

Flat Run Solar, LLC
Response to Siting Board's Post-Hearing Request for Information
Case No. 2020-00272

Request No. 1: Provide the number of non-participating properties that are adjacent to the proposed Flat Run Solar facility.

Response:

There are a total of 23 non-participating parcels adjacent to the Project. They were described in the Surrounding Uses list on page 6 of the Real Estate Impact Report, included in the SAR as Attachment B.

Responding Witness: Carson Harkrader

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Request No. 2: Explain if the 700 feet distance proposed in the motion for deviation refers to the substation only, or if this measurement include inverters, energy storage devices, and HVAC units as well.

- a. Confirm whether the proposed 700 feet distance applies to the nearest residence of the nearest neighborhood for these items of equipment.
- b. Explain the discrepancy in the closer distances proposed in the Site Assessment Report for various equipment to the nearest residences and whether those residences are participating landowners, or if they are residences that fall within one of the neighborhoods bordering the project.

Response:

- a. Yes, the 700ft proposed setback is from the nearest residence in any “residential neighborhood” (as defined by KRS 278.700(6)) to any solar equipment, including the substation, solar panels, inverters, energy storage devices, and HVAC units. This does not apply to vegetative buffers or fences.
- b. In the Motion for Deviation, Flat Run requested the smallest deviation possible from the statute, which was a seven hundred (700) foot setback from the nearest home in the nearest “residential neighborhood” (per definition from KRS 278.700(6)). The closer distances proposed in the Site Assessment Report apply to residential homes that are not within a “residential neighborhood” (per definition from KRS 278.700(6)). The Project is not able to maintain a seven hundred (700) foot setback from all residential homes.

Responding Witness: Ben Lindermeier

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Request No. 3: Provide the distance from the nearest project equipment to the three landowners with homes nearer than a 150 feet setback as referenced in Flat Run Solar's Response to Consultant's First Request for Information Item No. 2.

Response: The distances from the participating landowner residences and the Potential Project Footprint are as follows: 40 feet, 65 feet, and 140 feet. While it's possible that project equipment could be placed on the outer edge of the Project Footprint, the current site plan - and the much more likely scenario - provides for the residences to be 209 feet, 215 feet, and 175 feet from project equipment.

Responding Witness: Ben Lindermeier

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Request No. 4: Confirm whether the three homes with less than the 150 feet proposed setback will experience higher A-weighted decibels during pile driving and provide the level.

Response:

Distance	Estimated dBA
40 feet	100.6
65 feet	100.6
140 feet	91
175 feet	90.2
209 feet	88.5
215 feet	88.5

Responding Witness: Ben Lindermeier

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Request No. 5: Provide a copy of the study that was prepared regarding impact of the project on endangered species.

Response: See Attached.

Responding Witness: Ben Lindermeier



COPPERHEAD
ENVIRONMENTAL CONSULTING

NEPA Survey for Proposed Flat Run Solar, LLC Project Taylor County, Kentucky



Prepared for:

Flat Run Solar, LLC

25 January 2021

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Introduction

Flat Run Solar, LLC, (Flat Run) contracted Copperhead Environmental Consulting, Inc. (Copperhead) to conduct a record search and site reconnaissance focused on threatened and endangered species and a cultural resource overview for the Flat Run Solar Energy Project near Saloma in Taylor County, Kentucky. The Project Study Area (PSA) consists of approximately 492 acres, and has reference coordinates of 37.41218° N, 85.38190° W. The PSA is within the Middle Pitman Creek sub watershed, which drains to the Green River.

The Flat Run Solar Energy project is a proposed solar farm that will generate electricity through the use of photovoltaic solar panels. Current land use in the PSA consists of farmland, agricultural fields and residential properties. Historically, the PSA has been primarily used for agricultural and residential land use. The primary landcover types are undeveloped agricultural fields, grassed fields, residential property, and wooded land. Narrow strips of trees exist along some fence rows and streams. According to the Aquatic Resource Delineation Report, the PSA contains several wetlands and streams, including Flat Run, throughout the property. The PSA contains approximately 16 structures, including residences, barns, and structures associated with cattle and agriculture. Land uses on adjacent properties include agricultural lands, scattered wood lots, and rural residences.

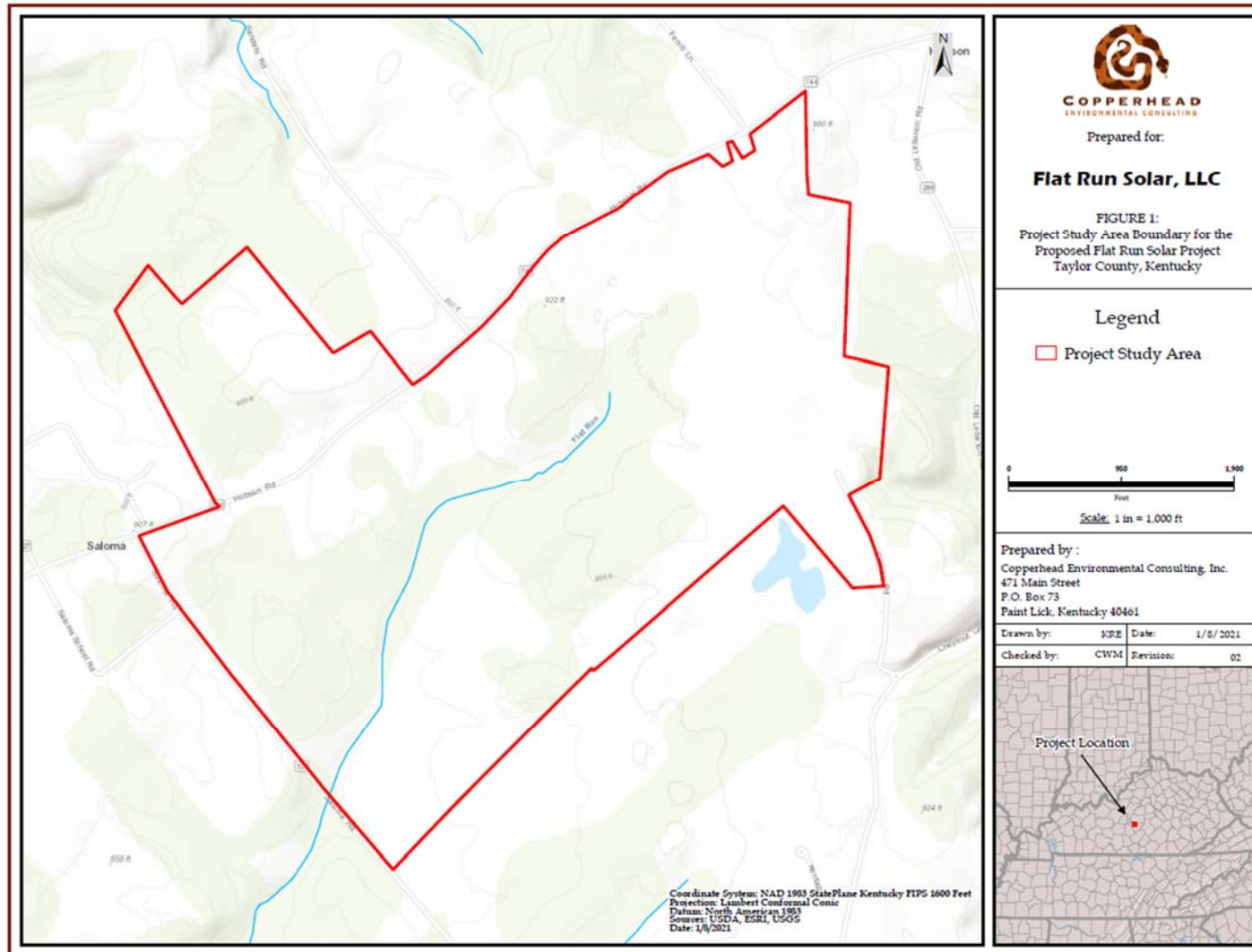


Figure 1. Project location

Preliminary Federally Listed Threatened and Endangered Species Determination

Copperhead’s review of the United States Fish and Wildlife Service’s (USFWS) online Information for Planning and Consultation (IPaC) tool identified four threatened or endangered species that could potentially occur within the PSA (Table 1 and Appendix A).

Table 1. Federally listed species with potential to occur within the Project Study Area.

Common Name	Scientific Name	Federal Status
Class Bivalvia (Mussels)		
Snuffbox	<i>Epioblasma triquetra</i>	Endangered
Class Mammalia (Mammals)		
Gray Bat	<i>Myotis grisescens</i>	Endangered
Indiana Bat	<i>Myotis sodalis</i>	Endangered
Northern Long-Eared Bat	<i>Myotis septentrionalis</i>	Threatened

Source: USFWS 2020

The following sections provide a brief overview of each species.

Class Bivalvia (Mussels)

Snuffbox

Snuffbox mussel (*Epioblasma triquetra*) was listed as endangered under the ESA on February 14, 2012. This species is usually found in small- to medium-sized stream but does not penetrate far into headwater streams (Haag and Cicerello 2016). They can be found in water as shallow as 2 inches to 2 feet, usually in shallower areas of moderate to swiftly flowing water. In Kentucky, snuffbox is associated with the river systems of the Licking, Green, Tygarts, Kinniconick, Little Sandy, Red(s), Barren, Cumberland, Salt, Rolling Fork, and parts of the Rockcastle River. Distribution is sporadic and nearly statewide. In Kentucky, there are only eight surviving populations, all of which are small and in decline (Haag and Cicerello 2016). No critical habitat has been designated for this species.

Based on our desktop review of aerial imagery and land cover as well as a site reconnaissance, we believe the PSA is unlikely to contain suitable habitat for the snuffbox mussel.

Class Mammalia (Mammals)

Gray Bat

The gray bat (*Myotis grisescens*) is listed as endangered under the Endangered Species Act (ESA). In Kentucky, the gray bat is considered to occur statewide, with higher concentrations in the western and central portions of the state and fewer occurrences in eastern counties (USFWS 2019b). No critical habitat has been designated or is currently proposed for this species.

The gray bat typically roosts in caves year-round and is often found in large numbers, with colonies in excess of one million individuals reported (Brady et al. 1982). Habitat requirements for roosts are highly specific, with fewer than 5 percent of caves representing suitable habitat (Tuttle 1979). The gray bat utilizes varying types of caves during different times of the year, including caves with deep vertical shafts that provide a cold air trap during winter (hibernacula) and caves with domed ceilings that trap warm air during summer for maternity colonies. Other caves, known as dispersal caves, are used as roosting sites during migration from maternity caves to hibernacula. Gray bats are also known to use bridges as roosting habitat during the spring, summer, and fall.

Gray bats usually forage for insects in riparian areas or over open water bodies such as rivers, streams, lakes, or reservoirs. Commuting habitat for the gray bat primarily consists of wooded corridors used to travel between roosting and foraging habitat.

Copperhead's desktop analysis and field reconnaissance did not identify any caves or mine openings in the PSA.

Indiana Bat

The Indiana bat (*Myotis sodalis*) was listed as an endangered species on March 11, 1967 under the Endangered Species Preservation Act of 1966. Critical habitat was designated for the species on September 24, 1976 and includes 11 caves and three mines in six states. In Kentucky, the Indiana bat may occur statewide (USFWS 2019c). The majority of occurrence records are associated with maternity colonies scattered throughout central and eastern Kentucky and along the Ohio River in the western part of the state.

During the winter months, Indiana bats are restricted to suitable underground hibernacula typically consisting of caves located in karst areas of the east-central United States; however, this species also hibernates in cave-like locations, including abandoned mines (USFWS 2007a). Hibernacula are concentrated in the karst areas of the state. Indiana bats have been documented in over 100 caves in Kentucky, and extant winter populations are currently known in 96 of these caves (USFWS 2016).

During the spring, summer, and fall, the Indiana bat uses a variety of forested habitats used for roosting, foraging, and commuting. These habitats include forest blocks and woodlots, as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded

areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Isolated trees may provide suitable roosting habitat if they exhibit the characteristics of a suitable roost tree and are located within 1,000 feet of other suitable habitat. Suitable roosting habitat consists of live or dead trees and snags with a diameter at breast height (dbh) of five inches or greater that possess any or all of the following characteristics: exfoliating bark; cavities, crevices, or cracks; or dead or dying trunk/branches. Roost trees are typically located within canopy gaps, along a fencerow, or along a wooded edge.

Maternity colonies are typically found in dead or dying trees with larger dbh (at least nine inches) that receive direct sunlight for more than half the day (USFWS 2016). Maternity roosts have been documented in riparian zones, bottomland and floodplain habitats, wooded wetlands, and upland communities (USFWS 2007a).

Foraging habitat for the Indiana bat includes closed to semi-open forested habitats, where bats forage along forest edges and above the tree canopy (Humphrey et al. 1977, LaVal et al. 1977, Brack 1983). Commuting habitat includes forested blocks and corridors that connect roosting and foraging areas.

Copperhead's desktop analysis identified approximately 22.7 acres of wooded land as well as stream corridors that could potentially provide suitable Indiana bat roosting and foraging habitat (see Figure 2). The PSA is not within any USFWS Indiana bat buffers around hibernacula or swarming areas.

Northern Long-Eared Bat

The northern long-eared bat (*Myotis septentrionalis*) was listed as threatened under the ESA on April 2, 2015, with a rule under authority of Section 4(d) of the ESA finalized on January 14, 2016 (USFWS 2016b). No critical habitat is currently designated or proposed by the USFWS for this species.

In Kentucky, the northern long-eared bat has been recorded throughout most of the state and likely occurs statewide. Summer occurrences have been recorded in approximately three-quarters of the counties in the state, with reproductive records (i.e., captures of juveniles or pregnant, lactating, or post-lactating females) in approximately half of the counties. This species has been found in the majority of Kentucky hibernacula known to harbor bats (USFWS 2015). The northern long-eared bat utilizes different habitats during the summer and winter months. Hibernacula, used in winter, vary from large caves and abandoned mines with large entrances and passages to smaller features. Preferred features have relatively constant, cool temperatures (0 to 9° C), high humidity, and minimal air currents (Raesly and Gates 1987, Caceres and Pybus 1997). This species typically roosts in small crevices and cracks in walls and ceilings; however, individuals have also been observed roosting in the open, although less frequently (Barbour and Davis 1969, Caceres and Pybus 1997, Whitaker and Mumford 2009). In addition to mines, northern long-eared bats have been found hibernating in other cave-like, man-made structures (USFWS 2015).

During the spring, summer, and fall, the northern long-eared bat uses a variety of forested habitats for roosting, foraging, and commuting, including forest blocks and woodlots, as well as linear features such as fencerows, riparian forests, and other wooded corridors. These forested areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Suitable roosting habitat consists of live or dead trees and snags with a dbh of three inches or greater that exhibit any of the following characteristics: exfoliating bark, crevices, cavities, or cracks (USFWS 2016). This species is more likely to roost in crevices, cracks, and cavities than other *Myotis* species (Carter and Feldhamer 2005, Lacki et al. 2009) and is more opportunistic when selecting a roost tree, often utilizing shorter trees with smaller dbh and tree stumps.

Foraging habitat includes mature upland forests along hillsides and ridges (LaVal et al. 1977, Brack and Whitaker 2001). This species may also forage in more open areas, such as forest clearings, over open water, and along roads (van Zyll de Jong 1985); however, it is less likely to forage in riparian areas (LaVal et al. 1977, Brack and Whitaker 2001). Commuting habitat is used to travel between roosting and foraging areas and typically includes forest edges and linear features, such as riparian corridors and fencerows (USFWS 2015).

Copperhead's desktop analysis identified approximately 22.7 acres of wooded land as well as stream corridors that could potentially provide suitable northern long-eared bat roosting and foraging habitat (see Figure 2). Northern long-eared bats could also use farm structures including barns, sheds, and silos as roosting habitat. The PSA is not near any known northern long-eared bat maternity roosts or USFWS bat buffers. The PSA is not near an area with known northern long-eared bat roost trees and therefore, the 4(d) Rule would not prohibit incidental take (USFWS 2016).

Preliminary Species Determinations

We understand that there is currently no federal nexus (e.g., federal funding, permit, approvals, land, etc.) associated with the project. As such, consultation with USFWS under Section 7(a)(2) of the ESA would not be required. Should a federal nexus emerge, it would trigger Section 7(a)(2) consultation with USFWS and a determination of effects for each species would be made. The ESA determinations would depend on the presence or absence of the species and whether habitat would be adversely impacted during project construction or operation. If the project avoids disturbing listed bat habitat (e.g., structures, trees, etc.), we believe the project would result in a "may affect, not likely to adversely affect" determination for the Indiana bat and northern long-eared bat. Based on a records search and site reconnaissance, the PSA does not appear to contain suitable habitat for mussel species. Site surveys would provide additional insight into the potential for the project to affect federally listed species.

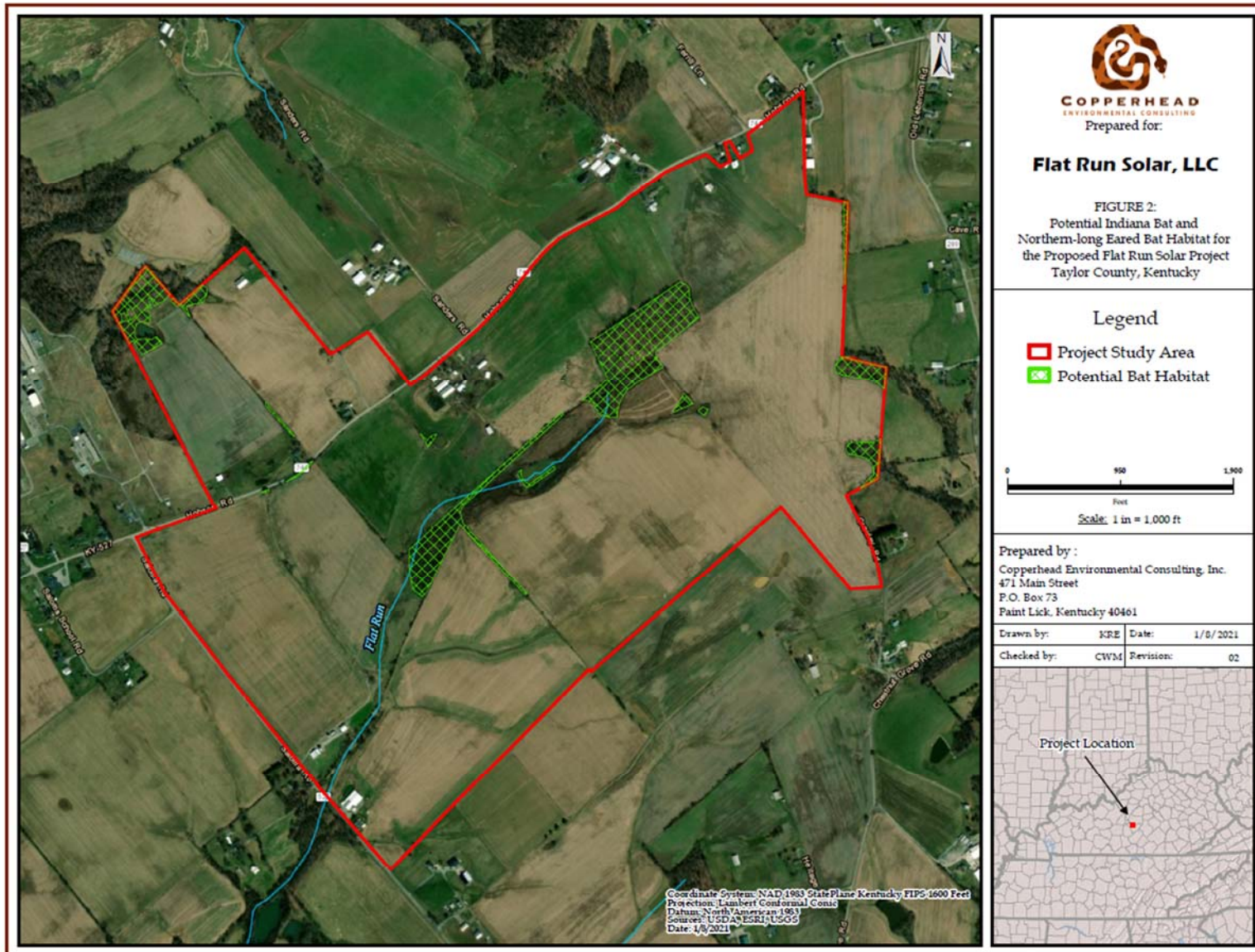


Figure 2. Potential Indiana Bat and Northern-long Eared Bat Habitat

Preliminary State Listed Threatened and Endangered Species Determination

Forty-one state-listed species have been identified through the state Wildlife Action Plan (SWAP; Kentucky’s Comprehensive Wildlife Conservation Strategy, 2013) as sensitive or at-risk species of greatest conservation need. The following list identifies the relevant species identified by the Kentucky Department of Fish and Wildlife Resources (KDFWR) (Table 2).

Table 2. State listed species with potential to occur within the Project Study Area.

Common Name	Scientific Name	State Status
Class Actinopterygii (Fish)		
Longhead Darter	<i>Percina macrocephala</i>	Endangered
Slender Madtom	<i>Noturus exilis</i>	Endangered
Stargazing Minnow	<i>Phenacobius uranops</i>	Sensitive
Western Sand Darter	<i>Ammocrypta clara</i>	Endangered
Class Amphibia (Amphibians)		
Eastern Hellbender	<i>Cryptobranchus alleganiensis</i>	Endangered
Class Aves (Birds)		
American Coot	<i>Fulica americana</i>	Endangered
Bachman’s Sparrow	<i>Peucaea aestivalis</i>	Endangered
Bald Eagle	<i>Haliaeetus leucocephalus</i>	Threatened
Bank Swallow	<i>Riparia riparia</i>	Sensitive
Barn Owl	<i>Tyto alba</i>	Sensitive
Bewick’s Wren	<i>Thryomanes bewickii</i>	Sensitive
Blue-winged Teal	<i>Spatula discors</i>	Threatened
Bobolink	<i>Dolichonyx oryzivorus</i>	Sensitive
Dark-eyed Junco	<i>Junco hyemalis</i>	Sensitive
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	Threatened
Great Egret	<i>Ardea alba</i>	Threatened

Common Name	Scientific Name	State Status
Henslow's Sparrow	<i>Centronyx henslowii</i>	Sensitive
Hooded Merganser	<i>Lophodytes cucullatus</i>	Threatened
Lark Sparrow	<i>Chondestes grammacus</i>	Threatened
Northern Shoveler	<i>Spatula clypeata</i>	Endangered
Osprey	<i>Pandion haliaetus</i>	Sensitive
Pied-billed Grebe	<i>Podilymbus podiceps</i>	Endangered
Sedge Wren	<i>Cistothorus platensis</i>	Sensitive
Short-eared Owl	<i>Asio flammeus</i>	Endangered
Class Bivalvia (Mussels)		
Clubshell	<i>Pleurobema clava</i>	Endangered
Elktoe	<i>Alasmidonta marginata</i>	Threatened
Fanshell	<i>Cyprogenia</i>	Endangered
Little Spectaclecase	<i>Villosa lienosa</i>	Sensitive
Northern Riffleshell	<i>Epioblasma rangiana</i>	Threatened
Pocketbook	<i>Lampsillis ovata</i>	Endangered
Purple Lilliput	<i>Toxolasma lividum</i>	Endangered
Rabbitsfoot	<i>Thelideerma cylindrica</i>	Threatened
Snuffbox	<i>Epioblasma triquetra</i>	Endangered
Class Cephalaspidomorphi (Lampreys)		
American Brook Lamprey	<i>Lethenteron appendix</i>	Threatened
Class Insecta (Insects)		
Sixbanded Longhorn Beetle	<i>Dryobius sexnotatus</i>	Threatened
Class Malacostraca (Crayfish)		

Common Name	Scientific Name	State Status
Bottlebrush Crayfish	<i>Barbicambarus cornutus</i>	Sensitive
Class Mammalia (Mammals)		
Evening Bat	<i>Nycticeius humeralis</i>	Sensitive
Gray Bat	<i>Myotis grisescens</i>	Threatened
Indiana Bat	<i>Myotis sodalis</i>	Endangered
Northern Myotis	<i>Myotis septentrionalis</i>	Endangered
Rafinesque's Big-Eared Bat	<i>Corynorhinus rafinesquii</i>	Sensitive

Source: KDFWR, Taylor County, 2020.

The following sections provide a brief overview of each state-listed species and the potential risk associated with Flat Run.

Although state-listed species in Kentucky are not protected by legislation or regulation, the project is not likely to significantly effect these state-listed species.

Class Actinopterygii (Fish)

Longhead Darter

The longhead darter (*Percina macrocephala*) is a small to medium-sized fish (4.5-5 inches in length) with a long, narrow head and snout. It has a groove (called a frenum) separating the tip of the upper lip from the snout. There is a row of modified belly scales found along its underside and the gill covers are connected, rather than split, across the isthmus. Like most darter species, the longhead darter is quite colorful. Its back is bright olive-yellow and there is a series of more than 12 somewhat square blotches along the back. On the sides are a chain of slightly connected blotches. Lighter colored pigment ribbons occur between the two bands of pigment. There is a dark spot at the base of the tail fin with a small vertical bar underneath. One to three dusky spots occur on each side of the bottom of the head. The last spot connects the bar-shaped blotch below the eye, forming a sickle-shaped teardrop. The longhead darter occurs in rocky flowing pools, usually above and below rubble riffles of clear, small to medium streams feeding on small crayfish and mayfly nymphs. The darter species is widespread but rare in the Ohio River basin, but recent records were found in the Barren River system (Etnier and Starnes 2001). The longhead darter is state-listed as endangered. The PSA does not appear to have good habitat for the longhead darter.

Slender Madtom

The slender madtom (*Noturus exilis*) is a small catfish that is approximately 3-5 inches in length. It has a blunt snout with two barbels pointing upwards from its nostrils and four barbels on the underside of its chin. They can be separated from other *Noturus* species by the black bands on its median fins and a yellow spot on its nape. Typically, they inhabit riffles and pools of small to medium sized streams in coarse gravel to slab rock substrates (Etnier and Starnes 2001). The slender madtom feeds on aquatic insects and small crustaceans. It can be found in the central portion of the Mississippi River basin including the Green-Barren system, but it is most abundant in Ozarkian streams (Etnier and Starnes 2001). It is listed as state endangered. Based on a record search and site reconnaissance, the PSA does not appear to have good habitat for the slender madtom.

Stargazing Minnow

The stargazing minnow (*Phenacobius uranops*) is approximately 3-5 inches in length and resembles small suckers with a long and cylindrical body as well as fleshy lips. The species can be found in the Tennessee and Cumberland drainages and the Barren-Green system of the Ohio (Etnier and Starnes 2001). It inhabits gravel and rubble runs and riffles of clear, fast moving, small to medium streams. The stargazer minnow feeds on dipteran and caddis larvae. The stargazing minnow is state listed as sensitive. Based on a record search and site reconnaissance, the PSA does not appear to have good habitat for the stargazing minnow.

Western Sand Darter

The western sand darter (*Ammocrypta clara*) is a small 2-3 inch fish that is yellow-brown to silver-white in color. It typically inhabits medium to large streams with sandy to gravelly substrates of pools and riffles with moderate current. The western sand darter feeds primarily on larval aquatic insects. The species range is widespread from Minnesota to Texas and Louisiana, but it has a spotty distribution in large tributaries of the Mississippi River (Etnier and Starnes 2001). In Kentucky, the species is found in the upper Green and the North Fork Kentucky River drainages. This species is state listed as endangered. Based on a record search and site reconnaissance, the PSA does not appear to have good habitat for the western sand darter.

Class Amphibia (Amphibians)

Eastern Hellbender

The Eastern Hellbender (*Cryptobranchus alleganiensis alleganiensis*) is considered threatened in Kentucky. It occurs throughout the state in 73 out of 120 counties. The eastern hellbender is typically found in clear, rocky streams with a fast current and an abundance of large boulders. They tend to avoid wide streams with slow-moving waters with muddy banks and slab rock bottoms, heavily polluted or silted waters, as well waters warmer than 20°C (Peterson et al. 1988). They lay their eggs in late summer through fall and males will guard developing eggs for approximately 1.5-3 months until the larvae hatch. Juvenile hellbenders lose their gills about 18 months and will become sexually mature in about 5-8 years (Minton 1972). Based on a record search and site reconnaissance, the PSA does not appear to have good habitat for the eastern hellbender.

Class Aves (Birds)

American Coot

The American Coot (*Fulica americana*) is considered an endangered species in Kentucky. While the American coot resembles a duck, it is not actually a duck species. Coots have chicken-like beaks, legs, and feet. Both drake and hen coots are grey in color but appear black from a distance. Their beaks are white with a faint red strip near the tip. Tiny tail and short wings. Feet are large, yellow-green, and oddly lobed. Head jerks back and forth when swimming. Habitat for American coots include ponds, marshes, reservoirs, along the edges of lakes, and in roadside ditches. While typically herbivores, coots are opportunistic and eat a highly varied diet depending on their current habitat. Foods range from plant material, including stems, leaves, and seeds of pondweeds, sedges, grasses, and algae. Also, it eats insects, tadpoles, fish, worms, snails, crayfish, prawns, eggs of other birds.

Based on a record search and site reconnaissance, the PSA does appear to contain suitable habitat for the American Coot. However, the nearest sighting of an American Coot was at the Campbellsville Reservoir approximately 3.9 miles SE of the PSA (Sullivan et al. 2009).

Bachman's Sparrow

Bachman's Sparrow (*Peucaea aetivalis*) is considered endangered in Kentucky. It historically inhabited early successional habitats, such as fallow fields and pastures, young pine plantations, and clear cuts that are regenerating (Palmer-Ball 1996). They also prefer habitats that contain hillsides with bare ground, native grasses and forbs, blackberry patches and smaller trees, such as red cedars and evergreens. (Mengel 1965). The Bachman's Sparrow is a large sized sparrow. It is a brown/grey bird with hints of olive and yellow. It has streaks of reddish-brown throughout its back feathers and a rusty colored crown. It has a buffy colored throat, and a streak going back behind the eye. Juvenile birds look like the adults except for streaks on their underside and a tan outline on the wing feathers. This project is unlikely to impact this species.

Bald Eagle

The Bald Eagle (*Haliaeetus leucocephalus*) is a threatened species in Kentucky. The Bald Eagle is a large raptor that tends to inhabit areas such as streams, rivers, ponds, lakes, and coastal areas that contain adequate food sources. Bald Eagles nest in the tops of large trees near these water resources. A pair of Eagles may reuse this nest or have alternate nesting sites. Juveniles have brown bodies with white mottling throughout, along with a dark beak. Mottling will occur in subsequently until adulthood where they obtain the white head and tail. As well as a dark brown body and yellow beak.

Based on a record search and site reconnaissance, the PSA does appear to contain suitable habitat for the Bald Eagle. However, the nearest sighting of a Bald Eagle was at the Campbellsville Reservoir approximately 3.9 miles SE of the PSA (Sullivan et al. 2009).

Bank Swallow

The Bank Swallow (*Riparia riparia*) is a small bird that has a brown/grey back and head, with a white underside, and a grey band around the chest. These birds use nest burrows to nest in. Males and females both assist in creating these structures, which are usually carved into riverbanks, road embankments, or even in gravel pits. (Palmer-Ball 1996). They tend to return to the same area each year, constructing a new nest or using the nest of a different pair of swallows. This project is unlikely to affect this species.

Barn Owl

The Barn Owl (*Tyto alba*) is considered a sensitive species in Kentucky. They are medium sized owls with round heads and no ear tufts. Barn owls have a white face with a mix of gray, brown and black colored wings, head, and back. They tend to nest and roost in manmade structures such as buildings and barns as well as in tree cavities. These owls forage over open habitats such as fields primarily for small rodents. Based on a record search and site reconnaissance, the PSA does appear to contain suitable habitat for the barn owl; however, the nearest sighting of a Barn owl was approximately 10.5 miles south east of the PSA (Sullivan et al. 2009).

Bewick's Wren

The Bewick's Wren (*Thryomanes bewickii*) is considered a sensitive species in Kentucky. They tend to inhabit semi-open areas. They can also be found in farmland, suburban yards, forest margins and clear cuts (Palmer-Ball 1996). The Bewick's Wren is a medium sized wren with a longer tail that can be held in an upright position along with a slightly curved beak. This species is brown above and lighter below with a white band above its eye, and barring on its tail. Kentucky. Based on a record search and site reconnaissance, the PSA does appear to contain suitable habitat for the Bewick's Wren; however, the nearest sighting of a Bewick's Wren was approximately 2.2 miles north of the PSA (Sullivan et al. 2009).

Blue-winged Teal

The Blue-winged Teal (*Spatula discors*) is considered a threatened species in Kentucky. It is a small duck with chalky-blue patches on the upper wing. Breeding males have a white crescent in front of eye. Females are patterned, cold brown, and show a hint of the male's white crescent on face. Black bill. Forages by dabbling and tipping-up in shallow wetlands. Forages in shallow water by dabbling, reaching underwater to grab aquatic vegetation, seeds, and midge larvae. The nearest sighting of a Blue-winged Teal was at the Campbellsville Reservoir approximately 3.9 miles SE of the PSA (Sullivan et al. 2009). Based on a record search and site reconnaissance the project is unlikely to significantly impact the blue-winged teal.

Bobolink

The Bobolink (*Dolichonyx oryzivorus*) is a migratory bird that is typically found in grassy habitats including hayfields, pastures, and infrequently mowed fields. They prefer vegetation that is not too thick but also not mowed frequently (Palmer-Ball 1996). During migration they stop in similar fields as well as marshes and rice fields. Breeding male bobolinks are black below and black and white on top. The wings have mix of black, white, and yellow coloring, as well as a bright yellow patch on the back of the head. Female and non-breeding birds are a mixture of brown and yellow on the bottom and brown, black, and white on the back. They also have a lighter colored beak and dark stripes on the crown. The Bobolink is considered a sensitive species in Kentucky. Based on a record search and site reconnaissance, the PSA does appear to contain suitable habitat for the Bobolink. The nearest sighting of a Bobolink to the PSA was approximately 0.5 miles east.

Dark-eyed Junco

Medium-sized sparrow with round head, long tail, and small pale bill. All juncos have prominent white outer tail feathers. Dark-eyed juncos are birds of the ground. They hop around the bases of trees and shrubs in forests or venture out onto lawns looking for fallen seeds. They generate high chip notes while foraging or intensifying as they take short, low flights through cover. Dark-eyed juncos breed in coniferous or mixed-coniferous forests in the Appalachians. During winter, they can be found in open woodlands, fields, parks, roadsides, and backyards. In Kentucky, the dark-eyed junco is listed as sensitive. Based on a record search and site reconnaissance, the PSA does

appear to contain suitable habitat for the dark-eyed junco. The nearest sighting of a Dark-eyed Junco was less than a half mile east from the PSA.

Double-crested Cormorant

The Double-crested Cormorant (*Phalacrocorax auratus*) is a threatened species in Kentucky. Double-crested Cormorants live in both fresh and saltwater environments, where they will nest either on the ground, in trees, or on cliffs. Double-crested cormorants are large waterbirds with long tails and necks. Breeding and non-breeding adults are both generally dark birds with orange around the base of the bill. Breeding adults will also have tufts of feathers that come off the side of their head. Juvenile birds have a paler neck and breast than that of the adults. The nearest sighting of a double-crested cormorant was at the Campbellsville Reservoir approximately 3.9 miles SE of the PSA (Sullivan et al. 2009). This project is unlikely to impact this species.

Great Egret

The Great Egret (*Ardea alba*) is large white bird, with long black legs and a bright orange beak. Great Egrets like to wade in shallow water where they can hunt for prey. They live in both fresh and saltwater environments. They primarily nest in tall trees with other colonial water birds. The Great Egret is considered a threatened species in Kentucky. This project is unlikely to impact this species.

Henslow's Sparrow

The Henslow's Sparrow (*Centronyx henslowii*) is a migratory bird that prefers open habitats that contain thick vegetation, such as fallow fields and pastures, during breeding season. During migration and non-breeding, they prefer grassy areas near pines and second-growth woods. The Henslow's Sparrow is a small bird covered in an olive-brown color, with a dark spot behind the eyes. They also have dark striped going along their crown and rusty colored wing tips. The Henslow's sparrow is listed as sensitive in Kentucky. This project is unlikely to impact this species.

Hooded Merganser

The Hooded Merganser (*Lophodytes cucullatus*) is a species of migratory bird that typically can be found in streams swamps, marshes, and estuaries. They often nest in tree cavities often near water and have also been seen successfully using nesting boxes (Zicus 1990). They typically migrate north in February to May and returning to their wintering grounds From September to December. Hooded Mergansers are a small duck with a slender bill and a crest, that can be lowered. Breeding males have a black head and back, with a white crest and chest, with brown sides. Non-breeding males have a brown head and bodies with a darker brown back, and a reddish-brown crest. Female Mergansers are brown with a reddish-brown crest and a lighter bill than the males. The nearest sighting of a hooded merganser was approximately 1.5 miles east of the project area (Sullivan et al. 2009). This project is unlikely to impact the hooded merganser.

Lark Sparrow

The Lark Sparrow (*Chondestes grammacus*) is considered a threatened species in Kentucky. This species habitat includes semi open habitats with scattered bushes, shrubs, and trees *as well as* farmland and grazed pasture. It is a larger sized sparrow with a longer tail. Adult lark sparrows have a chestnut colored crown along with a cheek patch. It had a dark line running from its beak through its eye to the back, and dark under chin stripes, on a white chest that had a dark spot in the center. Juveniles have the same color patterns except for the chestnut color on the crown and cheek are lighter. Based on a record search and site reconnaissance, the PSA does appear to contain suitable habitat for the lark sparrow; however, no sightings have been reported within a 20-mile radius of the project area (Sullivan et al. 2009). This project is unlikely to significantly impact this species.

Northern Shoveler

The Northern Shoveler (*Spatula clypeata*) is considered endangered in Kentucky. It is a medium sized duck with a distinctive shovel shaped bill. Breeding male ducks will have a green head and white chest, with a black back and rusty colored sides along with blue and green on its wings. While a non-breeding male has a black head and back with a brown and white chest, and brown sides. Female and immature shovelers are brown and while all over with a blue shoulder patch with a bright orange beak and legs. It usually nests near bodies of freshwater, usually on the ground. During migration and winter, it will live in both freshwater and brackish habitats, and in cultivated fields (not typical) (AOU 1983). The nearest sighting of a northern shoveler was approximately 1.5 miles east of the project area (Sullivan et al. 2009). This project is unlikely to impact the northern shoveler.

Osprey

The Osprey (*Pandion haliaetus*) is a very distinctive large hawk-like bird. It has a dark brown on their backs with a white/brown speckled underside. Along with a white and brown crown, it had a distinctive dark eye stripe along with yellow eyes. The Osprey can be typically found along rivers, lakes, and coastal areas. They build nests using large sticks, and nest on top of large living or dead trees, or manmade structures. The Osprey is a migratory bird that arrives in breeding territory in spring and begin their migration South in August. In Kentucky, the Osprey is considered a sensitive species. The nearest sighting of an Osprey was at the Campbellsville Reservoir approximately 3.9 miles SE of the PSA (Sullivan et al. 2009). This project is unlikely to impact the Osprey.

Pied-billed Grebe

The Pied-billed Grebe (*Podilymbus podiceps*) is a small round bird, that can vary between grey and brown in color. They occur in ponds, marshes, lakes, and rivers throughout the US, where they build their nests in vegetation on the shore. While breeding their bill will shift from a yellow/brown color to a white color with a black band. In the winter, some birds may stay in the

breeding areas, but may shift to more exposed areas on brackish, estuarine waters or sheltered inlets on large lakes, rivers, and salt water (Palmer 1962). In Kentucky, the Pied-billed Grebe is considered endangered. The nearest sighting of a pied-billed grebe was approximately 1.5 miles east of the project area (Sullivan et al. 2009). This project is unlikely to significantly impact the pied-billed grebe.

Sedge Wren

The Sedge Wren (*Cistothorus platensis*) is considered a sensitive species in Kentucky. The sedge wren is a buffy colored bird, with smaller streaks on its crown and larger streaks on its back. It also has a shorter tail that it often holds in an upright position. This species is typically found in moist grasslands and savannahs. Though nesting areas may change between years as habitat conditions change, sedge wrens are presumed to overwinter in similar breeding habitat but may also migrate to brushy grasslands (AOU 1983). This project is unlikely to significantly impact the sedge wren.

Short-eared Owl

The Short-eared Owl (*Asio flammeus*) is a species of special concern in Kentucky. The short-eared owl is a brown spotted, medium sized owl, with short “ear” tufts, that may not always be visible. They generally can be found in open farmland or fields where they can nest in low vegetation, however in the winter they may nest in trees due to an increase of snow. Nesting typically begins mid-March with juvenile owls typically fledged by mid-September. The short-eared owl occurs in 28 of the 120 counties throughout the state. Based on a record search and site reconnaissance, the PSA does appear to contain suitable habitat for the short-eared owl; however, the nearest sighting of a short-eared owl was approximately 1.5 miles east of the project area (Sullivan et al. 2009). This project is unlikely to significantly impact this species.

Class Bivalvia (Mussels)

Clubshell

The clubshell mussel (*Pleurobema clava*) was listed as an endangered species on January 22, 1993. This species occurs in a variety of habitats in small streams to large rivers but does not penetrate far into the headwaters (Haag and Cicerello 2016). It is most common just downstream of riffles and islands in clean, coarse sand where cobble mixes with the current. It may live several inches beneath the surface, but it cannot tolerate mud or slack-water conditions and is very susceptible to siltation. The clubshell inhabits the Ohio River and most of its major drainages including the Green River, Licking River, Kentucky River, Salt River, Tennessee River, and Cumberland River; however, but it is absent from the lowland habitats in western Kentucky (Hagg and Cicerello 2016). No critical habitat has been designated for this species. Based on a record search and site reconnaissance, the PSA does not appear to contain suitable habitat for this mussel species.

Elktoe

The elktoe mussel (*Alasmidonta marginata*) is listed as state threatened. This mussel occurs in nearly all sized streams in flowing water with a mixture of a gravel and sand substrate. In Kentucky, the species is found sporadically throughout the state including upland streams of the lower and middle Cumberland, upper Green, Kentucky, and Licking River drainages. The species is common locally only in the Red River, but the population appears to have declined dramatically since the 1990s (Haag and Cicerello 2016). Historically, the species was sporadically distributed but its range throughout the state has thinned considerably with only seven remaining populations known. KYDFWR lists two occurrences in Taylor County, both of which likely were observed in the Green River. Based on a record search and site reconnaissance the PSA does not appear to contain suitable habitat for this mussel species.

Fanshell

The fanshell mussel (*Cyprogenia stegaria*) was listed as endangered in 1990. These mussels are most often associated with stable substrates of sand, gravel, and cobble. They are usually found at depths of less than three feet in strongly flowing water in medium-sized to large streams. In Kentucky, historic records are known from the Ohio, Salt, Licking, Big Sandy (doubtful record), Tygarts, Kentucky, Red, Cumberland, Tennessee, Green, Barren, and Clarks River systems. They are fairly ubiquitous statewide, but most accounts are archaeological records. Only three populations remain in Kentucky (apart from a reintroduction in the Tennessee River) which include a short stretch of the Rolling Fork River and likely the two largest populations of this species on earth, the Green River and Licking River (Haag and Cicerello 2016). No critical habitat has been designated for this species. Based on a record search and site reconnaissance, the PSA does not appear to contain suitable habitat for this mussel species.

Little Spectaclecase

The little spectaclecase mussel (*Villosa lienosa*) is listed as sensitive in the state of Kentucky. It occurs sporadically statewide in small to medium sized streams with a flowing current and sandy substrates. KYDFWR lists two occurrences in Taylor county, both of which likely were observed in the Green River. Based on a record search and site reconnaissance the PSA does not appear to contain suitable habitat for this mussel species.

Northern Riffleshell

The northern riffleshell mussel (*Epioblasma rangiana*) was listed as endangered on January 22, 1993. The mussel can be found in small to medium-sized streams. The species is most commonly found in riffles and swift running water with clean substrate bottoms that consist of both firmly packed sand and fine to coarse gravel. Typically, the species is found in shallow water, although individuals have been found as deep as six feet. In Kentucky, the northern riffleshell was historically in the Ohio river drainage including the Green, Kentucky, Licking, and Salt, and their associated tributaries. The northern riffleshell mussel has declined dramatically across its range,

and all natural populations in Kentucky appear to be extinct (Haag and Cicerello 2016). No critical habitat has been designated for this species. Based on a record search and site reconnaissance, the PSA does not appear to contain suitable habitat for this mussel species.

Pocketbook

The pocketbook mussel (*Lampsilis ovata*) is adapted to both impoundment situations as well as free-flowing, shallow rivers. It may be found in big rivers (reservoirs) at depths of 15 to 20 feet and in small streams in less than two feet of water. Although usually found in moderate to strong current, it can survive in standing water. The most suitable substrate consists of a mixture of gravel and coarse sand mixed with some silt or mud. The pocketbook mussel is state-listed as endangered. Based on a record search and site reconnaissance, the PSA does not appear to contain suitable habitat for this mussel species.

Purple Lilliput

The purple lilliput mussel (*Toxolasma lividus*) is listed as state endangered. This mussel generally occurs in small to medium-sized streams located in the riffles with mixed substrates of sand, gravel, and cobble. In Kentucky, it's generally distributed in the middle Cumberland and sporadic or absent elsewhere in the state. It has been reported from the Clarks River, Red, lower and upper Green, Salt, and Licking River. It is not reported from the Kentucky River drainage but may have been present there historically. Major threats to this species include oil drilling and coal mining runoff which have caused dramatic population declines or extirpation from whole river systems. The largest population remain in the upper Green River. KYDFWR lists one occurrence in Taylor county, likely from the Green River. Based on a record search and site reconnaissance, the PSA does not appear to contain suitable habitat for this mussel species.

Rabbitsfoot

The rabbitsfoot mussel (*Theliderma cylindrica*) was listed as threatened on September 17, 2013. Rabbitsfoot is primarily an inhabitant of medium-sized to large streams. It usually occurs in shallow water areas along the bank and adjacent runs and shoals with reduced water velocity. Specimens also occupy deep water runs, having been reported in 9 to 12 feet of water. Bottom substrates generally include gravel and sand, but individuals often lie completely unburied on the stream bottom. Its historical range in Kentucky includes Ohio River and most major tributaries. It is generally distributed to occasional in the upper Green and Barren Rivers (Haag and Cicerello 2016). Critical habitat does exist for this species, but the PSA is not in critical habitat. Based on a record search and site reconnaissance, the PSA does not appear to contain suitable habitat for this mussel species.

Snuffbox

The snuffbox mussel is state-listed as endangered and was previously discussed in the federally listed species section.

Class Cephalaspidomorphi (Lampreys)

American Brook Lamprey

The American Brook Lamprey (*Lethenteron appendix*) is a non-parasitic lamprey that is approximately 6-8 inches in length, and grey to black in color on their backs and tan to white below. Adults typically occur in clear fast riffles of small streams while larval lamprey live in sandy pools where it can bury itself. Larval lamprey feed on algae and detritus for 3-7 years before they metamorphose and become sexually mature. As adults, they do not feed and only live for 4-6 months for spawning in the spring. The species is widespread in the uplands of the Mississippi River basin, Great Lakes tributaries, and into New England (Etnier and Starnes 2001). In Kentucky, it is found in multiple drainages including Licking, Big Sandy, Tennessee and Upper Green and Barren Rivers. Based on a record search and site reconnaissance, the PSA does appear to have suitable habitat for the American Brook Lamprey.

Class Insecta (Insects)

Sixbanded Longhorn Beetle

The Six-banded Longhorn beetle (*Dryobius sexnotatus*) is considered threatened in Kentucky. It has occurrences in 9 counties in Kentucky including Taylor county, with higher occurrences in the eastern portion of the state. This species is usually found in old growth hardwood forests with high humidity (Perry et al. 1974). Adults typically hide under the bark of large dead/decaying sugar maple trees and larvae use dead or live mature trees to burrow in and feed for 2-3 years before pupating (Solomon, 1995; Perry et al. 1974). Once Pupated they take flight from March to September. KYDFWR lists one observation of the beetle in Taylor County. Based on a record search and site reconnaissance, the PSA does not appear to contain suitable habitat for this insect species.

Class Malacostraca (Crayfish)

Bottlebrush Crayfish

Bottlebrush crayfish is found only in the Barren River and Green River systems of Kentucky. It is one of the largest crayfish in North America, reaching lengths of up to 9 inches, and its antennae are distinctive in being fringed. Adults are overall olive-brown but possess striking red and blue markings. The species is most commonly found under large, flat boulders along creek margins where there is a high current. Occasionally, it can be found in shallow riffles if there are large boulders presents. The primary life-history trait of crayfishes that determines the habitats in which they can live is their propensity for burrowing. Crayfish have been shown to eat a variety of food items, both living and dead. These include aquatic and terrestrial vegetation, plant detritus, insects, snails, and aquatic crustaceans (e.g., isopods, amphipods, and copepods). KDFWR lists the bottlebrush crayfish as sensitive. Based on a record search and site reconnaissance, the PSA does not appear to contain suitable habitat for the bottlebrush crayfish.

Class Mammalia (Mammals)

Evening Bat

The Evening bat (*Nycticeius humeralis*) is considered state threatened in Kentucky. These bats are the smaller version of a big brown bat (*Eptesicus fuscus*) with brown fur and a black to dark brown muzzle. They are a migratory bat who summers throughout at least the western third of the state and winters in the south. They primarily roost in hollow trees and/or exfoliating bark but have also been documented using manmade structures such as houses and sheds. Typical prey items include beetles, moths, and flies.

Copperhead's desktop analysis identified approximately 22.7 acres of wooded land as well as stream corridors that could potentially provide suitable evening bat roosting and foraging habitat (see Figure 2). Evening bats could also use farm structures including barns, sheds, and silos as roosting habitat.

Gray Bat

The Gray bat is state-listed as threatened and was previously discussed in the federally listed species section.

Indiana Bat

The Indiana bat is state-listed as endangered and was previously discussed in the federally listed species section.

Northern Myotis

The Northern Myotis bat is state-listed as endangered and was previously discussed in the federally listed species section.

Rafinesque's Big-Eared Bat

The Rafinesque's Big-eared bat (*Corynorhinus rafinesquii*) is considered a species of concern in Kentucky. Rafinesque's big-eared bats are identifiable by their large ears, toe hairs that extend beyond their toenails, and grayish brown coloration on their back with whitish fur on their bellies. These bats typically use hollow trees or exfoliating bark as roosts in the summers, but have also been known to use bridges, buildings, and rock shelters. Typical prey items include moths and other flying insects such as flies and beetles.

Copperhead's desktop analysis identified approximately 22.7 acres of wooded land as well as stream corridors that could potentially provide suitable Rafinesque's big-eared bat roosting and foraging habitat (see Figure 2). Rafinesque's big-eared bats could also use farm structures including barns, sheds, and silos as roosting habitat.

Preliminary Historic and Archaeological Resources Overview

Cultural resources include prehistoric and historic archaeological sites, districts, buildings, structures, and objects, as well as locations of important historic events. Cultural resources that are listed, or considered eligible for listing, in the National Register of Historic Places (NRHP) are called historic properties. To be considered a historic property, a cultural resource must possess both integrity and significance. A historic property's integrity is based on its location, design, setting, materials, workmanship, feeling, and association. The significance is established when historic properties meet at least one of the following criteria: (a) are associated with important historical events or are associated with the lives of significant historic persons; (b) embody distinctive characteristics of a type, period, or method of construction; (c) represent the work of a master or have high artistic value; or (d) have yielded or may yield information important in history or prehistory (36 CFR Part 60.4).

The National Park Service (NPS) maintains the database of historic properties listed under the NRHP. To be listed, a property must meet certain criteria for age, integrity, and significance, and be nominated to the State Historic Preservation Office, which in Kentucky is the Kentucky Heritage Council. The listing nomination is then submitted to and reviewed by the NPS, who makes a final listing decision. The NPS database identified no properties listed on the NRHP within or near the PSA.

A review of files maintained by the Office of State Archaeology (OSA) determined that no previously recorded archaeological sites were within the proposed PSA. No archaeological surveys have been performed within the PSA. The potential exists for unidentified prehistoric archaeological sites within the PSA with small seasonal prehistoric camps and isolated lithic scatters most probable.

Historic maps of the project area were also examined to determine if any structures depicted on the maps are still present. For example, the following maps were reviewed: United States Geological Survey (USGS) maps from 1953, 1961, 1994, and 2013); and Kentucky Department of Highways 1937, 1955, and 1991 General Highway Maps for Taylor County (see Appendix B). Some structures, such as residences, barns, and outbuildings appear on some of the historic maps. However, the presence of historic archaeological sites (i.e., related to farms, barns, and outbuildings) on or near where structures are depicted on historic maps are possible. A review of cemetery databases as well as historic maps did not identify any known cemeteries within the PSA.

If Section 106 of the National Historic Preservation Act is triggered by a federal permit or approval (e.g., a Clean Water Act Section 404 permit is required), archaeological and architectural surveys may need to be undertaken to determine NRHP eligibility of historic resources and project effects on these resources. Consultation with the United States Army Corps of Engineers and the Kentucky Heritage Council, which is the State Historic Preservation Officer, may be necessary to determine the appropriate level of cultural resource investigations necessary to fully

comply with Section 106 regulations. The survey generally would comprise the PSA and potentially a buffer or surrounding viewshed (the “visual Area of Potential Effect” [APE]).



Conclusions

Copperhead conducted a preliminary threatened and endangered species evaluation and a preliminary historic and archaeological resources review for the PSA. The PSA consists of agricultural land and residential use. Surrounding properties are primarily agricultural in nature as well.

Avoidance of federally listed threatened and endangered species habitat would likely result in a “may affect, not likely to adversely affect” determination during USFWS consultation (should consultation be required) for all federally listed species identified by the IPaC. A threatened and endangered species survey for federally listed species would provide additional insight into the potential for the project to affect these species. Although state-listed species in Kentucky are not protected by legislation or regulation, the project is not likely to significantly effect these species.

No known archaeological sites occur onsite, but no archaeological surveys have been conducted within the PSA. The potential exists for unknown archaeological sites to occur. If Section 106 of the National Historic Preservation Act is triggered by a federal permit or approval, consultation with the SHPO and archaeological and architectural surveys may need to be undertaken to determine eligibility of historic resources and effects of the project.

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Appendix A

USFWS Official IPaC Species List



United States Department of the Interior



FISH AND WILDLIFE SERVICE
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In Reply Refer To:

January 08, 2021

Consultation Code: 04EK1000-2021-SLI-0322

Event Code: 04EK1000-2021-E-01132

Project Name: 899 Flat Run Solar

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

Your concern for the protection of endangered and threatened species is greatly appreciated. The purpose of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.) (ESA) is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. The species list attached to this letter fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the ESA to provide information as to whether any proposed or listed species may be present in the area of a proposed action. This is not a concurrence letter; additional consultation with the Service may be required.

The Information in Your Species List:

The enclosed species list identifies federal trust species and critical habitat that may occur within the boundary that you entered into IPaC. For your species list to most accurately represent the species that may potentially be affected by the proposed project, the boundary that you input into IPaC should represent the entire “action area” of the proposed project by considering all the potential “effects of the action,” including potential direct, indirect, and cumulative effects, to federally-listed species or their critical habitat as defined in 50 CFR 402.02. This includes effects of any “interrelated actions” that are part of a larger action and depend on the larger action for their justification and “interdependent actions” that have no independent utility apart from the action under consideration (e.g.; utilities, access roads, etc.) and future actions that are reasonably certain to occur as a result of the proposed project (e.g.; development in response to a new road). If your project is likely to have significant indirect effects that extend well beyond the project footprint (e.g., long-term impacts to water quality), we highly recommend that you

coordinate with the Service early to appropriately define your action area and ensure that you are evaluating all the species that could potentially be affected.

We must advise you that our database is a compilation of collection records made available by various individuals and resource agencies available to the Service and may not be all-inclusive. This information is seldom based on comprehensive surveys of all potential habitats and, thus, does not necessarily provide conclusive evidence that species are present or absent at a specific locality. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list.

Please note that "critical habitat" refers to specific areas identified as essential for the conservation of a species that have been designated by regulation. Critical habitat usually does not include all the habitat that the species is known to occupy or all the habitat that may be important to the species. Thus, even if your project area does not include critical habitat, the species on the list may still be present.

Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and associated information. To re-access your project in IPaC, go to the IPaC web site (<https://ecos.fws.gov/ipac/>), select "Need an updated species list?", and enter the consultation code on this letter.

ESA Obligations for Federal Projects:

Under sections 7(a)(1) and 7(a)(2) of the ESA and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

If a Federal project (a project authorized, funded, or carried out by a federal agency) may affect federally-listed species or critical habitat, the Federal agency is required to consult with the Service under section 7 of the ESA, pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: <http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). Recommended contents of a Biological Assessment are described at 50 CFR 402.12. For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat.

ESA Obligations for Non-federal Projects:

Proposed projects that do not have a federal nexus (non-federal projects) are not subject to the obligation to consult under section 7 of the ESA. However, section 9 of the ESA prohibits certain activities that directly or indirectly affect federally-listed species. These prohibitions apply to all individuals subject to the jurisdiction of the United States. Non-federal project proponents can request technical assistance from the Service regarding recommendations on how to avoid and/or minimize impacts to listed species. The project proponent can choose to implement avoidance, minimization, and mitigation measures in a proposed project design to avoid ESA violations.

Additional Species-specific Information:

In addition to the species list, IPaC also provides general species-specific technical assistance that may be helpful when designing a project and evaluating potential impacts to species. To access this information from the IPaC site (<https://ecos.fws.gov/ipac/>), click on the text “My Projects” on the left of the black bar at the top of the screen (you will need to be logged into your account to do this). Click on the project name in the list of projects; then, click on the “Project Home” button that appears. Next, click on the “See Resources” button under the “Resources” heading. A list of species will appear on the screen. Directly above this list, on the right side, is a link that will take you to pdfs of the “Species Guidelines” available for species in your list. Alternatively, these documents and a link to the “ECOS species profile” can be accessed by clicking on an individual species in the online resource list.

Next Steps:

Requests for additional technical assistance or consultation from the Kentucky Field Office should be submitted following guidance on the following page <http://www.fws.gov/frankfort/PreDevelopment.html> and the document retrieved by clicking the “outline” link at that page. When submitting correspondence about your project to our office, please include the Consultation Tracking Number in the header of this letter. (There is no need to provide us with a copy of the IPaC-generated letter and species list.)

Attachment(s):

- Official Species List
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Kentucky Ecological Services Field Office

J C Watts Federal Building, Room 265

330 West Broadway

Frankfort, KY 40601-8670

(502) 695-0468

Project Summary

Consultation Code: 04EK1000-2021-SLI-0322

Event Code: 04EK1000-2021-E-01132

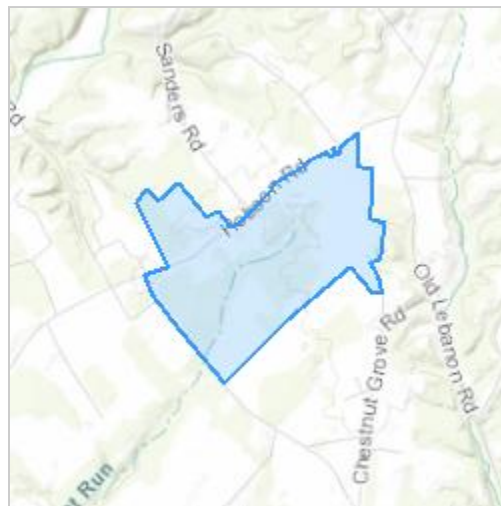
Project Name: 899 Flat Run Solar

Project Type: DEVELOPMENT

Project Description: Flat Run Solar - updated boundary

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@37.4131483,-85.38138597934443,14z>



Counties: Taylor County, Kentucky

Endangered Species Act Species

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 3 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.
-

Mammals

NAME	STATUS
<p>Gray Bat <i>Myotis grisescens</i></p> <p>No critical habitat has been designated for this species. This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> ▪ The project area includes potential gray bat habitat. <p>Species profile: https://ecos.fws.gov/ecp/species/6329 General project design guidelines: https://ecos.fws.gov/docs/tess/ipac_project_design_guidelines/doc6422.pdf</p>	Endangered
<p>Indiana Bat <i>Myotis sodalis</i></p> <p>There is final critical habitat for this species. The location of the critical habitat is not available. This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> ▪ The project area includes 'potential' habitat. All activities in this location should consider possible effects to this species. <p>Species profile: https://ecos.fws.gov/ecp/species/5949 General project design guidelines: https://ecos.fws.gov/docs/tess/ipac_project_design_guidelines/doc6422.pdf</p>	Endangered
<p>Northern Long-eared Bat <i>Myotis septentrionalis</i></p> <p>No critical habitat has been designated for this species. This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> ▪ The specified area includes areas in which incidental take would not be prohibited under the 4(d) rule. For reporting purposes, please use the "streamlined consultation form," linked to in the "general project design guidelines" for the species. <p>Species profile: https://ecos.fws.gov/ecp/species/9045 General project design guidelines: https://ecos.fws.gov/docs/tess/ipac_project_design_guidelines/doc6422.pdf</p>	Threatened

Clams

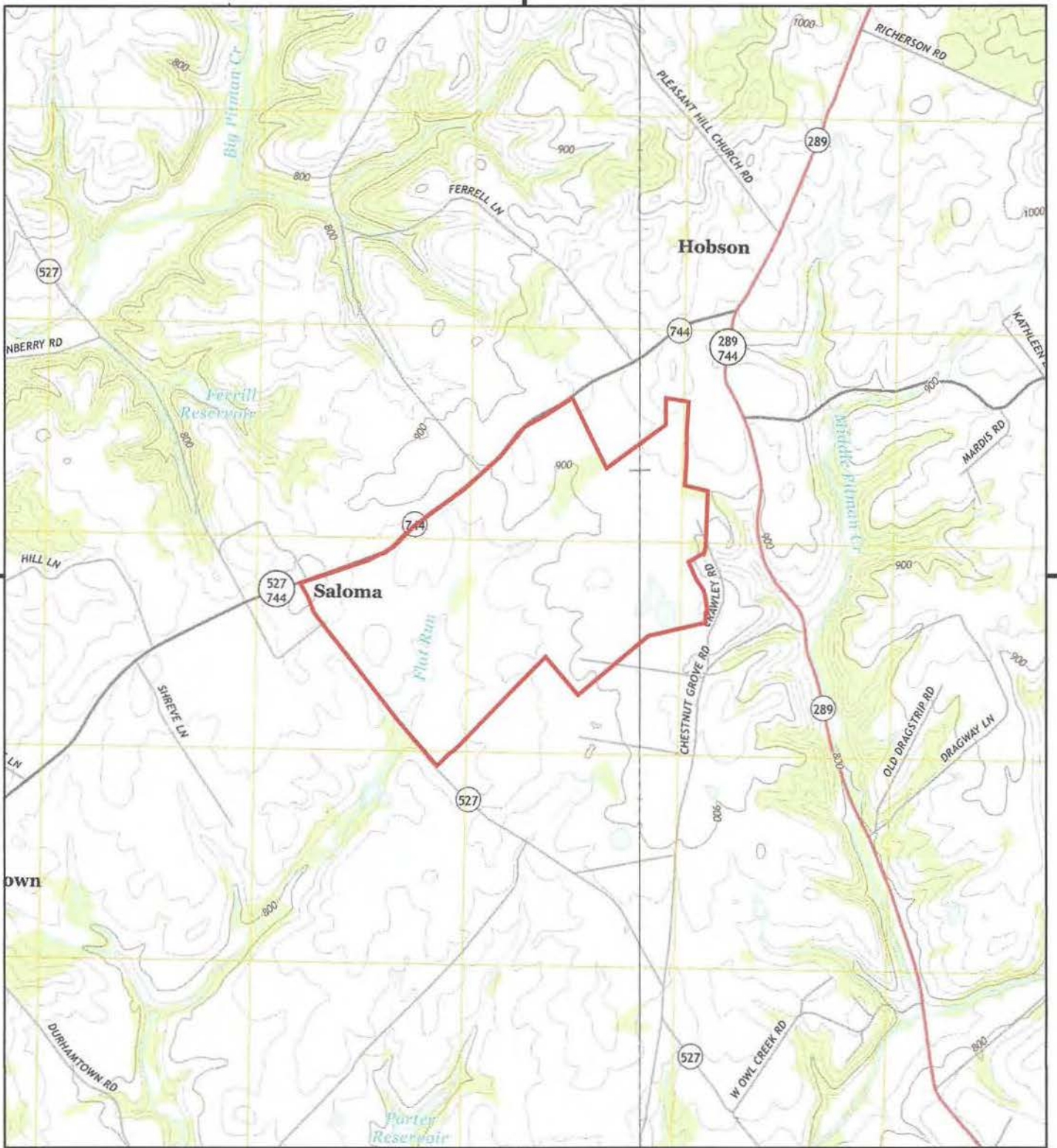
NAME	STATUS
<p>Snuffbox Mussel <i>Epioblasma triquetra</i></p> <p>No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4135</p>	Endangered

Critical habitats

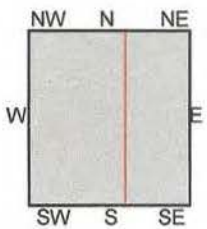
THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Appendix B:

Historic Maps



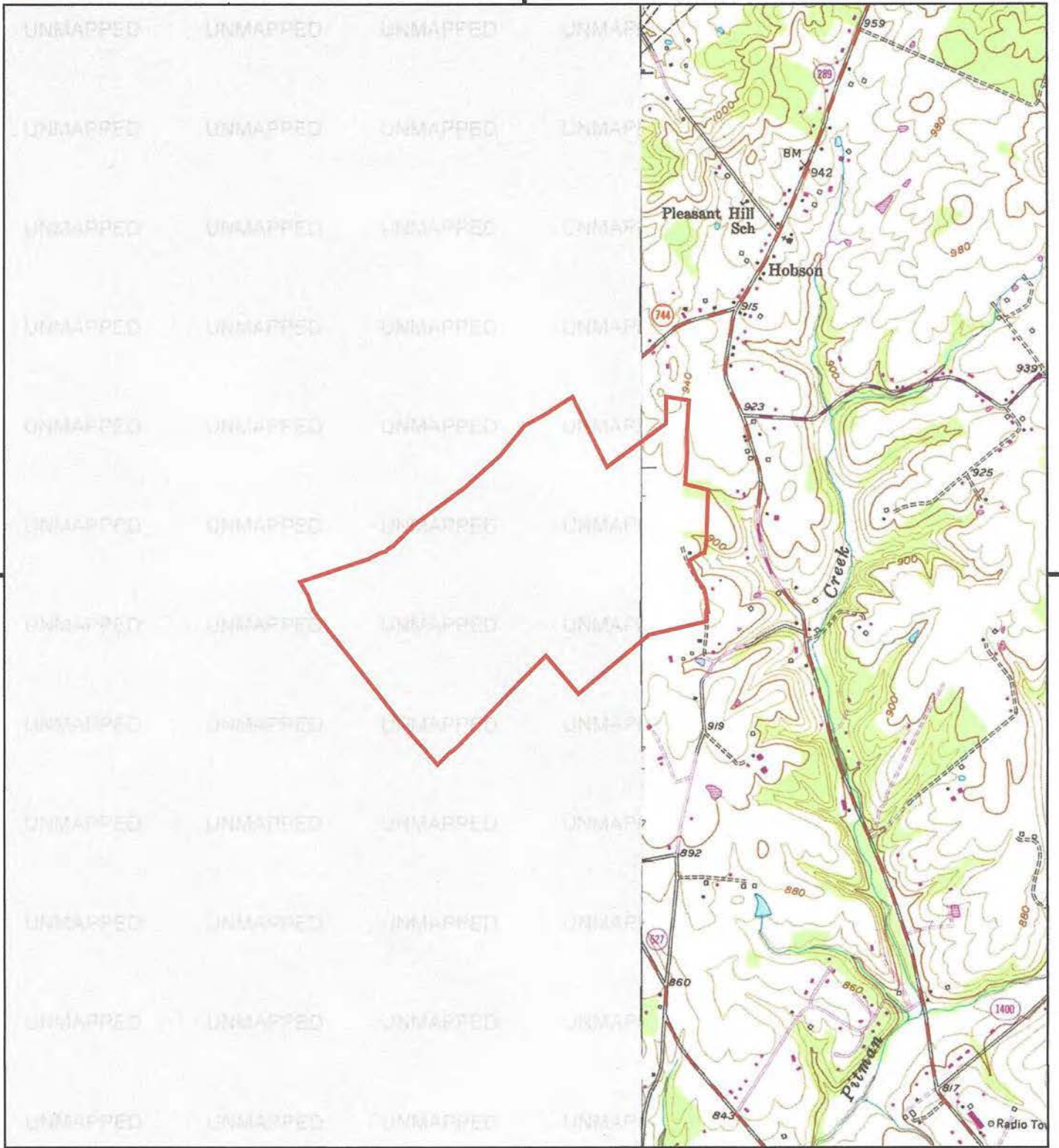
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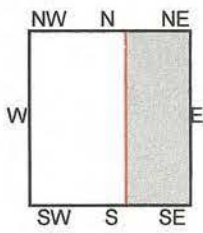
TP, Saloma, 2013, 7.5-minute
NE, Spurlington, 2013, 7.5-minute

SITE NAME: Flat Run Property
ADDRESS: Taylor County
Campbellsville, KY 42718
CLIENT: Linebach Funkhouser Inc.





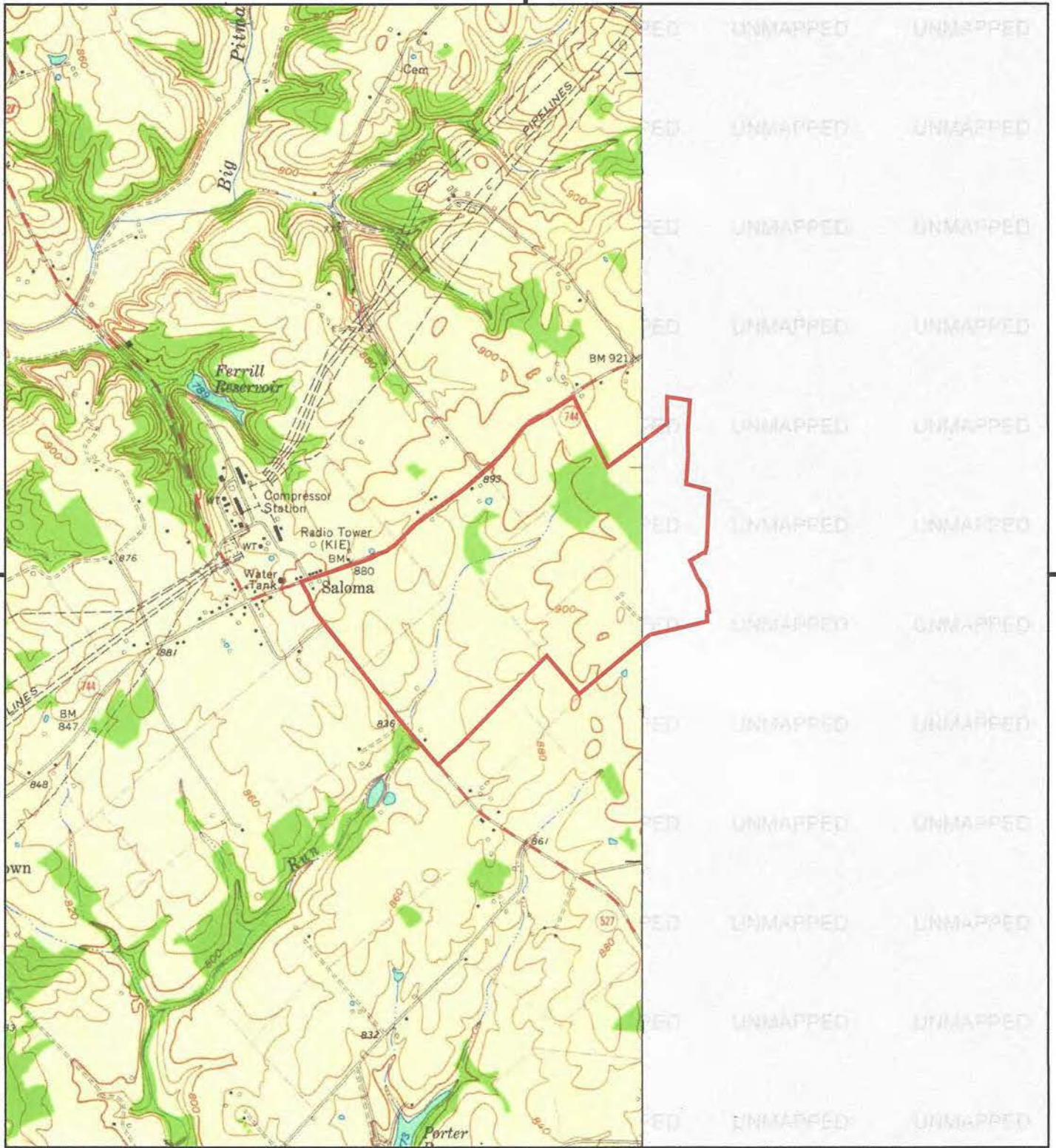
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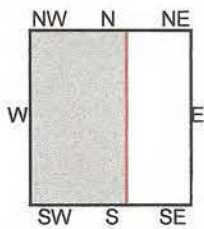
NE, Spurlington, 1994, 7.5-minute

SITE NAME: Flat Run Property
 ADDRESS: Taylor County
 Campbellsville, KY 42718
 CLIENT: Linebach Funkhouser Inc.





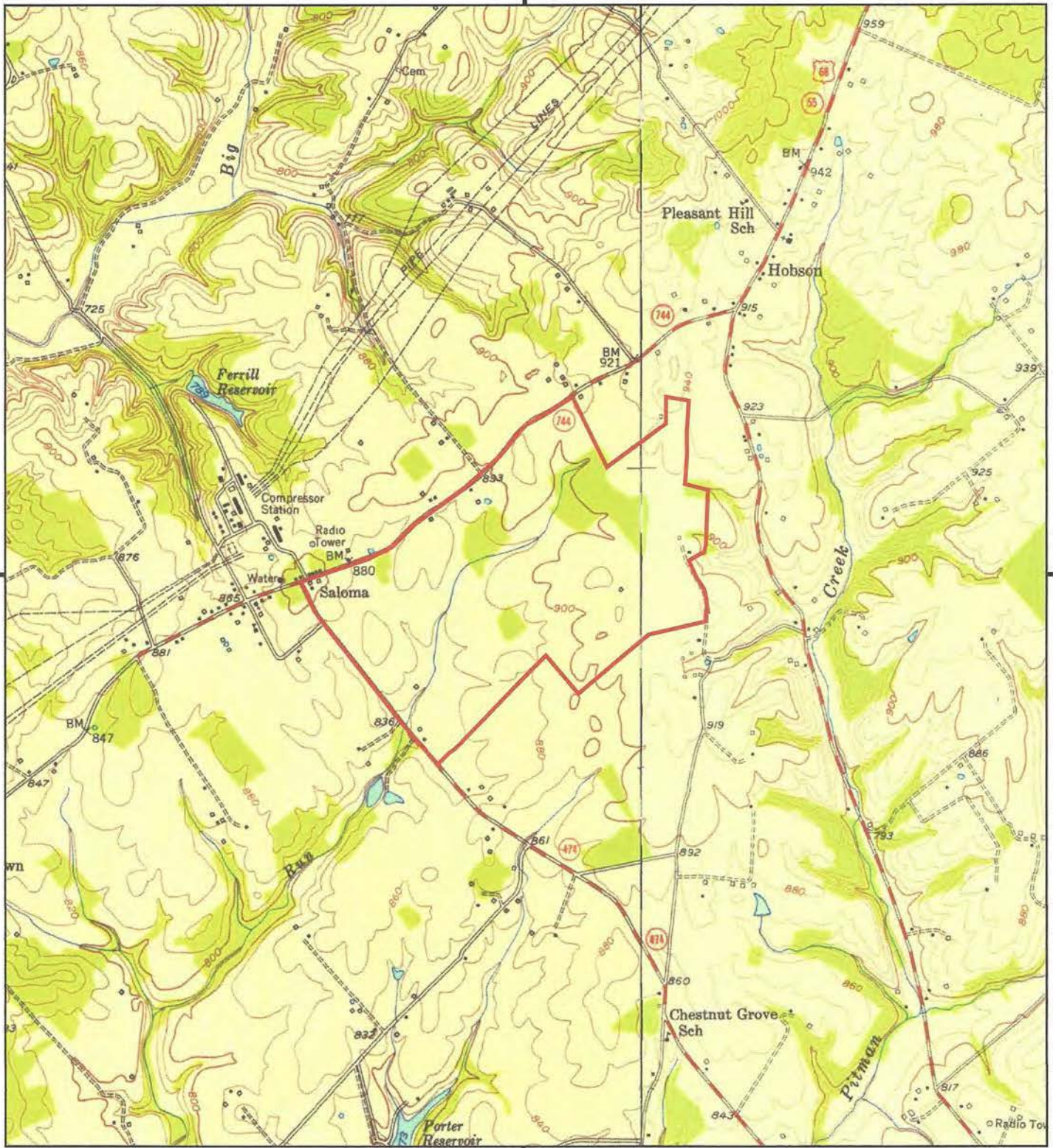
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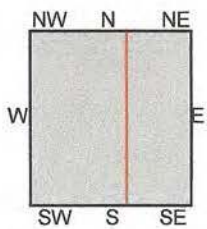
TP, Saloma, 1961, 7.5-minute

SITE NAME: Flat Run Property
ADDRESS: Taylor County
Campbellsville, KY 42718
CLIENT: Linebach Funkhouser Inc.





This report includes information from the following map sheet(s).



TP, Saloma, 1953, 7.5-minute
NE, Spurlington, 1953, 7.5-minute

SITE NAME: Flat Run Property
ADDRESS: Taylor County
Campbellsville, KY 42718
CLIENT: Linebach Funkhouser Inc.





INQUIRY #: 5946531.8

YEAR: 2016

— = 875'





INQUIRY #: 5946531.8

YEAR: 2012

— = 875'





INQUIRY #: 5946531.8

YEAR: 2008

_____ = 875'





INQUIRY #: 5946531.8

YEAR: 1997

— = 875'



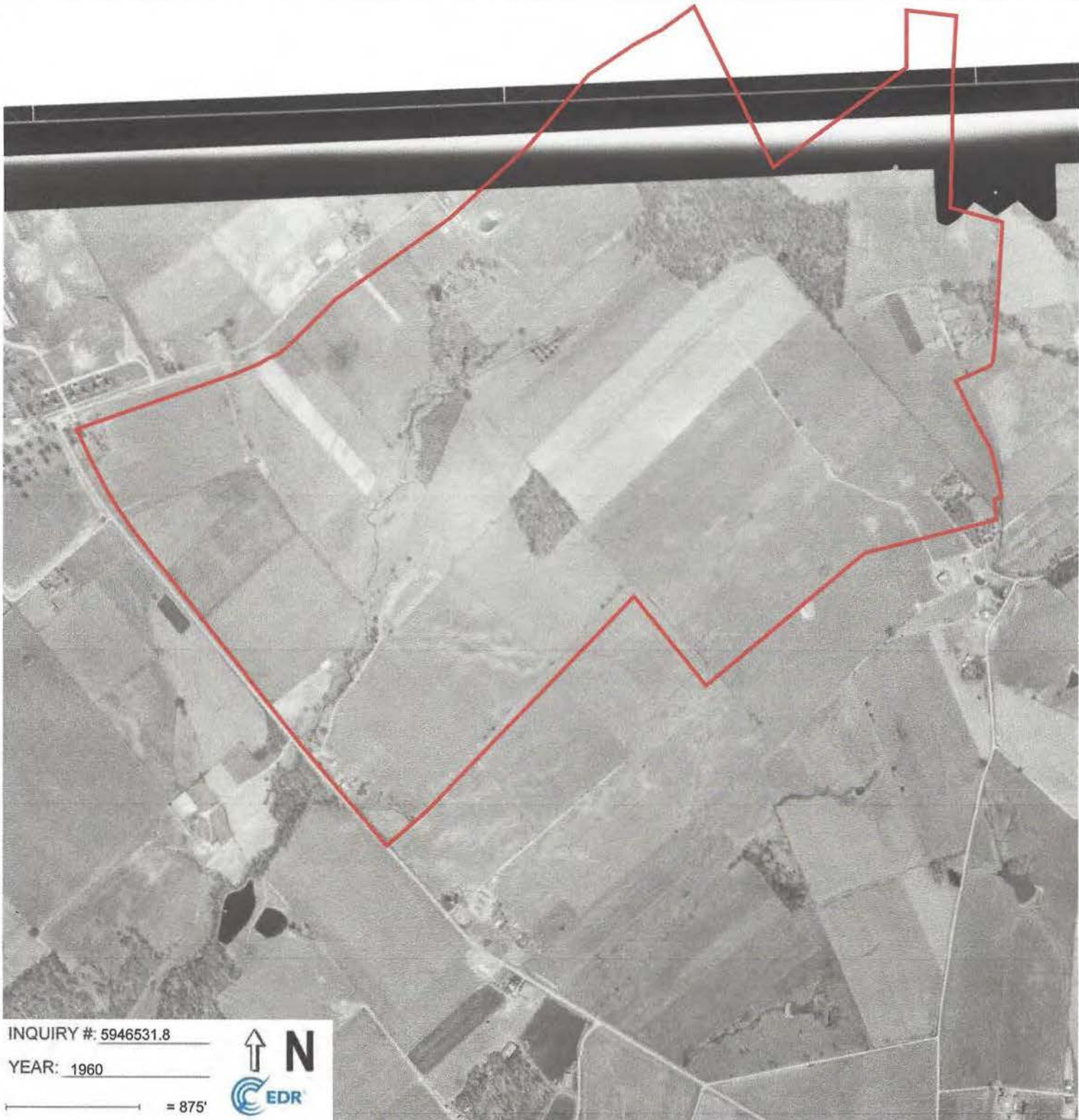


INQUIRY #. 5946531.8

YEAR: 1986

— = 875'





INQUIRY #: 5946531.8

YEAR: 1960

— = 875'



PHOTOGRAPHIC SAFETY

GS-KW

INQUIRY #: 5946531.8

YEAR: 1950

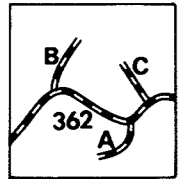
— = 875'



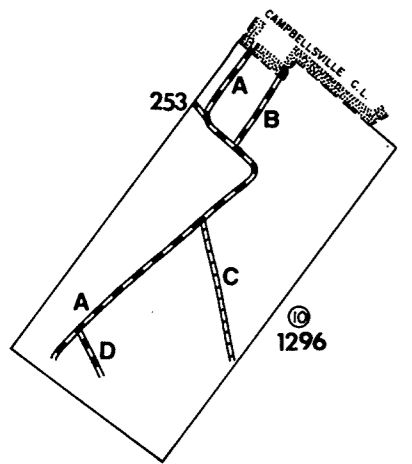


IV

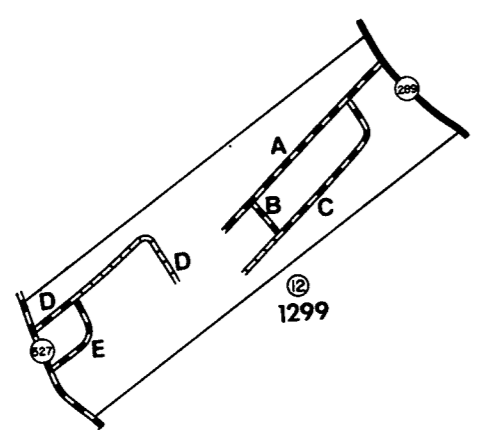
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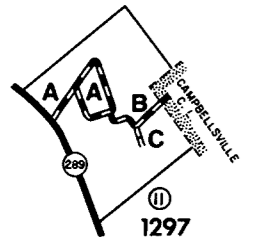
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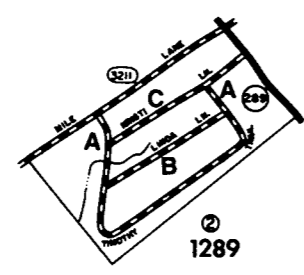
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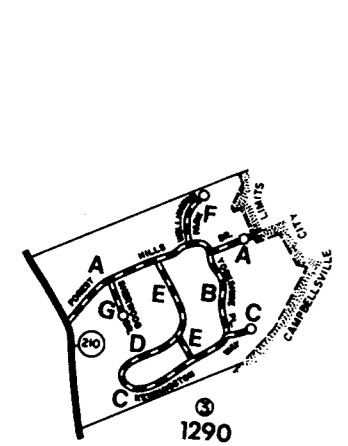
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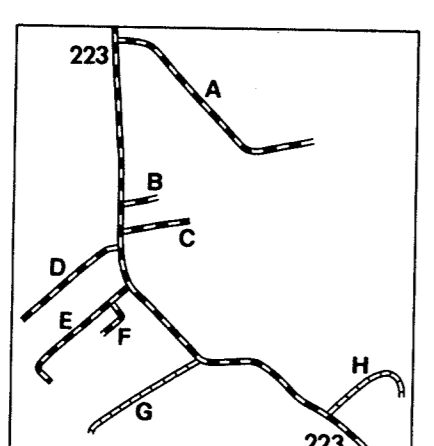
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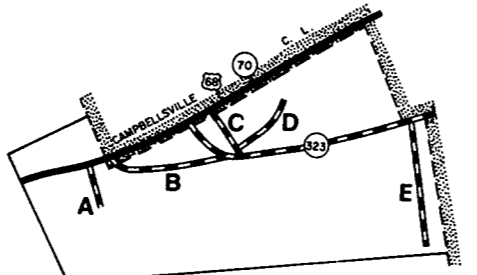
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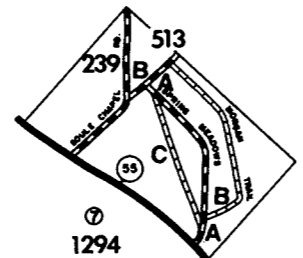
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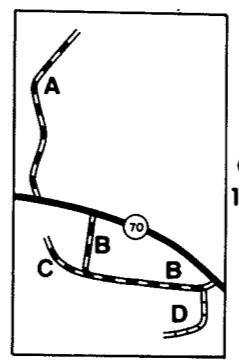
Brockman
1298



1292



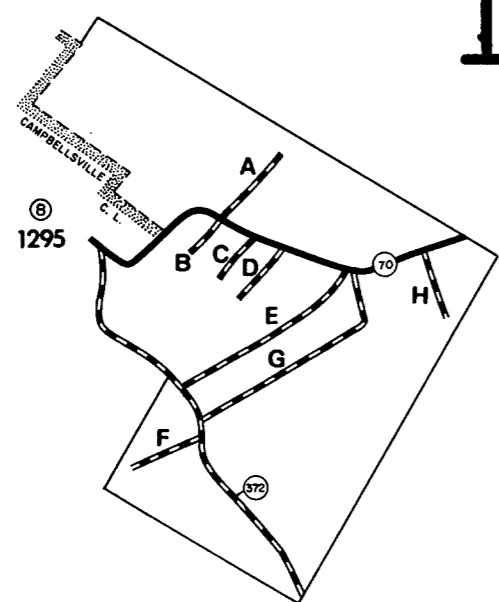
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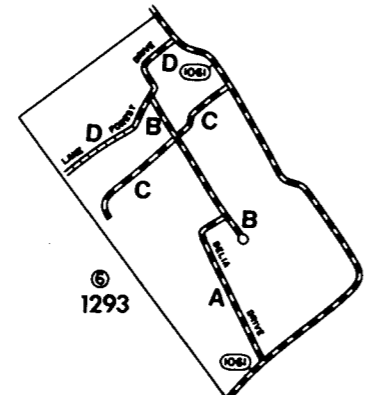
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III

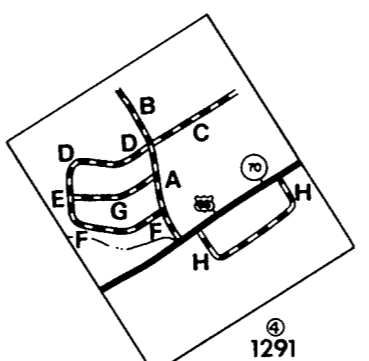
II



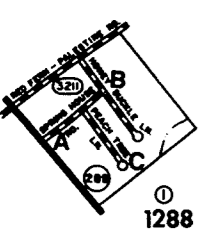
1295



1293



1291

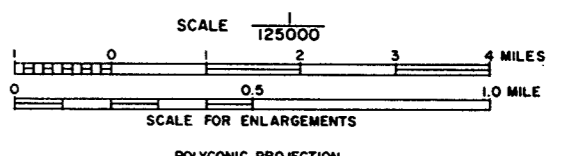


1288

SHEET 1 OF 2

1991

COUNTY ROAD SERIES MAP TAYLOR COUNTY KENTUCKY



DATE APPROVED BY FISCAL COURT 6-27-1991

QUADRANT I

QUADRANT II

QUADRANT III

QUADRANT IV

NO.	ROAD NAME	LGTH.
1001	WISE	1.90
1002	LONG BRANCH	2.80
1003	BRADSHAW	0.20
1004	SPORTSMAN LAKE	0.90
1005	J. HAMILTON	0.20
1006	HILLS CHAPEL	0.35
1007	SKAGGS LANE	0.70
1008	OAK	0.30
1009	D. ARNOLD	1.05
1010	G. HAYES	0.50
1011	LONG RIDGE	0.80
1012	RAKESHILL	2.55
1013	RAKESHILL SPUR	0.55
1014	CAT HOLLOW	1.00
1015	MERRIMAC - PECK PIKE	2.45
1016	MALONE LANE	0.35
1017	E. CLARK HOLLOW	1.50
1018	SAPP BRANCH	2.30
1019	MERRIMAC	2.35
1020	SALLEE	0.90
1021	BARNEY SCHOOL	4.85
1022	SLATE CREEK	2.20
1023	GRINDSTONE GAP	0.80
1024	SMOTHERS	0.40
1025	SALLEETOWN	0.75
1026	BURKHEAD	0.65
1027	FAIRVIEW CHURCH	0.30
1028	BOSTON	0.25
1029	RAYMOND CLARK LANE	0.60
1030	JOHN MINOR LANE	0.95
1031	CLARK	0.45
1032	SMITH CHAPEL SCHOOL	2.30
1033	FINLEY RIDGE	0.35
1034	NELSON	0.20
1035	COLVIN	1.15
1036	SPURLING	0.45
1037	PITMAN VALLEY	1.40
1038	PITMAN CREEK	1.30
1039	DOC DAVIS	0.40
1040	FINLEY RIDGE EAST	1.50
1041	RICE LANE	0.25
1042	ARISTA - PALESTINE	2.45
1043	MAUPIN	0.85
1044	RAFFERTY	1.20
1045	C. CAULK LANE	0.30
1046	BEAR TRACK	1.70
1047	SHARP LANE	0.30
1048	PALESTINE CHURCH LANE	0.80
1049	LES COLVIN	0.50
1050	FERGUSON	0.10
1051	JIM PERKINS	0.65
1052	CHRISTIAN CHURCH	0.45
1053	OLD KY 208	0.75
1054	COLVIN SPUR	0.15
1055	OLD SPURLINGTON	1.10
1056	COOMER	0.55
1057	YATES	0.30
1058	N. C. NEWTON	0.25
1059	SULLIVAN LANE	0.15
1060	E. SALLEE	0.20
1061	PITMAN SCHOOLHOUSE	0.25
1062	PALESTINE CHURCH SPUR	0.20
1063	MARTY CLARK	0.30
1064	WHITLEY	0.30
1065	OLD 337 LOOP	0.10
1066	WOOLEY	0.15
1067	RED BUD	0.15
1068	BROWN LANE	0.30
1069	COX	0.10
1070	WISE LANE	0.10
1071	P. HOLT	0.40
1072	CHRISTIAN CHURCH LOOP	0.10
1073	TUCKER LANE	0.20
1074	DUTTON CREEK	2.15
1075	JERRY WISE	0.15

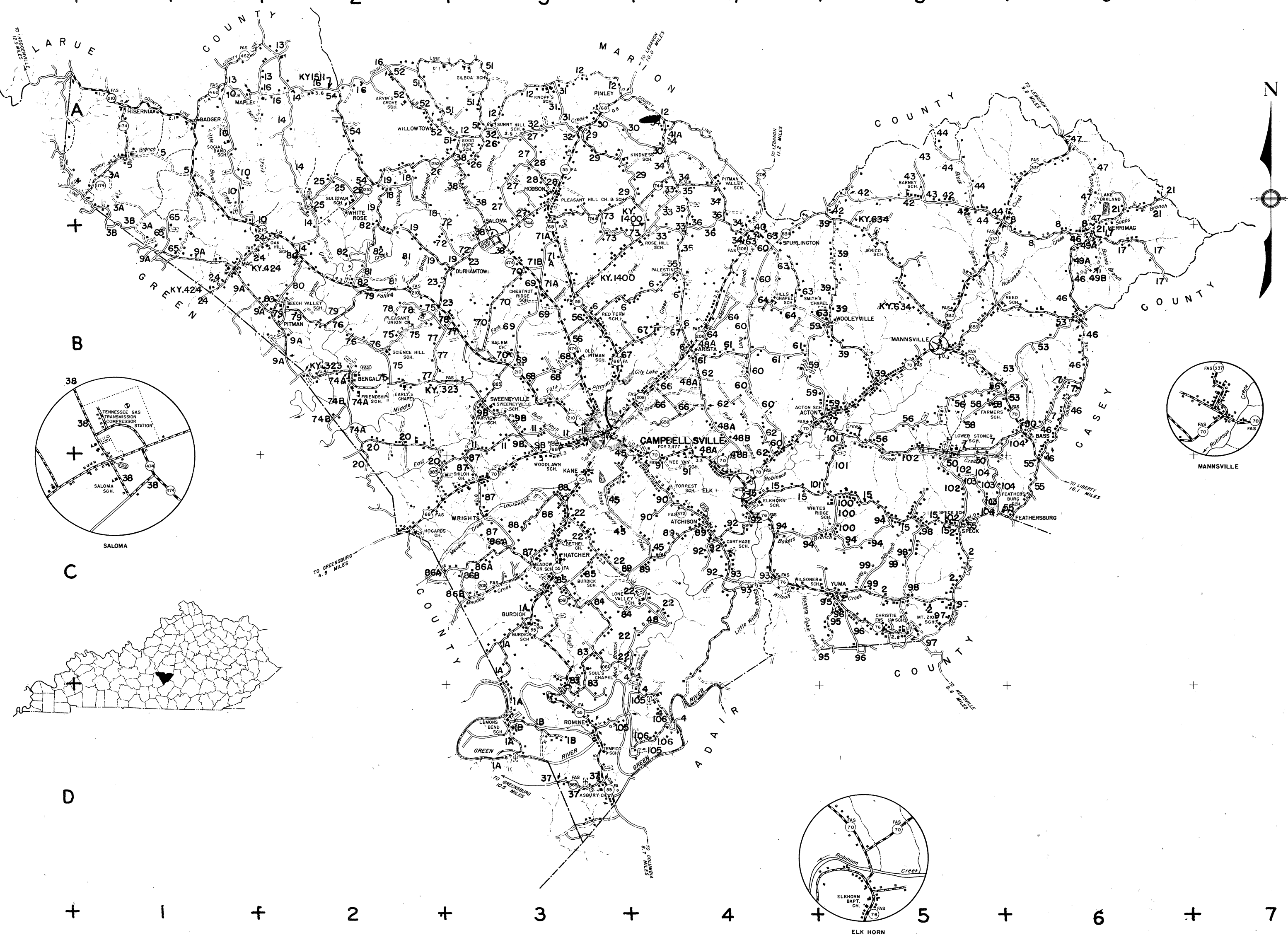
NO.	ROAD NAME	LGTH.
1100	PARKER	0.50
1101	BOWMAN	1.05
1102	ROBERTS	1.90
1103	TUCKER	0.25
1104	FRANKLIN	0.70
1105	BRUSHY FORK	1.05
1106	COX CEMETERY	1.10
1107	CATALPHA LANE	0.40
1108	FORD	0.15
1109	GADDIS RIDGE	3.95
1110	FARMER RIDGE	1.25
1111	K. HAYES	0.30
1112	MCDONALD	1.85
1113	UPPER STONER CREEK	2.20
1114	MALONE	0.30
1115	BURRESS HOLLOW	2.25
1116	STONER CREEK CHURCH	0.20
1117	COX SPUR	0.60
1118	A. COX	1.50
1119	J. CAMPBELL	0.65
1120	MCEVY	1.10
1121	ELLIOTT RIDGE	2.10
1122	EASTRIDGE CEMETERY	1.90
1123	BAKERS BRANCH	1.80
1124	DAVIS LANE	0.10
1125	SHOFNER LANE	0.40
1126	GLEN PERKINS	0.55
1127	GUMM	1.20
1128	WILSON CREEK	3.25
1129	GRAYS HOLLOW	0.30
1130	EASTERS	0.30
1131	EASTRIDGE	0.55
1132	WADE HOLLOW	0.95
1133	HOVIUS RIDGE	0.35
1134	LITTLE WINE CHURCH	0.25
1135	WHITE OAK	0.70
1136	PIKE RIDGE	3.45
1137	SAPP LANE	0.10
1138	HERRON LANE	0.50
1139	CHRISTIE	0.25
1140	BENNINGFIELD LANE	0.15
1141	STRAY WINDS	0.05
1142	JACOBS TRAIL	0.40
1143	PICKETT	0.25
1144	PICKETT SPUR	0.10
1145	CAPPS	1.25
1146	COUNTY PARK	2.00
1147	MARTIN SOUTH	1.00
1148	MARTIN NORTH	0.50
1149	REYNOLDS	0.50
1150	GRIMES	0.40
1151	STREETS IN ENLARGEMENT NO. 9	
A	KELTNER	0.25
B	OLD ELKHORN	0.35
C	OLD ELKHORN SPUR	0.10
D	MR. BROWN	0.15
1152	ELKHORN POST OFFICE	0.90
1153	PERKINS	0.20
1154	PARKER LANE	0.25
1155	SWALLOWS LANE	0.15
1156	GIBB GREER	0.35

NO.	ROAD NAME	LGTH.
1200	CHRISTERSON	1.20
1201	EUNICE	0.05
1202	ROMINE CURVE	0.10
1203	SALEM CHURCH	2.40
1204	NOE	2.55
1205	MOSS LANE	0.30
1206	PHILLIPS	1.75
1207	BUCKNER	0.20
1208	FALLEN TIMBER	3.00
1209	LOCUST	0.85
1210	J. MOSS	3.00
1211	OVERBROOK	0.25
1212	FRIENDSHIP	1.05
1213	MOUNT ROBERTS CHURCH	0.30
1214	FAIRVIEW	0.50
1215	OLD SUMMERSVILLE	1.80
1216	SMITH	0.35
1217	ARNOLD	0.80
1218	PARROTT CEMETERY	0.50
1219	BERRY	0.65
1220	WILCOXSON	0.25
1221	OLD GREENSBURG	2.60
1222	PEPPER	0.75
1223	DAVIS	2.05
1224	TABERNACLE	0.75
1225	WHITE WOOD	2.65
1226	ELMORE	0.80
1227	JOHNSON	0.35
1228	AKER	0.50
1229	LYLE LANE	0.55
1230	KERR	1.40
1231	HALL LANE	0.35
1232	RUSSELL	0.20
1233	LEMON BEND	2.75
1234	GRANT	0.75
1235	LEMON BEND SPUR	0.05
1236	ROMINE LOOP SOUTH	0.30
1237	ROMINE LOOP SPUR	0.30
1238	OLD KY 55 LOOP	0.65
1239	SOUL CHAPEL	1.20
1240	WILLIAMS LANE	0.40
1241	HUBBARD LANE	0.25
1242	ROBIN	0.75
1243	BURDICK SCHOOL	1.30
1244	GAINES	1.10
1245	SPEARS	1.65
1246	RHODES	0.65
1247	CAMPBELL	0.30
1248	FRIENDSHIP SOUTH	0.25
1249	JONES	0.30
1250	DURHAM	0.20
1251	BEECHWOOD	0.25
1252	VANCLAVE	0.40
1253	RED LANE	0.65
1254	NUNN	0.30
1255	GREEN LEAF	0.50
1256	BLACK	0.25
1257	WALNUT	0.10
1258	YARBERRY	0.15
1259	HAYES	0.50
1260	BURCH DRIVE	0.25
1261	BURCH SPUR	0.05
1262	R. A. WILLIS	0.25
1263	J. PETERSON	0.18
1264	MCLANE	0.45
1265	M. MOSS LANE	0.20
1266	GOINS	0.25
1267	W. J. KERR	0.75
1268	WILLIAMS	0.50
1269	MCLEAN	0.35
1270	GILPIN	0.35
1271	STUBBS	0.45
1272	WALTERS	0.40
1273	OLD KY 55 LOOP SOUTH	0.20
1274	WHITLOCK	0.45
1275	QUINN	0.20
1276	WESTMORE DRIVE	0.45
1277	SCENIC OVERLOOK	2.30
1278	AUDUBON	2.40
1279	SHREVEPORT	0.45
1280	DOWELL	0.30
1281	CAINWOOD	0.45
1282	CAINWOOD CIRCLE DRIVE	0.10
1283	CAINWOOD CIRCLE	0.35
1284	TWIN CREEK CIRCLE	0.70
1285	WEDGEWOOD DRIVE	0.30
1286	BENNETT LANE	0.40
1287	ORIOLE	0.20
1288	STREETS IN ENLARGEMENT NO. 1	
A	SPRING HOUSE	0.20
B	HONEYSUCKLE LANE	0.25
C	PEACH TREE LANE	0.20
1289	STREETS IN ENLARGEMENT NO. 2	
A	TIMOTHY TRAIL	0.75
B	LINDA LANE	0.30
C	KRISTI LANE	0.30
1290	STREETS IN ENLARGEMENT NO. 3	
A	FOREST HILLS DRIVE	0.40
B	YORKSHIRE PLACE	0.20
C	KENSINGTON WAY	0.35
D	CANTERBURY WAY	0.20
E	WAKEFIELD DRIVE	0.25

NO.	ROAD NAME	LGTH.
F	WELLINGTON PARK	0.20
G	SHERWOOD DRIVE	0.05
1291	STREETS IN ENLARGEMENT NO. 4	
A	SHA LAWN DRIVE	0.20
B	EDGEWOOD	0.10
C	CINDY ANN DRIVE	0.20
D	BIRDIE AVENUE	0.20
E	TERRIE AVENUE	0.10
F	DEBRA KAY AVENUE	0.20
G	EARL AVENUE	0.20
H	ARROWHEAD TRAILER PARK	0.40
J		0.00
1292	STREETS IN ENLARGEMENT NO. 5	
A	WARREN COURT	0.10
B	OLD WEST MAIN	0.20
C	LULA AVENUE	0.05
D	ANN	0.08
E	GREENHILL DRIVE	0.25
1293	STREETS IN ENLARGEMENT NO. 6	
A	DELIA DRIVE	0.40
B	PENN PARK AVENUE	0.40
C	WOODLAWN TRAIL	0.35
D	LAKE FOREST DRIVE	0.40
1294	STREETS IN ENLARGEMENT NO. 7	
A	SPRING MEADOWS CIRCLE	0.35
B	MORGAN TRAIL	1.00
C	MEADOWS CIRCLE	0.30
1295	STREETS IN ENLARGEMENT NO. 8	
A	COUNTRY VIEW	0.20
B	MEADOWVIEW	0.10
C	MEADOWVIEW COURT	0.05
D	SHELIA	0.15
E	HAPPY HILLS DRIVE	0.45
F	S. CLARK	0.15
G	HIGHLAND DRIVE	0.55
H	SAW MILL	0.10
1296	STREETS IN ENLARGEMENT NO. 10	
A	STONE QUARRY	0.85
B	ROLLAND	0.20
C	BARNETT	0.30
D	SKAGGS	0.10
1297	STREETS IN ENLARGEMENT NO. 11	
A	STEVENS COURT	0.35
B	SNOW LANE	0.15
C	SNOW LANE SPUR	0.10
1298	STREETS IN BROCKMAN	
A	BROCKMAN	0.50
B	VILLAGE GREEN NORTH	0.10
C	VILLAGE GREEN SOUTH	0.20
D	NATURE WAY	0.25
E	WILDWOOD	0.40
F	PERK	0.10
G	EARTHORN	0.25
H	JUSTIN WAY	0.25
1299	STREETS IN ENLARGEMENT NO. 12	
A	FERN DRIVE	0.55
B	SPRUCE COURT	0.10
C	WILLOW WAY DRIVE	0.50
D	LEET LANE	0.45
E	CLARA	0.30
1500	LISA	0.05
1501	HOGARDS CHAPEL	0.05
1502	ROMINE LOOP NORTH	0.20
1503	CAMPBELLSVILLE INDUSTRIAL	0.35
1504	BOILS	0.10
1505	COWHERD	0.35
1506	M & R LANE	0.25
1507	BETHEL HILL	0.25
1508	HARDY LANE	0.15
1509	DOWELL LANE	0.20
1510	K.O.A. CAMPGROUND	0.40
1511	CHARLES TUCKER	0.25
1512	ROBERT SUBLETT	0.15
1513	SPRING MEADOW	0.15
1514	CAULK LANE	0.20
1515	RELIFORD LANE	0.20
1516	WOOD DRIVE	0.10

NO.	ROAD NAME	LGTH.
1300	GEORGE PERKINS	0.40
1301		0.00
1302		0.00
1303	SHARP FARM	0.45
1304	DRAGWAY LANE	0.75
1305	COLLINS LANE	1.10
1306	CAVE	0.10
1307	KINDNESS	2.50
1308		0.00
1309	CAULK LAKE	0.40
1310	JARBOE	0.25
1311	FEATHER CREEK	2.65
1312	S. L. REYNOLDS	0.35
1313	SUNNY HILL	1.10
1314	MOUNT GILBOA	5.55
1315	HARLAND - CAULK	1.65
1316	HUNTS HOLLOW	1.20
1317	OLD GRAHAM	1.10
1318	BELL	0.80
1319		0.00
1320	N. POE - YOUNG	2.80
1321	QUISENBERRY	0.70
1322	ARVIN PIKE	0.60
1323	YOUNGS BRANCH	0.35
1324	MOUNT WASHINGTON CEMETERY	0.85
1325	MAPLE	1.55
1326	WHITE ROSE	0.90
1327	JONES CREEK	1.05
1328	SPROWLES RIDGE	2.90
1329	BULL TAIL CREEK	0.45
1330	HEDGEPETH	1.50
1331	SULLIVAN SCHOOL	2.00
1332	SOCIAL BAND	4.15
1333	HILL CREEK	2.15
1334	GRAVEL POINT	1.15
1335		0.00
1336	E. WALL PIKE	0.85
1337	POPLAR GROVE	2.85
1338	BLACK SNAKE BRANCH	1.20
1339	BLACK SNAKE BRANCH SPUR	0.70
1340	WEBSTER	1.65
1341	HICKORY GROVE	2.05
1342	UNDERWOOD	1.70
1343	SAND LICK	0.70
1344	MAC PITMAN	2.65
1345	GARNETT	1.75
1346	HUMBLE	0.30
1347	HARDIS LANE	0.70
1348	COLSBY NORTH	0.70
1349	CHANEY PIKE	3.80
1350	COLLINS LANE SPUR	0.20
1351	DURHAMTOWN	0.85
1352	WADE LANE	1.00
1353	SHREVE LANE	0.50
1354	GAULT LANE	0.65
1355	HARDIS	0.40
1356	SALOMA CHURCH LANE	0.35
1357	SANDERS	1.95
1358	FERRILL LANE	0.75
1359	PLEASANT HILL CHURCH	1.05
1360	CHESTNUT GROVE	1.30
1361	CHESTNUT GROVE WEST	0.30
1362	OWL CREEK	0.70
1363	F. HARDING</	

NO.	NAME OF ROAD	LGTH.	LOG
1001A	LEMON BEND	3.9	D3
1001B	LEMON BEND	1.6	D3
1002	YUMA	5.2	C5
1003A	POPLAR BRANCH	2.6	A1
1003B	POPLAR BRANCH	0.3	A1
1004	ROBINSON CREEK	1.8	D4
1005	ED LEE ROAR	1.7	A1
1006	ARISTA-RED FERN	4.7	B4
1007	STONER CREEK	7.6	B5
1008	MERRIMAC	2.5	B6
1009A	EARLIEST CHAPEL-MAC	5.0	B1
1009B	EARLIEST CHAPEL-MAC	1.8	B3
1010	LITTLE BUSH CREEK	3.8	A1
1011	OLD GREENSBURG	3.3	B3
1012	FINLEY RIDGE	6.2	A3
1013	MAPLE	2.8	A1
1014	MT. CARMEL	4.5	A2
1015	ELKHORN-SPECK	5.9	C5
1016	CROOKED SOWER WOOD	4.2	A2
1017	G. W. MALONE	2.4	B6
1018	YOUNG BRANCH	1.4	A2
1019	BOB CHANEY	3.8	A2
1020	OLD SUMMERSVILLE	2.6	B2
1021	SAPPS BRANCH	2.3	A6
1022	LONE VALLEY	5.9	C3
1023	HOBSON	2.4	B3
1024	OAK HILL	2.3	B1
1025	SULLIVAN SCHOOL	1.7	A2
1026	OLD McFARLAND	1.7	A3
1027	PLEASANT HILL SCHOOL	2.7	A3
1028	HOBSON-PLEASANT HILL	1.0	A3
1029	KINDNESS SCHOOL	2.4	A3
1030	GEORGE VANNINGFIELD	1.7	A3
1031	KNOPPS SCHOOL	0.9	A3
1032	PITTMAN CREEK	2.7	A3
1033	ROSE HILL	2.3	A4
1034	NEWTON LANE	4.7	A4
1035	PALESTINE	2.4	A4
1036	MUD LANE	0.8	A4
1037	ASHBURY	1.4	D3
1038	SALOMA-WILLOWTOWN	2.5	A3
1039	WOOLEYVILLE	4.8	B5
1040	PHILLIPSBURG	1.4	A4
1041A	PITTMAN VALLEY SCHOOL	2.6	A4
1041B	PITTMAN VALLEY SCHOOL	0.5	A4
1042	BARNEY SCHOOL	4.0	A5
1043	EDELEN	1.0	A5
1044	BLACK LICK	3.1	A5
1045	STONE QUARRY	3.3	C3
1046	BASS	6.9	B6
1047	GUTTER BRANCH	2.6	A6
1048A	ARISTA-ROBERTS	3.3	B4
1048B	ARISTA-ROBERTS	0.3	B4
1049A	BURNS BRANCH	1.1	B6
1049B	BURNS BRANCH	0.2	B6
1050	OLD ROAD	0.9	C5
1051	SUNNY HILL GILBOA	5.7	A3
1052	ARVINS GROVE SCHOOL	2.1	A2
1053	LONG RIDGE	3.1	B6
1054	SPROWLES	2.5	A2
1055	PETERSON BALDWIN	3.4	C6
1056	MILE LANE	0.8	B3
1057	GATIS-GRAVEYARD	4.0	B5
1058	FARMERS SCHOOL	1.1	B5
1059	ACTON SCHOOL	2.6	B4
1060	LONG BRANCH	5.7	B4
1061	WISE	2.8	B4
1062	SPRAY BRANCH	3.3	B4
1063	SMITH CHAPEL SCHOOL	3.7	B4
1064	HILL CHAPEL	2.8	B4
1065	WEBSTER	0.7	B1
1066	AIRPORT	1.1	B4
1067	BEAR TRACK	1.8	B4
1068	OED PITTMAN	1.4	B3
1069	SALEM	2.3	B3
1070	NOE BRAS	2.9	B3
1071A	MOSS LANE	1.2	B3
1071B	MOSS LANE	0.2	B3
1072	WADE LANE	1.0	B3
1073	GLD COLLINS	1.2	B3
1074A	FRIENDSHIP	1.1	B2
1074B	FRIENDSHIP	0.5	B2
1075	FALLEN TIMBER	2.9	B2
1076	BOB YOUNG	0.7	B2
1077	PHILLIPS	1.6	B2
1078	PLEASANT UNION	1.5	B2
1079	MOSS	3.1	B2
1080	MT. ROBERTS	1.7	B2
1081	TIMBER BRANCH	1.3	B2
1082	COLSBY	2.5	B2
1083	SOUL'S CHAPEL	1.7	C3
1084	DUDEBON	2.5	C3
1085	BURDICK SCHOOL	1.1	C3
1086A	WHIT WOOD	2.0	C3
1086B	WHIT WOOD	0.6	C3
1087	HORDS CROSS	3.3	C3
1088	SPEARS	1.5	C3
1089	ATCHISON	2.4	C4
1090	HORD	0.6	C4
1091	WEE YAN SCHOOL	0.7	C4
1092	CARTHAGE SCHOOL	2.5	C4



NO.	NAME OF ROAD	LGTH.	LOG
1093	WILSON CREEK	1.2	C4
1094	BAKER BRANCH	3.5	C4
1095	A. L. GUM	1.5	C5
1096	HOUIS	0.9	C5
1097	MT. ZION	1.5	C5
1098	BLINDMAN STORE	1.8	C5
1099	LONEY BRANCH	0.7	C5
1100	WHITESRIDGE	0.7	C5
1101	COX GRAVE YARD	1.5	C5
1102	SPECK SCHOOL	2.7	C5
1103	ABE COX	1.5	C5
1104	FEATHERSBURG SCHOOL	2.3	C5
1105	PIKE CEMETERY	2.1	D4
1106	PIKE RIDGE	1.1	D4
1107	ROMINE	0.7	D3
1108	BURDWOOD	1.1	B4

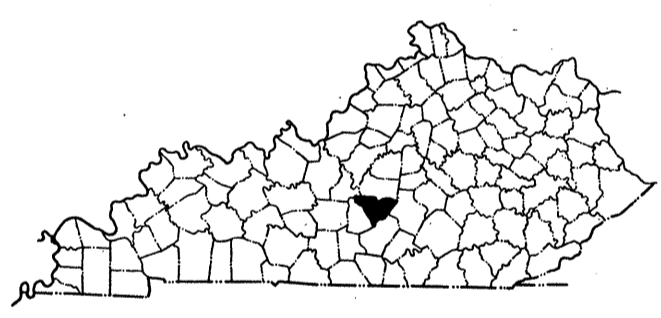
1955
RURAL HIGHWAY SERIES
TAYLOR COUNTY
KENTUCKY

PREPARED BY THE
 KENTUCKY DEPARTMENT OF HIGHWAYS
 IN COOPERATION WITH THE
 PUBLIC ROADS ADMINISTRATION
 FEDERAL WORKS AGENCY
 DATA OBTAINED FROM
 STATE-WIDE HIGHWAY PLANNING SURVEY

SCALE 1:25000
 ENLARGEMENT SCALE
 1949

POLYCONIC PROJECTION
 GENERAL HIGHWAY MAP TAYLOR COUNTY KENTUCKY 109

REVISIONS	
1-1-40	1-1-41
1-1-42	1-1-43
1-1-44	1-1-45
1-1-46	1-1-47
1-1-48	

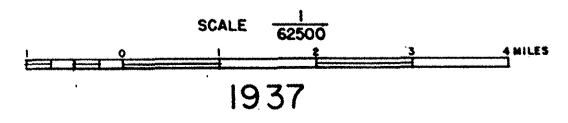


LEGEND

<ul style="list-style-type: none"> UNITED STATES HIGHWAY STATE HIGHWAY SYSTEM COUNTY BOUNDARY CORPORATE LINES NATIONAL PARK, STATE PARK, NATIONAL FOREST, STATE FOREST INTERMITTENT STREAMS NAVIGABLE STREAMS HEAD OF NAVIGATION (LARGE STREAMS) DRAINAGE DITCH FREE FERRY TOLL FERRY HIGHWAY TUNNEL LEVEE WITH ROAD FORD COUNTY SEAT OTHER CITIES & VILLAGES PROMINENT ELEVATIONS AIR ROUTES HIGHWAY BRIDGE DAM DAM WITH LOCK SMALL DAM WITH LOCK LARGE RESERVOIR, POND OR LAKE 	<ul style="list-style-type: none"> MONUMENT SMALL GOLF GROUNDS OR COUNTRY CLUB SMALL PARKS FAIR GROUNDS, RACE COURSES, SPEEDWAYS CEMETERY CHURCH CEMETERY ADJACENT IN USE NOT IN USE FARM UNIT DWELLINGS (OTHER THAN FARM) HOMES OR GROUPS OF DWELLINGS CLOSELY SPACED STORE OR SMALL BUSINESS ESTABLISHMENT COMBINED DWELLINGS AND STORE HOTEL CHURCH, OTHER RELIGIOUS INSTITUTIONS SCHOOL HOUSE, OTHER EDUCATIONAL INSTITUTIONS HOSPITAL FACTORY OR INDUSTRIAL PLANT SEASONAL OR SUMMER COLONY DWELLINGS SEASONAL DWELLINGS CLOSELY SPACED CCC CAMP ARMY, NAVY OR MARINE CORPS FIELD DEPARTMENT OF COMMERCE INTERMEDIATE FIELD COMMERCIAL OR MUNICIPAL FIELD MARKED AUXILIARY FIELD AIRPORT HOUSING FACILITIES RESERVOIR, POND OR LAKE AIRPLANE LANDING FIELD MARKED OR EMERGENCY 	<ul style="list-style-type: none"> SMALL (STATIONARY) QUARRY OR GRAVEL PIT MINE OIL OR GAS WELLS TANKS POWER PLANT TOWN HALL, GRANGE OR COMMUNITY HALL FOREST SERVICE LOOKOUT STATION STATE ROAD GARAGES MUNICIPAL GARAGE OR RUBBISH DUMPS SEASONAL INDUSTRY (CANNERY OR SMALL GRAIN MILL) FRESH AIR FARMS OR REST HOMES COUNTY FARM CORRECTIONAL INSTITUTION CAMP GROUND YOUNG CAMP MUNICIPAL PARK PLAYGROUNDS, BALL FIELDS, ETC. BATHING BEACHES SCENIC SITES GAME FARMS GAME PRESERVES RAILROAD (ANY NUMBER TRACKS) USED BY SINGLE OPERATING COMPANY RAILROAD STATION RAILROAD GRADE CROSSING RAILROAD ABOVE 	<p style="text-align: center;">ROAD TYPES</p> <ul style="list-style-type: none"> TRAIL PRIMITIVE ROAD UNIMPROVED ROAD GRADE AND DRAINED ROAD METAL SURFACE ROAD (MINE WASTE) METAL SURFACE ROAD LOW TYPE BITUMINOUS ROAD PAVED ROAD MILEAGE INDICATED
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HIGHWAY AND TRANSPORTATION MAP TAYLOR COUNTY KENTUCKY

PREPARED BY THE
KENTUCKY DEPARTMENT OF HIGHWAYS
U. S. DEPARTMENT OF AGRICULTURE
BUREAU OF PUBLIC ROADS
DATA OBTAINED FROM
STATE-WIDE HIGHWAY PLANNING SURVEY



POLYCONIC PROJECTION

Flat Run Solar, LLC
Response to Siting Board's Post-Hearing Request for Information
Case No. 2020-00272

Request No. 6: Provide notice and any applicable documentation regarding the sale of Flat Run Solar, LLC to Engie North America.

Response: Notice will be entered into the docket contemporaneously in a separate filing.

Responding Witness: Ben Lindermeier

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

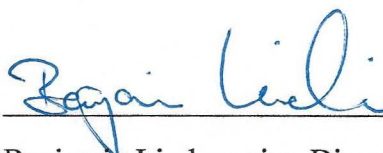
ELECTRONIC APPLICATION OF FLAT)
RUN SOLAR, LLC FOR A CERTIFICATE OF)
CONSTRUCTION FOR AN APPROXIMATELY)
55 MEGAWATT MERCHANT ELECTRIC)
SOLAR GENERATING FACILITY IN TAYLOR)
COUNTY, KENTUCKY PURSUANT TO KRS)
278.700 AND 807 KAR 5:110.)

Case No. 2020-00272

VERIFICATION OF RESPONSES TO SITING BOARD'S POST HEARING RFI

This is to certify that I, Benjamin Lindermeier, have supervised the preparation of the Flat Run Solar LLC responses to the Siting Board's Post-hearing Request for Information, and that the responses are true and accurate to the best of my knowledge, information, and belief after reasonable inquiry.

Signed this 17th day of September, 2021.



Benjamin Lindermeier, Director of Project
Development, Flat Run Solar, LLC