

# Environmental Overview

**Wendell H. Ford Airport Access Road  
From KY 15 MP 22.1 to Wendell H. Ford Airport  
Perry County, Kentucky**

prepared for:

**Kentucky Transportation Cabinet**

**District 10**



**June 2018**

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## **1.0 Executive Summary**

This environmental overview was conducted in April and May 2018 for the Wendell H. Ford Airport Access Road Scoping Study; it assessed an area of potential effect (APE) comprised of the properties between KY 15 at MP 22.1 to the Wendell H. Ford Airport. The Scoping Study will assess the need for an improved access road to the Airport, which is currently served by a substandard road with narrow lanes and shoulders, steep grades, sharp curves, and slope failures. The Scoping Study presents Alternatives 3, 4, and 5 as potential concepts for alternative development. In-office research, windshield surveys, and pedestrian reconnaissance were employed to identify environmental sites of interest, which are presented in mapping in Appendix A.

The APE is rural in nature, with several scattered residences and one residential development located within the Scoping Study APE. One commercial business, a self-storage facility, is located at the intersection of Fly By Hazard Road and Justin Avenue. This business may experience right-of-way impacts as a result of Alternative 3 as currently included in the Scoping Study. Two homes along KY 15 would be relocated by all three conceptual alternatives; these homes would need to be assessed for potential Environmental Justice (EJ) impacts.

Two of the residential properties, located at Nana's Drive, should be assessed for eligibility to be listed on the National Register of Historic Places (NRHP) as project development proceeds. All three alternatives included in the Scoping Study begin adjacent to these properties; therefore, there may be indirect impacts, but not direct impacts, to the properties. No other potentially historic resources were identified within the cultural-historic study area; however, cultural-historic resources may be located within the forested area that was inaccessible for this Environmental Overview and that area will need to be examined further if a build alternative is selected.

An archaeological survey of the final alignment is recommended. No archaeological studies have been conducted within the Scoping Study APE; 15 previous archaeological surveys have been completed within a 2-kilometer (km) buffer of the APE. These documented extensive disturbances in many locations, but also identified intact resources including rockshelters with prehistoric material, historic farm/residences, and historic surveys. Pedestrian survey is necessary to identify the presence or absence of rockshelters; shovel test survey is recommended in areas of less than 16 percent slopes. This survey may document family cemeteries, historic farm/residences that may be located even within low probability area such as the headwaters of streams, and additional rockshelters with prehistoric materials.

Ecological impacts to consider during project development include those to the Rockhouse Fork, which runs along KY 15 within the Scoping Study APE. All three alternatives, as currently proposed, cross this intermittent stream and would require permitting. Impacts to threatened and endangered species will need to be considered, particularly in relation to tree removal and stream impacts.

ATV trails adjacent to Fly By Hazard Road will need to be considered for potential Section 4(f) recreational impacts if alternatives are found to impact those, and if the trails are considered a public recreation resource. Hazardous waste in the form of burn and dump piles are located in the same area, as well as within the residential development along Justin Avenue and Wendell Ford Terminal Road.

## **2.0 Project Information**

### **2.1 Project Description**

This report presents an overview of environmental features within the Wendell H. Ford Airport Road Study APE (see Figure 1). The purpose of this study is to assess the need for improved access to the Wendell H. Ford Airport in Perry County and the scope of effort that would be required if the need exists. Currently, the primary access to the airport is from KY 15 (MP 22.9) via the Wendell Ford Terminal Drive, which is a county road. Wendell Ford Terminal Road is a narrow winding roadway with steep grades leading to the airport. Lane widths vary from 10 feet to 11 feet and there is little to no shoulder. Existing grades are on the order of 16 to 20 percent. Slope failures and other maintenance concerns also are prevalent along the alignment.

Airport officials have indicated that the grades and roadway geometry are such that fuel trucks cannot deliver full loads of fuel to the airport during the winter months. An older access road also can be used to access the airport but has narrower lanes and steeper grades. In addition, there is a housing development along the Wendell Ford Terminal Road near the top of the mountain that all traffic must pass through to get to the airport. Another housing development also is accessed from the Wendell Ford Terminal Road using Fly By Hazard Road. The Scoping Study parameters currently state that any improvements to Wendell Ford Terminal Road or any new access road to the airport will need to avoid affecting these housing developments.

The Scoping Study APE begins at mile point (MP) 21.9 on KY 15, south of Trus Joist Lane, and follows KY 15 to MP 23.0. It then extends easterly to include Wendell Ford Terminal Road and the undeveloped land south of Fly By Hazard Road, roughly encompassing the entire parcel of forest south to MP 21.9. See Figure 1 for mapping of the Scoping Study APE.

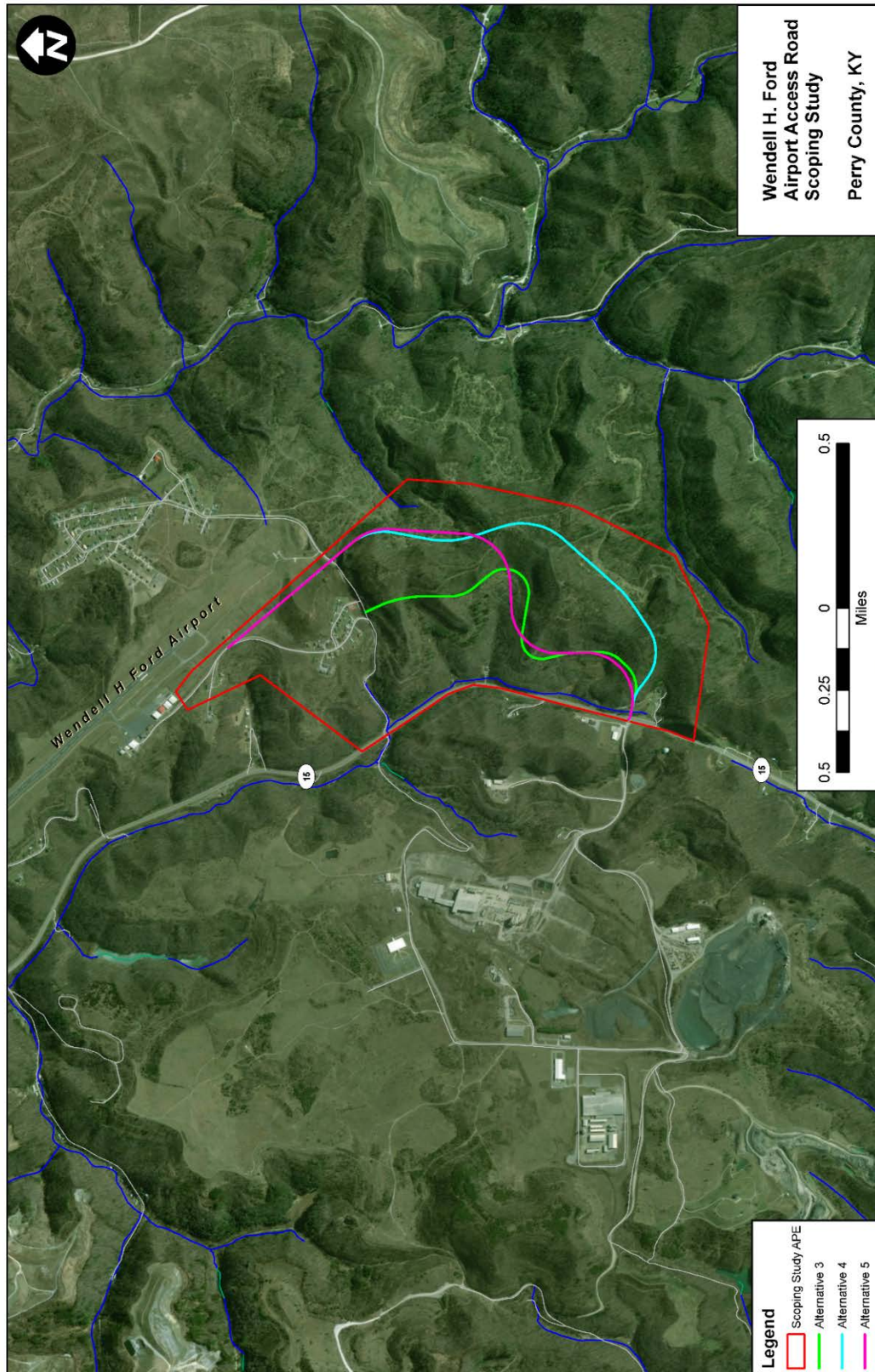


Figure 1: Scoping Study APE

**2.2 Purpose and Need Statement**

The purpose of the project is to improve access to the Wendell H. Ford Airport in Hazard, Perry County, Kentucky. The need for this project arises from substandard conditions of the existing access road, including narrow lanes, little to no shoulders, steep grades, and slope failures, which prevent fuel trucks from delivering full loads of fuel to the airport during the winter months.

The primary goals of the Scoping Study are to determine whether sufficient need exists to warrant further study and, if so, what the scope of the further study should be. This road has a 20 mph design speed, with sharp curves and a maximum grade of 16%.

**2.3 Project Corridor**

The APE encompasses largely undeveloped, forested land; in addition, there is a residential community in the APE, located between Fly By Hazard Road and the airport. A smaller area of residential development is located west of the airport runway, on Twin Engine Road. The total approximate APE is 510 acres; a small portion of the property within the APE is owned by the Perry County Airport Board, while the remainder is in private ownership.

**2.4 Project History**

A Freight Study and Scoping Study are currently being conducted to assess the need for improved access to the Wendell H. Ford Airport; this Environmental Overview has been prepared in support of the Scoping Study. The Wendell H. Ford Airport was established in the 1990s and there are approximately 30 take-off and landing operations daily, with increased operations in the spring and summer months due to Kentucky State Police and National Guard operations in the area.

The Airport Board desires to lengthen the runway at the airport to 7,000 feet. Though there is no active project or plan to undertake such an improvement the access road project would be designed to complement the desired runway length and accommodate potential future expansion plans.

## **3.0 Environmental Characteristics of the APE**

### **3.1 Air Quality**

Perry County is currently in attainment for all criteria pollutants. Coordination with the appropriate officials and air quality analysis will be required to ensure that the selected alternative is in compliance with the Kentucky State Implementation Plan for Attainment and Maintenance of National and State Ambient Air Quality Standards. An assessment of Mobile Source Air Toxin (MSAT) impacts will also be conducted during the air quality analysis.

### **3.2 Noise**

If the project receives Federal funding, a noise study would be required to determine noise impacts from the proposed project. To determine potential noise impacts from construction and operation of the proposed project, each representative noise-sensitive land use would need to be identified in conjunction with specific alignment alternatives and existing measured ambient noise levels. The procedure for conducting field monitoring would be based on FHWA requirements and KYTC Noise Abatement Policy. Noise levels would be measured in terms of  $L_{eq}$ , which reflects the average equivalent steady state sound level; in a given time period (usually one hour) it would contain the same acoustic energy as the time-varying sound level during the same time period. For future noise level predictions, FHWA TNM (Traffic Noise Model) 2.5 would be used for noise impact analysis.

There are numerous residential noise receptors in the APE that would need to be considered. Due to the relatively low density of the receptors, it is highly unlikely that noise mitigation would be necessary.

### **3.3 Ecological Resources**

#### **3.3.1 Aquatic Resources**

##### **3.3.1.1 Floodplains**

Floodplain information was obtained from the Federal Emergency Management Agency's (FEMA) FIRMette digital flood data, as appended by the state of Kentucky. This project is located on Flood Insurance Rate Maps (FIRM) 21193c0050d, 21193c0075d, 21193c0180d, and 21193C0175D. There are no flooding hazards in the project APE. This project crosses two HUC 14 watersheds, Rockhouse Fork (05100201-120-600) and Lost Creek (05100201-120-610) within the larger HUC 11 watershed, Troublesome Creek (05100201-120).

##### **3.3.1.2 Waters and Wetlands**

Rockhouse Fork, an intermittent stream, flows along the east side of KY 15 for the length of the scoping study APE. During the windshield survey, potential wetlands were identified in the floodplain along this stream, which appears to have been impacted by acid mine drainage (see Figure 2). Office research showed another intermittent stream, an unnamed tributary to Lost Creek, starting along the northeast perimeter of the APE and flowing north-eastward out of the APE. Due to the steep terrain in the APE, ephemeral streams that are not visible from mapping are most likely present; several ephemeral streams were visible during the windshield survey (see Figure 3). All streams, ponds (if any exist), and wetlands will have to be delineated and subject to official jurisdictional determinations by the U.S. Army Corps of Engineers (USACE).



All three alternatives currently under consideration will cross Rockhouse Fork. Alternative 3 follows a ridgeline, thereby having minimal impacts to potential ephemeral streams in the area. See Appendix A for mapping of the known aquatic features within the APE.



Figure 2: Potential wetland within the floodplain of Rockhouse Fork



Figure 3: Example of ephemeral streams that will have to be investigated during field study.

### **3.3.1.3 Permits**

A field survey of the area indicated there will be 404/401 (US Army Corps of Engineers/KY Division of Water) permitting requirements for construction within the APE. Permit requirements can only be

determined after more detailed design. Streams and jurisdictional drainage ditches were not formally assessed for this overview. Multiple permits have been acquired for previous airport improvements, most recently in 2017; however, those permits do not address impacts to waters of the U.S. All other USACE permits in the project APE have been withdrawn or have expired. An open records request to the Division of Mining Permits determined that no active mining permits are located within the APE.

#### **3.3.1.4 Wild and Scenic Rivers**

No Wild or Scenic Rivers are located within the project corridor.

### **3.3.2 Threatened and Endangered Species**

Four federally threatened and endangered species are currently listed as occurring within Perry County (see Table 1). Aerial mapping indicates that the project APE contains forested habitat that may be potential Indiana and/or northern long-eared roosting/maternity habitat (see Figures 4 and 5). Therefore, any removal will have to be coordinated with the U.S Fish and Wildlife Service (USFWS) under the Endangered Species Act of 1973. In addition, the Rockhouse Fork stream channel could be used by gray bats as a foraging (feeding) corridor.

The Hazard North quadrangle indicates the presence of three mine openings in the APE and one due south. These mine openings will have to be investigated for use as winter/hibernacula for the listed bat species. This area will also need to be investigated for any additional openings such as portals and adits. A potential portal was visible from KY 15 during windshield surveys (see Appendix A). All mine openings that have the characteristics of potential winter/hibernacula habitat will require a bat presence/absence survey.

A portal survey in 2015 for the KY 15 roadway improvement project in Hazard (KYTC Item No. 10-158.00) captured 10 tri-colored bats (*Perimyotis subflavus*). That survey, which occurred approximately seven miles south of this APE, indicates the possible presence of these bats in the current APE. The USFWS is considering whether to list the tri-colored bat under the Endangered Species Act of 1973, and therefore, it may need to be included in any future threatened and endangered species habitat studies.

The area streams will also have to be evaluated for the presence of Kentucky arrow darter habitat; if habitat is present, a summer fish survey will have to be completed.

**Table 1: USFWS Listed Species within Perry County**

Group	Common Name	Scientific Name	Legal Status
Mammals	Indiana bat	<i>Myotis sodalis</i>	Endangered
	Northern long-eared bat	<i>Myotis septentrionalis</i>	Threatened
	Gray bat	<i>Myotis grisescens</i>	Endangered
Fish	Kentucky arrow darter	<i>Etheostoma spilotum</i>	Threatened



Figure 4: Potential winter / hibernacula for the listed bat species



Figure 5: Summer roosting / maternity habitat that will have to be mitigated for any loss.

### **3.3.3 Geological Features**

Searches on state databases revealed potential for karst within the APE. Formal coordination will need to occur with the appropriate agencies during project development.

## **3.4 Cultural Historic Resources**

### **3.4.1 Historic Resources**

An historic study area was established that includes the Scoping Study APE and the entire parcel of land associated with the airport. This study area was selected to account for the entire airport parcel and the area where various alternative access road routes might impact cultural-historic properties (see Appendix B). Within these geographic boundaries, a cultural-historic site check was registered with the Kentucky Heritage Council/State Historic Preservation Office (KHC/SHPO) to determine whether there were any previously recorded historic properties. There were no previously recorded historic studies documented within this study area as of April 2018.

Reconnaissance cultural-historic survey of the study area was performed by Palmer's Cultural-Historic Principal Investigator (PI), Rachel Kennedy, and project assistant Bobi Martin on Tuesday, May 1, 2018. All individual properties and multi-building districts meeting the 50-year age criterion were examined within the APE during reconnaissance survey. For a property to be considered for National Register of Historic Places (NRHP) eligibility, it must be at least 50 years old and possess both historic integrity and significance.

This reconnaissance survey revealed that there are no historic districts present within the study area and two properties that may meet NRHP criteria for listing. The majority of the properties along Twin Engine Road and Wendell Ford Terminal Road/Justin Avenue are residential in nature and were constructed and/or manufactured in the past thirty years; a single commercial property is situated within the study area, a self-storage warehouse complex, located at the intersection of Fly by Hazard Road and Wendell Ford Terminal Road, constructed in the early 2000s.

Near the study area's southern boundary on KY 15, there are two properties with potential for NRHP listing; these houses are located near the southern terminus of the access road alternatives currently included in the Scoping Study. The hollow area, historically associated with the Smith family, maintains two houses with sufficient age. One of these houses was home to the family's matriarch, Nanny Smith, who is the namesake for the lane leading into the property. Directly adjacent to this house is a very small house associated with Joe Miller, a relative of the Smith family, who lived there in the mid-twentieth century. Both of these houses should be further investigated to determine their potential significance in Perry County history (see Figure 6). A single grave is situated near this property adjacent to a non-historic house on Hippy Lane. This grave represents a Smith family burial circa 1980 and is not considered an historic feature. No other graves are known to exist on this site.

The cultural-historic reconnaissance did not include pedestrian or windshield surveys of the forested area included in the APE. Any graves, structures, or other historic resources that may be located within the forested area would need to be assessed through a detailed survey.



Figure 6: Smith/Miller houses in the Smith Hollow. The tiny house on the far left in this photo belonged to Joe Miller. The house to the right is the Nanny Smith house. The Smith family have been associated with this land for generations.

**3.4.2 Archaeological Resources**

An abbreviated Archaeological Overview was completed in April 2018 for the proposed project (Appendix C). The Archaeological Overview consisted of in-office research, review of the Kentucky Office of State Archaeology (OSA) records, historical maps and aerials, and archival information; no site visit was performed as part of the report. A 2-kilometer (km) buffer around the Scoping Study APE was established to identify previous investigations and resources within the project vicinity.

Fifteen previous archaeological surveys have been completed within the archaeological study area. These reports documented extensive disturbances in many locations, but also identified intact resources including rockshelters with prehistoric material, historic farm/residences, and historic cemeteries. Ten of these surveys did not identify any cultural deposits. Two resources, both prehistoric rockshelters located beyond a 2-kilometer buffer of the Scoping Study APE, were found to be potentially eligible for National Register listing (15PE64 and 15PE206). Of the identified archaeological resources, only one site, 15PE138, is within 2 kilometers of the APE. This is a historic farm/residence that may date to the early twentieth century. The author recommended the property as ineligible for listing.

An archaeological survey of the final alignment will be required if federal funds are or approvals (permits) are required for the project. Pedestrian survey is necessary to identify the presence or absence of rockshelters; shovel test survey is necessary in areas of less than 16 percent slope. This survey may document additional archaeological resources (family cemeteries, historic farm/residences rockshelters) that will need to be considered as the project develops.

### **3.5 Section 4(f)/Section 6(f) Resources**

If federal funds are used for the project, Section 4(f) of the Department of Transportation (DOT) Act of 1966 will apply to NRHP-eligible and public recreational resources. Section 4(f) stipulates that the Federal Highway Administration (FHWA) and other DOT agencies cannot approve the use of land from publicly-owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites unless there is no feasible and prudent alternative to the use of the land, and the action includes all possible planning to minimize harm to the property resulting from use.

Section 6(f)(3) of the Land and Water Conservation Fund Act of 1965 requires all property acquired or developed with Land and Water Conservation Fund (LWCF) assistance be maintained in perpetuity for public outdoor recreation use.

Public recreational resources within the APE may include ATV trails that can be seen from Fly By Hazard Road; further investigation into the status and use of these trails will need to be completed to determine Section 4(f) applicability. Section 4(f) would also apply to any NRHP-eligible properties identified within or adjacent to the APE. There are no properties in or adjacent to the APE that have received LWCF funding, and therefore, Section 6(f) does not apply.

### **3.6 Hazardous Material/Underground Storage Tank (UST)**

Hazardous materials within the APE include open dump sites and burn piles that were observed in the residential area at Fly By Hazard Road, as well as within the undeveloped area along that road near ATV trails (see Figure 7). Dump and burn sites were also observed in the residential areas adjacent to KY 15, at Nana's Way.

Approximately 22 transformers were observed in the APE; none appeared to contain PCBs but will need to be assessed prior to any impacts to utilities. There are two aboveground storage tanks at the airport for refueling aircraft; these should not be impacted by the proposed alignments.

Asbestos containing materials (ACMs) may be present in building structures. Prior to demolition to any structures, ACM sampling will need to occur.



Figure 7: Burn pile near ATV Trails

### 3.7 Socioeconomic Characteristics

Socioeconomic data for the state, Perry County, and Census Tract Block Groups within the APE were obtained to determine potential Environmental Justice issues. Figure 8 below shows the location of all Census Tract Block Groups. A Socioeconomic Study was performed for this overview and is included in Appendix D; a summary of those findings is included below.

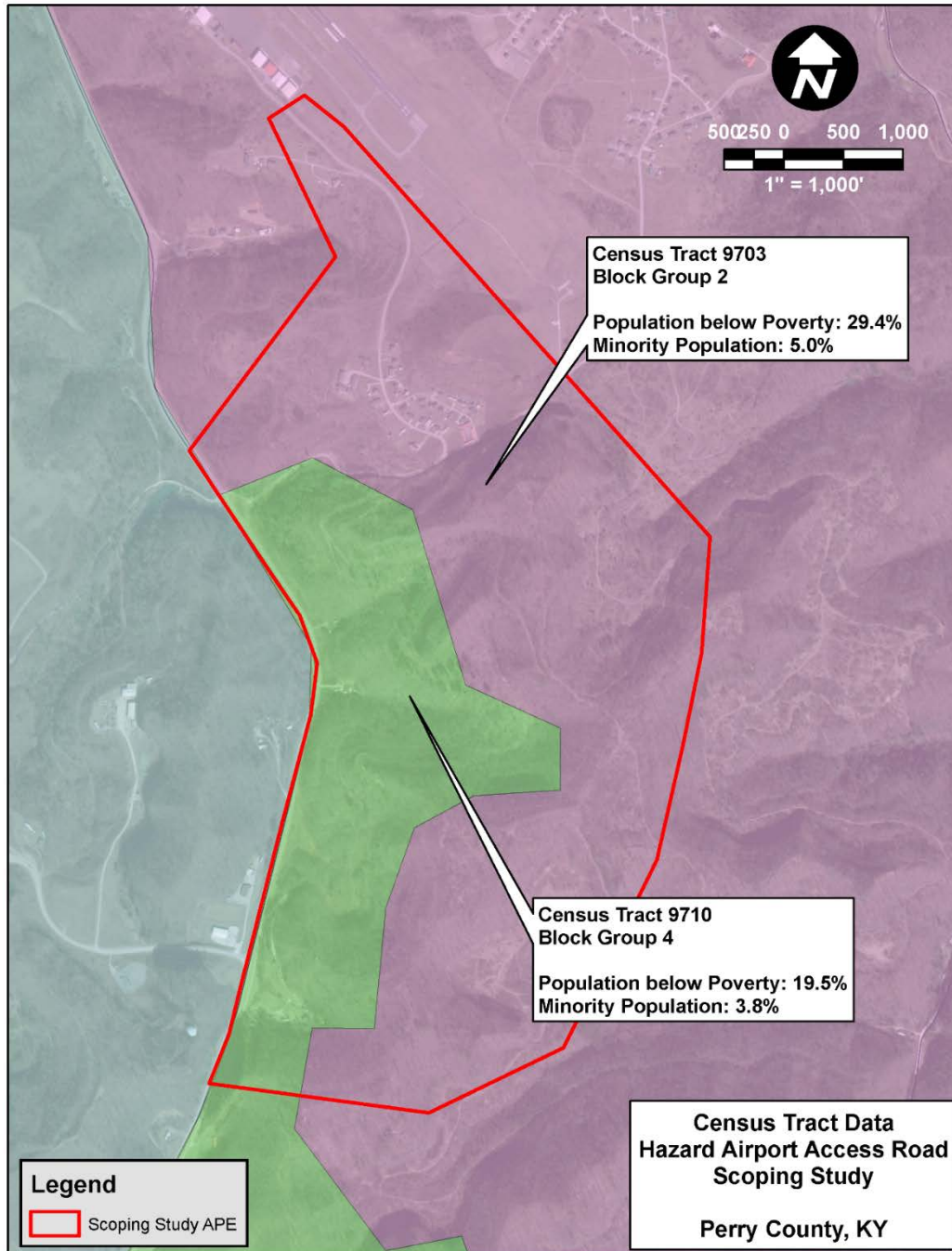


Figure 8: Census Tract Block Groups within the Project APE

Socioeconomic data was obtained regarding protected groups at the national, state, county, and Census Tract Block Group level (see Table 2). Census Tract Block Group averages that are higher than the county average are highlighted in light orange.

Table 2: Socioeconomic Data

	Minority Population	Low-Income Population	Elderly Population	Disabled Population	Limited English Population
United States	37.7%	15.5%	14.1%	15.1%	8.6%
Kentucky	14.5%	18.9%	14.4%	20.7%	2.1%
Perry County	4.1%	25.4%	14.4%	32.7%	0.5%
Block Group 2 CT 9703	5.0%	29.4%	3.13%	21.5%	0%
Block Group 4 CT 9710	3.8%	19.5%	17.6%	26.7%	0%

**3.7.1 Environmental Justice**

The purpose of *Executive Order (EO) 12898*, “Federal Actions to Address Environmental Justice in Minority and Low-Income Populations,” is to focus federal attention on the environmental and human health condition of minority and low-income communities, to promote non-discrimination in federal programs affecting human health and the environment, and to provide minority and low-income communities access to public information and an opportunity to participate in matters relating to the environment and human health.

Additionally, the KYTC works to identify potential populations of the Elderly, Disabled, Limited English Proficiency, and Limited Transportation Options that may be impacted in or near the affected community, should highway improvements take place in the future.

Minority and low-income populations are present in higher percentages within Block Group 2, CT 9703, when compared to the county averages. The majority of residences within the APE are within this Block Group, in proximity to the airport.

A higher percentage of Elderly populations are present in Block Group 4, CT 9710 when compared to the county averages. This Block Group encompasses the residences within the project area that are adjacent to KY 15. Further analysis and coordination will need to occur to determine whether any EJ impacts will occur to these populations. Given the scale of the project, avoiding direct impacts to residences occupied by low income or minority residents will be key to avoiding potential environmental justice impacts.

**3.7.2 Business Impacts**

Only one business, a self-storage facility at the intersection of Fly By Hazard Road and Justin Avenue, is located within the Scoping Study APE.



### **3.7.3 Agriculture**

Land within the APE is predominantly forested and former coal mining property; therefore, the provisions of the Farmland Protection Policy Act (7 CFR 658) do not initially appear to apply to this project. There is no farmland within or adjacent to the APE and it is not expected that this project will result in any impacts to farmland in Perry County; further investigation should occur during project development to confirm that coordination with the Natural Resources Conservation Service (NRCS) is not required.

## **4.0 EARLY COORDINATION AND PUBLIC INVOLVEMENT**

A Stakeholders Meeting was held on April 26, 2018, at the Kentucky River Area Development District's Conference Center in Hazard. The corridors that are under study were presented to members of the Airport Board, local officials, and local economic organizations at this meeting. The purpose of the meeting was to review the alternatives that are currently included in the Scoping Study, the purpose and need of the project, as well as proposed design criteria. A question and answer session followed, and stakeholders asked questions of the team regarding design, project funding, impacts to the airport, and other miscellaneous topics. See Appendix E for a copy of the meeting minutes.

Coordination with the appropriate agencies, as well as public involvement activities, will occur throughout project development.