UNITED STATES ENVIRONMENTAL PROTECTION AGENCY Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

June 10, 2016

CERTIFIED MAIL – RETURN RECEIPT REQUESTED: 7005 1820 0003 7448 9798

Mr. Darvin Messer
U.S. Army Corps of Engineers
Fort Worth District
819 Taylor Street, Room 3A37
P.O. Box 17300
Fort Worth, TX 76102-0300

RE: Surface Coal and Lignite Mining Final Regional Environmental Impact Statement (FEIS) for Multiple Counties in Texas

Dear Mr. Messer:

In accordance with our responsibilities under Section 309 of the Clean Air Act (CAA), the National Environmental Policy Act (NEPA), and the Council on Environmental Quality (CEQ) regulations for implementing NEPA, the U.S. Environmental Protection Agency (EPA) Region 6 office, Dallas, Texas has completed its review of the proposed project by U.S. Army Corps of Engineers (USACE).

EPA provided comments on the Draft Supplemental Environmental Impact Statement (DSEIS) on September 8, 2015, in which the DEIS was rated as "EC-2", i.e., EPA has "environmental concerns and requests additional information". While many of our comments have been addressed in the FEIS, EPA continues to have environmental concerns. We offer the following enclosed comments for your consideration and ask they be addressed in the Record of Decision (ROD).

Thank you for the opportunity to comment on the FEIS. Please send a copy of the ROD to my attention. If you have any questions or concerns, please contact Kimeka Price at (214) 665-7438 or price.kimeka@epa.gov for assistance.

Sincerely,

Jerry Saunders, Branch Chief
Water Enforcement Branch
Compliance Assurance and
Enforcement Division

Enclosure

DETAILED COMMENTS
ON THE
U.S. ARMY CORP OF ENGINEERS
FINAL ENVIRONMENTAL IMPACT STATEMENT FOR
SURFACE COAL AND LIGNITE REGIONAL MINING IN
MULTIPLE COUNTIES IN TEXAS

General Comments Related to Ground Water and Surface Water Impacts

EPA has continued concerns regarding the FEIS's characterization and monitoring of ground water quality, assessing potential impacts to ground water, and describing protection and mitigation measures for ground water.

The FEIS states that acid- or toxic-forming materials will not be placed in the upper four-feet of backfill of mine spoils. However, an important aspect of the four-foot cover is its performance in preventing or limiting the infiltration and percolation of precipitation through the cover and downward into the mine spoils. This may cause acid rock drainage and metals dissolution, which could contaminate ground water. We recommend the ROD state whether or not applicable regulations require the 4-foot cover to be designed to protect ground water resources. In addition, we recommend the ROD specify the performance criteria for preventing infiltration, if there is one. If the cover is not intended to prevent acid rock drainage and metals dissolution to protect ground water, we recommend stating that as well. We also recommend the ROD include an assessment of potential ground water impacts if there is no performance standard or criterion for preventing or limiting infiltration of precipitation into and through the mine spoils.

We also have continued concerns regarding potential impacts to surface water. The FEIS focuses on surface water runoff and storm water runoff, but does not adequately discuss impacts from ground water outflows.

We recommend that the ROD discuss required activities to be initiated prior to mine development. Such activities would include the installation and sampling of monitoring wells in overburden, coal-bearing, and underburden aquifers, including alluvial aquifers if present, to fully characterize hydrologic flow regimes and develop baseline ground water quality. Pre-mine development activities would also include surface water sampling at stations upstream and downstream of mine permit areas as well as along mine reaches for baseline water quality and stream flows. Sampling stations should include areas of known ground water recharge or that would receive permitted storm water discharges pursuant to the Texas Pollutant Discharge Elimination System (TPDES) permitting program.

Also, we recommend that the ROD incorporate a discussion of the need to establish baseline ground water and surface water quality and hydrologic flow regimes through monitoring prior to initiation of mine development and construction activities. Without establishing baseline conditions prior to mining, it is difficult to understand the nature and extent of adverse impacts to ground water and surface water during mining and post-mining and the degree of mitigation that would be required. A

baseline water quality and hydrologic assessment would include the installation and sampling of upgradient and down gradient monitoring wells in overburden, coal-bearing, and underburden aquifers and the analysis of ground water and surface water samples for all potential contaminants (*e.g.*, target analyte list metals, other inorganics, total dissolved solids (TDS), pH, and uranium) for an adequate period of time to assess baseline conditions. Continued monitoring of ground water and surface water quality and hydrologic flow regimes would need to be continued throughout mining and after cessation of mining until all known impacts are mitigated.

In the response comments (Appendix D), the FEIS states that "water resources impacts from potential future mine expansion areas and satellite mines would be assessed as required by applicable regulatory requirements at the time they are proposed". We recommend that tiered and supplemented NEPA documents for potential future surface coal and lignite mine expansion areas or satellite mines within the REIS study areas include the following analysis:

- Detailed descriptions of potential flow paths from contaminated ground water within backfilled mine spoils (overburden/interburden) to undisturbed ground water to surface water at areas of ground water upwelling or outflow. We also recommend assessing the loss of surface water flow (spring flow or base flow) from dewatering and depressurizing operations (i.e., drawdown) and potential mitigation measures to address such water loss (decrease in water quantity) and water rights.

- Discussion of the applicable state or federal statutes and regulations for ensuring the protection of ground water and the abatement (or mitigation) of ground water contamination at surface coal and lignite mines as well as regulations to protect recharge zones of aquifers. It may also be appropriate to discuss the role the Texas Water Development Board and its ground water monitoring program, regional water planning groups, ground water conservation districts (GCDs) and the GCD requirement to adopt ground water management plans under the Texas Water Code, and River Authorities.

- Discussion on what reclamation or mitigation activities would be needed to: (1) prevent impacts to ground water, and surface water as a result of ground water outflow, and (2) restore ground water and surface water to state and federal standards or criteria. Such discussions should also include impacts to water quantities from mine drawdown and potential reclamation/mitigation options.

Comments Related to Greenhouse Gas Emissions (GHG) and Climate Change

EPA recommends noting in the ROD the aggregate amount of climate change emissions, and indicating that incremental GHG emissions have global scale, long lasting impacts, rather than inappropriately comparing these emissions to total global emissions. Further, since it is reasonably foreseeable that the mined coal will be combusted in the nearby power plants, EPA recommends that the ROD include combustion-related GHG emissions. Table 2-7 (pg.2-9) in the EIS includes estimates of annual coal/ lignite production by study area. The U.S. Energy Information Administration's website provides Carbon Dioxide Emissions Coefficients for coal and lignite which can be used to calculate end

use GHG emissions.[1] Based on a quick calculation using these sources, total annual GHG emissions from combustion of the coal mined in the study area would fall in the range of 22.2 to 78.1 million metric tons of CO_2e. Given these potentially high levels of emissions caused by the mines under this proposal, we recommend that tiered and supplemented NEPA documents for potential future surface coal and lignite mine expansion areas or satellite mines within the REIS study areas include estimates of operational emissions as well as calculations of end use GHG emissions and consideration of potential mitigation measures for GHG emissions.

[1] US Energy Information Administration's Carbon Dioxide Emissions Coefficients by Fuel Table accessed on 5/24/2016: https://www.eia.gov/environment/emissions/co2_vol_mass.cfm