

US EPA ARCHIVE DOCUMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

April 8, 2009

4WPD-WCOB-WMRS

Mr. David Baldridge  
USACE Louisville District  
Eastern Kentucky Regulatory Office  
845 Sassafras Creek Road  
Sassafras, KY 41759-8806

**SUBJ: DA Permit No. LRL-2008-666; ICG Hazard, LLC**  
Proposed surface mining coal operations and associated stream impacts in Perry  
County, Kentucky  
KDMP Permit No. 897-0446 Am 1

Dear Mr. Baldridge

The United States (U.S.) Environmental Protection Agency (EPA), Region 4 has reviewed the Pre-Discharge Notice and permit application associated with DA Permit ID No. LRL-2008-666 submitted by ICG Hazard, LLC, (KDMP #897-0446 Am 1), for surface mining activity impacts to 1,522 feet of intermittent and ephemeral stream reaches along an unnamed tributary to Williams Branch and Mac and Nellie's Branch, located in Perry County, Kentucky, and respectfully submits the following comments.

The applicant has requested authorization under Nationwide Permit 21 (NWP 21) to construct one spoil disposal structure (HF4) and one associated sediment control structure (Pond 4) to conduct surface coal mining. The proposed structure (HF4) would permanently bury 567 linear feet of an intermittent stream reach along an unnamed tributary of Williams Branch of Troublesome Creek. The proposed drainage corridor between the toe of HF4 and pond 4 will incur 249 linear feet of temporary impacts to the same unnamed tributary of Williams Branch. An additional 955 linear feet of ephemeral channel will be destroyed as the project proposal includes mining through an unnamed tributary of Mac and Nellie's Branch. To compensate for any aquatic and functional losses related to the proposed project, the applicant is offering on-site mitigation in the form of created hollowfill side ditches to account for ephemeral losses. A combination of on-site restoration and payment of in-lieu-fees is offered to compensate for intermittent channel impacts associated with HF4 and SS4.

The Guidelines require an analysis to determine if significant degradation of the aquatic ecosystem will occur, with special emphasis on the persistence and permanence of effects, both individually and cumulatively. It is imperative the applicant address not only the surface acreage of disturbance, which in the Troublesome Creek watershed is extensive considering past disturbances due to mining, but also water quality impacts. Troublesome Creek is an impaired stream due to sedimentation, total dissolved solids, and turbidity according to the 2008 Kentucky 303(d) List of Surface Waters. No information has been provided to inform whether, and if so, to what extent, the proposed project may affect the water quality of Troublesome Creek.

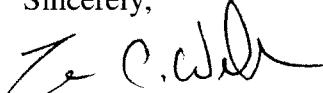
In addition, the applicant provided no baseline macroinvertebrate data as part of their application except to state there is a low number of benthics living in the streams and that past impacts have decreased the ability of the streams to function at their highest potential. EPA agrees with this assessment in that aquatic taxa are likely to show signs of stress related to past activities' negative effect on water quality. In addition, the applicant did not state whether the lack of macroinvertebrate sampling adhered to the Kentucky Department of Water's (KDOW) Methods for Assessing the Biological Integrity of Surface Waters. Mining in this watershed has already proven to have a negative effect on water quality based on the applicant's stated high conductivity of affected reaches of Williams Branch in excess of 2000 microMHOs. EPA recommends the applicant conduct baseline sampling and monitoring in the stream reaches potentially impacts by this proposal.

Lastly, EPA wishes to address the applicant's proposed mitigation plan. EPA has serious concerns with the use of groin ditches and in-lieu-fees to replace impacts to ephemeral and intermittent reaches respectively, particularly in light of past disturbances due to mining in these watersheds. EPA also wishes to discourage the use of in-lieu fees as a compensatory mitigation unless all other possibilities for replacing intermittent stream losses are exhausted. EPA disagrees with the use of groin ditches as compensatory mitigation for the loss of natural stream channels due to a lack of evidence demonstrating that these artificial, rock lined structures effectively replace lost stream functions or contribute to reducing downstream water quality problems associated with mining. For this reason, EPA finds the use of groin ditches to also replace intermittent impacts is inadequate. Mitigation for impacts intermittent streams should replace the specific functions and services provided by those intermittent streams. The ratio of hyporheic zone to surface water area found in intermittent streams allows enhanced for filtering and reduction of nutrient and pollutants, protecting downstream waters. In addition, intermittent streams provide a seed source for vegetation and macro invertebrates and serve as refuge and spawning habitat during wet seasons for native fish stocks. These are among the services provided by intermittent streams that need to be replaced by the mitigation proposal. To ensure replacement of the lost functions and services of the impacted intermittent streams any mitigation proposal should match the lost flow regime (frequency, duration and seasonality of flow annually), provide the same structural habitat (riffle pool, shading, etc), meet the same water chemistry characteristics (hardness, pH, conductance), and also support the same biologic communities

(macroinvertebrates, fish, etc). Additionally, the applicant fails to provide a list of performance standards in the proposed mitigation plan that addresses the parameters to be monitored and corrected if necessary. Performance standards are observable or measurable physical (including hydrological), chemical and/or biological attributes that are used to determine if a compensatory mitigation project meets its objectives. EPA recommends the applicant resubmit a mitigation plan that addresses these concerns.

Thank you for the opportunity to comment on the above referenced permit application for water impacts associated with this surface mining project in Perry County. Please direct further correspondence to Todd Bowers at the above address, his phone number (404) 562-9225, or via email at [bowers.todd@epa.gov](mailto:bowers.todd@epa.gov).

Sincerely,



Thomas C. Welborn Chief,  
Wetlands Coastal and Oceans Branch

CC:

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