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

NOV 22 2011

Ms. Penny Foreman
RMP Project Manager
LS-SDNM Resource Management Plan
Phoenix District, BLM
21605 North 7th Ave.
Phoenix, Arizona 85027

Subject: Lower Sonoran and Sonoran Desert National Monument Draft Resource Management Plan and Environmental Impact Statement, Arizona (CEQ# 20110276)

Dear Ms. Foreman:

The U.S. Environmental Protection Agency has reviewed the Draft Environmental Impact Statement for the Lower Sonoran and Sonoran Desert National Monument Draft Resource Management Plan pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act.

The EPA commends the BLM for developing a broad range of alternatives for sustainably managing the Planning Area, and is pleased that so many protective measures have been incorporated into the preferred alternative, Alternative E. These measures, including excluding almost 400,000 acres of species-rich habitat from utility-scale renewable energy development, and designating more than 250,000 acres as Areas of Critical Environmental Concern, should serve as crucial safeguards for sensitive Planning Area resources.

Based on our review of the DEIS, we have rated the preferred alternative and the document as EC-2, Environmental Concerns – Insufficient Information (see enclosed EPA Rating Definitions). The EPA is primarily concerned with emissions from construction, mining, and off-highway vehicles (among other uses), and how these emissions will affect the State Implementation Plans for the nonattainment areas located within the Planning Area. We recommend that the Final EIS provide additional information describing the potential for the development of renewable energy and transmission lines, the identification and remediation of abandoned mines, and the resources required for monitoring and enforcement of grazing allotments. Additionally, we recommend the BLM include strategies within the RMP adaptive management plan to account for, minimize, and mitigate the effects of climate change. Our detailed comments are enclosed.

We appreciate the opportunity to review this DEIS, and are available to discuss our comments. When the FEIS is released for public review, please send one hard copy and one CD-ROM to the address above (Mail Code: CED-2). If you have any questions, please contact me at 415-972-3521, or contact Jason Gerdes, the lead reviewer for this project. Jason can be reached at 415-947-4221 or gerdes.jason@epa.gov.

Sincerely,

Cornell Quinn

For Kathleen Martyn Goforth, Manager
Environmental Review Office

Enclosure: Summary of the EPA Rating System

# SUMMARY OF EPA RATING DEFINITIONS*

USDNM_RMP_100140

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

## ENVIRONMENTAL IMPACT OF THE ACTION

### *"LO" (Lack of Objections)*

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

### *"EC" (Environmental Concerns)*

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

### *"EO" (Environmental Objections)*

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

### *"EU" (Environmentally Unsatisfactory)*

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

## ADEQUACY OF THE IMPACT STATEMENT

### *"Category 1" (Adequate)*

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

### *"Category 2" (Insufficient Information)*

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

### *"Category 3" (Inadequate)*

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, Policy and Procedures for the Review of Federal Actions Impacting the Environment.

**U.S. EPA DETAILED COMMENTS ON THE LOWER SONORAN AND SONORAN DESERT NATIONAL MONUMENT DRAFT RESOURCE MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT STATEMENT, ARIZONA, NOVEMBER 22, 2011**

## Impacts on Air Quality

The EPA is cognizant of the tension that the BLM faces within the Lower Sonoran and Sonoran Desert National Monument Decision Areas in attempting to strike the right balance of "human use and influence with resource protection." One area where this balancing act is particularly challenging is when attempting to reduce emissions that impact air quality. The DEIS states that the largest source of particulate matter emissions within the Decision Areas is related to "surface-disturbing activities including construction, mining, and OHV (recreation-related) travel." The DEIS, however, does not provide enough information to compare projected emissions for each alternative. This is important, because as stated in the DEIS, "air quality regulations boundaries for $PM_{2.5}$ and $PM_{10}$ will expand to encompass the majority of the Decision Area, in parallel with population growth." It is not clear in the DEIS how, or if, the preferred alternative will conform to the State Implementation Plans (SIP) for the nonattainment areas located in both Planning Areas.

***Recommendations*:**
The EPA recommends that the BLM include in the FEIS a detailed qualitative (and if possible, quantitative) comparison of particulate matter emissions for each alternative.

We also ask for more information on the preferred alternative's potential air quality impacts, and whether it will conform to the SIPs for the nonattainment areas within the Lower Sonoran and Sonoran Desert National Monument Planning Areas.

## Development of Renewable Energy and Transmission Lines

The Lower Sonoran Decision Area has been identified as a region of considerable renewable energy potential, particularly solar. The DEIS states that this "high demand for utility-scale renewable energy development (primarily solar development in the Western U.S.) has led to three parallel processes within the agency to respond to this rapid demand: an agency wide programmatic process, an Arizona BLM process, and the process being analyzed in detail for this planning effort at the field office level." It is unclear in the DEIS, however, what the renewable energy development scenario is for the Lower Sonoran Decision Area. In the Executive Summary (page *lii* of the DEIS), is the comment that "the Lower Sonoran Decision Area has the potential to support utility-scale renewable energy development; however no suitable locations for such developments exist in the Decision Area." Page 316 of the DEIS, however, states that "as of spring 2011, there were seven pending applications for utility-scale solar-energy developments in the Lower Sonoran." Later, on the same page, is a reference to nine applications for solar.

***Recommendation:***
The EPA recommends that the BLM provide additional information in the FEIS detailing the suitability of renewable energy projects in the Lower Sonoran Planning Area, anticipated renewable energy and transmission projects (both pending, and reasonably foreseeable), and how changes resulting from the Solar Programmatic EIS and the Arizona Restoration Design Energy Project will be incorporated into the Lower Sonoran and Sonoran Desert National Monument RMP.

## Climate Change

The DEIS provides only limited information about the greenhouse gas (GHG) emissions that would be generated in the Planning Areas once the Resource Management Plan is implemented. This is a concern, because both Executive Order 13514 and Secretarial Order No. 3289, among other directives, have charged the BLM with accounting for, and reducing, emissions resulting from Federal land management practices, and considering and analyzing potential climate change impacts when developing multi-year management plans. Considering that the RMP, once implemented, will guide resource management decisions in the Planning Areas for years to come, the BLM should choose an alternative that minimizes and mitigates GHG emissions to the greatest reasonable extent.

The BLM does a good job in the DEIS of describing how climate change may affect the Planning Areas and detailing some of the measures that may need to be instituted to help wildlife adapt to these changes, including maintaining "corridors of undisturbed vegetation that connect to other undisturbed habitat areas." The EPA believes that the long duration of this management plan (most likely two or three decades), and the extreme warming anticipated for the southwestern United States (which is stated in the DEIS as a potential increase in annual mean temperatures by up to 14 degrees Fahrenheit before the end of the century), warrants a commitment in the adaptive management plan to account for, minimize, and mitigate the effects of climate change.

> ***Recommendations:***
> The BLM should consider whether a quantitative comparison of projected GHG emissions for the preferred alternative, as well as the other alternatives, would be useful to decision-makers and the public, and, if so, include this information in the Final EIS. The FEIS should also identify options for minimizing and mitigating greenhouse gas emissions.
>
> The BLM should include a climate change mitigation and adaptation plan in the adaptive management plan for the Lower Sonoran and Sonoran Desert National Monument RMP.

## Abandoned Mine Lands

In a 2009 report, the Government Accountability Office estimated that the state of Arizona has 50,000 abandoned hard rock mine sites; 59,400 features that pose a significant hazard to public health and safety; and 9,900 sites with environmental degradation.[1] The BLM officials interviewed for that report estimated that only about 20 percent of the BLM land had been surveyed for abandoned mines in Arizona. The physical and environmental hazards of abandoned mines are a significant problem in Arizona; however, the DEIS does not provide information regarding how they will be addressed in the resource area and national monument.

> ***Recommendation:***
> The FEIS should describe the BLM's plans for addressing abandoned mines in the resource area and national monument. For example:

[1] GAO, *Hardrock Mining: Information on Types of State Royalties, Number of Abandoned Mines, and Financial Assurances on BLM Land*, GAO-09-429T (February 26, 2009).

- What is the universe of current knowledge on abandoned mines in the resource area and monument (how many, what are the known hazards/conditions, how are they prioritized)?
- What is currently being done to address these sites?
- How is this work being funded, and what are the current and future funding needs for this work?
- How many abandoned mines have been closed and remediated, and have the most significant known problems been addressed?
- Does the BLM have plans to conduct further surveys and investigations of abandoned mines in the resource area and monument over the life of the RMP?
- How will abandoned mines be surveyed and assessed for physical and environmental hazards?
- How will they be prioritized for remediation, and what are the overall goals of the RMP regarding abandoned mine land remediation?

## Monitoring and Enforcement of Grazing Allotments

The EPA supports the BLM's approach for managing grazing in the preferred alternative. The objectives articulated in the DEIS should, if sufficiently monitored and enforced, result in long-term protection of sensitive resources in the Lower Sonoran Planning Area. We question, however, whether the BLM has the resources in place to administer and enforce a stewardship program whose success will be contingent on time-intensive monitoring.

***Recommendations*:**
EPA requests that the BLM provide additional information describing the resources it will commit to implementing and enforcing the grazing practices and strategies of the preferred alternative.

Additionally, we recommend that the BLM staff commit to in-season monitoring, as well as in-season enforcement, when needed, to stem overgrazing and ensure functioning ecological conditions.