
EXECUTIVE SUMMARY

INTRODUCTION

The Southern Nevada District, Las Vegas Field Office (LVFO), of the Bureau of Land Management (BLM) has prepared this Supplemental Environmental Impact Statement (EIS) for the Silver State Solar South Project (Solar South Project). The Supplemental EIS 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 an alternative developed in consideration of comments received during scoping for the Supplemental EIS.

In consideration of current BLM management objectives in the area, the Supplemental EIS evaluates the proposed project in the context of an amendment to the BLM's LVFO Resource Management Plan (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 Silver State Solar South Project.

Silver State Solar Power South, LLC (a wholly owned subsidiary of First Solar, Inc., hereafter referred to as Silver State) proposes to construct own, and operate a 350 megawatt (MW) alternating current (AC)¹ (nominal plant capacity) solar PV generating facility referred to as the Silver State Solar South Project. The 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 Silver State Solar South 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 additional acreage allowed the development of site layout alternatives for the Silver State Solar South 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.

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.

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 2,500 acres and 3,900 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 Resource Management Plan (RMP) is currently being revised. The BLM began the process of formally updating the RMP in 2010, and expects to complete the update in late 2013. 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 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 Supplement EIS 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. The larger ACEC nomination area will be addressed through the LVFO RMP revision process. BLM is analyzing whether the portion of the ACEC within the project footprint would be appropriate in this SEIS/RMP Amendment because approval of the ROW application could foreclose future options regarding the proposed ACEC within the project footprint. As noted, that portion of the proposed ACEC not considered in this SEIS/ Proposed RMP Amendment will be analyzed and considered in the LVFO RMP revision or the Desert Renewable Energy Conservation Plan (DRECP) currently in progress in California.. Analysis of the 40,180-acre ACEC has been included as part of Alternative D in this Supplemental EIS, 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 Title II of FLPMA, BLM ROW regulations, the BLM NEPA Handbook, 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 Silver State Solar South 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 ROW action proposed in Silver State's application decisions 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.

APPLICANT'S OBJECTIVES FOR THE PROPOSED ACTION

The Applicant's objective is to construct, operate, maintain and eventually decommission a 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], Areas of Critical Environmental Concern [ACEC], 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.
- 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 the federal government to eliminate or reduce GHG emissions and promote the deployment of renewable energy technologies.

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 described below.

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 SEIS. 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 SEIS 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 SEIS 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 SEIS

A minimum of 90 days will be provided for commenting on the Draft SEIS and Proposed RMP Amendment. BLM will review each comment and develop responses to all substantive comments based on guidance found in the Council on Environmental Quality (CEQ) regulations (40 CFR 1503.4.) The public also will have an opportunity to review and comment on the Final SEIS when it is published.

Information about all opportunities for public involvement, including announcements of public meetings and releases of documents for review, will be maintained on the following BLM website: (http://www.blm.gov/nv/st/en/fo/lvfo/blm_programs/energy/Silver_State_Solar_South.html).

SUMMARY DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

The Draft SEIS analyzes four alternatives, including the No Action Alternative (Alternative A) and three 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 3,855 acres of Federal land. Alternative C would disturb up to 2,515 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 3,091 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.

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 Resource Management Plan. Existing management of the area would continue in accordance with the current LVFO Resource Management Plan.
- The Silver State Solar South 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 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 (CH2MHill 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.

In this Supplemental EIS, 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 3,855 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 59 acres that would include a 220 kilovolt (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 2,515 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.

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 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 3,091 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 482 acres of the facility footprint located outside the perimeter fencing, including 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 would be 364 acres.

Alternative D also includes a 40,180-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.

Comparison between Alternatives

Table ES-1. Facility Features of Each Action Alternative

Project Components	Applicant's Proposed Project (Alternative B)	Alternative C (Phases II and III of Alternative 2 in the 2010 Final EIS)	Alternative D (Modified version of Applicant's Proposed Action)
Project Within Perimeter Fence ^a (Approximate Acres)			
Solar Field and Ancillary Facilities	3,796	2,449	2,609
Facilities Outside Perimeter Fence ^a (Approximate Acres)			
Drainage Facilities	Included in the solar field	29	364
Southern California Edison (SCE) Switchyard and Laydown	8	3	15
220 kV Transmission Line (Silver State South Substation to the Project Switchyard)	23	16	13
34.5-kV Collection Lines	6	4	0
Temporary Construction Mobilization Area	8	4	28
Maintenance Road	14	11	63
Total Disturbance Acreage	3,855 acres	2,515 acres	3,091 acres
^a The tortoise fence is considered the perimeter fence for the purposes of these calculations. An 11.7-acre area comprising the existing maintenance road for Silver State North would also be used for the Project, but would not constitute new disturbance.			

Alternatives Considered but Eliminated from Detailed Analysis

A number of alternatives were recommended during the scoping period for the Supplemental EIS. The alternatives put forth were similar to alternatives suggested during the EIS process for the Silver State Solar Energy Project, 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 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 an alternative (Alternative D) that considers a 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.

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 for complete analysis of cumulative impacts.

Residual Impacts

Recreation

Off road and other recreational activities would continue to be allowed, but their existing routes would be disrupted to varying degrees. However, organized OHV races and dispersed OHV users would be allowed to use the access road through the Project site, minimizing disruption. See Section 4.11.3 for more information.

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
<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 3,855 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 2,515 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.	Grading for construction would disturb up to 3,091 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.
<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 the construction sites and immediately adjacent locations. Operational noise levels would be limited to occasional vehicle use within the site, minor maintenance activities, and low equipment noise.	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.

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<i>Geology, Topography and Geologic Hazards (Section 4.3)</i>	No effects.	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. Compliance with earthquake building codes and maintaining the natural drainage would minimize potential risk associated with the most likely geologic hazards.	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.
<i>Soil Resources (Section 4.4)</i>	No effects	Grading for construction would disturb up to 3,855 acres. Short-term and potentially long-term direct, indirect and cumulative impacts from clearing of vegetation, grading, loss of cryptobiotic soil, increased erosion and compaction.	Grading for construction would disturb up to 2,515 acres. 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.	Grading for construction would disturb up to 3,091 acres. 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. Designation of a 40,180-acre ACEC would reduce soil disturbance within that area.
<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	Project footprint would drain to Waters of the U.S. Short-and long-term direct,	Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B.

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		<p>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 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 SWPPP and SPCC compliance requirements would minimize this risk.</p>	<p>indirect, and cumulative effects would be similar to Alternative B.</p> <p>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.</p>	<p>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.</p> <p>Designation of a 40,180-acre ACEC would reduce disturbance of soils and potential future changes to groundwater recharge across that area.</p>
<i>Biological Resources (Section 4.6)</i>	No effects	Short- and long-term direct and indirect effects on vegetation would occur from clearing and grading of up to 3,855 acres of mostly undeveloped desert land to accommodate Project construction.	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.	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

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		<p>Ground disturbing activities would create opportunities for the introduction and/or spread of non-native species.</p> <p>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 or dig new</p>	<p>The most notable difference would be that the connectivity corridor between the Project footprint and the Lucy Gray Mountains would be approximately 1.5 miles wide. 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>species.</p> <p>Impacts to the desert tortoise under Alternative 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 0.5 miles wide at its narrowest point with most of the linkage having a width of 0.8 mile. This remaining 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 habitat, and special status species in the designated area.</p>

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		<p>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 3,855 acres of desert tortoise habitat and linkage corridors in the Ivanpah Valley. Under Alternative B, the linkage corridor would be reduced to approximately 100 feet wide at its narrowest point.</p>		

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<i>Cultural Resources (Section 4.7)</i>	No effect.	The Project footprint under Alternative B includes eight sites that are eligible for listing on the NRHP; 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. These sites would not be directly or indirectly affected by activities associated with Project construction, operations, or decommissioning.	The Project footprint 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 affected by activities associated with Project construction, operations, or decommissioning.	Same as Alternative B.
<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.
<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	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	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	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

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	1998 LVFO RMP.	SRMA . Alternative B would have no direct or indirect effects on grazing allotments, public land disposition, or land tenure adjustments.	application area than Alternative B.	restrict approximately 3,091 acres. Designation of the 40,180-acre ACEC under Alternative D would 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.
<i>Special Management Areas (Section 4.10)</i>	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.	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. Several trails used for hiking and recreational and competitive OHV use in the Jean/Roach Lake SRMA would be impacted. OHV	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.	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. The Project footprint under Alternative D is shifted west and consolidated into more contiguous blocks of development. The 40,180-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

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
		<p>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 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>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 OHV riders will relocate, however this displacement could increase adverse effects to desert tortoises and sensitive plants on other lands.</p>
<i>Recreation (Section 4.11)</i>	The BLM would continue to manage recreational use in	During and after construction, recreation activities would no longer be allowed within the Project footprint. Up to 1.1 miles	Similar to Alternative B. However, the Project footprint would be located further south and west	Similar to Alternative B. However, the Project footprint would be shifted west and consolidated into more contiguous blocks of

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
	<p>the encompassing the Project area consistent with the existing recreation objectives as described in the LVFO RMP and an ACEC would not be designated as part of this alternative.</p>	<p>of competitive race 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>within the ROW application area than 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>development than 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 40,180-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><i>Visual Resources (Section 4.12)</i></p>	<p>No effect</p>	<p>Construction would result in the permanent disturbance of up to 3,855 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</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 40,180-acre ACEC under Alternative D would exclude large site-type ROWs</p>

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
		<p>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 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.</p>		(greater than 5 acres). Visual management prescriptions would not be changed in these areas.
<i>Transportation and Motorized Vehicle Access (Section 4.13)</i>	No effect.	During construction, short-term increases in the use of 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	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.

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
		<p>local streets would likely occur only during the construction phase of the Project, as only minimal vehicle use is anticipated during O&M.</p> <p>Overlapping construction activities with other reasonably, foreseeable, future projects in the Primm area may result in cumulative effects on transportation and traffic.</p>		
<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. Implementaton 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.
<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	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 public services or investment in infrastructure	Short-and long-term direct, indirect, and cumulative effects would be similar to Alternative B.	<p>Short-and long-term direct, indirect, and cumulative effects would be similar to the Alternative B.</p> <p>The designation of the ACEC under Alternative D would not substantially affect recreational tour operators or other recreation-</p>

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
	realized.	<p>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>related businesses within the 40,180-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.</p>
<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.
<i>Energy and Minerals (Section 4.17)</i>	No effect	There are four active placer mining claims and four closed mining claims within the proposed Project area. Project development	No impacts to energy and mineral resources. As compared to Alternative B, the Project footprint under	Same as Alternative B.

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
		may restrict access to the active mining claims.	Alternative C is shifted south and would not overlie the four Placer claims.	
<i>Fuels & Fire Management (Section 4.18)</i>	No effect	<p>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.</p> <p>The construction of a 20-foot wide fire break and development and adherence to an integrated weed management plan would minimize this risk.</p>	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.	<p>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.</p> <p>The designation of the ACEC under Alternative D would not be expected to substantially affect fuels or fire management within the 40,180-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.</p>