

Final Supplemental Environmental Impact Statement for the Silver State Solar South Project and Proposed Las Vegas Field Office Resource Management Plan Amendment

DOI-BLM-NV-S010-2012-0067-EIS

September 2013

Las Vegas Field Office



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FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

FOR THE

SILVER STATE SOLAR SOUTH PROJECT AND PROPOSED LAS VEGAS FIELD OFFICE
RESOURCE MANAGEMENT PLAN AMENDMENT

(NVN-085801, NVN-089530, NVN-090050, AND NVN-090823)

Prepared for and under the Direction of:
Bureau of Land Management
Las Vegas Field Office

in cooperation with
Environmental Protection Agency
National Park Service – Mojave National Preserve
US Army Corps of Engineers
Clark County Department of Aviation
Nevada Department of Wildlife

Prepared by:
AMEC Environment & Infrastructure, Inc. and
EPG, Inc.

September 2013

It is the mission of the Bureau of Land Management to sustain the health, diversity and productivity of the public lands for the use and enjoyment of present and future generations.



United States Department of the Interior



BUREAU OF LAND MANAGEMENT
Southern Nevada District Office
Las Vegas Field Office
4701 N. Torrey Pines Drive
Las Vegas, Nevada 89130
<http://www.blm.gov/nv/st/en.html>

In Reply Refer To:

N-085801, N-089530, N-90050, N-090823
2800 (NVS0100)

Dear Reader/ Interested Party:

Enclosed is the Final Supplemental Environmental Impact Statement (SEIS) and Proposed Resource Management Plan Amendment (PRMPA) for the Silver State South Solar Energy Project (Project). The Bureau of Land Management (BLM) prepared the Final SEIS/PRMPA in consultation with cooperating agencies, taking into account public comments received during the National Environmental Policy Act (NEPA) process. The Final SEIS/PRMPA provides a framework for the future management direction and appropriate use of the Project area, located in Clark County, Nevada. The document contains land use planning decisions and implementation decisions to guide the BLM's management of the Project area.

The implementation decision to be made is whether to approve, approve with modifications, or deny, the issuance of the right-of-way (ROW) grant applied for by Silver State Solar Power South, LLC, a wholly owned subsidiary of First Solar, Inc. The planning decisions to be made are to: 1) reduce the size of the Jean Lake/Roach Lake Special Recreation Management Area (SRMA) to ensure that the ROW action proposed in Silver State's application is in conformance with the existing Las Vegas Field Office (LVFO) Resource Management Plan (RMP) and to ensure a balanced use of the public lands and the resources affected by those uses; 2) revise the Visual Resource Management classification of lands within the Project footprint to ensure management is in conformance with existing LVFO RMP decisions; and 3) designate an Area of Critical Environmental Concern (ACEC) and identify management prescriptions for a portion of the proposed ACEC nomination area.

This Final SEIS/PRMPA has been developed in accordance with NEPA and the Federal Land Policy and Management Act of 1976, as amended. Revisions in the Final SEIS/PRMPA pertain largely to the BLM Preferred Alternative developed subsequent to issuance of the Draft SEIS/PRMPA, which was released by the US Environmental Protection Agency on October 12, 2012 and by the BLM on October 15, 2012. The Final SEIS/PRMPA contains the Proposed Plan and Project decisions, a summary of changes made between the Draft SEIS/PRMPA and Final SEIS/PRMPA, an analysis of the impacts of the decisions, a summary of the written and oral comments received during the public review period for the Draft SEIS/PRMPA, and responses to the comments.

Pursuant to BLM's planning regulations at 43 CFR 1610.5-2, any person who participated in the planning process for the EIS/PRMPA and has an interest that is or may be adversely affected by the planning decision may protest the planning decision within 30 days from the date the

Environmental Protection Agency publishes the Notice of Availability in the *Federal Register*. For further information on filing a protest, please see the accompanying protest regulations in the pages that follow (labeled as Attachment #1). The regulations specify the required elements in a protest. Take care to document all relevant facts. As much as possible, reference or cite the planning documents or available planning records (e.g., meeting minutes or summaries, correspondence, etc.).

Emailed protests will not be accepted as valid protests unless the protesting party also provides the original letter by either regular or overnight mail postmarked by the close of the protest period. Under these conditions, the BLM will consider the emailed protest as an advance copy and will afford it full consideration. If you wish to provide the BLM with such advance notification, please direct emailed protests to: Brenda_Hudgens-Williams@blm.gov.

All protests must be in writing and mailed to one of the following addresses:

Regular Mail:

Director (210)
Attn: Brenda Hudgens-Williams
P.O. Box 71383
Washington, D.C. 20024-1383

Overnight Mail:

Director (210)
Attn: Brenda Hudgens-Williams
20 M Street SE, Room 2134LM
Washington, D.C. 20003

Before including your address, phone number, email address, or other personal identifying information in your protest, be advised that your entire protest – including your personal identifying information – may be made publicly available at any time. While you can ask us in your protest to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

The BLM Director will make every attempt to promptly render a decision on each protest. The decision will be in writing and will be sent to the protesting party by certified mail, return receipt requested. The decision of the BLM Director shall be the final decision of the Department of the Interior on each protest. Responses to protest issues will be compiled and formalized in a Director's Protest Resolution Report made available following issuance of the decisions.

Upon resolution of all land use plan protests, the BLM will issue an Approved RMP and Record of Decision (ROD). The Approved RMP and ROD will be mailed or made available electronically to all who participated in the planning process and will be available to all parties through the "Planning" page of the BLM national website (<http://www.blm.gov/planning>), or by mail upon request.

Unlike land use planning decisions, implementation decisions included in this FSEIS/PRPMA are not subject to protest under the BLM planning regulations, but are subject to an administrative review process, through appeals to the Office of Hearings and Appeals (OHA), Interior Board of Land Appeals (IBLA) pursuant to 43 CFR, Part 4 Subpart E. Implementation decisions generally constitute the BLM's final approval allowing on-the-ground actions to proceed. Where implementation decisions are made as part of the land use planning process, they are still subject to the appeals process or other administrative review as prescribed by specific resource program regulations once the BLM resolves the protests to land use planning decisions

and issues an Approved RMP and ROD. The Approved RMP and ROD will therefore identify the implementation decisions made in the plan that may be appealed to the Office of Hearing and Appeals.

Sincerely,

A handwritten signature in blue ink, appearing to read "Gayle Marris-Smith", with a long horizontal flourish extending to the right.

Gayle Marris-Smith
Field Manager (Acting)

Attachment #1

Protest Regulations

[CITE: 43CFR1610.5-2]

TITLE 43--PUBLIC LANDS: INTERIOR
CHAPTER II--BUREAU OF LAND MANAGEMENT, DEPARTMENT OF THE INTERIOR
PART 1600--PLANNING, PROGRAMMING, BUDGETING--Table of Contents
Subpart 1610--Resource Management Planning
Sec. 1610.5-2 Protest procedures.

- (a) Any person who participated in the planning process and has an interest which is or may be adversely affected by the approval or amendment of a resource management plan may protest such approval or amendment. A protest may raise only those issues which were submitted for the record during the planning process.
- (1) The protest shall be in writing and shall be filed with the Director. The protest shall be filed within 30 days of the date the Environmental Protection Agency published the notice of receipt of the final environmental impact statement containing the plan or amendment in the Federal Register. For an amendment not requiring the preparation of an environmental impact statement, the protest shall be filed within 30 days of the publication of the notice of its effective date.
- (2) The protest shall contain:
- (i) The name, mailing address, telephone number and interest of the person filing the protest;
 - (ii) A statement of the issue or issues being protested;
 - (iii) A statement of the part or parts of the plan or amendment being protested;
 - (iv) A copy of all documents addressing the issue or issues that were submitted during the planning process by the protesting party or an indication of the date the issue or issues were discussed for the record; and
 - (v) A concise statement explaining why the State Director's decision is believed to be wrong.
- (3) The Director shall promptly render a decision on the protest.
- (b) The decision shall be in writing and shall set forth the reasons for the decision. The decision shall be sent to the protesting party by certified mail, return receipt requested. The decision of the Director shall be the final decision of the Department of the Interior.

**Supplemental Environmental Impact Statement
For the Silver State Solar South Project and
Las Vegas Field Office Proposed Resource Management Plan Amendment**

Draft

Final

Lead Agency: United States Department of the Interior
Bureau of Land Management

Cooperating Agencies: Environmental Protection Agency
National Park Service – Mojave National Preserve
US Army Corps of Engineers
Nevada Department of Wildlife
Clark County Department of Aviation

Counties Directly Affected: Clark County, Nevada

Environmental Impact Statement Contact:

Nancy Christ
Renewable Energy Project Manager
4701 North Torrey Pines Drive
Las Vegas, NV 89130

Date Final EIS filed with the U.S. Environmental Protection Agency: September 13, 2013

Abstract

The Bureau of Land Management (BLM) Las Vegas Field Office (LVFO) has prepared this Final Supplemental Environmental Impact Statement (EIS)/Proposed Resource Management Plan Amendment (PRMPA) for the Silver State Solar South Project in response to right-of-way applications submitted by Silver State Solar Power South, LLC, a wholly owned subsidiary of First Solar, Inc., to construct and operate a 250- to 350-megawatt photovoltaic solar plant and associated facilities on public lands approximately 2 miles east of Primm, in southern Clark County, Nevada.

The Final Supplemental EIS/PRMPA was prepared pursuant to the National Environmental Policy Act (NEPA), the Federal Land Management and Policy Act (FLPMA), and other relevant regulations and statutes. The Draft Supplemental EIS/PRMPA was released for public comment by the EPA on October 12, 2012 and by the BLM on October 15, 2012. A total of 374 comment letters were received during the public comment period for the Draft Supplemental EIS/PRMPA, and six (6) people provided oral comments during public hearings. After careful consideration of comments, BLM has prepared this Final Supplemental EIS/PRMPA. Substantive comments received during the public review period of the Draft Supplemental EIS/PRMPA and responses to those comments are provided in Appendix D of this Final Supplemental EIS/PRMPA. Five

alternatives are fully analyzed in this Final Supplemental EIS/PRMPA: 1) Alternative A - the No Action Alternative; 2) Alternative B – the applicant’s original proposal (as described in their Plan of Development dated July 2011); 3) Alternative C - the project layout for Phases II and III evaluated in the 2010 Final EIS (analyzed as Alternative 2 in the 2010 Final EIS); 4) Alternative D – Silver State’s Preferred Alternative (developed in consideration of comments received during scoping for the Draft Supplemental EIS/PRMPA); and 5) the BLM Preferred Alternative which was developed after publication of the Draft Supplemental EIS/PRMPA to address public and agency concerns related to desert tortoise demographic connectivity within the Ivanpah Valley and agency and public interest in a reduced-scale alternative.

This Supplemental EIS tiers from the Silver State Solar Energy Project Final EIS (BLM 2010). The Council for Environmental Quality encourages federal agencies “to tier their environmental impact statements to eliminate repetitive discussion of the same issues and to focus on the actual issues ripe for decision at each level of environmental review (Section 1502.20). As such, this document focuses on information that has been added or revised subsequent to the publication of the 2010 Final EIS to address and analyze specific changes and new information. A Supplemental EIS is intended to provide BLM-decision makers detailed description and analysis of changes or new information related to a project and also to give the public an additional opportunity to participate in the NEPA process (40 CFR 1502.9(c)(4)).

Official responsible for the Environmental Impact Statement:



Gayle Marris-Smith

9/12/2013
Date

EXECUTIVE SUMMARY

INTRODUCTION

This Final Supplemental Environmental Impact Statement (EIS)/Proposed Resource Management Plan Amendment (PRMPA) incorporates revisions since the Draft Supplemental EIS/PRMPA was published as a result of input from community members, regulatory agencies and other stakeholders, and changes in the Project design by the Applicant. These revisions are shown as italicized and underlined text in this document.

The Southern Nevada District, Las Vegas Field Office (LVFO), of the Bureau of Land Management (BLM) has prepared this Supplemental EIS/PRMPA for the proposed Silver State Solar South Project (Project). The Supplemental EIS/PRMPA addresses new information associated with the project analyzed in the Final EIS for the Silver State Solar Energy Project (BLM 2010). These changes comprise modified layouts of the solar arrays and appurtenant facilities identified as Phases II and III in the BLM's 2010 Final EIS and alternatives developed in consideration of comments received during scoping for *and public review* of the Draft Supplemental EIS/PRMPA.

In consideration of current BLM management objectives in the area, the Supplemental EIS/PRMPA evaluates the proposed Project in the context of an amendment to the BLM's LVFO Resource Management Plan (RMP) (BLM 1998). The plan amendment considers proposed land and resource use changes within the Jean Lake/Roach Lake Special Recreation Management Area (SRMA) that would be required to allow construction and operation of the proposed Project.

Silver State Solar Power South, LLC (a wholly owned subsidiary of First Solar, Inc., hereafter referred to as Silver State or Applicant) proposes to construct own, and operate a *250- to* 350-megawatt (MW) alternating current (AC)¹ (nominal plant capacity) solar photovoltaic (PV) generating facility referred to as the Silver State Solar South Project. A 350 MW_{AC} facility was previously analyzed in the 2010 Final EIS (BLM 2010) as Phases II and III. The Record of Decision (ROD) for the Final EIS, signed on October 12, 2010, authorized only the first phase (Phase I) of project development, which became the 50 MW_{AC} Silver State Solar North Project. With regard to the remaining 350 MW_{AC} of proposed development, the ROD stated that subsequent phases (i.e., Phases II and III) may require supplemental analysis under the National Environmental Policy Act (NEPA) and additional public involvement.

The 2010 Final EIS provided an analysis of proposed development within a 7,925-acre right-of-way (ROW) application area. In early 2011, Silver State submitted a ROW application (designated as NVN-089530) for the proposed Project encompassing an additional 5,610 acres of BLM-administered public lands. This area includes 5,069 additional acres immediately north of the previously analyzed ROW application area and a 541-acre area immediately west. This

¹ Nominal plant capacity refers to generation and delivery of power under ideal conditions. The capacity of any solar energy facility is dependent on many factors and changes over a course of a day, a season, or year regardless of the technology, geographic location, or design. The nominal capacity of 350 MW_{AC} is understood to mean the peak power-generating capacity of the facility expressed in watts minus all auxiliary, internal (parasitic) loads. In this document, MW_{AC} is used synonymously with MW.

additional acreage allowed the development of site layout alternatives for the proposed Project to avoid impacts to interstate drainages, reduce impacts to desert tortoise and other special status species, and minimize impacts to recreational areas in the Jean Lake/Roach Lake SRMA.

Of the previously analyzed 7,925-acre ROW application area, 7,373 acres is included in the ROW application for Silver State Solar South. An additional 200-acre ROW application was submitted under number NVN-090823, bringing the entire ROW application area to 13,184 acres. The final footprint for the Silver State Solar South Project will be between 2,427 acres and 3,881 acres in size, depending on the alternative chosen and the final site configuration. If approved, the remaining acreage within the larger ROW application area would be relinquished and the ROW grant would only be issued for lands needed for Project development.

The 1998 LVFO RMP is currently being revised. The BLM began the process of formally updating the RMP in 2010, and expects to complete the update in 2015. Because the proposed Project is time-sensitive and would be out of conformance with some management goals of the 1998 RMP, the BLM must amend the existing LVFO RMP to accommodate the proposed Project. Specifically, the Supplemental EIS/PRMPA analyzes a reduction in the size of the Jean Lake/Roach Lake SRMA, and revisions to the Visual Resource Management (VRM) for the area from a VRM Class III to a VRM Class IV.

In addition, the analysis in this Supplemental EIS/PRMPA considers an Area of Critical Environmental Concern (ACEC) nomination brought forth during scoping. The ACEC nomination includes 98,300 acres of land in Nevada and 31,079 acres in California. The BLM has determined that 40,180 acres of the nominated area within Nevada meets the criteria for both relevance and importance to be considered in this Supplemental EIS/PRMPA. Of the 40,180 acres, a 30,912-acre ACEC is included as part of Alternative D and a 31,859-acre ACEC is included as part of the BLM Preferred Alternative because these areas meet the relevance and importance criteria for the Agassiz's desert tortoise. They are slightly different due to the different proposed layouts. The larger ACEC nomination area in Nevada will be addressed through the LVFO RMP revision process. The BLM is analyzing the ACEC in this Supplemental EIS/PRMPA because approval of the ROW application could foreclose future options regarding the portion of the proposed ACEC that is within the Project footprint. As noted, that portion of the proposed ACEC not considered in this Supplemental EIS/PRMPA will be analyzed and considered in the LVFO RMP revision or the Desert Renewable Energy Conservation Plan currently in progress in California. Analysis of the ACEC has been included as part of Alternative D and the BLM Preferred Alternative in this Supplemental EIS/PRMPA, and details about the plan amendment and ACEC processes are described in Section 2.3.5.

BLM'S PURPOSE AND NEED

In accordance with Section 103(c) of the Federal Land Policy and Management Act (FLPMA) of 1976, public lands are to be managed for multiple uses that take into account the long-term needs of future generations for renewable and non-renewable resources. The Secretary of the Interior is authorized to grant ROWs on public lands for systems of generation, transmission, and distribution of electrical energy (Section 501(a)(4)). Taking into account the BLM's multiple-use mandate, the BLM's purpose and need for this action is to respond to Silver State's application under Title V of FLPMA (43 U.S. Code [USC] § 1761) for a ROW grant to construct, operate,

maintain, and decommission a solar generation power plant and ancillary facilities in compliance with FLPMA, BLM ROW regulations, the BLM NEPA Handbook, Department of Interior (DOI) NEPA regulations, and other applicable Federal and State laws and policies.

The BLM will decide whether to approve, approve with modification, or deny issuance of a ROW grant to the Applicant for the Project. Modifications may include the proposed use or location of the proposed facilities (43 Code of Federal Regulations [CFR] 2805.10(a)(1)). The BLM will also consider a concurrent amendment of the LVFO RMP to: 1) reduce the size of the Jean Lake/Roach Lake SRMA to ensure that the proposed ROW grant is in conformance with the existing LVFO RMP and to ensure a balanced use of the public lands and the resources affected by those uses; 2) revise the VRM classification of lands within the Project footprint to ensure management is in conformance with existing LVFO RMP decisions; and 3) respond to a citizen-proposed ACEC nomination and identify management prescriptions for a portion of the proposed ACEC nomination area.

The proposed Project could potentially help displace older fossil-fuel electric generating facilities with clean, renewable power, which would contribute to the reduction of greenhouse gas (GHG) emissions. In addition, the proposed Project would further the objectives of President Obama's Climate Action Plan (June 2013) to eliminate or reduce GHG emissions and promote the deployment of renewable energy technologies.

APPLICANT'S OBJECTIVES FOR THE PROPOSED ACTION

The Applicant's objective is to construct, operate, maintain and eventually decommission a ~~350-~~³⁵⁰ MW_{AC} utility-scale solar PV project within the State of Nevada, south of Las Vegas, where it can interconnect directly into both the Nevada and California transmission systems. The Applicant's specific objectives for the Project include:

- To construct and operate a cost-competitive solar energy facility using First Solar's proven thin-film PV technology to provide a renewable and reliable source of power;
- To locate the Project on contiguous lands with high solar insolation and relatively flat terrain at sufficient scale to maximize operational efficiency while minimizing environmental impacts and water use;
- To minimize environmental impacts and land disturbance by locating the Project near existing transmission infrastructure and roads and by avoiding sensitive environmental areas, recreational resources and wildlife habitats (e.g., Desert Wildlife Management Areas [DWMA], ACEC's, designated Wilderness Areas, Wilderness Study Areas, and other restrictive land use designations); and
- To develop a source of renewable electric power that can be placed into service in an expeditious manner by interconnecting to the existing transmission grid at a substation location with existing capacity.

PUBLIC INVOLVEMENT

Initiation of the EIS process and the public scoping meetings were announced through the Federal Register, BLM media releases, direct mailings, and postings on the BLM Project website. These activities are summarized below and detailed in Appendix C of the Final Supplemental EIS/PRMPA.

Federal Register Notice of Intent

The BLM Federal Register Notice of Intent, published on September 1, 2011 (Volume 76, Number 170, Pages 54483-54484), marked the beginning of the public scoping period for the Project Supplemental EIS/PRMPA. The 60-day scoping period was announced as ending on October 31, 2011. Three scoping meetings were held from September 27 through September 29, 2011.

Media Release

The BLM prepared a media release to introduce the Project, announce the initial scoping meetings, and invite the public to provide input. The news release was issued on September 1, 2011 to local and regional newspapers, congressional offices, television stations, and radio stations. In addition, paid advertisements were published in the Las Vegas Review-Journal and the Pahrump Valley Times.

Direct Mailings

A public scoping notice was prepared and mailed to inform the public about the scoping process for the preparation of the Supplemental EIS/PRMPA and the scheduled scoping meetings. The public was invited to participate in the scoping process and to share any concerns or comments, submit information, and identify issues to be addressed during the Supplemental EIS/PRMPA process. The notice was mailed to Federal, State, and local agencies; elected officials; Native American tribes; special interest groups and organizations; and the general public, during the week of September 7, 2011. The distribution list included 1,071 notices, and was compiled from a list of individuals, organizations, and agencies who had expressed interest in other BLM LVFO projects.

Public and Agency Scoping Meetings

The BLM held three public scoping meetings to identify issues and concerns regarding the proposed Project. These scoping meetings provided an opportunity for the public to learn about the proposed Project and to provide comments:

- Primm, NV – September 27, 2011: 7 attendees
- Las Vegas, NV – September 28, 2011: 30 attendees
- Jean, NV – September 29, 2011: 6 attendees

Comments During the Public Scoping Period

Approximately 208 comments were received during the scoping period, which related to the following topics:

- NEPA and NEPA Process: 12 comments
- Alternatives: 25 comments
- Air Quality: 4 comments
- Climate Change: 5 comments
- Cultural and Historic Resources: 5 comments
- Cumulative Impacts: 17 comments
- Environmental Justice: 1 comments
- Fire Management: 1 comment
- Geology and Mineral Resources: 1 comment
- Hazardous Materials and Solid Waste: 2 comments
- Land Use: 6 comments
- Livestock Grazing: 1 comments
- Noise: 2 comments
- Noxious and Invasive Weed Control: 5 comments
- Project Design: 15 comments
- Purpose and Need: 2 comments
- Recreation: 25 comments
- Socioeconomic Resources: 22 comments
- Soil Resources: 1 comment
- Special Designation: 10 comments
- Special Status Species: 26 comments
- Travel Management and Off-Highway Vehicle (OHV) Use: 33 comments
- Vegetation Resources: 3 comments
- Visual Resources: 8 comments
- Water Resources: 12 comments
- Watershed Management: 2 comments
- Wildlife Resources: 10 comments
- Other: 21 comments

Public Involvement with the Supplemental EIS/PRMPA

The Draft Supplemental EIS/PRMPA review period was initiated by the publication of the Notice of Availability (NOA) for the Draft Supplemental EIS/PRMPA in the Federal Register on October 16, 2012. Notice of the release of the Draft Supplemental EIS/PRMPA was also sent to those on the Project mailing list, which was developed from a list of agencies, organizations and individuals who requested information during and after the scoping period. Copies of the Draft Supplemental EIS/PRMPA were sent to those who requested them and the document was made available on the following BLM website:

http://www.blm.gov/nv/st/en/fo/lvfo/blm_programs/energy/Silver_State_Solar_South.html

The 90-day public comment period on the Draft Supplemental EIS/PRMPA ended January 11, 2013.

During the comment period, three public meetings to solicit input on the Draft Supplemental EIS/PRMPA were held as follows: 1) December 4, 2012 at the Primm Valley Resort and Casino, Primm, NV; 2) December 5, 2012 at Renaissance Hotel, Las Vegas, NV; and 3) December 6, 2012 at the Jean Airport, Jean, NV. These meetings were advertised in advance on the Project website and in two area newspapers: the Las Vegas Review Journal and the Pahrump Valley Times. In addition, the public were invited to submit their comments through BLM's web site, by mail, e-mail, or facsimile.

A total of 374 comment letters and six oral public comments were received during the public comment period for the Draft Supplemental EIS/PRMPA. The BLM reviewed all comments received on the Draft Supplemental EIS/PRMPA and developed responses to all substantive comments based on guidance found in the CEQ regulations (40 CFR 1503.4). The responses to substantive comments are provided in Appendix D, which contains: 1) a list of all individuals, agencies, and organizations that provided written and oral comments on the Draft Supplemental EIS/PRMPA; 2) common responses to comments that raised similar issues or environmental concerns; and 3) individual responses to comments. The Draft Supplemental EIS/PRMPA was modified as needed based on the responses to comments during the preparation of the Final Supplemental EIS/PRMPA. The BLM and the Environmental Protection Agency (EPA) Office of Federal Activities will publish NOAs for the Final Supplemental EIS/PRMPA in the Federal Register when the document is ready to be released to the public. The NOA (to be published by EPA in the Federal Register) will initiate a 30-day protest period on the proposed RMP amendments to the Director of the BLM in accordance with 43 CFR 1610.5-2. In addition, the BLM land use plan amendment process includes a 60-day governor's consistency review as set forth in 43 CFR 1610.5-2. The 30-day protest period and the 60-day governor's consistency review will run concurrently following publication of the NOA in the Federal Register. After any protests have been resolved, the BLM will publish a ROD that will present the BLM's decision on the Project and plan amendment.

SUMMARY DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

The Final Supplemental EIS/PRMPA analyzes five alternatives, including the No Action Alternative (Alternative A) and four action alternatives. Alternative B is Silver State's original proposal (as described in their Plan of Development dated July 2011). This alternative was introduced in initial scoping meetings and does not include perimeter roads. Alternative B would disturb up to 3,881 acres of Federal land. Alternative C would disturb up to 2,546 acres of Federal lands, and is the project layout for Phases II and III that was previously evaluated in the 2010 Final EIS. Alternative D would disturb up to 3,110 acres of Federal land and is a modified layout of Silver State's original proposal (Alternative B above) to allow public access through a historically-used recreation route. The Alternative D layout has been designed to avoid impacts to interstate drainages, reduce impacts to desert tortoise and other special status species, and minimize impacts to recreational areas in the Jean Lake/Roach Lake SRMA. The BLM Preferred Alternative was developed after release of the Draft Supplemental EIS/PRMPA to address public and agency concerns related to desert tortoise demographic connectivity within the Ivanpah Valley and agency and public interest in a reduced-scale project. The BLM Preferred Alternative would disturb up to 2,427 acres of Federal land entirely within the footprint of

alternatives analyzed in the Draft Supplemental EIS/PRMPA, and thus involves no new areas of effect.

BLM Preferred Alternative

Since the publication of the Draft Supplemental EIS/PRMPA, the Applicant has developed a new Project layout to address public and agency concerns related to desert tortoise connectivity within the Ivanpah Valley, as well as agency and public interest in a reduced-scale alternative. The new Project layout is referred to as the BLM Preferred Alternative. The addition of this new alternative in this Final Supplemental EIS/PRMPA is consistent with the Council for Environmental Quality (CEQ) regulations (40 C.F.R. 1509(c)) guidance allowing an agency to develop new alternative(s) that are variations of alternatives analyzed in a Draft EIS and do not result in significant new impacts. This new layout is located entirely within the footprint of the alternatives analyzed in the Draft Supplemental EIS/PRMPA and is smaller in total area, representing a reduction of over 20 percent in total acreage in comparison to Alternative D. Thus, the BLM Preferred Alternative involves no new areas of effect and, in fact, reduces the Project's environmental impacts in comparison to those identified in the Draft Supplemental EIS/PRMPA.

The BLM Preferred Alternative is smaller in area and electricity generation capacity is reduced as compared to other action alternatives – 250 MW_{AC} for the BLM Preferred Alternative versus 350 MW_{AC} for Alternative B, C, or D. The BLM Preferred Alternative incorporates site layout modifications based on ongoing discussions with resource agencies, stakeholder groups, and comments received during the Draft Supplemental EIS/PRMPA public comment period (October 15, 2012 through January 11, 2013). The layout has been designed to address concerns associated with desert tortoise connectivity corridor characteristics and impacts to jurisdictional water of the U.S., and continues to minimize impacts to recreational areas in the Jean Lake/Roach Lake SRMA. The proposed footprint remains within the area evaluated in the 2010 Final EIS and Draft Supplemental EIS/PRMPA, and incorporates a 31,859-acre ACEC.

As with the other action alternatives, the layout for the BLM Preferred Alternative would include facilities for interconnection to Southern California Edison's (SCE) transmission system via the proposed Primm Substation (refer to Appendix E for technical description). Construction of the Project facilities and related infrastructure would disturb a total area of 2,427 acres. The solar field and ancillary facilities, including internal circulation roads would occupy approximately 1,898 acres inside the perimeter fencing. About 529 acres of the facility footprint would be located outside the perimeter fencing including drainage facilities, the Primm Substation and associated infrastructure, including a 12-kilovolt (kV) distribution line from the NV Energy Bighorn Substation along the Project access road, interconnection facilities, and a maintenance road that would intersect the site. The maintenance road would allow public access through the Project area by connecting existing recreational routes that traverse the Project area. Acreages associated with other Project components under the BLM Preferred Alternative are listed in Table ES-1.

Drainage controls under the BLM Preferred Alternative would consist of detention basins and associated drainage channels. The drainage structures would be located along the eastern edge of the solar arrays, and would result in a permanent disturbance of 374 acres. As noted in Table

2-1, and depending on final design, the drainage facilities may be located inside or outside the perimeter fence. In addition, the BLM Preferred Alternative would avoid drainages delineated by the U.S. Army Corps of Engineers (USACE) as jurisdictional waters of the US.

The BLM Preferred Alternative also includes a 31,859-acre area being considered for designation as an ACEC and management prescriptions that would be required for the designated ACEC. This is a portion of the area nominated by Basin and Range Watch, and was determined by a BLM Interdisciplinary Team to meet the relevance and importance criteria for consideration as an ACEC (refer to Appendix B for BLM evaluation of ACEC nomination).

No Action Alternative

NEPA regulations require that EIS alternative analyses “include the alternative of no action” (40 CFR §1502.14[d]). The No Action Alternative is included in the analysis so that the EIS clearly evaluates the effects of not amending the LVFO Resource Management Plan and not developing the Silver State Solar South Project. For this analysis, the No Action Alternative includes the following:

- The BLM would deny the ROW application and not amend the LVFO RMP. Existing management of the area would continue in accordance with the current LVFO RMP.
- The proposed Project would not be built, and any environmental and socioeconomic impacts associated with construction and operation would not occur, including the benefits associated with a 250- to 350-MW_{AC} renewable energy source.

Alternative B – Proposed Action

Alternative B is the Applicant’s proposal as described in their draft Plan of Development (CH2M HILL 2011). It is similar to Phases II and III of the Proposed Action (Alternative 2) evaluated in the 2010 Final EIS, but the layout of the Project, including solar arrays, drainage facilities and appurtenant structures, has been revised since 2010 to avoid potential impacts to resources, particularly to jurisdictional waters of the United States. The proposed generating capacity remains the same (350 MW_{AC}) as evaluated in the 2010 Final EIS.

Under Alternative B, Project facilities are proposed to be sited north of the location evaluated in the 2010 Final EIS, encompassing portions of the revised ROW application area not analyzed in the 2010 Final EIS. This revised layout avoids impacts to waters of the U.S. Construction of the Project facilities and related infrastructure would disturb a total area of 3,887 acres, of which 1,640 acres would be located in the portion of the ROW application area not analyzed in the 2010 Final EIS.

Project and related facilities inside the perimeter fence under Alternative B would cover approximately 3,796 acres. This would include limited amounts of open space between the perimeter roads and the arrays, as well as drainage facilities. Limited development would also occur outside the perimeter fencing, with approximately 85 acres that would include the Primm Substation and associated infrastructure, including a 12-kilovolt (kV) distribution line from the NV Energy Bighorn Substation along the Project access road, interconnection facilities, an

approximately 1-mile long 220-kV transmission line to interconnect the South Substation with SCE's Eldorado to Ivanpah 220-kV transmission line, a switchyard, temporary construction mobilization area, perimeter roads around the exterior of the site, and 2.87 miles of maintenance roads that intersect the site. The maintenance roads would allow public access through the Project area by connecting an existing recreation route from the northwest of the Project area to an existing recreation route to the southeast. Proposed drainage controls comprise two drainage basins connected by a drainage channel. The drainage basins and connecting channel would be directly aligned with the eastern edge, and on the inside, of the perimeter fence and outside delineated jurisdictional waters.

Alternative C – Alternative Layout

Alternative C represents Phases II and III of the Proposed Action (Alternative 2) as described in Section 2.2.2 of the 2010 Final EIS (BLM 2010). Project and related facilities would disturb a total area of 2,546 acres, all within the 7,925-acre ROW application area analyzed in the 2010 Final EIS. Acreages for major Project components under Alternative C are listed in Table ES-1.

Under Alternative C, the solar field and ancillary facilities, including internal circulation roads would occupy approximately 2,449 acres inside the perimeter fencing. There would be approximately 97 acres of the facility footprint located outside the perimeter fencing, including drainage facilities, the Primm Substation and associated infrastructure, including a 12-kV distribution line from the NV Energy Bighorn Substation along the Project access road, interconnection facilities, a maintenance road that would intersect the site, an approximately 1-mile long 220-kV transmission line to interconnect the South Substation with SCE's Eldorado to Ivanpah 220-kV transmission line, and perimeter roads around the exterior of the site. Drainage controls under Alternative C would consist of a series of up to five earthen drainage control berms that would contain surface runoff flows to existing primary drainages (stormwater flow corridors) across the site. The berms would be constructed to a height of 3 to 5 feet above grade with a top width of approximately 15 feet. The 2010 Final EIS identified that the Supplemental EIS/PRMPA Alternative C drainage structures (Alternative 2 in the 2010 Final EIS) would result in impacts to waters of the U.S. The maintenance roads would allow public access through the Project area by connecting an existing recreation route from the northwest of the Project area to an existing recreation route to the southeast.

Alternative D – Modification to Proposed Action Layout

Alternative D is similar to Alternative B, but includes a modified layout which incorporates changes based on comments received during the public scoping period (September 1, 2011 through October 31, 2011). The layout has been designed to avoid impacts to interstate drainages, reduce impacts to desert tortoise and other special status species, and minimizes impacts to recreational areas in the Jean Lake/Roach Lake SRMA. Construction of the Project facilities and related infrastructure would disturb a total area of 3,110 acres.

Under Alternative D, the solar field and ancillary facilities, including internal circulation roads would occupy approximately 2,609 acres inside the perimeter fencing. There would be approximately 501 acres of the facility footprint located outside the perimeter fencing, including

drainage facilities, the Primm Substation and associated infrastructure, including a 12-kV distribution line from the NV Energy Bighorn Substation along the Project access road, interconnection facilities, an approximately 1-mile long 220-kV transmission line to interconnect the South Substation with SCE's Eldorado to Ivanpah 220-kV transmission line, perimeter roads around the exterior of the site and 2.45 miles of maintenance roads which would intersect the site. The maintenance roads would allow public access through the Project area by connecting existing recreational routes that traverse the Project area. Acreages associated with other Project components under Alternative D are listed in Table ES-1.

Drainage controls located outside the perimeter fence would consist of two detention basins and associated drainage channels. The drainage structures would result in a permanent disturbance of 364 acres.

Alternative D also includes a 30,912-acre area being considered for designation as an ACEC and management prescriptions that would be required for the designated ACEC. This is a portion of the area that was nominated by Basin and Range Watch, and was determined by a BLM Interdisciplinary Team to meet the relevance and importance criteria for consideration as an ACEC (refer to Appendix B for BLM evaluation of ACEC nomination).

Comparison between Alternatives

Table ES-1. Facility Features of Each Action Alternative

Project Components	<u>BLM Preferred Alternative</u>	<u>Proposed Action (Alternative B)</u>	<u>Alternative Layout (Alternative C)</u>	<u>Modification to Proposed Action Layout (Alternative D)</u>
<i>Project Within Perimeter Fence^a (Approximate Acres)</i>				
Solar Field and Ancillary Facilities	<u>1,898</u>	3,796	2,449	2,609
<i>Facilities Outside Perimeter Fence^a (Approximate Acres)</i>				
Drainage Facilities	<u>374^b</u>	Included in the solar field	29 ^b	364 ^b
Primm Substation (SCE) Switchyard and Laydown	<u>34</u>	<u>34</u>	<u>34</u>	<u>34</u>
220 kV Transmission Line (Silver State South Substation to the Project Switchyard)	<u>28^c</u>	23	16	13
34.5-kV Collection Lines	<u>0</u>	6	4	0
Temporary Construction Mobilization Area	<u>28</u>	8	4	28
Maintenance Road	<u>65</u>	14	11	63

Table ES-1. Facility Features of Each Action Alternative

Project Components	<u>BLM Preferred Alternative</u>	<u>Proposed Action (Alternative B)</u>	<u>Alternative Layout (Alternative C)</u>	<u>Modification to Proposed Action Layout (Alternative D)</u>
Total Disturbance Acreage	<u>2,427 acres</u>	<u>3,881 acres</u>	<u>2,546 acres</u>	<u>3,110 acres</u>
<p>^a The tortoise fence is considered the perimeter fence for the purposes of these calculations.</p> <p>^b <u>The location of drainage facilities relative to the perimeter fence will be determined during final design, and will be documented in the subsequent Plan of Development. For the purposes of this table, the drainage facilities are presented as being outside the perimeter fence.</u></p> <p>^c <u>The acreage provided represents the upper range of potential disturbance associated with 220 kV and/or 230 kV transmission lines for interconnection to the California or Nevada markets.</u></p> <p>An 11.7-acre area comprising the existing maintenance road for Silver State North would also be used for the Project <u>under all action alternatives</u>, but would not constitute new disturbance.</p>				

Alternatives Considered but Eliminated from Detailed Analysis

A number of alternatives were recommended during the scoping period for the Supplemental EIS/PRMPA. The alternatives put forth were similar to alternatives suggested during the EIS process for the Silver State Solar Energy Project analyzed in the 2010 Final EIS, including consideration of alternative technologies; alternative locations (i.e., brownfield development, alternative BLM lands and lands in California); and alternative size and layout.

Following the close of the Supplemental EIS/PRMPA scoping period, the BLM reviewed all comments to determine which alternatives should be carried forward for detailed analysis. Concerns surrounding impacts to interstate drainages, desert tortoise connectivity and other special status species, and impacts to recreational areas in the Jean Lake/Roach Lake SRMA, led to the development of alternatives (Alternative D and the BLM Preferred Alternative) that consider modification of the Project layout.

Other suggested alternatives such as alternative technologies and locations were eliminated from further analysis as they were not viable and did not meet BLM’s purpose and need. Specific details describing why these alternatives are not viable, is provided in *Section 2.2.3* in the 2010 Final EIS.

ENVIRONMENTAL IMPACTS

Proposed Action and Alternatives

The environmental effects of constructing, operating, maintaining, and decommissioning the solar facility for the Proposed Action and Alternatives are summarized in Table ES-2 below.

Cumulative Impacts

Short- and long-term cumulative impacts are expected as a result of the construction and operation of the Project. These cumulative impacts are due to the fact that the Project would occupy sensitive species habitat, consume water resources, and contribute to air and water quality impacts in a region that has undergone significant development in the past, which is expected to continue, especially as a result of renewable energy and other projects. These activities, along with the Project, would add incrementally small, but ~~potentially~~ cumulative environmental impacts.

See Section 4.19 in this document for a complete analysis of cumulative impacts.

Residual Impacts

Soils

Under all action alternatives, construction, operation, and decommissioning of the proposed Project would increase the potential for localized flooding and downgradient soil loss through wind and water erosion. Although the Applicant has designed an extensive water erosion control system and committed to a series of Best Management Practice (BMPs), localized soil erosion can be expected. These residual impacts would be most prevalent on dry, windy days, when wind erosion underneath the panels would be greatest, and during flash flood events larger than the 100-year flood, when water volume may exceed the capacity of the flood control system. Loss of biological soil crusts would have a residual effect of decreased soil stability, nitrogen fixing, and water availability.

Water Resources/ Hydrology

Residual effects on water resources or hydrology resulting from Project implementation would include a reduction in groundwater availability for other uses in the Ivanpah Valley hydrographic basins; localized increases to sedimentation and scour in site drainages; a higher volume of concentrated storm water due to drainage structures; a potentially higher flood hazard, particularly due to the risk of detention basin collapse; and potentially altered drainage patterns due to the prevention of uninhibited channel migration within the site.

Vegetation

Residual impacts would include the long-term removal or disturbance of habitat in all areas occupied by the Project. Additionally, it is still possible that invasive weeds could be introduced in the area following construction during operations and maintenance of the facility. The combination of continued mowing, herbicide use, artificial shading from the solar panels, and the introduction of water for dust control, if needed, could result in conditions that favor noxious weeds. It is anticipated that the Weed Management Plan will be developed and implemented in such a way that it could be adapted to changing conditions.

Wildlife

For all wildlife species, there would be long-term residual effects due to the loss of up to 3,881 acres of habitat through construction of the Project. The loss of habitat includes the loss of foraging areas, shelter, and nesting habitat. Because the majority of this area would be located within the fenced portion of the facility, wildlife too large to fit through the fence or unable to fly or climb over the fence would be unable to utilize whatever resources regenerate within this area. As a result of this loss of habitat, affected wildlife would rely more heavily on habitat outside the Project area increasing the density of individuals in these areas and the pressure on the habitat resources.

All desert tortoises found during pre-construction surveys within the Project footprint would be translocated in accordance with a translocation plan to be approved by BLM and USFWS. Handling and relocating of tortoises would result in harassment and may result in injury or death of individual tortoises. Translocation activities may also impact tortoises already residing in the translocation area. This is especially true if translocated tortoises are infected with upper respiratory tract disease (URTD; *Mycoplasma agassizii*). The introduction or spread of URTD could result in the illness and mortality of infected individuals. Following hygiene procedures in the translocation guidance should minimize the spread of URTD. Additionally, increasing population sizes in the translocation area will result in increased competition and stress on resources.

If approved, the Project would include ongoing research to determine whether the connectivity corridor has been narrowed by the Project to a point where its effectiveness has been compromised or even eliminated by way of the area being unoccupied. The Biological Opinion for this Project will contain any additional mitigation measures and requirements for desert tortoise to minimize adverse impacts.

Lands and Realty

The removal of the Project footprint from the SRMA classification and the change from VRM Class III to IV would have a residual effect on the allowable land uses within the Project footprint. Uses within the footprint would no longer be limited to those uses currently allowed within the Jean/Roach Lake SRMA.

Recreation

Off road and other recreational activities would continue to be allowed within the ROW application area, but their existing routes would be disrupted to varying degrees by the presence of perimeter fencing around the Project area. However, organized OHV races and dispersed OHV users would be allowed to use the access road through the Project site, minimizing disruption.

Special Management Areas

Under all action alternatives, the proposed Project footprint would be removed from the Jean/Roach Lake SRMA and the VRM would be changed from a Class III to IV. This would allow the land to be managed for more than the uses currently allowed within the SRMA.

Visual Resources

The reduction of visual contrast associated with MM VIS-1 would reduce but not eliminate the proposed Project's dominance in the existing landscape setting upon VRM Class III lands, viewed from Key Observation Point (KOP) 6 and KOP 10.

Transportation/ Motorized Vehicle Access

Under all action alternatives, there would be short- and long-term increases in traffic volume that could not be eliminated completely through mitigation. Short-term increases would be substantial and would affect the Level of Service (LOS) of roads in the proposed Project area, particularly during peak traffic times. Long-term increases would be minor and would not be likely to affect the LOS at any intersection in the area.

Social and Economic Conditions

There would be benefits to regional population, housing, economy, personal income, employment levels, public services and tax revenue from construction and Operation and Maintenance (O&M) of the proposed Project. However, there would also be negative residual impacts from lost OHV recreationalists. The exact way these beneficial and detrimental residual effects would balance out is difficult to predict.

Fuels and Fire Management

The Project may result in residual effects related to increased invasive or noxious species. The development of the site is likely to lead to an increase of invasive or noxious species colonizing areas following disturbance. The increase of flashy fuel may result in ignitions and ultimately increase the number of wildfires. Aggressively managing invasive or noxious species will limit residual effects to manageable levels. This can be done through maintaining discontinuous, dispersed native vegetation, nonflammable native species, propagation and planting of native species, or complete removal of all vegetation.

Table ES-2. Comparison of Effects from Alternatives

Resource (Section)	No Action Alternative	Alternative B – Proposed Action	Alternative C – Alternative Layout	Alternative D – Modification to Proposed Action Layout	<u>BLM Preferred Alternative</u>
<i>Air Quality (Section 4.1)</i>	No direct effects. Beneficial effects to regional air quality from potential replacement of fossil fueled electricity generation would not be realized.	Grading for construction would disturb up to <u>3,881</u> acres. Short-term direct and indirect effects as a result of fugitive dust and vehicle / generator emission during construction. Long-term and cumulative benefits by reducing emissions from fossil fuel energy generation. Cumulative short-term impacts if multiple projects are constructed consecutively or at the same time.	Grading for construction would disturb up to <u>2,546</u> acres. Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B; however, lower levels of fugitive emissions would be generated through construction as 1,340 fewer acres would be disturbed. <u>BMPs implemented to reduce impacts to jurisdictional waters could potentially have secondary beneficial effects on reducing fugitive dust emissions by reducing surface disturbance.</u>	Grading for construction would disturb up to <u>3,110</u> acres. Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B; however, lower levels of fugitive emissions would be generated through construction as 764 fewer acres would be disturbed.	<u>Grading for construction would disturb up to 2,427 acres. Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B; however, lower levels of fugitive emissions would be generated through construction as 1,454 fewer acres would be disturbed.</u>
<i>Noise (Section 4.2)</i>	No effects	Construction activities for all Project components would generate temporary increases in local noise levels. On-site noise levels would diminish rapidly with increasing distance from the active construction operations. Temporary noise impacts to wildlife would be limited to	Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B.	Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B.	<u>Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B but would be somewhat reduced due to the smaller area of development.</u>

Table ES-2. Comparison of Effects from Alternatives (Continued)

Resource (Section)	No Action Alternative	Alternative B – Proposed Action	Alternative C – Alternative Layout	Alternative D – Modification to Proposed Action Layout	<u>BLM Preferred Alternative</u>
		<p>the construction sites and immediately adjacent locations.</p> <p>Operational noise levels would be limited to occasional vehicle use within the site, minor maintenance activities, and low equipment noise.</p>			
<i>Geology, Topography and Geologic Hazards (Section 4.3)</i>	No effects.	<p>Alternative B would not increase the geologic instability of the area and would not increase the risk of on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse. There would be no effect on a unique geologic feature.</p> <p>Compliance with earthquake building codes and maintaining the natural drainage would minimize potential risk associated with the most likely geologic hazards.</p>	Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B.	Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B.	<u>Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B, but would be reduced as 1,454 fewer acres would be disturbed.</u>
<i>Soil Resources (Section 4.4)</i>	No effects	Grading for construction would disturb up to <u>3,881</u> acres.	Grading for construction would disturb up to <u>2,546</u> acres. Short-and long-term	Grading for construction would disturb up to <u>3,110</u> acres. Short-and long-term	<u>Grading for construction would disturb up to 2,427 acres. Short-and long-term</u>

Table ES-2. Comparison of Effects from Alternatives (Continued)

Resource (Section)	No Action Alternative	Alternative B – Proposed Action	Alternative C – Alternative Layout	Alternative D – Modification to Proposed Action Layout	<u>BLM Preferred Alternative</u>
		Short-term and potentially long-term direct, indirect and cumulative impacts from clearing of vegetation, grading, loss of cryptobiotic soil, increased erosion and compaction.	direct, indirect, and cumulative effects would be similar to Alternative B; however, up to 1,340 fewer acres would be disturbed under this alternative.	direct, indirect, and cumulative effects would be similar to Alternative B; however, up to 764 fewer acres would be disturbed under this alternative. Designation of a <u>30,912-</u> acre ACEC would reduce soil disturbance within that area.	<u>direct, indirect, and cumulative effects would be reduced as compared to Alternative B, as 1,454 fewer acres would be disturbed.</u> <u>Designation of a 31,859-acre ACEC would reduce soil disturbance within that area.</u>
<i>Water Resources (Section 4.5)</i>	No effects	Water used for the Project would reduce groundwater volume within the local basin. Depending on the size and depth of the well used to provide water for construction (the groundwater analysis modeled a 600- and 800-foot well), after the four years of construction pumping, the predicted drawdown in the 600-foot-deep well is approximately 106 feet; the drawdown in the 800-foot-deep well is about 43 feet. For both well depths, the model predicted a 0.01-foot drawdown 3	Project footprint would drain to Waters of the U.S., <u>and Project would impact 9.20 acres of the 20.47 acres within the ROW application area that were determined to be waters of the U.S.</u> Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B. However, the smaller Project footprint would result in fewer acres being disturbed or altered; less water needed for construction; less change	Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B. However, the smaller Project footprint would result in fewer acres being disturbed or altered; less water needed for construction; less change in groundwater recharge, and fewer acres potentially exposed to contamination. Designation of a <u>30,912-</u> acre ACEC would reduce disturbance of soils and potential future changes to groundwater recharge	<u>Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B.</u> <u>However, the smaller Project footprint would result in fewer acres being disturbed or altered; less water needed for construction and dust control; less change in groundwater recharge, and fewer acres potentially exposed to contamination.</u>

Table ES-2. Comparison of Effects from Alternatives (Continued)

Resource (Section)	No Action Alternative	Alternative B – Proposed Action	Alternative C – Alternative Layout	Alternative D – Modification to Proposed Action Layout	<u>BLM Preferred Alternative</u>
		<p>miles from the wells following Project construction.</p> <p>Increased erosion and sedimentation, as well as spills of chemicals and petroleum products could contaminate surface or groundwater water during construction, operation and decommissioning activities. Adherence to Stormwater Pollution Prevention Plan (SWPPP) and Spill Prevention, Control, and Countermeasure (SPCC) compliance requirements would minimize this risk.</p>	<p>in groundwater recharge, and fewer acres potentially exposed to contamination.</p>	<p>across that area.</p>	
<p><i>Biological Resources (Section 4.6)</i></p>	<p>No effects</p>	<p>Short- and long-term direct and indirect effects on vegetation would occur from clearing and grading of up to <u>3,881</u> acres of mostly undeveloped desert land to accommodate Project construction.</p> <p>Ground disturbing activities would create opportunities for the introduction and/or spread</p>	<p>Similar to Alternative B, except up to 1,340 fewer acres would be disturbed and no populations of yellow twotone beardongue, a BLM sensitive species, would be affected.</p> <p>The most notable difference would be that the connectivity corridor between the Project</p>	<p>Similar to Alternative B, except up to 764 fewer acres would be disturbed. Clearing and grading activities under Alternative D has the potential to remove populations of yellow twotone beardongue, a BLM sensitive species. Impacts to the desert tortoise under Alternative</p>	<p><u>Types of impacts would be similar to Alternative B, but the intensity of direct, indirect, and cumulative effects would be reduced as compared to Alternative B, as 1,454 fewer acres would be disturbed.</u></p> <p><u>The most notable difference would be that the connectivity corridor between the Project</u></p>

Table ES-2. Comparison of Effects from Alternatives (Continued)

Resource (Section)	No Action Alternative	Alternative B – Proposed Action	Alternative C – Alternative Layout	Alternative D – Modification to Proposed Action Layout	<u>BLM Preferred Alternative</u>
		<p>of non-native species. Clearing and grading activities has the potential to remove populations of yellow twotone beardongue, a BLM sensitive species.</p> <p>Construction could directly affect wildlife by loss and fragmentation of cover, breeding, and foraging habitat. These activities and vehicle use could cause direct mortality to wildlife. Human activity would likely cause most wildlife species to avoid the Project area until the disturbance conditions have concluded.</p> <p>Transmission poles could also pose a direct collision hazard to birds. Human activities could potentially provide food or other attractants which could draw unnaturally high numbers of opportunistic predators and scavengers. Loss of burrows due to construction could also cause wildlife to search for</p>	<p>footprint and the Lucy Gray Mountains would be approximately <u>1.12 miles wide at its narrowest point, and would be an average of 1.73 miles along the entire corridor.</u></p> <p>This corridor would be wider than the corridor formed under the Proposed Action, and would be approximately the width of the narrowest portion of the existing corridor at the northern end of the ROW application area.</p>	<p>D would be similar to Alternative B. The primary difference would be that the connectivity corridor between the Project footprint and the Lucy Gray Mountains would be approximately <u>0.51 miles wide at its narrowest point with an average of 1.07 miles width across the total corridor.</u> This corridor would be intermediate to the corridors formed by Alternative B and Alternative C, and would be less than half the width of the narrowest portion of the existing corridor at the northern end of the ROW application area.</p> <p>Designation of the ACEC under Alternative D would reduce the amount of native vegetation that may be affected by future ground-disturbing actions; and result in increased protection for vegetation, wildlife and wildlife</p>	<p><u>footprint and the Lucy Gray Mountains would be approximately 1.26 miles wide at its narrowest point, with an average corridor width of 1.53 miles or greater. This corridor would be wider than the corridor formed under the Proposed Action.</u></p> <p><u>Designation of the ACEC under the BLM Preferred Alternative would reduce the amount of native vegetation that may be affected by future ground-disturbing actions; and result in increased protection for vegetation, wildlife and wildlife habitat, and special status species in the designated area.</u></p>

Table ES-2. Comparison of Effects from Alternatives (Continued)

Resource (Section)	No Action Alternative	Alternative B – Proposed Action	Alternative C – Alternative Layout	Alternative D – Modification to Proposed Action Layout	<u>BLM Preferred Alternative</u>
		<p>or dig new burrows.</p> <p>Infrastructure development could alter wildlife movement in the area and just outside the boundary of Project. Fences and transmission poles could also cause increased predation wildlife because raptors could use the infrastructure for perches. Loss of vegetation could indirectly reduce available forage and shelter, degrading and fragmenting existing higher quality habitat.</p> <p>Effects would be both short- and long-term. Alternative B could result in direct or indirect effects on birds protected by the Migratory Bird Treaty Act.</p> <p>Desert tortoise are present on-site and could be adversely affected by the loss of up to <u>3,887</u> acres of desert tortoise habitat and linkage corridors in the Ivanpah Valley. Under Alternative B, the linkage</p>		<p>habitat, and special status species in the designated area.</p>	

Table ES-2. Comparison of Effects from Alternatives (Continued)

Resource (Section)	No Action Alternative	Alternative B – Proposed Action	Alternative C – Alternative Layout	Alternative D – Modification to Proposed Action Layout	<u>BLM Preferred Alternative</u>
		corridor would be reduced to approximately 100 feet wide at its narrowest point.			
<i>Cultural Resources (Section 4.7)</i>	No effect.	The Project footprint ROW <u>Application Area</u> under Alternative B includes eight-nine sites that are eligible for listing on the National Register of Historic Places (NRHP). <u>Within the direct Region of Influence (ROI) one historic site is eligible under Criteria “a” and “c.” Within the indirect APE there are five historic sites: four historical period sites eligible under Criteria “a” and “c”, one historical period site that is eligible under Criterion “d”. There is also one prehistoric site eligible under Criterion “d”. three are prehistoric sites that are eligible under Criterion d, four historical period sites eligible under Criterion a and c, and one historical period site that is eligible under Criterion a.</u> These sites would not be	The Project footprint ROI under Alternative C includes three sites that are eligible for the NRHP, two are prehistoric and one is historic. These sites would not be directly or indirectly <u>adversely</u> affected by activities associated with Project construction, operations, or decommissioning.	Same as Alternative B.	<u>Impacts to cultural resources would be similar to those described under Alternative B.</u>

Table ES-2. Comparison of Effects from Alternatives (Continued)

Resource (Section)	No Action Alternative	Alternative B – Proposed Action	Alternative C – Alternative Layout	Alternative D – Modification to Proposed Action Layout	<u>BLM Preferred Alternative</u>
		directly or indirectly <u>adversely</u> affected by activities associated with Project construction, operations, or decommissioning.			
<i>Paleontological Resources (Section 4.8)</i>	No effect.	Construction, operation, and decommissioning activities would have low potential for direct or indirect impacts on vertebrate fossils and other scientifically valuable paleontological resources.	Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B.	Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B.	<u>Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B.</u>
<i>Lands and Realty (Section 4.9)</i>	The BLM would continue to manage the land encompassing the Project area consistent with the current land management objectives in the 1998 LVFO RMP.	The BLM would amend the LVFO RMP to remove the Jean Lake/Roach Lake SRMA designation. This would result in a change in the allowable uses within the footprint area as it would no longer be managed as part of the SRMA. Alternative B would have no direct or indirect effects on grazing allotments, public land disposition, or land tenure adjustments.	Similar to Alternative B, except up to 1,340 fewer acres would be removed from the Jean Lake/Roach Lake SRMA designation. The Project footprint under Alternative C would be located further south and west within the ROW application area than Alternative B.	Similar to Alternative B, except up to 764 fewer acres would be removed from the Jean Lake/Roach Lake SRMA designation. The Project footprint under Alternative D is shifted west and consolidated into more contiguous blocks of development and would restrict approximately <u>3,110</u> acres. Designation of the <u>30,912</u> -acre ACEC under Alternative D would	<u>Similar to Alternative B, except 1,454 fewer acres would be removed from the Jean Lake/Roach Lake SRMA designation. Under the BLM Preferred Alternative, the Project footprint is shifted west and would restrict approximately 2,427 acres. Designation of the 31,859-acre ACEC under the BLM Preferred Alternative would exclude large site-type ROWs (greater than 5</u>

Table ES-2. Comparison of Effects from Alternatives (Continued)

Resource (Section)	No Action Alternative	Alternative B – Proposed Action	Alternative C – Alternative Layout	Alternative D – Modification to Proposed Action Layout	<u>BLM Preferred Alternative</u>
				<p>exclude large site-type ROWs (greater than 5 acres) and be considered a linear ROW avoidance area. Because the ACEC would be managed to protect biological resources, the designation would restrict and/or limit future development within the ACEC.</p> <p><u>Rights-of-way for construction and operation of the Southern Nevada Supplemental Airport and associated facilities are allowed in the ACEC, subject to an approved Airport Final Environmental Impact Statement and Record of Decision and subject to compliance with the Endangered Species Act, 16 U.S.C. § § 1531-1544.</u></p>	<p><u>acres) and be considered a linear ROW avoidance area. Because the ACEC would be managed to protect biological resources, the designation would restrict and/or limit future development within the ACEC.</u></p> <p><u>Rights-of-way for construction and operation of the Southern Nevada Supplemental Airport and associated facilities are allowed in the ACEC, subject to an approved Airport Final Environmental Impact Statement and Record of Decision and subject to compliance with the Endangered Species Act, 16 U.S.C. § § 1531-1544.</u></p>

Table ES-2. Comparison of Effects from Alternatives (Continued)

Resource (Section)	No Action Alternative	Alternative B – Proposed Action	Alternative C – Alternative Layout	Alternative D – Modification to Proposed Action Layout	<u>BLM Preferred Alternative</u>
<p><i>Special Management Areas (Section 4.10)</i></p>	<p>The BLM would continue to manage the land encompassing the Project area consistent with the existing SRMA objective as described in the LVFO RMP and an ACEC would not be designated as part of this alternative.</p>	<p>For the Project footprint, the BLM would amend the LVFO RMP to remove the Jean Lake/Roach Lake SRMA designation and change the VRM from Class III to IV. This would result in a change in the allowable uses within the footprint area as it would no longer be managed as part of the SRMA. The change in VRM Class would allow activities which require major modifications of the existing character of the landscape.</p> <p>Several trails used for hiking and recreational and competitive OHV use in the Jean/Roach Lake SRMA would be impacted. OHV users would need to reconfigure historically used routes for continued OHV racing in the Jean/Roach Lake area. In impacted areas, backcountry access to the Lucy Gray Mountains</p>	<p>Similar to Alternative B, except up to 1,340 fewer acres would be removed from the Jean Lake/Roach Lake SRMA designation and changed from a VRM Class III to IV. The Project footprint under Alternative C would be located further south and west within the ROW application area than Alternative B.</p>	<p>Similar to Alternative B, except up to 764 fewer acres would be removed from the Jean Lake/Roach Lake SRMA designation and changed from a VRM Class III to IV.</p> <p>The Project footprint under Alternative D is shifted west and consolidated into more contiguous blocks of development.</p> <p>The 30,912-acre ACEC considered under Alternative D would be managed for biological resource protection and would place additional restrictions on recreational users within the SRMA by restricting development of new roads and trails, and requiring a desert tortoise spotter for permitted non-speed recreation activities in the ACEC during the tortoise active season. These additional restrictions could further displace OHV riders to</p>	<p><u>Similar to Alternative B, except 1,454 fewer acres would be removed from the Jean Lake/Roach Lake SRMA designation.</u></p> <p><u>The 31,859-acre ACEC considered under the BLM Preferred Alternative would be managed for biological resource protection and would place additional restrictions on recreational users within the SRMA by restricting development of new roads and trails, and requiring a desert tortoise spotter for permitted non-speed recreation activities in the ACEC during the tortoise active season. These additional restrictions could further displace OHV riders to areas of the Jean/Roach Lake SRMA outside the ACEC, or to lands outside of the SRMA. It is impossible to predict with any certainty the areas to which displaced</u></p>

Table ES-2. Comparison of Effects from Alternatives (Continued)

Resource (Section)	No Action Alternative	Alternative B – Proposed Action	Alternative C – Alternative Layout	Alternative D – Modification to Proposed Action Layout	<u>BLM Preferred Alternative</u>
		<p>would be via a Project perimeter road.</p> <p>Project activities could inadvertently introduce noxious weeds into the nearby Ivanpah DWMA. Implementation and adherence to a BLM-approved weed management plan would reduce adverse effects to the DWMA.</p> <p>The views of the Project would impact the desired, primitive experience that visitors seek when visiting Wilderness Areas, WSA, SRMA, and National Preserves in the vicinity of the Project. These views would be most apparent from locations closer to the Project and from peaks with expansive vistas.</p>		<p>areas of the Jean/Roach Lake SRMA outside the ACEC, or to lands outside of the SRMA. It is impossible to predict with any certainty the areas to which displaced OHV riders will relocate, however this displacement could increase adverse effects to desert tortoises and sensitive plants on other lands.</p>	<p><u>OHV riders will relocate, however this displacement could increase adverse effects to desert tortoises and sensitive plants on other lands.</u></p>
<i>Recreation (Section 4.11)</i>	The BLM would continue to manage recreational use in the encompassing the Project area consistent with the	During and after construction, recreation activities would no longer be allowed within the Project footprint. Up to 1.1 miles of competitive race	Similar to Alternative B. However, the Project footprint would be located further south and west within the ROW application area than	Similar to Alternative B. However, the Project footprint would be shifted west and consolidated into more contiguous blocks of development than	<u>Similar to Alternative B. However, the Project footprint would be 1,454 fewer acres, shifted west and consolidated into more contiguous blocks of</u>

Table ES-2. Comparison of Effects from Alternatives (Continued)

Resource (Section)	No Action Alternative	Alternative B – Proposed Action	Alternative C – Alternative Layout	Alternative D – Modification to Proposed Action Layout	<u>BLM Preferred Alternative</u>
	<p>existing recreation objectives as described in the LVFO RMP and an ACEC would not be designated as part of this alternative.</p>	<p>routes, and 20.4 miles of single track, 2-track, OHV routes would be removed from use.</p> <p>A Project access road, to be located outside of the Project fence, will be constructed and made available to the general public for dispersed use and access to the Lucy Gray Mountains.</p> <p>Organized competitive OHV races would be allowed to use this road, however these events would require a special recreation permit from the BLM, and separate NEPA documentation before the races are approved.</p>	<p>Alternative B.</p> <p>Up to 2.9 miles of competitive race routes, and 7.5 miles of single track, 2-track, OHV routes would be removed from use.</p>	<p>Alternative B.</p> <p>Up to 2.2 miles of competitive race routes, and 11.2 miles of single track, 2-track, OHV routes would be removed from use.</p> <p>The 30,912-acre ACEC considered under Alternative D would be managed for biological resource protection and would place additional restrictions on recreational users within the SRMA by restricting development of new roads and trails, and requiring a desert tortoise spotter for permitted non-speed recreation activities in the ACEC during the tortoise active season.</p> <p><u>Existing race routes and OHV trails within the ACEC would be allowed to remain and maintenance of these trails would be allowed provided the trails are not widened beyond their condition at the time of ACEC establishment</u></p>	<p><u>development than Alternative B.</u></p> <p><u>Up to 2.0 miles of competitive race routes, and 12.9 miles of single track, 2-track, and OHV routes would be removed from use.</u></p> <p><u>The 31,859-acre ACEC considered under the BLM Preferred Alternative would be managed for biological resource protection and would place additional restrictions on recreational users within the SRMA by restricting development of new roads and trails, and requiring a desert tortoise spotter for permitted non-speed recreation activities in the ACEC during the tortoise active season.</u></p> <p><u>Existing race routes and OHV trails within the ACEC would be allowed to remain and maintenance of these trails would be allowed provided the trails are not widened beyond</u></p>

Table ES-2. Comparison of Effects from Alternatives (Continued)

Resource (Section)	No Action Alternative	Alternative B – Proposed Action	Alternative C – Alternative Layout	Alternative D – Modification to Proposed Action Layout	<u>BLM Preferred Alternative</u>
				<u>(refer to Table 2-2).</u>	<u>their condition at the time of ACEC establishment (refer to Table 2-2).</u>
<i>Visual Resources (Section 4.12)</i>	No effect	<p>Construction would result in the permanent disturbance of up to <u>3,881</u> acres. Impacts from construction activities, and equipment, and vehicles would be visible and changes to the characteristic landscape from construction would alter visual resources.</p> <p>The degree of contrast from eight of the ten KOPs comply with VRM Class III objectives. Two KOPs have moderate/strong visual contrast from superior (elevated) viewpoints within the foreground / middleground distance zone. Views from these two KOPs have a strong degree of visual contrast and would not comply with VRM Class III objectives.</p> <p>The BLM would amend the</p>	<p>Similar to Alternative B, except up to 1,340 fewer acres would be changed from a VRM Class III to IV.</p> <p>Due to the reduced footprint, the appearance of the facilities would be slightly smaller in scale.</p>	<p>Similar to Alternative B, except up to 764 fewer acres would be changed from a VRM Class III to IV.</p> <p>Due to the reduced footprint, the appearance of the facilities would be slightly smaller in scale.</p> <p>Designation of the <u>30,912</u>-acre ACEC under Alternative D would exclude large site-type ROWs (greater than 5 acres). Visual management prescriptions would not be changed in these areas.</p> <p><u>Rights-of-way for construction and operation of the Southern Nevada Supplemental Airport and associated facilities are allowed in the ACEC, subject to an approved Airport Final Environmental Impact Statement and Record of</u></p>	<p><u>Similar to Alternative B, except 1,454 fewer acres would be changed from a VRM Class III to IV.</u></p> <p><u>The appearance of the facilities would be generally the same as under Alternative B, but would be reduced in scale due to the smaller Project output of 250MW_{AC}.</u></p> <p><u>Designation of the 31,859-acre ACEC under the BLM Preferred Alternative would exclude large site-type ROWs (greater than 5 acres). Visual management prescriptions would not be changed in these areas. Rights-of-way for construction and operation of the Southern Nevada Supplemental Airport and associated facilities are allowed in the ACEC, subject to an</u></p>

Table ES-2. Comparison of Effects from Alternatives (Continued)

Resource (Section)	No Action Alternative	Alternative B – Proposed Action	Alternative C – Alternative Layout	Alternative D – Modification to Proposed Action Layout	<u>BLM Preferred Alternative</u>
		LVFO RMP to change the VRM from Class III to IV within the Project footprint. The change in VRM Class would allow activities which require major modifications of the existing character of the landscape.		<u>Decision and subject to compliance with the Endangered Species Act, 16 U.S.C. § § 1531-1544.</u>	<u>Environmental Impact Statement and Record of Decision and subject to compliance with the Endangered Species Act, 16 U.S.C. § § 1531-1544.</u>
<i>Transportation and Motorized Vehicle Access (Section 4.13)</i>	No effect.	During construction, short-term increases in the use of Interstate 15 (I-15) to/from Las Vegas and local arterial roadways in the Primm area. Short-term adverse effects on traffic volume and LOS on local roadways during peak construction (assume up to 700 trips per day (350 morning trips and 350 evening trips – if each worker drove alone). Impacts to local streets would likely occur only during the construction phase of the Project, as only minimal vehicle use is anticipated during operation and maintenance (O&M).	Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B.	Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B.	<u>Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B, but would be somewhat reduced due to less intensive development associated with the reduce Project scale.</u>

Table ES-2. Comparison of Effects from Alternatives (Continued)

Resource (Section)	No Action Alternative	Alternative B – Proposed Action	Alternative C – Alternative Layout	Alternative D – Modification to Proposed Action Layout	<u>BLM Preferred Alternative</u>
		Overlapping construction activities with other reasonably, foreseeable, future projects in the Primm area may result in cumulative effects on transportation and traffic.			
<i>Health & Safety/ Hazardous Materials (Section 4.14)</i>	No effects.	Construction and operation activities may result in increased exposure of people and the environment to health and safety hazards and hazardous materials. Implementation and adherence to environmental and health and safety plans, and compliance with governmental regulations would minimize those risks.	Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B.	Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B.	<u>Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B, but would be somewhat reduced due to the reduced Project scale.</u>
<i>Social and Economic Conditions (Section 4.15)</i>	The beneficial effects on the local and regional economy from direct and indirect construction and operation expenditures would not be realized.	Short-term and beneficial economic impacts to the local and regional area from employment of up to 350 workers during peak construction. The impact would not cause a temporary population increase that would necessitate additional local	Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B.	Short-and long-term direct, indirect, and cumulative effects would be similar to the Alternative B. The designation of the ACEC under Alternative D would not substantially affect recreational tour operators or other	<u>Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B. Beneficial impacts from construction employment would be less due to reduced Project scale, but disruption of income to OHV-related businesses</u>

Table ES-2. Comparison of Effects from Alternatives (Continued)

Resource (Section)	No Action Alternative	Alternative B – Proposed Action	Alternative C – Alternative Layout	Alternative D – Modification to Proposed Action Layout	<u>BLM Preferred Alternative</u>
		<p>public services or investment in infrastructure capacities that could not be provided from existing resources.</p> <p>During operations, the Project’s permanent direct employment (up to 15-full time permanent employees), payroll and O&M related spending would provide a long-term, beneficial, recurring stimulus to the region’s economy.</p> <p>Alternative B would potentially displace organized off-highway races and dispersed informal OHV activity. The Project layout has been designed to allow passage of vehicles through the Project area via a widened access route; however, the effect of this change to historically-used race routes on the local economy is unknown.</p>		<p>recreation-related businesses within the <u>30,912</u>-acre area under consideration. Management prescriptions proposed for the ACEC for recreation would generally be similar when compared to existing management in this area. Further, restrictions on most development in the ACEC would ensure that further disruption to existing trails would be reduced. <u>Existing race routes and OHV trails within the ACEC would be allowed to remain and maintenance of these trails would be allowed provided the trails are not widened beyond their condition at the time of ACEC establishment (refer to Table 2-2).</u></p>	<p><u>from construction and Project operation would also be reduced.</u></p> <p><u>The designation of the ACEC under the BLM Preferred Alternative would not substantially affect recreational tour operators or other recreation-related businesses within the 31,859-acre area under consideration.</u></p> <p><u>Management prescriptions proposed for the ACEC for recreation would generally be similar when compared to existing management in this area.</u></p> <p><u>Further, restrictions on most development in the ACEC would ensure that further disruption to existing trails would be reduced. Existing race routes and OHV trails within the ACEC would be allowed to remain and maintenance of these trails would be allowed provided the trails are not widened</u></p>

Table ES-2. Comparison of Effects from Alternatives (Continued)

Resource (Section)	No Action Alternative	Alternative B – Proposed Action	Alternative C – Alternative Layout	Alternative D – Modification to Proposed Action Layout	<u>BLM Preferred Alternative</u>
					<i>beyond their condition at the time of ACEC establishment (refer to Table 2-2).</i>
<i>Environmental Justice (Section 4.16)</i>	No effect	There are no environmental justice communities in the vicinity of the proposed Project area; therefore there would be no effects to minority or low income populations.	Same as Alternative B.	Same as Alternative B.	<u>Same as Alternative B.</u>
<i>Energy and Minerals (Section 4.17)</i>	No effect	<u>No effect.</u>	<u>Same as Alternative B.</u>	Same as Alternative B.	<u>Same as Alternative B.</u>
<i>Fuels & Fire Management (Section 4.18)</i>	No effect	Ground disturbing activities would create opportunities for the introduction and/or spread of non-native species. An increase in non-native vegetation could increase the risk of fire due to greater fuel load as compared to existing conditions. The construction of a 20-foot wide fire break and development and adherence to an integrated weed management plan would	Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B; however, up to 1,340 fewer acres would be disturbed under this alternative. <u>The proximity of the Project footprint under this Alternative would increase the chance of spread of noxious weeds to the Ivanpah DWMA south of the Project area.</u>	Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B; however, up to 764 fewer acres would be disturbed under this alternative. The designation of the ACEC under Alternative D would not be expected to substantially affect fuels or fire management within the 30,912-acre area under consideration. Management prescriptions	<u>Short-and long-term direct, indirect, and cumulative effects would be similar in nature to Alternative B. However, 1,454 fewer acres would be disturbed thus decreasing the potential for spread of noxious weed species.</u> <u>The designation of the ACEC under the BLM Preferred Alternative would not be expected to substantially affect fuels or fire management within</u>

Table ES-2. Comparison of Effects from Alternatives (Continued)

Resource (Section)	No Action Alternative	Alternative B – Proposed Action	Alternative C – Alternative Layout	Alternative D – Modification to Proposed Action Layout	<u>BLM Preferred Alternative</u>
		minimize this risk.		that are proposed for the ACEC for fire management would be similar when compared to existing management in this area.	<u>the 31,859-acre area under consideration. Management prescriptions that are proposed for the ACEC for fire management would be similar when compared to existing management in this area. The proximity of the Project footprint under this Alternative would increase the chance of spread of noxious weeds to the Ivanpah DWMA south of the Project area.</u>

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