

Authorization to Proceed (ATP)

Arnolds Fork-Clear Creek Phase III Water Supply Abandoned Mine Land (AML) Reclamation Project based on Finding of No Significant Impact (FONSI) Knott County, Kentucky

The Office of Surface Mining Reclamation and Enforcement (OSM) has completed a review of the August 11, 2011, request for ATP with construction activity on the Arnolds Fork-Clear Creek Phase III Water Supply AML Reclamation project, prepared by the Division of Abandoned Mine Lands (DAML) of the Kentucky Department for Natural Resources. OSM found that the appropriate request documents were submitted and appear to support the need for the proposed water supply construction activity. OSM confirmed that the required information for this project has been included in the AML Inventory System.

OSM thoroughly reviewed the environmental assessment (EA) prepared by DAML for this project. OSM determined that the EA adequately discusses the environmental issues and impacts associated with the construction of the project. Based on the analysis in the EA, I have determined that reclamation of this abandoned mine site would not have significant effects on the quality of the human environment. Therefore, I conclude that no environmental impact statement is necessary.

Please ensure compliance with the following provisions in the ATP request documents noted here for emphasis or the authorization of this project is further conditioned as follows:

- The DAML project request notes that no tree removal is proposed.
- The DAML Design Branch determined that a floodplain encroachment permit to "Construct Across or Along a Stream" should be applied for and obtained as necessary.
- In the ATP request letter and EA, you note that the local government agency administering construction of this project and the engineers they retain, will acquire these permits/certification prior to the funding of construction. However, it must be noted that the State is ultimately responsible to OSM under the grant conditions to ensure that the necessary permits/certifications are obtained and compliance is fully met throughout the life of the project.
- The DAML Design Branch determined that neither a Kentucky Division of Water (DOW) 401 Water Quality Certification nor a U.S. Army Corps of Engineers 404 Clean Water Act Permit are needed for the project as proposed, as long as the work performed is subsurface (directional boring method) and there are no dewatering activities. If this method is not used, DAML must coordinate with OSM to revise the project and evaluate the revised construction activity under NEPA.

Accordingly, pursuant to Section 5-11-20D.3 of the Federal Assistance Manual and my signature on this ATP notification document, DAML is authorized to proceed with construction activity for this project as described in the ATP request documents submitted by DAML for this project and further conditioned in this notification, and expend Federal funds in accordance with AML grant terms and conditions.



Joseph L. Blackburn, Field Office Director
OSM Lexington Field Office

August 16, 2011

Date

Cassel, Steven R. "Steve"

From: Cassel, Steven R. "Steve"
Sent: Tuesday, August 16, 2011 3:59 PM
To: 'Steve Hohmann (steve.hohmann@ky.gov)'
Cc: 'carl.campbell@ky.gov'; 'mark.meade@ky.gov'; 'Bill.Overman@ky.gov'; 'Howell, Ryan (EEC)'; 'Train, Shannon (EEC)'; Rickwa, Vanna (EEC); Blackburn, Joseph L. "Joe"; Smith, Gail; Turner, Samuel R. "Sam"; Francis, Gary D.; Edwards, Chester L. "Chet"; Holliday, James "Jim"; Miller, Corey T.; Estes, Loren A.
Subject: ATP Transmittal: Arnolds Fork-Clear Creek Phase III Water Supply ATP, Knott County
Attachments: AR-M550N_20110816_155146.pdf

The Office of Surface Mining Reclamation and Enforcement (OSM) has completed a review of your August 11, 2011, request for ATP with construction activity on the Arnolds Fork-Clear Creek Phase III Water Supply AML Reclamation project, prepared by the Division of Abandoned Mine Lands (DAML). The request does not designate a funding source for the construction work under the Project Costs (Non-Water Supply) of any of Kentucky's Annual AML Construction Grant. OSM requests to be notified of the final funding source and State account number for our records.

A pre-approval field inspection of the proposed project was deemed unnecessary, since no unique characteristics warranting special field verification were noted and it wasn't selected for field verification under the EY 2012 Oversight Agreement.

It is OSM's recommendation that appropriate consideration be given to the general recommendations and comments provided in the response from the agencies consulted in the National Environmental Policy Act (NEPA) environmental review documented in the Environmental Assessment (EA) prepared by DAML. Please give special attention to the following NEPA consultation recommendation(s)/conditions and ensure compliance with the following provisions in the ATP request documents noted here for emphasis, and/or the authorization of this project is further conditioned as follows:

- The DAML project request notes that no tree removal is proposed.
- The DAML Design Branch determined that a floodplain encroachment permit to "Construct Across or Along a Stream" should be applied for and obtained as necessary.
- In the ATP request letter and EA, you note that the local government agency administering construction of this project and the engineers they retain, will acquire these permits/certification prior to the funding of construction. However, it must be noted that the State is ultimately responsible to OSM under the grant conditions to ensure that the necessary permits/certifications are obtained and compliance is fully met throughout the life of the project.
- The DAML Design Branch determined that neither a Kentucky Division of Water (DOW) 401 Water Quality Certification nor a U.S. Army Corps of Engineers 404 Clean Water Act Permit are needed for the project as proposed, as long as the work performed is subsurface (directional boring method) and there are no dewatering activities. If this method is not used, DAML must coordinate with OSM to revise the project and evaluate the revised construction activity under NEPA.
- OSM requests copies of any applications for permits/certifications and approval documents required for the construction of this project that were not submitted with the original ATP. This information is needed by OSM to perform oversight and monitor compliance with the NEPA.

The OSM Lexington Field Office Director has signed an ATP notice and a Finding of No Significant Impact. A copy of each of these documents and the LFO review memorandum are scanned into the attachment to this email for your

information and use. Mr. Carl Campbell, Commissioner, Department for Natural Resources has been notified of this authorization by receiving a copy of this email.

Please ensure that the e-AMLIS information regarding Problem Area (PA) # KY-004145-SGA is updated to reflect the move of Units and Cost from Unfunded to Funded category for use in generating the Annual Report to Congress and other inquiries of the database.

Any questions concerning this ATP or the procedures can be addressed to Steve Cassel at 859-260-3912 or Gail Smith at (859) 260-3908. Thank you.

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

Arnolds Fork-Clear Creek Phase III Water Supply Abandoned Mine Lands (AML) Project Knott County, Kentucky

The Commonwealth of Kentucky submitted an Authorization to Proceed with Construction Activity (ATP) request for Federal AML grant funds to the Office of Surface Mining Reclamation and Enforcement (OSM) for this project. The ATP request consists of a request letter, Environmental Assessment (EA) with consultation correspondence, project description, location map, AML Inventory System (AMLIS) Problem Area (PA) Description forms, and other supporting enclosures. The project area may be centrally located on the Carrie, Hindman, Kite, and Wheelwright, Kentucky U.S.G.S. 7.5 minute Topographic Quadrangle maps at 37° 18' 19" North Latitude and 83° 05' 05" West Longitude. The project location, AML problems to be addressed and proposed reclamation activity/cost are also available at <http://www.osmre.gov> in the AMLIS under PA# KY-004145-SGA. The project involves remediation of AML impacts to potable drinking water by installing about 19.5 miles of new water lines, four pump stations, and 435 water meters.

OSM has thoroughly reviewed the EA prepared for this project by the Kentucky Division of Abandoned Mine Lands (DAML) and determined that it adequately discusses the environmental issues and impacts as required by the National Environmental Policy Act (NEPA) for OSM abandoned mine lands reclamation grant construction activities for authorization purposes.

Based on the analysis in the EA, I find that the construction activity performed under this project will not have significant impacts on the quality of the human environment. Therefore, I conclude that a detailed Environmental Impact Statement is unnecessary. My specific reasons are as follows:

The alternative to not fund the project would result in no favorable impacts and the adverse impacts would continue unabated. The long-term beneficial impact of the proposed action will result in the protection of the health, safety, general welfare, and property of the local citizens and other persons who may come in contact with these AML conditions. No long-term adverse impacts are anticipated. Short-term environmental impacts are limited to sedimentation, noise, and inconvenience to the local residents while the project is constructed. Sedimentation will be controlled by using silt control and prompt revegetation of the disturbed area. Noise, dust, and other inconveniences to local residents are unavoidable impacts related to construction activities.

All appropriate government agencies were consulted or their review criteria applied by agreement. As a result, it was determined that the project area does not contain or significantly affect threatened or endangered species or their habitat, jurisdictional wetlands, cultural or historic values, prime and unique farmland values, recreational

resources, or Class I air quality regions. To reduce impacts from the project, the recommendations made by the agencies consulted were considered and, as appropriate, incorporated into the EA prepared by DAML and/or as an element of their request for ATP with construction submitted for OSM authorization. The responses from agencies consulted for the National Environmental Policy Act (NEPA) review include the following comments and/or recommendations:

The Kentucky Department of Fish and Wildlife Resources (KDFWR) identified no known federally or state threatened/endangered fish and wildlife in close proximity of the project area.

The designated DAML biological review staff reviewed the Kentucky State Nature Preserves Commission's (KSNPC) endangered, threatened and special concern reference databases in lieu of direct consultation. The findings are noted in the ATP request correspondence, EA, and an attached biological review memorandum. DAML found that KSNPC data indicated one federally listed threatened or endangered species, the Indiana bat, within a 10-mile radius and five species of State concern known to occur within a 1-mile radius of the project. DAML listed and discussed each species in the biological review memorandum, the EA, and their ATP request correspondence, finding that the noted species will not be impacted, since the project will not result in a significant negative impact to their critical habitat and/or suitable habitat does not exist within the project area to support the species. No reason was identified to dispute their determination.

In a meeting held in February 2010 between the OSM Lexington Field Office (LFO), Kentucky Field Office (KFO) in Frankfort, Kentucky, of the U.S. Fish and Wildlife Service (USFWS) and DAML; Steve Hohmann, Director of DAML, offered to coordinate NEPA consultation with the KFO, utilizing the agreements in the September 18, 2009, Memorandum of Agreement (MOA) signed by the OSM, LFO and USFWS KFO. This document outlined the acceptable conditions that the projects potential impacts can have where the KFO will not need to be further contacted for comment. When the conditions within the agreement are present, processing of the ATP may proceed with the confidence that the biological environment is being protected and provisions of Section 7 of the Endangered Species Act have been fulfilled. It was agreed to by all parties, acknowledging that LFO would retain the final review to determine if the NEPA documentation is complete.

After review of the ATP documents for this project, which included consultation with the KDFWR, DAML determined that additional consultation with the USFWS is not required because the proposed project will not adversely affect a federally listed species (Federal Assistance Manual (FAM) Chapter 5-11-15, A. 3.) The project activities meet the following conditions noted in the MOA to ensure protection of federally listed species; specifically the Indiana bat, Gray bat, and freshwater fishes and mussels:

- The project does not include the purposeful removal of standing trees larger than 5 inches diameter at breast height or standing snags with loose bark that are 9 inch or greater diameter at breast height and at least 10 feet in height, during the period of April 1 to October 15;
- The project activity does not occur in "Known Indiana Bat Habitat" identified on the map attached to the MOA and the GIS files provided by USFWS KFO on November 2, 2009, used to generate the map (a copy of a section of the MOA GIS layer map on which the project coordinates are located is attached to the DAML biological review memorandum as proof of this determination);
- No caves or clifflines will be disturbed;
- No mine portal/shaft closures are proposed, i.e. mine portal/shafts are to be left undisturbed or;
- No purposeful filling or crossing of streams using heavy equipment or the removal of riparian vegetation using heavy equipment within the Tradewater, lower Ohio, upper Cumberland, Green, and Licking River basins;
- In order to avoid/reduce indirect impacts, erosion and sediment control plans will be implemented and monitored until permanent vegetation has become established in the above listed watersheds and all other watersheds as may be appropriate.

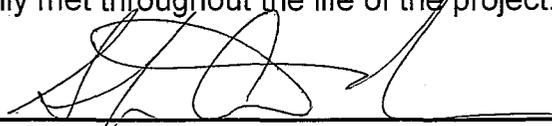
With the specifics of the proposal meeting the criteria set out in the MOA, OSM agrees with DAML's determination that the proposed project would not adversely impact the species if these conditions are present. With this information, they found the requirements of Section 7 of the Endangered Species Act have been fulfilled.

The Office of State Archaeology found that their records did not indicate any known archaeological sites directly in the project area, however, since the project passes through areas that have potential for archaeological sites, they recommended coordination with the State Historic Preservation Officer (SHPO) before beginning construction activities.

The Kentucky Heritage Council (KHC) and State Historic Preservation Officer (SHPO) were not consulted further for the current construction activity, since this project activity falls under the "exempt projects" provisions in the Programmatic Agreement that DAML signed on January 3, 2011, with the KHC. Exempt projects are "Routine and recurring projects whose impacts [under Section 106 of the Natural Historic Preservation Act] are "foreseeable and cause little or no ground disturbance or that have a low probability of affecting known or unknown historic properties..." Under the agreement KHC requires no consultation beyond DAML's determination that the project is an exempt project.

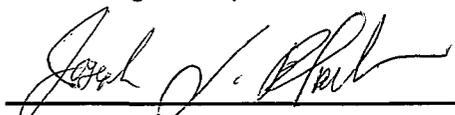
Environmental and Public Protection Cabinet (EPPC) (changed to the Environment and Energy Cabinet (EEC) in July 2008) Secretary order dated December 12, 2006, transferred authority for issuance of Clean Water Act (CWA) Section 401 Water Quality Certifications (WQC) associated with surface coal mine operations, to include any reclamation projects proposed by the DAML, to the Kentucky Department for Natural Resources (DNR). DNR assigned this responsibility to the DAML Design Branch. In a meeting held in February 2010 between the OSM Lexington Field Office (LFO), Kentucky Field Office (KFO) in Frankfort, Kentucky, of the U.S. Fish and Wildlife Service (USFWS) and DAML to primarily discuss fish and wildlife issues; Steve Hohmann, Director of DAML, offered to coordinate NEPA consultation with the U.S. Army Corps of Engineers (COE) to assess the need for and compliance with the permit requirements of Section 404 of the Clean Water Act (CWA) by application of criteria provided by the COE. This was beneficial to both offices since these issues are inter-related. The DAML Design Branch determined that neither a 401 WQC nor a 404 CWA permit are needed for the project as proposed, as long as the work performed is subsurface (directional boring method) and there are no dewatering activities.

Under a 2005 agreement with the Kentucky Division of Water (DOW) Floodplain Management Section (FMS) of the Water Resources Branch, DOW authorized DAML to apply DOW floodplain standards in lieu of a DOW review. In this agreement, DAML will directly consult with DOW if it appears a permit may be required. DAML has acquired a set of Federal Emergency Management Agency (FEMA) floodplain maps that include the project area. DAML's Design Branch personnel researched these maps and have determined that portions of the project are within the base floodplain and a floodplain encroachment permit is required. DAML's ATP request correspondence and EA note that the local government agency administering construction of this project and the engineers and contractors retained by them for this project, will acquire any needed permits prior to the onset of construction. In addition, DAML states that it will not fund this project until all required permits and authorization are issued prior to the onset of construction. The OSM authorization to proceed with construction activity document will be conditioned to reflect these issues and notify DAML that the State is ultimately responsible to OSM under the grant conditions to ensure that the necessary permits are obtained; such as a DOW Floodplain Encroachment Permit, and that compliance is fully met throughout the life of the project.



OSM Environmental Reviewer
AML Program Specialist

August 16, 2011
Date



Joseph L. Blackburn
Field Office Director

August 16, 2011
Date

Memorandum

Date: August 16, 2011

To: Arnolds Fork-Clear Creek Phase III Water Supply Abandoned Mine Land (AML) Reclamation Project File

From: Steve Cassel, Sr., AML Program Specialist *SCB-16-11*
Lexington Field Office (LFO), Program Support Branch (PSB)

Subject: Review of "Authorization to Proceed" (ATP) Request

The Branch recommends that the Field Office Director (FOD) authorize the State of Kentucky to proceed with the construction activity proposed on the Arnolds Fork-Clear Creek Phase III Water Supply AML Reclamation Project. The Branch prepared an ATP notice and Finding of No Significant Impact (FONSI) for the FOD review. The Branch recommends that the FOD sign the FONSI and ATP notice in the space provided on each document. The original signed ATP notice will be filed in the LFO AML project construction files and a copy will be sent to the Division of Abandoned Mine Lands (DAML) Director attached to a transmittal email, with an attachment of associated approval documents, consisting of a copy of the LFO review memorandum and FONSI. Additionally, the transmittal email will be copied to the Department for Natural Resources (DNR) Commissioner.

The Kentucky DAML ATP request dated August 11, 2011, was received at LFO on August 11, 2011. The ATP was processed within 3 working days; therefore, the customer service target of 14 working days to process an ATP has been met. The ATP was processed in 5 calendar days; therefore, the Federal employee performance appraisal standard of 30 calendar days to process an ATP has been met.

The project area may be centrally located on the Carrie, Hindman, Kite, and Wheelwright, Kentucky U.S.G.S. 7.5 minute Topographic Quadrangle maps at 37° 18' 19" North Latitude and 83° 05' 05" West Longitude. The project location, AML problems to be addressed and proposed reclamation activity/cost are also available at <http://www.osmre.gov> in the AMLIS under PA# KY-004145-SGA. The project involves remediation of AML impacts to potable drinking water by installing about 19.5 miles of new water lines, four pump stations, and 435 water meters.

DAML did not designate a funding source under the budget category entitled Water Supply Project Costs of any of Kentucky's AML Annual Construction Grants (AG). In previous discussions, DNR indicated they would assign projects to a grant before they go to construction. The LFO Project/Site ID # 99.1230400000 was assigned to the project file for LFO tracking purposes until actual AG and Location Code numbers are assigned by DAML and can be inserted in the appropriate positions at the beginning and end of the LFO Project #. No specific proposed bid advertisement, bid opening, or construction completion dates were provided by DAML in the ATP request letter,

therefore I inserted dates in the database based on the ATP request letter stating that these activities will occur as soon as possible. The following proposed dates were assigned and entered by LFO for database tracking purposes: Bid Advertisement Date was entered as September 1, 2011, Contract Award was entered as September 1, 2011, and Contract/Construction Completion was entered as September 1, 2012.

An office review of the request documents was conducted. The documents consisted of; a project description, location maps, a National Environmental Policy Act (NEPA) review documented in a Environmental Assessment (EA) with agency consultation documentation; and an Abandoned Mine Land Inventory System (AMLIS) Problem Area Description (PAD) summary and appropriate Priority Documentation Forms, with engineer cost estimates and reference to a water supply study, for PA# KY-004145-SGA. A pre-approval field inspection of the proposed project was deemed unnecessary, since no unique characteristics warranting special field verification were noted and it wasn't selected for field verification under the EY 2012 Oversight Agreement.

The EA submitted for the construction activity at the site was reviewed and found to adequately document the environmental review of the construction activity within the current NEPA review guidance. No significant impacts have been reported to this office or identified by the Branch. The Branch recommends that the Office of Surface Mining Reclamation and Enforcement (OSM) accept the EA submitted by the Kentucky DAML. The EA prepared by the State and the State's ATP request correspondence and attachments discussed the responses from agencies consulted for the NEPA review and discussed appropriate resolution of all their concerns and recommendations. The responses from agencies consulted for the NEPA review are summarized in the FONSI prepared by OSM for the EA.

The comments from the Kentucky State Clearinghouse, Kentucky's "Single Point of Contact" (SPOC) pertaining to AML Water Supply projects included no comments that affect this proposal. The information to update PA # KY-004145-SGA was submitted by DAML for OSM review prior to acceptance into the AMLIS. PA # KY-004145-SGA represents a "new Problem Area" requiring FOD approval under OSM Directive AML-1-2 (signed June 22, 2007). A FOD approval form was not prepared for the PA, since the new e-AMLIS is operational, with electronic OSM FOD approval, which eliminated the need for the FOD approval form. The e-AMLIS file indicated the PA was approved on August 16, 2011.

The Area Office AML staff will be notified of this project authorization by cc'd copy of the email notifying DAML of this ATP or email of an updated State AML Project List after the authorization of this project and availability of the project documents on the LFO State AML reclamation project tracking database.

Cassel, Steven R. "Steve"

From: Cassel, Steven R. "Steve"
Sent: Tuesday, August 16, 2011 9:45 AM
To: Miller, Corey T.
Subject: FW: e-AMLIS Amendment Approval (KY004145)

Corey, I approved this PAD and put a copy of this approval in the project file.

Thanks

From: tshifflett@osmre.gov [<mailto:tshifflett@osmre.gov>]
Sent: Tuesday, August 16, 2011 9:43 AM
To: ernie.ellison@ky.gov; Blackburn, Joseph L. "Joe"; Smith, Gail; brenda.harlow@ky.gov; ryan.howell@ky.gov; bill.overman@ky.gov; Miller, Corey T.; Cassel, Steven R. "Steve"; Shifflett, Tara L.; alaouih@cherokee-inc.com
Subject: e-AMLIS Amendment Approval (KY004145)

The amendment submission for Problem Area (KY004145) has been approved.

Please log into the e-AMLIS system to review it and take any further action required.

Thank you,
THE OSM FEDERAL e-AMLIS TEAM

Please do not reply to this email.

Cassel, Steven R. "Steve"

From: Rickwa, Vanna (EEC) [Vanna.Rickwa@ky.gov]
Sent: Thursday, August 11, 2011 9:29 AM
To: Cassel, Steven R. "Steve"; Miller, Corey T.; Estes, Loren A.; Smith, Gail
Subject: ATP request package for Arnolds Fork-Clear Creek Phase III AML Water Supply Project

Follow Up Flag: Follow up
Flag Status: Flagged

Please see check your GMAIL account.

We sent you the ATP request package for the Arnolds Fork-Clear Creek Phase III AML Water Supply Project. The attachment was too large to send via regular email.

Respond accordingly.

If you have any questions or concerns ref. this package, please contact Bill Overman or Ryan Howell.

Thanks,

*Vanna Rickwa
Administrative Specialist III
Energy and Environment Cabinet
Department for Natural Resources
Division of Abandoned Mine Lands
2521 Lawrenceburg Road
Frankfort, Kentucky 40601
502/564-2141, Ext. 130*



ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR NATURAL RESOURCES

Division of Abandoned Mine Lands

2521 Lawrenceburg Road
Frankfort, Kentucky 40601
www.ky.gov

Steven L. Beshear
Governor

Leonard K. Peters
Secretary

Carl E. Campbell
Commissioner

August 11, 2011

Mr. Joseph L. Blackburn, Director
U. S. Department of the Interior
Office of Surface Mining
Lexington Field Office
2675 Regency Road
Lexington, KY 40503

RE: Arnolds Fork-Clear Creek Phase III AML Water Supply Project (Knott County)

Dear Mr. Blackburn:

We are requesting "Authorization to Proceed" with site-specific construction activities on the referenced project, as described in the enclosed package. Enclosed are a project description, location maps, and problem area description (PAD) supplemental form, including a problem description and an engineer cost estimate, for the above-referenced project. The PAD for problem area # KY 4145 SGA has been prepared, entered into the e-AMLIS by the division, and is pending OSM approval. An eligibility determination that finds the proposed project eligible for AML funding has been reviewed and signed by the Office of Legal Services. Support documents for the PAD and the eligibility determination will be made available to you upon request. Also, enclosed is an Environmental Assessment, with two agency consultation response documents and two DAML consultation documents attached. The waterlines will be placed within the roadside ditch and residentially maintained yards, which have been previously disturbed during houseseat and road construction, and is exempt according to the Programmatic Agreement between AML and KHC.

AML Program Development staff conducted a search of the Kentucky State Nature Preserves Commission (KSNPC) BIOTICS database. This search revealed five species of state concern, monitored by the KSNPC, are known to occur within one mile of the project site, and that one species listed as threatened or endangered, under the United States Endangered Species Act (USESA), are known to exist within ten miles of the project site. The species noted in the search are the:

KSNPC species found within 1 mile from the project sites:

- Squarrose Goldenrod (*Solidago squarrosa*)
- Elusive Clubtail (*Stylurus notatus*)
- Elktoe (*Alasmidonta marginata*)
- Kentucky Arrow Darter (*Etheostoma sagitta spilotum*)
- Common Raven (*Corvis corax*)

USESA listed species found within 10 miles from the project site:

- Indiana Bat (*Myotis sodalists*)

According to the memorandum by Keith B. Coleman, dated July 21, 2011, none of these species should be negatively impacted by the proposed reclamation work. Although, the entire state of Kentucky has been declared to be potential Indiana Bat habitat, since no disturbances to potential roost sites, including trees and/or cave-like structures, are planned as part of project-related construction, no negative impacts should result upon the Indiana Bat, regardless of the timing of construction.

A letter was sent to the DAML floodplain and hydrology staff specialist, soliciting their comments regarding this project. The letter requested comments regarding water quality certification (WQC) and floodplain permit issues. The response stated that a floodplain permit would be required, but no WQC or COE permits will be required, as long as the work performed is subsurface (directional boring method) and there are no dewatering activities. The engineers and/or contractors retained for this project are required to obtain all necessary permits. This Division will not fund this project until all required permits and authorizations are received. The other consulted agencies had no objections or concerns regarding this project.

Overall, the project is a Priority 2. The project is estimated to cost \$2,410,011.00, exclusive of "in-house" personnel costs associated with project administration, design, support, surveying, and bid activities. Completion of the project will not require the acquisition of any land and will not significantly affect the potential recovery of residual coal reserves at the sites. The principal benefits to be derived from the successful completion of the project are the elimination of abandoned mine lands problems as described in the attached project description.

Construction contract bidding, awarding, and subsequent construction completion will occur as soon as possible. Should you have any questions regarding this information, please contact us at 502/564-2141.

Sincerely,



Steve Hohmann, Director
Division of Abandoned Mine Lands

SH:BO:RH:vr

Enclosures

Arnold Fork – Clear Creek (III)
AML Water Supply Project

Knott County, KY
Kite, Wheelwright, Carrie, & Hindman
7.5' USGS Geologic Quadrangles

Studies of the Clear Creek and Arnold Fork watersheds in Knott County have shown that within portions of the study areas groundwater resources have been degraded by coal mine operations which were active prior to May 18, 1982. This project will provide the means of the delivery of safe and dependable domestic water to residents within the above-mentioned watersheds. The Arnold Fork portion of the project consists of the installation of approximately 2.5 miles of new water lines, 1 pump station, and 60 water meters. The Clear Creek portion of the project consists of the installation of approximately 17 miles of new water lines, 3 pump stations, and 375 water meters. (Project site maps attached.)

The water lines will be constructed within roadside right-of-ways and residential yards, and areas disturbed by development, coal mining, oil & gas extraction and/or logging. No tree clearing should be necessary within the project boundaries, including pump-station sites. Soils within the project areas have generally been previously disturbed to a depth of several feet. Sections of the Clear Creek portion of the project include Trace Branch, Cockerell Trace Branch, Honey Gap Hollow, Dicks Fork, Chestnut Log Branch, Hickory With Branch, Sandlick Branch, Sylvester Branch, and Ogden Branch.

Several stream crossings will be required for the installation of the water lines. Stream crossings will be constructed quickly, with as little intrusion into the stream beds as possible, thereby limiting turbidity and sedimentation problems to levels associated with typical storm events. Standard sedimentation controls, such as hay-bale silt checks, will be used during stream crossing construction. The prompt establishment of vegetation at disturbed areas will provide additional sediment and erosion control.

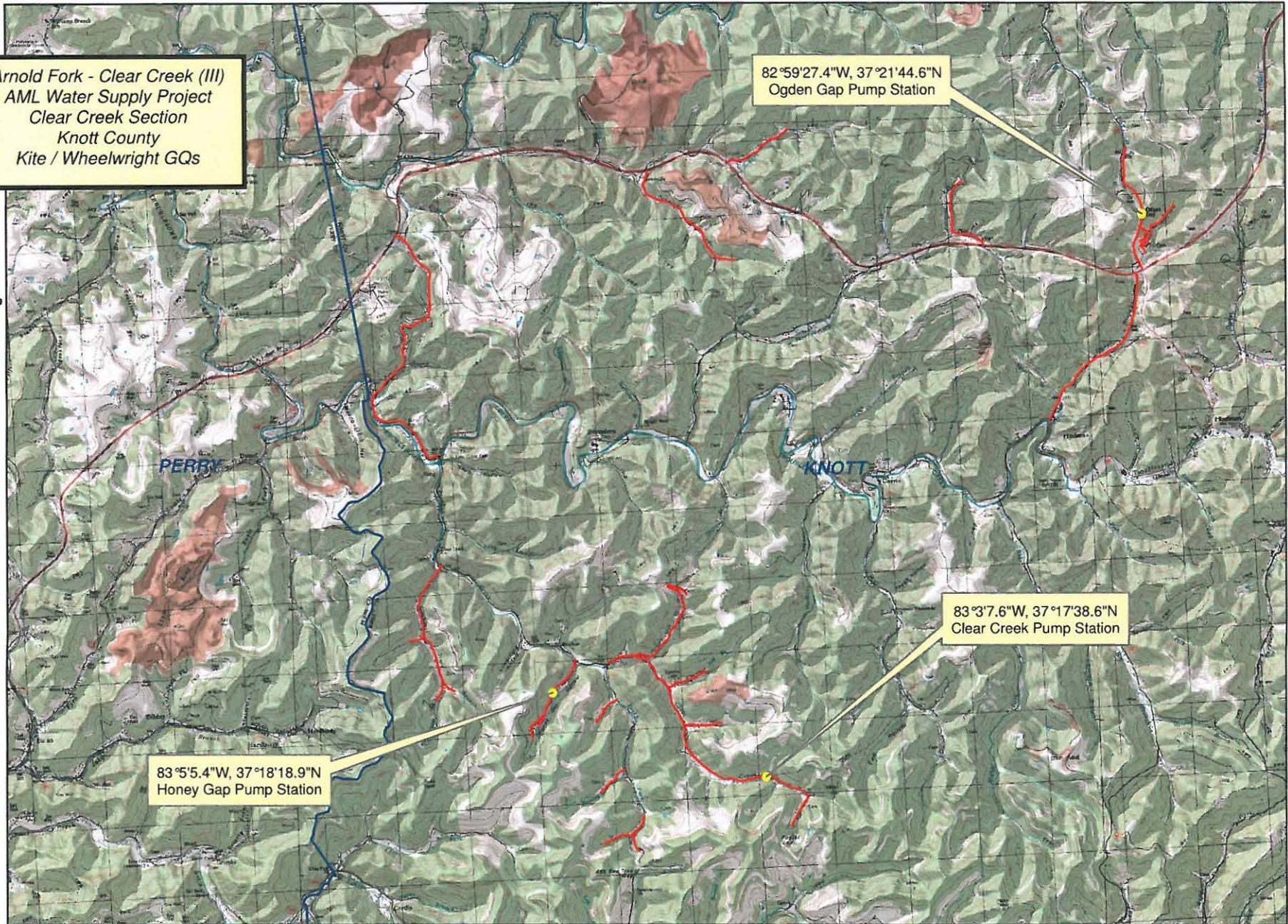
Consulting engineering companies retained for this project submitted design plans for this water supply project to the Kentucky Division of Water (DOW) for their review and approval. This approval process includes the identification and notice, to the party submitting the design plans, of all necessary permits, including floodplain permits and 401 WQC permits. The engineers and/or contractors retained for this project are required to obtain all necessary permits. This Division will not fund this project until all required permits and authorizations are issued.

Arnold Fork - Clear Creek (III)
AML Water Supply Project
Clear Creek Section
Knott County
Kite / Wheelwright GQs

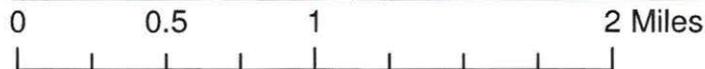
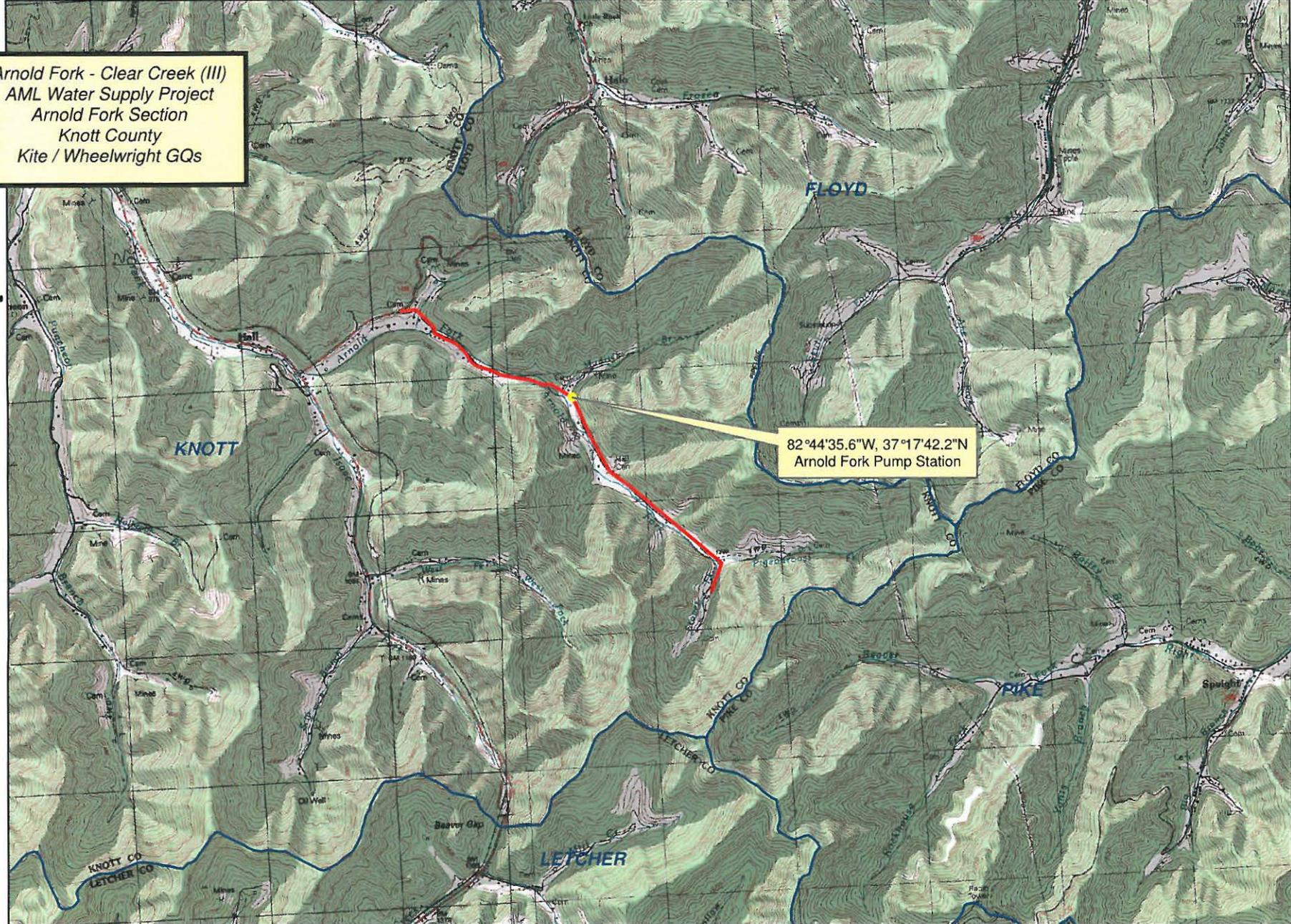
82°59'27.4"W, 37°21'44.6"N
Ogden Gap Pump Station

83°3'7.6"W, 37°17'38.6"N
Clear Creek Pump Station

83°5'5.4"W, 37°18'18.9"N
Honey Gap Pump Station



Arnold Fork - Clear Creek (III)
AML Water Supply Project
Arnold Fork Section
Knott County
Kite / Wheelwright GQs



ENVIRONMENTAL ASSESSMENT

ARNOLD FORK / CLEAR CREEK PHASE III

AML WATER SUPPLY PROJECT

A. Description of the Proposed Action:

The project area is located in Knott County, Kentucky, within the areas shown on the Carrie, Hindman, Kite, and Wheelwright KY 7.5' USGS quadrangle maps. The water supply lines, which have been proposed to be constructed under this project, will be placed along Arnold Fork, near the community of Hall, along Clear Creek, Dicks Fork, Honey Gap Hollow, Chestnut Log Branch, and Hickory With Branch, near the community of Ritchie, along Trace Branch, near the community of Fisty, and along Ogden Branch, Sylvester Branch, Big and Sandlick Branches, near the community of Bearville.

This Environmental Assessment is required because the construction of water supply lines for the purposes of remediation of AML problems resulting from coal mining is not considered eligible for Categorical Exclusion. Construction under this phase of the project will consist of:

- Construction of 19.5 miles of new water supply lines and 435 water meters within areas where groundwater supplies have been determined to have been degraded by coal mining which has been found to be eligible for the expenditure of AML funding.

B. Need for the Proposed Action:

Numerous underground, surface, and auger mining operations have been conducted in the area since the 1960's, and were completed prior to May 18, 1982. These operations have had a combined detrimental effect upon the quality of groundwater in portions of the above-mentioned drainages, thereby causing water resources to become unsuitable for domestic uses, primarily due to elevated levels of metals, sulfur, and acidity.

C. Alternatives Considered:

First, the proposed project was considered, as outlined above. The second alternative is to drill new wells for the residences within the impacted areas. The third alternative is to take no action, allowing the problems to continue.

C.1. Preferred Alternative: AML Water Supply Project

The Kentucky Division of Abandoned Mine Lands proposes to extend existing Knott County Water & Sewer District water supply system to provide safe, clean drinking water to approximately 435 residences within portions of the above-mentioned, AML-impacted areas.

C.2. Second Alternative: Drill New Wells

The drilling of new wells would be an unlikely attempt to abate the problem of contaminated groundwater supplies, as it is the aquifers which are contaminated. As such, any new wells would be drawing from the same source areas. Wells drilled to greater depths would be appreciably more expensive, and would likely encounter water which is either contaminated by mining or contains elevated levels of salinity, which would severely limit the feasibility of the utilization of such resources.

C.3. Third Alternative: Take No Action

Should the Commonwealth take no action, the present conditions would continue. And, as a result, the present threats to health and public safety would persist, due to the utilization of contaminated groundwater resources.

D. Affected Environment:

D.1. General setting:

This project is located in Knott County, near the communities Hall, Ritchie, and Bearville. Primary land uses within the proposed project area include coal mining, logging, oil & natural gas extraction, residential development, and agricultural pasture and crop fields. Coal has been mined throughout the associated watershed, in various seams, since the 1960's by underground, surface and auger methods. Additional information regarding the mining history for this project is contained in the eligibility determination which has been included as part of the project file.

D.2. Affected Resources:

The following agencies were consulted to identify resources that may occur within the project vicinity: Office of State Archaeology (OSA), and Kentucky Department of Fish and Wildlife Resources (KDFWR). Kentucky Division of Abandoned Mine Land (KDAML) staff, who specialize in water quality concerns, were consulted regarding the need for Water Quality Certifications. Replies from these agencies are attached. In addition, a database of occurrences of species which are monitored by the Kentucky State Nature Preserves Commission (KSNPC), and species which are currently listed as threatened or endangered under the Endangered Species Act (USES), was consulted by KDAML staff biologists. A memorandum regarding the results of the database search is also attached. The actual data that resulted from the search is the confidential property of KSNPC, and may not be distributed.

E. Environmental Impacts of the Proposed Alternatives:

E.1. Preferred Alternative:

The following resources will not be significantly negatively impacted by the preferred reclamation scheme: historic/cultural, vegetation, fish and wildlife, agriculture, soils, recreation, air quality, noise, topography, and “other” (socioeconomic or political) resources. The proposed project will not adversely impact low income or minority persons. As roadside vegetation will be removed during construction of the water supply lines, vegetation will be discussed. As the federal United States Fish and Wildlife Service (USFWS) has declared the entirety of the Commonwealth of Kentucky to be the potential habitat of the Indiana bat [*Myotis sodalis* – listed as Endangered under the United States Endangered Species Act (USES A)], fish and wildlife will be discussed. As the Office of State Archaeology (OSA) requested consultation with the State Historic Preservation Officer (SHPO), historic and/or cultural resources will be discussed.

E.1.a. Vegetation:

Under the preferred alternative, roadside vegetation that exists directly in the path of waterline system construction course would be removed. This vegetation consists primarily of grass, with some coarse weeds and brush, all of which are tolerant of heavy traffic, herbicides, mowing, snow and ice removal agents and other frequent disturbances. These areas would be seeded as quickly as is practical after disturbance. Stream crossings associated with the proposed project are located adjacent to the roadway and, therefore, are also impacted by mowing, weed spraying, snow and ice removal agents, etc.

E.1.b. Fish and Wildlife:

As noted above, the USFWS had declared the entirety of the Commonwealth of Kentucky to be the potential habitat of the Indiana Bat (*Myotis sodalis* – USESA Endangered). A search of the KSNPC BIOTICS database reported one record of capture within 10 miles from the Clear Creek portion of the project area (8.1 miles NW, “undetermined” record). Habitat typically occupied by the Indiana Bat includes caves and cave-like structures, such as underground mines, which may be utilized as winter hibernacula. Additionally trees which contain exfoliating bark, split limbs and/or hollowed out cavities within trunks and large limbs, are utilized as summer roost and maternity colony sites. Since no disturbances to habitat trees, caves, or cave-like structures is anticipated, no impacts should result upon this species, regardless of the timing of construction.

Additionally, 5 species of state concern, all of which are monitored by KSNPC (Squarrose Goldenrod, Elusive Clubtail, Elktoe, Kentucky Arrow Darter, and the Common Raven), have been documented within 1 mile from associated project sites. Project-related construction is not anticipated to negatively impact any of these species, as potential habitat areas are not anticipated to be disturbed by project construction, and/or the AML Sediment and Erosion Control Plan, to be implemented and monitored during construction, will limit

any potential aquatic disturbances to levels associated with a typical storm event within the region. (July 21, 2011, KSNPC Review Attached)

E.1.c. Historic/Cultural:

The OSA noted that the proposed route for the waterline did not pass through any archaeological sites or survey areas. But, because the planned pipeline corridor passes through various terrains that have not been subjected to an archaeological survey, the OSA requested that AML consult with the SHPO at KHC. Although OSA deferred to KHC for review, KHC was not contacted for this project as the project is exempt under the Programmatic Agreement between KHC and AML. The placement of the water lines along roadway ditch-lines and in residentially maintained yards would result in their placement in areas that have already been thoroughly previously disturbed. It would appear highly unlikely that the planned disturbances to take place under this project will have the potential to disturb known or unknown extant archaeological sites. Therefore, there will not be any loss of materials of archaeological or cultural significance as a result of project construction.

E.1.d. Floodplain/Hydrology:

KDAML water quality specialists, which provide oversight relating to water quality certifications associated with AML-related projects, stated that a floodplain / stream construction permit will be required. This, and any further permits that may be required, will be applied for and acquired by the Knott County Water and Sewer District in advance of any construction activities. This Division will not fund this project until all required permits and authorizations are received. However, construction of this project will not result in the placement of any obstructions within the floodplain, and will not significantly alter the hydrology of the floodplain or nearby areas. Therefore, there will not be any significant impact to the floodplain or hydrology within the project area.

E.1.e. Cumulative Environmental Impact:

No significant, cumulative environmental impacts should occur due to previous and proposed AML projects in the impacted portions of the Arnold Fork and Clear Creek watersheds. No other AML projects are currently planned within the watersheds. All previously-constructed AML reclamation projects within the associated watersheds were found to not pose the risk of significant environmental impacts. Therefore, as the proposed alternative also should not result in any significant impacts upon the environment within the associated watersheds, there will be no cumulative environmental impacts as a direct result of the construction of the new water supply lines.

E.2. Drill New Wells Alternative:

E.2.a. Vegetation:

This alternative would be less likely to cause impacts to vegetation than the preferred alternative, as the new wells would most likely be installed only in areas used as residential lawns, and neither the supply lines nor the pumping stations would need to be constructed. In addition, the construction sites would be quite small and highly localized in comparison to the preferred alternative. However, since the proposed alternative will not likely impact significant plant species, the differences are inconsequential.

E.2.b Fish and Wildlife:

This alternative would not likely impact habitat areas utilized by any of the aquatic organisms reported by the KSNPC database (as federally threatened and endangered), or as species of state concern. Stream disturbances may still be required, however, in order to allow access to heavy equipment such as drill rigs. Sediment and erosion control plans would equally reduce any disturbances to aquatic species and their respective habitat areas.

E.2.c. Historic/Cultural:

This alternative would not affect any archaeological or culturally important remains, as wells would be drilled within previously disturbed residential yards and house seats. As within the preferred alternative, all project areas would be categorized as significantly previously disturbed and highly unlikely to contain historic or cultural resource areas.

E.2.d. Floodplain/Hydrology:

While some of the residential yards may exist within areas delineated as the base floodplains of streams within the project area, all disturbances under this alternative would be transient, and would not create any permanent effect upon the floodplain, similar to conditions associated with the preferred alternative.

E.2.e. Cumulative:

As this alternative would take place only within individual, previously disturbed residential yards, most of the potential impacts listed under the preferred alternatives would not be possible. Therefore, there would be no cumulative impact within the watershed due to the construction of an AML project associated with new well construction. However, as coal mining has negatively impacted the groundwater resources within this area, it is probable that only contaminated or unfeasible source groundwater would be encountered by drilling. Therefore, it is unlikely that the adverse impacts at the project-associated residences would be alleviated by this alternative. As such, the resulting health and safety impacts would continue, and the ability of the area to support further residential development would continue to be significantly limited.

E.3. No Action Alternative:

E.3.a Vegetation:

Taking no action would not cause any adverse impact to the vegetation of the area.

E.3.b. Fish and Wildlife:

Taking no action would not cause any adverse impact to the fish and wildlife of the area.

E.2.c. Historic/Cultural:

Taking no action would not cause any adverse impact to historic or cultural resources.

E.2.d. Floodplain/Hydrology:

Taking no action would not cause any adverse impact to the floodplain or hydrology of the project area.

E.3.e. Cumulative:

Taking no action would result in the same conditions as currently exist, the residents of the area would continue to be affected by poor residential water quality, and the resulting health and safety concerns. Otherwise, this alternative would not contribute to any cumulative negative impacts associated with AML reclamation projects in the Arnold Fork and Clear Creek watersheds, whether prior, planned, or ongoing. The absence of a dependable supply of potable water within these watersheds will continue to significantly limit the ability of the area to support additional residents and future development, primarily due to the costs associated with independent infrastructure development within contaminated resource areas.

F. Summary:

The Commonwealth considered three reclamation options. First, extend the existing Knott County Water and Sewer District water supply lines and necessary appurtenances to provide water to approximately 435 residences affected by AML eligible coal mining within the Arnold Fork and Clear Creek watersheds. Second, drill new wells for these same residences. Third, take no action. The first option was selected, as it is the only option that will abate the effects of contaminated groundwater upon the residents of the area.

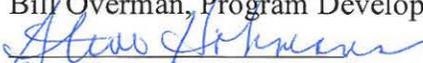
G. Consultations:

The following agencies were consulted prior to preparation of this document:

1. Kentucky Department of Fish and Wildlife Resources.
2. Office of State Archaeology, University of Kentucky.
3. Kentucky Heritage Council – exempt under the Programmatic Agreement.
4. Kentucky Division of Abandoned Mine Lands, Water Quality Specialists
5. Kentucky State Nature Preserves Commission, via its BIOTICS database.

H. Preparers/Reviewers:

Kentucky Division of Abandoned Mine Lands Personnel:

- Keith B. Coleman, Environmental Technologist III
- Ryan Howell, Environmental Control Supervisor
- Bill Overman, Program Development Branch Manager
- 
Steve Hohmann, Director

8/10/11
Date

Howell, Ryan (EEC)

From: Hall, Samantha (EEC)
Sent: Wednesday, July 20, 2011 6:30 AM
To: Rickwa, Vanna (EEC)
Cc: Howell, Ryan (EEC); Coleman, Keith (EEC); Overman, Bill (EEC)
Subject: RE: Request for floodplain and WQC review for Arnold Fork-Clear Creek Phase III Water Supply Project

Floodplain/Stream Construction Permit

A floodplain permit will be required.

US Army Corps of Engineers Permit (ACOE)

No permit is necessary as long as the work performed is subsurface (directional boring method) and there are no dewatering activities.

Water Quality Certification

No permit is necessary as long as the work performed is subsurface (directional boring method) and there are no dewatering activities.

From: Rickwa, Vanna (EEC)
Sent: Tuesday, July 19, 2011 12:47 PM
To: Hall, Samantha (EEC)
Cc: Howell, Ryan (EEC); Coleman, Keith (EEC)
Subject: Request for floodplain and WQC review for Arnold Fork-Clear Creek Phase III Water Supply Project

Attached please find the project description and maps for Arnold Fork- Clear Creek Phase III AML WSP.

Please do a floodplain and WQC review to determine if there would be any issues reference this project.

Please notify Bill Overman, Ryan Howell, Keith B. Coleman, and myself of your response.

Thanks,

*Vanna Rickwa
Administrative Specialist III
Energy and Environment Cabinet
Department for Natural Resources
Division of Abandoned Mine Lands
2521 Lawrenceburg Road
Frankfort, Kentucky 40601
502/564-2141, Ext. 130*



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August 4, 2011

Mr. Steve Hohmann, Director
Energy and Environment Cabinet
Department for Natural Resources
Division of Abandoned Mine Lands
2521 Lawrenceburg Road
Frankfort, KY 40601

RE: Arnold Fork-Clear Creek Phase III AML Water Supply Project (Knott County)

Dear Mr. Hohmann:

Concerning the above referenced project, I have reviewed the Office of State Archaeology files to determine if any prehistoric or historic sites are located in proximity to the proposed AML project. The following information is provided to assist in your decision to proceed with an Environmental Assessment or a Categorical Exclusion Determination for the project.

Our records indicate that no surveys or sites have been recorded in the project areas. However, the proposed lines pass through areas that have potential for archaeological sites. We do not have sufficient information to determine whether archaeological sites will be impacted by the project. It is my recommendation that you consult with the State Historic Preservation Office to determine whether an archaeological survey is required.

Sincerely,

A handwritten signature in blue ink that reads "George M. Crothers". The signature is written in a cursive style with a large, sweeping flourish at the end.

(Christina A. Pappas for)
George M. Crothers, Ph.D.
Director



**KENTUCKY DEPARTMENT OF FISH & WILDLIFE RESOURCES
TOURISM, ARTS, AND HERITAGE CABINET**

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Marcheta Sparrow
Secretary

Dr. Jonathan W. Gassett
Commissioner

20 July 2011

Steve Hohmann, Director
Division of Abandoned Mine Lands
2521 Lawrenceburg Road
Frankfort, KY 40601

RE: Arnold Fork-Clear Creek Phase III AML Water Supply Project (Knott County)

Dear Mr. Hohmann:

The Kentucky Department of Fish and Wildlife Resources (KDFWR) has received your request for information pertaining to the subject project. The Kentucky Fish and Wildlife Information System indicates that no federally or state-threatened/endangered species are known to occur within close proximity of the project sites. Please be aware that our database system is a dynamic one that only represents our current knowledge of various species distributions.

Erosion control measures, as mentioned in the project description, will need to be installed prior to construction and should be inspected and repaired regularly as needed. I hope this information is helpful to you, and if you have questions or require additional information, please call me at (502) 564-7109 extension 4453.

Sincerely,

A handwritten signature in cursive script, appearing to read "Dan Stoelb".

Dan Stoelb
Wildlife Biologist

Cc: Environmental Section File

Memorandum

To: Clear Creek (III) – Arnold Fork
AML Water Supply Project

From: *Keith B. Coleman*
Environmental Technician, AML Program Development Branch
Keith B. Coleman July 22, 2011

Through: *Bill Overman*
Manager, AML Program Development Branch
Bill Overman 7/22/11

RE: Results of Kentucky State Nature Preserves Commission (KSNPC)
BIOTICS Database Search

Date: July 21, 2011

On July 21, 2011, I conducted a search of the KSNPC database in order to determine if any species of state concern (which are monitored by KSNPC) are known to occur within the near vicinity (1 mile radius) of the sites to be disturbed by this project, and if any federally listed “threatened or endangered” species are known to occur within the general vicinity (10 mile radius) of the project sites. The Arnold Fork section was drawn and selected with a buffered line. The Clear Creek section was drawn and buffered with a polygon which included all sections of that part of the project. The search revealed that five species of state concern, monitored by KSNPC, are known to occur within one mile, and that one species currently listed as threatened or endangered under the United States Endangered Species Act (USESA) is known to occur within ten miles of the project sites.

This project (19.5 miles total) consists of the installation of approximately 19.5 miles of new water lines, 435 water meters, and 4 pump stations. All installations are within previously disturbed areas such as roadside right-of-ways, residential yards, or along private access roads. All access routes are previously existing routes. No mine portals will be disturbed. No trees over 5” DBH will need to be cleared from project areas, including new booster-pump locations. To minimize sediment and erosion problems, a stringent control plan, including the utilization of such measures as hay-bale silt checks, silt fences, and prompt vegetation of all disturbed areas, will be implemented

and monitored during the construction process. Stream crossings will be constructed quickly, with as little intrusion into the stream beds as possible. The above-mentioned sediment and erosion control devices and techniques should ensure that stream turbidity levels are no higher than levels associated with typical storm events.

The KSNPC species found within 1 mile from the project sites are:

Squarrose Goldenrod (<1 mile from Arnold Fork)

(*Solidago squarrosa*, Pre-1941 Historical, County-wide Record)

Elusive Clubtail (<1 mile from Arnold Fork)

(*Stylurus notatus*, KSNPC Endangered, pre-1970 record)

Elktoe (<1 mile from Clear Creek section)

(*Alasmodonta marginata*, KSNPC Threatened)

Kentucky Arrow Darter (<1 mile from Clear Creek section)

(*Etheostoma sagitta spilotum*, KSNPC Threatened, USESA Candidate, Both Historical)

Common Raven (<1 mile from Clear Creek section)

(*Corvis corax*, KSNPC Threatened)

The USESA endangered species found within 10 miles from the project sites is:

Indiana Bat (<10 miles from Clear Creek section)

(*Myotis sodalis*, USESA Endangered, 1 “Undetermined” record)

The **Squarrose Goldenrod** inhabits areas which are described as rich, dry or rocky open woods, thickets and clearings. The single record of this species, within Pike County, is a pre-1941 historical, county-wide record. Construction sites associated with this project consist of regularly maintained roadside right-of-ways and residential yards. Installation of the waterlines and associated devices should not negatively impact this species.

The **Elusive Clubtail** is a dragonfly, the larvae of which inhabit large river systems. Since no disturbances are planned within any large river channels, and since the AML sediment and erosion control plan will be implemented and monitored during the

construction process, no negative impacts should result upon this species due to project-related construction.

The **Elktoe** is a mussel which inhabits small to medium-sized rivers, in gravel and sand. The nearest portion of the Clear Creek section of the project is within Sandlick Branch, over 1.5 stream miles east of the Balls Fork record. Additionally, the record is upstream, within Balls Fork, above the Big Branch confluence. (Sandlick Branch is a tributary to Big Branch.) The only other section of waterline to be installed within the Big Branch watershed is within the headwater section of Big Branch, approximately 2.5 miles east of the confluence with Balls Fork. No stream crossings are planned within Sandlick Branch, or within Big Branch, therefore standard AML sediment and erosion control plans, which will be implemented and monitored during construction, should prevent any negative impacts upon this species.

The **Kentucky Arrow Darter** is a stream fish which inhabits small to medium-sized, upland streams with clean bedrock, boulder, or coarse gravel beds. Two records have been documented within 1 mile of the Clear Creek portion of the project, both of which are historical records. The Kentucky Arrow Darter is currently a candidate for listing under USESA. Both records are of captures within Troublesome Creek, to which Clear Creek and Ogden Branch are tributaries. No crossings are planned within Ogden Branch. Three crossings are planned for the Clear Creek watershed. The first is within Cockerell Trace, 3.2 miles upstream from the closest record. The other two are within Clear Creek, 4 and 5.7 miles upstream from the closest record. Since directional boring methods will be used, and since the AML sediment and erosion control plan will be implemented and monitored during construction, no negative impacts should result upon this species due to project-related construction.

The **Common Raven** is believed to have been more commonly observed throughout the Commonwealth. The only confirmed breeding area is within Letcher County, at Bad Branch State Nature Preserve. It has been estimated that clutch completion occurs in early March. Nesting sites have been described as along cliff-lines and exposed outcrops. The abundance of potential nest locations indicates that other factors are responsible for the species' scarcity. Since this project will not involve disturbances to potential nesting or roosting sites, no negative impacts should result upon this species due to project related construction.

The US Fish and Wildlife Service (USFWS) has declared the whole of the state of Kentucky to be the potential habitat of the **Indiana Bat** (*Myotis sodalis* – USESA Endangered). This species day roosts and establishes maternity colonies in trees with exfoliating bark or splits in their trunks and larger limbs, and hibernates in caves and other similar underground cavities.

The search of the KSNPC BIOTICS database revealed one “undetermined” record of this species within 10 miles of the project site (8.1 mi NW). Eight additional records document the species within 10-20 miles from the Clear Creek project site, and ten additional records document the species within 10-20 miles from the Arnold Fork project site.

Since no records of hibernacula are within 10 miles of the project area and no maternity area records are within 5 miles from the project area, and since no maternity colonies or non-maternity records are within 2.5 miles from the project area, no special conditions would apply to the accepted tree removal period, a time at which bats are secured within their hibernacula (October 15 – March 31).

However, since no tree removal or disturbance to any cave-like structures is anticipated, construction should not negatively impact the Indiana Bat, regardless of the construction timing. Should the clearing of trees which are over 5” DBH (and also display characteristics such as shaggy, exfoliating bark, or crevices and hollowed-out cavities within their trunks and larger limbs) become necessary between April 1 and October 14, a habitat assessment or presence-absence survey may be required. Lastly, the project does not fall within “*known habitat*” of the Indiana Bat, as described by USFWS. Adherence to these best management practices should prevent any negative impacts upon the Indiana Bat.