

## THREATENED AND ENDANGERED SPECIES

The originally proposed Cypress Creek underground mine site in McLean County, Kentucky was investigated for Clean Water Act Section 404 permitting requirements during November 2009, November 2010, and February and March 2011. The areas under this proposed modification were investigated in September 2014.

The federally endangered Indiana bat (*Myotis sodalis*) has the potential to occur in McLean County (USFWS 2008). The Kentucky Fish and Wildlife Information System (2010) does not have any recorded Indiana bat observations for McLean County, and there are no Priority 1-4 caves listed in the Indiana bat's Recovery Plan for the county. Based on the available information, no "known habitat" occurs in the study area or within a 10-mile radius.

Site visits by T.H.E. Engineers, Inc. evaluated the site for potential Indiana bat habitat. The originally permitted surface site, fleeting, and barge loading areas were composed of approximately 111 acres of second-growth or younger forest. The proposed modification areas, a conveyor corridor and new barge loading site (and including the elimination of the existing approved barge loading site), reduced the potential forested area to 86.6 acres.

Land use in the project area is crop fields, forested area, and wetlands and ponds. Potential roosting and foraging habitat exists onsite. A summer survey for Indiana bat presence has not been conducted. Hibernation site requirements for the Indiana bat include caves and mines with large volumes, extensive passages, and stable temperatures below 10 degrees Celsius (USFWS 2007). The Kentucky Surface Mining Viewer and Available Mine Maps from the Kentucky Mine Mapping Initiative were accessed for locations of mine shafts and active and closed permits. No mine shafts or underground mines are shown in the databases. No caves, underground mines, or potential winter habitat for the Indiana bat were found in the project area.

The copperbelly water snake (*Nerodia erythrogaster neglecta*) is listed in USFWS's database for McLean County. The species is not federally protected, but is given a measure of protection under the Copperbelly Watersnake Conservation Agreement. Because several small wetlands will be filled during mining activities, there may be a loss of potential habitat; however, wetland habitat will be replaced in the region through the state's Fee In-Lieu Of Program (FILO).

## REFERENCES

- Kentucky Department of Fish and Wildlife Resources. 2009. Kentucky Fish and Wildlife Information System. <http://fw.ky.gov/kfwis/speciesInfo/speciesInfo.asp>. Accessed 18 November 2010.
- Kentucky Mine Mapping Initiative. Available Mine Maps. <http://minemaps.ky.gov/website/availablemaps/viewer.htm>. Accessed 14 December 2009.
- Kentucky Surface Mining Viewer. <http://eppcmaps.ky.gov/website/smis/viewer.htm>. Accessed 14 December 2009.
- U.S. Fish and Wildlife Service (USFWS). 2007. Indiana Bat (*Myotis sodalis*) Draft Recovery Plan: First Revision. U.S. Fish and Wildlife Service, Fort Snelling, MN. 258 pp.