

**Summary of Substantive Changes to the  
Multiagency Collaborative Working Group  
Avian-Solar Science Coordination Plan  
in response to Public Comment**

**November 2016**

**Background**

In early 2016, a number of federal and state agencies formed a multiagency Collaborative Working Group (CWG) to promote interagency communication and collaboration on advancing the knowledge of avian-solar interactions. The primary goal of the CWG is to develop better information that can be used to inform future agency actions to reduce the impacts of solar energy development on birds. To achieve this goal, the CWG committed to jointly preparing an Avian-Solar Science Coordination Plan (“Plan”). A copy of the Multiagency Avian-Solar Science Coordination Plan is available at <http://blmsolar.anl.gov/program/avian-solar>.

The CWG engaged stakeholders in their process through a public workshop in May 2016 and a webinar in August 2016. In conjunction with the August webinar, a draft version of the Plan was released for public review and comments were accepted through mid-September 2016. A final version of the Plan was released in October 2016. This document summarizes the changes made to the Plan in response to the public comments that were received.

**Summary of Substantive Changes**

A number of relatively minor changes were made to the Plan in response to both public comments and internal review. These changes were made to clarify text, or correct inaccuracies, and are not summarized in this document. In addition, comments that identified or elaborated on concerns regarding potential impacts to birds, other wildlife, and habitat are not summarized in this document. In most instances, such comments did not result in substantive changes to the Plan. However, this input is important and will be considered by the CWG agencies as they move forward evaluating utility-scale solar energy projects and in designing and implementing future research activities.

The following text identifies the major changes that were made to the Plan, including a summary of the underlying comments and the basis for the change.

***Changing the Name to Science Coordination Plan.*** Several reviewers commented that the draft Plan did not contain all the elements of a “science plan.” In particular, they thought it lacked adequate discussion of study design requirements. The name of the document has been changed to the Avian-Solar Science Coordination Plan, in order to more correctly reflect its scope and objectives. As discussed in Section 1.7, this Plan is intended to coordinate future research efforts of multiple agencies. It achieves this by documenting the basis for future research priorities related to avian-solar interactions (see Section 5) and by establishing an agreed-upon process for multiagency coordination moving forward

(see Section 6). Requirements for specific study designs or analytical methods will be established as agencies move forward implementing recommendations in the Plan regarding future research priorities.

**Clarification Regarding the CWG's Initial Research Priorities.** Several reviewers commented that the Plan, in general, and the future research priorities specifically, did not adequately place a priority on research into avian impacts associated with habitat loss and modification, impact mitigation, and deterrents. As reflected in Table 1-3, the CWG member agencies identified a number of research and management questions specifically related to these topics. Management Question category 5 addresses questions about habitat impacts that might affect birds. Category 7 addresses questions about effective minimization (which includes deterrents) and mitigation. Text in Section 4 has been added to emphasize that further research into each of these topics is needed. However, in terms of future research priorities (see Section 5), new text has been added to clarify the CWG's intent is for this Plan to focus initial research priorities on addressing direct fatality-related factors that are unique to utility-scale solar development. Subsequent research activities will focus on other impacting factors and the development and evaluation of mitigation measures that might be implemented in conjunction with solar development. In addition, in Section 5, the descriptions of the initial research priorities have been expanded to provide a better understanding of the ways in which future research under each priority area will be used to better inform the understanding of avian-solar interactions.

**Incorporating Principles of the Mitigation Hierarchy.** Several comments were submitted suggesting that the Plan did not adequately recognize the principles of mitigation hierarchy in which efforts should be undertaken to first avoid impacts, then minimize impacts through various means, and then mitigate for those impacts that cannot be otherwise avoided or sufficiently minimized. Text has been added in Sections 1.3 and 5 to clarify that the CWG agencies endorse a hierarchical approach to addressing adverse impacts and that the recommended research priorities are consistent with such an approach.

**Transparency and Data Sharing.** Specific comments were made regarding the need for transparency related to future research and monitoring activities, and that new data should be shared with all stakeholders. Text has been added to Section 3.5 regarding the wind industry experience that underscores the value for transparency of research findings and data sharing. In line with that, text has been added to Section 1.7 noting that future research will have greatest value when conducted through a peer-reviewed, unbiased, and transparent process. That section also now includes a statement that data and findings should be made publicly available to improve transparency and advance the science with other research entities.

**Successful Implementation of Adaptive Management Approaches.** Several reviewers raised concerns about the effectiveness of adaptive management approaches, and the extent to which this is discussed in the Plan. It is appropriate for the agencies to incorporate adaptive management approaches into their respective efforts to appropriately manage utility-scale solar energy development; the process by which they do so should be undertaken in light of the outcomes of future experience and research, and with adequate input from stakeholders. Additional text was added to Section 6 to discuss the role of adaptive management but a more detailed discussion regarding how each agency will apply adaptive management is beyond the scope of this Plan.

**Highlighting Wind Energy Experiences and Lessons Learned.** At least one reviewer felt more information could be provided regarding the wind industry's experience and lessons learned related to avian impact concerns. Section 3.5 has been revised to better present this information, including additional text regarding the importance of interdisciplinary discussion, developing and adapting study guidelines, and data sharing and transparency.

**Addition of a Glossary.** In response to comments that some of the terminology used in the Plan is vague, a glossary of key terms has been added. In a few instances, text has been corrected in response to comments that a term was not correctly used.