

T & E Habitat Assessment Report

P Ridge Processing Site Daviness and Ohio Counties, Kentucky

Prepared for:

Western Kentucky Minerals

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Location

The proposed permit study area is located in Daviess and Ohio Counties. It is approximately 10 miles northwest of Hartford, in Ohio County (Utica USGS 7.5 minute topographic quadrangle), with its center at Latitude: 37° 34' 54" N, Longitude: 87° 00' 16" W. The site can be accessed from Boling Road, off US 231 north of Hartford.

Background and Description

The entire site was mined in the past (KY Dept. Natural Resources, accessed March, 2013) and subsequently reclaimed. Topography in the area generally consists of level to rolling terrain. The 34.1-acre study area (including the haul road) consists of a mix of land uses, with some forest (approximately 6 acres), agricultural lands (approximately 10 acres pastured or tilled), and open waters (approximately 3.2 acres). The forest age ranges from mature, second-growth forest to young forest comprised of saplings and thick undergrowth. Dominant tree species include maple species, river birch, sycamore, and black willow.

The majority of soils in the proposed project area include the Fairpoint Series, well-drained soils formed from material moved in mining coal, with the Loring Series, moderately well-drained soils with a fragipan, and the Waverly Series, poorly drained soils that are nearly level.

The geologic formations underlying the project site are made up of Pleistocene age Tazewell Formation Lower Alluvium and lacustrine deposits, undifferentiated, and Middle Pennsylvanian age Tradewater and Caseyville Formations with unnamed coal beds and unnamed limestone beds.

During stream and wetland investigations of the site (January and April, 2013), six wetland sites, four intermittent and six ephemeral stream reaches were identified on the proposed project area. The proposed project is located in the Rough River drainage area.

The photographs below indicate general conditions on the P. Ridge Processing site.







The federally endangered Indiana bat (*Myotis sodalis*) has the potential to occur in Daviess County and Ohio County Kentucky (USFWS 2008, accessed March 13, 2013). The Kentucky Fish and Wildlife Information System shows 5 recorded Indiana bat observations for Daviess County (KDFWR 2010, accessed March. 13, 2013). Ohio County has no records to date of Indiana Bats. There are no Priority 1-4 caves listed in the Indiana bat's Recovery Plan for the county (USFWS 2007). Based on the available information, no "known habitat" occurs in the study area or within a 10-mile radius.

The Indiana bat hibernates in winter in larger caves and mines that have extensive passages with stable temperatures of less than 10 degrees Celsius (USFWS 2007). No potential caves for winter habitat were identified in the project area.

The forested streams and the large open water pond and surrounding wetland areas may provide maternity or forage habitat for the federally endangered Indiana bat. A summer survey for Indiana bat presence has not been conducted.

In addition to the potential presence of the Indiana Bat, the Kentucky Department of Fish & Wildlife Resources lists several other federally listed species as recorded from Daviess County. They include:

Nerodia erythrogaster neglecta (Copperbelly water snake), also State listed

Plethobasus cyphus (Sheepnose)

Quadrula cylindrica cylindra (Rabbitsfoot)

The Kentucky Department of Fish & Wildlife Resources list the following federally endangered species with occurrences from Ohio County.

Cyprogenia stegaria (Fanshell)

Pleurobema clava (Clubshell)

There are no known records of federally listed species on the Utica quadrangle specifically. It is unlikely that any of the above-documented mussel species would occur on the project boundary, since they are known to occur in larger river habitats.

The Copperbelly water snake could possibly occur within the project boundaries. This snake likes low swampy areas, wooded lakes and streams, and the areas between these habitat types.

The table below indicates State listed (KDFWR) species with potential to occur within the proposed project boundary. Any State listed species observed during assessments in the project area will be documented and reported to Kentucky Department of Fish & Wildlife Resources to include in their data base compilation.

Scientific Name	Common Name	County	US Status	State Status
<i>Ammodramus henslowii</i>	Henslow's Sparrow	Ohio	N	S
<i>Anas clypeata</i>	Northern Shoveler	Ohio	N	E
<i>Anas discors</i>	Blue-winged Teal	Ohio	N	T
<i>Ardea alba</i>	Great Egret	Ohio	N	E
<i>Asio flammeus</i>	Short-eared Owl	Ohio/Daviess	N	E
<i>Asio otus</i>	Long-eared Owl	Ohio/Daviess	N	E
<i>Botaurus lentiginosus</i>	American Bittern	Ohio	N	H
<i>Circus cyaneus</i>	Northern Harrier	Ohio	N	T
<i>Clonophis kirtlandii</i>	Kirtland's Snake	Ohio	N	T
<i>Cyptobranchus alleganiensis alleganiensis</i>	Eastern Hellbender	Ohio	N	S
<i>Egretta caerulea</i>	Little Blue Heron	Ohio	N	E
<i>Egretta thula</i>	Snowy egret	Ohio	N	E
<i>Erimyzon sucetta</i>	Lake Chubsucker	Ohio	N	T
<i>Fulica americana</i>	American Coot	Ohio, Daviess	N	E
<i>Gallinula galeata</i>	Common gallinule	Ohio	PS	T
<i>Haliaeetus leucocephalus</i>	Bald Eagle	Ohio Daviess	N	T
<i>Hybopsis amnis</i>	Pallid Shiner	Ohio	N	E
<i>Hyla avivoca</i>	Bird-voiced Treefrog	Ohio	N	S

<i>Hyla cinerea</i>	Green Treefrog	Ohio	N	S
<i>Ichthyomyson castaneus</i>	Chestnut Lamprey	Ohio	N	S
<i>Ictiobus niger</i>	Black Buffalo	Ohio, Daviess	N	S
<i>Ixobrychus exilis</i>	Least Bittern	Ohio, Daviess	N	S
<i>Acipenser fulvescens</i>	Lake Sturgeon	Daviess	N	E
<i>Chondestes grammacus</i>	Lark Sparrow	Daviess	N	T
<i>Corvus ossifragus</i>	Fish Crow	Daviess	N	S
<i>Farancia abacura reinwardtii</i>	Western Mud Snake	Daviess	N	S
<i>Hybognathus hayi</i>	Cypress Minnow	Daviess	N	E
<i>Junco hyemalis</i>	Dark-eyed Junco	Daviess	N	S
<i>Lampsilis ovata</i>	Pocketbook	Daviess	N	E
<i>Notropis hudsonius</i>	Spottail Shiner	Daviess	N	S
<i>Nycticeius humeralis</i>	Evening Bat	Daviess	N	S
<i>Pandion haliaetus</i>	Osprey	Daviess	N	T
<i>Pheucticus ludovicianus</i>	Rose-breasted Grosbeak	Daviess	N	S
<i>Podilymbus podiceps</i>	Pied-billed Grebe	Daviess	N	T
<i>Rana Areolata circulosa</i>	Northern Crawfish Frog	Daviess	N	S
<i>Riparia riparia</i>	Bank Swallow	Daviess	N	S
<i>Thamnophis sauritus sauritus</i>	Eastern Ribbon Snake	Daviess	N	S
<i>Thryomanes bewickii</i>	Bewick's Wren	Daviess	N	S
<i>Tyto alba</i>	Barn Owl	Daviess	N	S

Legend of indicator status:

PS-partial status
S-special concern
T-threatened

H- historic
E-endangered

V. REFERENCES

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