APPENDIX D.

ENVIRONMENTAL OVERVIEW

ENVIRONMENTAL OVERVIEW

KY 30 SCOPING STUDY

FROM US 421 AT TYNER TO KY 11 NEAR BOONEVILLE
OWSLEY-JACKSON COUNTIES
ITEM NO. 10-279.50

BY:

PALMER ENGINEERING COMPANY, INC.
WINCHESTER, KENTUCKY
&
WILBUR SMITH ASSOCIATES

FOR:

WILBUR SMITH ASSOCIATES
LEXINGTON, KENTUCKY

SEPTEMBER 2001

ENVIRONMENTAL OVERVIEW

for

RECONSTRUCTION OF KY 30
OWSLEY-JACKSON COUNTY
ITEM NUMBER 10-279.50

Prepared For

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ENVIRONMENTAL OVERVIEW
for
Owsley-Jackson County: KY 30 Scoping Study: Item No. 10-279.50

Introduction

This report presents a general overview of the social, economic, and environmental (SEE) framework of the proposed project area. It outlines key SEE issues, which may represent constraints upon project location within the study corridor. Also, preliminary evaluations of community impact, environmental justice, and other socioeconomic factors have been conducted to determine the need for avoidance considerations. The information presented is based on readily available public records and archival research supplemented with field reconnaissance and "windshield surveys".

General Characteristics of the Project Area

Project Description and Purpose

The existing KY 30 corridor is a narrow, two-lane, winding roadway through mountainous terrain with little or no shoulder. Due to geometric deficiencies in the roadway, such as poor sight distance, poor vertical and horizontal curves, lack of passing zones and blind entrances, speeds from 15 to 45 mph are normally required for driving. The proposed project is the reconstruction of KY 30 from US 421 at Tyner in Jackson County to KY 11, just west of Booneville in Owsley County. The study corridor alternates are approximately 2000 feet in width, designated as corridors A1, B1, C1, D1, A2, B2 and C2 (see Exhibit 1). Alternate corridors may be further refined after public responses have been received.

There are several purposes for this project. Primarily, the project will provide safer driving conditions along KY 30, which creates an additional benefit in travel time savings for local residents traveling to work, shopping centers, and medical facilities. The project will also create better access to the surrounding highway system providing improved statewide and regional access for Jackson, Owsley, and surrounding counties. Additionally, truck access to and from local industries would be greatly improved. Finally, the economic development this project is expected to bring for local communities in the project area is very important to the future quality of life in the area.

Project Area Physiological Characteristics

The majority of Jackson and Owsley Counties are within the Eastern Coal Fields physiographic region. A small part of the western edge of Jackson County is within the eastern Pennyroyal physiographic region. The project area contains three geologic formations—Alluvium, Breathitt, and Breathitt and Lee.

The Alluvium formation consists of sand, silt, clay, and gravel intermixed and is 0-20 feet thick. It is located along Sturgeon Creek and Buck Creek.

The Breathitt Formation consists of sandstone, siltstone, shale, and coal and is from 100 feet to greater than 675 feet thick. This formation contains the Manchester coal bed and the Gray Hawk

coal bed. Instability of thick sequences of shale and siltstone is a factor affecting construction projects since steepening of slopes by artificial cuts may cause landslides.

The Breathitt and Lee formation, located near Tyner, consists of sandstone, shale, and coal and can be up to 450 feet thick.

In the project area the predominant mineral resource is coal. In the Booneville quadrangle, the chief economic beds are the Jellico, Upper Elkhorn Number 3, the Amburgy coal zones, and the Copland coal bed. Oil and natural gas can be found throughout the project area. It is generally in small quantities but in some locations commercial production has occurred.

Project Area Soils

The Shelocta-Gilpin and Gilpin-Shelocta-Rayne are the two dominant soil associations for the project area. The Shelocta-Gilpin soil association has deep and moderately deep, well-drained, steep to gently sloping soils that have a loamy subsoil. It is found on long hillsides and ridgetops. Most areas of this map unit consist of hardwood forest with scattered pine plantations. The Gilpin-Shelocta-Rayne soil association has moderately deep and deep, well-drained, steep to gently sloping soils that have a loamy subsoil. It is found on hillsides and ridges. The less steep areas have been cleared and are used for hay and pasture crops, while the steeper side slopes and narrow pointed ridges are in hardwoods with scattered pine plantations. There are also several mapping units and complexes found within the project area that are described in Appendix B.

Project Area Water Resources

There are numerous streams located in the project area. The main streams in the area with the largest watersheds are Sturgeon Creek at the beginning of the project, near Tyner, and Little Sturgeon Creek near the middle of the project corridor. The named tributaries, in the corridor, that contribute drainage to Sturgeon Creek are Herd Fork, Rocky Branch, and Wilfreds Fork. At the end of the corridor, outside of the corridor's limits, is the South Fork of the Kentucky River. The only stream from the project's corridor that drains into the South Fork of the Kentucky River is Buck Creek.

Project Area Land Use

Much of the project area is wooded with long and narrow ridgetops, valleys, and steep hillsides. Agriculture is limited to narrow valleys with the predominant agriculture cash crop being tobacco. Manufacturing in the project area and nearby counties provides most of the employment. There is one mining operation and several local businesses currently in the project area. There are no industrial enterprises located within the project area, however, industrial parks are located in McKee and Booneville.

The majority of the development currently in the project is single family residential and farm-related outbuildings. There is one trailer park in the corridor but no apartment complexes or multi-family buildings. Most of the dwellings are on isolated parcels with farm-related outbuildings located on flatter terrain. There are no large concentrations of houses or residential subdivisions

found in the corridor. Jackson and Owsley County have no formal land use plan or zoning ordinances. No official existing or future land use plans incorporating the project corridor currently exist.

Project Area Climate

In Jackson and Owsley Counties summers are hot in the valleys and slightly cooler on the hills with moderately cold winters. Precipitation averages 50 inches annually with 50 percent falling between April and September. The average winter temperature is 38° F and the average summer temperature is 74° F. The average length of the growing season 9 out of 10 years is 181 days with a daily minimum temperature of 58° F during the growing season.

Existing Social and Economic Characteristics of the Project Area

1. Population

Jackson County's population reached its peak in 1940 with 16,339 residents and continued to decline until 1980 when the county's population experienced its first increase. The population in 1970 was 10,005 and increased 20 percent to 11,996 in 1980. In 2000, Jackson County's population was 13,495 and is expected to grow as much as 14,619 by the year 2020, according to population forecasts developed by Kentucky State Data Center.

Owsley County's population has followed a similar trend to Jackson County by having reached its population peak in 1940. Owsley County has been on a decline from 1940 until 1970 and 1980 when the population increased 14 percent from 5,023 to 5,709. In 2000, Owsley's population was 4,858 and is expected to grow as much as 5,651 by the year 2020 according to the population forecasts developed by Kentucky State Data Center.

The project area is comprised of Census Tracts 9601 and 9902. Project specific demographic data released to these Census Tracts will need to be acquired in future project phases to enable accurate comparisons of alternates.

2. Ethnic Characteristics

According to the Bureau of Census, less than 1 percent of both Jackson County and Owsley County's population were non-white. In the project corridor, Census Tract information on persons listed as white, as black, and as other (Asian, Korean, and Vietnamese), will need to be acquired in future phases.

3. Housing Resources

Data compiled from the 1990 Census shows that Jackson County had 4,895 year round housing units, of which 4,381 were occupied. From the remaining balance, 125, were for sale or for rent. Of the inhabited units, 3,381 were owner occupied and had a median value of $26,900. The 1,000 other inhabited units were renter-occupied with a median rent of $106 per month.

The 1990 Census data shows that Owsley County had 2,137 year round housing units, of which 1,848 were occupied. From the remaining balance, 53, were for sale or for rent. Of the inhabited units, 1,381, were owner occupied and had a median value of $24,400. The 467 other inhabited units were renter-occupied with a median rent of $110 per month.

Within the specific project corridor Census Tracts, homes listed as having a market value in the range of $20,000 to $30,000; $30,000 to $40,000; $40,000 to $50,000 range; and above $50,000 will need to be identified in subsequent phases, to gage the extent of potential impacts among viable alternates.

4. Labor Force

The Jackson County labor market area had an estimated supply of 30,330 persons available for work in 1999. The labor market area includes Jackson County and adjoining counties of Madison, Estill, Lee, Owsley, Clay, Laurel, and Rockcastle. The Owsley County labor market had an estimated supply of 12,428 persons available for work in 1999. The labor market area includes Owsley County and adjoining counties of Lee, Breathitt, Perry, Clay and Jackson.

5. Industry and Employment

Jackson and Owsley Counties both work to expand industry within their borders. The Jackson County Empowerment Zone Community, Inc. and Jackson County/McKee Industrial Development Authority have worked together to recruit new industry or expand existing businesses. Jackson County has three industrial parks including the McKee Industrial Park, Jackson County Regional Industrial Park, and the Jackson County Northern Industrial Park. Economic development officials are exploring the possibilities of developing a fourth park near the McKee Industrial Park. Booneville/Owsley Industrial Authority has helped develop the Owsley County Industrial Park. The park currently has three buildings but has the capability of developing the park to encompass 100 acres. Officials from both counties offer incentives to new industries that would like to locate in either Jackson County or Owsley County or to any existing company that wishes to expand its work force.

In 1999, manufacturing was the major employment sector in Jackson County employing 1,135 people. In Owsley County, the major employment sector was state and local government employing 341 people.

6. Per Capita Personal Income

Per capita personal income in Jackson County increased 19 percent from $11,658 in 1995 to $13,879 in 1998. Per capita personal income in Owsley County increased 18 percent from $10,848 in 1995 to $12,754 in 1998. Both Kentucky and the United States had an increase of 15 percent over the same time period. Within the project Census Tracts, the number of households by recorded income ranges, and the number of families below the poverty level will need to be identified during subsequent phases in order to assess potential project impacts relevant to environmental justice factors and community impact determinants.

expected to continue for the future. Additionally, the project does not interfere with any current zoning or development plans in Jackson or Owsley Counties.

4. Farmland

Farmland is not an abundant resource in the project area. In 1998, total cash receipts from Jackson and Owsley County reached $ 12M and $ 4M, respectively, with receipts from crops being greater than livestock. The agriculture use is a mixture of pasture, row crops, and hayfields with the predominant cash crop being tobacco. Some individual farms in the corridor may be negatively affected, depending on the corridor selected. The farmland conversion required by any of the alternates could represent a serious net loss of farmland along the project corridor. Efforts should be made in subsequent project phases to further determine the effects of the recommended corridor on individual farms and reduce land conversion impacts by design modifications, wherever practical. Coordination with the Natural Resources Conservation Service (NRCS) and development of the FPPA impact assessment evaluations may also be required.

Air Quality Considerations

The US Environmental Protection Agency (EPA) has established criteria for ambient levels of common transportation related air pollutants including ozone, carbon monoxide (CO), oxides of nitrogen (NOx) and total suspended particulates (TSP). The Kentucky Natural Resources and Environmental Protection Cabinet (KNREPC) has adopted these same air quality standards. These National Ambient Air Quality Standards (NAAQS) have been promulgated to represent the maximum allowable air pollutant levels and characterize conditions that pose no significant threat to human health and welfare.

Pursuant to the 1990 Clean Air Act Amendments, the project area has been designated an attainment area for all transportation-related pollutants (CO, HC, NOx, and TSP). This project is in an area that does not require transportation control measures. Therefore, the Amended Final Conformity Guidelines issued by the EPA and the U.S. Department of Transportation will not apply for this project. With respect to the latest conforming State Transportation Improvement Program (STIP), the proposed project is located on page 294 of the STIP, Fiscal Years 2001-2006, approved in October of 2000. Mobile source air pollution is not a problem in the project area and the existing ambient air environment is well within National Ambient Air Quality Standards (NAAQS).

Based on project corridor "windshield" surveys and inspections, no air quality sensitive land uses or susceptible sites were observed. With the location of the corridor being in an attainment area and traffic volumes predicted for the design year (2020) expected to be low, it is anticipated that concentrations of carbon monoxide will remain below both the one-hour standard (35ppm) and the eight-hour standard (9ppm) regardless of the corridor selected. In accordance with the Kentucky Transportation Cabinet (KYTC)/Department of Environmental Analysis (DEA) Position Paper 006-2000, a microscale analysis following the guidance specified in *Air Quality Guidance for Project Level Analysis*, revised October 2000, will be required for this project. Within the study corridor there are approximately10 potential air receptors. Project level emission inventories shall not be developed because the project originates from a conforming STIP.

Finally, construction period air quality impacts will need to be evaluated to expose the potential short-term effects of site preparation, demolition, materials storage and construction actions to determine if any appropriate mitigation commitments are to be incorporated into the project plans.

Highway Noise Considerations

Highway noise levels, at this time, are not expected to be a major concern on this project because most of the adjacent land use is undeveloped farmland. Most receptors are isolated single structures, and several of the potential receptors (residences) may be acquired for project construction. Within the study corridor there are approximately 20 potential noise receptors. With no concentrations of impacted noise receptors throughout the project area, noise mitigation by sound barriers would not be practical due to cost-benefit considerations as outlined within the context of KYTC's Noise Abatement Policy. Given the rural nature of the project area, the vehicle mix, traffic volumes, and the general absence of sensitive receptors, highway noise impacts are not expected to influence project feasibility or location decisions. However, a project specific noise impact analysis will be required in upcoming phases to verify noise impact conditions using the procedure for conducting field monitoring based on Federal Highway Administration (FHWA) requirements and the KYTC Noise Abatement Policy.

Water Quality and Aquatic Ecosystems

The watershed within the project area is composed of three main creeks and their tributaries. The named tributaries within the project area that contribute to Sturgeon Creek are Herd Fork, Rocky Branch, and Wilfreds Fork. All of these streams appear to have good habitat for macroinvertebrates and fish. Sturgeon Creek is considered to have a Class 1 Botanical Resource corridor character from river mile 13.7 to 15.6 in Owsley County. In some areas of Sturgeon Creek, the riparian zone provides a dense canopy that shades the entire stream width. Little Sturgeon Creek has numerous tributaries which are mostly first order streams including Hartsock Branch, Rowlette Branch, Beals Fork, Wilson Fork, and some unnamed tributaries. All of these streams have the potential to support fish and macroinvertebrate populations. Buck Creek appears to be a second order stream. This stream, like the previously discussed streams, appears to have habitat that would be conducive to supporting fish and macroinvertebrate populations.

Which corridor is chosen and where it is located relative to the stream will determine the need for any channel changes. At the very least, a culvert or bridge will be needed to cross the area streams, which may not cause adverse affects to the streams. An increase in non-point source discharges to the streams may occur with road construction.

No wellhead protection areas are located within the corridor. There are numerous domestic use water wells in the corridor. Most of the wells are concentrated around the community of Travellers Rest. Others are scattered throughout the project corridor.

According to the "Availability of Ground Water in Bell, Clay, Jackson, Knox, Laurel, Leslie, McCreary, Owsley, Rockcastle, and Whitley Counties, Kentucky", in the project there are two geologic formations that are important to the hydrology of the area. The Breathitt Formation yields water from sandstone, shale, and coal. Joints and openings along bedding planes supply most of the

water to wells. Drilled wells in the project area that are in the valley bottoms are adequate for a minimum domestic supply of 100 gallons per day (gpd) and some are adequate for a modern domestic supply of more than 500 gpd. A few springs supply sufficient quantities of water for domestic use. The chemical character of the water is highly variable. Most of the wells are moderately hard and contain noticeable amounts of iron. Salty water is found in a few drilled wells.

Sandstone is the principal aquifer of the Lee Formation, but shale yields water to some wells and coal to a few. Joints and openings along bedding planes, best developed in sandstone, supply most of the water to wells. Most of the wells drilled in the valleys are adequate for modern domestic supply. Nearly all the wells in the valleys are adequate for a minimum domestic supply. A few springs supply sufficient quantities of water for a domestic use. Water from most of the wells is soft or moderately hard and contain noticeable amounts of iron.

The surface streams and groundwater in the project have all been impacted by human activities within their drainage areas. The most noticeable impact to surface water will be bridged crossing of the streams as well as unbridged crossings. Additionally, agricultural practices contribute fertilize, pesticide, and herbicide chemicals to the streams that receive runoff from these agricultural areas. Groundwater in the area has been impacted by the same pollution contributing forces that influence surface water quality. The construction of this project will initially increase the amount of erosion ground and surface water sources receive. There will also be an increase in non-point source pollution after the construction of this project. Careful consideration must be given to erosion control methods and to decreasing the amount of non-point source pollution that reaches surface and groundwater.

Wild and Scenic Rivers

No wild and scenic rivers or Outstanding Water Resources, as reported by the KNREPC, are found in the project study area. There are no exemplary natural communities, natural areas, recreational areas or wildlife and waterfowl refuges within the project area. Additionally, there are no outdoor recreational land and water areas or facilities established from grants-in-aid from the Land and Water Conservation Fund Act (LWCF) (Appendix B).

Wetlands

National Wetland Inventory (NWI) maps for Tyner, Maulden, Sturgeon, and Booneville Quadrangles were reviewed to determine the presence of wetlands in the corridor and are indicated in Exhibit 2.

The Tyner Quadrangle showed extensive riverine wetland that extended the entire length of Herd Fork in the project area. The NWI map categorized this wetland as riverine, lower perennial, unconsolidated bottom, permanently flooded.

The Maulden Quadrangle indicated another riverine, lower perennial, unconsolidated bottom, permanently flooded wetland along Maulden Branch, which may or may not be in the project area.

The Sturgeon Quadrangle NWI map indicates numerous wetlands in the overview corridor.

Most of these wetlands are riverine and follow the numerous streams in the area. Sturgeon Creek has a riverine, lower perennial, unconsolidated bottom, permanently flooded wetland following much of its reach. Near Elias, located on the broad floodplain of Sturgeon Creek is a palustrine, forested, broad-leaved deciduous, temporarily flooded wetland. In this same area, are two, palustrine, scrub-shrub, broad-leaved deciduous wetlands. One of these scrub-shrub wetlands has a water regime of being temporarily flooded and the other is seasonally flooded and modified by a dike or an impoundment. The Sturgeon Quadrangle NWI map also indicated a wetland north of Elias along KY 30. This wetland is palustrine, emergent, persistent, and semi-permanently flooded. This wetland has been impounded or otherwise modified by man. Another palustrine, emergent, persistent, and semi-permanently flooded wetland is northeast of Travellers Rest. Another riverine wetland on the Sturgeon Quadrangle follows the course of Little Sturgeon Creek. North of Travellers Rest, this portion of the creek has a riverine, lower perennial, unconsolidated bottom, permanently flooded wetland along its reach. South of Travellers Rest, can be found several palustrine, forested, broad-leaved deciduous, temporarily flooded wetlands. There is also one palustrine, emergent, persistent, and semi-permanently flooded wetland. This wetland has been impounded or otherwise modified by man. Farther up the stream's reach the riverine wetland changes characteristics and becomes a riverine, intermittent, streambed that is seasonally flooded. Rowlette Branch has a riverine, lower perennial, unconsolidated bottom, permanently flooded wetland. There are several scrub-shrub wetlands that can be found in Rowlette Branch's floodplain. Both of the unnamed tributaries that connect to Rowlette Branch have riverine, lower perennial, unconsolidated bottom, permanently flooded wetlands along their reaches.

The Booneville Quadrangle indicates riverine, lower perennial, unconsolidated bottom, permanently flooded wetlands along Buck Creek. There are two palustrine, emergent, persistent, semi-permanently flooded wetlands that have been excavated west of Booneville. These palustrine wetlands are located on a reclaimed mine site. There are three possible scrub-shrub wetlands located in "The Sag" area near Booneville.

Direct impacts for this project could be more than the area threshold. If mitigation is justified, coordination with the Army Corp of Engineers (COE) will be necessary. The COE may require a Nationwide Permit #14 under Section 404 of the Clean Water Act, which requires notifying the COE and mitigation for any non-tidal waters of 0.5 acres or tidal and adjacent waters of 0.3 acres and 200 linear feet. Impacts any greater than those for a Nationwide Permit #14 will require an Individual Permit. Wetland encroachment with any placement of fill material will require cooperation with the KNREPC-DOE and may require a 401 Water Quality Certification permit. The various ponds in the area will not require mitigation but replacement should be considered for the ponds taken by the project to maintain sediment retention capabilities and wildlife habitat.

Floodplains

Several streams within the project corridor have floodplain areas (Exhibit 2). Sturgeon Creek appears to have a wide, well-defined floodplain throughout most of the project corridor. Little Sturgeon Creek also has a well-defined floodplain. In some areas, this floodplain has been cleared and used for growing crops, livestock pasture or residential dwellings. This stream has numerous tributaries, which are mostly first order streams, including Hartsock Branch, Rowlette Branch, Beals Fork, Wilson Fork, and some unnamed tributaries. All of these tributaries appear to have a defined

development both for residential construction and for agricultural uses. The completion of this project may eliminate some flora and faunal species, but the impacts will be minimal when compared to the impacts that have already occurred in the area.

Threatened or Endangered Species

Information from the Kentucky Department of Fish and Wildlife Resources (KDFWR) and U.S. Fish and Wildlife Service (USFWS) indicated no federally listed endangered or threatened species occurring within the project area. Information from the Kentucky State Nature Preserves Commission (KSNPC) states there is the possibility of two special concern species in the project area. Kentucky lady's slipper (*Cypripedium kentuckiense*) and the Rafinesque's big-eared bat (*Corynorhinus rafinesquii*) are both KSNPC special concern species that have been identified by the KSNPC. KSNPC also states the Indiana bat (*Myotis sodalis*) is known to occur in Jackson County and Sturgeon Creek supports a high diversity of native mussels species (Appendix B). Further fieldwork is necessary in subsequent project phases to determine if these species exist in the project's corridor and within right-of-way limits.

Cultural Historic Resources Evaluation

This overview was completed by visiting the Kentucky Heritage Council (KHC) to obtain information which shows any previously recorded historic properties in the project area. No fieldwork or detailed archival research was conducted for this project. During the records research and compilation of data for the project's Geographic Information System (GIS) mapping, it became apparent that the coordinate data for some historic property locations contain coordinate errors of unknown magnitude and that some survey forms of potential historic locations are not on file at KHC. The coordinate data used was obtained from the Kentucky Archaeological Survey, which is developing the KHC Historic Properties GIS. The survey forms that were not on file did not occur at any sites that were in the project area.

Research from the KHC indicates that there are 57 historic properties recorded in and near the project area. Of the 57 historic properties, 21 are located in downtown Booneville and will not be affected (Exhibit 2). Of the remaining properties, one is recorded twice (Ow2 and Ow3, the Ross Levi House). There are 22 historic residences, dating from the mid 19th century to the 20th century, 1 store/commercial building, 4 schools/churches, 1 other (bridges, road, etc.), and 8 historic properties of unidentified or unknown function (Appendix C).

For the properties recorded in the study region, no information is available on their National Register status. Since no field research was conducted, it is not known how many of these recorded properties have been demolished, or altered to the point that they would not be considered eligible for nomination to the national Register of Historic Places. A final determination of eligibility of potential sites and National Register boundaries cannot be determined until each site has been examined more closely and site-specific archival research has been completed in subsequent project phases.

Archaeological Resources Evaluation

A review of the Office of State Archaeology (OSA) records at the University of Kentucky was completed for the overview with no fieldwork or detailed archival research being performed. Based on this search, twenty archaeological sites were recorded within one (1) mile of the proposed corridors (Appendix D). The majority of the documented sites are at elevations between 900 feet and 1010 feet reflecting habitation on the ridge tops in this region. Thirteen of the 20 archaeological sites have historic components with most of them being dwellings or farmstead sites. A total of five sites were prehistoric including one Early Archaic Site (15Ja472), three Late Archaic Sites (15Ow32, 15Ow55, 15Ja476), and one Woodland site (15Ja476). Thirteen sites were listed as Historic (15Ow48, 15Ow57, 15Ow58, 15Ow59, 15Ow60, 15Ow61, 15Ow62, 15Ow113, 15Ow114, 15Ow115, 15Ow116, 15Ow120, 15Ja476). Six sites were listed as indeterminate due to a lack of information (15Ow54, 15Ow56, 15Ow114, 15Ja472, 15Ja474, 15Ja476). None of these sites are documented as having been assessed for National Register Eligibility (Exhibit 2).

The presence of previously recorded archaeology sites and suspected historic archaeological sites within the area of potential effect, suggest that unrecorded archaeological sites will be encountered. Such sites and known historic sites will likely require intensive investigation if looting has not previously destroyed them, which has been a significant problem in Jackson County. Phase I archaeology survey work should be conducted in future project phases focusing on ridgetops, valley bottoms and in many of the sandstone cliff lines and overhangs. It is also very likely, that there is a serious under-enumeration of sites in neighboring Owsley County, based on the much higher number of sites recorded in Jackson County, where Daniel Boone National Forest archaeologists have recorded many historic and prehistoric sites. The recorded prehistoric sites should be field verified for existence because they might have been destroyed during previously funded highway work (Appendix D).

UST/Hazmat Considerations

A government records search, in addition to preliminary screening/windshield survey of the project area, was performed to locate any current or formerly listed UST sites as well as all mappable CERCLA, RCRA, and ERNS sites (Appendix E). No NPL sites are listed as occurring in the project area.

Records research revealed three sites of potential environmental concern within the project area.

The first site was formerly Bo's Grocery Store. Records from the Kentucky Registered Underground Storage Tank (UST) database indicate that three 3,000-gallon steel USTs, two containing gasoline and one containing diesel, were removed from the site on July 8, 1998. A 280-gallon steel UST containing gasoline reportedly remains on site, but is temporarily closed. During the site visit, a vent pipe was observed in the area of the former tank pit.

The second site is the Roberts property. Records from the Kentucky Registered Underround Storage Tank database indicate that a 1,000-gallon steel UST and a 560-gallon UST, both containing gasoline, are currently at the Roberts site. Gary Roberts, the site owner, stated that the USTs were

removed in December 2000. Mr. Roberts further stated that he has been informed by the company that removed the tanks that some form of remediation may be required at the site.

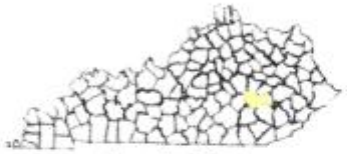
The third site is Vickers Enterprise, Incorporated. Records from the Kentucky Solid Waste Facility database indicate that this site was an approved bioremedial recycling site. This site was not located during the site visit. The site contact, Mr. Randall Vickers, listed in the Kentucky Solid Waste Facility database, stated that he has never owned a registered solid waste facility. Therefore, this site does not appear to represent an environmental concern to the project area but further research of the site may be required if the preferred corridor affects this site.

One former UST site that was not listed in the regulatory review, Handy Mart, was observed during the field reconnaissance. Personnel at Handy Mart stated that the site was a gas station until about 1986. The USTs were reportedly removed from the site at that time and no further action was required. No evidence of USTs or activities that would have an environmental impact was observed at the time of the site visit. Therefore, this site does not appear to represent an environmental concern to the project corridor.

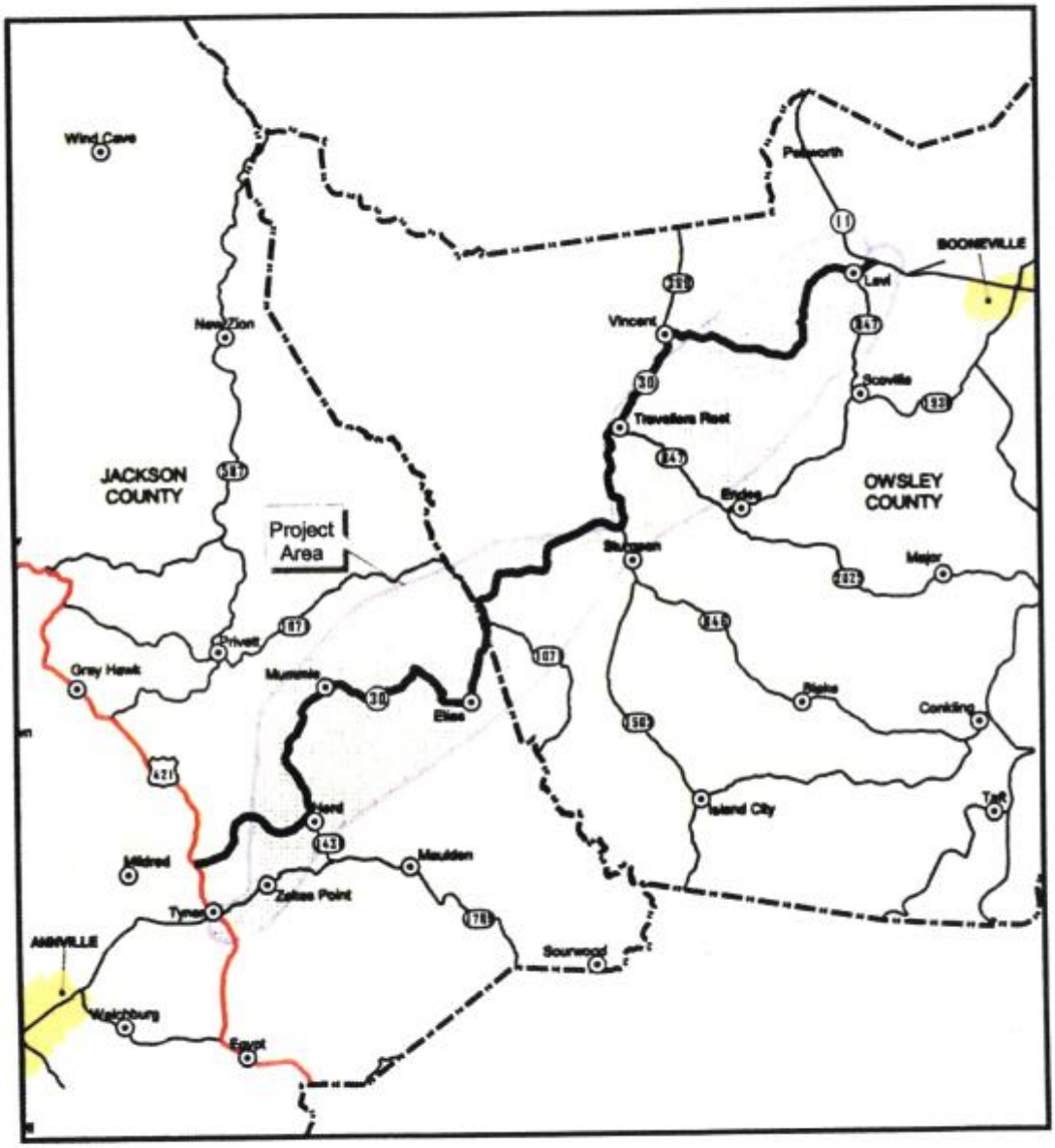
Several above ground gasoline/diesel storage tanks (AST), used mainly for farming purposes, were observed in the project corridor. Any ASTs encountered during the right-of-way acquisition phase should be accounted for during normal right-of-way acquisition procedures and should be decommissioned in accordance with ASTM standard practices.

Residential heating requirements throughout the area are met through the use of electricity and propane. Several propane tanks were observed throughout the project corridor. The removal of propane tanks should be accommodated routinely during the right-of-way acquisition phase.

An Environmental Site Assessment of the project area, conducted in accordance with ASTM Practice E 1527 and KYTC guidance, should be accomplished during any future National Environmental Policy Act (NEPA) phases of the project to formally confirm UST/HZM findings. Based on currently available information, there are three sites that require additional considerations in future project phases because they could potentially impact decisions on the designated corridor.



Location Map



2 0 2 Miles

EXHIBIT I

Legend

- Project Area
- U.S. Highways
- State Highways
- Local Roads

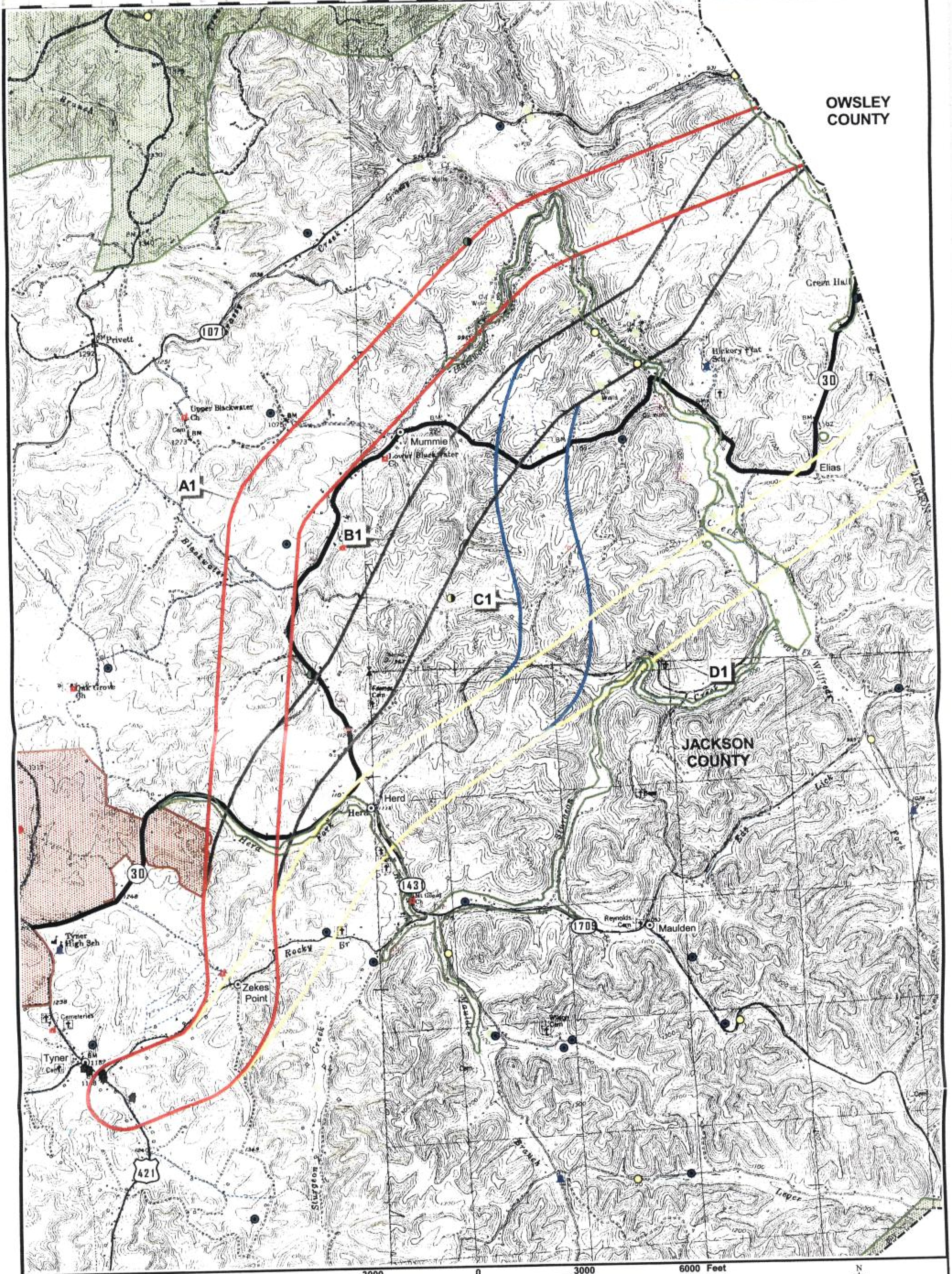
EDUCATION PAYS

Wilbur Smith Associates

KY 30
Project Location

Owsley and Jackson Counties
Item No. 10-279.50

Printed: 3/25/02



3000 0 3000 6000 Feet

Historical Structures	Waterwells	Water Lines	Corridor A1
Antenna Structures	Cemetery	Streams	Corridor B1
Underground Storage Tanks	Church	Agricultural District	Corridor C1
Abandoned Mine Lands	School	Wetlands	Corridor D1
EPA Pollutant Discharge Site	Oil well	U.S Forest Service	
Superfund Site	Gas Well	Lake	
Illegal Dump Site	Dry and Abandoned Well	Archaeological Area	
Coal Exploration Sites	Water Tanks		

Location Map

EDUCATION PAYS

Wilbur Smith Associates

EXHIBIT 2

KY 30
Environmetal Footprint
Jackson County Alternates
Owsley and Jackson Counties
Item No. 10-279.50

Printed: 3/21/02

LEE COUNTY

OWSLEY CO

Pebworth

11

399

Levi

847

A2

Vincent

B2

Scoville

Travellers Rest

C2

Endee

30

A1, B1, C1

OWSLEY COUNTY

202

Sturgeon

846

D1

107

1503

JACKSON COUNTY

3500 0 3500 7000 Feet

N W E S

Historical Structures
Dams
Underground Storage Tanks
Abandoned Mine Lands
EPA Site [RCRIS]
Illegal Dump Site
Coal Exploration Sites
Waterwells

Cemetery
Church
School
Oil well
Gas Well
Dry and Abandoned Well
Well Location
Water Tanks

Water Lines
Streams
Wetlands
U.S Forest Service
Lake
Archaeological Area

Corridors A1, B1, C1
Corridor A2
Corridor B2
Corridor C2

Location Map

EXHIBIT 2

KY 30
Environmetal Footprint
Owsley County Alternates
Owsley and Jackson Counties
Item No. 10-279.50

EDUCATION PAYS

WilburSmith Associates

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