AQUATIC RESOURCES MANAGEMENT, LLC

December 14, 2011

United States Army Corps of Engineers
Louisville District
845 Sassafras Creek Road
Sassafras, KY 41759-8806

Re: DNR# 813-8018 Rev. 3

Dear Reviewer,

Please find enclosed one (1) original copy of the Third Year Monitoring report for the UT to Clear Fork Mitigation site.

Should you require any more information upon your review of this package or require a site visit feel free to contact me at 859-388-9595 or by e-mail at nbaker@aquaticresources.us.

Sincerely,

Nick Baker
Vice President and Environmental Scientist

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YEAR THREE MONITORING REPORT
UNITED STATES CORPS OF ENGINEERS
Unnamed Tributaries of Clear Fork Mitigation
KDNR PERMIT NO. 813-8018 Rev. 3

ICG Hazard, LLC.

A SUBSIDARY OF:

ICG
International Coal Group, Inc.

Prepared:
December 14, 2011

Prepared by:

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ICG Hazard, LLC Unnamed Tributaries to Clear Fork Mitigation
Year Three Monitoring report

Project Overview

This report is to notify the United States Army Corps of Engineers (USACE) of the completion on monitoring of three full growing seasons for the ICG Hazard, LLC, Unnamed Tributaries to Clear Fork (Clear Fork) Mitigation site. This USACE permit is a Nation Wide 21 associated with ICG Hazard, LLC (ICG) KDSMRE Permit # 813-8018 Rev. 3. Aquatic Resources Management is the agent responsible for conducting the monitoring and preparing reports on behalf of ICG. The inspection date of the field visit was conducted on December 8, 2011.

Purpose of the Approved Project

This mitigation project was conducted in order to offset stream impacts associated with ICG's 813-8018 Rev. 3 mining project. There is an existing underground mining method and the jurisdictional stream impacts are associated with the necessitated coarse refuse fill needed to dispose of the washed coal byproducts. The coarse refuse fill will be impacting approximately 651 linear feet of intermittent stream. The mitigation performed in Clear Fork has provided 1,541 linear feet of intermittent stream mitigation to compensate for the 651 linear feet of intermittent stream impacts.

Site Location

Clear Fork is located 1.7 miles east of the intersection of Highway 378 and Clear Fork road in Breathitt County Kentucky. The latitude and longitude of the project

is 37 ° 38' 24.4" and 83 ° 17' 32.9" respectively. Clear Fork is located in the North Fork of the Kentucky River watershed Hydrologic Unit Code (HUC) 05100201.

Mitigation Commencement and Completion Dates

Construction on Clear Fork started in June of 2007 and was finished in August of 2007.

Performance Standards

Three years post construction; most performance standards are being met. Restoration has decreased the sediment load entering the stream, which in turn has created fish and macroinvertebrate habitat, and stream stability has been achieved. However, due to a flood event that occurred in Breathitt County during 2009, one stabilization structure was "washed" out, and the step pool sequence was significantly impacted by the increased flows. ICG is currently proposing to fix all impacts to the mitigation site this year associated with the flooding. However the majority of the project is still a success and is meeting all performance standards set forth in the 404 permit with the exception of the riparian width due to the lack of trees on reach 2 and the impacts to the structures.

Requirements

Mitigation efforts were performed by the applicant, using proper equipment and design in order to efficiently complete the placement of the proposed coarse refuse fill, with the least amount of disturbance to the watershed. The stream morphology at the mitigation site will be determined successful when the goals set forth in the original permit for mitigation are met. The extents of the mitigation site have been designated and flagged with surveyor's stakes in order to indicate

the restored reach. After the restoration efforts have been met, the applicant will be responsible for annual monitoring reports to inform the Louisville District of the United States Army Corps of Engineers of progress. The applicant is obligated to maintain the projects mitigation area following the requirements set by the KDSMRE and USACE. Monitoring and site maintenance will continue until final approval of the mitigation is achieved.

The compensatory mitigation project site is achieving partial success in regards to the standards set forth in the approved USACE permit. After reconstruction of the flood impaired areas, one can assume that the mitigation project will progress in such a manner that the stated goals, demonstrated by the Rapid Bioassessment Protocol shown in Table 1, will be achieved.

Table 1:

Clear Fork Mitigation Monitoring						
Unnamed Tributary to Clear Fork #1						
RPB Habitat Parameters	Pre-mitigation	Year One	Year Two	Year Three	Year Four	Predicted Year Five
Epifaunal Substrate	2	12	12	13		12
Embeddedness	2	12	12	13		13
Velocity/Depth Regime	3	10	10	10		14
Sediment Deposition	4	12	10	15		12
Channel Flow Status	2	13	14	16		13
Channel Alteration	8	13	13	16		14
Frequency of Riffles	8	12	13	16		12
Bank Stability (both)	12	14	14	12		14
Veg. Protection (both)	14	14	14	16		14
Riparian Width (both)	10	10	10	16		12
Total Habitat Score	65	120	122	143		130

Unnamed Tributary to Clear Fork #2						
RPB Habitat Parameters	Pre-mitigation	Year One	Year Two	Year Three	Year Four	Predicted Year Five
Epifaunal Substrate	10	12	12	14		14
Embeddedness	8	12	12	14		12
Velocity/Depth Regime	8	14	14	11		14
Sediment Deposition	10	13	12	14		13
Channel Flow Status	9	12	14	17		12
Channel Alteration	8	14	13	17		14
Frequency of Riffles	12	13	13	16		13
Bank Stability (both)	10	12	12	16		12
Veg. Protection (both)	12	12	12	16		12
Riparian Width (both)	12	8	10	10		12
Total Habitat Score	99	122	124	145		128

Unnamed Tributary to Clear Fork #3						
RPB Habitat Parameters	Pre-mitigation	Year One	Year Two	Year Three	Year Four	Predicted Year Five
Epifaunal Substrate	10	12	12	16		12
Embeddedness	11	12	12	15		14
Velocity/Depth Regime	9	12	12	13		12
Sediment Deposition	10	14	14	14		14
Channel Flow Status	9	12	13	16		13
Channel Alteration	12	14	14	15		14
Frequency of Riffles	10	12	13	16		12
Bank Stability (both)	10	12	12	14		12
Veg. Protection (both)	10	12	12	14		12
Riparian Width (both)	10	10	10	10		12
Total Habitat Score	101	120	121	143		127

Summary Data

The success of the project is based on the stabilization of the stream as well as the creation of fish and macroinvertebrate habitat. The Pre-mitigation versus year 1, 2, and year 3 post mitigation scores are listed in Table 1 above. The table displays the general trend toward the stated goals in the compensatory mitigation plan.

This restoration project had various challenges to overcome to ensure its success. One of the major challenges was the bedrock that outcropped in various places throughout the stream. A priority one approach was taken for this stream restoration project. Bedrock was encountered during the excavation; therefore grade changes occurred to ensure the deposition of sediment would be conveyed into the new channel. Pictures of the mitigation site illustrate past and current conditions (figures 1-6), as well as a map showing the locations of the photos (figure 7), and map depicting the site location (figure 8). The only aspects of the mitigation project that are not meeting the stated standards are the riparian width and the structure stability. Trees were not implemented during the first or second dormant season, however, it is expected that trees will be planted this season.

Figure 1. Looking Upstream Reach 3, 12/18/08 Pic. 344

Figure 2. Looking Upstream Reach 3, 12/08/11 Pic. 910

Figure 3. Looking Upstream Reach 2, 12/18/08 Pic.363

Figure 4. Looking Upstream Reach 2, 12/08/11 Pic. 902

Figure 5. Looking Upstream Reach 1 12/18/08 Pic. 370

Figure 6. Looking Upstream Reach 1 12/08/11 Pic. 904

Conclusions

Currently, the Clear Fork mitigation site, with the exceptions of stream riparian width and other flood impacts, all performance standards are being meet. To ensure recovery of the riparian zone, trees will be planted during this upcoming dormant season to assist in erosion control and bank stabilization. Conversely, due to the bedrock influence occurring along the left bank of UT #2, tree planting may be limited. All flood impacts will also be ameliorated to ensure performance standards are met.