FINDING OF NO SIGNIFICANT IMPACT

AUTHORIZATION TO PROCEED

Petros Water Service Line Replacement 403(b) Project
Abandoned Mine Lands Project
Morgan County, Tennessee

The Tennessee Department of Environment and Conservation (TDEC), Land Reclamation Section submitted an Authorization to Proceed (ATP) request for Federal AML grant funds to the Office of Surface Mining and Enforcement (OSMRE), Knoxville Field Office (KFO) for this project. The ATP request consists of a request letter, Environmental Assessment (EA) with consultation correspondence, project description, location map, description forms, and other supporting enclosures. The project area is located in Morgan County, Tennessee on the Petros USGS quadrangle map at approximate coordinates 36.09631° North and 84.43925° West. The Petros Service Line will replace the existing deteriorated service waterlines from the Brushy Mountain Treatment place to 389 residences in Petros, TN. It will be completed in two phases: Phase I with a cost of $305,250.00 from the 2016 AML grant and scheduled for summer 2017; Phase II is planned for summer 2018 and will cost $305,250.00 from the 2017 AML grant. The project’s estimated total is $610,500.00. TDEC AML has completed two other 403(b) projects in this water system: the Brushy Mountain Raw Waterline Replacement Project completed in 2015 that replaced the raw waterline in between the deep mine source and the treatment plant, and the Brushy Mountain High Service Waterline Replacement Project completed in 2016 that replaced the high service line between the plant and the tanks.

OSMRE has thoroughly reviewed the EA prepared for this project by Robert G. Campbell & Associates, L.P. for the Cumberland Utility District located in Petros and adopted by TDEC. OSMRE has determined that it adequately addresses the environmental issues and impacts as required by the National Environmental Policy Act (NEPA) for OSMRE abandoned mine lands reclamation grant construction activities for authorization purposes. Based on the analysis in the EA, KFO finds that the construction activity performed under this project will have a significantly positive impact on the quality of the human environment as the families who depend on the water have been impacted by surface and underground pre-law mining. The
existing distribution and service waterlines were installed at some point between the 1940’s and 1970’s and are no longer serviceable due to deterioration and tuberculation caused by the chemical properties of the mine drainage used as the raw water source. The site is eligible for AML funding, as mining in the underground mine providing the raw water source pre-dates SMCRA. The raw water source for the system is the “Brushy Mountain Number One” coal mine and began operations in 1895 and continued to operate until 1938.

The EA evaluated three alternatives:

- Alternative One is no action. This alternative would choose not to fund the project (Alt. 1) and would result in no water supply improvement in the project area; therefore, this alternative was excluded because it contributes to, rather than alleviates, public health and safety issues.

- Alternate Two considered the use of copper lines as an alternative. This alternative leads to mineral build-up and corrosion in the conveyance system and poses a risk of copper and other metal contamination from the use of the copper conveyance lines. Deposition of peripheral elements in the water (build-up) compromises flow capacity, and ultimately, compromises the quality of water delivered to both the treatment system and resident. The cost of using copper conveyance lines is estimated to be approximately 20% higher than other suitable water line material.

- Alternative Three considers the use of PEX service lines. This service line material is the most cost effective and ensures the materials used in the project have the least residual effects on water delivery (i.e. build-up) and the delivered water quality. This alternative would use 9,725 linear feet of ¾” utility grade PEX water service line, 4,530 L.F. of 2” HDPE casing under the roadway with a ¾” utility grade PEX water service line, 389 L.F. of ¼” water service assemblies without a water meter, and associated appurtenances to replace the existing water service assemblies and service lines to each affected residence served by the Brushy Mountain Treatment System in the Petros, TN area of Morgan County.

According to TDEC’s Environmental Justice section of the EA, the results of the proposed service line improvement project will offer enhanced water service to the 389 homes located in the Petros community. The project, as proposed, will provide the fair treatment and meaningful involvement for all people regardless of race, color, religion, sex handicapped, familiar status, national origin, or income. There are “no” expected adverse consequences to any resident(s) contained within the project area. The project will provide a reliable, high quality source of drinking water to the existing residents and will provide a positive benefit to the area as a whole.

No long-term adverse impacts are anticipated from remediation of this project. Short-term environmental impacts are limited to dust, sedimentation, noise, and temporary inconvenience to the local residents while the project is constructed. Dust levels will be controlled by standard site-wetting activities and require prompt restoration of disturbed ground. Sedimentation will be controlled by using best management practices. Noise and other inconveniences to local
residence are unavoidable impacts related to construction activities, but would be considered short in duration and confined to the local area in/around the Petros community.

TDEC calculated greenhouse gas (GHG) emissions based on actual fuel consumption measured on previous waterline projects. They estimated that 400 gallons of off-road fuel would be burned during the life of the project. Using a common conversion factor of 10,000 grams of CO₂ emitted per gallon of fuel for off-road construction equipment: 10,000g/gal X 400 gal = 4,000 kg or 4 metric tons of CO₂ produced during the life of the project, which is equivalent to the energy used to power 0.422 homes for one year. The carbon footprint of the Petros 403(b) Project relative to the total number of U.S. households is 0.000000004% of total U.S. GHG emissions.

All appropriate government agencies were consulted and/or agreed upon review criteria applied to the project analysis. The resultant consultation and analysis indicated 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, or recreational resources. To reduce impacts from the project, the recommendations made by the agencies consulted were considered and, as appropriate, incorporated into the EA prepared by Robert G. Campbell & Associates, L.P. The formal responses from agencies consulted for the NEPA review include the following comments and/or recommendations:

<table>
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<tr>
<th>Agency</th>
<th>Date of Letter/Correspondence</th>
<th>Comment</th>
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<tbody>
<tr>
<td>Tennessee Historical Commission</td>
<td>10/26/2016</td>
<td>Found no listed or eligible properties on the National Register of Historic Places; therefore, there are no objections to proceeding with the proposed project.</td>
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<tr>
<td>TDEC – Division of Archaeology</td>
<td>10/17/2016</td>
<td>The project should have no effect on significant archaeological resources.</td>
</tr>
<tr>
<td>US Department of Interior – Fish and Wildlife</td>
<td>10/28/2016</td>
<td>There are no wetlands in the project area; however, USFWS recommends silt barriers to prevent surface runoff. The information available to the USFWS does not indicate that federally listed or proposed endangered or threatened species occur within the impact area of the project and Section 7 of the ESA of 1973, as amended, are fulfilled.</td>
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Corps of Engineers – Environmental Resource Branch  

11/16/2016
No objections to the proposed project as long as all proper permits are obtained. It was determined by USACE the area is located in a “non-flood prone” location and does not encroach on the 100-year floodplain.

East Tennessee Development District – Regional Planning Agency
10/20/2016
Found no conflicts with the plans associated with this project.

TDEC Division of Water Resources

No comment/concern

State of TN – Department of Transportation

No comment/concern

TDEC – Division of Geology

No comment/concern

TDEC – Division of Air Pollution Control

No comment/concern

TDEC – Division of Water Pollution Control

No comment/concern

Authorization to proceed assumes all applicable permits, rights of entry, and other legal requirements will be obtained before construction begins. In addition and in accordance with the 403(b) Priority Documentation Form, the project meets the qualifications set forth in the Surface Mine Control and Reclamation Act for Priority 2 sites and criteria and contains adequate justification included in the narrative to consider approval.

OSMRE reviewed the EA for the Petros Water Service Line Replacement 403(b) Project and determined it adequately discusses the environmental issues and impacts associated with the project. Based on analysis of this document, I have determined that reclamation of this abandoned mine site would not have significant effects on the quality of the human environment and therefore conclude that no environmental impact statement is necessary. In addition, the AML inventory information submitted for this project has been accepted for inclusion in the inventory.

Accordingly, pursuant to section 4-160-50D.3 of the Federal Assistance Manual, you are authorized to proceed with this project and expend available Federal funds in accordance with AML grant terms and conditions.

Sincerely,

[Signature]

William R. Winters
Acting, Field Office Director