January 26, 2018

**RE: GRAND MESA, UNCOMPAHGRE AND GUNNISON FOREST PLAN REVISION #51806**

**AIR QUALITY DRAFT FOREST ASSESSMENT**

Thank you for the opportunity to comment. Following are some observations, questions and suggestions:

* The last paragraph on Page 1, “**Information Gaps”** states that *“comprehensive pollution dispersion modeling is lacking.”* We understand that analyses can be costly. However, we feel more modeling is critical to understand the potential threats to air quality and provide options for policy makers to address. Looking at partnerships with other interested parties has the potential for reducing costs and developing more appropriate outcomes. For example, has the Forest Service considered partnerships with universities to analyze lichen chemistry?
* In reference to Page 2, “**Conditions and Trends,”** 3rd line from the end (WDW 2105): ”2105 should be changed to “2015.”
* Almost all tables within the document do not have a source. One exception is Table 8. Without table-specific source included with the table, it is difficult to assess the quality of the data used.
* The BLM study that is used for the results in Table 2 is referenced as CARMMS 2015. But a search of the web finds a 2016 study that appears to be a significant update of the 2015 study.

From that study,

The current study builds upon the CARMMS 1.0 analysis in four major areas:

1. At the time modeling was initiated for CARMMS 1.0, only the Mancos Shale 2021 High Development scenario emissions were available, so they were used in the original CARMMS 2021 Low development scenario. Modification 0003 to BLM Call Order No L14BP00246 added the evaluation of the 2021 Low Development scenario using the new Mancos Low Development emissions inventory. Also, an error was identified in the CARMMS 1.0 ozone calculations, so those are redone in CARMMS 1.5 for the Low, Medium and High Development scenarios. More information may be found in Section 4.1.1.
2. Modification 0003 also added an assessment of the impact of ozone precursor emissions with respect to the new October 2015 ozone National Ambient Air Quality Standard (NAAQS) of 0.070 ppm.
3. In addition to the analyses required under Modification 0003, the BLM recently (December 2015) identified a need to provide analyses of indirect impacts of oil and gas and coal‐ related projects in Colorado and New Mexico. The AQ and AQRV contributions of coal, oil and gas‐fired Electrical Generating Units (EGUs) are assessed in the current study.
4. Excessive primary sulfate emissions were identified in the EPA mining PM2.5 speciation profile that was applied to Colorado mines in the CARMMS 1.0 study. This resulted in an over‐estimation of sulfur deposition and visibility impacts due to Colorado mines. A more appropriate PM2.5 speciation profile for mining emissions, with lower primary sulfate and correspondingly higher primary (“other”) PM2.5, is applied in the current study.

Until these new results are incorporated into the air quality assessment in several places, it cannot be viewed as reflective of best available scientific knowledge.

* See page 5, “**Regional Oil and Gas Development Emissions and Cumulative Impact Studies in the GMUG AREA**.” No units of measurement are listed for Table 2.
* In Table 3, Page 7, the 8 hr. average on the first line indicates the ozone in the “low” scenario *decreases* in higher altitudes and *increase*s in medium and higher scenarios. This seemingly counterintuitive result needs elaboration in the text.
* On Page 15, Figure 2 is unintelligible. The text above it says there are three CASTNET ozone monitors ‘near’ GMUG, but data for only two were available. It says data for the Gothic site was unavailable but doesn’t explain why. With only two observation sites, how can the map have so many dots? We suspect this is a map of the sites across the US but the document is silent on this. At a minimum the outline of the GMUG area should be added as well as clear delineation of where the nearby CASTNET sites are located.
* Page 18 states*, “Except for scenic vistas addressed by the state regional haze plan, there is little to no GMUG specific information or studies regarding air pollution impacts to sensitive receptors,”* We see this as yet another reason why improved data collection is critical.
* See Chapter 3. **Sustainability**. The assessment states: *“…recent ozone monitoring data in cities in proximity to the GMUG area during the last several years shows ozone levels remain just below the established health standard of 70 ppb…projected fossil fuels development will increase air pollution for several criteria air pollutants and AQRVs in Class I and Class II areas, possibly offsetting the gains in air quality forecasted by state planners from improving vehicle emissions efficiency and industrial processes.”* Generally, we are struck by the fact that with aggressive development projections for oil and gas, we will see huge increases of emissions in almost all categories. This is troubling, especially since the document has little to say on what it would do if in fact these emissions materialize. We recommend the Forest Service focus data collection on areas in GMUG that have not been classified in nonattainment as an important contribution to information on needed actions to prevent nonattainment and more generally harmful levels of air pollution.
* The assessment repeatedly points to the need for more air quality monitoring. We suggest coordinating with the state to monitor ozone throughout the GMUG regions and surrounding areas. At the same time, we are aware of and involved in citizen science air quality monitoring projects, the goal of which is to collect low cost yet credible data for use in the near future. We recommend the Forest Service investigate these possibilities.

Thank you for your consideration of these comments.

Respectfully,

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