

Draft Framework for Developing Regional Mitigation Plans for the BLM's Solar Energy Program

April 19, 2012

Purpose

Comments on both the Draft Solar PEIS and Supplement to the Draft Solar PEIS suggest that the incorporation of a robust mitigation framework that addresses unavoidable impacts employed across Solar Energy Zones (SEZ) is an important component of the BLM's Solar Energy Program. The comments recognize that BLM currently employs mitigation in project-specific efforts, but recommend the PEIS adopt a more transparent and systematic approach to mitigation, based on sound science, and addressing clear conservation priorities.

In the Supplement to the Draft Solar PEIS, the BLM presented as part of its incentives for SEZs the concept of regional mitigation plans. As envisioned, regional mitigation plans for SEZs will simplify and improve the mitigation process for future projects in SEZs. Regional mitigation plans will address mitigation for a variety of resources such as biological resources, ecological resources, cultural resources, scenic resources, socioeconomic factors and connectivity of such resources. Regional mitigation plans are expected to increase permit efficiencies and financial predictability for developers in SEZs. Regional mitigation plans are also expected to enhance the ability of state and federal agencies to invest in larger-scale efforts in a more efficient and effective manner through shared resources.

The BLM proposes to establish through the Solar PEIS a framework for developing regional mitigation plans for SEZs. The BLM also proposes to undertake a SEZ-based pilot of the framework to test and adapt the various elements of the framework.

Mitigation Hierarchy

The BLM's proposed Solar Energy Program as described in the Solar PEIS employs a mitigation hierarchy to address impacts – avoidance, minimization, and offset of unavoidable impacts. Avoidance will be achieved through siting decisions and the identification of exclusions and priority development areas (i.e., Solar Energy Zones). Minimization will also be achieved through siting decisions as well as through the application of programmatic and SEZ-specific design features. For those impacts that cannot be avoided or minimized, the BLM will seek effective measures to offset (or mitigate) negative impacts.

Avoidance and Minimization

As a first step, the BLM's approach to mitigation calls for solar energy facilities to be sited in locations that avoid the most ecologically important and/or sensitive habitats. For the Solar Energy Program, the BLM proposes to accomplish these goals through the identification of extensive exclusions and the identification and incentivizing of SEZs (priority areas with low or relatively low resource conflict). Further, the BLM proposes to use landscape-scale ecological information and other screening factors in the proposed variance process to identify and avoid ecologically core, sensitive and/or intact areas outside of priority areas.

As a second step, the BLM's approach to mitigation calls for the minimization of unavoidable impacts. For the Solar Energy Program, the BLM proposes to accomplish these goals by developing and employing programmatic and SEZ-specific design features that limit harm to habitats and species. In addition, projects on BLM-administered lands will be required to follow all applicable laws and

regulations such as the Endangered Species Act (ESA) which will result in additional measures to minimize impacts.

The BLM proposes to establish a robust monitoring and adaptive management plan as part of the Solar Energy Program, the Solar Long-Term Monitoring Plan (or Solar LTMP). The BLM will use information derived from the Solar LTMP to make necessary adjustments to avoidance and minimization strategies. The Solar LTMP will also be used to evaluate the effectiveness of developed regional mitigation plans. Future changes to the BLM's Solar Energy Program may include, but are not limited to, revised terms and conditions for projects, new or revised SEZ-specific design features, new or revised programmatic design features, new or revised exclusions, and new or revised mitigation standards.

Offset of Unavoidable Impacts - Regional Mitigation Plans

For those impacts that cannot be avoided or minimized, the BLM must implement effective measures to offset (or mitigate) such impacts and to ensure the viability of resources over time. To help accomplish this goal, the BLM proposes to establish through the Solar PEIS a framework for developing regional mitigation plans for SEZs.

The BLM believes that an adequate regional mitigation framework should:

- Recognize the benefits of avoidance and minimization strategies and seek to only offset unavoidable impacts;
- Ensure mitigations obligations at all levels work together and are not duplicative;
- Be replicable across the Solar Energy Program and adaptable to differences in SEZs, individual projects, and technologies;
- Allow mitigation on public lands where impacts cannot be addressed through acquisition and long-term management of private lands;
- Allow "mitigation banking" on public lands where conservation designation and/or management can achieve mitigation needs/outcomes relative to specific impacts to habitats and associated species;
- Ensure adequate funding over time to achieve mitigation outcomes;
- Create third party-managed endowments of mitigation funds to manage and direct mitigation investments;
- Focus investments from a number of projects collectively to increase the likelihood of achieving an effective and enduring offset of resource impacts;
- Establish priority mitigation activities and locations;
- Provide solutions that are as enduring and long-lasting as the impacts; and
- Ensure monitoring and adaptive management to certify that mitigation is adequate relative to impacts over time.

Ongoing data collection and analyses for SEZs occurring as part of the Solar PEIS will help inform the development of regional mitigation plans, such as Biological Opinions for SEZs and individual projects, information collected through Tribal consultation, and local knowledge gathered from stakeholders. Additional data collection for SEZs may be necessary. Each regional mitigation plan will consider the cumulative impacts of development within an SEZ and larger regional conservation priorities (e.g., Recovery Plans for federal or state listed species, BLM Resource Management Plans, and the California Desert Renewable Energy Conservation Plan). The BLM will work with appropriate federal, state, local agencies, Tribes and other stakeholders in developing regional mitigation plans. These plans will be subject to continued review and adjustment by the BLM and its partners to ensure conservation goals

and objectives are being met.

Projects outside of SEZs would be required to follow the mitigation hierarchy outlined above and the principals of a regional mitigation framework, but may not necessarily be able to make use of a regional mitigation plan developed for SEZs. As an important element of the BLM's proposed Solar Energy Program, the NEPA and planning analyses that support the identification of new or expanded SEZs will include the establishment of regional mitigation plans that address any anticipated compensatory mitigation needs for reasonably anticipated cumulative development within the zone.

Required Elements of a Regional Mitigation Plan

Critical in the development of a regional mitigation plan is the participation by affected stakeholders and interested parties to assure full understanding of impacts and mitigation objectives at the outset of the process. Further, stakeholders can share first-hand or historical knowledge about particular impacts and opportunities for mitigation that can enhance natural, cultural and recreational landscapes.

Regional mitigation plans for Solar Energy Zones should consist of six primary elements. The elements that follow are based heavily in comments received on the Draft Solar PEIS and the Supplement to the Draft Solar PEIS. There was a great deal of consistency in the concepts put forward by a variety of stakeholders in their comments.

1. A baseline upon which unavoidable impacts are assessed.

As part of a regional mitigation plan, the BLM must establish the baseline upon which unavoidable impacts will be assessed. Data collected continuously through the BLM's proposed Solar LTMP and annual reports from that process will be instrumental in understanding baseline conditions for SEZs. The baseline should include the ecological status of the landscapes to be developed; habitat quality and level of intactness; species occurrences, population status and viability; presence/absence and abundance of rare, sensitive, endemic, threatened or endangered species; status of aquatic, surface water and groundwater resources; location of wildlife migratory corridors; connectivity of habitats critical in the face of climate change; and ecological trends underway. Baseline information on non-biological resources should also be collected as necessary to assess impacts to resources such as recreation and access. The BLM will coordinate the development of baseline assessments with other federal, state and local agencies such as the US Fish and Wildlife Service, state wildlife agencies and State Historic Preservation Offices.

In developing a baseline assessment, the BLM will commit to using best available existing information. This may include sources such as Solar LTMP data and reports, BLM Rapid Ecological Assessments, the California Desert Renewable Energy Conservation Plan, the BLM West Chocolate Mountains Environmental Impact Statement, BLM Resource Management Plans, existing Habitat Conservation Plans and Biological Opinions, State Wildlife Plans, and other assessments. The BLM will also incorporate new landscape-scale (and finer-scale where appropriate) data as it becomes available to ensure the established baseline reflects the best available science and changing conditions.

2. A methodology to assess and quantify unavoidable impacts.

In coordination with stakeholders, the BLM must develop or select a methodology to assess and quantify unavoidable impacts over the life of the impacts. Best available scientific techniques should be

employed to describe impacts. Impacts to be assessed in regional mitigation plans will go beyond biological and ecological impacts to include, for example, cultural resources, scenic resources and socioeconomic factors. Cumulative impacts and the temporal nature of impacts should also be given consideration in regional mitigation plans. The BLM will consider developing a common methodology to quantify impacts across the Solar Energy Program.

3. A method to determine mitigation obligations or costs for individual projects.

As part of a regional mitigation plan, the BLM will need a mechanism to translate impacts into mitigation obligations or costs, for example generating a per acre cost for unavoidable biological impacts. In developing regional mitigation plans coordination with federal and state permitting agencies should occur so that mitigation obligations at all levels work together and are not duplicative. Efforts to standardize methods and approaches for valuing impacts to resources will be given consideration by the BLM across the Solar Energy Program.

The costs of monitoring and managing the mitigation investments over the life of the impacts should be included in the cost of mitigation, and thus the amount of mitigation investment for which the developer is responsible. However, the costs of mitigation cannot be so high as to preclude interest in development in SEZs. It is expected that mitigation costs will be lessened in SEZs due to the extensive avoidance and minimization efforts that went into the establishment of the SEZs and the pooling of monitoring dollars through the proposed Solar LTMP.

4. A structure to hold and apply mitigation investments.

In developing a regional mitigation plan, the BLM will need to establish a structure to hold and apply mitigation investments. A third party with fiduciary responsibility (and demonstrated fiduciary experience) should be engaged to hold, manage, and allocate mitigation investments per the established regional objectives in the regional mitigation plan (see below). This third party may be locally/regionally (i.e. local land trust) or nationally based.

5. Regional objectives regarding where and how mitigation investments will be made.

The BLM in conjunction with federal, state and local agencies, Tribes and other stakeholders must establish regional objectives to direct and prioritize where and how mitigation investments will be made. Regional objectives must be set at the appropriate scale and should be based primarily on best available information in existing documents such as Habitat Conservation Plans, State Wildlife Action Plans and BLM Resource Management Plans. Regional objectives should also be informed by output from the BLM's proposed Solar LTMP regarding the level of success of previously implemented mitigation actions. Regional mitigation plans should give consideration to the full range of mitigation tools available to the agency such as land acquisition, withdrawing BLM-administered lands from other uses, changing land designations or uses, restoration and mitigation banks.

6. Monitoring and adaptive management.

Monitoring and adaptive management are key to a successful regional mitigation plan. Through annual reports and data analysis from the BLM's proposed Solar LTMPs and other data collection efforts, the BLM must ensure mitigation investments being undertaken through regional mitigation plans are adequate relative to impacts over the life of the impacts. The BLM must develop mechanisms to feed

information back into regional mitigation plans to assure that the actions taken and fees collected appropriately offset impacts and reflect sufficient mitigation. The BLM's proposed Solar LTMP should be designed with these goals in mind.

Building and Testing the Framework for Regional Mitigation Plans

The BLM proposes to undertake a pilot of the framework outlined above and develop a regional mitigation plan for one or more of the proposed SEZs. Results of the pilot will aid the BLM in refining the framework and will allow for replication of a sound process across the remainder of the SEZs. As part of the pilot, the BLM will work with key stakeholders and cooperators with experience in developing and implementing mitigation plans.

Through the pilot, the BLM will determine if decisions can be made or standards can be put in place to address issues such as:

1. Which methodologies or mechanisms best suit BLM's needs to assess impacts and translate impacts into dollars?
2. What are the best examples of third party fiduciary structures to manage and deliver mitigation investments?
3. What is the array of "tools" available to the BLM to accomplish mitigation on the ground, including a mechanism to ensure enduring protection for mitigation actions on public lands?

An inter-disciplinary team (IDT) composed of BLM and other Department of the Interior staff will oversee the pilot, with formal and informal engagement by cooperating agencies, state and local agencies, Tribes and other stakeholders. A potential pilot process is outlined below.

1. BLM-Washington Office, National Operations Center, State and Field Office staff identify appropriate pilot site, given staff resources and regional setting of zone.
2. Recruit regional mitigation plan project manager.
3. Expand leadership team to form IDT composed of BLM and other Department of the Interior staff with experience developing mitigation plans and knowledge and resource expertise in the pilot eco-region.
4. Perform formal or informal outreach to stakeholders to receive feedback on selected pilot site and engage interested parties in developing the regional mitigation plan.
5. Hold in-person kickoff meeting with IDT to:
 - a. Identify roles
 - b. Determine schedule
 - c. Understand budget limitations and possibilities and set budget, including potential partnering opportunities
 - d. Develop stakeholder engagement process and timelines
 - e. Identify pilot conservation goals and priorities
 - f. Identify available baseline data
 - g. Establish workgroups led by IDT members with participation from stakeholders to frame and develop
 - i. Impact assessment methods
 - ii. Quantification of mitigation obligations or costs
 - iii. Identification and selection of third party with fiduciary responsibility
 - iv. Development of mechanisms to guide mitigation investments

v. Triggers to indicate changes in timing, frequency and location of mitigation investments

6. Thereafter, workgroups communicate weekly by web-ex to address assigned topics, with monthly web-ex for the entire IDT to assure consistency.
7. Hold second in-person meeting with IDT and other workgroup members to synthesize all information into a feasible, replicable plan.
8. Revisit framework for regional mitigation plans and adapt based on pilot process.
9. Implement in priority SEZs.