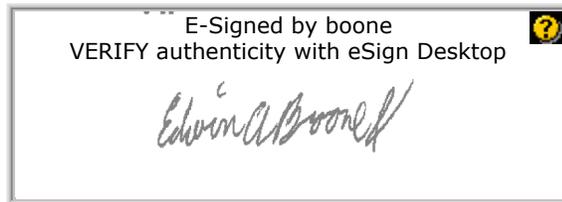


## MEMORANDUM

**To:** Coal Fields Gas Supply 2017 AML Pilot Project

**From:** Edwin A. Boone, Jr., Environmental Scientist IV; Design Branch  
Section II, Staff Biologist



**Through:** Keith Coleman, Branch Manager; Project Eligibility Branch

**Re:** Results of Kentucky State Nature Preserves Commission (KSNPC)  
database search

**Date:** May 20, 2019

On Monday, May 20, 2019, I conducted a search of the KSNPC database in order to determine if any species that are monitored by the KSNPC are known to occur within the near vicinity (a 1 mile radius) of any of the site to be disturbed by this project, and if any federally listed threatened and endangered species are known to occur within the general area (a 10 mile radius) of these sites. These searches revealed that one species of state concern that are monitored by the KSNPC occurs within one mile, and that four federally listed threatened and endangered species is known to exist within ten miles of the project site. The species noted in the search are:

- Northern brook lamprey (*Ichthyomyzon fossor* – KSNPC Threatened)
- Kentucky arrow darter (*Etheostoma spilotum* – USESA Threatened)
- gray bat (*Myotis grisescens* – USESA Endangered)
- Northern long-eared bat (*Myotis septentrionalis* – USESA Threatened)
- Indiana bat (*Myotis sodalis* – USESA Listed Endangered)

In its comments regarding this proposed project, the Kentucky Department of Fish and Wildlife resources did not mention any species in addition to those noted above.

This proposed project is composed of a 4.5 mile-long corridor, within which a natural gas supply line will be installed. Following the completion of this project, other entities will complete the remaining

portions of the natural gas supply line, which will ultimately supply natural gas to the Coal Fields Industrial Park. The completed supply pipeline will assist in making the Coal Fields Industrial Park more attractive to businesses. This AML-funded portion of the total project is to be constructed across areas impacted by coal surface mining operations. This project is to not disturb any streams, caves or cave-like structures or trees. All disturbed areas will be subjected to stringently enforced erosion and sediment control practices as specified in the standard AML Sediment and Erosion Control Best Management Practices. As a result, no significant amounts of sediments disturbed by project-related actions will be able to enter area streams.

The northern brook lamprey is an aquatic organism. The proposed project will not directly impact streams and will be subject to sediment and erosion control BMPs as described above. As such, no significant amounts of sediment will leave the project site to enter area streams. Therefore, any northern brook lamprey populations located downstream from the project area will not suffer a negative impact as a result of project-related actions.

Formerly one species (*Etheostoma sagitta* – arrow darter), the arrow darter was first taxonomically split into two subspecies (*E. sagitta sagitta* –Cumberland arrow darter and *E. sagitta spilotum* –Kentucky arrow darter) and subsequently –as a result of DNA analysis– (2010- 2012) into two separate species (*E. sagitta* and *E. spilotum* with common names as noted above). Both species were proposed (November, 2010) as Candidates for listing as Threatened or Endangered under the USESA, but only the Kentucky Arrow darter (*E. spilotum*) was determined to be at risk and was designated as Threatened under the USESA by the USFWS. As noted above, this project will neither directly disturb any streams nor cause fresh sediments from construction-related disturbances to enter into area streams. Additionally, this project is located within the Big and Little Sandy River drainage basin, while the Kentucky arrow darter is endemic to the Kentucky River drainage basin. As a result of these considerations (and regardless of taxonomic wrangling), the project cannot cause any negative impact to *Etheostoma spilotum*.

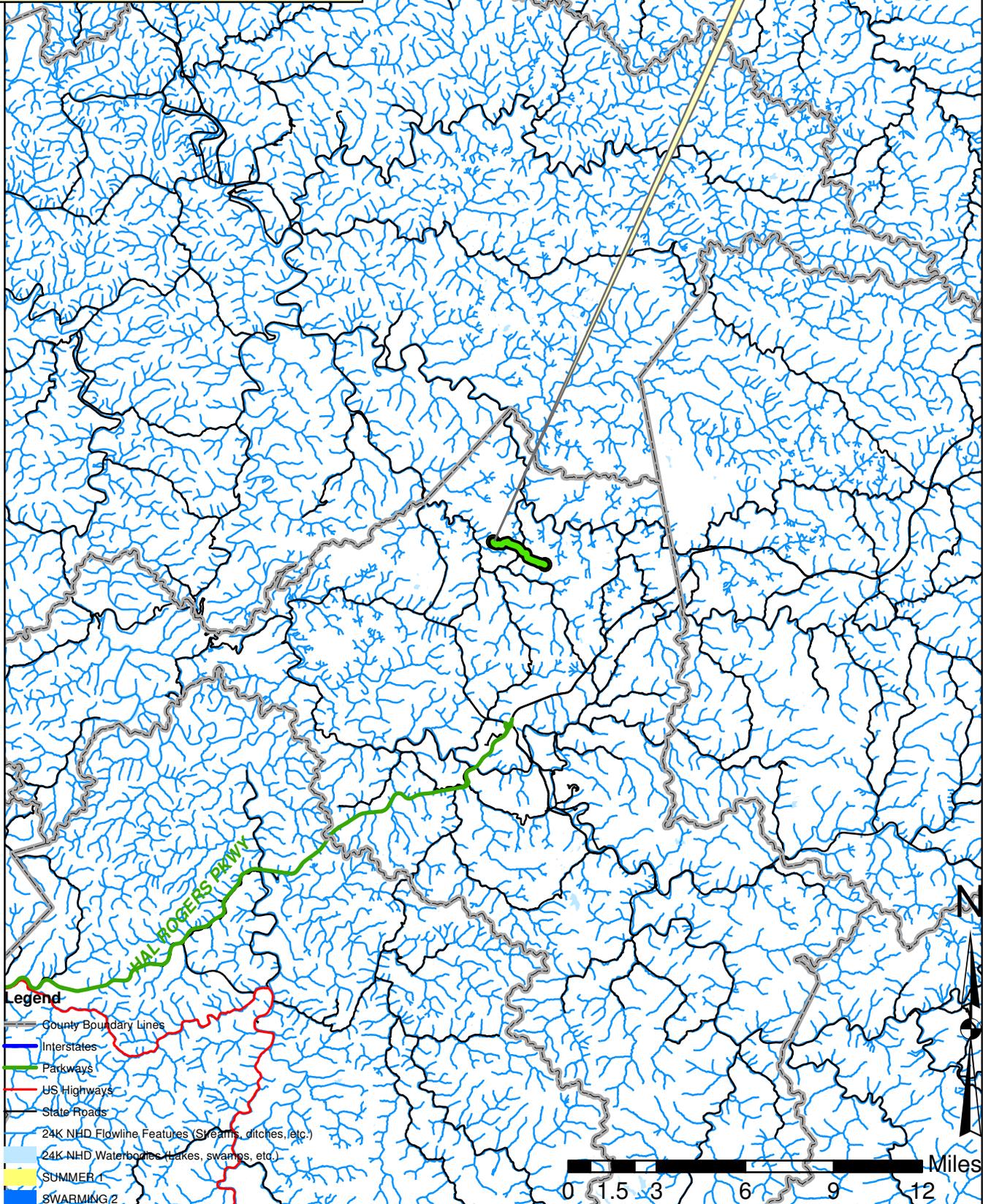
The gray bat is a species of bat that hibernates, day-roosts, and establishes maternity colonies almost exclusively within caves and cave-like structures. As this project will not impact any such habitats, the gray bat will not be negatively impacted by its construction.

The Northern long-eared bat is another *Myotis* species of bat, which utilizes exfoliating bark, tree cavities, and splits at the ends of broken limbs as day-roost and brood colony habitat during the summer, and which hibernates in caves (often rather near their openings) during the winter. The project will not disturb any caves or cave-like habitats (specifically including underground mines) or disturb any trees. Therefore, this project should not cause any negative impact to the Northern long-eared bat.

The entirety of the Commonwealth of Kentucky has been determined, by the United States Fish and Wildlife Service, to be the potential habitat of the Indiana bat (*Myotis sodalis* – USESA Listed Endangered). The Indiana bat establishes summer day roosts and brood colonies in trees with exfoliating bark and/or splits in limbs. In winter, it is known to utilize caves, and occasionally underground mine voids, as hibernacula. The nearest occurrence of this species to any area to be disturbed by this project is located approximately 1.2 miles NE of the nearest portion of the project corridor. This occurrence is noted in the database as being of “Undetermined” type, and is not locus of any area determined by the USFWS as Known Habitat of the Indiana bat. No portion of this proposed project corridor is located within any so-designated area of Known Habitat. The project will not disturb any caves or cave-like habitats (specifically including underground mines), nor will trees be disturbed by the project. As a result of a lack of disturbance to habitats utilized by this species, the Indiana bat will not suffer any negative impact as a result of project-related actions.

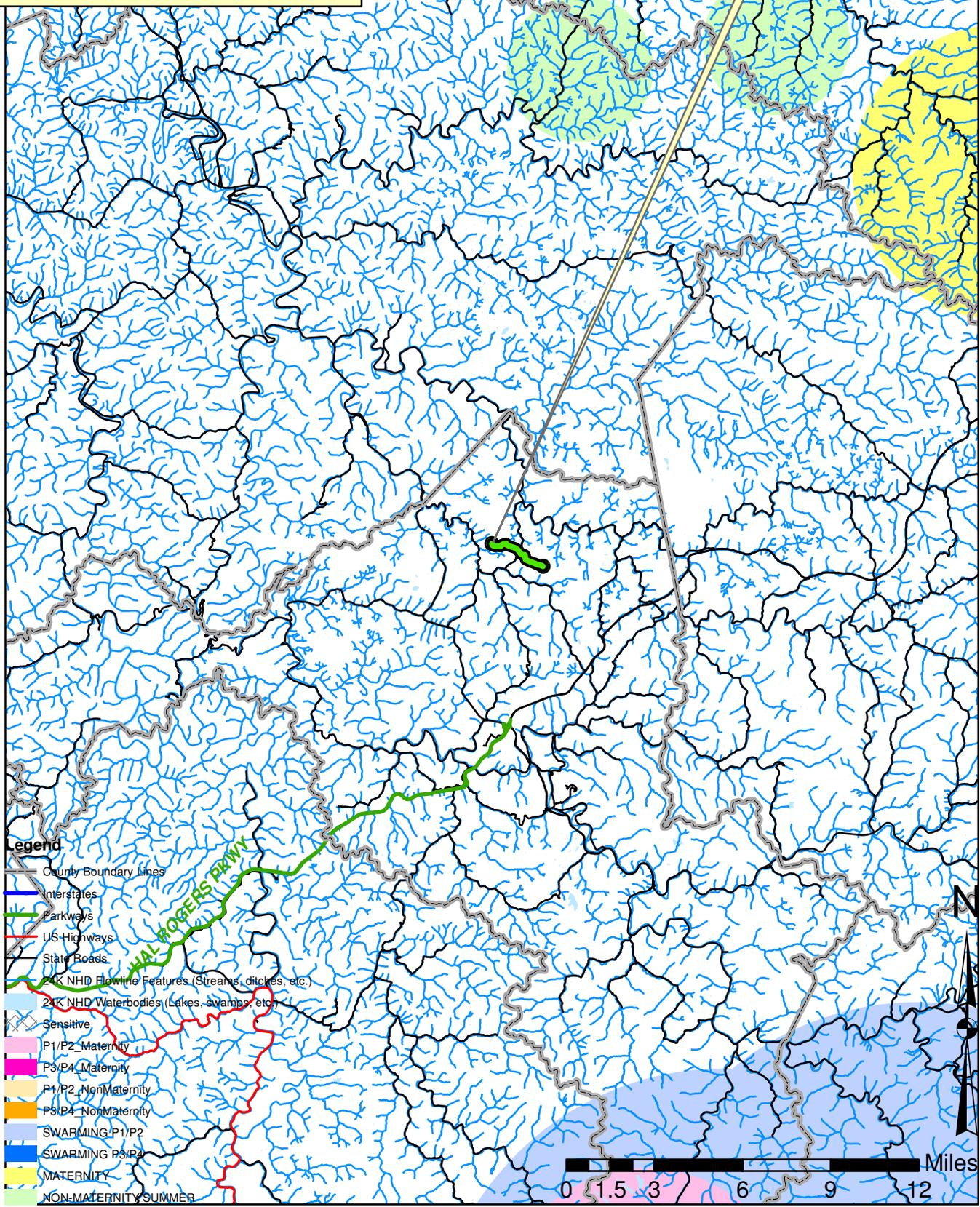
USFWS  
"Known Habitat Areas"  
of *Myotis septentrionalis*

Coal Fields Gas Supply  
AML Pilot Project  
Project Corridor



**USFWS**  
**"Known Habitat Areas"**  
**of *Myotis sodalis***

Coal Fields Gas Supply  
 AML Pilot Project  
 Project Corridor



- Legend**
- County Boundary Lines
  - Interstates
  - Parkways
  - US Highways
  - State Roads
  - 24K NHD Flowline Features (Streams, ditches, etc.)
  - 24K NHD Waterbodies (Lakes, swamps, etc.)
  - Sensitive
  - P1/P2\_Maternity
  - P3/P4\_Maternity
  - P1/P2\_NonMaternity
  - P3/P4\_NonMaternity
  - SWARMING P1/P2
  - SWARMING P3/P4
  - MATERNITY
  - NON-MATERNITY SUMMER



**TOURISM, ARTS AND HERITAGE CABINET  
KENTUCKY DEPARTMENT OF FISH & WILDLIFE RESOURCES**

**Matthew G. Bevin**  
Governor

**Don Parkinson**  
Secretary

#1 Sportsman's Lane  
Frankfort, Kentucky 40601  
Phone (502) 564-3400  
1-800-858-1549  
Fax (502) 564-0506  
[fw.ky.gov](http://fw.ky.gov)

**Regina Stivers**  
Deputy Secretary

**Rich Storm**  
Commissioner

20 May 2019

Robert F. Scott, Director  
Division of Abandoned Mine Lands  
300 Sower Boulevard  
Frankfort, KY 40601

RE: Coal Fields Regional Industrial Park Gas Supply AML Pilot Project (Perry County)

Dear Mr. Scott:

The Kentucky Department of Fish and Wildlife Resources (KDFWR) has received your request for information pertaining to the subject project. The federally-listed Grey bat (*Myotis grisescens*), Indiana bat (*Myotis sodalis*), Northern Myotis (*Myotis septentrionalis*), and Kentucky Arrow Darter (*Etheostoma spilotum*) are known to occur within 10 miles of the project site. No additional state-listed species are known to occur within one mile of the project site. There are no unique habitats within one mile of the project site. Please be aware our database system is a dynamic one that only represents our current knowledge of various species distributions.

According to the project description, trees over 3" dbh will not require removal and all necessary permits will be obtained prior to construction. Erosion control measures will need to be installed prior to construction and be inspected and repaired regularly as needed.

I hope this information is helpful to you, and if you have questions or require additional information, please call me at 502-892-4453.

Sincerely,

Dan Stoelb  
Environmental Scientist

Cc: Environmental Section File



## Overman, Charles W (EEC)

---

**From:** Johnson, Samantha M (EEC)  
**Sent:** Tuesday, May 28, 2019 8:30 AM  
**To:** Saylor, Michael B (EEC)  
**Cc:** Howell, Ryan (EEC); Overman, Charles W (EEC)  
**Subject:** RE: Request for floodplain and WQC review/ Project Description and Maps for the Coal Fields Gas Supply 2017 AML Pilot Project

This water review was only conducted for the area in red; the AML funded portion.

Floodplain/Stream Construction Permit

Does not require a permit.

US Army Corps of Engineers Permit (ACOE)

Does not require a permit.

Water Quality Certification

Does not require a permit.

*Samantha Johnson*

SamanthaM.Johnson@ky.gov

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**From:** Saylor, Michael B (EEC)  
**Sent:** Friday, May 17, 2019 11:58 AM  
**To:** Johnson, Samantha M (EEC) <SamanthaM.Johnson@ky.gov>  
**Cc:** Coleman, Keith B (EEC) <KeithB.Coleman@ky.gov>; Howell, Ryan (EEC) <Ryan.Howell@ky.gov>; Overman, Charles W (EEC) <Bill.Overman@ky.gov>  
**Subject:** Request for floodplain and WQC review/ Project Description and Maps for the Coal Fields Gas Supply 2017 AML Pilot Project

Samantha,

Please do a floodplain and WQC review to determine if there would be any issues referencing this project.

Please notify Bill Overman, Ryan Howell, and myself of your response.

It is too big to email, so you can access it at the link below.

[F:\AML\\_Shared\Overman Files\CoalFieldsGasSupplyPilot](F:\AML_Shared\Overman Files\CoalFieldsGasSupplyPilot)

Thanks,  
Michael Brandon Saylor

Administrative Specialist III  
Division of Abandoned Mine Lands  
300 Sower Blvd.  
Frankfort, KY 40601  
Office Phone: 502/782-6235

# IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

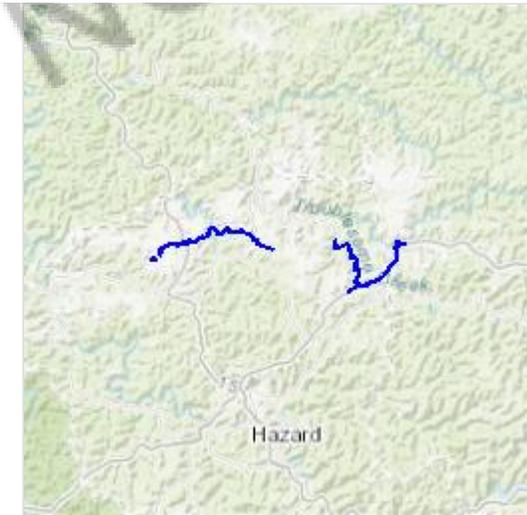
## Project information

### NAME

Project Core, Knott & Perry Water Supply, and CoalFields Industrial Park Gas Supply AML Pilot Prj

### LOCATION

Knott and Perry counties, Kentucky



## Local office

Kentucky Ecological Services Field Office

☎ (502) 695-0468

📠 (502) 695-1024

J C Watts Federal Building, Room 265  
330 West Broadway  
Frankfort, KY 40601-8670

<http://www.fws.gov/frankfort/>

# Endangered species

**This resource list is for informational purposes only and does not constitute an analysis of project level impacts.**

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Log in to IPaC.
2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

Listed species<sup>1</sup> and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries<sup>2</sup>).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

- 
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.

2. [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.

The following species are potentially affected by activities in this location:

## Mammals

| NAME   | STATUS     |
|--|------------|
| <p>Gray Bat <i>Myotis grisescens</i></p> <p>No critical habitat has been designated for this species.<br/> <a href="https://ecos.fws.gov/ecp/species/6329">https://ecos.fws.gov/ecp/species/6329</a></p>   | Endangered |
| <p>Indiana Bat <i>Myotis sodalis</i></p> <p>This species only needs to be considered if the following condition applies:</p> <ul style="list-style-type: none"> <li>The project area includes 'potential' habitat. All activities in this location should consider possible effects to this species.</li> </ul> <p>There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat.<br/> <a href="https://ecos.fws.gov/ecp/species/5949">https://ecos.fws.gov/ecp/species/5949</a></p>  | Endangered |
| <p>Northern Long-eared Bat <i>Myotis septentrionalis</i></p> <p>This species only needs to be considered if the following condition applies:</p> <ul style="list-style-type: none"> <li>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.</li> </ul> <p>No critical habitat has been designated for this species.<br/> <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a></p> | Threatened |

## Fishes

| NAME | STATUS |
|------|--------|
|------|--------|

Kentucky Arrow Darter *Etheostoma spilotum*

Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/9063>

## Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

## Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

THERE ARE NO MIGRATORY BIRDS OF CONSERVATION CONCERN EXPECTED TO OCCUR AT THIS LOCATION.

### **Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

### **What does IPaC use to generate the migratory birds potentially occurring in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

### **What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

### **How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with

it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

### What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

### Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

## Facilities

### National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

### Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

### Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER POND

[PUBHh](#)

RIVERINE

[R5UBH](#)

[R4SBC](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

#### Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

#### Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

## Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.