



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105

NOV 02 2017

Susan Elliot, Project Lead  
U. S. Forest Service - Wells Field Office  
600 South 12th Street, Suite 108  
Elko, Nevada 89801

Subject: Notice of Intent to Prepare an Environmental Assessment for the Ruby Mountains Oil and Gas Lease Sale, Nevada

Dear Ms. Elliott:

The U.S. Environmental Protection Agency has reviewed the above-referenced document pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508) and our NEPA review authority under § 309 of the Clean Air Act.

To assist in the scoping process for this project, we have identified several issues for your attention in the preparation of the Draft Environmental Assessment. These issues include: impacts to water, air, biological resources, and habitat protection, among others.

We appreciate the opportunity to review this project and are available to discuss our comments. Please send one hard copy of the Draft EA and one CD ROM copy to the address above (mail code: ENF-4-2). If you have any questions, please contact me at (415) 972-3238, or contact Scott Sysum, the lead reviewer for this project. Scott can be reached at (415) 972-3742 or [sysum.scott@epa.gov](mailto:sysum.scott@epa.gov)

Sincerely,

A handwritten signature in black ink that reads "Tom Plenys".

Tom Plenys  
Environmental Review Section

Enclosures: EPA's Detailed Comments

**US EPA DETAILED COMMENTS ON THE NOTICE OF INTENT TO PREPARE AN ENVIRONMENTAL ASSESSMENT FOR THE RUBY MOUNTAINS OIL AND GAS LEASE SALE, NEVADA, NOVEMBER 2, 2017**

**Purpose and Need**

The Draft Environmental Assessment (DEA) should clearly identify the underlying purpose and need for the project and which alternatives are being proposed (40 CFR 1502.13). The *purpose* of the proposed action is typically the specific objectives of the activity, while the *need* for the proposed action may be to eliminate a broader underlying problem or take advantage of an opportunity.

**Alternatives Analysis**

The National Environmental Policy Act (NEPA) requires evaluation of reasonable alternatives. Reasonable alternatives should include, but are not necessarily limited to, alternative actions or suites of actions, alternative locations or configurations, as well as alternatives that identify environmentally sensitive areas or areas with potential use conflicts. The DEA should discuss the reasons for the elimination of alternatives which are not evaluated in detail.

A robust range of alternatives will include options for avoiding environmental impacts. The Council on Environmental Quality Regulations for Implementing NEPA state that alternatives should include appropriate mitigation measures not already included in the proposed action or alternatives (40 CFR 1502.14(f)).

**Reasonably Foreseeable Future Development Scenario**

The DEA should develop a Reasonably Foreseeable Future Development scenario (RFFD) based on long-term projections of oil and gas exploration, development, production, and reclamation activity. The RFFD should cover oil and gas activity in a defined area for a specified period of time and should be used as the basis of the environmental effects analysis. The RFFD should be based on past exploration activities and estimates of future exploration and development activity, given the potential occurrence of resources in the proposed lease areas. The DEA should clearly identify general assumptions for the RFFD Scenario.

The DEA should clearly discuss the RFFD developed in conjunction with the Land and Resource Management Plan (LRMP) that covers the proposed lease areas. If the applicable LRMP did not assume an RFFD, then the DEA should define a new RFFD and provide the basis for all key assumptions, thereof. The DEA should include a tabulated summary of key facility components, including exploration and production wells, well fields, pipelines, and access and service roads. The DEA should clearly identify how many wells would be drilled under the RFFD and identify both short-term and long-term disturbances. The DEA should discuss the number of exploration wells (producing and plugged or abandoned), small and large well fields, production wells (producing and plugged or abandoned), and refineries associated with the RFFD. Tabulated data for the RFFD should clearly match values presented in the text of the DEA which describe exploration, drilling and production assumptions. References to the RFFD should be consistent throughout the DEA – including Chapter 3 (Affected Environment/Environmental Impacts) and Chapter 4 (Cumulative Impacts).

Any LRMP tables that were used as source data for RFFD data presented in the DEA should be included in their original form within an appendix of the DEA. Any discussion about what is expected – in terms of wells or short-term or long-term surface disturbance every year – should be supported by tabulated data, or clearly referenced in a footnote or an appendix.

## **Air Quality**

The DEA should provide a detailed discussion of ambient air conditions (baseline or existing conditions), National Ambient Air Quality Standards, nonattainment areas, general conformity requirements and potential air quality impacts of the projects, including cumulative and indirect impacts, for each fully evaluated alternative.

Criteria pollutant and greenhouse gas emissions should be estimated for oil and gas exploration, development, production, and reclamation – as well as for hydraulic fracturing and construction of access and service roads. While the act of leasing the parcels may not produce substantial air quality effects, activities associated with the exploration, development, production and reclamation would produce quantifiable emissions. These emissions can and should be calculated using the RFFD information.

In 2012, the U.S. Environmental Protection Agency (EPA) promulgated New Source Performance Standards (NSPS) for the oil and gas industry and National Emission Standards for Hazardous Air Pollutants (NESHAP). These regulations are known as NSPS Subpart OOOO and NESHAP Subparts HH and HHH regulations. These regulatory requirements include a list of required mitigation measures, reporting requirements and operational requirements. Applicant-proposed mitigation measures and U.S. Forest Service/Bureau of Land Management's proposed mitigation measures for transportation, construction, and operations should be discussed in the DEA. Typical mitigation measures include construction emission reductions, mobile and stationary source controls and administrative controls. For oil and gas, the BLM's "Gold Book"<sup>1</sup> provides prescribed mitigations for these types of activities.

The DEA should describe the selected methods for protecting air quality and reducing criteria pollutant and GHG emissions (which can include emission standards or limitations, best management practices, control technologies, and considerations of the pace of development) and the regulatory mechanisms the Forest Service will use to ensure their implementation (including lease stipulations and conditions of approval, notices to lessees, and permit terms and conditions).

On June 23, 2011, the EPA, U.S. Department of Interior and the U.S. Department of Agriculture signed a *Memorandum of Understanding Regarding Air Quality Analyses and Mitigation for Federal Oil and Gas Decisions through the NEPA Process*. The EPA is using this helpful tool to ensure effective and efficient NEPA air quality evaluations for federal oil and gas decisions, including at the leasing decision phase. The EPA is committed to working productively with our federal partners on this effort and encourages the use of the procedures included in the MOU.

## **Hydrogen Sulfide**

The DEA should discuss the possibility that the natural gas or oil produced may release hydrogen sulfide (H<sub>2</sub>S). The DEA should address the possibility that H<sub>2</sub>S may be released, or explain why H<sub>2</sub>S is not expected to be

---

<sup>1</sup> United States Department of the Interior and United States Department of Agriculture. 2007. Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development. BLM/WO/ST-06/021+3071/REV 07. Bureau of Land Management. Denver, Colorado. 84 pp.

present or released. If the presence of H<sub>2</sub>S cannot be ruled out, explain how it will be handled, and assess its significance with respect to the Nevada Ambient Air Quality Standard for H<sub>2</sub>S.

### **Water Supply and Water Quality**

The DEA should estimate the quantity of water that potential projects will require during oil and gas exploration, development, production, and reclamation. Describe the source of this water and potential effects on other water users. If groundwater will be used, the potentially-affected groundwater basin should be identified. The DEA should include a discussion of cumulative impacts to groundwater resources within the hydrographic basin. Describe water supply reliability for the proposed project and discuss how existing and/or proposed sources may be affected due to trends in precipitation and groundwater recharge rates. Available technologies to minimize or recycle water should be identified. The DEA should identify the presence of surface water bodies, including the presence of springs and rare wetlands.

The DEA should also address the potential effects of project waste-water discharges. Describe the expected methods to be used for disposal of produced and hydraulic fracturing flow back waters. Describe the potential environmental impacts of the water disposal methods, including potential impacts on groundwater, surface water, springs or wetlands.

### **Biological Resources and Habitat**

#### ***Species and Habitat Protection***

The DEA should identify all petitioned and listed threatened and endangered species and critical habitat that might occur within the project area. The document should identify and quantify which species or critical habitat might be directly, indirectly, or cumulatively affected by each alternative and mitigate impacts to these species. Emphasis should be placed on the protection and recovery of species due to their status or potential status under the federal or state Endangered Species legislation.

EPA recommends that the FS consult with the U.S. Fish and Wildlife Service and, if required, prepare a Biological Opinion under Section 7 of the Endangered Species Act if there are threatened or endangered species present.

The DEA should provide a recent status update on this topic if these actions have been or will be undertaken. Analysis of impacts and mitigation on covered species should include:

- Baseline conditions of habitats and populations of the covered species.
- A clear description of how avoidance, mitigation and conservation measures will protect and encourage the recovery of the covered species and their habitats in the project area.
- Monitoring, reporting and adaptive management efforts to ensure species and habitat conservation effectiveness.

The potential impacts of construction, installation, and maintenance activities on habitat and species should be discussed in the DEA. The DEA should indicate what measures will be taken to protect important wildlife habitat areas from potential adverse effects of proposed activities.

### **Identification of Issues for Analysis**

The DEA should include a table that identifies issues for analysis, including the rationale for dismissal. Issues are sometimes dismissed in an Oil and Gas Lease Sale DEA because the lead agency concludes that additional NEPA analysis will be done after development is proposed. The EPA recommends, however, that the DEA specifically address the following resources: Human Health and Safety; Wastes, Hazardous or Solid; Public Safety; Environmental Justice; and Socioeconomics. In our view, these topics should be discussed in the DEA and this can be accomplished by using the RFFD as the basis for the analysis of environmental effects.

### **Human Health and Safety**

Oil and gas well drilling and servicing activities involve the use and production of potentially hazardous materials. Potential health hazards include: Hydrogen Sulfide, Silica, Noise, Diesel Particulate Matter, Hazardous Chemicals and Naturally Occurring Radioactive Material. These hazards can affect the workers as well as the general public. The DEA should discuss the likelihood that potential health hazards from oil and gas activities can exist and include such health hazards in the impacts analysis.

### **Hazardous Materials/Waste Management**

The DEA should address potential direct, indirect and cumulative impacts of waste generation, including hazardous waste, from oil and gas activities. The document should identify projected waste types and volumes, and identify expected storage, disposal, and management. Identify the applicability of federal hazardous waste requirements. Discuss how the generation of hazardous waste would be minimized.

### **Naturally Occurring Radioactive Material (NORM)**

The DEA should discuss the possibility that the natural gas or oil produced may release Naturally Occurring Radioactive Material (NORM). Sludge, drilling mud, and pipe scales, for example, often contain elevated levels of NORM, and the radioactive materials might be moved from site to site as equipment and materials are reused. The DEA should address the possibility that NORM may be released, or explain why NORM is not expected to be present. If the presence of NORM cannot be ruled out, explain how it will be handled.

### **Cumulative Impacts**

Cumulative impact analyses describe the threat to resources as a whole, presented from the perspective of the resource instead of from the individual project. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR §1508.7). Discussions of cumulative impacts are usually more effective when included in the larger discussions of environmental impacts from the action (the environmental consequences chapter), as opposed to locating cumulative impact analyses in a separate chapter.

The DEA should describe the methodology used to assess cumulative impacts. We recommend the methodology developed jointly by EPA, the Federal Highway Administration, and the California Department of Transportation, available at: [http://www.dot.ca.gov/ser/cumulative\\_guidance/approach.htm](http://www.dot.ca.gov/ser/cumulative_guidance/approach.htm). While this methodology was developed for transportation projects, the principles and steps in this guidance offer a systematic way to analyze cumulative impacts for any project.

