ATTACHMENT B

(CEQA Findings)

Attachment B - CEQA Findings of Fact

Regarding the Final Environmental Impact Report/Environmental Impact Statement for the Eldorado to Ivanpah Transmission Project
State Clearinghouse No. 2009071091
EIS No. DES-10-16

1.1 Introduction to CEQA Findings

This document provides the findings of the California Public Utilities Commission (CPUC), pursuant to the Guidelines for Implementation of the California Environmental Quality Act (CEQA; California Code of Regulations, Title 14, §15091) on the Eldorado to Ivanpah Transmission Project (EITP, or the project) proposed by Southern California Edison (SCE, or the applicant). A Joint Environmental Impact Report/Environmental Impact Statement (EIR/EIS) has been prepared for the proposed project. According to CEQA, the lead agency must prepare findings when an EIR is prepared to demonstrate how each impact has been addressed. These findings are listed in Section 1.6 of this document.

1.2 Certification

The CPUC, as the CEQA lead agency for the project, certifies that:

1) The Final EIR/EIS has been completed in compliance with CEQA;
2) The Final EIR/EIS project was presented to the Commission and the Commission has received, reviewed, and considered the information contained in the Final EIR/EIS and hearing documents prior to approving the project; and
3) The Final EIR/EIS reflects the CPUC's independent judgment and analysis.

The CPUC has exercised independent judgment in accordance with Public Resources Code, Section 21082.1 in retaining its own environmental consultant, directing the consultant in preparation of the EIR/EIS, and reviewing, analyzing, and revising material prepared by the consultant.

In accordance with Public Resources Code §21081 and CEQA guidelines §15091, the Commission has made one or more specific written findings regarding significant impacts associated with the project. Those findings are presented below, along with a presentation of facts in support of the findings. Concurrent with the adoption of these findings, the Commission adopts the Mitigation Monitoring Plan as presented in the Final EIR/EIS.

The documents and other materials that constitute the record of proceedings on which the project findings are based are located at the California Public Utilities Commission, 505 Van Ness Avenue, San Francisco, CA 94102. The custodian for these documents is Central Files.

1.3 Project Background

The Project Description, including the description of the Whole of the Action, which includes the Ivanpah Solar Generating System (ISEGS) project, can be found in the Final EIR/EIS for the project. The project includes Applicant Proposed Measures that represent commitments by SCE to avoid or minimize impacts to environmental resources caused by the proposed EITP or its alternatives.

In two cases, new information provided by the applicant on the project after the publication of the DEIR/EIS led to a reduction in the significance or severity of an impact under CEQA and/or NEPA. Impact HYDRO-2 (Lowering of Water Table or Interference with Aquifer Recharge) and IMPACT PUSVC-2 (Project Construction Temporarily Increases Water Use, and Project Operation Contributes to Increased Long-Term Water Consumption) have been reduced to less than significant. These impacts were determined to be potentially significant in the Draft EIR/EIS; however, when the draft was published, the source of the water to be used for dust suppression during construction was unknown. The water supply in the project area is limited, and therefore, there was a possibility that the impact on groundwater supplies could be significant. After the Draft EIR/EIS was published, the applicant submitted information on water supply that included a designated source: wells owned by Molycorp Minerals, LLC. This information was incorporated into the hydrology and water quality analysis and the public services and utilities analysis. The updated CEQA determination is less than significant with mitigation for both of these impacts. The potential for lowering local groundwater levels during project construction would be negligible, localized, and short term.

1.3.1 Project Objectives/Purpose and Need

The applicant's purpose for the proposed project can be found in the Final EIR/EIS.

1.4 Administrative Record

For the purposes of CEQA and the findings below, the administrative record for EITP consists of the following documents:

1. The April 2010 Draft EIR/EIS, including appendices, technical reports, the Scoping Report from the 2009 Scoping Meetings and letters submitted as part of scoping, documents cited in the Draft EIR/EIS, letters submitted on the Draft, and the presentation provided by the CPUC and BLM at the public meetings on the DEIR/EIS;

2. The November 2010 Final EIR/EIS, including all appendices, technical reports, comments, responses to comments, and documents cited in the Final EIR/EIS;

5. Relevant CPUC and BLM agency reports, studies, decisions, official opinions, informal communications, and planning documents;

6. Other relevant State, Federal, and local agency reports, studies, decisions, official opinions, informal communications, and planning;

7. Other environmental documentation prepared by the CPUC, BLM, and other public agencies for other actions and programs relevant to the project;

8. All documents submitted by members of the public and non-privileged documents submitted by public agencies in connection with the project;

9. All relevant reports and documentary or other evidence submitted at public meetings on the project;

10. Minutes and transcripts of all public meetings held on the project (no oral comments were given at the scoping meetings or public meetings held on the DEIR/EIS);

11. All non-privileged application materials, including the PEA and PEA pre-filing memos, relevant reports, memoranda, maps, letters and other planning documents prepared by the applicant, CPUC and BLM staff, and consultants, for the development of the EIR/EIS; and

12. Other written materials relevant to compliance with CEQA and NEPA or to decisions on the project.

The location of the administrative record presently is the Office of Ecology and Environment Inc., 130 Battery Street, San Francisco, CA, 94111.

1.5 Environmental Review Process and the EIR/EIS

The public participation and notification program for the EITP EIR/EIS focused on two primary areas under CEQA and NEPA; these areas were (1) the Public Scoping process and (2) the Draft EIR/EIS public review process. This section discusses the specific public scoping methods used for this EIR/EIS to comply with state and federal public outreach requirements.

The key milestones associated with preparation of the EIR/EIS are summarized below.

Notice of Preparation: Pursuant to the state and federal requirements discussed above, an NOP and an NOI were distributed for the EITP. The CPUC provided an NOP to the California State Clearinghouse for release on July 23, 2009. The NOP was mailed to133 government agencies, as well as 96 residents and nongovernmental organizations to inform the public of the proposed project and provide notice of the public scoping meetings. The BLM published an NOI for NEPA in the Federal Register on July 27, 2009.

Scoping Report: In accordance with 40 CFR 1503.4, which requires that all substantive comments be considered to the extent feasible prior to project decisions, comments received during the scoping period were categorized by issue and included in a comprehensive scoping summary report entitled *Southern California Edison Eldorado–Ivanpah Transmission Project Scoping Summary Report*, issued and made available on the CPUC website for the project in October 2009 (Appendix E). The report summarized the comments and issues raised during the scoping period between July 27 and August 26, 2009.

Four primary areas of concern were identified during the public scoping process: (1) impacts of the project on several biological resources, especially desert tortoise, (2) compatibility with regional land uses such as the planned Southern Nevada Supplemental Airport, (3) compatibility with other existing rights-of-way designations, and (4) cumulative impacts.

Draft EIR/EIS: The Draft EIR/EIS was published with the California State Clearinghouse on April 30, 2010 and in the Federal Register on May 7, 2010. A 45-day public comment period for the Draft EIR/EIS that was published April 30, 2010, concluded June 26, 2010, including joint public comment meetings conducted along the proposed route in Nipton, California and Las Vegas, Nevada on Wednesday, May 26, 2010.

Following the release of the Draft EIR/EIS comments were received from the following governmental entities:

- US Environmental Protection Agency;
- California Department of Fish and Game;
- California Department of Transportation;
- California Department of Toxic Substances Control;
- California State Lands Commission;
- Clark County Department of Aviation;
- Mojave Dessert Air Quality Management District: and
- Nevada Department of Wildlife.

Comments were received from the following interested parties:

- BrightSource Energy;
- Center for Biological Diversity, San Francisco Office;
- Desert Conservation Program;
- Powers Engineering;
- Sierra Club;
- Southern California Edison; and
- Western Watersheds Project.

The EITP Final EIR/EIS includes responses to comments on the Draft EIR/EIS, additional information (e.g., survey results received after publication of the Draft EIR/EIS), and updated information (e.g., updates to plans or regulations that were changed after the publication of the Draft EIR/EIS).

Notice of Completion (Draft EIR/EIS): CEQA Guidelines Section 15085 requires that a Notice of Completion (NOC) be filed by the lead state agency upon completion of the Draft EIR. The NOC informs the reviewers that a Draft EIR is complete. The NOC for the EITP Draft EIR/EIS was filed with the State Clearinghouse on April 30, 2010.

Notice of Availability (Draft EIR/EIS): Similar to the NOC, NEPA requires that a Notice of Availability (NOA) be filed by the lead federal agency once the EIR/EIS is available for public review (40 CFR 1506.10). An NOA of the EITP was published in the Federal Register on May 7, 2010.

Public Meetings: The CPUC and the BLM conducted joint public comment meetings on the Draft EIR/EIS in Nipton, California and Las Vegas, Nevada on Wednesday, May 26, 2010. Eight persons attended the two meetings. No verbal or written comments were submitted prior to June 26, 2010, close of the comment period.

Project Resources: The EIR/EIS e-mail address, telephone hotline, a project-specific Internet site were available to provide additional access for public comment and inquiry. All meetings and document publications were also advertised in local newspapers in California and Nevada.

Final EIR/EIS: Notice of availability of the EITP Final EIR/EIS was circulated on November 5, 2010. An errata letter for the NOA was circulated on November 9, 2010.

1.6 Environmental Impacts and Findings

Public Resources Code 21081 states that no public agency shall approve or carry out a project for which an EIR has been completed which identifies one or more significant effects on the environment unless the public agency makes one or more finding for each of those significant effects. The "project" selected for certification is the proposed project, or the environmentally superior alternative that meets the project objectives. Therefore, these findings focus strictly on the impacts of the proposed project.

These findings could include:

1) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment.
2) Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been or can and should be adopted by that other agency.
3) Specific economic, legal, social, technological, or other considerations, including considerations for the provisions of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the environmental impact report.

Pursuant to Public Resources Code 21081 and CEQA Guidelines 15091, the Commission has made one or more of these specific written findings regarding significant impacts associated with the project. These findings are based on the information contained in the Draft EIR/EIS and the Final EIR/EIS for the project, as well as information provided by the applicant and gathered through the public involvement process contained in the administrative record. Such findings are provided in section 1.6.1 and 1.6.2 below.

1.6.1 Significant Environmental Impacts that Have Been Reduced to a Less than Significant Level and Significant Combined Environmental Impacts of the Whole of the Action

The Final EIR/EIS for the EITP included thorough consideration of the environmental resources along the proposed project route and related major components and its alternatives, as well as the potential impacts associated with construction and operation and maintenance of the project. The CPUC has determined that the mitigation measures identified for the EITP will reduce impacts associated with construction and operation activities to mitigate to a less than significant level.

Impacts identified as "less than significant with mitigation" in the EITP Final EIR/EIS and related findings for each issue are discussed below. The Commission hereby finds, pursuant to Section 21081, that the following environmental impacts can and will be mitigated to below a level of significance based upon the implementation of the mitigation measures in the EIR/EIS. These findings are based on the discussion of impacts in the detail issue area analyses presented in Chapter 3, "Environmental Analysis", under Sections 3.2 through 3.14. The impacts of the ISEGS project have been reviewed and mitigated or accepted as part of the CEC and BLM decisions certifying this project. The combined impacts of the ISEGS and EITP project as part of the "Whole of the Action" are provided below only for purposes of disclosure.

1.6.1.1 Aesthetics and Visual Resources

As described in Section 3.2 of the EITP EIR/EIS, "Aesthetics and Visual Resources, the proposed project would be located primarily on BLM land; therefore, the methodology used to determine impacts on visual resources is consistent with the BLM's guidelines for selecting KOPs, describing the views from these locations, determining the degree to which views would be impacted, and assessing the proposed project's compliance with applicable VRM or VRI objectives. The assessment of the proposed project's impacts was based on an evaluation of the changes to the existing visual environment that would result from construction, operation, and, maintenance of the proposed project. Based on the potential viewer groups and sensitivity of those groups, distance zones, landscape features KOPs were agreed upon by the applicant's consultants, CPUC consultant, and BLM staff from both the Needles and Las Vegas field offices.

IMPACT AES-2: Degrade Existing Visual Character or Quality

The proposed project would not result in substantial degradation of the landscape. The proposed project would conflict with VRM or VRI objectives for one of the eight Key Observation Points (KOPs). At each of these locations, the proposed project would introduce strong levels of contrast with the existing structures in the viewshed by introducing linear elements of a larger scale and more prominent color.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT AES-2. The CPUC finds that the following mitigation measures will mitigate significant effects to visual character or quality of the landscape.

Mitigation Measures:
MM AES-1: Painting the Ivanpah Substation
MM AES-2: Rock Staining Near the Ivanpah Substation

Rationale for Finding: The proposed project would conflict with VRM or VRI objectives for one of the eight Key Observations Points (KOPs). Overall, however, the project would not result in substantial degradation of the landscape. Additionally, the project would be located in an energy corridor already crossed by numerous transmission lines.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action):
The CEQA and NEPA EITP and ISEGS impact analyses for visual resources were based on similar significance criteria that evaluated to what extent the proposed projects would impact scenic vistas, impact views from designated scenic highways, degrade the existing visual character of the surrounding landscape, and introduce new sources of light and glare.

Scenic Vistas: Both the EITP and the ISEGS documents state that there are no designated scenic vistas in the Ivanpah and Eldorado valleys. However, in the ISEGS documents, the CEC and the BLM considered viewpoints within the Clark Mountains in the Stateline Wilderness Area and viewpoints within the Mojave National Preserve equivalent to designated scenic vistas due to high recreational use. Additionally, BLM stated that views of the Clark Mountains from I-15 could be considered a designated scenic vista in light of the county scenic highway designation for I-15. The CEC and the BLM concluded that from these viewpoints, significant and unavoidable impacts would occur due to contrast introduced by the ISEGS project.

The CPUC and the BLM concluded that impacts from the EITP would be less than significant under this criterion and would be inconsequential when combined with the impacts of the ISEGS project. The EITP primarily consists of upgrading a single-circuit 115-kV transmission line to a double-circuit 230-kV transmission line; the visual impacts of such an upgrade would be incremental and less than significant. The component of the EITP that would result in the greatest level of visual contrast is the Ivanpah Substation. If the Ivanpah Substation and the ISEGS project were both constructed, the Ivanpah Substation would be located within the ISEGS project layout. The Ivanpah Substation would amplify the effect of the ISEGS project, but would be a less dominant visual element in the viewshed compared with the thousands of mirror arrays and the three 459-foot-tall solar collectors. The combined effect would be incrementally more than the impact of the ISEGS project alone.

Scenic Highways: There is no impact under this criteria.

Degrade Existing Visual Character: Both the EITP and the ISEGS documents analyzed impacts on visual resources using the BLM VRM methodology or a similar equivalent (in the case of the CEC documents). In the ISEGS documents, the CEC and the BLM determined that the ISEGS project would result in a significant or adverse impact to middleground distance viewers on I-15, in the Clark Mountains within the Mojave National Preserve, and within the Stateline Umberci Mine and the vicinity.

Because the EITP would constitute primarily the upgrading of a single-circuit 115-kV transmission line to a double-circuit 230-kV transmission line; the visual impacts of the project would be largely incremental. Therefore, the combined impact would be considered potentially significant only for the most sensitive viewing locations; in the EITP analysis the Desert Oasis Apartment Complex is considered the viewing location with the highest degree of sensitivity. However, the ISEGS project would not be visible from this location. Therefore, there is no combined impact.

The Ivanpah Substation and portions of the upgraded transmission line would be visible with the ISEGS project in middleground views from I-15, views in the Clark Mountains within the Mojave National Preserve and within the

Stateline Umberci Mine and the vicinity. As noted above, if the Ivanpah Substation and the ISEGS project were both constructed, the Ivanpah Substation would be located within the ISEGS project layout. Therefore, the Ivanpah Substation would amplify the effect of the ISEGS project, but would be a less dominant visual element in the viewshed compared with the thousands of mirror arrays and the three 459-foot-tall solar collectors. The combined effect would be incrementally more than the impact of the ISEGS project alone.

1.6.1.2 Air Quality

The CPUC finds that impacts on air quality would be limited to the duration of project construction; long-term and operational impacts would not occur. Based upon conservative assumptions about daily equipment use the estimated average daily emissions from project construction activities would exceed the Mojave Desert Air Quality Management District (MDAQMD) daily significance thresholds for PM2.5, PM10, and NOX. In addition, project construction would occur in an area designated non-attainment for ozone and PM10. Implementation of mitigation measures would reduce potential impacts, but would not likely reduce emissions from construction activities to below the MDAQMD daily significance thresholds. Further details on this finding are provided in Section 1.6.4.1, "Significant and Unavoidable Adverse Impacts."

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action):

The CEQA and NEPA impact analyses for EITP and ISEGS were based on similar significance criteria that evaluated to what extent the proposed projects would impact air quality and effect GHG emissions during construction and operation of each project.

Air Quality: The CPUC concluded that construction activities associated with the EITP would generate emissions of fugitive dust (PM_{10} and $PM_{2.5}$) and NO_x that could result in short-term significant air quality impacts. The BLM and CEC had similar conclusions regarding the construction of the ISEGS. The majority of construction of the EITP would not occur in proximity to the ISEGS. During these periods, there would likely be no combined impacts. However, during the periods when construction of the EITP is near the ISEGS, the combined impact of both projects could result in air quality impacts greater than the projects individually. Because the EITP would result in short-term significant air quality impacts, if construction of the EITP and the ISEGS overlap and occur within proximity to each other, the EITP and the ISEGS together would result in a short-term significant air quality impact.

The CPUC concluded that the operational activities associated with the EITP following construction would result in only very low levels of emissions of criteria air pollutants. Thus, the long-term impacts associated with EITP operational emissions would be less than significant. The BLM and CEC have concluded that air emission controls and mitigation measures would result in the impacts from ISEGS operational air pollutant emissions being less than significant. Since EITP operational emissions would be very minor and in most instances occur at long distances form the ISEGS, the combined impacts from EITP and ISEGS would be equivalent to the impacts of the projects individually.

Greenhouse Gases (GHGs): Construction activities associated with the EITP would generate GHG emissions. The CPUC concluded these GHGs emissions would be short-term and less than significant. The BLM and CEC had similar conclusions regarding GHG emissions generated during construction of the ISEGS. The combined GHG emissions from construction of the EITP (i.e., 6,950 $MTCO_2e$) and ISEGS (i.e., 17,779 $MTCO_2e$) are estimated at 24,729 $MTCO_2e$. Amortized over a 30-year period, these combined GHG emissions would be approximately 824 $MTCO_2e$ per year on an annual basis. This value is well below the significance threshold of 10,000 $MTCO_2e$ per year adopted by the CPUC. Thus, the combined GHG emissions from construction activities do not represent a significant impact. The CPUC concluded that the operational activities associated with the EITP following construction would result in only very low levels of GHG emissions (i.e., 194 $MTCO_2e$ per year). Thus, the long-term impacts associated with EITP operational GHG emissions would be less than significant.

1.6.1.3 Biological Resources

IMPACT BIO-1: Direct or indirect loss of listed or sensitive plant species, or a direct loss of habitat for listed or sensitive plant species

As described in Section 3.4, "Biological Resources", thirty-three special-status plant species occur or are likely to occur along the California segment of the proposed project, while seven special-status plant species occur or are likely to occur along the Nevada segment of the project. Based on a review of the existing state and federal databases, no plant species listed as threatened or endangered by the federal government or the states of California or Nevada are expected to occur within the proposed project area. To reduce potential impacts on these communities, the applicant has incorporated into the proposed project design the implementation of APMs BIO-1 (Preconstruction Surveys), BIO-2 (Minimize Vegetation Impacts), APM BIO-4 (Best Management Practices), BIO-5 (Biological Monitors), APM BIO-6 (Worker Environmental Awareness Program), BIO-9 (Facility Siting), AES-4 (Regrade / Revegetate Construction Sites), APM AES-6 (Minimize Road Modifications), and APM AES 7: Dust Suppression

Impacts on habitat fragmentation could be significant when combined with impacts from other regional projects. The development of numerous large-scale projects would result in a substantial permanent conversion of desert habitat to industrial/commercial uses. EITP, in conjunction with other projects, would result in cumulative impacts on native vegetation communities, including cacti and yucca species, and adversely affect special management areas due to temporary and permanent habitat loss from ground disturbance and inadvertent distribution of noxious weeds. Cumulative impacts from the projects would primarily affect the desert valley vegetation, as most proposed disturbance is outside the tops of the mountain ranges.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT BIO-1. The CPUC finds that the following mitigation measures will mitigate significant effects to sensitive plant species and their habitats.

> MM BIO-1: Preconstruction Surveys. Preconstruction surveys will be conducted by USFWS-approved biologists according to the most current USFWS protocols, where available by species. These surveys will include surveying brush clearing areas and ground disturbance areas within habitat deemed suitable for sensitive species by a qualified biologist. As part of the pre-construction surveys, the composition of the vegetation community will be surveyed to establish baseline conditions prior to construction for post-construction restoration efforts. These surveys will be conducted for the presence of special-status plants, the presence of noxious weeds, and the presence of general and special-status wildlife species, to prevent direct loss of vegetation and wildlife and to prevent the spread of noxious plant species. For the noxious weeds survey, the level of effort and extent of the surveys will be outlined by the Invasive Plant Management Plan (MM BIO-4).
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> MM BIO-2: Reclamation Plan. The applicant will develop a Reclamation, Restoration, and Revegetation Plan (RRRP) prior to adoption of the Final EIR/EIS that will guide restoration and revegetation activities for all disturbed lands associated with construction of the project and the eventual termination and decommissioning of the project. The RRRP will be part of the applicant's final Plan of Development for the project and should address all federal and private land disturbances, including areas where restoration activities have been funded by the Clark County MSHCP and initiated by resource agencies. The RRRP will be developed in consultation with appropriate agencies (BLM, CPUC, CDFG, and Clark County DCP) and be provided to these agencies for review and approval prior to preparation of the Final EIR/EIS. NDOW and the BLM Las Vegas Field Office will be consulted for restoration efforts concerning Nevada State protected cacti and yucca species, which may include preparation of a separate Cactus and Yucca Reclamation Plan. The RRRP will also provide details including but not limited to topsoil segregation and conservation, vegetation treatment and removal, salvage of succulent species, revegetation methods including seed mixes, rates and transplants, and criteria to monitor

and evaluate revegetation success. Post-construction monitoring will be performed for 1 to 5 years, depending on the disturbance level and restoration level as outlined in the BLM's 2001 Restoration Plan for Energy Projects in the Las Vegas Field Office.

MM BIO-3: Special-Status Plants Restoration and Compensation. The applicant will mitigate for the loss of special-status plant species within the project area following the completion of all construction activities at a particular site and within 1 year of post-construction according to the requirements of resource agency authorizations (e.g., CDFG 2081 permit). Special-status plants will be restored by relocation of plants and/or re-seeding, replacing topsoil with existing topsoil that was removed, and re-grading to pre-existing soil contours. Measures to restore special-status plants will be implemented through the Reclamation Plan (MM BIO-2). Additionally, that plan will provide a matrix showing how the applicant will address each species considered sensitive or special-status in terms of mitigation type (e.g., seed collection, transplanting, fencing certain population, and compensation measures). The CDFG will likely require land compensation and enhancement and endowment fees for the project in addition to restoration. If special-status plant communities cannot be restored, the applicant will provide compensation if required, in consultation with appropriate agencies (USFWS, BLM, CDFG, NDOW, and CPUC). In order to ensure enforceability, documentation of consultations with all appropriate agencies will be provided to the CPUC (the CEQA lead agency).

Rationale for Finding: Implementation of MMs BIO-1, 2, and 3 would reduce impacts to a less than significant level because preconstruction surveys would identify the location of any special-status plants so they could be avoided by project activities. If plants could not be avoided, mitigation for impacts would occur in the form of salvage and/or restoration efforts for vegetation and soils.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action):

The CEQA and NEPA EITP and ISEGS impact analyses for biological resources were based on similar significance criteria that evaluated to what extent the proposed projects would impact sensitive plant species and their habitats. In combination with ISEGS, the EITP would incrementally contribute to the projected loss of natural vegetation and sensitive natural communities within the project impact area. Together, the EITP and ISEGS would disturb and/or remove approximately 4,025 acres of desert vegetation, including temporary and permanent impacts to several special-status plants. The EITP has a relatively small construction footprint despite its linear extent.

The construction of ISEGS and EITP would result in the same type of impacts to protected plant species as described for each project individually. The following seven sensitive plant species were determined to occur within the construction footprint of both projects: small-flowered androstephium, Mojave milkweed, desert pincushion, nine-awed pappus grass, Parish's club cholla, Rusby's desert-mallow, and Utah vine milkweed. Construction impacts to these seven special plant species resulting from EITP would be less than significant due to the relatively small construction footprint and the ability of the project to avoid areas containing high concentrations of sensitive plant species. The inclusion of ISEGS with EITP would result in an increase in the extent of the adverse impacts during construction to these sensitive plant species due to high concentration of six of these species within the ISEGS construction footprint and the approximately additional 3,539 acres of desert habitat that would be impacted. Therefore, together ISEGS and EITP would result in significant impacts to small-flowered androstephium, Mojave milkweed, desert pincushion, nine-awed pappus grass, Parish's club cholla, and Rusby's desert-mallow.

Operational impacts from implementation of ISEGS together with EITP were determined to be similar to those outlined above under construction. The addition of ISEGS would increase the intensity and spatial extent of the impacts that would occur on vegetation and special-status plants from larger amounts of habitat removal, increased dust generation, and the potential spread of noxious weeds.

IMPACT BIO-3: Temporary and permanent losses of native vegetation communities

As described in Section 3.4, "Biological Resources", the proposed and alternative transmission line routes would be located primarily within creosote bush-white bursage vegetation, with the exception of the McCullough Range north pass, which includes desert wash vegetation, and the areas immediately adjacent to Ivanpah Dry Lake, which are dominated by saltbush scrub. The proposed project would cause impacts on sensitive desert vegetation communities, including cacti and yucca species. To reduce potential impacts on these communities, the applicant has incorporated into the proposed project design the implementation of APMs BIO-1 (Preconstruction Surveys), BIO-2 (Minimize Vegetation Impacts), APM BIO-4 (Best Management Practices), BIO-5 (Biological Monitors), APM BIO-6 (Worker Environmental Awareness Program), BIO-9 (Facility Siting), and BIO-10 (Invasive Plant Management).

EITP and other reasonably foreseeable future projects have the potential to have an adverse cumulative impact on populations and individuals of rare plant species such as Mojave milkweed, desert pincushion, Parish's club-cholla, white-margined beardtongue, rosy two-tone beardtongue, and Aven Nelson phacelia that occur within the cumulative effects area. However, each of these projects have provided recommended mitigation measures such as avoidance, salvage, restoration, and compensation to reduce impacts to special status plants to less than significant. Over the cumulative effects area, the EITP would have a negligible contribution to cumulative impacts to special status plant populations.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT BIO-3. The CPUC finds that the following mitigation measures will mitigate significant effects to native vegetation communities.

MM BIO-1: Preconstruction Surveys. See IMPACT BIO-1.

MM BIO-2: Reclamation Plan. See IMPACT BIO-1.

MM BIO-3: Special Status Plants Restoration and Compensation. See IMPACT BIO-1.

Rationale for Finding: Implementation of the above mitigation measures will reduce impacts on sensitive desert vegetation communities, including cacti and yucca species to less than significant level with the use of preconstruction surveys, avoidance techniques, and post-construction restoration.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action):
The CEQA and NEPA EITP and ISEGS impact analyses for biological resources were based on similar significance criteria that evaluated to what extent the proposed projects would impact native vegetation communities. Most of the elements of the EITP would be constructed within an existing ROW where the native vegetation has already been disturbed. However, the construction of the Ivanpah Substation, as part of both EITP and ISEGS, would require a large swath of habitat disturbance/removal in previously undisturbed, higher quality desert vegetation. ISEGS would have a relatively large construction footprint, would require 4 years of construction, and require a relatively large workforce. The geographic and temporal extent of impacts from EITP in combination with ISEGS would result in substantial impacts in the project area.

Operational impacts from implementation of ISEGS together with EITP were determined to be similar to those outlined above under construction. The addition of ISEGS would increase the intensity and spatial extent of the impacts that would occur on vegetation and special-status plants from larger amounts of habitat removal, increased dust generation, and the potential spread of noxious weeds.

IMPACT BIO-4: Introduction of invasive, non-native, or noxious plant species

As currently designed, construction, operations, and maintenance activities associated with the proposed project would have impacts on native vegetation. Potential impacts on sensitive vegetation and wildlife communities would

occur if invasive, non-native, or noxious plant species were introduced and/or spread within the project area. Cumulative impacts on sensitive vegetation and wildlife communities would result if invasive, non-native, or noxious plant species were introduced and/or spread within the geographic extent area. The contribution of EITP to these cumulative impacts would be short term and limited due to the short duration of construction and the relatively small geographical extent of the EITP impact area.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT BIO-4. The CPUC finds that the following mitigation measures will mitigate significant effects by introducing invasive, non-native, or noxious plant species.

> MM BIO-4: Model Invasive Plant Management Plan on the BLM Las Vegas Office DRAFT Weed Plan. The Invasive Plant Management Plan to be developed (APM BIO-10) will be modeled on the BLM Las Vegas Office DRAFT Weed Plan. The plan will include operation and maintenance activities, as well as construction activities. The content of the plan will include results of the noxious weed inventory, identification of problem areas, preventative measures, treatment methods, agency-specific requirements, monitoring requirements, and herbicide treatment protocol. The plan will include best management practices that require that any biological material brought on-site (e.g., hay bales that may be used for controlling stormwater under APM GEO-2, and native mixes for vegetation in MM BIO-2) will be certified weed-free. The plan will be submitted to both the California and the Nevada resource agencies and to the CPUC for approval prior to construction authorization.

Rationale for Finding: As currently designed, construction, operations, and maintenance activities associated with the proposed project would have impacts on native vegetation. Potential impacts on sensitive vegetation and wildlife communities would occur if invasive, non-native, or noxious plant species were introduced and/or spread within the project area. Implementation of MM BIO-4 would reduce impacts to less than significant with implementation of a rigorous Invasive Management Plan.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action):
The CEQA and NEPA EITP and ISEGS impact analyses for biological resources were based on similar significance criteria that evaluated to what extent the proposed projects would impact sensitive vegetation and wildlife communities by introducing invasive, non-native, or noxious plant species. The inclusion of ISEGS with EITP would result in an increase in the extent of the adverse impacts during construction to these sensitive plant species due to high concentration of six of these species within the ISEGS construction footprint and the approximately additional 3,539 acres of desert habitat that would be impacted.

Operational impacts from implementation of ISEGS together with EITP were determined to be similar to those outlined above under construction. The addition of ISEGS would increase the intensity and spatial extent of the impacts that would occur on vegetation and special-status plants from larger amounts of habitat removal, increased dust generation, and the potential spread of noxious weeds.

IMPACT BIO-5: Adverse effects on drainages, riparian areas, and wetlands

As described in Section 3.4, “Biological Resources”, the proposed project would impact jurisdictional waters, drainages, and wetlands. The project traverses five watersheds in California and Nevada including tributaries of Ivanpah Lake (California, Nevada), Roach Lake (Nevada), Jean Lake (Nevada), Eldorado Valley Dry Lake (Nevada), and Piute Wash (Nevada), a tributary to the Colorado River. Two general types of features qualifying as Waters of the United States occur within the project area: dry lake beds and ephemeral desert washes. The portion of Ivanpah Dry Lake that is crossed by the proposed transmission line is composed of historic lake deposits that are very poorly drained, leading to ponding following sufficient rain events. The project is dissected by numerous ephemeral desert washes and drainage channels supporting numerous vegetation communities.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT BIO-5. The CPUC finds that the following mitigation measures will mitigate significant effects to drainages, riparian areas, and wetlands.

> MM BIO-5: Jurisdictional Delineation. Conduct a formal jurisdictional delineation within the boundaries of the project area once final engineering for the location of project-specific features is complete. This will be conducted prior to construction and is required in order to apply for permits, if needed, with USACE, California RWQCBs, and CDFG. A copy of the jurisdictional delineation will be provided to the CPUC.
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> MM BIO-6: Drainage Crossings Design. If drainages cannot be avoided by infrastructure placement, then the applicant will design drainage crossings to accommodate estimated peak flows and ensure that natural volume capacity can be maintained throughout construction and upon post-construction restoration. This measure is necessary to minimize the amount of erosion and degradation to which drainages are subject.
>
> MM BIO-7: Mitigation Monitoring Plan for Affected Jurisdictional Areas. The applicant will develop a Mitigation Monitoring Plan for affected jurisdictional areas within established riparian areas, as needed, for submittal to the USACE for review and approval. The plan will outline measures to accomplish restoration, provide criteria for restoration success, and/or provide compensation ratios. This measure is needed to compensate for loss of waters and riparian vegetation that provide suitable habitat for special-status and sensitive species, and provide important hydrological and water quality functions in the desert environment. Monitoring and reporting, likely for up to 3 to 5 years post-construction, will be required, pending consultation with agencies. A copy of the approved Mitigation Monitoring Plan will be provided to the CPUC and CDFG.

Rationale for Finding: Implementation of MMs BIO-5 through BIO-7 would reduce impacts to less than significant level. The applicant would perform a final jurisdictional determination to identify drainages and wetlands located within the proposed project area. These areas would then be avoided. If avoidance were not possible, drainage crossings would be engineered to reduce degradation and impacts (MM BIO-6) and restoration and compensation measures would be implemented (MM BIO-7).

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action):
The CEQA and NEPA EITP and ISEGS impact analyses for biological resources were based on similar significance criteria that evaluated to what extent the proposed projects would impact drainages, riparian areas, and wetlands. Operational impacts from implementation of ISEGS together with EITP were determined to be similar to those outlined above under construction.

IMPACT BIO-6: Direct or indirect loss of migratory wildlife species, corridors, or nursery sites

As described in Section 3.4, “Biological Resources”, the proposed project would cause potential impacts to the movement corridors, migratory paths, or critical nursery sites for certain species, such as desert bighorn sheep, large reptiles, wild burro, and desert tortoise. Critical habitat found within the EITP area would be potentially used as a movement corridor by desert tortoise. Noise and visual disturbances generated during construction, operations, and maintenance would cause stress to animals, potential death, and avoidance of known corridors or nursery sites by species.

Disturbances would be relatively short term due to the linear nature of construction for the transmission and telecommunication lines. Operations and maintenance activities would likewise be short term due to the lower frequency of vehicle and equipment use. Impacts at the proposed Ivanpah Substation would be long-term, as existing natural vegetation would be replaced with impervious surfaces and permanent structures.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT BIO-6. The CPUC finds that the following mitigation measures will mitigate

significant effects to migratory wildlife species (with the exception of the desert tortoise), corridors, or nursery sites to a level of less than significant.

MM BIO-1: Preconstruction Surveys. See IMPACT BIO-1.

MM BIO-8: Reduce Night Lighting. Night lighting will be reduced in all natural areas to avoid unnecessary visual disturbance to wildlife. Night lighting during construction, operations, and maintenance will be reduced in natural areas using directed lighting, shielding methods, and/or reduced lumen intensity. The applicant will indicate anticipated measures to resource agencies for approval prior to construction. The approved measures will be provided to the CPUC.

MM BIO-10: Biological Monitors. Biological monitors will be provided throughout construction activities in all construction zones with the potential for presence of sensitive biological resources. A minimum of one monitor per crew is needed for construction crews using heavy equipment (e.g., backhoes, large trucks). One roving monitor will monitor multiple times per day in other active construction zones where heavy equipment is not in use.

MM BIO-12: Desert Tortoise Impacts Reduction Measures. To reduce impacts on desert tortoise, the following will be done:

- The applicant cannot begin construction until issuance and acceptance of the USFWS Biological Opinion, the CDFG 2081 permit, and NDOW authorization. A copy of the USFWS Biological Opinion and documentation of any compliance discussions with Clark County and Boulder City will be provided to the CPUC and the Clark County Desert Conservation Program.
- Construction monitoring will employ a designated field contact representative, authorized biologist(s), and qualified biologist(s) approved by the USFWS, NDOW, and CDFG during the construction phase of the project. BLM will recommend qualified, authorized biologists to the USFWS and will approve all biological monitors.
- Qualified and/or authorized biologists will monitor all construction activities year-round in desert tortoise habitat, regardless of the time of year or weather conditions, as tortoises are often active outside their "active" season.
- Qualified and/or authorized biologists will conduct preconstruction surveys according to the most current USFWS protocol.
- Authorized biologists will handle desert tortoises following the most current Desert Tortoise Council handling guidelines (2009 or newer).
- Prior to commencing desert tortoise relocation activities, authorization will be obtained from NDOW, CDFG, and USFWS. The authorized biologist will not be required to receive approval to move individual desert tortoises during construction.
- Desert tortoise relocations will only occur from an active construction zone to an area that is not under active construction by the EITP project or any other planned project.
- Biological monitors will clear ahead of construction crews in desert tortoise habitat during all clearing and grading activities, or during any activity where undisturbed vegetation would be crushed. In addition, biological monitors will clear ahead of larger, non-rubber-tired equipment when that equipment is being driven on access and spur roads.
- Biological monitors will clear all active work sites located in desert tortoise habitat each morning before construction begins and throughout the day if crews move from construction site to construction site.

- Results of biological monitoring and status of construction will be detailed in daily reports by biological monitors. These reports will be submitted to the authorized biologist on a daily basis and to the CFR on a weekly basis (at minimum). The authorized biologist will notify the CFR within 24 hours of any action that involves harm to a desert tortoise, or involves a blatant disregard by construction personnel for the APMs or MMs designed to minimize impacts on desert tortoise or other wildlife. The authorized biologist will submit to the USFWS, NDOW, CDFG, and CPUC a summary of all desert tortoises seen, injured, killed, excavated, and handled at the end of the project or within 2 working days of when desert tortoises are harmed.
- No desert tortoise shall be captured, moved, transported, released, or purposefully caused to leave its burrow for whatever reason when the ambient air temperature is above 95 degrees Fahrenheit (35 degrees Celsius). No desert tortoise shall be captured if the ambient air temperature is anticipated to exceed 95 degrees Fahrenheit before handling or processing can be completed. If the ambient air temperature exceeds 95 degrees Fahrenheit during handling or processing, desert tortoises shall be kept shaded in an environment which does not exceed 95 degrees Fahrenheit, and the animals shall not be released until ambient air temperature declines to below 95 degrees Fahrenheit. For relocation, captured tortoises may be held overnight and moved the following morning within these temperature constraints.
- During all handling procedures, desert tortoises must be treated in a manner to ensure that they do not overheat, exhibit signs of overheating (e.g., gaping, foaming at the mouth, hyperactivity, etc.), or are placed in a situation where they cannot maintain surface and core temperatures necessary to their well-being. Desert tortoises must be kept shaded at all times until it is safe to release them. Ambient air temperature must be measured in the shade, protected from wind, and at a height of 2 inches above the ground surface.
- If a desert tortoise voids its bladder as a result of being handled, the animal shall be rehydrated. The process of rehydrating a desert tortoise will take place at the location where the animal was captured (or to be released, for translocated tortoises), and consist of placing the desert tortoise in a tub with a clean plastic disposable liner. The amount of water that is placed in the lined tub shall not be higher than the lower jaw of the animal. Each desert tortoise shall be rehydrated for a minimum of 10 to 20 minutes. During the period when the desert tortoise is in the tub, the tub will be placed in a quiet protected area. Desert tortoises shall be soaked individually.
- If a desert tortoise is injured as a result of project-related activities, it shall be immediately taken to a CDFG-approved wildlife rehabilitation or veterinary facility. The applicant shall identify the facility prior to the start of ground- or vegetation-disturbing activities. The applicant shall bear any costs associated with the care or treatment of such injured covered species. The applicant shall notify CDFG of the injury immediately unless the incident occurs outside of normal business hours. In that event CDFG shall be notified no later than noon on the next business day. Notification to CDFG shall be via telephone or email, followed by a written incident report. Notification shall include the date, time, location, and circumstances of the incident, and the name of the facility where the animal was taken.
- The applicant will produce a Raven Management Plan that is acceptable to the BLM and the CPUC. Details in the plan will include information on procedures, frequency, and recommended season for conducting raven nest surveys, procedures and responsibilities for raven nest removal, USFWS/NDOW/CDFG authorization and/or permitting requirements for conducting raven control, and compensation measures for raven reduction programs in California and Nevada. The plan will be submitted to the BLM and the CPUC at least 60 days prior to construction for review and approval.

MM BIO-13: Desert Bighorn Sheep Impacts Reduction Measures. To reduce impacts on desert bighorn sheep, the following will be done:

- Conduct preconstruction survey for desert bighorn sheep within suitable bighorn sheep habitat within 1 week prior to construction activities in the McCullough Range, Clark Mountain Range, and the southern portion of

the Eldorado Valley between the Highland Range and the Southern McCullough Range. The occurrence and location of any desert bighorn sheep will be reported to NDOW for sightings in Nevada and reported to CDFG for sightings in California.

- Conduct biological monitoring by a qualified biologist for desert bighorn sheep during duration of construction within suitable bighorn sheep habitat. The occurrence and location of any desert bighorn sheep will be reported to NDOW for sightings in Nevada and reported to CDFG for sightings in California. If bighorn are found to be within 500 feet of construction activities, construction in that area will be stopped until the sheep vacate the project area.
- Avoid all construction activities (with the exception of vehicle use of access roads during emergencies) in lambing areas from January to May in the North McCullough Pass area (approximately MP 9 to MP 12) during the duration of construction and all maintenance events.

MM BIO-14: American Badger Impacts Reduction Measures. To reduce impacts to American badger, the following will be done:

- Qualified biologists will be notified if badgers are observed within the project area during construction activities. Work will immediately be stopped in the area if the biologists find occupied burrows within 100 feet of construction activities during preconstruction surveys.
- Qualified biologists will ensure passive relocation of the occupied burrow by installing one-way trap doors on the burrow. The burrow will be collapsed after the badger vacates.
- During the spring months when young may be present in burrows, burrows must be checked for young before the installation of the one-way trap door. If young are present during relocation efforts, all work will stop within 100 ft of the burrow until the young have left the burrows within the project area.
- Work will be allowed to resume once the badger has relocated outside the 100-foot zone.

MM BIO-15: Migratory Birds and Raptors Impacts Reduction Measures. To reduce impacts on migratory birds and raptors, the following will be done:

- Biological monitors will monitor and enforce disturbance buffers around all active bird nests (for raptors and species protected by the MBTA) found in project areas during construction. The general bird breeding season for this area is late February to early July. For raptors specifically, the applicant will use the USFWS Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances (1999) to determine appropriate survey areas and disturbance buffers for active nests, except for burrowing owl nests, for which the applicant will be in compliance with the minimum distances outlined by the California Burrowing Owl Consortium Protocol. For all non-raptor bird species, biologists will survey within project areas. Because there are no standardized disturbance buffers for active non-raptor bird nests, SCE will consult with the appropriate agencies (BLM, USFWS, CDFG, and NDOW) on a case-by-case basis when active nests are found in project areas, unless directed to do otherwise by these same agencies.
- Active bird nests will not be moved during breeding season, unless the project is expressly permitted to do so by the USFWS, BLM, CDFG, or NDOW depending on the location of the nest.
- All active nests and disturbance or harm to active nests will be reported within 24 hours to the USFWS, BLM, CDFG, and NDOW upon detection.
- The biological monitor will halt work if it is determined that active nests would be disturbed by construction activities, until further direction or approval to work is obtained from the appropriate agencies.

- Seasonal work stoppages may be required by NDOW for project areas that pass the Wee Thump Joshua Tree Wilderness if construction activities occur within the breeding season. The applicant will consult with NDOW prior to construction.
- As outlined by the *Suggested Practices for Avian Protection on Power Lines* (APLIC 2006), the following avian safe practices will be employed during construction: cover phase conductors with manufactured covers, include perch discouragers on crossarms and on top of poles, exceed the minimal distance between phase conductors to prevent electrocution by perched birds and their wingspan, utilize longer horizontal insulators, suspend phase conductors on pole top and cross arms, install horizontal jumper support to increase the phase-to-ground separation, replace tension members with fiberglass or non-conducting materials, cover tension members with dielectric material, utilize fiberglass poles or switches, and install standard nest discouragers.

MM BIO-16: Burrowing Owl Impacts Reduction Measures. To reduce impacts on burrowing owl, the following will be done:

- A qualified biologist will conduct preconstruction surveys within 30 days prior to construction for burrowing owl within suitable habitat prior to breeding season (February 1 through August 31). All areas within 50 m (approximately 150 feet) of the project area will be surveyed.
- If an active nest is identified, there will be no construction activities within 50 m (approximately 150 feet) of the nest location to prevent disturbance until the chicks have fledged, as determined by a qualified biologist.
- The occurrence and location of any burrowing owl will be documented by biological monitors in daily reports and submitted to the authorized biologist on a daily basis. The authorized biologist will report all incidents of disturbance or harm to burrowing owls within 24 hours to the appropriate resource agencies (USFWS, BLM, NDOW, CDFG).

If burrowing owls are found on site in the California portion of the project, the following additional measures will be included:

1) As compensation for the direct loss of burrowing owl nesting and foraging habitat, the project proponent shall mitigate by acquiring and permanently protecting known burrowing owl nesting and foraging habitat at the following ratio:

   (a) Replacement of occupied habitat with suitable habitat at 1.5 x 6.5 acres per pair or single bird;

   (b) Replacement of occupied habitat with habitat contiguous with occupied habitat at 2 x 6.5 acres per pair or single bird; and/or

   (c) Replacement of occupied habitat with suitable unoccupied habitat at 3 x 6.5 acres per pair or single bird.

2) A Burrowing Owl Mitigation and Monitoring Plan shall be submitted to CDFG for review and approval prior to relocation of owls. The Burrowing Owl Mitigation and Monitoring Plan shall describe proposed relocation and monitoring plans. The plan shall include the number and location of occupied burrow sites and details on adjacent or nearby suitable habitat available to owls for relocation. If no suitable habitat is available nearby for relocation, details regarding the creation of artificial burrows (numbers, location, and type of burrows) shall also be included in the plan. The plan shall also describe proposed off site areas to preserve to compensate for impacts to burrowing owls/occupied burrows at the project site as required under Condition 1. A copy of the approved plan will be provided to the CPUC.

MM BIO-17: Gila Monster Compliance. The most current NDOW construction site protocols for the Gila monster (NDOW 2007) will be followed by the applicant in both Nevada and California portions of the project. To reduce impacts on Gila monster, all locations of Gila monster found within the project area during surveys and construction work will be reported to NDOW and the CDFG.

MM BIO-18: Avian Protection Plan. To reduce impacts on golden eagles and raptors, the applicant shall submit an Avian Protection Plan for approval to the BLM within 6 months of the issuance of any ROW grant for the project. The Plan shall be prepared according to guidance provided by the USFWS (USFWS 2010).The Avian Protection Plan must be implemented within one year from the date of any ROW grant Notice to Proceed.

Rationale for Finding: Implementation of MMs BIO-1, BIO-8, BIO-10, and BIO-12 through BIO-16 would provide protection primarily through avoidance of sensitive movement and nursery areas, reducing potential impacts to a less than significant level, with the exception of the desert tortoise.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action):

The construction of ISEGS and EITP would result in adverse impacts to several sensitive wildlife species such as, but not exclusively, migratory birds, golden eagle, American badger, Nelson's bighorn sheep, Gila monster, and desert tortoise. The two projects together would result in similar impacts to sensitive wildlife species as is described for each project individually, however the addition of ISEGS to EITP would result in an increase in the extent and intensity of the impacts due to the approximately additional 3,539 acres of wildlife habitat that would be removed. Except for the impacts to desert tortoise, the combination of EITP and ISEGS would not result in significant impacts to sensitive wildlife species following the implementation of appropriate species-specific mitigation measures outlined for both proposed projects.

ISEGS and EITP together would adversely impact desert tortoise and desert tortoise habitat. Each project individually was determined to result in significant impacts even with implementation of the recommended mitigation measures; therefore, the combination of the ISEGS and EITP would result in significant, unavoidable impacts to desert tortoise and desert tortoise habitat. Additionally, impacts on desert tortoise and other special-status wildlife species would occur from both projects resulting from increased road traffic, noise, human presence and disturbance, and general degradation of habitat.

The addition of ISEGS to EITP would result in increased noise levels during the daytime operational hours. Potential impacts to wildlife resources that would be unique to the operation of ISEGS would include impacts to birds due to collision with new structures, risk of burns to birds that flew into the reflected sunlight between the heliostats and the power towers, and effects of continuous human disturbance and lighting alteration. ISEGS implementation of additional mitigation measures addressing these unique impacts would reduce these listed impacts; therefore, the combination of EITP and ISEGS would not substantially impact wildlife resources. With all APMs and mitigation measures in place, the combination of operation of the two projects would not result in a substantial increase in impacts to wildlife and plant resources compared to the operation of EITP as an individual project.

IMPACT BIO-7: Conflict with the provisions of local ordinances or policies

The project could remove existing desert vegetation during construction. Impacts to stream riparian vegetation would also occur during construction. San Bernardino County requires retention of existing native desert vegetation, in particular Joshua trees, Mojave yuccas, and creosote rings. The applicant would implement APM BIO-2 and BIO-3 to reduce adverse effects. However, if sensitive desert and riparian vegetation could not be avoided, the proposed project would result in significant impacts and directly conflict with the San Bernardino County ordinances.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT BIO-7. The CPUC finds that the following mitigation measures will mitigate significant effects to compliance with the provisions of local ordinances or policies.

MM BIO-2: Reclamation Plan. See IMPACT BIO-1

MM BIO-3: Special Status Plants Restoration and Compensation. See IMPACT BIO-1

Rationale for Finding: With implementation of MMs BIO-2 and BIO-3, vegetative communities will be restored by the relocation of plants, reseeding, and/or land compensation. If communities cannot be restored, the applicant will compensate in accordance with consultation with appropriate agencies. Implementation of these measures would reduce impacts to a less than significant level.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action):
The CEQA and NEPA EITP and ISEGS impact analyses of biological resources were based on similar significance criteria that evaluated to what extent the proposed projects would impact the compliance with provisions of local ordinances or policies. Together, impacts from the two projects would have short- and long-term contributions of less-than-significant impacts with mitigation to impacts on biological resources in the project area.

IMPACT BIO-8: Conflict with the provisions of the Clark County MSHCP and the BCCE.

The proposed project would result in impacts on biological resources (Impacts BIO-1 through BIO-6) on lands under the jurisdiction of the Clark County MSHCP, as the transmission and telecommunication lines cross lands conserved by these plans. Species specifically targeted for conservation and protection by these plans would be potentially impacted by the project. Additionally, the project intersects numerous areas that have undergone MSHCP mitigation actions by the BLM, such as re-vegetation restoration efforts, noxious weed removal, and fencing associated with desert tortoise protection. These restoration areas could be impacted by vegetation removal and the potential introduction of noxious weeds. These impacts would be long-term and significant, thus mitigation is required to reduce impacts.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT BIO-8. The CPUC finds that the following mitigation measures will mitigate significant effects on compliance to provisions of the Clark County MSHCP and the BCCE.

MM LU-1: Obtain Approval from Clark County and the City of Boulder City for Activities Outside of BLM-Designated Utility Corridors in the BCCE. See IMPACT LU-1.

Rationale for Finding: The applicant would be required to initiate discussions with Clark County about appropriate fee-based compliance and other mitigation strategies to ameliorate biological impacts on non-federal lands as discussed in MM-LU-1.This compliance would be directly based on the provisions of the MSHCP. Compliance for the MSHCP would cover those biological species protected by the MSHCP. Thus, by complying with these provisions, impacts to the MSHCP within the proposed project boundaries would be reduced to less than significant. The construction of the EITP, as proposed along the existing ROW, would be compatible with the primary purpose of the MSHCP, which is to minimize adverse impacts on natural resources within the HCP conservation area.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action):
The CEC and the BLM considered the loss of Utility Corridor BB due to the construction and operation of ISEGS to be an adverse direct impact; however, it was considered less than significant because future utility lines could be routed through other existing corridors in the vicinity. The EITP is located largely in an existing BLM utility corridor, so impacts to existing land uses would also be less than significant or have no impact. With respect to the BCCE, the CPUC and the BLM concluded that impacts would be less than significant with the implementation of MM LU-1. ISEGS would have no impact on the BCCE because it would be located over 30 miles away. Therefore, the combined impact of ISEGS and EITP on land use would be less than significant.

Cumulative Impact BIO-C-1*:* Habitat Fragmentation, Degradation, and Loss

Cumulative impacts to biological resources can be either additive (that is, directly proportional in severity to the quantity of the resource affected, such as vegetation loss or wetland fill) or exponential. For exponential impacts, increasing levels become disproportionately more substantial if they affect biological features that are critical to the survival of a species. An example of an exponential impact is habitat fragmentation, where the result of the construction of multiple projects in a particular area results in fragmentation of areas that formerly provided contiguous habitat into separate areas too small to support dependent species.

The EITP has a relatively small construction footprint, despite its linear extent, is limited in duration (18 months), and requires a maximum of 190 construction workers. Most of the elements of the EITP would be constructed within an existing ROW where the native vegetation has already been disturbed, with the exception of the Ivanpah Substation, one of the proposed microwave towers, and new access roads, which, together, would temporarily and permanently impact approximately 372 acres of vegetation. The EITP would have relatively minor impacts on habitat fragmentation, assuming land temporarily disturbed during construction (425.9 acres) would be restored to its original state to the greatest extent possible. However, these impacts could be significant when combined with impacts from other regional projects. The development of numerous large-scale projects, such as ISEGS, DesertXpress, Silver State, other wind and solar generation facilities, and the SNSA would result in a substantial permanent conversion (approximately 112,000 acres) of desert valley and mountain top habitat to industrial/commercial uses. This could have significant effects on a variety of species through direct habitat loss and/or habitat fragmentation.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant cumulative effects on the environment from IMPACT BIO-C-1. The CPUC finds that the following mitigation measures will mitigate significant cumulative effects due to habitat fragmentation, degradation, and loss. It is assumed that similar mitigation would be implemented by other projects, which would be subject to separate, independent environmental review.

MM BIO-1: Preconstruction Surveys. See IMPACT BIO-1.

MM BIO-2: Reclamation Plan. See IMPACT BIO-1.

MM BIO-3: Special Status Plants Restoration and Compensation Plan. See IMPACT BIO-1.

MM BIO-4: Model Invasive Plant Management Plan on the BLM Las Vegas Office DRAFT Weed Plan. See IMPACT BIO-4.

MM BIO-5: Jurisdictional Delineation. See IMPACT BIO-5.

MM BIO-6: Drainage Crossings Design. See IMPACT BIO-5.

Rationale for Finding: The contribution of the EITP to these cumulative impacts would be short term and limited, due to the short temporal duration of construction and the relatively limited geographical extent of the EITP's impact area. The EITP's contribution to cumulative impacts is further reduced through avoidance and minimization measures. Avoidance measures that would be implemented during construction would include environmental training, use of biological monitors, pre-construction surveys, biological clearance surveys, and flagging of sensitive areas such as critical nursery areas and aquatic resources. If avoidance were not possible, further mitigation measures proposed to reduce cumulative habitat degradation and loss would include engineering drainage crossings to reduce degradation and impacts, using appropriate BMPs to reduce impacts, restoring temporarily disturbed land after construction, and developing and implementing an Invasive Species Management Plan. With the incorporation of mitigation, the EITP's contribution to cumulative impacts on habitat would be less than significant and not considerable.

Cumulative Impact BIO-C-2*:* Special-Status Species

Although for many future developments specific data are not available, impacts on desert tortoise and bighorn sheep are quantified here as an example of the extent of wildlife impacts that could occur in desert valley and upper mountain habitat within the EITP cumulative analysis area. Desert tortoise has commonly been used as an indicator species to illustrate broader-ranging potential impacts on desert habitat and wildlife. Bighorn sheep could similarly be used as an indicator of potential impacts to mountainous areas and the wildlife species that utilize that niche such as migratory birds and large mammals.

The range of the desert tortoise encompasses virtually all of the cumulative impact area), incorporates most of the habitat types that would be used by other potentially impacted species such as American badger, Gila monster, and desert birds, and includes the locations of the majority of the past, present, and future cumulative projects evaluated in this analysis. Additionally, tortoise populations have been eliminated or reduced in large parts of their ranges in California and in areas near Las Vegas as a result of human activities and disease (USFWS 2008a). This historical decline, coupled with potential impacts from future projects, makes any future impacts potentially significant. The range of the desert tortoise is limited at higher elevations, as the species is generally not found above 5,000 feet. In contrast, desert bighorn sheep are well-adapted to the higher elevations of desert mountain ranges, and in the EITP cumulative area, are known to occupy the Clark, Spring, and McCullough Mountain ranges. These mountains provide forage, shelter, and potential critical lambing areas for the sheep, in addition to serving as large-scale migratory pathways among the desert valleys.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant cumulative effects on the environment from IMPACT BIO-C-2. The CPUC finds that the following mitigation measures will mitigate significant cumulative effects to special status species. It is assumed that similar mitigation would be implemented by other projects, which would be subject to separate, independent environmental review.

MM BIO-1: Preconstruction Surveys. See Impact BIO-1.

MM BIO-2: Reclamation Plan. See Impact BIO-1.

MM BIO-3: Special Status Plants Restoration and Compensation Plan. See Impact BIO-1.

MM BIO-8: Reduce Night Lighting. See IMPACT BIO-6.

MM BIO-9: Cover Steep-walled Trenches or Excavations During Construction. See IMPACT BIO-6.

MM BIO-10: Biological Monitors. See IMPACT BIO-6.

MM BIO-11: Water Usage. See IMPACT BIO-6.

MM BIO-12: Desert Tortoise Impacts Reduction Measures. See IMPACT BIO-6.

MM BIO-13: Desert Bighorn Sheep Impacts Reduction Measures. See IMPACT BIO-6.

MM BIO-14: American Badger Impacts Reduction Measures. See IMPACT BIO-6.

MM BIO-15: Migratory Birds and Raptors Impacts Reduction Measures. See IMPACT BIO-6.

MM BIO-16: Burrowing Owl Impacts Reduction Measures. See IMPACT BIO-6.

MM-BIO 18: Avian Protection Plan. See IMPACT BIO-6.

Rationale for Finding: Although desert tortoise impacts could be significant, the contribution of the EITP to overall cumulative habitat loss would be short term and limited due to the short duration of construction and relatively small footprint of the EITP's impact area. The EITP's contribution could be reduced to less than significant with implementation of general avoidance mitigation measures. Mitigation measures would include pre-construction surveys, biological monitoring during construction and preventive measures such as fencing to protect wildlife from injury and entrapment within construction areas. It is assumed that similar mitigation would be implemented by other projects, which would be subject to separate, independent environmental review. If avoidance of impacts to wildlife were not possible, those impacts would be mitigated by species-specific measures detailed in Section 3.4, "Biological Resources." These would include consultation with USFWS, pre-construction surveys, biological monitoring, relocation activities (desert tortoise), and limitations on construction activities and timing. Therefore, with the exception of desert tortoise, the EITP's contribution to cumulative impacts on wildlife species would be minor.

1.6.1.4 Cultural Resources

As described in Section 3.5, "Cultural Resources" of the EITP EIR/EIS, impacts to identified cultural resources were evaluated based on background data compiled from cultural resources records searches conducted at the San Bernardino County Archaeological Information Center, located at the San Bernardino County Museum in Redlands, California; the Harry Reid Center for Environmental Studies at the University of Nevada, Las Vegas; and online with the Nevada Cultural Resources Information System. Additional data included in this section was acquired from an intensive cultural resources field survey of the project area following the records searches. A full report of the cultural resources findings for this project is documented in *A Class III Cultural Resources Inventory Southern California Edison Eldorado – Ivanpah Transmission Project San Bernardino County, California and Clark County, Nevada*. This background data was evaluated based on criteria for significant resources according to data presented in Sander et al. (2009), and provisions of Section 106 of the NHPA and the California Public Resources Code Section 5024.1 and California Code of Regulations, Title 14 Section 4850 et seq.

IMPACT CR-2: Impacts to Previously Unidentified Cultural Resources

Major long-term direct impacts to any subsurface unidentified cultural resources would occur as a result of disturbing the ground and altering the existing setting, as well as disturbing the context of the find and its associations with other resources in the area. Project disturbance would diminish the resource's scientific or cultural integrity. If any subsurface cultural resources were discovered, major long-term direct impacts to these resources would result from disturbing the ground and altering the setting of the site, as well as disturbing the context of the find and its associations with other resources in the area. This disturbance would diminish the resource's scientific or cultural integrity. Under CEQA, the impact would result from causing a substantial change in the significance of an archaeological resource as defined in Public Resources Code Section 15064.5.

Cumulative impacts to unidentified cultural resources were not found to be significant or cumulatively considerable assuming proper mitigation by all projects. Subsurface cultural resources could be unearthed by any projects developed in previously undisturbed areas. If adequate measures and mitigations were implemented by all the foreseeable construction projects, then there would not be cumulatively considerable impacts to previously unidentified cultural resources.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT CR-2. The CPUC finds that the following mitigation measures will mitigate significant effects to Previously Unidentified Cultural Resources.

MM CR-1: Cultural Resources Monitoring. The applicant will retain a cultural resources monitor who meets the Secretary of the Interior Standards of a Qualified Professional Archaeologist prior to commencing construction or geotechnical test trenching on the project. The archaeologist will need to be approved by the BLM and will provide construction monitoring for any geotechnical studies that require trench excavation. As mentioned in APM GEO-1, five of the tower installations and 20 percent of the ground-trenching activities are in archaeologically sensitive areas. Monitoring in these areas will be determined by the BLM prior to construction.

Monitoring is necessary because a potential for cultural resources beneath desert pavement surfaces on alluvial planes was recently determined. Such conditions exist throughout much of the EITP project area. This monitoring effort would be used to protect potential resources and to provide data to help confirm or deny the theory of desert pavement development that would allow for buried cultural resources. BLM reserves the right to increase the amount of monitoring at any time if conditions reveal the necessity.

The archaeologist will present to the BLM for approval, no less than 60 days prior to commencement of construction, a monitoring plan; copies of which will also be submitted to the CPUC by the archaeologist. The archaeologist will also provide a report of findings after the monitoring has been completed. Because this geoarchaeological sensitivity has not been widely tested, the BLM is requiring only a small sample of monitoring at this time; further monitoring will only be required if the need is proven.

MM CR-3: Archaeological Resources Protection Act (ARPA) Training. Prior to construction, the applicant will provide ARPA training with the preconstruction Worker Environmental Awareness Program (WEAP; APM CR-2b). As required for the WEAP, ARPA training will be presented to all proposed project personnel who have the potential to encounter and alter unique archaeological sites, historical resources, or historic properties, or properties that may be eligible for listing in the NRHP. This includes construction supervisors as well as field construction personnel. No construction worker would be involved in ground-disturbing activities without having participated in the ARPA training portion of the WEAP.

Rationale for Finding: Implementation of MM CR-1, APM CR-5, APM CR-6 and would reduce potential impacts to less than significant levels. Additionally, APM CR-2b would reduce these potential impacts to less than significant levels by educating the construction crew on the penalties associated with not reporting a cultural find or of collecting artifacts from federal- or state-controlled land.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action):
Cultural resources surveys of both the EITP and the ISEGS project have concluded that, although there are a number of cultural resources in areas that may be affected by the project, only one resource, SBR-CA-10315H, has been found to meet the eligibility criteria for the NRHP and/or the CRHP. This resource has been the subject of recent HAER level II documentation. As the site has been recorded to the adequacy of the BLM and California SHPO, the impact has been mitigated and no further work for known cultural resources is required.

It should be noted that sediments in some areas of both undertakings are of an age that could have buried prehistoric cultural resources. The various APMs, conditions of certification, and mitigation measures described above help to mitigate any such impacts to a level less than significant level.

1.6.1.5 Geology, Soils, Minerals, and Paleontology

As described in Section 3.6 of the EITP EIR/EIS, "Geology, Soils, Minerals, and Paleontology, the potential impact to the geology, soils, minerals, and paleontological resources resulting from the project was evaluated in two ways. First, geologic hazards were assessed that could impact the proper functioning of the proposed facility and create life/safety concerns. Second, the potential impacts of the proposed facility on existing geologic, mineralogical, and paleontological resources in the area were evaluated. Available published resources including books, journals, maps, and government websites were reviewed. This information was evaluated within the context of the applicable federal,

state, and local regulations. In addition, information prepared for the proposed ISEGS project located near the proposed Ivanpah Substation was also evaluated. Published geologic maps and reports provided information on regional and project-specific geology. Geologic maps used included quadrangles at various scales from 1:50,000 to 1:250,000 and state-wide maps at a scale of 1:750,000. Other important sources consulted were government websites, including databases maintained and updated by both federal and state governmental agencies providing information on topics such as seismic hazards, faulting, and soil classification.

IMPACT GEO-5: Erosion of Soil at Towers and the Substation and Along Access Roads

The proposed project would impact soil by resulting in erosion at the transmission and telecommunication towers, at the substation, and along the access roads. Construction of access roads and tower footings along the transmission line and telecommunications line routes would disturb the existing ground surface and natural drainage(s), causing minor adverse erosion-related impacts on soil at these locations. This impact would be localized but would act over the entire construction period.

Operation and maintenance of transmission and telecommunication line service roads would lead to continued ground disturbance that would result in sites of potential erosion, particularly in areas of hill slopes. These activities would continue to disturb the existing ground surface and natural drainage(s), causing minor adverse erosion-related impacts on soil and water resources (further discussed in Section 3.8, "Hydrology and Water Resources"). Erosion associated with the substation could result from re-directed stormwater and wind. This impact would be localized (hilly areas and substation area) but could act over the life of the proposed project.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT GEO-5. The CPUC finds that although a SWPPP would be followed (APM GEO-3), impacts soil conditions due to construction and operation of the project could be significant. The following mitigation measure will mitigate significant effects to towers, substation, and access roads due to erosion of soil.

> MM GEO-2: Geotechnical Engineering Study. The applicant will prepare a geotechnical engineering study prior to the final project design to identify site-specific geological conditions and potential geologic hazards. The data collected from the study will be used to guide sound engineering practices and to mitigate potential geologic hazards.

Rationale for Finding: With the implementation of MM W-1, final project design will incorporate sound engineering practices to mitigate impacts on potential geological hazards identified on towers, substation, and access roads due to erosion of soil will be reduced to a less than significant level.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action):
The CEQA and NEPA EITP and ISEGS impact analyses related to geology, soils, minerals, and paleontology were based on similar significance criteria that evaluated the extent to which the proposed projects would impact these resources in the project area and the potential impact on project components and public safety related to geologic hazards.

Geologic Hazards: For EITP, the CPUC/BLM concluded that the risk related to geologic hazards would be less than significant with the incorporation of APM GEO-1, APM GEO-2, MM GEO-1, MM GEO-3, and MM GEO-4. The CEC concluded that impacts related to potential geologic hazards could be mitigated to less than significant levels through facility design based on the geotechnical report required by the 2007 CBC and Conditions of Certification GEO-1, GEN-1, GEN-5, and CIVIL-1. For ISEGS, the BLM similarly concluded that the required geotechnical investigation and GEO-1 should mitigate potential geologic hazards through design considerations.

Soil Erosion: Soil erosion for both projects would be mitigated by best management practices outlined in the each project's SWPPP.

With mitigation, impacts from the two projects together would be less than significant on geology, soils, mineral resources, and paleontological resources. Additionally, the two projects would have less than significant impacts due to geologic hazards.

IMPACT GEO-6: Structural Failure of Towers and Substation Facility Due to Unstable Soil Conditions Resulting in Subsidence or Collapse

As described in Section 3.6 of the EIR/EIS, "Geology, Soils, Minerals, and Paleontology", ground subsidence or collapse due to groundwater withdrawal or dehydration of clays between the soil surface and the water table could lead to the structural failure of the transmission line and telecommunication line towers and substation facility. This adverse impact on the project, ranging from negligible to minor, could be localized to extensive, depending on the degree to which continued and/or increased groundwater withdrawal from the Ivanpah and Eldorado valleys. The likelihood of this impact could increase over time with continued and/or increased groundwater withdrawal.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT GEO-6. The CPUC finds that the following mitigation measures will mitigate significant effects because of structural failure of towers and substation facility due to unstable soil conditions resulting in subsidence or collapse.

MM GEO-1: Monitor and Mitigate Damage to Tower Structures. SCE will contact the California Department of Water Resources and the Nevada Division of Water Resources on an annual basis to determine if groundwater withdrawals pose a potential for threatening to cause ground subsidence within the project area. If physical evidence proves groundwater withdrawals are threatening tower locations, SCE will develop a plan, following their operations and maintenance policies, to mitigate potential damage to tower structures using standard foundation remediation techniques available.

MM GEO-3: Preparation and Implementation of SWPPP. The applicant will prepare a SWPPP for review and approval by the Lahontan Regional Water Quality Control Board (Region 6) and the Clark County Stormwater Quality Management Committee that addresses construction and post-construction project-related ground disturbances and associated erosion. The plan will provide the necessary engineering controls and procedures to minimize impact to the ground surface caused by construction, operation, and maintenance activities. A copy of the approved plan will also be submitted to the CPUC.

Rationale for Finding: Since the likelihood of this impact could increase over time with continued and/or increased groundwater withdrawal, implementation of MM W-2, MM GEO-1 and MM GEO-2 would reduce impacts related because of structural failure of towers and substation facility due to unstable soil conditions resulting in subsidence or collapse to a minor or less than significant level.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action): The CEQA and NEPA EITP and ISEGS impact analyses related to geology, soils, minerals, and paleontology were based on similar significance criteria that evaluated the extent to which the proposed projects would impact these resources in the project area and the potential impact on project components and public safety related to geologic hazards.

Geologic Hazards: For EITP, the CPUC/BLM concluded that the risk related to geologic hazards would be less than significant with the incorporation of APM GEO-1, APM GEO-2, MM GEO-1, MM GEO-3, and MM GEO-4. The CEC concluded that impacts related to potential geologic hazards could be mitigated to less than significant levels through

facility design based on the geotechnical report required by the 2007 CBC and Conditions of Certification GEO-1, GEN-1, GEN-5, and CIVIL-1. For ISEGS, the BLM similarly concluded that the required geotechnical investigation and GEO-1 should mitigate potential geologic hazards through design considerations.

With mitigation, impacts from the two projects together would be less than significant on geology, soils, mineral resources, and paleontological resources. Additionally, the two projects would have less than significant impacts due to geologic hazards.

IMPACT GEO-7: Structural Failure of Towers or Substation Facility Due to Expansive Soils

Building on expansive soils could lead to the structural failure of the transmission line and telecommunication line towers and substation facility. Expansive soils shrink or swell with changes in moisture content, affecting the stability of foundations. Soils encountered along the transmission line route in Nevada exhibit expansion potential that is generally low and low to moderate, but the expansion potential along the route is moderate to high in one unit (playas). In California, the potential for expansive soils is generally low to moderate, but also is high in one unit (playas). The areas most prone to experience expansive soils lie within or adjacent to playas or old lake deposits with clay rich sediments.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT GEO-7. The CPUC finds that although prior to final design a geotechnical engineering study would be performed (APM GEO-1), impacts on proposed project facilities could be significant. The following mitigation measure will mitigate significant effects due to expansive soils.

> MM GEO-4: Expansive Soils Mitigation. The applicant will prepare a geotechnical study of the areas of expansive soil(s) identified in APM GEO-1 to develop appropriate design and mitigation measures prior to construction.

Rationale for Finding: With the implementation of MM GEO-4, the applicant will implement appropriate design practices based on site-specific geological conditions to mitigate impacts on tower and substation structures due to expansive soils to a less than significant level.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action):
The CEQA and NEPA EITP and ISEGS impact analyses related to geology, soils, minerals, and paleontology were based on similar significance criteria that evaluated the extent to which the proposed projects would impact these resources in the project area and the potential impact on project components and public safety related to geologic hazards.

Geologic Hazards: For EITP, the CPUC/BLM concluded that the risk related to geologic hazards would be less than significant with the incorporation of APM GEO-1, APM GEO-2, MM GEO-1, MM GEO-3, and MM GEO-4. The CEC concluded that impacts related to potential geologic hazards could be mitigated to less than significant levels through facility design based on the geotechnical report required by the 2007 CBC and Conditions of Certification GEO-1, GEN-1, GEN-5, and CIVIL-1. For ISEGS, the BLM similarly concluded that the required geotechnical investigation and GEO-1 should mitigate potential geologic hazards through design considerations.

With mitigation, impacts from the two projects together would be less than significant on geology, soils, mineral resources, and paleontological resources. Additionally, the two projects would have less than significant impacts due to geologic hazards.

1.6.1.6 Hazards, Health, and Safety

As described in Section 3.7 of the EITP EIR/EIS, "Hazards, Health, and Safety", baseline conditions for the impact analysis were established and compared to applicable thresholds to the analysis of potential impacts on hazards under CEQA or NEPA, including the consideration of reportable quantities under CERCLA and quantitative exposure thresholds under OSHA/Cal/OSHA. County maps were reviewed to determine the project's proximity to schools and airports. In addition, the potential risk of fire based on local hazard maps was considered, and local agencies' relevant emergency response plans and airport land use plans were reviewed. Emergency plans and hazard management plans and evacuation routes for Clark and San Bernardino counties were also reviewed.

For the evaluation of project-related contamination, sites with known or potential contamination along or near the proposed transmission line route were researched by review of online environmental databases, including the National Priorities List, Envirostor, the Resource and Recovery Information System, the Comprehensive Environmental Response Compensation and Liability Information System, the Solid Waste Information System, GeoTracker, local county and city websites, and the United States Army Corps of Engineers' list of Formerly Used Defense Sites. Land uses associated with hazardous material use were also identified. The primary reason to define potentially hazardous sites is to protect worker health and safety and to minimize public exposure to hazardous materials during construction and waste handling. If encountered, contaminated soil may qualify as hazardous waste, thus requiring transport, handling, and disposal according to local, state, and federal regulations.

IMPACT HAZ-1: Create Hazards through Routine Transport, Use, or Disposal of Hazardous Materials

During construction, hazards to the public or the environment might be caused by the transport, use, or disposal of hazardous materials including (but not limited to) gasoline, diesel fuel, oil, paints, chemicals, waste oils, and construction waste. APM HAZ-2 would prevent releases of hazardous materials and waste.
During operation and maintenance, hazards to the public or the environment also could be caused by the improper transport, storage, use or disposal of hazardous materials. APM HAZ-5 and MM HAZ-1 would help ensure that the applicant would minimize, avoid, and/or clean up spills of hazardous materials.
Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT HAZ-1. The CPUC finds that the following mitigation measures will mitigate significant effects due to the routine transport, use, or disposal of hazardous materials.

MM HAZ-1: Worker Health and Safety and Environmental Training and Monitoring Program. Prior to construction, the applicant will conduct a worker safety and environmental training program. As part of the program, the applicant will develop and implement a Health and Safety Plan. The Health and Safety Plan should address all potential situations that workers could encounter during construction and maintenance, including safety issues that may be unique to any of the alternatives. The Health and Safety Plan, at minimum, must require that first aid kits be stored in each construction vehicle and that a worker trained in first aid be included in each work group. The purpose and goal of the worker safety and environmental training will be to communicate project-related environmental concerns and appropriate work practices, including spill prevention, emergency response measures, and BMPs, to all field and construction personnel prior to the start of construction. Training will also encompass environmental training related to road designations, speed limits, and restrictions on camping within the surrounding Boulder City Conservation Easement to ensure compatibility with neighboring land uses, promote "good neighbor" policies, and institute best management practices for construction. SCE will also conduct health and safety training for Operation and Maintenance activities.

MM HAZ-4: Disposal of Demolition Materials. All debris generated during project-related demolition of structures, buildings, asphalt, or concrete-paved surface areas must be tested for the presence of hazardous chemicals, mercury, asbestos, and any other materials that may be deemed hazardous before disposal. The applicant will ensure that the materials are properly disposed of depending on the sampling results.

MM HAZ-5: Backfill Material. If backfill material is used, it will be sampled and determined to be contaminant-free before it is used to fill excavations.

MM HAZ-6: EPA Identification Number. If it is determined that hazardous waste will be generated during construction, the applicant will obtain an EPA Identification Number before construction begins. Before construction begins, the applicant will also determine whether the treatment or the handling or the storing of hazardous materials will require authorization of the local Certified Unified Program Agency (CUPA). If necessary, the applicant must receive authorization from the local CUPA before construction begins.

Rationale for Finding: Implementation of a Worker Health and Safety Plan (MM HAZ-1) would help protect the workforce during construction and operation of the EITP. In addition, MM HAZ-4 would require that project-related debris be tested prior to disposal; MM HAZ-5 would require that potential backfill material be proven contaminant-free; and MM HAZ-6 would ensure that the applicant obtain an EPA Identification Number and receive authorization from a local CUPA, if necessary. Therefore, impacts would be less than significant with mitigation.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action): Construction and operation of the EITP, if constructed simultaneously with the ISEGS project, could cumulatively increase the probability for hazards such as accidents or spills from improper use, storage, or disposal of oil and/or hazardous materials. However, the impacts would be reduced by ISEGS' implementation of a Safety Management Program, Worker Health and Safety Program, Hazardous Materials Business Plan, SPCC Plan, and site security measures. Likewise, the EITP would include a Hazardous Materials and Waste Handling Management Program, SPPC Plan, and Hazardous Materials Business Plan, and would include mitigation measures to reduce impacts to less than significant. The ISEGS FSA/DEIS, the BLM's ISEGS FEIS, and the EITP EIR/EIS conclude that there would be no significant impact from construction-generated hazardous materials with the use of BMPs; compliance with all laws, ordinances, regulations, and standards; and implementation of mitigation measures. In addition, the analyses for both projects conclude that operational impacts would also be reduced to less than significant. Therefore, the combined impact would be reduced to less than significant during construction and operation of both projects.

IMPACT HAZ-2: Create Hazards through Accidental Release of Hazardous Materials into the Environment

The proposed project would not traverse any known contaminated sites, but would traverse and be in close proximity to fuel product pipelines where there could be soil contamination. During construction and operation of the EITP, contamination of soils and/or mobilization of contaminated soils could occur. Prior to commencement of any grading activities, the applicant would be required by law to use an Underground Service Alert organization to identify the location of underground utilities and pipelines. In addition, the applicant would not use mechanical equipment within 3 feet of high-pressure pipelines (APM PUSVC-1), and a representative for the pipelines would be present to observe excavation activities around buried pipelines during construction (APM PUSVC-2).

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT HAZ-2. The CPUC finds that the following mitigation measures will mitigate significant effects due to the accidental release of hazardous materials into the environment.

MM HAZ-1: Worker Health and Safety and Environmental Training and Monitoring Program. See IMPACT HAZ-1.

MM HAZ-4: Disposal of Demolition Materials. See IMPACT HAZ-1.

MM HAZ-5: Backfill Material. See IMPACT HAZ-1.

Rationale for Finding: The applicant's Hazardous Materials and Waste Handling Management Program (APM HAZ-2) would include procedures for proper storage, handling, and disposal of hazardous wastes. In addition, the applicant's Soil

Management Plan (APM HAZ-3) would provide guidance for the proper handling, onsite management, and disposal of impacted soil. Implementation of a Worker Health and Safety Plan (MM HAZ-1) would help protect the workforce during construction and operation of the EITP. In addition, MM HAZ-4 would require that project-related debris be tested prior to disposal; MM HAZ-5 would require that potential backfill material be proven contaminant-free; and MM HAZ-6 would require that the applicant obtain an EPA Identification Number and receive authorization from a local CUPA, if necessary. Therefore, impacts would be less than significant with mitigation.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action):

Construction and operation of the EITP, if constructed simultaneously with the ISEGS project, could cumulatively increase the probability for hazards such as accidents or spills from improper use, storage, or disposal of oil and/or hazardous materials. However, the impacts would be reduced by ISEGS' implementation of a Safety Management Program, Worker Health and Safety Program, Hazardous Materials Business Plan, SPCC Plan, and site security measures. Likewise, the EITP would include a Hazardous Materials and Waste Handling Management Program, SPPC Plan, and Hazardous Materials Business Plan, and would include mitigation measures to reduce impacts to less than significant. The ISEGS FSA/DEIS, the BLM's ISEGS FEIS, and the EITP EIR/EIS conclude that there would be no significant impact from construction-generated hazardous materials with the use of BMPs; compliance with all laws, ordinances, regulations, and standards; and implementation of mitigation measures. In addition, the analyses for both projects conclude that operational impacts would also be reduced to less than significant. Therefore, the combined impact would be reduced to less than significant during construction and operation of both projects.

IMPACT HAZ-3: Expose the Public or Environment to Contaminated Soil or Groundwater

The proposed components may encounter undocumented hazardous waste sites during construction. However, the applicant has committed to conducting a Phase 1 ESA (APM HAZ-1) to identify recognized environmental conditions in the vicinity of the ROW prior to the start of construction to ensure that contaminated areas would be avoided. In addition, MM HAZ-3 would require the applicant to submit a work plan to the appropriate agency for its review and approval prior to initiating any remediation work, and MM HAZ-5 would require that potential backfill material (if used) be properly sampled and determined to be contaminant-free.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT HAZ-3. The CPUC finds that the following mitigation measures will mitigate significant effects to exposure to unidentified sources of contamination.

MM HAZ-3: Agency Coordination and Approvals. Before initiating the Phase I Environmental Site Assessment, site investigation under the Soil Management Plan, and/or any remediation work, the applicant will develop and submit a work plan to the appropriate federal, state, and local regulatory authority to oversee hazardous waste investigations or cleanups. No work will begin without approval of the appropriate regulatory authorities. The applicant will submit results of all analytical reports to the appropriate regulatory authorities in a report that summarizes the sampling results in reference to regulatory standards. The applicant will submit all closure certification or remediation approval reports to the appropriate regulatory authorities.

MM HAZ-5: Backfill Material. See IMPACT HAZ-1.

Rationale for Finding: Implementation of APM HAZ-1 (Phase I ESA) in addition to MM HAZ-3 and MM HAZ-5 will reduce potential impacts due to accidental release of hazardous materials to a less than significant level since they will require the applicant to submit a work plan to the appropriate agency for its review and approval prior to initiating any remediation work, and that potential backfill material (if used) be properly sampled and determined to be contaminant-free.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action): Construction and operation of the EITP, if constructed simultaneously with the ISEGS project, could cumulatively increase the probability for hazards such as accidents or spills from improper use, storage, or disposal of oil and/or hazardous materials. However, the impacts would be reduced by ISEGS' implementation of a Safety Management Program, Worker Health and Safety Program, Hazardous Materials Business Plan, SPCC Plan, and site security measures. Likewise, the EITP would include a Hazardous Materials and Waste Handling Management Program, SPPC Plan, and Hazardous Materials Business Plan, and would include mitigation measures to reduce impacts to less than significant. The ISEGS FSA/DEIS, the BLM's ISEGS FEIS, and the EITP EIR/EIS conclude that there would be no significant impact from construction-generated hazardous materials with the use of BMPs; compliance with all laws, ordinances, regulations, and standards; and implementation of mitigation measures. In addition, the analyses for both projects conclude that operational impacts would also be reduced to less than significant. Therefore, the combined impact would be reduced to less than significant during construction and operation of both projects.

IMPACT HAZ-4: Increase Safety Hazards for People Residing or Working Within Two Miles of a Public Airport or Public Use Airport

The only existing airport within the project area is the Jean Airport, 5 miles away; therefore, there would be no impact associated with existing airports within 2 miles of the proposed project. The proposed boundary for the Southern Nevada Supplemental Airport (SNSA) would be within 0.5 miles (2,640 feet) north of MP 26 of the EITP transmission line; however it is not possible to state conclusively whether the EITP would impact the future SNSA. Under APM LU-1, the applicant would notify the FAA as far in advance of construction as possible. To further reduce potential hazards associated with the future airport, the applicant has requested Hazard/No Hazard Determinations for structures within 20,000 feet of the airport boundary and will implement MM HAZ-2, which requires that the applicant comply with all FAA requirements upon construction of the SNSA.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT HAZ-4. The CPUC finds that the following mitigation measures will mitigate significant effects to people residing or working within two miles of a public airport or a public use airport.

> MM HAZ-2: Comply with FAA Requirements Upon Construction of the SNSA. The applicant will comply with all FAA requirements upon construction of the SNSA.

Rationale for Finding: With implementation of MM HAZ-2, impacts from increased safety hazards for people residing or working within 2 miles of an airport would be reduced to a less than significant level, since aeronautical safety considerations will be incorporated into the proposed project construction and operation.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action): Regarding the future SNSA, Conditions of Certification TRANS-3 and TRANS-4 would ensure that potential glare from the project is minimized, TRANS-5 would ensure the project complies with FAA lighting recommendations, and TRANS-6 would require notifying the FAA of potential air hazards during daylight hours. The CEC and the BLM have concluded that these measures would reduce ISEGS potential impact on the SNSA to less than significant. Similarly, the CPUC and the BLM have both concluded the MM HAZ-2, which requires the EITP to comply with all FAA requirements upon construction of the SNSA, would also reduce impacts to less than significant. Therefore, the combined impact of the two projects would be less than significant.

1.6.1.7 Hydrology and Water Quality

As described in Section 3.8 of the EITP EIR/EIS, "Hydrology and Water Quality", the potential impact to water resources resulting from the proposed project. The impact of random flood events on the proposed project was also assessed, as well as the corresponding impact to public health and the environment. To complete the analysis,

published resources including books, journals, maps, and information available via the internet on government websites were reviewed. The PEA was used extensively as a resource document for much of the analysis. In addition, information provided in the Final Staff Assessment/Draft Environmental Impact Statement (FSA/EIS) prepared for the proposed ISEGS located near the proposed Ivanpah Substation was evaluated. Published surface and groundwater maps and reports provided the information for the environmental setting section.

IMPACT HYDRO-1: Introduction of Hazardous Contamination into Surface and Groundwater

Although the proposed project could pose a potential adverse impact on surface and groundwater resources due to hazardous contamination during construction and operation and maintenance of the lines and substation, the applicant would undertake multiple measures to minimize this potential. As discussed above, the applicant would implement a hazardous materials and waste handling management program (APM HAZ-2) that would outline proper handling, storage, and disposal of hazardous materials as well as detail how to address any potential release. The applicant would also undertake measures to avoid operating in stream channels (APM W-1) and implement a SWPPP (APM W-9). For operations, they would implement an SPCC plan at their substations. These measures would reduce the potential for spills of hazardous materials and outline cleanup measures to be implemented should a spill occur.

In addition, the hydrology of the area would prevent any spill that occurred from migrating quickly or far. Because precipitation levels are low and groundwater in this region is located between 100 and 500 feet below the surface, it is highly unlikely that any release would migrate to groundwater. In addition, there are few permanent surface waters, so there are few that could be adversely affected. However, an unanticipated spill of vehicle oil or mud slurry could occur.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT HYDRO-1. The CPUC finds that the following mitigation measures will mitigate significant effects to surface and groundwater due to hazardous contamination.

MM W-1: Erosion Control Plan and Compliance with Water Quality Permits. The applicant will employ a professional engineer to develop and implement an Erosion Control Plan and monitor construction activities to ensure compliance with federal and state water quality permits. The Erosion Control Plan will comply with or exceed BMPs commonly used on projects in the California/Nevada area and those outlined in county plans. Copies of the Erosion Control Plan will be submitted to CPUC. MM W-1 will also serve to strengthen APMs W-1, W-4, and W-5 to include all intermittent and ephemeral streams and desert washes as depicted on USGS and NHD mapping and those identified during the applicant's field reconnaissance surveys. The intent of this MM is to minimize the impact of construction on surface water quality in the basins surrounding the proposed project. This MM will apply to all construction sites for the duration of construction and restoration activities.

MM W-6: DESCP, SWPPP, and Grading and Storm Water Management Plan for Ivanpah Substation. The applicant will be required to submit copies of the approved Drainage, Erosion, and Sediment Control Plan (DESCP) and Storm Water Pollution Prevention Plan (SWPPP) to CPUC three months prior to the start of construction, and implement those plans as part of the EITP.

Rationale for Finding: With proper implementation of MM W-1 (Erosion Control Plan and Compliance with Water Quality Permits) and MM W-6 (DESCP, SWPPP, and Grading and Storm Water Management Plan for Ivanpah Substation), the potential impact on surface water quality from erosion will be reduced to a less than significant level.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action):
The CEQA and NEPA EITP and ISEGS impact analyses related to hydrology and water quality were based on similar significance criteria that evaluated the extent to which the proposed projects would impact these resources. For EITP, CPUC/BLM concluded that the project's impact on surface and ground water quality associated with hazardous

materials and sedimentation would be less than significant with the incorporation of APM HAZ-2; APM W-1,-4, and -6 through -9; and MM W-6. CEC concluded that impacts to ground and surface water quality could be mitigated to less than significant levels through use of best management practices; compliance with all laws, ordinances, regulations, and standards; and the adoption of conditions of certification SOIL&WATER-1, -2, -5, -7, and -8. For ISEGS, BLM similarly concluded that regulatory compliance and SOIL&WATER-4 through -6 would mitigate potential water quality impacts.

IMPACT HYDRO-2: Lowering of Water Table or Interference with Aquifer Recharge

The proposed project could have small impacts on local groundwater levels and on aquifer recharge processes by altering surface water drainages and increasing groundwater withdrawal over current conditions. During construction, the applicant would avoid stream channels (APM W-1), collect and divert runoff (APM W-6), and develop ditch and drainage design (APM W-7). These measures would allow for infiltration of surface water and subsequent groundwater recharge at rates consistent with preconstruction conditions.

The applicant would also use water for dust suppression during construction. The potential for lowering local groundwater levels during construction would be negligible, localized, and short term. The applicant has agreed to a maximum water use of between 32,000 and 40,000 gpd for the duration of project construction. This equates to between 30.6 and 38.3 acre-ft/yr and a pump rate of 35 gpm. As described in Section 3.8.1.5, the applicant has arranged to acquire this water from existing wells at the Molycorp Mine Mountain Pass facility within the Ivanpah and Shadow Valley fresh water production well fields. The proposed project would require 35 gpm, or 2.3 percent, of the available water from the well fields. Molycorp currently uses only a small fraction of this water and has agreed that there would be sufficient water available for the proposed project

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT HYDRO-2. The CPUC finds that the following mitigation measure will mitigate significant effects due to lowering of water table or interference with aquifer recharge.

> MM W-2: Water Use Maximum. The applicant has estimated using a maximum of between 32,000 and 40,000 gpd of water for the construction phase of the project. This translates to between 30.6 and 38.3 acre-ft/yr. The applicant has stated that no water would be used during the operational phase of the project. Under MM W-2, the applicant will limit construction phase water use to a maximum of 45 acre feet per annum. The applicant will not use water during the operational phase of the project. Emergency water uses, including fire suppression, are excluded from these maxima. If the applicant requires additional water for construction or operation of the project, the applicant must submit a request to the CPUC and the BLM.

Rationale for Finding: To limit excessive groundwater withdrawals, MM W-2 sets maximum water use limits for the construction and operation phases of the proposed project. By limiting the maximum water use, construction of the proposed project would result in less than significant impacts

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action):
The CEQA and NEPA EITP and ISEGS impact analyses related to hydrology and water quality were based on similar significance criteria that evaluated the extent to which the proposed projects would impact these resources. EITP would acquire water from existing wells at the Molycorp Mine Mountain Pass facility. The CPUC/BLM concluded that pumping of quantities within the annual limits imposed by MM W-2 would keep impacts to groundwater supply at less than significant levels. ISEGS would drill two new wells on the project site. The proposed action calls for these two wells to be located just outside the northeast corner of Ivanpah 1. The Mitigated Ivanpah 3 Alternative would position these two wells to the northwest of Ivanpah 1, at a greater distance from the Primm Valley Golf Club. Under the Mitigated Ivanpah 3 Alternative, a groundwater monitoring well would be installed between the ISEGS wells and the

Primm Valley Golf Club wells in order to identify and quantify any changes in groundwater levels. The CEC concluded that impacts to groundwater levels could be effectively mitigated to less than significant levels under conditions of certification SOIL&WATER-3, -4, and -6. BLM concluded that the ISEGS Mitigated Ivanpah 3 Alternative would have less than significant impacts with the adoption of mitigation measures SOIL&WATER-3, -4, and -6.

IMPACT HYDRO-3: Increased Erosion or Siltation due to Alteration of Surface Drainage Patterns

There would be potential for increased erosion or siltation on site or off site due to project construction and operation and maintenance activities. Construction activities causing ground disturbance, such as grading, may change natural runoff patterns, thereby affecting natural erosion and siltation processes. Water used for dust suppression during construction could suspend and transport more sediment than is typically moved in the arid climate. In the Ivanpah Valley, sediment load transport to the surface of Ivanpah Dry Lake is part of natural processes. Assessment of impacts due to erosion and siltation includes analysis for reducing sediment contribution downstream. The applicant has stated that construction equipment would be kept out of flowing stream channels except when absolutely necessary for crossings (APM W-1). Also, transmission towers would be located to avoid active drainage channels (APM W-4). As part of the proposed project construction, the applicant would collect and divert runoff (APM W-6), develop ditch and drainage design (APM W-7), and minimize cut and fill slopes (APM W-8).

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT HYDRO-3. The CPUC finds that the following mitigation measures will mitigate significant effects to surface drainage patterns.

MM W-1: Erosion Control Plan and Compliance with Water Quality Permits. See IMPACT HYDRO-1.

MM W-6: DESCP, SWPPP, and Grading and Storm Water Management Plan for Ivanpah Substation. See IMPACT HYDRO-1.

Rationale for Finding: Implementation of the APMs and mitigation measures presented above would help minimize changes to surface drainage patterns and reduce stormwater velocity where changes would occur, therefore preventing excessive erosion and siltation. Because MM W-1 (Erosion Control Plan) and MM W-6 (DESCP and SWPPP for Ivanpah Substation) would ensure that all BMPs and county plan erosion practices are adhered to, erosion and siltation levels would be kept consistent with preconstruction conditions, thereby reducing this impact to less than significant levels.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action): The CEQA and NEPA EITP and ISEGS impact analyses related to hydrology and water quality were based on similar significance criteria that evaluated the extent to which the proposed projects would impact these resources. The EITP could change surface hydrology by disrupting existing channels or siting transmission towers in the path of water. Changes in surface hydrology would be effectively mitigated to less than significant levels for the EITP by the adoption of APMs W-1, -2, -4 through -7, and -9 and MMs W-3 through -5. ISEGS would have an increased potential to affect surface hydrology due to increased site grading and the introduction of additional water for routine mirror washing.

The ISEGS applicant has committed to implementing low impact development principles into the stormwater design plan in an effort to maintain existing drainages. The CEC and the BLM both concluded that impacts associated with surface hydrology would be mitigated by conditions of certification SOIL&WATER-1, 2, and 5. The Mitigated Ivanpah 3 Alternative would considerably reduce adverse impacts to surface hydrology by reducing the overall area of impact and implementing low impact development principles. Any potential impacts would be minimized through compliance with existing regulatory statutes. Impacts on hydrology and water resources from the two projects together would be less than significant with mitigation. See also Section 5.3.8.6 for a discussion of cumulative impacts.

IMPACT HYDRO-4: Altered Course of Stream or River due to Modification of Surface Drainage Patterns

The proposed project could cause alteration of the course of a stream due to modification of surface drainage patterns. Construction activities causing ground disturbance and alteration of natural drainage patterns could cause a change in the hydrologic inputs to a stream, thus affecting the flow volume or route. Changes to surface contours could be permanent and could affect the stream flow over the long term. As part of the proposed construction process, the applicant would keep equipment out of stream channels (APM W-1), consider erosion control plans during the bidding process (APM W-2), and avoid placement of transmission poles within active drainage channels (APM W-4). These measures would reduce temporary impacts to flowing steams and permanent impacts to existing drainage channels. However, these measures do not address construction impacts to existing drainage channels.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT HYDRO-4. The CPUC finds that the following mitigation measures will mitigate significant effects due to modification of surface drainage patterns.

MM W-3: Onsite Flow Model and Channel System. The applicant will employ a hydrologist to develop an Onsite Flow Model to predict any alteration in flow path that would result from construction and operation and maintenance of the proposed project. The applicant will also develop a channel system to prevent erosion and to mitigate altered flow paths. The Onsite Flow Model and channel system design will be submitted to the CPUC for review at least three months prior to the start of construction. The intent of this MM is to ensure that stormwater runoff will not cause flooding. The applicant will monitor the channel system throughout construction to assess effectiveness and ensure compliance with the designed system. Additionally, the applicant will coordinate with BLM and CPUC on model parameters and assumptions used in modeling.

MM W-4: Dry Lake Restoration Plan. The applicant will employ a hydrologist and a restoration specialist to develop a Restoration Plan for disturbance of dry lake beds. The proposed project would cross through Ivanpah Lake. Construction would disturb the flat dry lake bed surface that is used for recreation. The intent of this MM is to ensure that the dry lake bed is restored to preconstruction conditions. The BLM will review the plan prior to the start of construction. The BLM would also assess the success of the restoration and determine whether the Ivanpah Lake surface had been restored to preconstruction conditions. In addition, the applicant will coordinate with the BLM the submission of the plan to the CDFG for CDFG review. The applicant will provide the CPUC with a copy of the Restoration Plan.

Rationale for Finding: MM W-3 requires the applicant to predict any alteration in flow paths as a result of construction of the proposed project and establish a channel system to mitigate any impacts associated with altered flow paths. MM W-4 (Restoration of Dry Lake) requires the applicant to restore the lake surface to preconstruction conditions, therefore reducing this impact to less than significant levels

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action):
The CEQA and NEPA EITP and ISEGS impact analyses related to hydrology and water quality were based on similar significance criteria that evaluated the extent to which the proposed projects would impact these resources. The EITP could change surface hydrology by disrupting existing channels or siting transmission towers in the path of water. Changes in surface hydrology would be effectively mitigated to less than significant levels for the EITP by the adoption of APMs W-1, -2, -4 through -7, and -9 and MMs W-3 through -5. ISEGS would have an increased potential to affect surface hydrology due to increased site grading and the introduction of additional water for routine mirror washing. The ISEGS applicant has committed to implementing low impact development principles into the stormwater design plan in an effort to maintain existing drainages. The CEC and the BLM both concluded that impacts associated with surface hydrology would be mitigated by conditions of certification SOIL&WATER-1, 2, and 5. The Mitigated Ivanpah 3 Alternative would considerably reduce adverse impacts to surface hydrology by reducing the overall area of impact and implementing low impact development principles. Any potential impacts would be minimized through compliance with existing regulatory statutes. Impacts on hydrology and water resources from the two projects

together would be less than significant with mitigation. See also Section 5.3.8.6 for a discussion of cumulative impacts.

IMPACT HYDRO-5: Modified Runoff Characteristics That Exceed Existing Stormwater Systems, Possibly leading to Flooding or Inundation by Mudflow

The proposed project would be unlikely to cause flooding or inundation by mudflow. However, the EITP area is in a region known for active alluvial fans, which are vulnerable to flooding and debris flows in times of heavy rain. Construction activities causing ground disturbance could change natural runoff patterns, thereby affecting volume and flow of surface and subsurface waters and possibly affecting flooding patterns of local waterways.

The applicant would implement APM W-1, APM W-4, APM W-5, APM W-6, APM W-7, and, as required by law, implement a SWPPP (APM W-9). As a part of MM W-5, the applicant would also analyze all alluvial fans in the project area to determine the most active sections. Following this analysis, proposed project components would be sited on the least active areas of the fans to reduce the possibility of floods or debris flows.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT HYDRO-5. The CPUC finds that the following mitigation measures will mitigate significant effects to runoff.

> MM W-5: Historical Hydrological Model of Alluvial Fan. In the PEA, the applicant completed a historical hydrological model on site area alluvial fan(s) based on similar work on alluvial fans performed near Laughlin, Nevada (House 2005). The applicant extrapolated the data by applying the methodology from the Laughlin area model to the California portion of the project area. This study will be used to determine the active and inactive portions of the alluvial fans in the site area relative to surface water, sediment transport, and flash flooding. Where feasible, the applicant will locate towers, substations, and other permanent site features on inactive portions of the alluvial fan to minimize risk associated with flash flooding and alluvial fan failure.

Rationale for Finding: With implementation of the proposed APMs and MM W-5, project components will be sited on the least active areas of the fans to reduce the possibility of floods or debris flows, therefore reducing this impact to less than significant levels.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action):
The CEQA and NEPA EITP and ISEGS impact analyses related to hydrology and water quality were based on similar significance criteria that evaluated the extent to which the proposed projects would impact these resources. Hazards associated with flooding would be effectively mitigated for the EITP by adoption of APMs W-1, -3 through -7, and -9 and MM W-5. The CEC concluded that impacts associated with flooding would be mitigated to less than significant levels by the scour protection design and post-storm inspection required by condition of certification SOIL&WATER-5. The BLM identified reduced flooding potential in the Mitigated Ivanpah 3 Alternative due to the reduced footprint in active alluvial fans on the northern end of the site; less than significant impacts would be mitigated by MM SOIL&WATER-5.

IMPACT HYDRO-6: Substantially Degrade Water Quality

The proposed project could degrade water quality by increasing erosion or sedimentation in surface waters or through the introduction of hazardous materials into surface waters. Potential impacts from the introduction of hazardous materials would be less than significant without mitigation. Implementation of MMs W-1, W-3, and W-6 would reduce potential impacts due to erosion and sedimentation to less than significant levels.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT HYDRO-6. The CPUC finds that the following mitigation measures will mitigate significant effects to water quality.

MM W-1: Erosion Control Plan and Compliance with Water Quality Permits. See IMPACT HYDRO-1.

MM W-3: Onsite Flow Model and Channel System. See IMPACT HYDRO-4.

MM W-6: DESCP, SWPPP, and Grading and Storm Water Management Plan for Ivanpah Substation. See IMPACT HYDRO-1.

Rationale for Finding: Potential impacts from the introduction of hazardous materials would be less than significant without mitigation. Implementation of MMs W-1, W-3, and W-6 would reduce potential impacts due to erosion and sedimentation to less than significant levels.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action): The CEQA and NEPA EITP and ISEGS impact analyses related to hydrology and water quality were based on similar significance criteria that evaluated the extent to which the proposed projects would impact these resources. For EITP, CPUC/BLM concluded that the project's impact on surface and ground water quality associated with hazardous materials and sedimentation would be less than significant with the incorporation of APM HAZ-2; APM W-1,-4, and -6 through -9; and MM W-6. CEC concluded that impacts to ground and surface water quality could be mitigated to less than significant levels through use of best management practices; compliance with all laws, ordinances, regulations, and standards; and the adoption of conditions of certification SOIL&WATER-1, -2, -5, -7, and -8. For ISEGS, BLM similarly concluded that regulatory compliance and SOIL&WATER-4 through -6 would mitigate potential water quality impacts.

IMPACT HYDRO-8: Exposure to a Significant Risk of Flooding

The proposed project has limited potential to expose people or structures to a significant risk of loss, injury, or death due to flooding. There are no dams in the area, so there is no impact associated with dam failure. However, the project area is in a region with active alluvial fans, which are vulnerable to flooding and debris flows in times of heavy rain. Alluvial fan debris flows can carry sediments, cobbles, and even large objects such as trees, cars, and small buildings, thus presenting a threat to surrounding people and property. If project facilities were in the path of flood flows, there would be a slight possibility the facilities could be picked up and carried with the debris flow, presenting a threat to the construction crews, surrounding environment, and local communities. However, it is unlikely that project facilities or construction equipment would actually impede or redirect a flood flow. As mentioned above, small, unmapped drainages in active portions of alluvial fans are essential to effective drainage during extreme precipitation events and flash floods.

As part of the proposed project design, the applicant will keep construction equipment out of flowing streams (APM W-1), avoid tower placement in active drainage channels (APM W-4), create a system of diversion dikes around any sites where active channels could not be avoided (APM W-5), and develop ditches and drainage devices to reduce stormwater speed (APM W-7). These measures would ensure that active drainage channels were not hindered by construction activity. As a part of MM W-5 (Hydrological Model of Alluvial Fan), the applicant would analyze the fans in the project area to determine the most active sections.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT HYDRO-8. The CPUC finds that the following mitigation measures will mitigate significant effects due to flooding.

MM W-5: Historical Hydrological Model of Alluvial Fan. See IMPACT HYDRO-5.

Rationale for Finding: With implementation of the proposed APMs and MM W-5, the project facilities would be sited on the least active lobes of the alluvial fans to mitigate against floods or debris flows and their inherent threat to life and property. With proper implementation of MM W-5, there would be a less than significant risk of loss, injury, or death due to flooding.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action):
The CEQA and NEPA EITP and ISEGS impact analyses related to hydrology and water quality were based on similar significance criteria that evaluated the extent to which the proposed projects would impact these resources. Hazards associated with flooding would be effectively mitigated for the EITP by adoption of APMs W-1, -3 through -7, and -9 and MM W-5. The CEC concluded that impacts associated with flooding would be mitigated to less than significant levels by the scour protection design and post-storm inspection required by condition of certification SOIL&WATER-5. The BLM identified reduced flooding potential in the Mitigated Ivanpah 3 Alternative due to the reduced footprint in active alluvial fans on the northern end of the site; less than significant impacts would be mitigated by MM SOIL&WATER-5.

IMPACT HYDRO-9: Modify Runoff Characteristics, Possibly Leading to Flooding or Inundation by Mudflow

The proposed project area is in a region with active alluvial fans, which are vulnerable to flooding and debris flows in times of heavy rain. However, it is unlikely that project facilities or construction equipment would actually impede or redirect a flood flow. The applicant would implement APM W-1, APM W-4, APM W-5, and APM W-7 to ensure that active drainage channels were not hindered by construction activity.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT HYDRO-9. The CPUC finds that the following mitigation measures will mitigate significant effects to runoff characteristics.

MM W-5: Historical Hydrological Model of Alluvial Fan. See IMPACT HYDRO-5.

Rationale for Finding: With implementation of MM W-5, the applicant would analyze the alluvial fans in the project area to determine the most active sections. Following this analysis, the project facilities would be sited on the least active lobes of the alluvial fans to mitigate against floods or debris flows and their inherent threat to life and property.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action):
The CEQA and NEPA EITP and ISEGS impact analyses related to hydrology and water quality were based on similar significance criteria that evaluated the extent to which the proposed projects would impact these resources. Hazards associated with flooding would be effectively mitigated for the EITP by adoption of APMs W-1, -3 through -7, and -9 and MM W-5. The CEC concluded that impacts associated with flooding would be mitigated to less than significant levels by the scour protection design and post-storm inspection required by condition of certification SOIL&WATER-5. The BLM identified reduced flooding potential in the Mitigated Ivanpah 3 Alternative due to the reduced footprint in active alluvial fans on the northern end of the site; less than significant impacts would be mitigated by MM SOIL&WATER-5.

1.6.1.8 Land Use, Grazing Allotments, and Wild Horses and Burros

As described in Section 3.9 of the EITP EIR/EIS, “Land Use”, the proposed project would traverse the eastern Mojave Desert in southeastern California and southwestern Nevada from just outside Primm, Nevada, to outside of Boulder City, Nevada, primarily within existing utility right-of-ways (ROWs) on BLM-administered lands and land in unincorporated Clark County, Nevada, and San Bernardino County, California. To determine whether or not impacts would occur as a result of the proposed project, the various land use designations that exist within the project area were reviewed to determine whether or not the project construction and operations would be consistent with the

designated and allowable uses. In addition, specific plans relative to the use and management of specially designated lands were evaluated to determine if the proposed project construction and operations would conflict with these plans. In addition, specific legal ROW agreements and ownership contracts were reviewed as available.

IMPACT LU-1: Conflict with applicable Plans and Policies

The proposed project would cross various land uses in both California and Nevada:

- The Boulder City Conservation Easement (BCCE, managed by Clark County and the City of Boulder City) with specific utility corridors reserved to the BLM. A portion of the proposed line around MP 2 would deviate outside of the BLM-designated utility corridors granted in U.S. Patent No. 27-95-0022; because the route deviates outside of the corridor and requires widening the existing 70-foot ROW, mitigation is required.
- Land designated as the Ivanpah Airport Environs Overlay for the Southern Nevada Supplemental Airport (SNSA).
- A small area of private land in unincorporated Clark County. The land is zoned as commercial; however, transmission lines 34.5-kV or greater are an allowable use in all districts (zones/land use designations) in Clark County if they follow the conditions set forth by the Clark County Unified Development Code (the Code).

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT LU-1. The CPUC finds that the following mitigation measures will mitigate significant effects to land uses.

MM LU-1: Obtain Approval from Clark County and the City of Boulder City for Activities Outside of BLM-Designated Utility Corridors in the BCCE. Prior to construction, the applicant must consult with and obtain permission from Clark County and the City of Boulder City regarding construction outside of BLM-designated utility corridors in the BCCE. In addition, the applicant will comply with all land use restrictions, such as speed limits, in consultation with the BCCE, and will fully comply with the Amendment to the Interlocal Agreement, including Exhibit D. The applicant will submit a record of this consultation to the BLM and the CPUC prior to construction.

MM HAZ-1: Worker Health and Safety and Environmental Training and Monitoring Program. See IMPACT HAZ-1.

MM HAZ-2: Comply with FAA Requirements Upon Construction of the SNSA. See IMPACT HAZ-2.

Rationale for Finding: Implementation of MM LU-1 requires that the applicant comply with the terms of the Interlocal Agreement (as Amended) between Clark County and the City of Boulder City, and acquire approval for activities outside of the BLM-designated corridor within the BCCE. Additionally, MM HAZ-1 includes compliance with BCCE policies related to road designations, speed limits, and restrictions on camping in the area. The applicant will adhere to the policies of the South County Land Use Plan to ensure that there are no impacts related to land use planning efforts for the future SNSA. Additionally, MM HAZ-2 requires that the applicant comply with all FAA requirements when the SNSA is constructed. With the implementation of MM LU-1, MM HAZ-1, and MM HAZ-2, the proposed project would not conflict with any plans or policies, reducing potential impacts to land use to a less than significant level.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action): The CEQA and NEPA EITP and ISEGS impact analyses for land use and agricultural resources were based on similar significance criteria that evaluated the extent to which the proposed projects would impact land uses in the project area and convert agricultural lands to nonagricultural uses.

Utility Corridors: The CEC and the BLM considered the loss of Utility Corridor BB due to the construction and operation of ISEGS to be an adverse direct impact; however, it was considered less than significant because future utility lines could be routed through other existing corridors in the vicinity. The EITP is located largely in an existing BLM utility corridor, so impacts to existing land uses would also be less than significant or have no impact. With respect to the BCCE, the CPUC and the BLM concluded that impacts would be less than significant with the implementation of MM LU-1. ISEGS would have no impact on the BCCE because it would be located over 30 miles away. Therefore, the combined impact of ISEGS and EITP on land use would be less than significant.

Grazing allotments: ISEGS would reduce the Clark Mountain Grazing Allotment by 4 percent of the acreage, which is not considered a significant adverse impact on foraging opportunities or the safety of livestock. Similarly, the EITP would reduce the Clark Mountain Grazing Allotment by less than 0.5 percent. Therefore, EITP and ISEGS combined would contribute to less than 4.5 percent acreage reduction. This impact, although adverse, is not considered a significant impact under either CEQA or NEPA.

SNSA: With respect to the proposed SNSA, both ISEGS and the EITP would comply with all FAA requirements and regulations by the time the SNSA is constructed. Therefore, the combined impact of the two projects on the future SNSA would be less than significant.

Together, impacts from the two projects would have an adverse contribution or less than significant contribution with mitigation on land use and agriculture.

1.6.1.9 Noise

As described in Section 3.10 of the EITP EIR/EIS, "Noise", to evaluate potential noise impacts due to construction of the transmission line and substation, reference noise levels were obtained from the Roadway Construction Noise Model User's Guide (FHWA 2006), which provides a comprehensive assessment of noise levels from construction equipment. Noise at any specific receptor is typically dominated by the closest and loudest equipment. In addition, project construction noise would also be generated from the operation of a concrete batch plant and helicopters used for tower construction.

IMPACT NOI-1: Project construction noise exceeding noise levels or standards

Project construction would comply with local noise ordinances and variance procedures requested by local authorities. In addition, as part of the project, the applicant has committed to maintaining construction equipment in working order (APM NOI-2) and adhering to the manufacturer's maintenance recommendations (APM NOI -3); muffling construction equipment (APM NOI-4); and minimizing the amount of time that equipment is idled (APM NOI-5). Implementation of MM NOI-1 would ensure that noise impacts at the Desert Oasis Apartment Complex would be reduced, such that impacts would be less than significant.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT NOI-1. The CPUC finds that the following mitigation measures will mitigate significant effects due to construction noise exceeding applicable standards.

> MM NOI-1: Conduct Construction Activities during Daytime Hours. The applicant will conduct construction activities only during daytime hours (7 a.m. to 7 p.m.) while in the vicinity of the Desert Oasis Apartment Complex.

Rationale for Finding: Implementation of MM NOI-1 (Conduct Construction Activities during Daytime Hours) would ensure that noise impacts at the Desert Oasis Apartment Complex would be reduced, such that impacts would be less than significant.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action): The CEQA and NEPA EITP and ISEGS impact analyses for noise were based on similar significance criteria that evaluated to what extent noise generated by construction and operation of the proposed projects would impact sensitive receptors in the project areas. As stated above, noise analyses for ISEGS were conducted for construction and operation of the power plant, construction of natural gas and water pipelines, and construction and operation of electrical transmission lines, as well as for pile driving and steam blows. For the EITP, noise levels were modeled at the nearest noise receptors and then compared with applicable regulatory noise limits.

Both the EITP and ISEGS would be constructed in largely unpopulated areas. Noise from EITP construction would be temporary, and impacts due to corona noise or noise associated with maintenance activities would be negligible. While noise and vibration would be perceived by residents of the Desert Oasis Apartment Complex during construction, this impact would be temporary and therefore less than significant. Noise and vibration for ISEGS would also be less than significant after mitigation. It is possible that if portions of the EITP located near ISEGS were constructed at the same time as the ISEGS project, then the combined construction noise would be slightly louder near the Primm Valley Golf Course; however, operational noise would be generated mainly by ISEGS, as EITP operational noise would be negligible. Therefore, the combined impact of the two projects during operation would be similar to the projects' individual impacts. Together, impacts from the two projects would be adverse but less than significant.

IMPACT NOI-5: Cause a substantial temporary increase in ambient noise levels in the project vicinity

Construction noise would not be anticipated to exceed 78 dBA at the closest sensitive receptor (Desert Oasis Apartment Complex). Any increases in ambient noise levels due to construction activities in the project vicinity would be short-term, intermittent, and temporary.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT NOI-5. The CPUC finds that the following mitigation measures will mitigate significant effects to ambient noise levels.

MM NOI-1: Conduct Construction Activities during Daytime Hours. See IMPACT NOI-1.

MM NOI-2: Relocate Stationary Construction Equipment. The applicant will locate stationary construction equipment at a site location that is as far away from the Desert Oasis Apartment Complex as is feasible.

MM NOI-3: Turn off Idling Equipment. The applicant will turn off idling equipment when not in use.

MM NOI-4: Notify Adjacent Residences. The applicant will notify residents within 200 feet of the transmission line in advance of construction work.

MM NOI-5: Install Acoustic Barriers. The applicant will install acoustic barriers around stationary construction noise sources near sensitive receptors.

Rationale for Finding: With the implementation of MM NOI-1, and with additional noise minimization procedures (MM NOI-2 through MM NOI-5) implemented as needed, construction of the proposed project will be reduced to a less than significant level.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action): The CEQA and NEPA EITP and ISEGS impact analyses for noise were based on similar significance criteria that evaluated to what extent noise generated by construction and operation of the proposed projects would impact sensitive receptors in the project areas. As stated above, noise analyses for ISEGS were conducted for construction and operation of the power plant, construction of natural gas and water pipelines, and construction and operation of electrical transmission lines, as well as for pile driving and steam blows. For the EITP, noise levels were modeled at the nearest noise receptors and then compared with applicable regulatory noise limits.

Both the EITP and ISEGS would be constructed in largely unpopulated areas. Noise from EITP construction would be temporary, and impacts due to corona noise or noise associated with maintenance activities would be negligible. While noise and vibration would be perceived by residents of the Desert Oasis Apartment Complex during construction, this impact would be temporary and therefore less than significant. Noise and vibration for ISEGS would also be less than significant after mitigation. It is possible that if portions of the EITP located near ISEGS were constructed at the same time as the ISEGS project, then the combined construction noise would be slightly louder near the Primm Valley Golf Course; however, operational noise would be generated mainly by ISEGS, as EITP operational noise would be negligible. Therefore, the combined impact of the two projects during operation would be similar to the projects' individual impacts. Together, impacts from the two projects would be adverse but less than significant.

1.6.1.10 Public Services and Utilities

Construction, operation, and maintenance of the proposed project and alternatives would involve the use or interaction with existing emergency response units and facilities, schools, solid waste, wastewater, water supply facilities, and existing powerlines and pipelines in the proposed project area. The baseline conditions were evaluated based on their potential to be affected by construction, operation, or maintenance of the proposed project. No quantitative thresholds apply to the analysis of potential impacts on public services and utilities under CEQA or NEPA. Qualitative impact criteria are used for the analysis presented in this section.

IMPACT PUSVC-2: Project construction temporarily increases water use, and project operation contributes to increased long-term water consumption

The applicant has estimated that between 30.6 and 38.3 acre feet per annum would be needed for the construction phase of the transmission line. Because there is a limited water supply in the proposed project area, the applicant would implement MM W-2 (Water Use Maximum) to sets maximum water use limits for the construction and operation phases. For more information on water use and consumption, specifically as it relates to the potential for lowering the water table in the project area, see Impact HYDRO-2.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT PUSVC-2. The CPUC finds that the following mitigation measures will mitigate significant effects to water supply services.

MM W-2: Water Use Maximum. See Impact HYDRO-2.

Rationale for Finding: Implementation of MM W-2 (Water Use Maximum) will set maximum water use limits for the construction and operation phases; therefore, potential impacts on water supply will be reduced to a less than significant level.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action):
The CEQA and NEPA EITP and ISEGS impact analyses for public services and utilities were based on similar significance criteria that evaluated to what extent the proposed projects would impact acceptable levels of service for fire protection, law enforcement, schools, and hospitals; result in the construction of new or expanded storm water drainage facilities; require new or expanded water entitlements; be served by landfills with sufficient capacity; or comply with statutes and regulations related to solid waste.

For EITP, maximum water use would be 40,000 gallons per day during construction (between 30.6 and 38.3 acre feet per year). The water would be supplied by existing wells at the Molycorp Mine Mountain Pass facility. Water would not be used during operations. The proposed project route would cross below existing powerlines at multiple locations and near several pipelines. For the ISEGS project, all water for construction and operations would be drawn from one

of two wells constructed for the project. Up to 194,000 gallons of water would be used daily for dust suppression, vehicle washing, and worker use during Phase 3 of the project and 99,333 during Phases 1 and 2. Approximately 76.4 acre feet of water per year would be used during operations. The CEC concluded that BMPs, the SWPPP, and the Drainage, Erosion, and Sedimentation Control Plan required as conditions of certification would reduce erosion and sedimentation, help maintain water quality, control storm water, and minimize impacts on groundwater. Conditions of certification regarding the location of groundwater wells, maximum water use, groundwater monitoring, and water reuse would reduce impacts on water resources to less than significant levels.

Although the combined impact from water use for the two projects has the potential to be adverse, MM PUSVC-C-1, in addition to the measures listed in the preceding paragraphs, would further reduce impacts from water use during construction of the EITP. MM PUSVC-C-1 requires the applicant to demonstrate to the BLM and CPUC that the water supplier has an adequate supply such that the existing local public and private water usages are not altered.

IMPACT PUSVC-3: Solid waste generated during construction of the project exceeds landfill requirements

During construction, the applicant has estimated that a total of 540 tons of waste would be created, of which approximately 400 tons (74 percent) would be salvaged or recycled and approximately 140 tons (26 percent) would be disposed of in landfills; therefore, the applicant would be on track to meet solid waste management requirements in both California and Nevada. Existing solid waste facilities have adequate capacity to accommodate project-related solid wastes. With the implementation of MM PUSVC-1, potential impacts on landfills would be less than significant.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT PUSVC-3. The CPUC finds that the following mitigation measures will mitigate significant effects to landfills.

MM PUSVC-1: Construction Waste Disposal Plan. The applicant will prepare a Construction Waste Disposal Plan for all nonhazardous wastes generated during construction of the proposed project and submit the plan to the BLM and the CPUC for review and approval no less than 30 days prior to start of construction. The plan will contain the following, at a minimum:

- Description of all nonhazardous solid and liquid construction wastes, including:
  - Estimated amounts to be disposed of in a landfill by weight or volume and
  - Estimated amounts that can be recycled or salvage by weight or volume;
- Recycling, salvage, and waste minimization/source reduction plans;
- Management methods to be used for each type of waste, including temporary on-site storage, housekeeping and best management practices to be employed, and methods of transportation and packaging; and
- Description and list of all contracts and plans made with waste contractors, landfills, and wastewater treatment facilities.

The applicant may refer to internal salvage and waste manuals in the Construction Waste Management Plan where applicable. The plan is necessary to ensure that solid waste is recycled or salvaged to the maximum extent possible. In addition, the applicant would need to observe the Nevada Legislature's goal to recycle 25 percent of total solid waste generated within each municipality of Nevada.

Rationale for Finding: With the implementation of MM PUSVC-1, the applicant will ensure project-specific nonhazardous waste best management practices are fully incorporated during construction activities, reducing potential impacts on landfills to a less than significant level.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action):
The CEQA and NEPA EITP and ISEGS impact analyses for public services and utilities were based on similar significance criteria that evaluated to what extent the proposed projects would impact acceptable levels of service for fire protection, law enforcement, schools, and hospitals; result in the construction of new or expanded storm water drainage facilities; require new or expanded water entitlements; be served by landfills with sufficient capacity; or comply with statutes and regulations related to solid waste.

The EITP would not increase the demand for housing or induce population growth during construction, operation, or maintenance. Construction workers would be expected to commute to the area or reside in the area temporarily. During construction, approximately 540 tons of waste would be generated, of which approximately 74 percent would be recycled and 26 percent disposed of in landfills. Sanitary wastewater could be generated if a permanent restroom facility were built at the proposed Ivanpah Substation.

For the ISEGS project, the required construction and operational labor force would reside within the study area and no population increase would occur during construction or operation. Approximately 280 tons of solid waste would be generated during construction and 240 tons per year during operations. A septic system for sanitary wastewater would be located at the administration building/operations and maintenance area. Process wastewater from all equipment during operations, including the boilers and water treatment equipment, would be treated and recycled. The CEC concluded that construction and operations waste management plans for the ISEGS project will be developed as conditions of certification to ensure waste is recycled and reduce impacts from the disposal of solid waste to less than significant levels. Similarly, the BLM concluded that with mitigation, and impacts from the disposal of solid waste and the generation of wastewater would be negligible during construction, operations, and decommissioning.

Together, impacts from the two projects would have combined impacts on disposal of solid waste. Both projects will also be required to recycle. For solid waste that cannot be recycled, the local and regional landfills have more than enough capacity to accept the amount of waste estimated to require disposal from the two projects. For solid waste that cannot be recycled, the local and regional landfills have more than enough capacity to accept the amount of waste estimated to require disposal from the two projects.

IMPACT PUSVC-4: Solid waste generated during construction of the project results in noncompliance with federal, state, or local statutes, regulations, or policies

The proposed project would need to observe the Nevada Legislature's goal to recycle 25 percent of total solid waste generated within each municipality, and in California, the proposed project would be required to comply with the California Integrated Waste Management Act. During construction, the applicant has estimated that a total of 540 tons of waste would be created, of which approximately 400 tons (74 percent) would be salvaged or recycled and approximately 140 tons (26 percent) would be disposed of in landfills; therefore, the applicant should be on track to meet solid waste management requirements in both California and Nevada, and there should be adequate capacity in the area to accommodate the amount of solid waste generated.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT PUSVC-4. The CPUC finds that the following mitigation measures will mitigate significant effects due to noncompliance with federal, state, or local statutes, regulations, or policies on solid waste management.

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MM PUSVC-1: Construction Waste Disposal Plan. See Impact PUSVC-3.

Rationale for Finding: Implementation of MM PUSVC-1 will ensure that compliance with local policies regarding solid waste management, and that solid waste would be recycled to the maximum extent possible. Therefore, impacts related with non-compliance with federal, state, or local statutes, regulations, or policies due to solid waste management will be reduced to a less than significant level.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action): The CEQA and NEPA EITP and ISEGS impact analyses for public services and utilities were based on similar significance criteria that evaluated to what extent the proposed projects would impact acceptable levels of service for fire protection, law enforcement, schools, and hospitals; result in the construction of new or expanded storm water drainage facilities; require new or expanded water entitlements; be served by landfills with sufficient capacity; or comply with statutes and regulations related to solid waste. Both projects have incorporated mitigation and best management practices to ensure compliance with applicable federal, state, or local statutes, regulations, or policies regarding solid waste management; therefore, impacts due to solid waste generation and compliance will be reduced to a less than significant level.

1.6.1.11 Recreation

Lands uses located within the proposed project area with that include recreational use are the Mojave National Preserve, wilderness areas, and Areas of Critical Environmental Concern (ACECs). Other areas used for recreation including Eldorado, Ivanpah, Roach, and Jean dry lake beds are present in the valleys; additionally, the Clark Mountains, the Sheep Mountain, the Lucy Gray Mountains, the McCullough Mountains are considered recreational opportunities in wilderness areas. To determine impacts that would result from construction, operation, and maintenance of the EITP on recreational opportunities in wilderness areas, the existing environment for recreation and wilderness resources within 0.5 miles of the proposed project area were evaluated against the NEPA and CEQA impact criteria. Locations of recreational opportunities and wilderness areas were identified through several sources, including information provided by the applicant, U.S. Geological Survey topographic maps, BLM management plans, and consultation with wilderness and recreation specialists from the BLM Needles and Las Vegas field offices.

In addition, private developed land is located along the California/Nevada border in and near Primm, Nevada, and includes casinos and hotels, restaurants, a nine-hole golf course, and other tourist attractions. Recreational uses include casual and organized noncompetitive and competitive land-sailing on both the west and east sides of the Ivanpah Dry Lake bed and casual and organized non-competitive vehicle use on designated routes surrounding the dry lake bed.

IMPACT REC-1: Disruption of Access to Existing Recreation Opportunities

Construction of the transmission line would temporarily restrict access to several trail segments in the Jean/Roach Dry Lake Recreation Area; however, construction activities would be temporary and limited to the construction ROW. With implementation of APM REC-1, recreational facility closures would be coordinated with facility owners and construction would be scheduled to avoid heavy recreational use periods.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT REC-1. The CPUC finds that the following mitigation measures will mitigate significant effects to existing recreation opportunities.

MM REC-1: Limit Construction Workspace in Wildlife and Recreational Areas. The applicant will not site extra workspace areas such as contractor yards in Recreation Areas to minimize impacts on recreational users

during construction. In addition, the applicant will coordinate with the BLM, as well as organizers of BLM-permitted races and events in the project area, to ensure that project construction will not interrupt events.

MM REC-2: Notify the Nevada Department of Wildlife of Any Road Closures During Hunting Season. To allow access for hunters in the area, the applicant will not close the southern right-of-way of the McCullough Pass during construction. The applicant will notify NDOW of any road closures during hunting season at least 30 days prior to closure.

Rationale for Finding: Implementation of MM REC-1 will require the applicant to locate extra workspace areas outside of Recreation Areas and require construction coordination with the BLM and organizers of BLM-permitted events in the project area. Additionally, MM REC-2 will ensure that McCullough Pass' southern ROW remains open to the public during construction, thus reducing potential impacts to hunters in the area. With implementation of APM REC-1, MM REC-1, and MM REC-2, impacts to recreational opportunity access resulting from construction of the EITP will be less than significant.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action):
The CEQA and NEPA EITP and ISEGS impact analyses for recreational resources were based on similar significance criteria that evaluated the extent to which the proposed projects would increase the use of recreational facilities, require construction or expansion of recreational facilities, or disrupt access to existing recreational opportunities.

The proposed EITP route would cross the Jean/Roach Dry Lake Recreation Area and, during construction, would temporarily restrict access to several trail segments in that area, but the applicant would coordinate closures of recreational facilities with the facility owners and would schedule construction to avoid heavy use periods (APM REC-1). Additionally, MM REC-1 would further reduce impacts on recreational users by requiring the applicant to locate extra workspace areas outside of recreational areas. The proposed ISEGS project area is not substantially used for recreational purposes. Rerouting affected routes of travel around the ISEGS project boundaries to access recreation is expected to cause only a minor inconvenience. Rerouting is not expected reduce visitation for recreation.

The CPUC concluded that the EITP would have no impact related to increased use of recreation facilities or the need for additional or expanded recreational facilities. Similarly, the CEC concluded that the ISEGS project would have no direct or indirect significant impacts on recreational resources under CEQA

The BLM concluded that construction activities for the EITP would be limited to the construction ROW and would be minor, short term, localized, and negligible. No additional impacts on recreation or wilderness areas would occur as a result of project construction or as a result of operation and maintenance of the substation or telecommunications line. Likewise, the BLM concluded that the ISEGS project would not have adverse impacts on recreational resources during construction, operations, or decommissioning. However, two ISEGS mitigation measures were included as conditions of certification. One would require that a Solar / Ecological Interpretive Center be developed, and the other would ensure that public access to BLM lands be maintained.

Together, impacts from the two projects would have a minor short-term contribution or less than significant contribution with mitigation to impacts on recreation in the Jean/Roach Dry Lake Recreation Area due mainly to construction of the EITP.

Cumulative Impact REC-C-1: Restricting Access to Areas within the Jean/Roach Dry Lake SRMA

The EITP would cross the Jean/Roach Dry Lake SRMA between MP 7 and MP 28.5. Construction of the transmission line would temporarily restrict access to several trail segments. As part of the project (APM REC-1), the applicant will

coordinate closures of recreational facilities with the facility owners and would schedule construction to avoid heavy use periods.

The Nextlight Silver State Solar Project would be located entirely within the boundary of the Jean/Roach Dry Lake SRMA and would be constructed on two sections of a competitive OHV racing trail. If the EITP and NextLight Silver State Solar Project had overlapping construction schedules, there could be a considerable short-term cumulative impact to the Jean/Roach Dry Lake SRMA because each would temporarily restrict access to trails.

Finding: The CPUC finds that that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from the Cumulative Impact REC-C-1. The CPUC finds that the following mitigation measure will mitigate significant effects to areas within the Jean/Roach Dry Lake SRMA.

MM REC-1: Limit Construction Workspace in Wildlife and Recreational Areas. See Impact REC-1.

Rationale for Finding: MM REC-1 requires the applicant to locate extra workspace areas outside of the Ivanpah Dry Lake Recreation Area and Jean/Roach Dry Lake SRMA, which would further minimize the temporary disturbance on recreation in the vicinity of the dry lakes. Based on the assumption that there would be overlapping construction schedules and the duration of construction in the Jean/Roach Dry Lake SRMA and the area of the Jean/Roach Dry Lake SRMA crossed by the EITP, the project would have a minor short-term contribution or less than significant contribution with mitigation to cumulative impacts on recreation in the Jean/Roach Dry Lake SRMA.

1.6.1.12 Traffic and Transportation

As described in Section 3.14 of the EITP EIR/EIS, "Traffic and Transportation", traffic conditions in the proposed project area would be adversely impacted in the short term by an increase in traffic due to an influx of construction workers and the delivery of construction equipment, materials, and water to the proposed project area. Construction equipment and materials deliveries would occur throughout the construction period. Construction equipment would include trucks, vans, tractors, trailers, and dozers of various sizes. In addition, construction personnel required during any single construction phase will require transportation in and out the work sites. To evaluate impacts on traffic and transportation, traffic volumes were collected from the Caltrans and NDOT databases for the transportation network affected by the proposed project. The 2000 Highway Capacity Manual and Caltrans Traffic Impact Study Guide were used to determine LOS values. The volume/capacity ratio was calculated and then compared with the LOS levels outlined in the Caltrans Traffic Impact Study Guide.

In addition, helicopters might be used during the proposed project construction for installation of Tubular Steel Poles (TSPs) and overhead wires. Helicopter use is expected only in the McCullough Pass area and for line stringing. The use of helicopters would be limited to helicopter staging areas near construction locations considered safe locations for landing.

IMPACT TRANS-1: Traffic Load and Capacity

The proposed project would result in less than significant impacts on existing traffic load and capacity, as a limited number of vehicles over a short period would be used for construction. Impacts on northbound I-15 during the Friday afternoon commute would occur over a short term during project construction activities. The use of helicopters of during construction and operations could also increase the volume of air traffic in the area and potential air traffic conflicts could occur.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT TRANS-1. The CPUC finds that the following mitigation measures will mitigate significant effects to increase in traffic load and capacity.

MM TRANS-3: Traffic Control Plan. Prior to start of construction of the EITP, the applicant will prepare and implement a Traffic Control Plan for the project to address staggering of deliveries on I-15 during peak traffic times.

MM TRANS-2: Helicopter Flight Plan and Safety Plan. At least 30 days prior to construction of the project, the applicant will coordinate with the FAA for review and approval of any helicopter flight plans that would take place during construction and operation. The applicant will then provide information to the BLM and the CPUC regarding the intended need and use of helicopters during construction and operation of the project, including the flight and safety plan; the number of days and hours that the helicopter would operate; the type and number of helicopters that would be used; the location, size, and number of staging areas for helicopter take off and landing; and written approval from property owners for use of helicopter staging areas. The applicant will review the helicopter flight and safety plan with the FAA and the CCDOA at least 30 days prior to the start of SNSA construction and resubmit the revised plan to the BLM and the CPUC.

Rationale for Finding: Implementation of APM TRA-1, APM TRA-2, and MM TRANS-3 will contribute to reduction of impacts associated with construction traffic. Additionally, potential air traffic conflicts would be reduced to less than significant levels with implementation of MM TRANS-2. Additionally, MM HAZ-2, which requires compliance with all FAA requirements upon construction of the SNSA, would further reduce air traffic conflicts to less than significant.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action): The CEQA and NEPA EITP and ISEGS impact analyses for transportation and traffic were based on similar significance criteria that evaluated the extent to which the proposed projects would increase traffic; exceed LOS standards; result in inadequate emergency access; result in inadequate parking capacity; conflict with adopted policies, plans, or programs supporting alternative transportation; affect air traffic patterns; or result in roadway closures.

Construction of the EITP is projected to take 18 to 19 months, beginning the last quarter of 2011 and ending mid-2013. A maximum of 204 construction and personnel vehicles could be in use at any one time. Construction of the ISEGS project is projected to take 40 months. During peak construction, approximately 243 construction vehicles are expected to drive to the site. It is anticipated that I-15 traffic would be exacerbated by project construction activities. Given the geographical proximity and overlapping schedules of the EITP and the ISEGS project, it is reasonable to assume that the two projects would contribute to a cumulatively significant impact on I-15 traffic (see Impact TRANS-C-1 for further description).

The CPUC concluded that with mitigation, impacts on traffic and transportation from construction, operation, and maintenance of the EITP would be less than significant with mitigation. APMs would be sufficient to reduce impacts on emergency access to less than significant levels. The CPUC concluded that there would be no impact on parking, support for alternative transportation, or road closures. The BLM concluded that the EITP would result in direct minor adverse traffic impacts due to project construction access to roads, but the impacts would be localized at construction yards and crossing points along the transmission line route and would be short term. The impacts would be reduced with mitigation.

For the ISEGS project, the CEC concluded that impacts, including those that would affect I-15, would be reduced to less than significant levels with mitigation. Mitigation measures included the implementation of a Traffic Management Plan (MM TRANS-1), requirements to repair damaged public roads and other ROWs (MM TRANS-2), requirements to properly mark and light power towers (MM TRANS-5), and requirements to coordinate with the FAA regarding plume hazards (MM TRANS-6) that would reduce traffic load, LOS, emergency access, road closure, and air traffic impacts to less than significant levels. The CEC concluded that there would be no impact on parking.

The BLM also concluded that operation and maintenance activities for the EITP would not result in an adverse impact on ground transportation. Similarly, the BLM concluded that mitigation measures for the ISEGS project would adequately reduce impacts on traffic and transportation.

IMPACT TRANS-2: Impact Level of Service Standard and Lane Closures

The proposed project would result in less than significant impacts on existing LOS standards as defined by Caltrans. A limited number of vehicles over a short period would be used for construction. Impacts on northbound I-15 during the Friday afternoon peak hours due to increased number of vehicles on the road would be short term and less than significant. Though the proposed project does not include plans to close I-15 during construction, one or several lanes of I-15 may be closed to allow for pulling the transmission lines across the highway. Since I-15 experiences operating conditions at LOS D with high density stable flow and the potential for tolerable delay, lane closures during a period of LOS D could result in significant traffic circulation impacts over the short term. The severity of the short-term impact would depend on the number of lanes closed, the duration of the closure, and the LOS conditions at the time of closure. If lane closures were implemented and then sudden, unexpected LOS D conditions were to occur, it is reasonable to assume that drivers could experience significant delay along I-15.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT TRANS-2. The CPUC finds that the following mitigation measures will mitigate significant effects to Level of Service standard and lane closure.

MM TRANS-1: No Lane Closures on I-15 during Friday Peak Usage. The applicant will limit construction activities on Friday afternoon from noon to 10 p.m. so as not to require lane closures on I-15.

MM TRANS-3: Traffic Control Plan. Prior to start of construction of the EITP, the applicant will prepare and implement a Traffic Control Plan for the project to address staggering of deliveries on I-15 during peak traffic times.

Rationale for Finding: With implementation of MM TRANS-1, the applicant will limit construction activities so as not to require lane closures on I-15 from noon to 10 p.m. on Fridays. In addition, MM TRANS-3 will address staggering of deliveries on I-15 during peak traffic times.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action):
The CEQA and NEPA EITP and ISEGS impact analyses for transportation and traffic were based on similar significance criteria that evaluated the extent to which the proposed projects would increase traffic; exceed LOS standards; result in inadequate emergency access; result in inadequate parking capacity; conflict with adopted policies, plans, or programs supporting alternative transportation; affect air traffic patterns; or result in roadway closures.

Construction of the EITP is projected to take 18 to 19 months, beginning the last quarter of 2011 and ending mid-2013. A maximum of 204 construction and personnel vehicles could be in use at any one time. I-15 experiences LOS D operating conditions in the areas that would be impacted during construction of the EITP. Construction of the ISEGS project is projected to take 40 months. During peak construction, approximately 243 construction vehicles are expected to drive to the site. During peak construction, all intersections would continue to operate at an acceptable LOS (C or better), with the exception of Friday afternoon traffic on northbound 1-15, which already operates at LOS F. I-15 traffic would be exacerbated by project construction activities. Given the geographical proximity and overlapping schedules of the EITP and the ISEGS project, it is reasonable to assume that the two projects would contribute to a cumulatively significant impact on I-15 traffic (see Impact TRANS-C-1 for further description).

IMPACT TRANS-4: Result in a Change in Air Traffic Patterns

While the proposed project would not impact existing air traffic, use of helicopters of during operation and maintenance procedures could interfere with air traffic associated with the future SNSA. As a result, the applicant is required to implement MM TRANS-2, which requires coordination with the FAA regarding a Helicopter Flight Plan and Safety Plan. In addition, MM TRANS-2 specifies that the applicant will review the plan with the FAA and the CCDOA at least 30 days prior to the start of SNSA construction.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT TRANS-4. The CPUC finds that the following mitigation measures will mitigate significant effects to air traffic patterns.

> MM TRANS-2: Helicopter Flight Plan and Safety Plan. At least 30 days prior to construction of the project, the applicant will coordinate with the FAA for review and approval of any helicopter flight plans that would take place during construction and operation. The applicant will then provide information to the BLM and the CPUC regarding the intended need and use of helicopters during construction and operation of the project, including the flight and safety plan; the number of days and hours that the helicopter would operate; the type and number of helicopters that would be used; the location, size, and number of staging areas for helicopter take off and landing; and written approval from property owners for use of helicopter staging areas. The applicant will review the helicopter flight and safety plan with the FAA and the CCDOA at least 30 days prior to the start of SNSA construction and resubmit the revised plan to the BLM and the CPUC.

Rationale for Finding: Through implementation of MM TRANS-2, the applicant is required to coordinate with the FAA regarding a Helicopter Flight Plan and Safety Plan. In addition, MM TRANS-2 specifies that the applicant will review the plan with the FAA and the CCDOA at least 30 days prior to the start of SNSA construction. Therefore, with the implementation of MM TRANS-2, potential air traffic conflicts would be reduced to less than significant levels.

Finding/Rationale for Combined Impact of EITP and ISEGS (Whole of the Action / Cumulative Action):
The CEQA and NEPA EITP and ISEGS impact analyses for transportation and traffic were based on similar significance criteria that evaluated the extent to which the proposed projects would increase traffic; exceed LOS standards; result in inadequate emergency access; result in inadequate parking capacity; conflict with adopted policies, plans, or programs supporting alternative transportation; affect air traffic patterns; or result in roadway closures.

The CPUC concluded that with mitigation, impacts on traffic and transportation from construction, operation, and maintenance of the EITP would be less than significant. Mitigation measures include the implementation of a Helicopter Flight Plan (MM TRANS-2) to reduce air traffic pattern impacts to less than significant levels. Similarly, the BLM concluded that impacts would be localized at construction yards and crossing points along the transmission line route and would be short term. The impacts would be reduced with mitigation. Operation and maintenance would require helicopter usage, but MM TRANS-2 requires the applicant, in coordination with the FAA, to develop a Helicopter Flight Plan and Safety Plan, which would reduce impacts on air traffic to minor.

For the ISEGS project, the CEC concluded that impacts to air traffic patterns would be reduced to less than significant levels with implementation of mitigation measures, such as requirements to properly mark and light power towers (MM TRANS-5), and requirements to coordinate with the FAA regarding plume hazards (MM TRANS-6). The ISEGS FSA/EIS does not indicate that helicopters would be used during construction of the proposed project.

Cumulative Impact TRANS-C-1: Traffic Load, Capacity, and Level of Service

Most roads in the cumulative impact area are infrequently used and would not be adversely affected by a slight, temporary increase in road traffic; however, construction of the EITP would increase use of I-15 by a maximum of 200

vehicles. Northbound I-15 experiences periods of heavy use on Friday from approximately noon to 10 p.m. because of motorists traveling between the Las Vegas and Los Angeles areas.

The applicant would acquire encroachment permits (APM TRA-1) and implement a Traffic Management and Control Plan (APM TRA-2) to reduce impacts. Relevant impacts of the EITP are IMPACT TRANS-1: Traffic Load and Capacity and IMPACT TRANS-2: Level of Service Standard and Lane Closures.

The EITP, ISEGS, the First Solar Project, the NextLight Silver State Solar Project, the Calnev Pipeline Expansion Project, and the DesertXpress High-Speed Rail Project would be located near the I-15 corridor. It is likely that during certain periods, construction of these projects could have overlapping schedules.

With concurrent construction of the projects mentioned above, the number of vehicles using I-15 would increase and would adversely impact traffic load and LOS on I-15 principally on Fridays from noon to 10 p.m. However, the exact number of vehicles to be added cannot be determined with the available information. The EITP would contribute a maximum of 200 vehicles over an 18-month period and would minimize impacts through use of a Traffic Management Plan; therefore, the contribution of the EITP's impact on traffic and transportation would be minor. However, the EITP's incremental effect could result in a considerable cumulative impact; therefore, mitigation would be necessary.

Finding: The CPUC finds that changes or alterations have been incorporated into the project to mitigate significant effects on the environment from IMPACT TRANS-C-1. The CPUC finds that the following mitigation measures will mitigate significant effects to traffic load, capacity, and Level of Service.

> MM-C-TRANS-1: I-15 Use Limits. The applicant will limit the use of I-15 on Fridays from noon to 10 p.m. This will require using alternative routes or planning sufficiently such that vehicular use of I-15 would be limited to fewer than 15 vehicles every 15 minutes, resulting in a minor, short-term cumulative impact. Implementation of this mitigation measure would reduce the EITP's incremental contribution to less than significant or minor.

Rationale for Finding: Implementation of MM-C-TRANS-1 and a similar mitigation proposed for ISEGS would reduce the cumulative effects and would reduce the Whole of the Action / Cumulative Action's contribution to cumulative effects to minor, short-term, less than significant impacts; however, the cumulative impact to traffic on Fridays could still be significant.

1.6.2 Significant and Unavoidable Adverse Environmental Impacts

The Draft EIR/EIS has identified significant and unavoidable adverse impacts that could result from construction, operation, and maintenance of the proposed project, including impacts on biological resources. Potentially significant adverse impacts could also occur to air quality. Under NEPA, the proposed project would result in major, adverse, and unavoidable impacts to aesthetics and visual resources for one of the eight key observation points (KOPs) analyzed. With mitigation, impacts to aesthetics and visual resources would be less than significant under CEQA. All other EITP impacts were determined to be less than significant, or could be reduced to a less than significant level with implementation of the mitigation measures proposed in the EIR/EIS.

Taken together, the ISEGS and EITP project would result in significant and unavoidable impacts on several sensitive plant species and desert tortoise (biological resources), air quality, and visual resources. The two projects also contribute to significant and unavoidable cumulative impacts on land use.

Aesthetics

Under NEPA, the proposed project would result in major, adverse and unavoidable impacts on aesthetics and visual resources for KOP 1, which shows views of the transmission corridor within the South McCullough Wilderness Area. With mitigation, however, the overall project impacts on aesthetics and visual resources would be less than significant under CEQA. Mitigation includes painting the Ivanpah Substation to blend with its surroundings, rock staining for areas that have been graded or disturbed near the Ivanpah Substation, and color treating the microwave dish both within the Ivanpah Substation and near the town of Nipton, California.

Air Quality

As described in the analysis of IMPACT AIR-2, the estimates of average daily emissions of $PM_{2.5}$, PM_{10} and NO_X from project construction activities exceed The Mojave Desert Air Quality Management District (MDAQMD) daily significant thresholds. Implementation of MM AIR-1 (low-emission equipment) and MM AIR-2 (enhanced fugitive dust control measures) would reduce potential impacts but are not expected to reduce emissions from construction activities to below the MDAQMD daily significant thresholds. Long-term impacts would not occur because construction would be temporary at any one location. Therefore, temporary ambient air quality impacts caused by construction activities would violate or contribute substantially to an air quality violation. This would be considered a significant unavoidable impact during construction.

In addition, construction of the proposed project or its alternatives would occur in an area designated non-attainment for ozone and PM_{10} (IMPACT AIR-3). The estimates of average daily emissions of PM_{10} and ozone precursors, NO_X and VOCs, from project construction activities exceed MDAQMD daily significant thresholds. Construction is expected to adversely impact the proposed project region for a short term. Mitigation measures to be implemented, including the use of low-emission equipment and enhanced fugitive dust control measures, are not expected to reduce PM_{10} and NO_X emissions from construction activities to below the MDAQMD daily significant thresholds. Therefore, temporary emission increases of NO_x, VOCs, and PM_{10} during construction would contribute to a cumulatively considerable net increase of a criteria pollutant in a non-attainment area. This would be considered a significant unavoidable impact during construction.

Biological Resources

As discussed in Section 3.4, "Biological Resources," the proposed project would impact several special-status wildlife species and their habitat. As currently designed, construction, operations, and maintenance activities associated with the proposed project would have impacts on native vegetation, desert washes, local wildlife, and special-status plants and wildlife. Under NEPA, adverse, moderate impacts on vegetation communities, special status plant and wildlife species, and desert drainages would occur with implementation of the proposed project, including the proposed APMs. These impacts would be significant under CEQA. Incorporation of recommended mitigation measures would reduce impacts on these resources through avoidance and minimization. Specifically, MM BIO-1 through 18 would reduce impacts to minor, localized, and less than significant for all of the species and habitats discussed, except for desert tortoise. Impacts on desert tortoise and its habitat would be significant even after mitigation (IMPACT BIO-2).

1.6.2.1 Irreversible and Irretrievable Commitment of Resources

Significant irreversible changes to and irretrievable commitments of resources of the proposed project construction are a result of energy and materials consumption, accidental release of hazardous materials, land disturbance (and associated habitat loss for sensitive biological resources), damage to or the loss of cultural or paleontological resources, land use, and visual impacts. During the proposed project's operational phase, the transmission of electrical power generated from nonrenewable resources would continue. Operation of the proposed project, however, would facilitate the distribution of solar energy from the ISEGS project and accommodate the area's

potential for renewable power generation in order to achieve the State of California Renewables Portfolio Standard goals.

Energy and Materials Consumption

Implementation of the proposed project would result in the consumption of energy and materials. Fossil fuels would be required for construction of the proposed project as well as operation and maintenance. A total of 35,000 gallons of gasoline, 665,000 of diesel, and 8,300 of aviation fuel are estimated to be required for construction of the proposed project. The amount of fossil fuels to be stored for the emergency back-up generator for microwave telecommunications is estimated at 499 gallons of liquefied petroleum gas (LPG). The proposed Ivanpah Substation would be routinely visited on a monthly basis, and the Eldorado–Ivanpah Transmission Line would be monitored routinely in its entirety by helicopter or truck on an annual basis. Additional visits for maintenance purposes would be expected in response to inclement weather or other issues as needed—generally five or more times annually for the transmission line and 20 or more times annually for the substation. The Nipton, California, microwave site would also be visited for operations and maintenance purposes several times annually.

Additionally, construction would require the manufacture of new materials, some of which would not be recyclable after the estimated 80-year lifespan for the proposed project. The raw materials and energy required for the production of these materials would also result in an irretrievable commitment of natural resources. Operation and maintenance of the proposed project or its alternatives would not cause a substantial increase in the consumption or use of non-renewable resources.

Hazards and Hazardous Materials

Construction activities could result in the accidental release of hazardous materials in localized areas of the transmission line, Ivanpah Substation, or telecommunication lines. Such accidents could pose a hazard to humans or result in long-term impacts on the environment. With mitigation, however, potential impacts would be reduced to less than significant levels. No long-term adverse impacts would occur as result of construction, operation, or maintenance of the proposed project or its alternatives.

Land Disturbance

Clearing and grading activities for proposed project infrastructure (e.g., the new substation; improvements to existing access and spur roads; new access and spur roads; staging areas; powerline tension and pull areas; stringing and splicing areas; and tower and pole installation) would cause direct losses of vegetation communities and would be potential sources of direct mortality to wildlife. Wildlife would also be indirectly impacted through the loss or modification of vegetation.

Approximately 54 acres of land would permanently be disturbed with implementation of the proposed project. Consequently, 54 acres of plant and wildlife habitat would be eliminated. Approximately 426 acres would temporarily be disturbed during construction of the proposed project; therefore, total land disturbance would be approximately 480 acres. The extent that temporary land disturbances would impact biological resources would vary by vegetation or wildlife community and the location of disturbance. The loss of habitat from permanently disturbed land would be long-term, enduring throughout the 80-year lifespan estimated for the proposed project. The effect of land disturbance with the implementation of each alternative would be similar to that of the proposed project.

1.6.2.2 Growth-Inducing Effects

The proposed project would induce growth if it results in additional development, such as increases in population, employment and/or housing above and beyond what is already assumed will occur in local and regional land use

plans or in projections made by regional planning authorities, irrespective of the proposed project. Under CEQA (Section 15126.2(d)), the proposed project would be growth-inducing if it:

- Directly or indirectly fosters economic or population growth or the construction of additional housing;
- Taxes community facilities to the extent that the construction of new facilities would be necessary;
- Removes obstacles to population growth; or
- Encourages or facilitates other activities that cause significant environmental effects.

Typical growth inducing factors might be the extension of urban services or transportation infrastructure to a previously unserved or under-served area or the removal of major barriers to development. It should also be noted that growth inducement can be positive or negative depending on resulting effects and the development objectives of the planning authorities in the proposed project area. Negative impacts associated with growth inducement would occur only where growth associated with the proposed project would result in significant/adverse environmental impacts.

The proposed project would not result in increases in employment, housing, or the demands for public facilities and services nor result in the removal of existing constraints to growth or the creation of factors that encourage or otherwise facilitate development that would not otherwise have occurred, its implementation would not have any direct or indirect growth inducing effect due to the provision for additional electric power.

Finding/Rationale

Construction: The total expected construction workforce is 190 workers (less than 1% of the existing total workforce in the area) and the total construction period is 18 months; It is not expected that workers would be required to relocate into the proposed project area during construction. Construction of the proposed project would not create significant additional demands for emergency response services, schools, drinking water, or solid waste and wastewater facilities that could not be met by existing providers and facilities. Therefore, workforce required for construction of the proposed project would not have any direct or indirect growth inducing effect.

Operation: Operation of the proposed project would not cause growth in population, employment, or housing because no additional workers would be required beyond those currently employed. Therefore, workforce required for operation and maintenance of the proposed project would not have any direct or indirect growth inducing effect.

Alternatives: Potential growth-inducing impacts from implementation of each alternative would be similar to that for the proposed project. The alternatives would require a similar number of workers as the proposed project. Under the No Project Alternative, there would be no growth-inducing impacts on the proposed project area. Therefore, workforce required for implementation of the alternatives would not have any direct or indirect growth inducing effect.

Provisions for Additional Electric Power: Potential growth-inducing impacts from implementation of each alternative would be similar to that for the proposed project. The alternatives comprise route variations of the proposed project transmission and telecommunication lines and would not result in differences in the amount of power that would be transmitted or the location of substations where power would be transmitted. Under the No Project Alternative, there would be no growth-inducing impacts on the proposed project area. Therefore, provisions for additional electric power resulting from implementation of the alternatives would not have any direct or indirect growth inducing effect.

1.6.2.3 Responses to Comments on the Draft EIR/EIS

Volume III of the EITP EIR/EIS includes the comments received on the Draft EIR/EIS and responses to comments (Appendix G). The focus of the responses to comments is on the disposition of significant environmental issues as raised in the comments, as specified by Section 15088(b) of the State CEQA Guidelines and 40 CFR 1503.4 under NEPA.

Finding/Rationale: Responses to comments made on the Draft EIR/EIS clarify and expands the analysis presented in the document and do not trigger the need to recirculate per CEQA Guidelines Section 15088.5(b).

1.7 Mitigation Monitoring and Reporting

1.7.1 Adoption of a Mitigation Monitoring Plan for the CEQA Mitigation Measures

Section 21081.6 of the California Public Resources Code requires this Commission to adopt a monitoring or reporting program regarding the changes in the project and mitigation measures imposed to lessen or avoid significant effects on the environment. The Mitigation and Monitoring Plan is adopted because it fulfills the CEQA mitigation monitoring requirements: (i) to ensure compliance with the changes in the project and mitigation measures imposed on the project during implementation; and (ii) to mitigate or avoid significant effects on the environment by implementing measures that are fully enforceable through permit conditions, agreements, or other measures.

The purpose of the Mitigation Monitoring Plan (MMP) is to ensure effective implementation of the applicant proposed measures (APMs) and mitigation measures required by the California Public Utilities Commission (CPUC) and the Bureau of Land Management (BLM) and that Southern California Edison (SCE or the applicant) has agreed to implement as part of the Eldorado–Ivanpah Transmission Project (EITP or the project). The MMP, which is outlined in Chapter 9 of the EITP EIR/EIS, includes:

- Each impact evaluated in the EIR/EIS;
- APMs and mitigation measures that the applicant is required to implement as part of the project;
- Monitoring requirements;
- The timing for implementation of the APMs and mitigation measures; and
- Indicators for determining the effectiveness of mitigation measure implementation.

The EITP Mitigation Monitoring Plan is included in Chapter 9 of the Final EIR/EIS.

1.7.2 Authority for the Mitigation Monitoring Program

1.7.2.1 California Public Utilities Commission

The CPUC is the state Lead Agency for the preparation of this EIR/EIS under CEQA. The California Public Utilities Code confers authority upon the CPUC to regulate the terms of services and the safety, practices, and equipment of utilities subject to its jurisdiction. Pursuant its statutory responsibility to protect the environment, the CPUC requires that mitigation measures stipulated as conditions of approval are implemented properly, monitored, and reported.

Section 21081.6 of the California Public Resources Code requires public agencies to "adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment." The reporting or monitoring program is required when the agency approves a project that is subject to preparation of an EIR and where the EIR for the project identifies significant adverse environmental effects. In addition, CEQA Guidelines Section 15097 also establishes requirements for the public lead

agency to "adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects."

The CPUC will address its responsibility under Public Resources Code Section 21081.6 when it takes action on SCE's application for a Certificate of Public Convenience and Necessity.

Mitigation Monitoring, Compliance, and Reporting Program

If the Commission approves the application, it will also adopt a Mitigation Monitoring, Compliance, and Reporting Program (MMRCP) to serve as a set of detailed implementation instructions and self-contained general reference for the Mitigation Monitoring Plan.

1.7.2.2 Bureau of Land Management

The BLM is the federal Lead Agency for the preparation of this EIR/EIS under NEPA. As the Lead Agency, BLM is also responsible for ensuring that mitigation measures are implemented on its land. BLM intends to work with the CPUC in the implementation of mitigation monitoring during construction of the EITP.

1.7.3 Roles and Responsibilities

As lead agencies, the CPUC and the BLM are required to monitor the EITP to ensure that the required mitigation measures and APMs are implemented. The CPUC and the BLM will be responsible for ensuring full compliance with the provisions of this monitoring program and has primary responsibility for implementation of the program. The purpose of the monitoring program is to document that the mitigated environmental impacts are reduced to the level identified in the EIR/EIS.

The CPUC and the BLM may delegate duties and responsibilities for monitoring to other environmental monitors or consultants as deemed necessary, and some monitoring responsibilities may be assumed by responsible agencies. The number of construction monitors to be assigned to the project will depend on the number of concurrent construction activities and their locations. However, the agencies will ensure that each person delegated any duties or responsibilities is qualified to monitor compliance.

Any mitigation measure study or plan that requires the approval of the CPUC and the BLM must allow at least 60 days for adequate review time. When a mitigation measure requires that a mitigation program or plan be developed during the design phase of the project, the applicant must submit the final program to the CPUC and the BLM for review and approval for at least 60 days prior construction. Other agencies and jurisdictions may require additional review time. It is the responsibility of the environmental monitor assigned to each crew to ensure that appropriate agency reviews and approvals are obtained.

1.7.4 Post Approval Variance

The CPUC and BLM along with their designated environmental monitor(s) will ensure that any project variance—change to the project that deviates from how it was described in the EIR/EIS—or deviation from the procedures identified under the MMP is consistent with CEQA and NEPA requirements. No project variance will be approved by the CPUC or BLM if it creates new significant impacts. Variances will be strictly limited to minor project changes that do not trigger additional permit requirements; do not increase the severity of an impact or create a new impact; and that clearly and strictly comply with the intent of the mitigation measures listed in the MMP Tables.

Any variance from the approved project, adopted mitigation measures, APMs, and correction of such deviation, will be reported immediately to the CPUC- or BLM-designated environmental monitor(s) for review and approval as described below.

Surface disturbance locations and acreages identified in the EIR/EIS are anticipated to be sufficient for the construction and operation (including maintenance) of the project and all ancillary facilities. However, specific linear route alignment shifts and other project engineering refinements often continue past the project approval phase and into the construction and operation phases. As a result, facility locations, work area locations, and disturbed acreages locations documented in the EIR/EIS often have minor locational shifts after project approval. The project applicant has conducted resource surveys beyond the extend of the facility descriptions identified in the document in anticipation of the need to make such adjustments in the construction and operation phase to minimize impacts to resources and facilitate minor changes in facility design.

The following describes the procedures to be used for addressing minor modifications to facility alignment and location. The procedures will be identified as a term and condition of the BLM ROW Grant.

Subsequent to issuance of a ROW Grant, when additional work areas outside those evaluated in this EIR/EIS and identified in the ROW are found to be needed (whether on federal or non-federal lands), additional inventory and evaluation would be performed, if necessary, to ensure that impacts on biological, cultural, and other resources would be avoided or minimized to the maximum extent practicable. Revised facility locations and survey results would be documented and forwarded to the BLM and CPUC in the form of a "variance request." BLM and CPUC consultations and/or approval would be obtained prior to approval of the variance request.

At the conclusion of the project or as project phases are completed, as-built drawings will be provided to the BLM for the purpose of conforming the ROW Grant to the as-built locations. All modification requests will be documented and tracked to ensure the acreages of disturbance affected by post authorization conformance changes remain within the limits of impacts analyzed in the EIR/EIS and approved in the Record of Decision (ROD) and ROW.

1.7.5 Enforcement Responsibility

The CPUC and the BLM are responsible for enforcing the procedures adopted for monitoring through the environmental monitor assigned to each construction area. The environmental monitor shall note problems with monitoring, notify appropriate agencies or individuals about any problems, and report the problems to the CPUC and BLM.

The CPUC and the BLM have the authority to halt any construction, operation, or maintenance activity associated with the Eldorado - Ivanpah Transmission Project if the activity is determined to be a deviation from the approved project or adopted mitigation measures. The CPUC and/or the BLM may assign this authority to the environmental monitor(s) for each construction area.

1.7.6 Mitigation Compliance Responsibility

The responsibility to comply with the terms and conditions of the BLM Right-of-Way (ROW) Grant and CPUC Certificate of Public Convenience and Necessity lies with SCE. They will have inspectors present during all phases of construction to ensure they are following all APMs and mitigation measures. Additionally, an environmental monitor designated by the CPUC or BLM will monitor construction of the project to ensure full implementation of each APM and mitigation measure. In all instances where non-compliance occurs, the environmental monitor will issue a warning to the construction foreman and the applicant's project manager. Continued non-compliance will be reported to the project managers designated by the CPUC and BLM. Any decisions to halt work due to non-compliance will be made by the CPUC or BLM. The designated environmental monitor will:

- Prior to the start of construction in a given area, review applicable preconstruction surveys and verify that appropriate flagging is in place to denote sensitive resources and construction workspace boundaries, including access roads and equipment/material staging areas.
- During construction, conduct compliance monitoring, including periodic unscheduled inspections at construction areas for *active-site mitigation measures*—measures that require action during construction of the project. Examples of active-site measures include MM AIR-1, Low-Emission Construction Equipment, and MM AIR-2, Enhanced Dust Control Measures, and all other APMs, mitigation measures, and permit conditions that note monitoring of compliance at project sites.
- Monitor and evaluate the results of ongoing survey requirements completed by the applicants monitors, e.g., for nesting birds, and confirm that newly discovered resources are flagged in the field and added to applicable resource maps used by field personnel.
- Keep a record of any incidents of non-compliance with APMs, mitigation measures, or other conditions of project approval. Copies of these documents will be provided to the applicant, CPUC, BLM, and applicable resource agencies.
- Prepare daily logs of activities and compile them into a weekly report that summarizes APM and mitigation measure implementation and construction activities. The weekly reports will be provided to the applicant, CPUC, BLM, and applicable resource agencies and posted to the EITP website.

1.7.7 Dispute Resolution

It is expected that the final MMCRP will reduce or eliminate many potential disputes. However, even with the best preparation, disputes may occur. In such event, the following procedure will be observed:

· Step 1. Disputes and complaints (including those of the public) should be directed first to the CPUC and/or BLM's designated Project Manager, as appropriate, for resolution. The Project Manager will attempt to resolve the dispute.

· Step 2. Should this informal process fail, the CPUC and/or BLM Project Manager may initiate enforcement or compliance action to address deviations from the Proposed Project or adopted Mitigation Monitoring Program.

The following steps apply to the CPUC only:

· Step 3. If a dispute or complaint regarding the implementation or evaluation of the Program or the mitigation measures cannot be resolved informally or through enforcement or compliance action by the CPUC, any affected participant in the dispute or complaint may file a written "notice of dispute" with the CPUC's Executive Director. This notice should be filed in order to resolve the dispute in a timely manner,

with copies concurrently served on other affected participants. Within 10 days of receipt, the Executive Director or designee(s) shall meet or confer with the filer and other affected participants for purposes of resolving the dispute. The Executive Director shall issue an Executive Resolution describing his/her decision, and serve it on the filer and other affected participants.

· Step 4. If one or more of the affected parties is not satisfied with the decision as described in the Resolution, such party(ies) may appeal it to the Commission via a procedure to be specified by the Commission.

Parties may also seek review by the Commission through existing procedures specified in the Commission's Rules of Practice and Procedure for formal and expedited dispute resolution, although a good faith effort should first be made to use the foregoing procedure.

1.7.8 General Monitoring Procedures

1.7.8.1 Environmental Monitor

Many of the monitoring procedures will be conducted during the EITP construction phase. The CPUC, the BLM, and the environmental monitor(s) are responsible for integrating the mitigation monitoring procedures into the construction process in coordination with SCE. To oversee the monitoring procedures and to ensure success, the environmental monitor assigned to each construction area must be onsite during the timeframe when the activity has the potential to create a significant environmental impact or other impact for which mitigation is required. The environmental monitor is responsible for ensuring that all procedures specified in the monitoring program are followed.

1.7.8.2 Construction Personnel

Cooperation of construction personnel and supervisors will be a key factor contributing to the success of mitigation monitoring. Many of the mitigation measures require action on the part of the construction supervisors or crews for implementation. The following actions detailed in specific mitigation measures included in the Final Implementation Plan will be taken to ensure successful impact mitigation:

- Procedures to be followed by construction companies hired for the project will be written into contracts between SCE and construction contractors. Such procedures will be also copied in a separate agreement that all construction personnel will be asked to sign, denoting consent to the procedures.

- One or more pre-construction meetings will be held to inform and train all construction personnel about the requirements of the mitigation monitoring program (as detailed in the Final Implementation Plan).

- A written summary of mitigation monitoring procedures will be provided to construction supervisors for all mitigation measures requiring their attention.

1.7.8.3 General Reporting Procedures

Site visits and specified monitoring procedures performed by other individuals will be reported to the environmental monitor assigned to the relevant construction area. A monitoring record form will be submitted to the environmental monitor by the individual conducting the visit or procedure so that details of the visit can be recorded and progress tracked by the environmental monitor. A checklist will be developed and maintained by the environmental monitor to track all procedures required for each mitigation measure and to ensure that the timing specified for the procedures is adhered to. The environmental monitor will note any problems that may occur and take appropriate action to rectify

the problems. The applicant shall provide the CPUC and the BLM with written quarterly reports of the project, which shall include progress of construction activities, resulting impacts, mitigation implemented, and all other noteworthy elements of the project. Quarterly reports shall be required as long as mitigation measures are applicable.

1.7.8.4 Public Access to Records

The public is allowed access to records and reports used to track the monitoring program. Monitoring records and reports will be made available for public inspection by the CPUC and the BLM upon request. The CPUC, the BLM, and the applicant will develop a filing and tracking system. For additional information on mitigation monitoring and reporting for the EITP project, the Energy Division of the CPUC will maintain an Internet website, accessible at http://www.cpuc.ca.gov/environment/info/ene/ivanpah/ivanpah.htm. For public disclosure, the CPUC will make weekly reports available on the website.

1.7.8.5 Condition Effectiveness Review

As required by CEQA §21081.6, the CPUC must evaluate the effectiveness of the mitigation measures to reduce or avoid significant effects on the environment. To fulfill this statutory mandate during implementation of the project MMP, the CPUC may conduct a comprehensive review of those conditions that are not effectively mitigating impacts at any time it deems appropriate, including those conditions resulting from the Dispute Resolution procedure (Section 1.7.8). These reviews will be conducted in a manner consistent with the Commission's rules and practices.

If in either review the Commission determines that any conditions are not adequately mitigating significant impact caused by the project, or that recent proven technological advances could provide more effective mitigation, the Commission may impose additional reasonable conditions to effectively mitigate these impacts.

1.7.9 Mitigation Monitoring Program Tables

MMP tables are presented in Chapter 9 of the EITP EIR/EIS. These tables, along with the full text of the mitigation measures themselves, will form the basis for implementation of the MMP. The following mitigation measures (titles only) are included in the MMP:

- 3.2 Aesthetics and Visual Resources
  - MM AES-1: Painting the Ivanpah Substation
  - MM AES-2: Rock Staining near the Ivanpah Substation
- 3.3 Air Quality
  - MM AIR-1: Low-emission Construction Equipment
  - MM AIR-2: Enhanced Dust Control Measures
  - MM AIR-3: Best Management Practices for GHG Reduction
- 3.4 Biological Resources

  - MM BIO-1: Preconstruction Surveys
  - MM BIO-2: Reclamation Plan
  - MM BIO-3: Special Status Plants Restoration and Compensation Plan
  - MM BIO-4: Model Invasive Plant Management Plan on the BLM Las Vegas Office DRAFT Weed Plan
  - MM BIO-5: Jurisdictional Delineation
  - MM BIO-6: Drainage Crossings Design
  - MM BIO-7: Mitigation Monitoring Plan for Affected Jurisdictional Areas
  - MM BIO-8: Reduce Night Lighting
  - MM BIO-9: Cover Steep-walled Trenches or Excavations During Construction
  - MM BIO-10: Biological Monitors
  - MM BIO-11: Water Usage
  - MM BIO-12: Desert Tortoise Impacts Reduction Measures
  - MM BIO-13: Desert Bighorn Sheep Impacts Reduction Measures
  - MM BIO-14: American Badger Impacts Reduction Measures
  - MM BIO-15: Migratory Birds and Raptors Impacts Reduction Measures
  - MM BIO-16: Burrowing Owl Impacts Reduction Measures
  - MM BIO-17: Gila Monster Compliance
  - MM BIO-18: Avian Protection Plan
- 3.5 Cultural Resources
  - MM CR-1: Cultural Resources Monitoring
  - MM CR-2: Historic American Engineering Record Recordation.
  - MM CR-3: Archaeological Resources Protection Act (ARPA) Training.
- 3.6 Geology, Soils, Minerals, and Paleontology
  - MM GEO-1: Monitor and Mitigate Damage to Tower Structures
  - MM GEO-2: Geotechnical Engineering Study
  - MM GEO-3: Preparation and Implementation of SWPPP
  - MM GEO-4: Expansive Soils Mitigation
- 3.7 Hazards, Health, and Safety
  - MM HAZ-1: Worker Health and Safety and Environmental Training and Monitoring Program
  - MM HAZ-2: Comply with FAA Requirements Upon Construction of the SNSA
  - MM HAZ-3: Agency Coordination and Approvals
  - MM HAZ-4: Disposal of Demolition Materials
  - MM HAZ-5: Backfill Material
  - MM HAZ-6: EPA Identification Number
- 3.8 Hydrology and Water Quality
  - MM W-1: Erosion Control Plan and Compliance with Water Quality Permits
  - MM W-2: Water Use Maximum
  - MM W-3: Onsite Flow Model and Channel System
  - MM W-4: Dry Lake Restoration Plan
  - MM W-5: Historical Hydrological Model of Alluvial Fan
  - MM W-6: DESCP, SWPPP, and Grading and Storm Water Management Plan for Ivanpah Substation
- 3.9 Land Use, Grazing Allotments, and Wild Horses and Burros
  - MM LU-1: Obtain Approval from Clark County and the City of Boulder City for Activities Outside of BLM-Designated Utility Corridors in the BCCE
- 3.10 Noise
  - MM NOI-1: Conduct Construction Activities during Daytime Hours
  - MM NOI-2: Relocate Stationary Construction Equipment
  - MM NOI-3: Turn off Idling Equipment
  - MM NOI-4: Notify Adjacent Residences
  - MM NOI-5: Install Acoustic Barriers
- 3.11 Public Services and Utilities

  - MM PUSVC-1: Construction Waste Disposal Plan
  - MM PUSVC-2: Notification of Utility Service Interruption
- 3.12 Recreation
  - MM REC-1: Limit Construction Workspace in Wildlife and Recreational Areas
  - MM REC-2: Notify the Nevada Department of Wildlife of Any Road Closures During Hunting Season
  - MM REC-3: Display Appropriate "Closed" Signage for New Spur and Access Roads Constructed
- 3.13 Socioeconomics, Population and Housing, and Environmental Justice
  - No mitigation measures.
- 3.14 Traffic and Transportation
  - MM TRANS-1: No Lane Closures on I-15 during Friday Peak Usage
  - MM Trans-2: Helicopter Flight Plan and Safety Plan
  - MM TRANS-3: Traffic Control Plan
  - MM-C-TRANS-1: I-15 Use Limits

(END OF ATTACHMENT B)