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Comment Submission

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Comment

EPA Comments on the Sept 2020 UT Competitive Oil and Gas Lease Sale: See attached document.

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Sept 2020 UT Lease Sale EA_EPA Comments final.pdf

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(Withhold my personally identifying information from future publications on this project) - **NO**



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July 9, 2020

Ref: 8ORA-N

Angela Wadman
Bureau of Land Management, Utah State Office
440 West 200 South, Suite 500
Salt Lake City UT 84101-1345

Dear Ms. Wadman:

The U.S. Environmental Protection Agency has reviewed the U.S. Bureau of Land Management's (BLM) Environmental Assessment (EA) for the September 2020 Utah Competitive Oil and Gas Lease Sale. Given the extensive analysis and protective measures for water resources provided by the Moab Master Leasing Plan (MLP) Final Environmental Impact Statement (FEIS), we focused our review on potential air quality impacts.

Air Quality Impacts from Previous NEPA Projects

The EA briefly discusses air quality modeling analyses completed for other NEPA projects located in Utah (section 3.3.1). The projects include the West Fertilizer Project (Kleinfelder 2019), Moab Master Leasing Plan (MLP) Final Environmental Impact Statement (FEIS) Air Quality Analysis (BLM 2016), Fishlake National Forest Oil and Gas Leasing Analysis FEIS (USDAFS 2013), Monument Butte FEIS (BLM 2016), BLM's Air Resource Management Strategy (ARMS) Modeling Project (BLM 2014), and UDAQ's PM_{2.5} maintenance plan model assessment (UDAQ 2019). These projects were incorporated by reference into the EA to disclose the potential air quality impacts that could result from development of the proposed lease parcels without completing an air quality modeling analysis specific to that future development. The EA generally describes air quality analyses from these previous NEPA projects but does not highlight all predicted adverse air quality impacts that may be important to the decision for this action. To more fully inform the public and decision makers, we recommend the EA disclose all air quality impacts predicted by these previous analyses, including the following:

- The West Fertilizer Project (Kleinfelder 2019) analysis indicated that 1-hour NO₂ concentrations from drilling could approach 94% of the National Ambient Air Quality Standard (NAAQS) when drilling with Tier 2 engines. Further, projected benzene and formaldehyde emissions were predicted to increase cancer risk above one in one million for both the Maximally Exposed Individual (MEI) and the Most Likely Exposed (MLE) population. It may also be helpful to include Figure 16 and Figure 26 from Appendix A to illustrate the spatial extent of the predicted concentrations and cancer risks, respectively.
- The West Fertilizer Project (Kleinfelder 2019) and Moab MLP FEIS Air Quality Analysis (BLM 2016) did not model hydraulic fracturing emissions and impacts. Hydraulic fracturing engines are typically the largest instantaneous source of NO₂ in oil and gas emission inventories. If well stimulation or hydraulic fracturing would occur on the proposed leases, then the impacts would likely be higher than predicted by these analyses and could potentially result in exceedances of the NAAQS, particularly the 1-hour NO₂ NAAQS.
- The Fishlake National Forest Oil and Gas Leasing Analysis FEIS (USDAFS 2013) used a non-

standard receptor network, with the nearest receptor at a distance of 1 kilometer (km) from the emission source. For NEPA modeling assessments, EPA recommends placing the nearest receptor at the ambient air boundary. For this project, a 1-hour NO₂ concentration of 127 µg/m³ was predicted at 1 km, and the impacts would likely be higher at distances closer than 1 km from the pad, thereby having the potential to exceed the 1-hour NO₂ NAAQS of 188 µg/m³.

- The Moab MLP FEIS Air Quality Analysis (BLM 2016) predicted potential air quality impacts above applicable thresholds for visibility and nitrogen deposition at Arches and Canyonlands National Parks (NP). The EA for the current lease sale discloses on page 33 the maximum number of days in a year on which impacts were modeled as greater than 0.5 deciview (dv) change in visibility but does not state the maximum number of days in a year modeled as greater than 1.0 dv, which is a management threshold established to represent that an action or source may cause impacts to regional haze and is a level that may cause noticeable changes in visibility. Considering that some agencies use a 0.5 dv change in visibility as a screening threshold, and that the high emissions scenario under 2008 meteorological conditions resulted in 86 days in a year above 1.0 dv change in visibility and the medium emissions scenario resulted in 23 days above 1.0 dv, we recommend the EA further explain its conclusion that impacts from development of the lease parcels “are not likely to be perceptible” (page 34). It should be helpful to relate potential future development on the proposed leases to the emissions scenarios and associated impacts in the Moab MLP FEIS Air Quality Analysis to more clearly disclose the potential visibility impacts from future development.
- The EA states that all modeled sulfur and nitrogen deposition values for the Moab MLP FEIS Air Quality Analysis were near or below the Deposition Analysis Thresholds (DAT), with the exceptions of nitrogen deposition under the high and medium emissions scenarios at Arches and Canyonlands NPs during 2008 meteorological conditions (page 34). However, the Moab MLP FEIS Air Quality Analysis also predicted exceedance of the DAT for nitrogen under the low emissions scenario at Canyonlands NP. We recommend the EA account for all these exceedances of the DAT for nitrogen deposition. It should also be helpful to relate potential future development on the proposed leases to the emissions scenarios and associated impacts in the Moab MLP FEIS Air Quality Analysis to more clearly disclose the potential deposition impacts from future development. This analysis would help to evaluate whether the negligible effects determination is supported.
- The BLM ARMS Project (BLM 2014) predicted exceedances of the NAAQS and other air quality impacts (e.g., changes to pollutant concentrations above increments and impacts to air quality-related values). Even though the EA illustrates that the BLM ARMS Project predicts ozone exceedances (see Figure 1), the EA later states that the ozone concentrations modeled by the BLM ARMS Project are below the NAAQS (page 30). We recommend reconciling this discrepancy in the EA to specify the ozone exceedances that were predicted. The performance evaluation of the ARMS model also indicated that the model was biased low for ozone and its precursors. It may be helpful to explain in the EA that these predicted impacts may be underestimated.

Based on our current understanding of the modeling incorporated into the EA, it appears to indicate that developing these leases has the potential to result in exceedances of applicable NAAQS thresholds and contribute to adverse impacts to visibility and deposition and increased risk of cancer.

Applicability of Previous Air Quality Analyses

While we support the use of analog models at the lease sale stage, our review identified opportunities to

better describe the applicability of these analyses to the potential development on the proposed leases. Specifically, we recommend expanding the discussion for each modeling project as follows:

- Relate the representativeness of the previously analyzed project areas and operations to potential development scenarios on the proposed leases.
- Relate the types of sources, emissions, and model scenarios to potential development scenarios on the proposed leases.
- Relate the control requirements and stipulations assumed in the air quality analyses to those that would apply to future development on the proposed leases.
- Explain the uncertainties in the air quality analyses as they relate to the model performance or model biases, configuration options, best practices for air quality modeling, age of the analyses, and other key details to help interpret and relate the model results to potential development scenarios on the proposed leases.
- Relate the model uncertainties to the model results and explain whether the bias in the model results could indicate potential exceedances of applicable thresholds.
- Explain whether the model results are close to applicable thresholds and whether future development on the proposed lease parcels has the potential to exceed those thresholds.

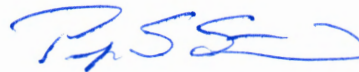
This information will improve the description and interpretation of the model results for each project and help the public and decisionmakers understand the potential impacts to air quality from the development of the proposed lease parcels.

Beneficial Effects of NSO Stipulations

In reviewing the figures in Appendix C of the EA (e.g., Figure 9) that depict the locations of the lease parcels and applicable lease stipulations, it appears that there are parcels for lease near Canyonlands NP and the Labyrinth Wilderness Area that will be managed as No Surface Occupancy (NSO). These NSO buffers will reduce the potential for nearfield impacts in these areas. Therefore, we recommend discussing the effect of managing parcels adjacent to sensitive areas as NSO and how that may reduce or otherwise affect air quality impacts at locations such as Canyonlands NP and the Labyrinth Wilderness Area.

We appreciate the opportunity to provide comments on this proposed lease sale. If you have any questions about our recommendations, please contact me at (303) 312-6704, or Melissa McCoy, lead reviewer for this project, at (303) 312-6155 or mccoy.melissa@epa.gov.

Sincerely,



Philip S. Strobel
Chief, NEPA Branch
Office of the Regional Administrator