

IEPA Log No.: **C-0719-10**  
CoE appl. #: **2010-674**

Public Notice Beginning Date: **July 20, 2011**  
Public Notice Ending Date: **August 19, 2011**

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

**Section 401 Water Quality Certification to Discharge into Waters of the State**

**Public Notice/Fact Sheet Issued By:**

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

**Name and Address of Discharger:** Peabody Gateway North Mining, LLC, c/o Peabody Energy, 7100 Eagle Crest Blvd., Evansville, IN 47715

**Discharge Location:** Sections 11, 14, 22, 23, T4S, R5W of the 3<sup>rd</sup> P.M. in Randolph County near Coulterville

**Name of Receiving Water:** Unnamed Tributaries to Marys River and Coulterville Lake and Unnamed Wetlands

**Project Description:** Gateway North Mine

The Illinois Environmental Protection Agency (IEPA) has received an application for a Section 401 water quality certification to discharge 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 Thaddeus Faught at 217/782-3362.

TJF:0719-10PN.docx

Fact Sheet for Antidegradation Assessment

Peabody Gateway North Mining, LLC – Unnamed Tributaries to Marys River and Coulterville Lake and Unnamed Wetlands – Randolph County

IEPA Log No. C-0719-2010

COE Log No. 2010-674

Contact: Bob Mosher 217-558-2012

July 20, 2011

---

The applicant has applied for a 401 water quality certification for impacts associated with Gateway North Mine, Illinois Department of Natural Resources (IDNR) Permit Number 416, located in portions of Sections 11, 14, 22, and 23, in Township 4 South, Range 5 East, in Randolph County, Illinois, immediately west and southwest of the town of Coulterville. The applicant provided information relating to antidegradation assessment in a document entitled Sections 404/401 Clean Water Act Individual Permit Application and dated March 2, 2011 (revised). The IDNR permit area totals 172.1 acres. The purpose of this project is to extract bituminous coal by room and pillar mining methods. The new mine will replace the existing Gateway Mine and will take over existing coal preparation facilities at that mine. The site will consist of an access portal, support buildings, parking areas, soil stockpiles, a coal conveyer system to bring extracted coal to the preparation plant to the southwest and temporary coal stockpiles. Two sedimentation ponds covered by an NPDES discharge permit will be constructed and will serve to treat runoff from a portion of the site. The permit area contains 20 jurisdictional streams and 25 jurisdictional wetlands in the South Fork Mud Creek and Marys River watersheds. Grading and filling associated with the mining operation will directly impact 2,897 linear feet of intermittent streams and 3,279 linear feet of ephemeral streams. Most streams in the mine site will not lose upstream and downstream connection with unimpacted portions of these streams. Additionally, 4.71 acres of forested wetland, 3.95 acres of emergent wetland, and 0.02 acres of scrub/shrub wetland will be filled.

Mitigation for stream and wetland impacts will occur at three sites, two adjacent to or nearby the mine site and one on the mine site. Mitigation will occur concurrently with mine development therefore minimizing temporal losses of wetland and stream function. The amount of mitigation required for the proposed impacts to streams was determined using the Illinois Stream Mitigation Method. Intermittent streams will be mitigated at a 1:1 ratio. Ephemeral streams will be mitigated at a 0.5:1 ratio. The mitigation plan for the proposed stream impacts would create 50 foot riparian corridors on each side for both ephemeral and intermittent streams. Streams to receive mitigation are existing streams in cropland that currently have little or no riparian buffer and often have modified channels. Mast producing species of trees will be planted to create the buffers. Stream channels will be improved through use of reshaping techniques which will include engineered structures, improving riffle/run/pool structure and terraces, all designed to improve habitat quality.

The proposed wetland mitigation plan would replace all jurisdictional wetlands disturbed by mining at a ratio greater than 1:1. The 4.71 acres of forested wetlands would be mitigated at a 3:1 ratio (14.13 acres of mitigation), the 3.95 acres of emergent wetlands would be mitigated at a 2:1 ratio (7.90 acres of mitigation) and the 0.02 acres of scrub/shrub wetlands would be mitigated at a 2:1 ratio (0.04 acres of mitigation). The total 22.07 acres of wetland mitigation

would be composed of temporarily flooded broad-leaved deciduous forested wetlands. Replacement of the 3.95 acres of emergent wetlands with forested wetlands would provide a lift of function and value over the existing wetlands. The mitigation locations would be located in the floodplains of the mitigated streams to ensure proper wetland hydrology to support hydric soils and hydrophytic vegetation. For woody plantings, no one species would make up more than 20% of initial planting and no single species would make up more than 25% of the surviving planted stock. The trees proposed for planting include red oak, white oak, hickory, and pecan. At least 60 container trees or 600 tree seedlings per acre would be planted. The success standard would be 50% survivability of the initial seedling plantings, and 90% survivability of the initial container tree plantings. A seven year performance monitoring period will be followed.

### **Identification and Characterization of the Affected Water Body.**

Affected streams are unnamed tributaries of Marys River and unnamed tributaries of Coulterville Lake, all with zero 7Q10 flow. All tributaries are General Use waters. The unnamed tributaries are not listed as impaired in the draft 2010 Illinois Integrated Water Quality Report and Section 303(d) List. Illinois EPA has not assessed these waters. None of the unnamed tributaries are listed as a biologically significant stream in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*, nor are any given an integrity rating. None of the unnamed tributaries are designated as an enhanced water pursuant to the dissolved oxygen water quality standard. The IDNR WIRT system does not list any state threatened or endangered aquatic species as residing in the affected water bodies.

The applicant collected water chemistry data from several of the unnamed tributaries. Results are typical of small southern Illinois streams in agricultural areas. Physical characterization was employed for streams using a modified Rosgen stream classification method and the USEPA Rapid Bioassessment Protocol was used to assess habitat quality. Macroinvertebrates and fish were sampled at several sites in the general area of the mine site. Aquatic life was limited and typical of tributaries of this small size where the primary limiting factor is lack of water during dry periods.

Wetlands to be impacted on the mine site were identified as to type and acreage. A total of 25 wetland areas were identified belonging to the following categories: 4.71 acres in 13 areas are forested wetlands; 3.95 acres in 11 areas are emergent wetlands; and 0.02 acres in one area is a scrub/shrub wetland. None of these wetlands have been assessed by the Illinois EPA. None of the wetlands are listed as impaired water bodies in the draft 2010 Illinois Integrated Water Quality Report and Section 303(d) List. None of the wetlands are listed as biologically significant waters in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*, nor are any given an integrity rating. None of the wetlands are designated as enhanced waters pursuant to the dissolved oxygen water quality standard. The IDNR WIRT system does not list any state threatened or endangered aquatic species as residing in the affected wetlands.

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

Pollutant load increases that would occur from this project include some increases in suspended solids during mining activities and during the reconstruction of the stream channels. Sediment basins and regulated NPDES discharge outfalls will be utilized to minimize and monitor the discharge into the downstream waters. The existing headwater streams and wetlands within the permit area will be impacted by this project. However, mitigation consisting of stream habitat improvement or wetland creation on site or very near the site is required. Enhanced stream heterogeneity and increased wetland habitat will promote aquatic life and wildlife diversity and allow for more permanent refuge for the establishment of species.

### **Fate and Effect of Parameters Proposed for Increased Loading.**

The increase in suspended solids from mining activities unrelated to NPDES permitted discharges and from the reconstruction of stream channels will be local and temporary. Erosion control measures will be utilized to minimize any increase in suspended solids and prevent further impacts. Mitigation for the streams and wetlands will be as described above. Adverse impacts to the aquatic environments will be offset by mitigation, which will restore and potentially enhance the aquatic ecosystem.

### **Purpose and Social & Economic Benefits of the Proposed Activity.**

The underground mine will extract the coal resources of the site. According to information submitted by the applicant, opening a new mine will provide jobs for 340 local residents with an annual payroll of approximately \$40 million. In addition, other local businesses would also benefit from the wealth created by the mine. Local and state taxes will increase as a result of the mine. Randolph County currently has an unemployment rate of 9.5% (2010). In 2008, 14.4% of county residents were living below the poverty level.

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

The construction of the proposed project would follow conditions set forth by the Agency and the Army Corps of Engineers. Due to the location of the drainage ways and wetlands there are no valid alternatives, except mitigation, if the site is to be used as a new mine portal and coal conveyor route. The applicant has considered surface mining to remove the coal from the reserve, but this mining method is not suitable given the geologic features present at this site.

The applicant considered alternate routes for the coal conveyor. The straight-line route of the proposal is preferred because this design minimizes the length of the conveyor and eliminates the number of transfer points where coal potentially would have to be temporarily stored. Road crossings are also minimized by this design. An alternate path for the conveyor that avoided some stream crossings was rejected due to stability problems associated with building the conveyor on the Gateway Mine refuse disposal area.

The mine site area has been minimized to allow room for the necessary facilities without impacting any more land or water resources that absolutely necessary. Construction and mitigation have been planned to coincide, thus minimizing the time period for loss of function of wetlands and streams. Best management practices will be used in construction to avoid impacts on areas adjacent to the disturbed areas.

The preferred action is to follow the proposed mining plan. Best Management Practices will be utilized to reduce impacts to off-site areas. Stream and wetland mitigation will take place as quickly as practical to insure successful mitigation. The least intrusive alternative would be to not allow the site to be mined. This is not an acceptable alternative given that this is a useful project which would supply energy production and would provide the community with economic and employment opportunities.

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

The IDNR EcoCAT system was consulted on June 6, 2011. The Illinois Department of Natural Resources replied with a letter dated June 7, 2011 and terminated consultation.

### **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 the assessment was written. We tentatively find that the proposed activity would result in the attainment of water quality standards; that all existing uses of the streams and wetlands would be maintained or mitigated; 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 would benefit the community at large by providing economic and employment opportunities. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.