

IEPA Log No.: **C-0473-16**
CoE appl. #: **MVS-2016-944**

Public Notice Beginning Date: **April 18, 2018**
Public Notice Ending Date: **May 9, 2018**

Section 401 of the Federal Water Pollution Control Act
Amendments of 1972

Section 401 Water Quality Certification for Discharge of Dredged or Fill Material

Public Notice/Fact Sheet Issued By:

Illinois Environmental Protection Agency
Bureau of Water
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-3362

Name and Address of Discharger: Knight Hawk Coal LLC – 500 Cutler-Trico Road, Percy, IL 62272

Discharge Location: Near Sparta in SW 1/4 and NW 1/4 of Section 23 of Township 5S, Range 5W of the P.M. in Randolph County.

Name of Receiving Water: Unnamed Wetlands and Tributaries of Lick Branch

Project Description: Mine expansion and road crossing.

The Illinois Environmental Protection Agency (IEPA) has received an application for a Section 401 water quality certification to discharge dredged or fill material into the waters of the State associated with a Section 404 permit application received by the U.S. Army Corps of Engineers. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice. The last day comments will be received will be on the Public Notice period ending date unless a commenter demonstrating the need for additional time requests an extension to this comment period and the request is granted by the IEPA. Interested persons are invited to submit written comments on the project to the IEPA at the above address. Commenters shall provide their names and addresses along with comments on the certification application. Commenters may include a request for public hearing. The certification and notice number(s) must appear on each comment page.

The attached Fact Sheet provides a description of the project and the antidegradation assessment.

The application, Public Notice/Fact Sheet, comments received, and other documents are available for inspection and may be copied at the IEPA at the address shown above between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

If written comments or requests indicate a significant degree of public interest in the certification application, the IEPA may, at its discretion, hold a public hearing. Public notice will be given 30 days before any public hearing. If a Section 401 water quality certification is issued, response to relevant comments will be provided at the time of the certification. For further information, please call Darren Gove at 217/782-3362.

DRG:C-0473-16_401 PN and FS_05Dec16.docx

Fact Sheet for Antidegradation Assessment
For Knight Hawk Coal LLC
IEPA Log No. C-0473-16
COE Log No. MVS-2016-944
Contact: Abby Brokaw 217/558-2012
Public Notice Start Date: April 18, 2018

Knight Hawk Coal, LLC, (“Applicant”) has applied for a 401 Water Quality Certification for impacts associated with the development and operation of the Blackhawk Mine Expansion area adjacent to the existing Blackhawk Mine with a new haulroad and crossing providing access from the current mining area. The proposed Blackhawk Mine Expansion and haulroad are located approximately five miles southeast of Sparta, Illinois, along the south side of IL Route 154. More specifically, the area is located in Section(s) 14, 15, 22 and 23, of Township 5 South, Range 5 West of the 3rd Principle Meridian, Randolph County, Illinois.

The purpose of the proposed project is to expand the surface coal mine with an initial box-cut for access to the subsurface coal seams, haulroad and crossing construction, overburden removal for coal access, topsoil and texture soil stockpiling, construction of diversion ditches, construction of collector ditches, as well as, sediment pond and final cut lake construction. The existing area includes cropland, forest/trees, herbaceous wildlife habitat and roads. The proposed permit area would encompass 385 acres; of which, 226.7 acres will be used for surface mining, 5.7 acres for processing areas and support facilities, 6.2 acres for access, haulroads and transport facilities (4.4 acres included in the surface mining area), 40.4 acres of soil storage areas, 21.2 acres for ditches, and 89.2 acres for highwall/auger mining.

Coal resources will be recovered using conventional surface mining techniques, which requires excavation of all overlying materials, including existing streams and wetlands. The permit area contains a jurisdictional intermittent stream, fourteen jurisdictional ephemeral streams, a perennial stream (Lick Branch), six jurisdictional forested wetlands, three jurisdictional emergent wetlands, and a jurisdictional unconsolidated bottom wetland that are planned for disturbance and subsequent mitigation. The streams within the permit area are unnamed tributaries of Lick Branch, which is a perennial stream that bisects the existing and proposed permit areas. To facilitate the transfer of mining operations from the existing permit area to the proposed permit area, a haulroad would be constructed over Lick Branch, including a crossing which would require piping and backfill. Surface mining activities would permanently fill 2.86 acres of forested wetlands, 0.81 acres of emergent wetlands, 0.06 acres of bottom wetland and 14,388.1 total linear feet of streams. An additional 100 linear feet of Lick Branch will be impacted by the construction of the haulroad crossing. The impacted wetlands and streams will be offset with on-site compensatory mitigation.

Information used in this review was obtained from the USACE Public Notice dated January 31, 2018; Illinois Joint Applications dated November 30, 2016 (mine expansion and haulroad crossing); Assessment of Alternatives for Minimal Environmental Degradation and Economic Benefits Analysis dated December 2016; Site Specific Stream Resources Pre-Mining Assessment & Mitigation Report (February 2018 Revision), Alternatives of Assessment Report Lick Branch Stream Crossing (February 2018 version) and subsequent submittals.

Identification and Characterization of the Affected Water Body.

Lick Branch flows along the eastern border of the proposed permit area and the western border of the existing Blackhawk permit area. Lick Branch (Segment IL_IJJ) is a General Use water body with zero 7Q10 low flow. Lick Branch is not listed as a biologically significant stream nor has it been given an integrity rating in the 2008 Illinois Department of Natural Resources publication *Integrating Multiple Taxa in a Biological Stream Rating System*. Lick Branch is not found on the 2016 Illinois Integrated Water Quality Report and Section 303(d) List and is not subject to the enhanced dissolved oxygen standards. Lick Branch is a tributary to Marys River. Marys River (Segment IL_II-91) is a General Use water body with zero 7Q10 low flow. At its point of confluence with Lick Branch, Marys River is not listed as a biologically significant stream nor has it been given an integrity rating in the 2008 Illinois Department of Natural Resources publication *Integrating Multiple Taxa in a Biological Stream Rating System*. However, an upstream segment of Marys River has been given a “C” integrity rating. Marys River is not found on the 2016 Illinois Integrated Water Quality Report and Section 303(d) List and is not subject to the enhanced dissolved oxygen standards.

The unnamed wetlands and unnamed tributaries of Lick Branch are all classified as General Use streams with zero 7Q10 low flow and have not been assessed under the Agency’s 305(b)/303(d) program. The unnamed water bodies have not been given an integrity rating or been listed as biologically significant in the 2008 Illinois Department of Natural Resources publication *Integrating Multiple Taxa in a Biological Stream Rating System*. The unnamed water bodies are not subject to the enhanced dissolved oxygen standards.

The proposed permit area will be impacted by surface mining operations: including removal of overburden, stockpiling of overburden and soils, the excavation and filling of one intermittent stream at 4,050.9 linear feet, fourteen ephemeral stream reaches totaling 10,337.2 linear feet, six forested wetlands totaling 2.86 acres, three emergent wetlands totaling 0.81 acres and a 0.06 acres unconsolidated bottom wetland. An additional 100 linear feet of the perennial stream Lick Branch will be impacted by the construction of the haulroad crossing. A 100-foot buffer will protect the riparian habitat directly adjacent to Lick Branch.

Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses.

Pollutant load increases from the proposed permit area will likely include increases in suspended solids during the mining activities, construction of the haulroad crossing, and restoration of the stream channels. This expansion area proposes to utilize one sedimentation pond for treatment of stormwater from disturbed and undisturbed areas within the permit area. In addition to providing sediment control, the impoundment will provide a source of water for fugitive dust control. Collector ditches will be constructed around the mining perimeter to divert runoff to the sediment pond and diversion ditches will be used along the permit perimeter to divert unaffected drainage around the mining area to Lick Branch. The sedimentation pond is planned for treatment of pit pumpage and stormwater from precipitation events on the 385.0 acre Blackhawk Mine expansion site. The sediment pond will receive drainage from 295.8 acres of the 385.0 acre permit area and will discharge to Lick Branch through an approved NPDES outfall.

Fate and Effect of Parameters Proposed for Increased Loading.

Compensatory mitigation will be required for the project. The Applicant will complete on-site restoration to be initiated as a part of the reclamation process within seven to eight years from the commencement of the mine expansion. The restored stream network and riparian buffer will have deed restrictions to ensure the future conservation and function of the restored resources.

Adverse stream impacts from the mining activities and the haulroad crossing were evaluated utilizing the Illinois Stream Mitigation Method, resulting in 63,376.7 stream mitigation credits required (including 273.0 required for the haulroad crossing). The planned stream restoration will create 26,789.3 credits and the accompanying riparian buffer enhancement will create 36,596.0 credits for a total of 63,385.3 credits. In addition, the backfill and pipe installed for the haulroad crossing will be removed once reclamation activities begin and the 100 linear feet of Lick Branch will be restored to its pre-mining condition.

The unconsolidated bottom wetland will be replaced at a 1:1 ratio for a total of 0.06 acre, the emergent wetlands will be mitigated for a 1.5:1 ratio for a total of 1.22 acres and forested wetlands will be mitigated at a 3:1 ratio for a total of 8.6 acres. The Applicant has provided a detailed mitigation plan described in the Site-Specific Stream Resources Pre-mining Assessment Stream and Mitigation Report (February 2018 Revision), Site Specific Wetland Resources Pre-mining Assessment and Protection and Enhancement Plan, and Blackhawk Expansion Stream and Wetland Mitigation Plan (February 2018 Revision).

A network of streams and restored wetlands will be constructed within the permit area during reclamation. These streams will flow from the western portion of the permit area to Lick Branch in the eastern portion of the property. The priority of the restored streams is characterized as “tertiary.” The reconstructed streams will replace the impacted streams within the permit area with similar function and form. Along both sides of the relocated streams a riparian buffer will be established. Trees will be planted at a rate of 400 trees per acre and will include a minimum of six different species. Ground cover will be established prior to tree plantings and will include a standard mix of native and non-native plants selected to control erosion and increase soil productivity for tree development. The forested riparian buffer will take more than 20 years to become fully functional.

The proposed permit area would not impact open waters and does not require open water mitigation. However, a permanent final cut lake will be left post-mining. The addition of open water may promote an increase in aquatic, terrestrial, and avian biological diversity for the permit area and may provide refuge for aquatic biota during drought conditions.

Purpose and Social & Economic Benefits of the Proposed Activity.

The purpose of the proposed permit area is to expand an existing surface coal mine into the adjacent reserve and continue to provide an energy source for Southern Illinois customers who utilize coal for electric power generation. The expanded mine will support local jobs and the

goods and services in the area. The current projected life of the expansion area is approximately seven to eight years.

Assessments of Alternatives for Less Increase in Loading or Minimal Environmental Degradation.

Mining Alternatives

Alternative 1: No Mining

- No impact to local waters or wetlands
- Loss of mining jobs and negative impact on indirect support services
- Loss of overall investment at the mining site by the Applicant
- Loss of energy source

Alternative 2: Surface Mining

- Proposed site is adjacent to a working surface mine which increases access to equipment, labor and infrastructure
- Highwall or Auger Mining techniques will be used under the existing Lick Branch stream to refrain from directly surface mining within the stream or buffer (limited to this application and not feasible for entire site)
- Includes reclamation of forested areas, wildlife habitat, streams and wetlands on-site

Alternative 3: Underground Coal Mining

- Methods may have less impact on surface structures, water resources, wetlands, streams, etc.
- May cause subsidence issues and the site reserve is too small and shallow to allow for adequate development and roof control
- Potential for subsurface groundwater or surface water to enter mine workings which would put employees at risk
- Additional investment needed is not economically feasible

The preferred action is to follow the proposed surface mining plan (Alternative 2), which includes environmental impacts that are unavoidable. The proposed surface mine will follow conditions set forth by the Agency and USACE. The least intrusive alternative would be to not complete the project. This is not an acceptable alternative given the need to preserve local jobs and indirect support services. Impacts to site wetlands and streams will be mitigated by on-site reclamation.

Stream Crossing Alternatives

Alternative 1: No Crossing

- No impact to local waters or wetlands
- No access to mining area
- Loss of mining jobs and negative impact on indirect support services
- Loss of overall investment at the mining site by the Applicant

- Loss of energy source

Alternative 2: 10 ft. dia. Culvert or Equivalent – encased in riprap

- Culvert 100 ft. length by 2 ft. of cover
- Provides bank stability, riprap between culvert and bank
- Culvert set into creek bottom for stream flow and aquatic life to flow through
- Most economical and most feasible alternative to install and remove

Alternative 3: Precast Concrete Box Culvert 10' w x 12' h – surrounded by riprap

- Open bottom, but still require concrete foundation for culvert legs in stream bottom
- Riprap between culvert and bank for stability
- Culverts have to be offloaded and crane placed together

Alternative 4: Short Span Bridge – utilizing steel beams or concrete cast materials

- Cast in place concrete slabs require piers in channel – high labor costs
- Required riprap or other bank stabilization material to hold bank under bridge
- Bank sides shaped to accept riprap and requires construction within the stream

Alternative 5: Clear Span Bridge – increase span to minimize stream disturbance

- Bank and stream not disturbed but also not stabilized to protect structure
- Requires support and erosion protection set back from stream bank
- May require pilings to hold stream bank
- Construction over stream – length depends on soil stability on both sides of the bank
- Not an economically feasible option

The preferred action is to follow the proposed 10 ft. diameter culvert or equivalent, encased in riprap (Alternative 2), which includes environmental impacts that are unavoidable. The proposed surface mine will follow conditions set forth by the Agency and USACE. The least intrusive alternative would be to not complete the project. This is not an acceptable alternative given the need to access the new mining area. The bridge alternatives provided would require more substantial construction, more materials distributed to landfills during reclamation, and are more permanent structures. Impacts to Lick Branch will be mitigated by on-site reclamation because the structure will be on-site for longer than two years.

Summary Comments of the Illinois Department of Natural Resources, Regional Planning Commissions, Zoning Boards or Other Entities.

On December 5, 2016, IDNR's Division of Ecosystems and Environment issued notification under an EcoCAT endangered species consultation that adverse effects from the proposed activities are unlikely and consultation has been terminated.

Agency Conclusion.

This preliminary assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard)

and was based on the information available to the Agency at the time this assessment was written. We tentatively find that the proposed activity will result in the attainment of water quality standards; that all technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity; and that this activity will benefit the community by continuing to support local employment and economic opportunities. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.