NATIONAL *fish, wildlife & plants* CLIMATE ADAPTATION STRATEGY

Bureau of Land Management (BLM) Regional Mitigation Strategy

Project Title: Regional Mitigation Strategy for the Dry Lake Solar Energy Zone

Brief Summary (Abstract): The "Regional Mitigation Strategy for the Dry Lake Solar Energy Zone" presents a strategy for compensating for the unavoidable impacts that are expected from the development of the Dry Lake Solar Energy Zone (SEZ) in southern Nevada. This Strategy responds to a call for the development of solar regional mitigation strategies as committed to in the record of decision for the "Final Programmatic Environmental Impact Statement (PEIS) for Solar Energy Development in Six Southwestern States." The Strategy consists of preliminary findings and recommendations for conducting each element of a process that identifies: (1) the unavoidable impacts of utility-scale solar development in the Dry Lake SEZ that may warrant regional mitigation; (2) mitigation actions that can be implemented in the region to compensate for those impacts; (3) how a regional mitigation fee could be calculated; and (4) how the impacts and mitigation actions could be monitored. The process to create the Strategy incorporated conceptual models to understand how change agents, including climate change, interact with resource development, ecosystem function, and ecosystem services. The models informed the identification of the BLM's Gold Butte Area of Critical Environmental Concern (ACEC) as the highest rated candidate site for conducting mitigation actions, in part, because the vegetation type in the Gold Butte ACEC may persist longer under climate change than other areas that were considered. This Strategy will inform future BLM decisions for: configuration of lease parcels within the Dry Lake SEZ; lease stipulations; impacts to be mitigated in the region; where and how regional mitigation will occur; and how monitoring and adaptive management will occur.

Project Location: Dry Lake Solar Energy Zone is located 15 miles northeast of Las Vegas, Nevada.

Partners: The process for including stakeholder input in developing the Dry Lake SEZ Solar Regional Mitigation Strategy included four workshops in Las Vegas and several web-based meetings. Participation included representatives from federal, state, and local government agencies; nongovernmental organizations concerned with issues such as environmental or recreational impacts; representatives from the solar development industry, mining industry, and utilities; tribal representatives; and individual members of the public who had been involved in the Solar PEIS process.

Background: In 2012, the BLM and the U.S. Department of Energy published the "Final Programmatic Environmental Impact Statement for Solar Energy Development in Six Southwestern States" (Final Solar PEIS). The Final Solar PEIS assessed the impact of utility-scale solar energy development on public lands in the six southwestern states of Arizona, California, Colorado, Nevada, New Mexico, and Utah. Public comments on the Solar PEIS encouraged the BLM to incorporate a robust mitigation framework into the proposed solar energy program to address unavoidable impacts expected in Solar Energy Zones.

This pilot strategy consists of recommendations to mitigate some of the unavoidable impacts that remain after avoidance and minimization measures are taken. The Regional Mitigation Strategy for the Dry Lake SEZ differs from project-level compensatory mitigation planning that has been conducted in the past. In this pilot effort, compensatory mitigation is considered in a landscape context and includes identification of mitigation goals and objectives, as well as the selection of mitigation actions based on the degree of impact and regional conditions and trends, including climate change.

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Project Goals:
Goal 1: Mitigate unavoidable impacts to further sustain the populations of federally listed species so they no longer need protection under the Endangered Species Act.

Goal 2: Manage habitats for non-listed special status species to support viable populations so future listing is not necessary.

Goal 3: Mitigate the loss of plants and habitat for the rosy two-toned penstemon to support viable populations in which the SEZ is located so future listing of the plant is not necessary.

Goal 4: Restore and/or preserve the creosote-bursage vegetation community disrupted by development (taking into account the existing landscape condition in the SEZ).

Goal 5: Restore and/or protect the visual resource values altered by development of the SEZ (taking into account the existing condition of visual resource values in the Dry Lake SEZ).

Strategy Goals Implemented:
Goal 1: Conserve habitat to support healthy fish, wildlife, and plant populations and ecosystem functions in a changing climate. Conducting mitigation actions on the Gold Butte ACEC contributes to a well-connected network of conservation areas to allow the movement of species in response to climate change.

Goal 3: Enhance capacity for effective management in a changing climate. The Regional Mitigation Strategy for the Dry Lake Solar Energy Zone is a management tool that the BLM developed to address compensatory mitigation for unavoidable impacts from solar energy development. It was developed in a manner to protect environmental values and provide for wildlife habitat in a way that does not result in the permanent impairment of the productivity of the land. Development of the Strategy included collaboration across jurisdictions and involved partner organizations and stakeholders of solar energy development and mitigation.

Climate Impacts Addressed: Implementation of the recommendations in the Regional Mitigation Strategy for the Dry Lake SEZ would mitigate for habitat loss by restoring or preserving vegetation communities that may persist longer under a changing climate, thus providing habitat for wildlife in a changing climate.

Status of Project Implementation (Timeline, Milestones, Next Steps): The Regional Mitigation Strategy for the Dry Lake Solar Energy Zone is complete and documented in the BLM's Technical Note 444: http://www.blm.gov/pgdata/etc/medialib/blm/wo/blm_library/tech_notes.Par.29872.File.dat/TN_444.pdf. The findings and recommendations offered in the Regional Mitigation Strategy for the Dry Lake Solar Energy Zone are intended to inform the decision-making process associated with leasing land in the Dry Lake SEZ for utility-scale solar development. Implementation of recommendations into the decision-making process, and subsequent decisions, is at the discretion of the BLM authorized officer(s) in the Dry Lake SEZ.

Project Outcomes: The intent of the Regional Mitigation Strategy for the Dry Lake Solar Energy Zone is to provide recommendations for mitigation that can be incorporated into land-use planning considerations, plan decisions, and specific projects actions, at the discretion of the BLM authorized

officer(s). Further, the Strategy serves as a pilot or framework for conducting collaborative, regional mitigation on public lands.

Funding Sources: The development of the Regional Mitigation Strategy for the Dry Lake Solar Energy Zone was funded through the BLM's National Renewable Energy Coordination Office.

Photos/Attachments:

Caption: Transmission lines in Dry Lake Solar Energy Zone – Bureau of Land Management (photo in public domain)

Caption: Photovoltaic solar facility – Argonne National Laboratory (photo in public domain)