stanford sites and avoidance measures and/or presence/absence surveys may be required. The potential for developmental impact from sensitive species is moderate.

4.5.2 Natural Gas Pipeline

The Stanford sites are located near the Columbia Gulf Transmission Co natural gas pipeline and moderately close to the Tennessee Gas Pipeline Co pipeline. Each site was measured to the nearest pipeline to determine the potential distance for natural gas interconnection. All

Stanford sites are located within 0.5 miles of the nearest Columbia Gulf Transmission Co pipeline. Stanford 2 is the closest, having a pipeline located on the parcel.

Natural gas competition for the Stanford sites is relatively favorable due to their moderate proximity to the Tennessee Gas Pipeline Co pipeline, which is located within five miles of all Stanford sites.

4.5.3 Electric Transmission

EKPC's transmission study results estimated that the system upgrade costs, assuming 214 net MW was injected into the current transmission system in Stanford, would be moderate. The cost for interconnection, which would require the construction of additional facilities to the West Garrard substation, was estimated to be low.

The distance from the Stanford sites was measured to the West Garrard substation to determine the potential length of a generation-tie line from each site. Stanford 1, 2, and 3 are located 8.00 miles, 8.78 miles, and 9.14 miles respectively from the West Garrard substation.

The Stanford sites would require the installation of capacitor banks to ensure no violations occur when one or both of the units at Cooper are not running.

5.0 CANDIDATE SITE EVALUATION

A quantitative decision matrix was used as a tool to aid in ranking the candidate sites, which can be seen in Appendix B. The first step in using such a process is to identify the objectives or criteria to be used to evaluate the alternatives. The criteria used to evaluate the alternatives were jointly developed between EKPC and 1898 & Co. The criteria are detailed in Table 5-1. The process used to select the candidate sites (Section 3.0) had already determined whether the candidate site meets minimum site requirements. For this reason, the focus of the candidate site evaluation, and of the criteria discussed in this section, was to assess the relative advantages and disadvantages of each candidate site.

The evaluation criteria cover numerous specific attributes used to judge the relative suitability of each candidate site. Each of these attributes represents a characteristic that is important in the evaluation of prospective sites and serves to differentiate the candidate sites from one another. These evaluation criteria are not equivalent in their importance to the decision-making process. Therefore, each criterion was also assigned a weight indicative of its relative importance to the decision-making process. Criteria with the highest weights are considered the most critical for site development and on-going project success. The assignment of weights to the evaluation criteria was a subjective process based on the collective professional judgement of EKPC and 1898 & Co. staff who participated in this Study.

In total, 22 different criteria were used to evaluate the candidate site areas. These criteria were first organized into five major categories, and these categories were allocated weights that totaled 100 percent. For example, the Environmental category was assigned a weight of 15 percent, therefore 15 percent of the overall evaluation scores were based on environmental impacts criteria. Within each major category, the criteria were assigned sub-weights indicative of each criterion's relative importance. The composite weight for each individual criterion is then calculated as an aggregate of all sub-weighted criteria within a major category. The evaluation categories, category weights, criteria, criteria sub-weights, and composite weights are summarized in Table 5-1. A detailed discussion of each of these criteria, which includes the rationale used to assign the score for each criterion and the resulting score for each of the 22 candidate site areas, is also located below.

Table 5-1: Candidate Site Evaluation Criteria

Criterion	Criterion Weight	Composite Weight
Electrical Transmission (25%)		
Transmission Interconnection Cost	30.0%	7.5%
Transmission System Upgrade Cost (214 net MW)	20.0%	5.0%
Transmission System Support	50.0%	12.5%
Fuel Supply Delivery (30%)		
Natural Gas Pipeline Distance	40.0%	12.0%
Natural Gas Pipeline Preference	40.0%	12.0%
Fuel Supply Competition	20.0%	6.0%
Site Development (15%)		
Potential Community Conflict	20.0%	3.0%
Accessibility	20.0%	3.0%
Constructability	25.0%	3.8%
Existing Use	15.0%	2.3%
Useful Acreage	15.0%	2.3%
Expandability	5.0%	0.8%
Environmental (15%)		
Nearest Noise Receptor	10.0%	1.5%
Environmental Justice	10.0%	1.5%
Wetlands	25.0%	3.8%
Floodplains	25.0%	3.8%
Archeological & Cultural Resource Risk	20.0%	3.0%
Sensitive Species Risk	10.0%	1.5%
Permitting (15%)		
Water Permitting	30.0%	4.5%
Air Permitting	30.0%	4.5%
Class 1 Areas	30.0%	4.5%
FAA Considerations	10.0%	1.5%

5.1 Electrical Transmission

The Electrical Transmission category, which was assigned a total weight of 25 percent, was comprised of three component evaluation criteria. These criteria are described in the following paragraphs.

5.1.1 Transmission Interconnection Cost

A natural gas-fired generating plant needs access to a high-voltage transmission system. 1898 & Co. conducted an analysis that included two separate criteria to determine a high-level categorization of the total transmission interconnection cost. These criteria include new substation or substation upgrade costs and transmission line costs.

1898 & Co. provided EKPC with prospective areas and potential electrical points of interconnection ("POI") to conduct further investigation. EKPC provided determinations of high, moderate, and low potential costs for constructing a new substation, or substation upgrade costs for each proposed POI.

Additionally, 1898 & Co. reviewed the distance from each site to their respective POI and determined the length of new transmission lines that would need to be constructed for each site. If the proposed POI was located at an existing substation, the transmission line distance assumed for this analysis was the distance from the site to the existing substation. If the proposed POI was an existing transmission line, the distance assumed for this analysis was the distance from the site to the nearest high-voltage transmission line.

Sites with low transmission interconnection costs received a score of 50, sites with moderate costs received a score of 30, and sites with high costs received the lowest score of 10. The approximate transmission interconnection costs, criterion score, and proposed interconnection location are listed in Table 5-2.

Table 5-2: Transmission Interconnection Costs Evaluation Scores

Site Name	Evaluation Score	Total Cost
Campbellsville 2	50	Low
Campbellsville 3	50	Low
Campbellsville 4	50	Low
Campbellsville 5	50	Low
Campbellsville 6	50	Low
Campbellsville 7	50	Low
Lancaster 1	30	Moderate
Lancaster 2	30	Moderate
Liberty 1	50	Low
Liberty 2	50	Low
Liberty 3	30	Moderate
Liberty 4	30	Moderate
Liberty 5	30	Moderate
Lebanon 1	30	Moderate
Lebanon 2	30	Moderate
Lebanon 3	10	High
Lebanon 4	30	Moderate
Stanford 1	10	High
Stanford 2	10	High
Stanford 3	10	High

The proposed substation, interconnection voltage, and interconnection distance used for the analysis are provided in Table 5-3.

Table 5-3: Transmission Interconnection Information

Site Name	Proposed Substation	Voltage (kV)	Interconnection Distance (miles)
Campbellsville 2	New North Taylor County	161 kV	0.76
Campbellsville 3	New North Taylor County	161 kV	0.29
Campbellsville 4	New North Taylor County	161 kV	1.11
Campbellsville 5	New North Taylor County	161 kV	1.14
Campbellsville 6	New North Taylor County	161 kV	2.46
Campbellsville 7	New North Taylor County	161 kV	0.49
Lancaster 1	West Garrard	345 kV	3.77
Lancaster 2	West Garrard	345 kV	2.77
Liberty 1	Casey County	161 kV	0.81
Liberty 2	Casey County	161 kV	0.23
Liberty 3	New South Casey County	161 kV	0.41
Liberty 4	New South Casey County	161 kV	0.03
Liberty 5	New South Casey County	161 kV	2.03
Lebanon 1	New East Marion County	161 kV	1.02
Lebanon 2	New East Marion County	161 kV	2.17
Lebanon 3	New East Marion County	161 kV	2.83
Lebanon 4	New West Marion County	161 kV	0.42
Stanford 1	West Garrard	345 kV	8.00
Stanford 2	West Garrard	345 kV	8.78
Stanford 3	West Garrard	345 kV	9.14

5.1.2 Transmission System Upgrade Costs

Similarly, EKPC provided cost determinations for transmission system upgrades that would be required if the additional generation from the Project was interconnected at each site's proposed POIs. These costs include required additional transmission facilities, installing optical ground wire, upgrading conductors for higher operating temperatures, upgrading relays, etc. Sites located where the transmission system upgrade costs were low received a score of 50, sites with moderate costs received a score of 30, and sites where the upgrade costs were high received the lowest score of 10. The estimated transmission system upgrade costs and criterion score for each site are listed in Table 5-4.

Table 5-4: Transmission System Upgrade Cost Evaluation Scores

Site Name	Evaluation Score	Total Cost
Campbellsville 2	30	Moderate

Site Name	Evaluation Score	Total Cost
Campbellsville 3	30	Moderate
Campbellsville 4	30	Moderate
Campbellsville 5	30	Moderate
Campbellsville 6	30	Moderate
Campbellsville 7	30	Moderate
Lancaster 1	30	Moderate
Lancaster 2	30	Moderate
Liberty 1	30	Moderate
Liberty 2	30	Moderate
Liberty 3	50	Low
Liberty 4	50	Low
Liberty 5	50	Low
Lebanon 1	10	High
Lebanon 2	10	High
Lebanon 3	10	High
Lebanon 4	50	Low
Stanford 1	30	Moderate
Stanford 2	30	Moderate
Stanford 3	30	Moderate

5.1.3 Transmission System Support

EKPC owns and operates Cooper which is located in Pulaski County, Kentucky. Cooper is approximately a 340 MW generating facility, including two subcritical, bituminous coal-fired steam turbine units. These units were commissioned in 1965 and 1969 and are approaching their projected decommissioning date. Cooper is interconnected with the PJM system and after its retirement, or in the event of an outage for one or both units, the system will lose significant capacity and voltage regulation capability. It is essential to regional voltage for the new natural gas RICE facility to provide system voltage regulation and capacity to replace that which the Cooper units provided.

EKPC conducted internal studies to determine the impact of Cooper's retirement and the addition of the RICE facility at each of the potential site locations. The result of this analysis was to determine if voltage violations would occur with or without the addition of capacitor banks in the area. If no voltage violations would occur without the addition of capacitor banks in the area, the site received a score of 50. If there would be no voltage violations with the addition of capacitor banks in the area, the site received a score of 30. If voltage violations remain with added capacitor banks in the area, the site received the lowest score of 10. The criterion scores for each site are listed in Table 5-4.

Table 5-5: Transmission System Support Evaluation Scores

Site Name	Evaluation Score
Campbellsville 2	30
Campbellsville 3	30
Campbellsville 4	30
Campbellsville 5	30
Campbellsville 6	30
Campbellsville 7	30
Lancaster 1	30
Lancaster 2	30
Liberty 1	50
Liberty 2	50
Liberty 3	50
Liberty 4	50
Liberty 5	50
Lebanon 1	30
Lebanon 2	30
Lebanon 3	30
Lebanon 4	30
Stanford 1	30
Stanford 2	30
Stanford 3	30

Note that the analysis was not conducted for the Lebanon sites and therefore, 1898 & Co. assumed an evaluation score of a 30.

5.2 Fuel Supply Delivery

The Fuel Supply Delivery category, which was assigned a total weight of 30 percent, was comprised of three component evaluation criteria. These criteria are described in the following paragraphs.

EKPC provided 1898 & Co. with their natural gas pipeline preference, which 1898 & Co. included in the following evaluation. A best-case scenario was evaluated for each site, considering both the distance to the pipeline and EKPC's pipeline preference. The highest scoring combination, when considering both criteria, was used for each site. Because of this, there may be a pipeline that is closer to the potential site, but when considering both preference and proximity, 1898 & Co. evaluated the highest total scoring scenario.

5.2.1 Natural Gas Distance

A natural gas-fired generating facility needs access to a high-pressure natural gas pipeline. The distance to the proposed pipeline interconnection was used to assign scores for the criterion.

Sites less than one mile from a proposed pipeline were given a score of 50, sites between one and three miles were given a score of 30, and sites that are farther than three miles away were assigned the lowest score of 10. The approximate distance to the nearest natural gas pipeline interconnection and criterion scores for each site is listed in Table 5-6.

Table 5-6: Natural Gas Pipeline Proximity Evaluation Scores

Site Name	Evaluation Score	Distance (miles)
Campbellsville 2	50	0.01
Campbellsville 3	50	0.16
Campbellsville 4	50	0.12
Campbellsville 5	50	0.15
Campbellsville 6	50	0.02
Campbellsville 7	50	0.35
Lancaster 1	30	1.31
Lancaster 2	50	0.23
Liberty 1	50	0.75
Liberty 2	50	0.07
Liberty 3	50	0.28
Liberty 4	50	0.08
Liberty 5	50	0.62
Lebanon 1	50	0.11
Lebanon 2	50	0.01
Lebanon 3	50	0.07
Lebanon 4	30	2.76
Stanford 1	50	0.33
Stanford 2	50	0.04
Stanford 3	50	0.44

5.2.2 Natural Gas Pipeline Preference

A gas fired generating facility must have a reliable supply of gas available in order to support operations. EKPC provided 1898 & Co. with their preferred pipelines for interconnection. The three major pipelines included in this evaluation are Columbia Gulf Transmission Co, Tennessee Gas Pipeline Co, and Texas Eastern Transmission LP.

Sites that the proposed natural gas interconnection is with a Columbia Gulf Transmission Co pipeline were given a score of 50. EKPC has a positive experience working with Columbia Gulf Transmission Co and determined that Columbia Gulf Transmission Co has available firm transportation capacity and lower forecasted cost of gas for the Columbia Mainline Pool. Sites that the proposed interconnection is with a Tennessee Gas Pipeline Co pipeline were given a score of 30, since EKPC has a positive experience working with Tennessee Gas Pipeline Co at several of their facilities and expects to have sufficient gas capacities available. Sites that the

proposed interconnection is with a Texas Eastern Transmission LP pipeline received the lowest score of 10 since EKPC does not have any experience with Texas Eastern Transmission LP. Results of the natural gas availability evaluation can be seen in Table 5-7.

Table 5-7: Natural Gas Pipeline Preference Evaluation Scores

Site Name	Evaluation Score	Pipeline Name
Campbellsville 2	30	Tennessee Gas Pipeline Co
Campbellsville 3	30	Tennessee Gas Pipeline Co
Campbellsville 4	30	Tennessee Gas Pipeline Co
Campbellsville 5	30	Tennessee Gas Pipeline Co
Campbellsville 6	30	Tennessee Gas Pipeline Co
Campbellsville 7	30	Tennessee Gas Pipeline Co
Lancaster 1	30	Tennessee Gas Pipeline Co
Lancaster 2	30	Tennessee Gas Pipeline Co
Liberty 1	10	Texas Eastern Transmission LP
Liberty 2	10	Texas Eastern Transmission LP
Liberty 3	50	Columbia Gulf Transmission Co
Liberty 4	50	Columbia Gulf Transmission Co
Liberty 5	50	Columbia Gulf Transmission Co
Lebanon 1	30	Tennessee Gas Pipeline Co
Lebanon 2	30	Tennessee Gas Pipeline Co
Lebanon 3	30	Tennessee Gas Pipeline Co
Lebanon 4	30	Tennessee Gas Pipeline Co
Stanford 1	50	Columbia Gulf Transmission Co
Stanford 2	50	Columbia Gulf Transmission Co
Stanford 3	50	Columbia Gulf Transmission Co

5.2.3 Fuel Supply Competition

To secure the most competitive fuel delivery rates for natural gas, it is advantageous to locate a generating facility where it can be served by at least two different natural gas suppliers. Sites with access to two or more natural gas suppliers within two miles of the site were awarded a score of 50. Sites with access to two or more natural gas suppliers within five miles of the site were awarded a score of 30. Sites that only have access to a single natural gas supplier within five miles were assigned the lowest score of 10. Results of the fuel supply evaluation can be seen in Table 5-8.

Table 5-8: Fuel Supply Competition Evaluation Scores

Site Name	Evaluation Score	Fuel Supply Competition
Campbellsville 2	10	Pipelines within 2 miles: 1 Pipelines within 5 miles: 1
Campbellsville 3	10	Pipelines within 2 miles: 1 Pipelines within 5 miles: 1
Campbellsville 4	10	Pipelines within 2 miles: 1 Pipelines within 5 miles: 1
Campbellsville 5	10	Pipelines within 2 miles: 1 Pipelines within 5 miles: 1
Campbellsville 6	10	Pipelines within 2 miles: 1 Pipelines within 5 miles: 1
Campbellsville 7	10	Pipelines within 2 miles: 1 Pipelines within 5 miles: 1
Lancaster 1	50	Pipelines within 2 miles: 2 Pipelines within 5 miles: 2
Lancaster 2	30	Pipelines within 2 miles: 1 Pipelines within 5 miles: 2
Liberty 1	50	Pipelines within 2 miles: 2 Pipelines within 5 miles: 2
Liberty 2	50	Pipelines within 2 miles: 2 Pipelines within 5 miles: 3
Liberty 3	30	Pipelines within 2 miles: 1 Pipelines within 5 miles: 3
Liberty 4	30	Pipelines within 2 miles: 1 Pipelines within 5 miles: 3
Liberty 5	30	Pipelines within 2 miles: 1 Pipelines within 5 miles: 3
Lebanon 1	10	Pipelines within 2 miles: 1 Pipelines within 5 miles: 1
Lebanon 2	10	Pipelines within 2 miles: 1 Pipelines within 5 miles: 1
Lebanon 3	10	Pipelines within 2 miles: 1 Pipelines within 5 miles: 1
Lebanon 4	10	Pipelines within 2 miles: 0 Pipelines within 5 miles: 1
Stanford 1	30	Pipelines within 2 miles: 1 Pipelines within 5 miles: 2
Stanford 2	30	Pipelines within 2 miles: 1 Pipelines within 5 miles: 2
Stanford 3	30	Pipelines within 2 miles: 1 Pipelines within 5 miles: 2

5.3 Site Development

The Site Development category, which was assigned a total weight of 15 percent, was comprised of six component evaluation criteria. These criteria are described in the following paragraphs.

5.3.1 Potential Community Conflict

Potential community conflicts are specific receptors that are vital to the community. Sites that are less impactful to communities based on these receptors are more likely to achieve a higher degree of community acceptance. Potential community conflicts include residential developments, places of worship, meeting halls, hospitals, or schools. Sites with potential community conflicts greater than four miles away received a score of 50. Sites with potential community conflicts between one and four miles away received a score of 30. Sites with potential community conflicts less than one mile away received a score of 10. Results of the potential community conflict evaluation can be seen in Table 5-9.

Table 5-9: Potential Community Conflict Evaluation Scores

Site Name	Evaluation Score	Conflict Distance (miles)
Campbellsville 2	10	0.64
Campbellsville 3	10	0.21
Campbellsville 4	10	0.82
Campbellsville 5	10	0.91
Campbellsville 6	30	2.24
Campbellsville 7	10	0.64
Lancaster 1	10	0.86
Lancaster 2	30	1.83
Liberty 1	30	1.95
Liberty 2	30	1.04
Liberty 3	30	2.03
Liberty 4	30	2.34
Liberty 5	30	3.19
Lebanon 1	30	1.64
Lebanon 2	50	4.43
Lebanon 3	30	2.60
Lebanon 4	10	0.87
Stanford 1	50	4.25
Stanford 2	30	3.02
Stanford 3	30	3.14

5.3.2 Accessibility

To reduce the likelihood of new road construction and facilitate easy access to the site for equipment deliveries, a potential site should have existing paved roads on or adjacent to the site. Road access was scored based on the nearest roads to the site. Sites which were highly accessible from either entry roads or highways were assigned a score of 50. Sites which were moderately accessible from either entry roads or highways were assigned a score of 30. Sites which are not currently accessible from either entry roads or highways were assigned a score of 10. Results of the accessibility evaluation can be seen in Table 5-10.

Table 5-10: Accessibility Evaluation Scores

Site Name	Evaluation Score	Accessibility
Campbellsville 2	50	High
Campbellsville 3	50	High
Campbellsville 4	30	Moderate
Campbellsville 5	50	High
Campbellsville 6	30	Moderate
Campbellsville 7	50	High
Lancaster 1	50	High
Lancaster 2	30	Moderate
Liberty 1	50	High
Liberty 2	50	High
Liberty 3	30	Moderate
Liberty 4	30	Moderate
Liberty 5	30	Moderate
Lebanon 1	30	Moderate
Lebanon 2	10	Low
Lebanon 3	50	High
Lebanon 4	50	High
Stanford 1	30	Moderate
Stanford 2	50	High
Stanford 3	50	High

5.3.3 Constructability

The terrain that currently exists at each site will contribute to the various activities required during the construction of the Facility. Ideally the site has minimal elevation changes, slope, wetlands, and natural vegetation. Sites with favorable terrain and minimal clearing received a score of 50. A site with moderate terrain and clearing received a score of 30. If a site has unfavorable terrain or clearing, then a score of 10 was assigned. Results of the constructability evaluation can be seen in Table 5-11.

Table 5-11: Constructability Evaluation Scores

Site Name	Evaluation Score	Construction Conditions
Campbellsville 2	30	Moderate
Campbellsville 3	50	Favorable
Campbellsville 4	50	Favorable
Campbellsville 5	50	Favorable
Campbellsville 6	10	Unfavorable
Campbellsville 7	50	Favorable
Lancaster 1	30	Moderate
Lancaster 2	30	Moderate
Liberty 1	30	Moderate
Liberty 2	10	Unfavorable
Liberty 3	30	Moderate
Liberty 4	30	Moderate
Liberty 5	30	Moderate
Lebanon 1	50	Favorable
Lebanon 2	50	Favorable
Lebanon 3	30	Moderate
Lebanon 4	50	Favorable
Stanford 1	30	Moderate
Stanford 2	10	Unfavorable
Stanford 3	10	Unfavorable

5.3.4 Existing Use

The existing use of the potential sites contributes to the ease of site development. Brownfield, industrial sites are preferred, and therefore received a score of 50. Sites that are currently used as agricultural land received a score of 30. Sites that are undisturbed received the lowest score of 10. The results of the existing use evaluation can be seen in Table 5-12.

Table 5-12: Existing Use Evaluation Scores

Site Name	Evaluation Score	Existing Use
Campbellsville 2	30	Agricultural
Campbellsville 3	30	Agricultural
Campbellsville 4	30	Agricultural
Campbellsville 5	30	Agricultural
Campbellsville 6	30	Agricultural
Campbellsville 7	30	Agricultural
Lancaster 1	30	Agricultural
Lancaster 2	30	Agricultural
Liberty 1	30	Agricultural
Liberty 2	10	Agricultural / Undisturbed
Liberty 3	30	Agricultural

Site Name	Evaluation Score	Existing Use
Liberty 4	30	Agricultural
Liberty 5	30	Agricultural
Lebanon 1	30	Agricultural
Lebanon 2	30	Agricultural
Lebanon 3	30	Agricultural
Lebanon 4	50	Industrial / Agricultural
Stanford 1	30	Agricultural
Stanford 2	30	Agricultural
Stanford 3	30	Agricultural

5.3.5 Useful Acreage

1898 & Co. evaluated similar sized facilities to the potential Project to determine an estimated land requirement to support the site development. It was concluded that the amount of land required for development, including areas for staging and construction laydown is at least 25 acres and preferably 45 acres of useful acreage. Useful acreage is considered land within the property boundaries that can easily be developed for the Project. Sites with at least 45 acres of useful acreage received a score of 50. Sites with less than 45 acres but greater than 25 acres of useful acreage received a score of 30. Sites with less than 25 acres of useful acreage received the lowest score of 10. The results of the useful acreage analysis can be seen in Table 5-13.

Table 5-13: Useful Acreage Evaluation Score

Site Name	Evaluation Score	Useful Acreage (acres)
Campbellsville 2	50	45
Campbellsville 3	50	45
Campbellsville 4	50	45
Campbellsville 5	50	45
Campbellsville 6	50	45
Campbellsville 7	50	45
Lancaster 1	50	45
Lancaster 2	50	45
Liberty 1	50	45
Liberty 2	10	10.8
Liberty 3	50	45
Liberty 4	50	45
Liberty 5	50	45
Lebanon 1	50	45
Lebanon 2	50	45
Lebanon 3	50	45

Site Name	Evaluation Score	Useful Acreage (acres)
Lebanon 4	50	45
Stanford 1	50	45
Stanford 2	30	26.7
Stanford 3	50	45

5.3.6 Expandability

The intent of the Study was to evaluate a site's potential to support the Project in the future. One factor that must be considered for potential future expansion is the amount of land available for development surrounding the potential site. For this analysis, the expandable land included both the excess acreage at the initial parcel as well as land on directly adjacent properties which could potentially be expanded upon. If a site was surrounded by multiple parcels with potentially developable land, all were considered. A site with at least 400 acres of expandable land received a score of 50. Sites with greater than 100 but less than 400 acres of expandable land received a score of 30. Sites with less than 100 acres of expandable land received the lowest score of 10. Results of the expandability evaluation can be seen in Table 5-14.

Table 5-14: Expandability Evaluation Scores

Site Name	Evaluation Score	Total Potential Expansion Size (acres)
Campbellsville 2	30	115.0
Campbellsville 3	30	283.0
Campbellsville 4	10	97.2
Campbellsville 5	30	356.5
Campbellsville 6	30	374.0
Campbellsville 7	50	790.0
Lancaster 1	30	278.8
Lancaster 2	30	273.3
Liberty 1	10	10.0
Liberty 2	10	0.0
Liberty 3	30	174.6
Liberty 4	30	229.7
Liberty 5	10	42.7
Lebanon 1	10	95.6
Lebanon 2	30	119.1
Lebanon 3	10	54.5
Lebanon 4	30	183.5
Stanford 1	50	669.3
Stanford 2	10	0.0
Stanford 3	30	189.7

5.4 Environmental

The Environmental category, which was assigned a total weight of 15 percent, was comprised of six component evaluation criteria. These criteria are described in the following paragraphs.

5.4.1 Nearest Noise/Visual Receptor

There are several factors that contribute to whether the Project will produce noise, visual, dust, or odor impacts during construction and operation of the facility. However, the number of such receptors near a prospective site is one variable that can be measured. A desktop review of nearby noise receptors (i.e., inhabited buildings) was performed using aerial photography to determine potential impacts created by developing the project at each site. Nearest receptors that are greater than one mile away from the site received a score of 50. If the nearest receptor is between 0.25 miles and one mile away from the site, then the site received a score of 30. If the nearest receptor is less than 0.25 miles from the site, then the site received a score of 10. Results of the nearest receptor evaluation can be seen in Table 5-15.

Table 5-15: Nearest Noise/Visual Receptor Evaluation Scores

Site Name	Evaluation Score	Receptor Distance (miles)
Campbellsville 2	10	0.16
Campbellsville 3	10	0.12
Campbellsville 4	30	0.38
Campbellsville 5	10	0.21
Campbellsville 6	30	0.33
Campbellsville 7	30	0.41
Lancaster 1	10	0.19
Lancaster 2	10	0.21
Liberty 1	10	0.21
Liberty 2	10	0.16
Liberty 3	10	0.18
Liberty 4	10	0.20
Liberty 5	30	0.35
Lebanon 1	10	0.18
Lebanon 2	10	0.20
Lebanon 3	10	0.17
Lebanon 4	30	0.43
Stanford 1	10	0.20
Stanford 2	10	0.15
Stanford 3	10	0.12

5.4.2 Environmental Justice

Environmental justice aims to differentiate if a site would disproportionally affect a historically disadvantaged group. The United States Environmental Protection Agency ("EPA") has developed Demographic Indexes based on demographic information for a specific area. In particular, the EPA created a national demographic index that evaluates areas based on the percentage of low-income individuals and percentage of people of color. By taking an average of the two demographic indicators, each area could be organized into various percentiles. The higher the percentile an area falls within, the more likely a site in that area could affect a historically disadvantaged group.

1898 & Co. used EPA's environmental justice online mapping and screening tool ("EJSCREEN") to determine the demographic index within a two-mile radius of each potential site. Sites located in an area where the demographic index is less than the 35th percentile received a score of 50. Sites located in an area where the demographic index is between the 35th and 67th percentiles received a score of 30. Sites located in an area where the demographic index is greater than the 67th percentile received a score of 10. Further Environmental Justice analysis may be required by federal or state permitting agencies, this evaluation is only focused on demographic differentiators and does not include other environmental factors. Results of the environmental justice evaluation can be seen in Table 5-16.

Table 5-16: Environmental Justice Evaluation Score

Site Name	Evaluation Score	Demographic Index
Campbellsville 2	50	29th Percentile
Campbellsville 3	50	25th Percentile
Campbellsville 4	50	21st Percentile
Campbellsville 5	50	26th Percentile
Campbellsville 6	50	26th Percentile
Campbellsville 7	50	26th Percentile
Lancaster 1	50	23rd Percentile
Lancaster 2	50	20th Percentile
Liberty 1	30	52nd Percentile
Liberty 2	30	51st Percentile
Liberty 3	30	42nd Percentile
Liberty 4	30	42nd Percentile
Liberty 5	30	42nd Percentile
Lebanon 1	30	59th Percentile
Lebanon 2	30	54th Percentile
Lebanon 3	30	39th Percentile
Lebanon 4	30	58th Percentile

Site Name	Evaluation Score	Demographic Index
Stanford 1	30	52nd Percentile
Stanford 2	30	45th Percentile
Stanford 3	30	45th Percentile

5.4.3 Wetlands

Wetlands and surface waters are federally regulated resources in accordance with Section 404 of the Clean Water Act and under the jurisdiction of the U.S. Army Corps of Engineers. The Kentucky Department for Environmental Protection's Division of Water regulates wetlands under the state's water quality statutes and regulations pursuant to Chapter 224 of the Kentucky Revised Statutes and Title 401 of the Kentucky Administrative Regulations. Any permanent impacts to wetlands or surface waters must generally be mitigated by creation of a like or greater number of wetlands or stream improvements at a nearby location. To determine the likelihood of impacting jurisdictional wetlands/streams during the development of a given power plant facility, GIS data from both the United States Geological Survey ("USGS"), and United States Fish and Wildlife Service ("USFWS") NWI were reviewed. The density of wetlands, streams, ponds, and appearance of low-lying areas were used to determine potential impacts to wetlands and surface waters. The scoring for each site area was based on a 10 to 50 scale where the highest potential for avoiding wetland/stream impacts received a score of 50, and the lowest potential for avoiding impacts received a score of 10. Results of the wetlands and surface waters evaluation can be seen in Table 6-14.

Table 5-17: Wetland/Surface Water Evaluation Scores

Site Name	Evaluation Score	Potential Impact
Campbellsville 2	50	Low
Campbellsville 3	50	Low
Campbellsville 4	50	Low
Campbellsville 5	50	Low
Campbellsville 6	30	Moderate
Campbellsville 7	30	Moderate
Lancaster 1	50	Low
Lancaster 2	10	High
Liberty 1	30	Moderate
Liberty 2	30	Moderate
Liberty 3	30	Moderate
Liberty 4	50	Low
Liberty 5	50	Low
Lebanon 1	50	Low
Lebanon 2	50	Low
Lebanon 3	50	Low

Site Name	Evaluation Score	Potential Impact
Lebanon 4	30	Moderate
Stanford 1	10	High
Stanford 2	50	Low
Stanford 3	30	Moderate

5.4.4 Floodplains

Generating facilities are critical resources that must remain operational during adverse weather conditions such as flood events. Therefore, the major facilities must be located outside of floodplains and not impact floodwater levels upstream.

FEMA Flood Insurance Rate Maps ("FIRM") data were reviewed to determine floodplain locations relative to potential site locations. In cases where FEMA flood data was not available, data from the Soil Survey Geographic Database ("SSURGO") was used to locate potential floodplain concerns. Sites located outside of 100-year floodplains received a score of 50; those located partially within 100-year floodplains but with potential developable area received a score of 30; and those located within 100-year floodplains with limited developable area received the lowest score of 10. Results of the floodplain evaluation can be seen in Table 5-18.

Table 5-18: Floodplain Evaluation Scores

Site Name	Evaluation Score	Potential Impact
Campbellsville 2	50	Low
Campbellsville 3	50	Low
Campbellsville 4	50	Low
Campbellsville 5	50	Low
Campbellsville 6	50	Low
Campbellsville 7	50	Low
Lancaster 1	50	Low
Lancaster 2	50	Low
Liberty 1	10	High
Liberty 2	10	High
Liberty 3	50	Low
Liberty 4	50	Low
Liberty 5	30	Moderate
Lebanon 1	50	Low
Lebanon 2	50	Low
Lebanon 3	30	Moderate
Lebanon 4	50	Low
Stanford 1	30	Moderate
Stanford 2	50	Low
Stanford 3	30	Moderate

5.4.5 Archeological & Cultural Resource Risk

A desktop review was conducted to determine the likelihood of impacting cultural resources during the development of the facility for each site area. 1898 & Co. examined known cultural sites using the National Register of Historic Places ("NRHP") database. The scoring for each site area was based on a 10 to 50 scale where the highest potential for cultural impacts received a score of 10 and the lowest potential for impacts received a score of 50. No historic properties were identified on or near any of the potential sites. Results of the archeological and cultural resources risk evaluation can be seen in Table 5-19.

Table 5-19: Archeological & Cultural Resource Risk Evaluation Scores

Site Name	Evaluation Score	Potential Impact
Campbellsville 2	50	Low
Campbellsville 3	50	Low
Campbellsville 4	50	Low
Campbellsville 5	50	Low
Campbellsville 6	50	Low
Campbellsville 7	50	Low
Lancaster 1	50	Low
Lancaster 2	50	Low
Liberty 1	50	Low
Liberty 2	50	Low
Liberty 3	50	Low
Liberty 4	50	Low
Liberty 5	50	Low
Lebanon 1	50	Low
Lebanon 2	50	Low
Lebanon 3	50	Low
Lebanon 4	50	Low
Stanford 1	50	Low
Stanford 2	50	Low
Stanford 3	50	Low

5.4.6 Sensitive Species Risk

To determine the likelihood of impacting threatened or endangered ("T&E") species or their respective habitat during the development within the potential project sites, a high-level analysis was performed to identify T&E species that could occur. The USFWS's IPaC was used for the analysis of potential risks to wildlife resulting from the development of the Project within each of the potential site areas. IPaC does not identify T&E species that are actually present at a specific project site. The IPaC analysis did identify that there is no critical habitat for any species at any of the potential sites. There are a number of federally listed species that

may occur on county levels; however, no critical habitat is designated within or adjacent to the candidate sites. Indiana bat (*Myotis sodalis*) critical habitat is located in western and northeastern Kentucky. Designated critical Indiana bat habitat is located more than 13 miles west of the Campbellsville 2 Project.

Regulatory guidance for compliance with the USFWS would include efforts to evaluate the Project risks under the Endangered Species Act ("ESA"), Migratory Bird Treaty Act ("MBTA"), and Bald and Golden Eagle Protection Act ("BGEPA"). USFWS consultation for the Project under the ESA should consider the effects to protected species and designated critical habitats.

State species considered threatened, endangered, or candidates to be listed were also analyzed at a high level for each county. More detailed information for State-protected species at a specific site must be requested through a formal consultation with the State agencies.

Generally, a 10 to 50 scoring system was used, relative to the expected potential for impacts to T&E species. A low expectation for impacts was given a score of 50; a moderate expectation for impacts was scored a 30; and a high expectation for impacts was scored a 10. IPaC results indicate that the northern long-eared bat (*Myotis septentrionalis)*, Indiana bat, and gray bat (*Myotis grisecens*) are potentially occurring in all proposed sites. It is likely that further desktop research and field investigations for suitable bat habitat will be necessary to provide a more accurate assessment of potential occurrences in each of the proposed sites. Results of the sensitive species risk evaluation can be seen in Table 5-20.

Table 5-20: Sensitive Species Risk Evaluation Scores

Site Name	Evaluation Score	Potential Impact
Campbellsville 2	30	Moderate
Campbellsville 3	30	Moderate
Campbellsville 4	30	Moderate
Campbellsville 5	30	Moderate
Campbellsville 6	30	Moderate
Campbellsville 7	30	Moderate
Lancaster 1	30	Moderate
Lancaster 2	30	Moderate
Liberty 1	30	Moderate
Liberty 2	30	Moderate
Liberty 3	30	Moderate
Liberty 4	30	Moderate
Liberty 5	30	Moderate

Site Name	Evaluation Score	Potential Impact
Lebanon 1	30	Moderate
Lebanon 2	30	Moderate
Lebanon 3	30	Moderate
Lebanon 4	30	Moderate
Stanford 1	30	Moderate
Stanford 2	30	Moderate
Stanford 3	30	Moderate

5.5 Permitting

The Permitting category, which was assigned a total weight of 15 percent, was comprised of four component evaluation criteria. These criteria are described in the following paragraphs.

5.5.1 Water Permitting

Although the Facility is not anticipated to have significant water supply and discharge requirements, 1898 & Co. determined the potential impact on development due to required water permitting efforts, mainly regarding stormwater runoff. None of the potential sites are located within a Municipal Separate Storm Sewer System ("MS4"), and no other local stormwater permitting requirements for operations were identified. Each site will need authorization under the Construction Stormwater General Permit. Specific information on Section 303(b) of the Clean Water Act and the Total Maximum Daily Load ("TMDL") for the streams that stormwater would discharge into was reviewed for each site to determine buffer requirements between impaired streams and disturbance activities that would occur during construction. Sites with a low probability of water permitting issues received a score of 50. Sites with a moderate probability of water permitting issues received a score of 30. A site with a high probability of water permitting issues received a score of 10. Results of the water permitting evaluation can be seen in Table 5-21.

Table 5-21: Water Permitting Evaluation Scores

Site Name	Evaluation Score	Potential Impact
Campbellsville 2	50	Low
Campbellsville 3	50	Low
Campbellsville 4	50	Low
Campbellsville 5	50	Low
Campbellsville 6	50	Low
Campbellsville 7	50	Low
Lancaster 1	50	Low
Lancaster 2	50	Low
Liberty 1	50	Low

Site Name	Evaluation Score	Potential Impact
Liberty 2	50	Low
Liberty 3	50	Low
Liberty 4	50	Low
Liberty 5	50	Low
Lebanon 1	50	Low
Lebanon 2	50	Low
Lebanon 3	50	Low
Lebanon 4	30	Moderate
Stanford 1	50	Low
Stanford 2	50	Low
Stanford 3	50	Low

5.5.2 Air Permitting

The EPA has designated areas that are not meeting the National Ambient Air Quality Standards ("NAAQS") as non-attainment. Permitting a new facility in these non-attainment areas is more difficult and can result in more controls and/or costs for a project, depending on the level of emissions. Further, the time to issue the permit may be longer in a non-attainment area, which may hold up starting construction of the project, depending on the planned schedule. Therefore, if a site is in a non-attainment area, the site was ranked 10. Those sites in attainment/unclassified areas were ranked 50. All sites analyzed are in attainment/unclassified areas. If the facility were built in a marginal non-attainment area the emission thresholds for Non-attainment New Source Review ("NNSR") are 100 tons per year of oxides of nitrogen or volatile organic compounds. It is typically advised to stay under the NNSR thresholds to avoid significant costs and constraints being placed on the facility. If NNSR thresholds are exceeded emission offsets would need to be purchased along with installation of costly control devices like a selective catalytic reduction ("SCR"). Control devices would be evaluated as part of the Lowest Achievable Emission Reduction ("LAER") analysis.

The Clean Air Act requires the EPA to set NAAQS for pollutants considered to be harmful to public health and the environment. Depending on potential emissions of a project, Prevention of Significant Deterioration ("PSD") permitting could be triggered. If PSD permitting is applicable, the permitting process will be longer and predictive modeling would be required to demonstrate compliance with NAAQS. There is the possibility that the Kentucky Division for Air Quality ("KDAQ") will require modeling even if PSD is not triggered. If PSD thresholds are exceeded installation of control devices (an oxidation catalyst) to reduce emissions might be required. Control devices would be evaluated as part of the Best Available Control Technology ("BACT") analysis.

Sites with a low probability of air permitting issues received a score of 50. Sites with a moderate probability of air permitting issues received a score of 30. A site with a high probability of air permitting issues received a score of 10. Results of the air permitting evaluation can be seen in Table 5-22.

Table 5-22: Air Permitting Evaluation Scores

Site Name	Evaluation Score	NAAQS Summary
Campbellsville 2	50	Attainment / Unclassified
Campbellsville 3	50	Attainment / Unclassified
Campbellsville 4	50	Attainment / Unclassified
Campbellsville 5	50	Attainment / Unclassified
Campbellsville 6	50	Attainment / Unclassified
Campbellsville 7	50	Attainment / Unclassified
Lancaster 1	50	Attainment / Unclassified
Lancaster 2	50	Attainment / Unclassified
Liberty 1	50	Attainment / Unclassified
Liberty 2	50	Attainment / Unclassified
Liberty 3	50	Attainment / Unclassified
Liberty 4	50	Attainment / Unclassified
Liberty 5	50	Attainment / Unclassified
Lebanon 1	50	Attainment / Unclassified
Lebanon 2	50	Attainment / Unclassified
Lebanon 3	50	Attainment / Unclassified
Lebanon 4	50	Attainment / Unclassified
Stanford 1	50	Attainment / Unclassified
Stanford 2	50	Attainment / Unclassified
Stanford 3	50	Attainment / Unclassified

5.5.3 Class 1 Areas

Class 1 Areas are federal lands that receive special air quality protection under Section 162(a) of the Clean Air Act. National parks, wilderness areas, and monuments can fall under Class 1 Area protection. To determine potential impacts created by developing the project at each site, a desktop review of nearby Class 1 Areas was conducted using data assembled by EPA's Office of Air Quality Planning and Standards, and various federal agencies, including the National Park Service, U.S. Forest Service, and USFWS. Mammoth Cave National Park, located in Edmonson and Hart Counties, is the only Class I Area in the State of Kentucky.

A site located greater than 150 kilometers from the nearest Class 1 Area received a score of 50. If the nearest Class 1 Area is between 100 and 150 kilometers away from the site, then the site received a score of 30. If the nearest Class 1 Area is within 100 kilometers, then the site received a score of 10. Results of the Class 1 Area evaluation can be seen in Table 5-23.

Table 5-23: Class 1 Area Evaluation Scores

Site Name	Evaluation Score	Distance (km)
Campbellsville 2	10	57
Campbellsville 3	10	58
Campbellsville 4	10	58
Campbellsville 5	10	68
Campbellsville 6	10	70
Campbellsville 7	10	66
Lancaster 1	30	130
Lancaster 2	30	129
Liberty 1	10	92
Liberty 2	10	92
Liberty 3	10	95
Liberty 4	10	96
Liberty 5	10	99
Lebanon 1	10	79
Lebanon 2	10	84
Lebanon 3	10	76
Lebanon 4	10	75
Stanford 1	30	131
Stanford 2	30	129
Stanford 3	30	129

5.5.4 FAA Considerations

Per Part 77 of the Code of Federal Regulations, FAA requires persons and organizations to file a notice at least 45 days prior to the start of construction of a facility that is in close proximity to a public use or military airport in order to evaluate the effect of the construction on operating procedures and to identify potentially hazardous effects on air navigation. Once a notice has been filed, the FAA will complete an aeronautical study and make a determination, detailing the study's findings. To evaluate the Project's potential impact to navigable airspaces, sites with an FAA facility located within three miles of the Project received the lowest score of 10. Those with an FAA facility located between three and four miles received a lower score of 30, and sites without an FAA facility located within four miles received the highest score of 50. Results of the FAA consideration evaluation can be seen in Table 5-24.

Table 5-24: FAA Consideration Evaluation Scores

Site Name	Evaluation Score	Distance (miles)
Campbellsville 2	50	6.19
Campbellsville 3	50	5.86
Campbellsville 4	50	6.38

Site Name	Evaluation Score	Distance (miles)
Campbellsville 5	50	5.96
Campbellsville 6	50	6.51
Campbellsville 7	50	5.58
Lancaster 1	50	9.75
Lancaster 2	50	8.97
Liberty 1	50	16.92
Liberty 2	50	16.80
Liberty 3	50	18.98
Liberty 4	50	19.38
Liberty 5	50	21.50
Lebanon 1	50	5.31
Lebanon 2	50	6.79
Lebanon 3	50	7.38
Lebanon 4	50	4.00
Stanford 1	50	10.49
Stanford 2	50	9.80
Stanford 3	50	10.18

5.6 Evaluation Summary

A weighted composite score for each candidate site was calculated using the criteria and corresponding weights. The composite scores are calculated as the sum of the products of each individual score and criterion weight. Figure 5-1 provides a graphical representation of the weighted composite scores for the candidate site evaluation.

Figure 5-1: Candidate Site Evaluation Scores

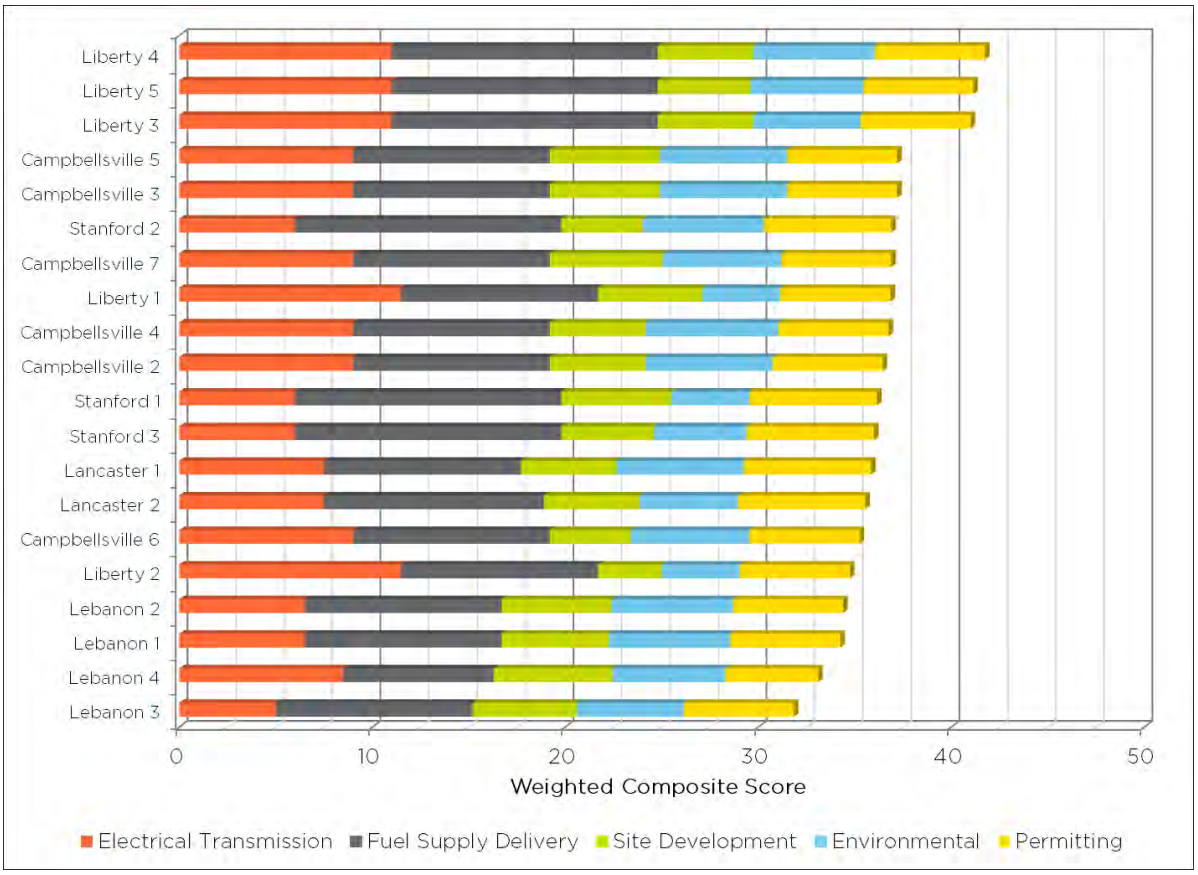


Figure 5-1 shows that the base composite evaluation scores range from a low of 31.85 for Lebanon 3, and a high of 41.75 for Liberty 4 out of a possible score of 50. The average and median scores are 36.47 and 36.30, respectively.

6.0 FIELD RECONNAISSANCE

This report chapter documents the investigations and evaluations performed during the field reconnaissance process to identify the preferred sites for the proposed facility.

6.1 Field Reconnaissance Overview

Field reconnaissance of the top three potential site areas was performed on October 25, 2022. The field reconnaissance consisted of an automobile survey along public roads in the vicinity of each potential site area. The EKPC representative present during the field reconnaissance was:

- Josh Young, Natural Resources and Environmental Communications

1898 & Co. representatives who conducted the field reconnaissance were:

- Chad Swope, Project Manager
- Abigail Yi, Analyst

The purpose of the field reconnaissance was to obtain first-hand information about each potential site area and surrounding areas to confirm, or update as necessary, the information collected during the desktop review. To the extent possible, each potential site area was assessed for its suitability for the Project. Information on the following factors was collected:

- Amount and orientation of available, undeveloped land areas
- Number and relative location of nearby residences, businesses, and public facilities (parks, schools, churches, etc.)
- Suitability of terrain
- Existing land use of site area and adjoining areas
- Locations of potential wetlands or other environmentally sensitive areas
- Potential for adverse visual and noise impacts
- Condition of transportation systems serving site area
- Confirmation of existing infrastructure
- Existing land use within potential linear corridors for transmission lines and gas pipelines

6.2 Potential Site Evaluation

Following the field reconnaissance of the potential site areas and subsequent analyses, the project team evaluated the relative strengths and weaknesses of each site. The key factors considered in this site screening step were the following:

- Transmission infrastructure
- Site accessibility
- Plant constructability
- Environmental observations
- Potential community conflict and nearest receptors

The results of these evaluations are summarized below for the following sites:

- Campbellsville 1 (removed from evaluation due to detection of a future solar development on site)
- Campbellsville 2
- Campbellsville 3
- Lancaster 1
- Lancaster 2
- Lancaster 3 (removed from evaluation due to detection of a residential development on site)
- Lancaster 4 (removed from evaluation due to detection of a retirement community facility development on site)
- Liberty 1
- Liberty 2
- Liberty 3
- Liberty 4
- Lancaster 1
- Lancaster 2
- Lancaster 3

Campbellsville 4, 5, 6, and 7 and Liberty 5 were added to the evaluation after the field reconnaissance occurred and therefore were not explicitly visited.

6.2.1 Campbellsville 1

Campbellsville 1 is located directly across the street from the Tennessee Gas Co facility, which gives it a highly desirable proximity to available natural gas. Electric transmission lines were

confirmed to be located on the south end of the potential site. Constructability at Campbellsville 1 was determined to be worse than previously assumed due to relatively high sloping throughout the site. The site is relatively flat, but due to the low rolling hills throughout the area, the site has sloping that would increase civil construction costs. Accessibility to the site would not be an issue, as it is located on the main road through Saloma. The Saloma Baptist Church is located directly to the southwest of Campbellsville 1, which could cause development concerns due to potential community conflict. The area surrounding Campbellsville 1 was generally more residential than had been anticipated. Campbellsville 1 was confirmed to be out of any noticeable floodplains and clear of any wetlands that may cause development issues.

Overall, Campbellsville 1 would be a viable site with highly desirable infrastructure, accessibility, and relatively open space. This site would be favorable to consider for the development of the Project, however, EKPC informed 1898 & Co. that plans to construct a solar array have already been confirmed at Campbellsville 1, and therefore, 1898 & Co. removed the site from consideration.

Images taken of Campbellsville 1 can be seen below in Figure 6-1, Figure 6-2, and Figure 6-3.

Figure 6-1: Campbellsville 1 Facing East

Figure 6-2: Campbellsville 1 Facing Southeast

Figure 6-3: Campbellsville 1 Facing South

6.2.2 Campbellsville 2

Campbellsville 2 is located approximately 0.75 miles west on State Highway 744 from the Tennessee Gas Co facility, which gives it a highly desirable proximity to available natural gas. During the site visit, 1898 & Co. confirmed that pipelines run directly through Campbellsville 2.

Constructability at Campbellsville 2 was determined to be slightly worse than previously assumed due to more sloping throughout the site. Similar to Campbellsville 1, due to the low rolling hills throughout Campbellsville, the site has sloping that would increase civil construction costs. Accessibility to the site would not be an issue, as it is located on the main road through Saloma. Since Campbellsville 2 is located farther west along State Highway 744, it is farther from the Saloma Baptist Church, which would potentially cause less of an issue at this site, compared to Campbellsville 1 and 3. Campbellsville 2 was confirmed to be outside of any noticeable floodplains and clear of wetlands that may cause development issues.

Overall, Campbellsville 2 would be a viable site with highly desirable infrastructure, accessibility, relatively open space, and compared to Campbellsville 1 and 3, is located farther from the Saloma Baptist Church. This site would be favorable to consider for the development of the Project.

Images taken of Campbellsville 2 can be seen below in Figure 6-4, Figure 6-5, and Figure 6-6.

Figure 6-4: Campbellsville 2 Facing Southeast

Figure 6-5: Campbellsville 2 Facing East

Figure 6-6: Campbellsville 2 Facing Northeast

Figure 6-7: Campbellsville 2 Facing Northwest

6.2.3 Campbellsville 3

Campbellsville 3 is located approximately 0.3 miles west on State Highway 744 from the Tennessee Gas Co facility, which gives it a highly desirable proximity to available natural gas. Campbellsville 3 is also the closest site to the approximate location of the new North Taylor County substation that EKPC informed 1898 & Co. was planned to be constructed near the Taylor County Junction. The Taylor County Junction is located on the adjacent property to the southeast of Campbellsville 3. Constructability at Campbellsville 3 was determined to be highly desirable due to very flat land with no tree coverage. Accessibility to the site would not be an issue, as it is located on the main road through Saloma. The largest concern noted during the site visit of Campbellsville 3 was the proximity to the Saloma Baptist Church and rural residential structures, which would potentially cause community resistance to the construction of a new generating facility. Campbellsville 3 was confirmed to be free of any wetlands or noticeable floodplains that may cause development issues.

Overall, Campbellsville 3 would be a desirable site due to proximity to both natural gas and electrical transmission infrastructure, and highly favorable constructability. This site would be favorable to consider for the development of the Project. Campbellsville 3 was ranked as the fifth most desirable site from the scoring criteria.

Images taken of Campbellsville 3 can be seen below in Figure 6-8, Figure 6-9, Figure 6-10, and Figure 6-11.

Figure 6-8: Campbellsville 3 Facing East

Figure 6-9: Campbellsville 3 Facing Southeast

Figure 6-10: Campbellsville 3 Facing Southwest

Figure 6-11: Campbellsville 3 Facing West

6.2.4 Lancaster 1

Lancaster 1 is located approximately two miles south of Bryantsville along State Highway 27. Lancaster 1 also can be accessed by two side roads, Burdette Knob Rd and Camp Dick Rd N. The electrical transmission line was confirmed to be located on the northeast corner of the

parcel, however, this line is not owned and operated by EKPC. The natural gas pipeline was confirmed to be located south of the site along State Highway 27. Constructability was determined to be favorable due to large open space with low to moderate sloping, minimal tree coverage, and good accessibility. During the site visit, a large, potentially historic site, which was later identified as the Longview Estate was identified directly to the south of the property. This estate is used as a bed and breakfast and could potentially cause community conflict but was determined to not cause high concern.

Overall, Lancaster 1 would be a viable site with favorable constructability and moderate proximity to infrastructure. This site would be moderately favorable to consider for the development of the Project.

Images taken of Lancaster 1 can be seen below in Figure 6-12, Figure 6-13, Figure 6-14, and Figure 6-15.

Figure 6-12: Lancaster 1 Facing Southwest

Figure 6-13: Lancaster 1 Facing West

Figure 6-14: Lancaster 1 Facing Northwest

Figure 6-15: Lancaster 1 Facing North

6.2.5 Lancaster 2

Lancaster 2 is located along the west side of Fox Church Rd, off State Highway 27. Lancaster 2, compared to other sites during the site visit, is not in close proximity to natural gas or electrical transmission. Constructability was determined to be favorable due to flat and clear land that was adequately sized for development. However, there are riverine wetlands present on the site that were identified from the NWI review that would be difficult to avoid and would likely require avoidance/mitigation measures. The site is located directly across from a residential area with houses on the west side of Fox Church Rd.

Overall, Lancaster 2 would be a viable site with good constructability and accessibility but was determined to not be highly desirable.

Images taken of Lancaster 2 can be see below in Figure 6-16, Figure 6-17, and Figure 6-18.

Figure 6-16: Lancaster 2 Facing Southwest

Figure 6-17: Lancaster 2 Facing West

Figure 6-18: Lancaster 2 Facing Northwest

6.2.6 Lancaster 3

After conducting the field reconnaissance review of Lancaster 3, 1898 & Co. concluded that the site should be removed from evaluation as it was not suitable for development of the project. During the reconnaissance, 1898 & Co. discovered that the site was being developed as a residential neighborhood.

6.2.7 Lancaster 4

After conducting the field reconnaissance review of Lancaster 4, 1898 & Co. concluded that the site should be removed from evaluation as it was not suitable for development of the project. During the reconnaissance, 1898 & Co. discovered that the site was being used as an expansion for an existing senior living facility, Walker's Trail Senior Living.

6.2.8 Liberty 1

Liberty 1 is located approximately 0.75 miles northwest of the Casey County substation and Texas Eastern Transmission LP natural gas metering station. The site has desirable constructability characteristics, including a large area of clear flat land located directly off State Highway 49. However, Constructability at Liberty 1 was deemed to be only moderately favorable due to the presence of floodplains. Most of the available area that could be used for development is covered by one percent annual chance flood zones and therefore would not be desirable.

Overall, Liberty 1 is not a favorable site for development, solely due to concerns with floodplains. Liberty 1 has highly desirable infrastructure, accessibility, and constructability characteristics, but should be avoided due to floodplains. Liberty 1 was ranked as the eighth most desirable site from the scoring criteria, but 1898 & Co. does not recommend choosing to develop this particular parcel in Liberty.

Images taken of Liberty 1 can be seen below in Figure 6-19, Figure 6-20, and Figure 6-21.

Figure 6-19: Liberty 1 Facing East

Figure 6-20: Liberty 1 Facing East

Figure 6-21: Liberty 1 Facing Northeast

6.2.9 Liberty 2

Liberty 2 is located directly southeast of the Casey County substation, giving it a highly desirable proximity to electrical interconnection. A natural gas metering station for the Texas Eastern Transmission LP pipeline was also located on site. Constructability at the site was

determined to be unfavorable. The available site area is very flat, but small and potentially would not have adequate area available due to the being surrounded by large hills and forested areas. Accessibility to the site would not be an issue, as it is located on State Highway 49. The main factor that likely rules out Liberty 2 is the presence of floodplains in the area that would cause development issues.

Overall, Liberty 2 is a not a favorable site for development due to concerns with floodplains and available area. Liberty 2 has highly desirable infrastructure, accessibility, flat and clear land, but should be avoided due to floodplains. 1898 & Co. does not recommend choosing to develop this particular parcel in Liberty.

Images taken of Liberty 2 can be seen below in Figure 6-22, Figure 6-23, Figure 6-24, Figure 6-25, and Figure 6-26.

Figure 6-22: Liberty 2 Facing South

Figure 6-23: Liberty 2 Facing West

Figure 6-24: Liberty Natural Gas Metering Station

Figure 6-25: Liberty 2 Facing North

Figure 6-26: Liberty Substation

6.2.10 Liberty 3

Liberty 3 is located approximately five miles southeast from the Liberty 1 and 2 sites. During the site visit, the transmission line identified was confirmed and is located on the property across the road from Liberty 3 (located on Liberty 4). Constructability was determined to be

favorable at Liberty 3 due to relatively flat farmland, low sloping, and minimal tree coverage. Liberty 3 was found to be more secluded than other sites, since it is located off the main road, which is desirable. The site was found to be out of floodplains.

Overall, Liberty 3 would be a viable site with desirable infrastructure and constructability. This site would be favorable to consider for the development of the Project. Liberty 3 was ranked the third most desirable site from the scoring criteria.

Images taken of Liberty 3 can be seen below in Figure 6-27, Figure 6-28, and Figure 6-29.

Figure 6-27: Liberty 3 Facing Southeast

Figure 6-28: Liberty 3 Facing Southeast

Figure 6-29: Liberty 3 Facing Southwest

6.2.11 Liberty 4

Liberty 4 is very similar to Liberty 3 and is located directly across the road, to the northeast. This site was the original site that EKPC provided for 1898 & Co. to include in the Study. During the site visit, the transmission line was confirmed to be on the back portion of the site. The

Columbia Gulf Transmission Co natural gas pipeline was identified to be on the site from GIS review but was unable to be identified on the site visit since it is located on an area of the parcel that is not visible from the road. Constructability was determined to be favorable due to flat farmland, low slopping (slightly greater than Liberty 3), and minimal tree coverage. Liberty 4 was also found to be more secluded than other sites and was outside of floodplains.

Overall, Liberty 4 would be a viable site with desirable infrastructure and constructability. This site would be highly favorable to consider for the development of the Project. Liberty 4 was the most desirable site from the scoring criteria.

Images taken of Liberty 4 can be seen below in Figure 6-30, Figure 6-31, and Figure 6-32.

Figure 6-30: Liberty 4 Facing East

Figure 6-31: Liberty 4 Facing Southeast

Figure 6-32: Liberty 4 Facing East

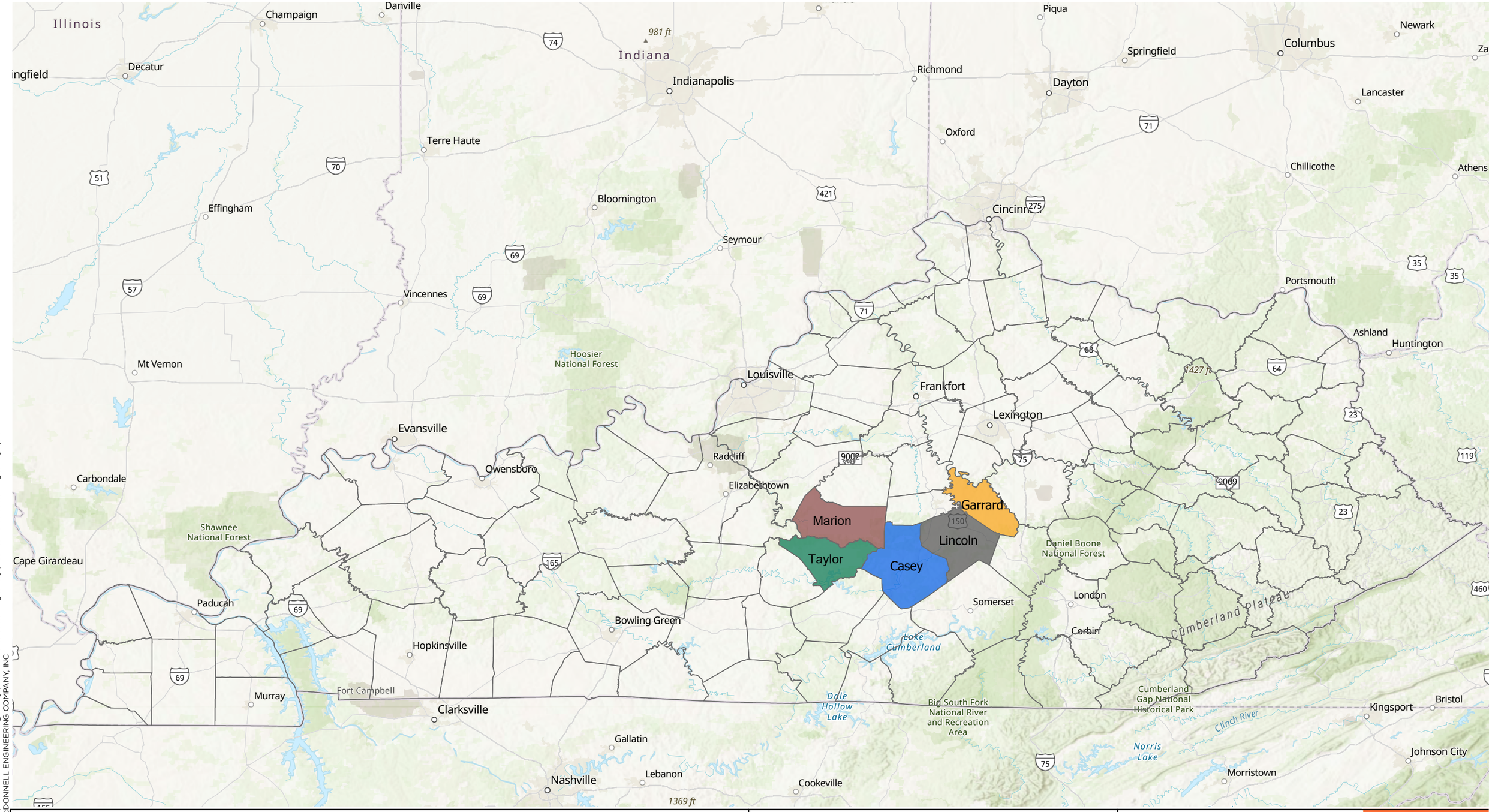
7.0 CONCLUSIONS

7.1 Siting Study Conclusions

The conclusions reached from this Study are presented below.

- There are multiple sites available within the project study area that can accommodate the development of the Project.
- The following sites are recommended as the top, preferred sites to proceed with advanced development activities.
    - Liberty 4
    - Liberty 5
    - Liberty 3
    - Campbellsville 5
    - Campbellsville 3
- 1898 & Co. recommends EKPC conduct further due diligence on the top sites which includes:
    - Determining the true land cost through discussions with the current owners and beginning further property due diligence.
        - Property due diligence would include performing boundary and topography surveys, Phase 1 Environmental Site Assessment, and environmental critical issues assessment.
    - Determining the true gas transportation and interconnection costs through discussions with the pipeline owners.
    - Completing and submitting the interconnection application.
    - Performing a Project Definition Report ("PDR") that more accurately estimates project costs, timeline, layout, etc.
    - Performing detailed environmental permitting activities with local, state, and federal agencies to determine air, water, and storm/wastewater permit requirements.
    - All of the potential sites are located in counties that are in attainment for all criteria pollutants. Therefore, it should be practical to obtain a permit for the air emissions from the proposed plant at any of these sites; however, additional review will be required to verify this statement.

APPENDIX A – LOCATION MAP BOOK



County Boundary
- Casey
- Garrard
- Lincoln
- Marion
- Taylor

0 19 38 76 Miles

N

Source: ESRI and Burns & McDonnell Engineering.

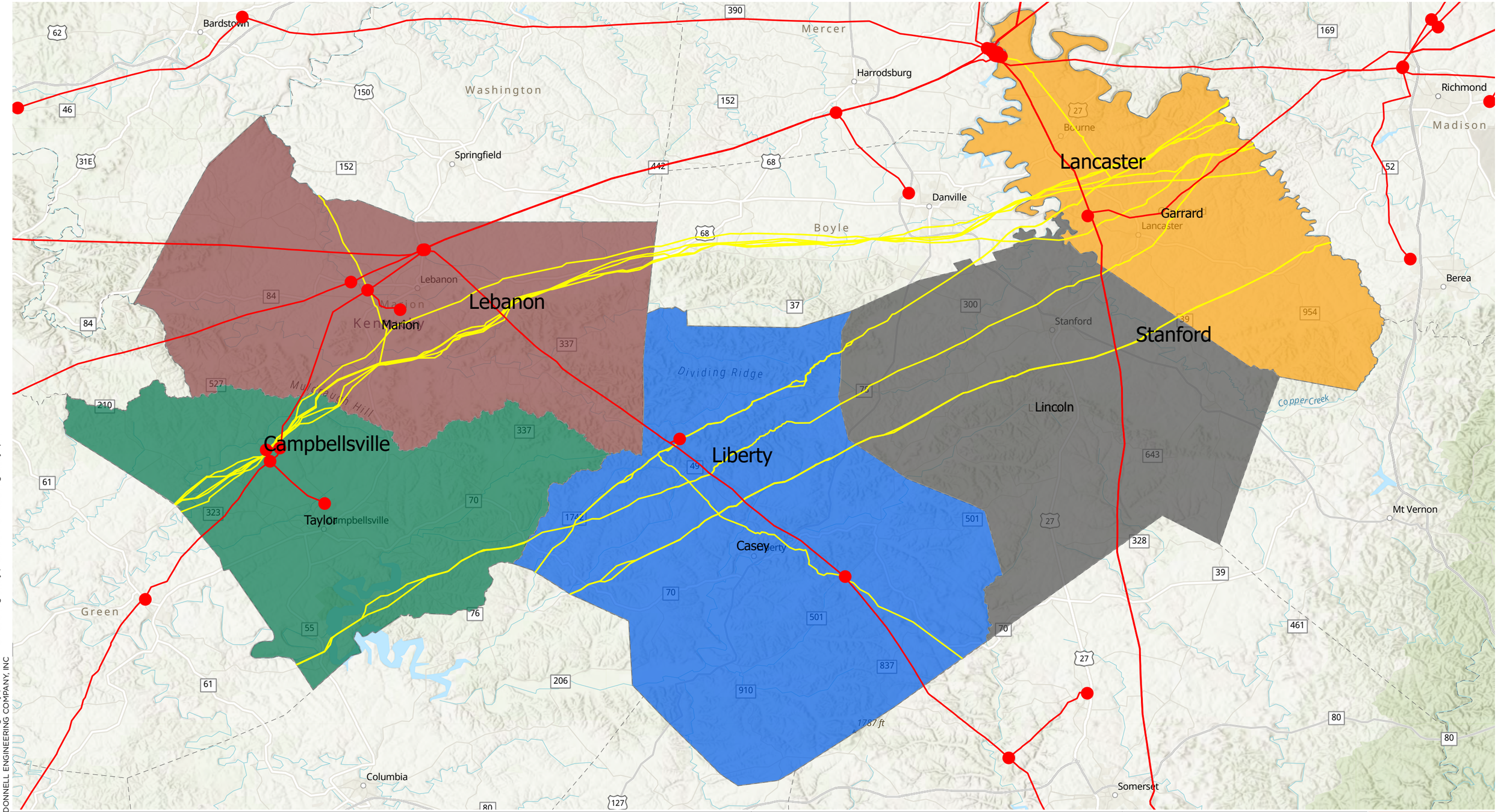
EKPC RICE Siting Study
Kentucky County Boundary

1898 & CO. PART OF BURNS & MCDONNELL

Path: C:_Bill\Projects and Tasks\148843 EKPC Rice Siting Study\148843 EKPC Rice Siting Study\148843 EKPC Rice Siting Study.aprx

Issued: December 9, 2022

Service Layer Credits:Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS, Esri, USGS



Substation
Electrical Transmission
Natural Gas

County Boundary
Casey
Garrard
Lincoln
Marion
Taylor

0 3.5 7 14 Miles

N

Source: ESRI and Burns & McDonnell Engineering.

EKPC RICE Siting Study
Regional Infrastructure

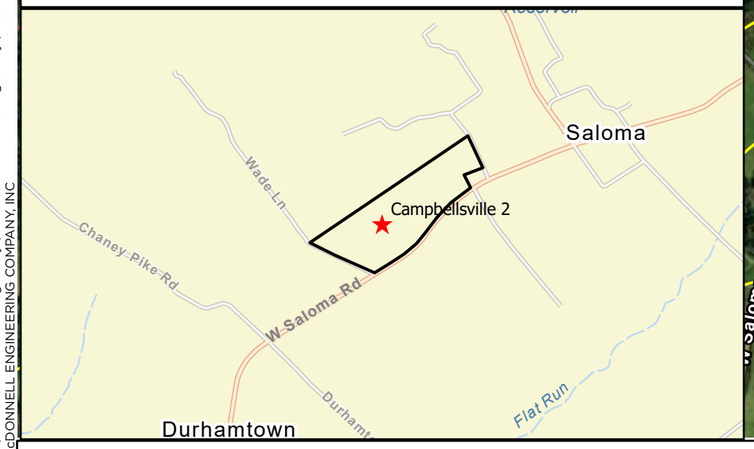
1898 & CO. PART OF BURNS & MCDONNELL

Path: C:_Bill\Projects and Tasks\148843 EKPC Rice Siting Study\148843 EKPC Rice Siting Study.aprx

Issued: December 9, 2022

Service Layer Credits:Esri, NASA, NGA, USGS, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS

General Site: Campbellsville 2
Parcel Size (Acres): 73.3
Electrical Transmission Line Intersection Distance (miles): 0.52
Transmission Line Name: Green County to Taylor County Junction 161 kV
Substation Distance (miles): 0.76
Natural Gas Pipeline Intersection Distance (miles): 0.01
Natural Gas Pipeline: Tennessee Gas Pipeline Co
Nearest Potential Community Conflict (miles): 0.64; Church



Saloma Rd
Hobson Rd
Saloma
Wade Ln
Chaney Pike Rd
Campbellsville 2
W Saloma Rd
Shreve Rd
Saloma Rd
Flat Run
744
Wade Ln
744
Shreve Rd
527
W Saloma Rd
Durhamtown Rd
Flat Run

- Site
- Substation
- Electrical Transmission
- Natural Gas

USA Flood Hazard
- 1% Annual Chance Flood Hazard

WETLAND TYPE
- Freshwater Pond
- Riverine

0 0.1 0.21 0.42 Miles

N

Source: ESRI and Burns & McDonnell Engineering.

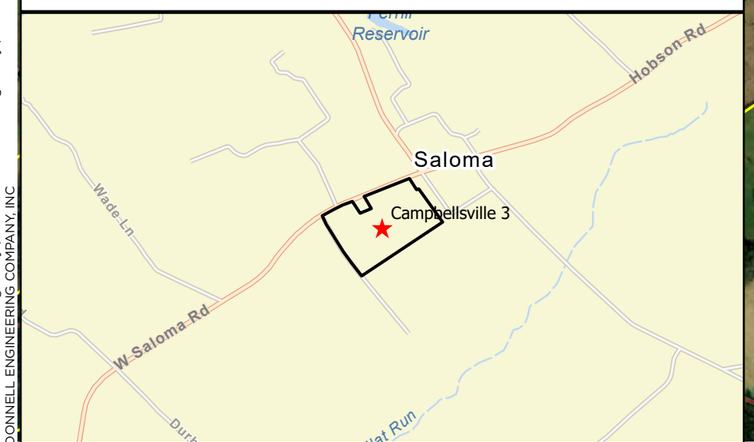
EKPC RICE Siting Study:
Campbellsville 2

1898 & CO. PART OF BURNS & MCDONNELL

Path: C:_Bill\Projects and Tasks\148843 EKPC Rice Siting Study\148843 EKPC Rice Siting Study\148843 EKPC Rice Siting Study.aprx

Issued: December 1, 2022

General Site: Campbellsville 3
Parcel Size (Acres): 48
Electrical Transmission Line Intersection Distance (miles): 0.25
Transmission Line Name: Green County to Taylor County Junction 161 kV
Substation Distance (miles): 0.29
Natural Gas Pipeline Intersection Distance (miles): 0.16
Natural Gas Pipeline: Tennessee Gas Pipeline Co
Nearest Potential Community Conflict (miles): 0.21; Church



Site
Substation
Electrical Transmission
Natural Gas

USA Flood Hazard
1% Annual Chance Flood Hazard

WETLAND TYPE
Freshwater Pond
Riverine

0 0.1 0.21 0.42 Miles

N

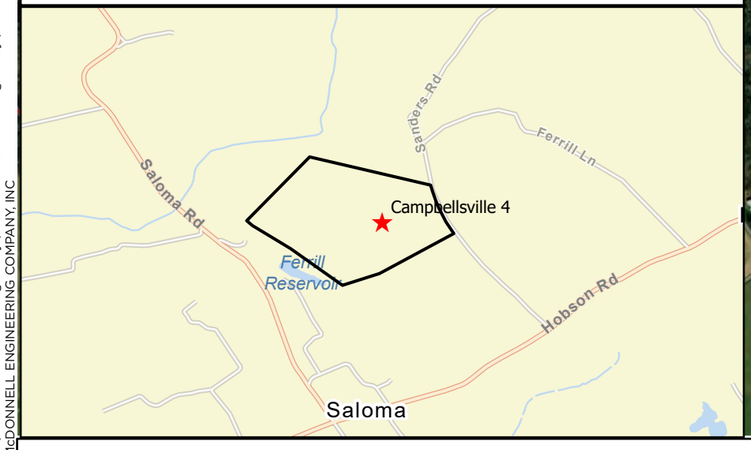
Source: ESRI and Burns & McDonnell Engineering.

EKPC RICE Siting Study:
Campbellsville 3

1898 & CO. PART OF BURNS & MCDONNELL

Issued: December 1, 2022

General Site: Campbellsville 4
Parcel Size (Acres): 130.2
Electrical Transmission Line Intersection Distance (miles): 0.27
Transmission Line Name: Saloma Tap to Saloma 161 kV
Substation Distance (miles): 1.11
Natural Gas Pipeline Intersection Distance (miles): 0.12
Natural Gas Pipeline: Tennessee Gas Pipeline Co
Nearest Potential Community Conflict (miles): 0.82; Church



- Site
- Substation
- Electrical Transmission
- Natural Gas

USA Flood Hazard
- 1% Annual Chance Flood Hazard

WETLAND TYPE
- Freshwater Pond
- Riverine

0 0.1 0.21 0.42 Miles

N

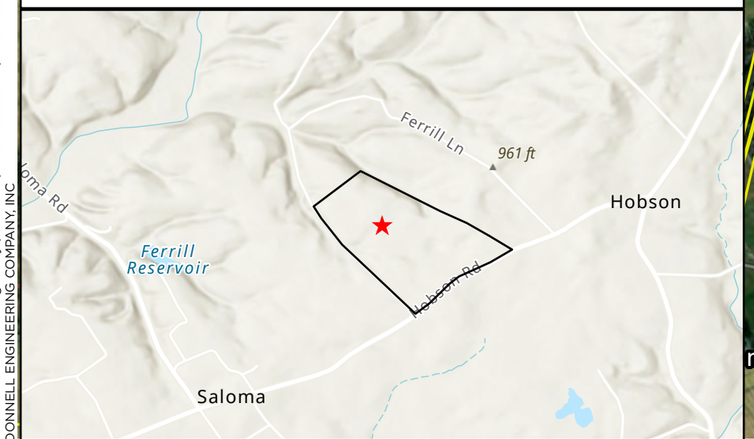
Source: ESRI and Burns & McDonnell Engineering.

EKPC RICE Siting Study:
Campbellsville 4

Issued: December 1, 2022

Service Layer Credits:Esri Community Maps Contributors, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, Maxar

General Site: Campbellsville 5
Parcel Size (Acres): 107.22
Electrical Transmission Line Intersection Distance (miles): 0.09
Transmission Line Name: Saloma Tap to Marion County 161 kV
Substation Name: New North Taylor County
Substation Distance (miles): 1.14
Natural Gas Pipeline Intersection Distance (miles): 0.15
Natural Gas Pipeline: Tennessee Gas Pipeline Co



Campbellsville 5
Big Pitman Creek
Ferrill Ln
Ferrill Ln
Saloma Rd
Sanders Rd
Hobson Rd
Hobson
Old Lebanon Rd
Cave Rd
289
Hobson Rd
Flat Run
Old Lebanon Rd
Crawley R

Site
Substation
Electrical Transmission
Natural Gas

USA FLOOD HAZARD
1% Annual Chance Flood Hazard

WETLAND TYPE
Freshwater Pond
Riverine

0 0.1 0.21 0.42 Miles

N

Source: ESRI and Burns & McDonnell Engineering.

EKPC RICE Siting Study: Campbellsville 5

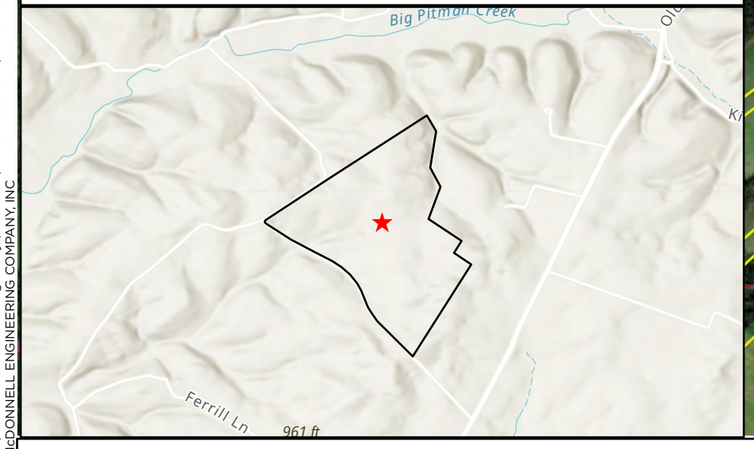
1898 & CO. PART OF BURNS & MCDONNELL

Path: C:_Bill\Projects and Tasks\148843 EKPC Rice Siting Study\2023091\EPKC - 20230911\EPKC - 20230911.aprx

Issued: September 11, 2023

Service Layer Credits:Esri Community Maps Contributors, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, Esri, NASA, NGA, USGS, FEMA, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, Maxar

General Site: Campbellsville 6
Parcel Size (Acres): 183.14
Electrical Transmission Line Intersection Distance (miles): 0.46
Transmission Line Name: Saloma Tap to Marion County 161 kV
Substation Name: New North Taylor County
Substation Distance (miles): 2.46
Natural Gas Pipeline Intersection Distance (miles): 0.02
Natural Gas Pipeline: Tennessee Gas Pipeline Co



Site
Electrical Transmission
Natural Gas

USA FLOOD HAZARD
1% Annual Chance Flood Hazard

WETLAND TYPE
Freshwater Pond
Riverine

0 0.1 0.21 0.42 Miles

N

Source: ESRI and Burns & McDonnell Engineering.

EKPC RICE Siting Study: Campbellsville 6

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Path: C:_Bill\Projects and Tasks\148843 EKPC Rice Siting Study\202309\\EPKC - 202309\\EPKC - 20230911.aprx

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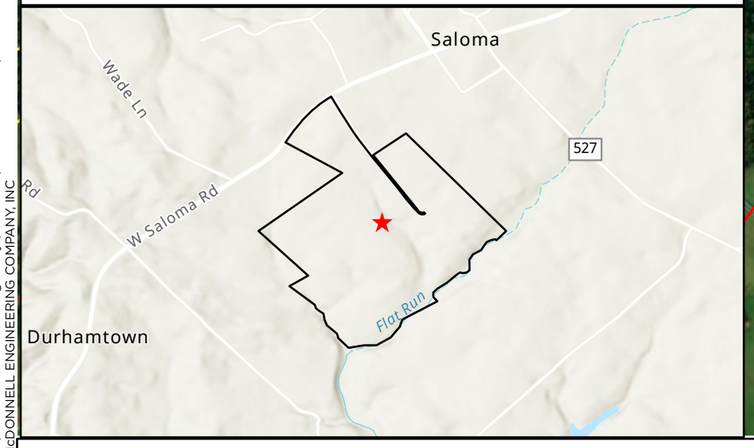
General Site: Campbellsville 7
Parcel Size (Acres): 257.1
Electrical Transmission Line Intersection Distance (miles): 0.03
Transmission Line Name: Green County to Taylor County Junction 161 kV
Substation Name: New North Taylor County
Substation Distance (miles): 0.49
Natural Gas Pipeline Intersection Distance (miles): 0.35
Natural Gas Pipeline: Tennessee Gas Pipeline Co



Site
Substation
Electrical Transmission
Natural Gas

USA FLOOD HAZARD
1% Annual Chance Flood Hazard

WETLAND TYPE
Freshwater Pond
Riverine

0 0.1 0.21 0.42 Miles

N

Source: ESRI and Burns & McDonnell Engineering.

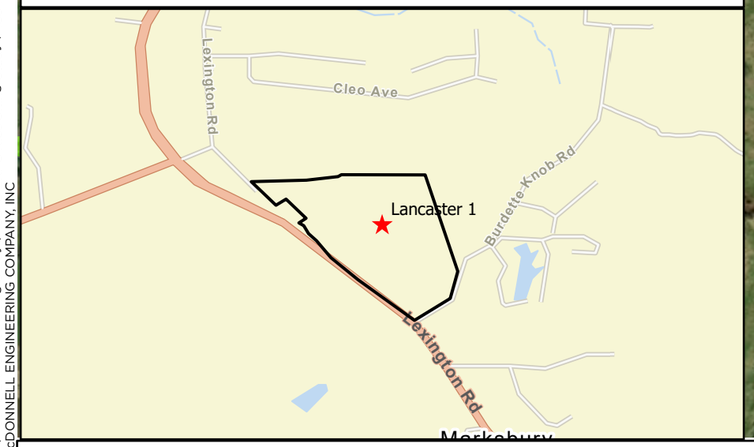
EKPC RICE Siting Study: Campbellsville 7

1898 & CO. PART OF BURNS & MCDONNELL

Path: C:_Bill\Projects and Tasks\148843 EKPC Rice Siting Study\202309\\EPKC - 202309\\EPKC - 20230911.aprx

Issued: September 11, 2023

General Site: Lancaster 1
Parcel Size (Acres): 136.8
Electrical Transmission Line Intersection Distance (miles): 0.21
Transmission Line Name: Brown North to Alcalde 345 kV
Substation Distance (miles): 3.77
Natural Gas Pipeline Intersection Distance (miles): 1.31
Natural Gas Pipeline: Tennessee Gas Pipeline Co
Nearest Potential Community Conflict (miles): 0.86; School



Site
Electrical Transmission

USA Flood Hazard
1% Annual Chance Flood Hazard

WETLAND TYPE
Freshwater Pond
Riverine

0 0.1 0.21 0.42 Miles

N

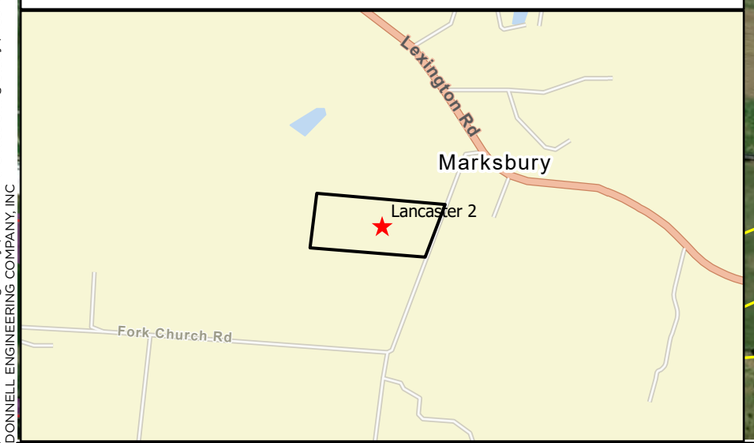
Source: ESRI and Burns & McDonnell Engineering.

EKPC RICE Siting Study:
Lancaster 1

1898 & CO. PART OF BURNS & MCDONNELL

Issued: December 1, 2022

General Site: Lancaster 2
Parcel Size (Acres): 55.3
Electrical Transmission Line Intersection Distance (miles): 0.83
Transmission Line Name: Brown North to Alcalde 345 kV
Substation Distance (miles): 2.77
Natural Gas Pipeline Intersection Distance (miles): 0.23
Natural Gas Pipeline: Tennessee Gas Pipeline Co
Nearest Potential Community Conflict (miles): 1.83; School



Site
Electrical Transmission
Natural Gas

USA Flood Hazard
1% Annual Chance Flood Hazard

WETLAND TYPE
Freshwater Pond
Riverine

0 0.1 0.21 0.42 Miles

N

Source: ESRI and Burns & McDonnell Engineering.

EKPC RICE Siting Study:
Lancaster 2

1898 & CO. PART OF BURNS & MCDONNELL

Issued: December 1, 2022

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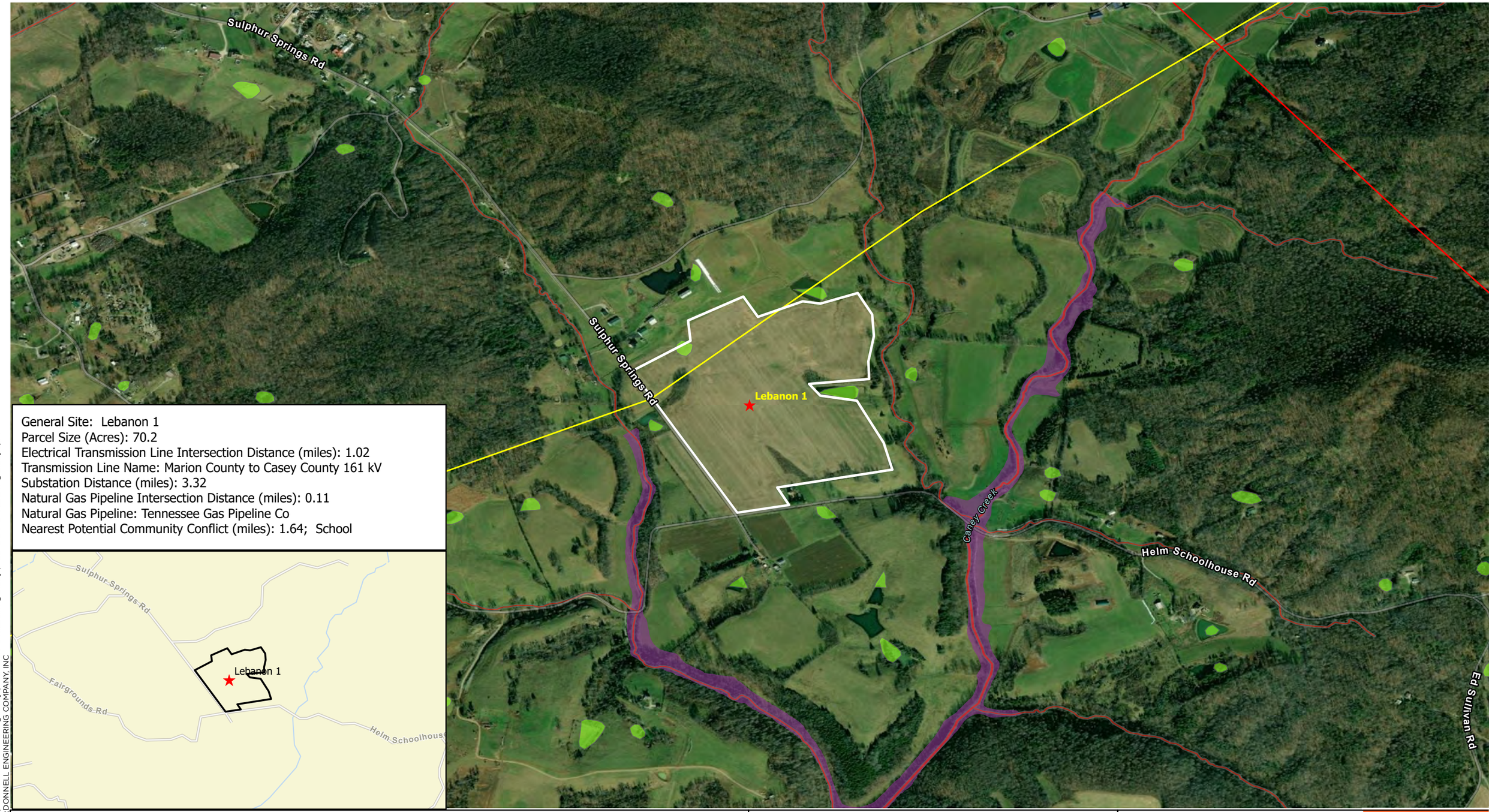


General Site: Lebanon 1
Parcel Size (Acres): 70.2
Electrical Transmission Line Intersection Distance (miles): 1.02
Transmission Line Name: Marion County to Casey County 161 kV
Substation Distance (miles): 3.32
Natural Gas Pipeline Intersection Distance (miles): 0.11
Natural Gas Pipeline: Tennessee Gas Pipeline Co
Nearest Potential Community Conflict (miles): 1.64; School

Site
Electrical Transmission
Natural Gas

USA Flood Hazard
1% Annual Chance Flood Hazard

WETLAND TYPE
Freshwater Pond
Riverine

0 0.1 0.21 0.42 Miles

N

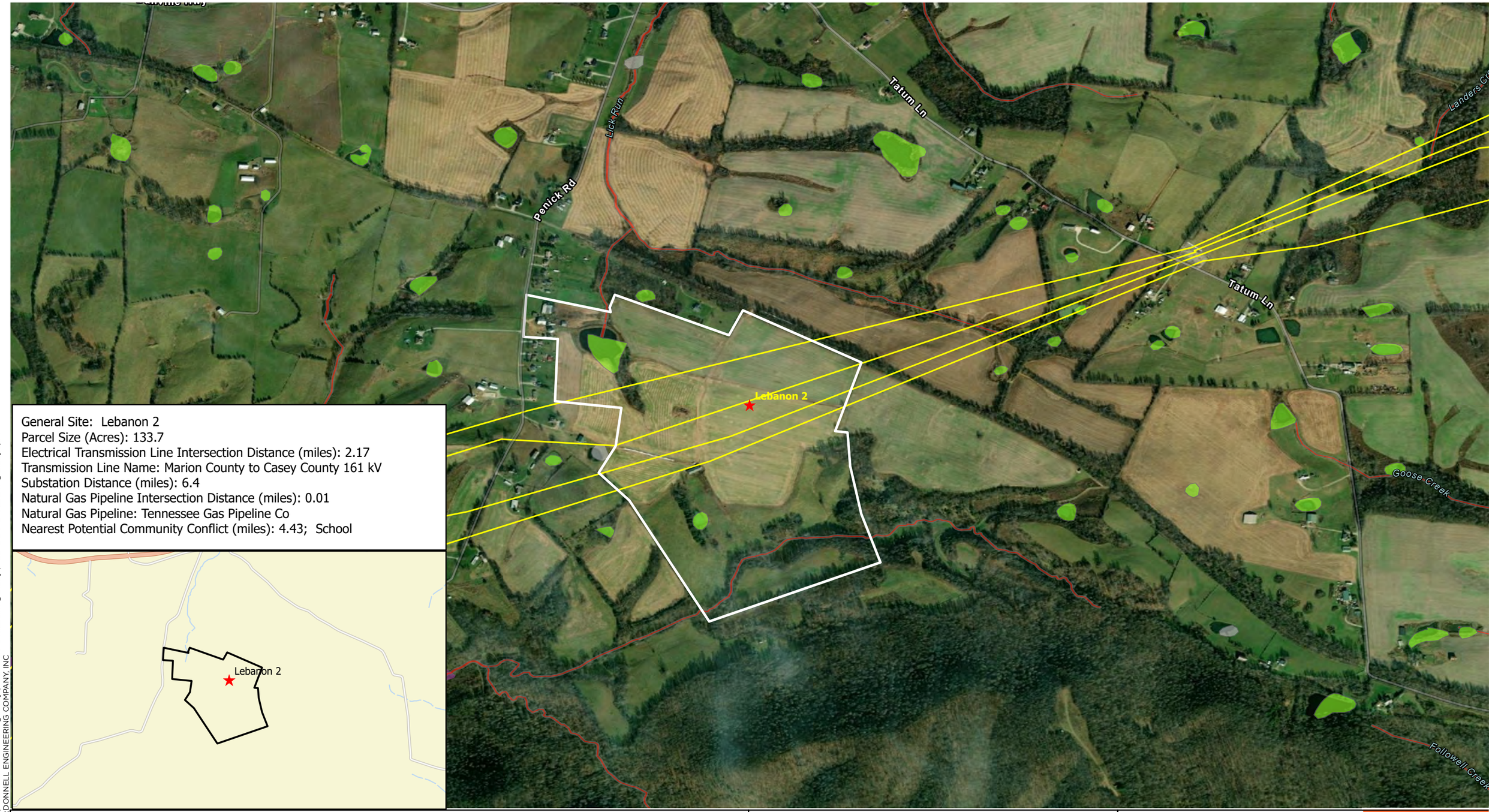
Source: ESRI and Burns & McDonnell Engineering.

EKPC RICE Siting Study:
Lebanon 1

1898 & CO. PART OF BURNS & MCDONNELL

Issued: December 1, 2022

Service Layer Credits:Esri Community Maps Contributors, City of Bardstown, Nelson County, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, City of Bardstown, Nelson County, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, Maxar



General Site: Lebanon 2
Parcel Size (Acres): 133.7
Electrical Transmission Line Intersection Distance (miles): 2.17
Transmission Line Name: Marion County to Casey County 161 kV
Substation Distance (miles): 6.4
Natural Gas Pipeline Intersection Distance (miles): 0.01
Natural Gas Pipeline: Tennessee Gas Pipeline Co
Nearest Potential Community Conflict (miles): 4.43; School

★ Site
Natural Gas

USA Flood Hazard
1% Annual Chance Flood Hazard

WETLAND TYPE
Freshwater Emergent Wetland
Freshwater Pond
Riverine

0 0.1 0.21 0.42 Miles

N

Source: ESRI and Burns & McDonnell Engineering.

EKPC RICE Siting Study:
Lebanon 2

1898 & CO. PART OF BURNS & MCDONNELL

Path: C:_Bill\Projects and Tasks\148843 EKPC Rice Siting Study\148843 EKPC Rice Siting Study\148843 EKPC Rice Siting Study.aprx

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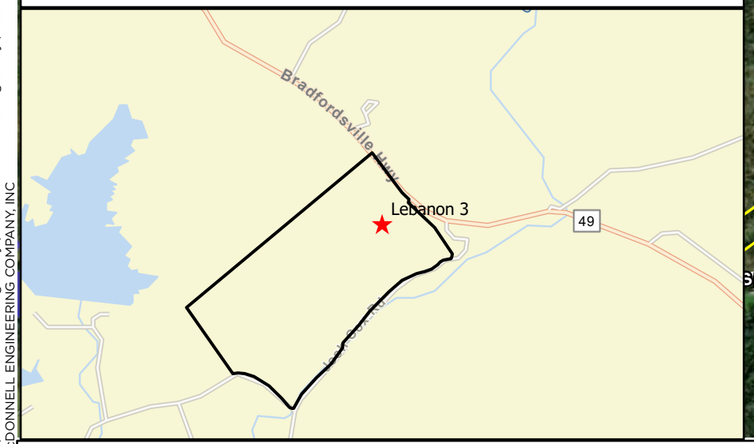
General Site: Lebanon 3
Parcel Size (Acres): 250.8
Electrical Transmission Line Intersection Distance (miles): 2.83
Transmission Line Name: Marion County to Casey County 161 kV
Substation Distance (miles): 3.17
Natural Gas Pipeline Intersection Distance (miles): 0.07
Natural Gas Pipeline: Tennessee Gas Pipeline Co
Nearest Potential Community Conflict (miles): 2.6; School



Site
Natural Gas

USA Flood Hazard
1% Annual Chance Flood Hazard

WETLAND TYPE
Freshwater Forested/Shrub Wetland
Freshwater Pond
Lake
Riverine

0 0.1 0.21 0.42 Miles

N

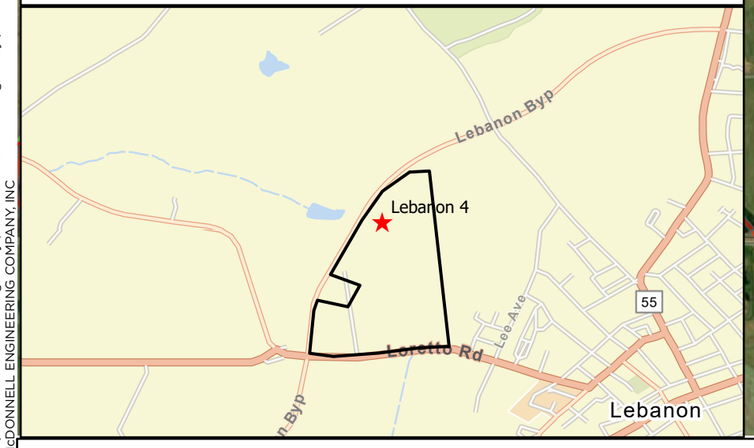
Source: ESRI and Burns & McDonnell Engineering.

EKPC RICE Siting Study:
Lebanon 3

1898 & CO. PART OF BURNS & MCDONNELL

Issued: December 1, 2022

General Site: Lebanon 4
Parcel Size (Acres): 135.5
Electrical Transmission Line Intersection Distance (miles): 0.42
Transmission Line Name: Saloma Tap to Marion County 161 kV
Substation Distance (miles): 2.13
Natural Gas Pipeline Intersection Distance (miles): 2.76
Natural Gas Pipeline: Tennessee Gas Pipeline Co
Nearest Potential Community Conflict (miles): 0.87; Hospital



Site
Electrical Transmission

USA Flood Hazard
1% Annual Chance Flood Hazard

WETLAND TYPE
Freshwater Pond
Riverine

0 0.1 0.21 0.42 Miles

N

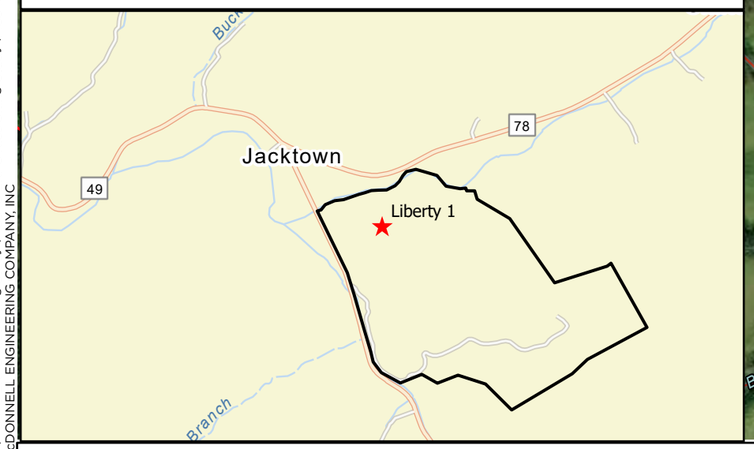
Source: ESRI and Burns & McDonnell Engineering.

EKPC RICE Siting Study:
Lebanon 4

1898 & CO. PART OF BURNS & MCDONNELL

Issued: December 1, 2022

General Site: Liberty 1
Parcel Size (Acres): 369.4
Electrical Transmission Line Intersection Distance (miles): 0.81
Transmission Line Name: Casey County to Liberty 161 kV
Substation Distance (miles): 0.81
Natural Gas Pipeline Intersection Distance (miles): 0.75
Natural Gas Pipeline: Texas Eastern Transmission LP
Nearest Potential Community Conflict (miles): 1.95; Church



Site
Substation
Electrical Transmission
Natural Gas

USA Flood Hazard
1% Annual Chance Flood Hazard

WETLAND TYPE
Freshwater Pond
Riverine

0 0.1 0.21 0.42 Miles

N

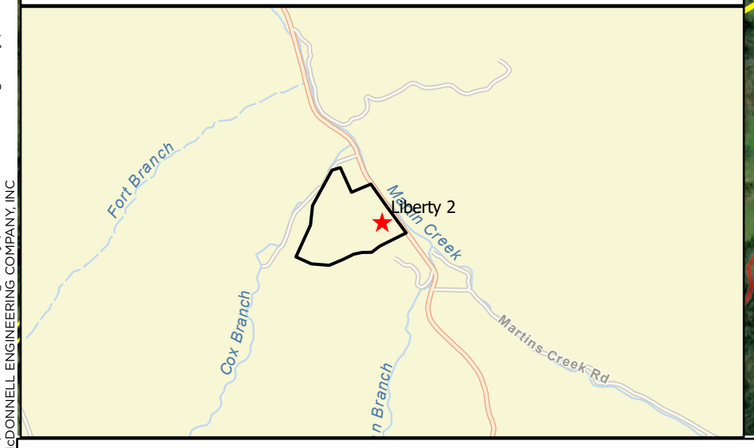
Source: ESRI and Burns & McDonnell Engineering.

EKPC RICE Siting Study:
Liberty 1

Issued: December 1, 2022

Service Layer Credits:Esri Community Maps Contributors, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, Maxar

General Site: Liberty 2
Parcel Size (Acres): 49.1
Electrical Transmission Line Intersection Distance (miles): 0.19
Transmission Line Name: Casey County to Liberty 161 kV
Substation Distance (miles): 0.23
Natural Gas Pipeline Intersection Distance (miles): 0.07
Natural Gas Pipeline: Texas Eastern Transmission LP
Nearest Potential Community Conflict (miles): 1.04; Church



Site
Substation
Electrical Transmission
Natural Gas

USA Flood Hazard
1% Annual Chance Flood Hazard

WETLAND TYPE
Freshwater Pond
Riverine

0 0.1 0.21 0.42 Miles

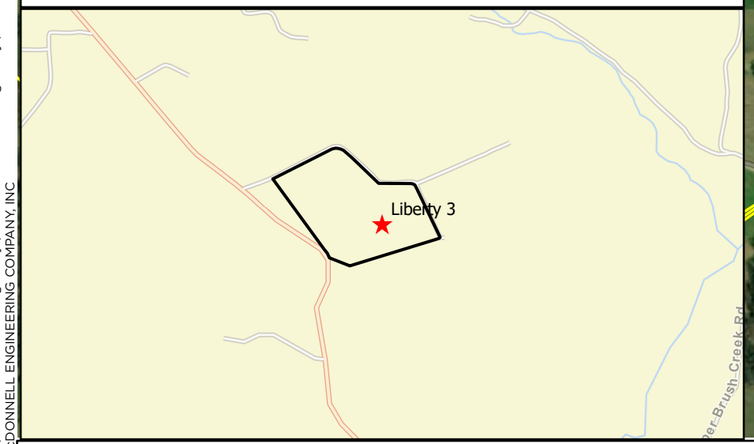
N

Source: ESRI and Burns & McDonnell Engineering.

EKPC RICE Siting Study:
Liberty 2

Issued: December 1, 2022

General Site: Liberty 3
Parcel Size (Acres): 93.2
Electrical Transmission Line Intersection Distance (miles): 0.41
Transmission Line Name: Casey County to Liberty 161 kV
Substation Distance (miles): 4.9
Natural Gas Pipeline Intersection Distance (miles): 0.28
Natural Gas Pipeline: Columbia Gulf Transmission Co
Nearest Potential Community Conflict (miles): 2.03; Church



Site
Electrical Transmission
Natural Gas

USA Flood Hazard
1% Annual Chance Flood Hazard

WETLAND TYPE
Freshwater Emergent Wetland
Freshwater Pond
Riverine

0 0.1 0.21 0.42 Miles

N

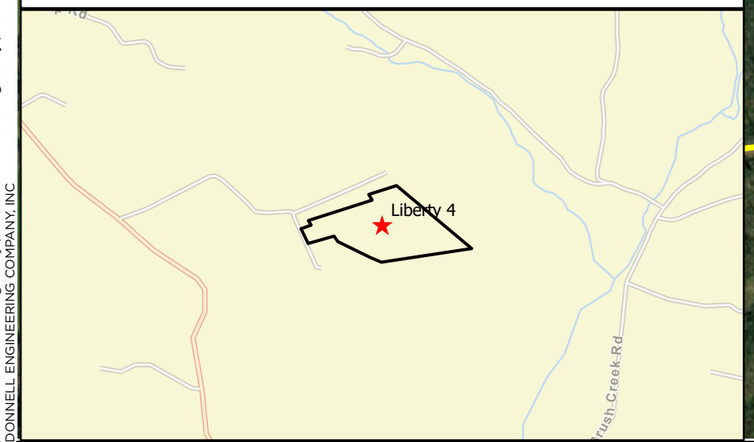
Source: ESRI and Burns & McDonnell Engineering.

EKPC RICE Siting Study:
Liberty 3

1898 & CO. PART OF BURNS & MCDONNELL

Issued: December 1, 2022

General Site: Liberty 4
Parcel Size (Acres): 54.1
Electrical Transmission Line Intersection Distance (miles): 0.03
Transmission Line Name: Casey County to Liberty 161 kV
Substation Distance (miles): 5.06
Natural Gas Pipeline Intersection Distance (miles): 0.08
Natural Gas Pipeline: Columbia Gulf Transmission Co
Nearest Potential Community Conflict (miles): 2.34; Church



Site
Electrical Transmission
Natural Gas

USA Flood Hazard
1% Annual Chance Flood Hazard

WETLAND TYPE
Freshwater Pond
Riverine

0 0.1 0.21 0.42 Miles

N

Source: ESRI and Burns & McDonnell Engineering.

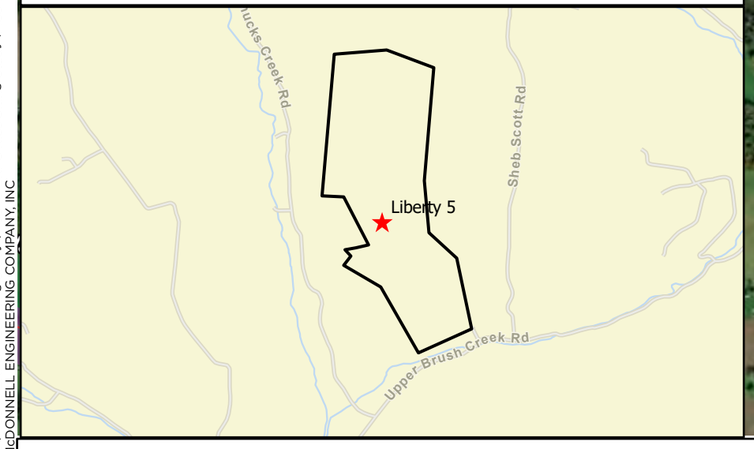
EKPC RICE Siting Study:
Liberty 4

1898 & CO. PART OF BURNS & MCDONNELL

Issued: December 1, 2022

Service Layer Credits:Esri Community Maps Contributors, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, Maxar

General Site: Liberty 5
Parcel Size (Acres): 313.7
Electrical Transmission Line Intersection Distance (miles): 2.03
Transmission Line Name: Casey County to Liberty 161 kV
Substation Distance (miles): 5.15
Natural Gas Pipeline Intersection Distance (miles): 0.62
Natural Gas Pipeline: Columbia Gulf Transmission Co.
Nearest Potential Community Conflict (miles): 3.19; Wilson Cemetary



Site
Natural Gas

USA Flood Hazard
1% Annual Chance Flood Hazard

WETLAND TYPE
Freshwater Forested/Shrub Wetland
Freshwater Pond
Riverine

0 0.13 0.26 0.52 Miles

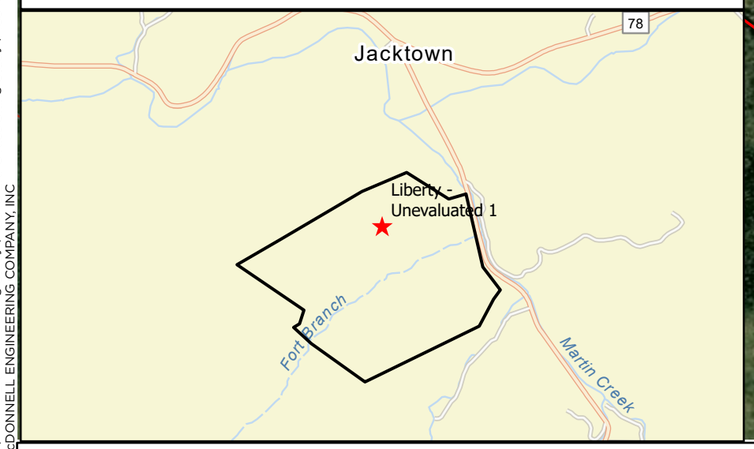
N

Source: ESRI and Burns & McDonnell Engineering.

EKPC RICE Siting Study:
Liberty 5

Issued: November 20, 2023

General Site: Liberty - Unevaluated 1
Parcel Size (Acres): N/A
Electrical Transmission Line Intersection Distance (miles): N/A
Transmission Line Name: N/A
Substation Distance (miles): N/A
Natural Gas Pipeline Intersection Distance (miles): N/A
Natural Gas Pipeline: N/A
Nearest Potential Community Conflict (miles): N/A



Site
Substation
Electrical Transmission
Natural Gas

USA Flood Hazard
1% Annual Chance Flood Hazard

WETLAND TYPE
Freshwater Pond
Riverine

0 0.1 0.21 0.42 Miles

N

Source: ESRI and Burns & McDonnell Engineering.

EKPC RICE Siting Study:
Liberty - Unevaluated 1

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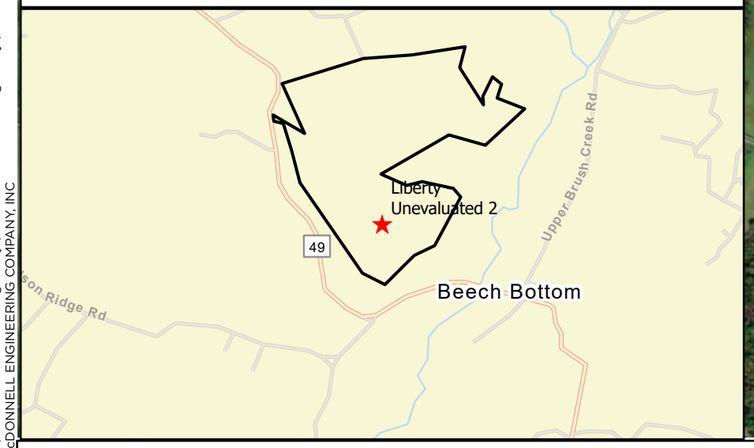
General Site: Liberty - Unevaluated 2
Parcel Size (Acres): N/A
Electrical Transmission Line Intersection Distance (miles): N/A
Transmission Line Name: N/A
Substation Distance (miles): N/A
Natural Gas Pipeline Intersection Distance (miles): N/A
Natural Gas Pipeline: N/A
Nearest Potential Community Conflict (miles): N/A



Liberty - Unevaluated 2

Porter Rd
49
Smith Rd
1552
Upper Brush Creek Rd
Gene Lynn Rd
Brush Creek
Beech Bottom
John Terry Rd
Wilson Ridge Rd
Lower Brush Creek Rd

★ Site
Electrical Transmission
Natural Gas

USA Flood Hazard
1% Annual Chance Flood Hazard

WETLAND TYPE
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
Riverine

0 0.14 0.28 0.56 Miles

N

Source: ESRI and Burns & McDonnell Engineering.

EKPC RICE Siting Study:
Liberty - Unevaluated 2

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Path: C:_Bill\Projects and Tasks\148843 EKPC Rice Siting Study\148843 EKPC Rice Siting Study\148843 EKPC Rice Siting Study.aprx

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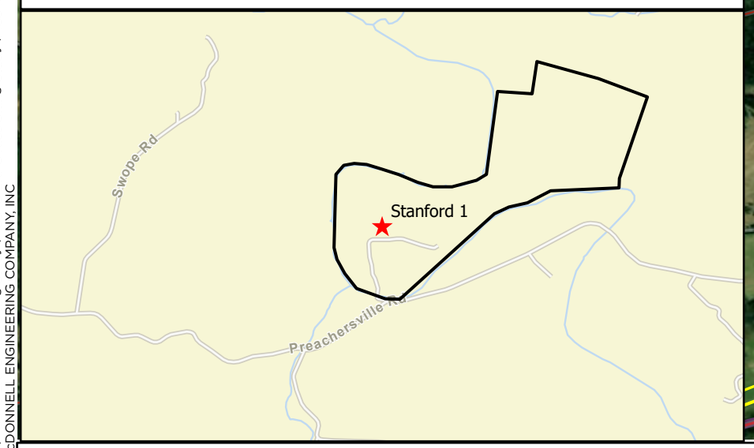
General Site: Stanford 1
Parcel Size (Acres): 259.3
Electrical Transmission Line Intersection Distance (miles): 1.36
Transmission Line Name: Brown North to Alcalde 345 kV
Substation Distance (miles): 8
Natural Gas Pipeline Intersection Distance (miles): 0.33
Natural Gas Pipeline: Columbia Gulf Transmission Co
Nearest Potential Community Conflict (miles): 4.25; Hospital



Site
Natural Gas

USA Flood Hazard
1% Annual Chance Flood Hazard

WETLAND TYPE
Freshwater Emergent Wetland
Freshwater Pond
Riverine

0 0.1 0.21 0.42 Miles

N

Source: ESRI and Burns & McDonnell Engineering.

EKPC RICE Siting Study:
Stanford 1

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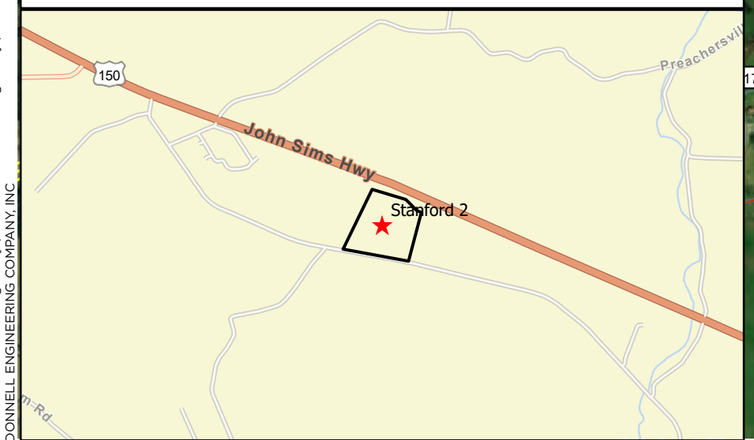
General Site: Stanford 2
Parcel Size (Acres): 30
Electrical Transmission Line Intersection Distance (miles): 0.01
Transmission Line Name: Brown North to Alcalde 345 kV
Substation Distance (miles): 8.78
Natural Gas Pipeline Intersection Distance (miles): 0.04
Natural Gas Pipeline: Columbia Gulf Transmission Co
Nearest Potential Community Conflict (miles): 3.02; School



Site
Electrical Transmission
Natural Gas

USA Flood Hazard
1% Annual Chance Flood Hazard

WETLAND TYPE
Freshwater Emergent Wetland
Freshwater Pond
Riverine

0 0.1 0.21 0.42 Miles

N

Source: ESRI and Burns & McDonnell Engineering.

EKPC RICE Siting Study:
Stanford 2

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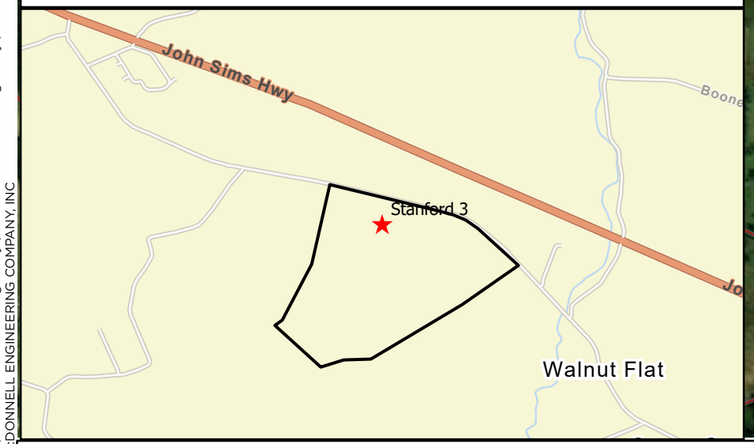
General Site: Stanford 3
Parcel Size (Acres): 210.1
Electrical Transmission Line Intersection Distance (miles): 0.21
Transmission Line Name: Brown North to Alcalde 345 kV
Substation Distance (miles): 9.14
Natural Gas Pipeline Intersection Distance (miles): 0.44
Natural Gas Pipeline: Columbia Gulf Transmission Co
Nearest Potential Community Conflict (miles): 3.14; Church



Site
Electrical Transmission
Natural Gas

USA Flood Hazard
1% Annual Chance Flood Hazard

WETLAND TYPE
Freshwater Emergent Wetland
Freshwater Pond
Riverine

0 0.1 0.21 0.42 Miles

N

Source: ESRI and Burns & McDonnell Engineering.

EKPC RICE Siting Study:
Stanford 3

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