

MEMORANDUM

To: Project Files for KDAML STREAMS Act Set-Aside Project
25017SAP

From: Edwin A. Boone, Jr.; Environmental Scientist Advisor, Program
Development Branch – Division Biologist


Through: Tim Rader; Branch Manager, Program Development Branch

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

Date: April 28, 2026

On Friday, April 24, 2026, KDFWR returned comments regarding this project, which included six species that have either been listed or proposed for listing by USFWS as Threatened or Endangered under the USESA or which have been assigned a conservation status by OKNP. The species noted in those comments are:

- *Chrosomus cumberlandensis* (blackside dace – USESA Listed Threatened)
- *Etheostoma spilotum* (Kentucky arrow darter – USESA Listed Threatened)
- *Epioblasma triquetra* (snuffbox mussel – USESA Listed Endangered)
- *Obovaria subrotunda* (round hickorynut – USESA Listed Threatened)
- *Myotis septentrionalis* (Northern long-eared bat – USESA Listed Endangered)
- *Myotis sodalis* (Indiana bat – USESA Listed Endangered)
- *Perimyotis subflavus* (tricolored bat – USESA Proposed Endangered)

This project includes the disturbance of up to approximately 3.5 acres within project boundaries enclosing approximately 16.5 acres and is comprised of one project construction site with two integral excess earthen fill areas. Work at the project site includes:

- Construction of a primary ditch system comprised of:
 - Up to approximately 520 LF of 4' flat-bottom (FB) heavy stone-lined ditch with 4 gabion weirs and a temporary silt trap just upstream from;
 - 230 LF of rectangular reinforced concrete ditch below a residence,
 - Another approximately 235 LF 4' FB heavy stone-lined ditch, with a temporary silt trap just above discharge to Hooker Branch.
- Construction of a total of approximately 1,655 LF of 2'FB stone-lined ditches that will feed the main ditch.
- Installation of up to 220 LF of miscellaneous culverts beneath access trails.

- Installation of approximately 120 LF of grouted rock ditch leading from the primary excess earthen fill area, with a fifth gabion weir at its head for long-term sediment control.
- Clearing of up to approximately 450 LF of existing swale ditch.
- Miscellaneous non-drainage items including
 - Construction of concrete crossings over the reinforced concrete ditch at the sites of two existing culverts beneath residential access crossings.
 - Realignment of up to approximately 240 LF of private access trail.

Two excess earthen fill areas of approximately 0.25 acre each, will be developed within project boundaries. These will be established upon existing coal mine benches.

This project will not disturb any caves or cave-like habitats, to specifically include underground coal mine workings or entries. Up to approximately 1,235 LF of an unnamed tributary to Hooker Branch will be directly impacted by construction (including the entire Primary ditch system plus one approximately 230 LF section of secondary ditch) along its length throughout the disturbance area of this project. Five permanent gabion weirs and the installation, maintenance, and removal of two temporary sediment traps will prevent significant amounts of benthic sediments that are disturbed during construction from propagating downstream from the construction site. The strict implementation, maintenance, and enforcement of standard KDAML sediment and erosion control BMPs will prevent any significant amounts of sediments disturbed by other project-related activities from entering area streams to create indirect/offsite impacts to aquatic resources. Up to approximately 2.9 acres of forested habitat may be removed in order to facilitate project construction and preparation of the excess earthen fill areas.

The blackside dace is a species of small minnow (Family Cyprinidae) that is endemic to the Upper Cumberland River drainage basin (that portion of the Cumberland River basin upstream from approximately the location of present-day Burnside, KY). The proposed project is located within the Kentucky River drainage basin, and outside of the natural range of the blackside dace. As this project is located outside of the range of this species, its construction cannot have any negative impact upon the blackside dace.

The Kentucky arrow darter (Family Percidae), snuffbox mussel, and round hickorynut mussel are aquatic species that may be found in streams but are sensitive to increased levels of sedimentation and mineralization in stream flows. The unnamed tributary that will be impacted by construction of this project is a very small first order stream that has been heavily impacted by a combination of coal mining, residential construction, and general human activity. It is heavily embedded with sediment and iron staining in several locations throughout the project area are indicative of higher than normal mineralization stemming from reactions involving acid-forming materials disturbed by coal mining. Due to both its small size and poor condition, this unnamed tributary to Hooker Branch is not suitable habitat

for such sensitive species as these. The implementation, maintenance, and enforcement of KDAML's standard sediment and erosion control BMPs will prevent any significant amounts of sediments disturbed by project-related actions from leaving the site to enter area streams. The installation of five permanent gabion weirs and the installation, maintenance, and removal of two additional sediment traps will prevent sediments disturbed in the unnamed tributary and other drainways within the project area from propagating off-site to cause either direct or indirect impacts to Hooker Branch and other downstream waterways. Due to the absence of suitable habitat within the project site and the prevention of off-site impacts upon aquatic habitats, the Kentucky arrow darter, snuffbox mussel, and round hickorynut mussel will not suffer any negative impacts as a result of construction of this project. Further, successful completion of this project may reduce sediment loading received by Hooker Branch, thereby increasing its potential to become suitable habitat for such sensitive species.

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. As previously noted, this project will not cause any disturbance of caves or cave-like habitats (to specifically include underground coal mines), but will result in the disturbance of 2.9 acres of forested habitat that may be utilized by individuals of this species. As a result of this planned disturbance of Potential Habitat of the Indiana bat, it is recommended that KDAML conduct forest removal operations related to this project during that period (November 15 – March 31) when individuals of this species are understood to be within their winter hibernacula. While individuals of this species have been shown to exhibit roost fidelity, the ephemeral nature of their roosting and maternity colony habitat necessitates their being able to find new roosting and maternity habitats, especially during the spring emergence and migration period. If clearing is restricted to the hibernation period, this project should not cause any significant impact to the Indiana bat.

Like the Indiana bat, the Northern long-eared bat establishes summer day roosts and brood colonies in trees with exfoliating bark and/or splits in limbs. In winter, it also is known to utilize caves, and occasionally underground mine voids, as hibernacula. As previously noted, this project will not cause any disturbance of caves or cave-like habitats (to specifically include underground coal mines), but will result in the disturbance of 2.9 acres of forested habitat that may be utilized by individuals of this species. As a result of this planned disturbance of forested habitat suitable to use by this species, it is recommended that KDAML conduct forest removal operations related to this project during that period (November 15 – March 31) when individuals of this species are understood to be within their winter hibernacula. While

individuals of this species have been shown to exhibit roost fidelity, the ephemeral nature of their roosting and maternity colony habitat necessitates their being able to find new roosting and maternity habitats, especially during the spring emergence and migration period. If clearing is restricted to the hibernation period, this project should not cause any significant impact to the Northern long-eared bat.

The tricolored bat (formerly known as the Eastern pipistrelle) is a small species of bat (adult weight of approximately 6 grams) and can be mistaken for a large moth (such as sphinx moths and luna moths) in flight. On September 14, 2022, the tricolored bat was proposed by the USFWS to be designated as Listed Endangered under the USESA. At the time of this writing, the Final Rule regarding this proposed Listing has not been issued by the USFWS. The tricolored bat hibernates in caves, but individuals in the southern extents of this species' range may migrate southwards instead of hibernating. Day roosts and maternity colonies may be established in the foliage (live or dead) of trees, epiphytes such as Spanish moss, disused portions of buildings, and tree cavities. Caves may also be used as temporary night-roosts between foraging forays. As with the Indiana bat and the Northern long-eared bat (discussed above), this project will not cause the disturbance of caves or cave-like habitats (to specifically include underground coal mines), but will result in the disturbance of 2.9 acres of forested habitat that may be utilized by individuals of this species. However, the project site is located in the general vicinity of relatively vast areas of forested habitat of equal or superior quality that is not located in the immediate vicinity of human habitation. Further, this forest disturbance will occur outside of the non-volant bat pup period observed for the tricolored bat, and this species has been found to not exhibit a significant degree of roost fidelity, which factors cause this limited proposed disturbance of forested habitat to be unlikely to cause any significant impact to the tricolored bat.