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Decision 16-08-017 August 18, 2016

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of Southern California Edison Company (U 338-E) for a Certificate of Public Convenience and Necessity for the West of Devers Upgrade Project and for an Interim Decision Approving the Proposed Transaction between Southern California Edison and Morongo Transmission LLC.	Application 13-10-020 (Filed October 25, 2013)

DECISION GRANTING CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE WEST OF DEVERS UPGRADE PROJECT AND RELATED MATTER

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DECISION GRANTING CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE WEST OF DEVERS UPGRADE PROJECT AND RELATED MATTER

This decision grants Southern California Edison Company a certificate of public convenience and necessity for the West of Devers Upgrade Project, configured with the Tower Relocation and Iowa Street 66 kilovolt Undergrounding Alternatives and subject to the mitigation measures identified in the Mitigation Monitoring, Compliance and Reporting Plan.[1] As the lead state agency for environmental review, we find and certify that the Environmental Impact Report prepared for this project meets the requirements of the California Environmental Quality Act and that project benefits of allowing Southern California Edison Company to comply with its generator interconnection requests, facilitating deliverability for renewable energy resources identified in the Commission's renewable portfolios, and providing infrastructure that will potentially facilitate achievement of California's new 50% Renewable Portfolio Standard outweigh the project's unavoidable adverse environmental impacts on air quality, noise, visual resources and cultural resources.

1. Procedural Background

By this application, Southern California Edison Company (SCE) seeks a certificate of public convenience and necessity (CPCN) to construct the West of Devers Upgrade Project. The proposed project would replace or upgrade the existing 220 kilovolt (kV) transmission lines and associated facilities between Devers, El Casco, Vista, and San Bernardino substations in Riverside and

[1] The attached Mitigation Monitoring, Compliance and Reporting Plan consolidates the individual plans with respect to each environmental impact contained in the Environmental Impact Report for the project.

San Bernardino Counties, increasing the capacity of the West of Devers corridor from the present 1600 megawatt (MW) to approximately 4800 MW. SCE also seeks approval of a transaction between SCE and the Morongo Transmission LLC that would provide SCE with access to a right-of-way across Morongo tribal land for construction of a portion of the upgrade project.

Pursuant to Pub. Util. Code § 1001 et seq., SCE may not proceed with its proposed project absent certification by the Commission that the present or future public convenience and necessity require it, and such certification shall specify the maximum prudent and reasonable cost of the approved project. In addition, pursuant to General Order (GO) 131-D, SCE may not proceed with its proposed project absent the Commission's determination that the project complies with the California Environmental Quality Act (CEQA)[2] and with the Commission's policies requiring the use of low-cost and no-cost measures to mitigate electric and magnetic field (EMF) effects.

CEQA requires the lead agency (the Commission in this case) to conduct a review to identify the environmental impacts of the proposed project, and ways to avoid or reduce environmental damage, for consideration in the determination of whether to approve the proposed project. If (as is the case here) the initial study determines that the proposed project will have a significant environmental impact, then the lead agency shall prepare an environmental impact report (EIR) that identifies the environmental impacts of the proposed project, designs a recommended mitigation program to reduce any potentially significant impacts, analyzes the environmental impacts of a reasonable range of project alternatives (including a no project alternative), and identifies, from an environmental

[2] CEQA is codified at Public Res. Code § 21000, *et seq.*

perspective, the preferred project alternative. If the agency approves the project, it must require the environmentally superior alternative and identified mitigation measures, unless they are found to be infeasible. The lead agency may not approve a project unless it determines that there are overriding considerations that merit project approval despite its significant and unavoidable environmental impacts.

The proposed project would also require a right-of-way grant from the federal Bureau of Land Management (BLM) and the federal Bureau of Indian Affairs. Federal approval is subject to environmental review pursuant to the National Environmental Policy Act (NEPA). Similar to CEQA, NEPA requires the lead agency (the BLM in this case) to prepare (in this case) an environmental impact statement (EIS).

The Commission's Energy Division issued the Notice of Preparation of an EIR on May 12, 2014, distributing it to the State Clearinghouse, federal, State, regional and local agencies, elected officials of affected areas, and the general public. In May 2014, the Energy Division conducted four public scoping meetings in three locations to collect input on the scope and content of the EIR/EIS and on alternatives and mitigation measures to consider; the Scoping Report was issued in July 2014. The draft EIR was released jointly with the BLM's draft EIS on August 7, 2015.[3]

Evidentiary hearing was held on November 16 and 17, and December 7, 2015. The Energy Division issued the final EIR on December 11, 2015.[4] The

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[3] The BLM and the Energy Division initially undertook to prepare a joint EIR/EIS, as permitted under CEQA Guidelines § 15222. Because the BLM required additional time to complete its final EIS, the Energy Division released the final EIR as a stand-alone document.

[4] *See* footnote 3, *supra*.

parties filed opening briefs on January 15, 2016, and reply briefs on January 29, 2016, upon which the matter was submitted.

2. Historical Background

SCE originally sought approval of the West of Devers upgrades in Application (A.) 05-04-015, wherein SCE applied for a CPCN to construct the Devers-Palo Verde No. 2 Transmission Line Project (DPV2). As originally proposed in that application, DPV2 was comprised of two major transmission lines, a 500 kV line between the Harquahala area of Arizona and the Devers Substation in North Palm Springs, and a 220 kV system west of the Devers Substation that included the West of Devers upgrades that are the subject of the application now before us. Although they were part of the environmentally superior alternative, the Commission ultimately found the West of Devers upgrades to be infeasible because the Morongo Tribe had informed SCE that they were unacceptable. Accordingly, the Commission approved DPV2 with the Devers-Valley No. 2 alternative substituting for the West of Devers upgrades, recognizing that additional transmission upgrades west of Devers may be needed in the future and that SCE and the Morongo Tribe may continue to negotiate a new right-of-way agreement for that purpose. (Decision (D.) 07-01-040 at 75-76.)

After the Arizona Corporations Commission denied SCE authority to construct the interstate portion of the project, SCE petitioned this Commission to modify D.07-01-040 to allow it to construct only the California portions of the project. The Commission determined that the prior finding of economic need did not apply to the California-only project. However, the Commission determined that the California-only project was nevertheless needed because it would allow access to significant potential renewable resources, particularly proposed

large-scale solar projects in the Riverside East Competitive Renewable Energy Zone (CREZ);[5] because the project would be located in existing transmission rights-of-way and its environmental impacts would thereby be minimized; and because, due to its advanced stage, the project could access the Riverside East CREZ without significant time delays in terms of environmental review and significant cost. (D.09-11-007 at 17-19.) Accordingly, the Commission granted the petition.

SCE has now obtained a new rights-of-way agreement with the Morongo Tribe that permits SCE's existing facilities and the West of Devers Upgrade Project to cross the Reservation, which the Morongo Tribe may terminate if the Federal Energy Regulatory Commission (FERC)[6] and this Commission fail to approve the Development and Coordination Agreement (DCA or proposed transaction) by and between SCE and Morongo Transmission LLC that provides Morongo Transmission LLC with an option to invest up to $400 million at the time of commercial operation of the project in exchange for 30-year lease rights.

SCE now brings this application for approval of the DCA and for a CPCN to construct the West of Devers Upgrade Project to increase the power transfer capability of the West of Devers facilities from approximately 1600 MW to 4800 MW.

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[5] The Riverside East CREZ includes the Blythe and Desert Center areas.

[6] FERC approved the proposed transaction in Order Authorizing Disposition of Jurisdictional Facilities, 144 FERC ¶ 61,178 (2013).

3. Scope of Issues

The assigned Commissioner's August 24, 2015, scoping memo[7] identifies the following issues to be determined in this proceeding:

1. Does the proposed project serve a present or future public convenience and necessity? This issue encompasses consideration of whether the proposed project is needed to ensure the safe and reliable function of SCE's transmission system.
2. What is the maximum prudent and reasonable cost of the project (if approved)?
3. What are the significant adverse environmental impacts of the proposed project? This issue encompasses consideration of whether the project design comports with Commission rules and regulations and other applicable standards governing safe and reliable operations.
4. Are there potentially feasible mitigation measures or project alternatives that will avoid or lessen the significant adverse environmental impacts? This issue encompasses consideration of how to design the proposed project in a manner that ensures its safe and reliable operation.
5. As between the proposed project and the project alternatives, which is environmentally superior?
6. Are the environmentally superior alternatives and/or mitigation measures infeasible?
7. To the extent that the proposed project and/or project alternatives result in significant and unavoidable adverse environmental impacts, are there overriding considerations that nevertheless merit Commission approval of the proposed project or project alternative?
8. Was the EIR completed in compliance with CEQA, did the Commission review and consider the EIR prior to approving the

[7] As amended by Assigned Commissioner's Amendment to Scoping Memo, filed August 28, 2015.

project or a project alternative, and does the EIR reflect our independent judgment?

9. Is the proposed project and/or project alternative designed in compliance with the Commission's policies governing the mitigation of EMF effects using low-cost and no-cost measures?
10. Is the proposed transaction between SCE and Morongo Transmission LLC not adverse to the public interest, in the public interest, and/or should it be encouraged?
11. Is the proposed project necessary to facilitate achievement of the renewables portfolio standard? (eligibility for backstop rate recovery)

4. Project Need

Pub. Util. Code § 1001 conditions a utility's authority to construct or extend its line, plant or system on it having first obtained from the Commission a certificate that the present or future public convenience and necessity require or will require such construction.[8] SCE, supported by the California Independent System Operator (CAISO) and solar developers NextEra Energy Resources, LLC

[8] Section 1002(a) requires the Commission to consider, as a basis for granting a certificate of public convenience and necessity, community values, recreational and park areas, historical and aesthetic values, and influence on the environment. We consider the proposed project's impact on recreational and park areas, historical and aesthetic values, and the environment within the scope of issue numbers 3 ("What are the significant adverse environmental impacts of the proposed project?"), 4 ("Are there potentially feasible mitigation measures or project alternatives that will avoid or lessen the significant adverse environmental impacts?"), and 5 ("As between the proposed project and the project alternatives, which is environmentally superior?"), and balance such impacts against the proposed project's benefits in Part 10, below. We consider the proposed project's impact on community values, if any, in the context of issue number 6 ("Are the environmentally superior alternatives and/or mitigation measures infeasible?") in Part 9, below. (*See* CEQA Guideline § 15091(a), "No public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects […]. The possible findings are: […] (c) Specific legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the EIR.")

(NextEra), Palen Solar Holdings, LLC, and EDF Renewable Energy, Inc.,[9] contends that the proposed project is needed to meet interconnection requests and comply with executed generator interconnection agreements and to facilitate renewable development to meet State policy goals, and the Office of Ratepayer Advocates (ORA) contends otherwise.

4.1. Need Based on Generator Interconnection Agreements and Interconnection Requests

At the time that SCE filed this application, the CAISO and SCE generation interconnection studies identified 10 generation projects in the Blythe and Desert Center areas totaling 2479 MW requesting Full Capacity Deliverability Status (FCDS) interconnection, of which 1485 MW was reflected in executed interconnection agreements. As of April 2015, there was 2460 MW of capacity of generation projects in the areas requesting interconnection, of which 1635 MW was reflected in executed interconnection agreements. (Ex. 1, pp. 4-5.) As of October 2015, there was 6090 MW of generation project capacity in the areas requesting FCDS interconnection, of which 1859 MW is reflected in executed generator interconnection agreements, and of which 860 MW is under executed power purchase agreements. (Ex. 2, pp. 3-4.) The West of Devers Upgrade Project is necessary to bring this renewable generation to the grid pursuant to the terms of the interconnection requests and the executed generator interconnection agreements and power purchase agreements.

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[9] EDF Renewable Energy, Inc. owns the Palen Project through its subsidiary Maverick Solar, LLC. Prior to EDF's acquisition of it, the Palen Project was owned by Abengoa Solar LLC through its subsidiary Palen Solar Holdings, LLC. The Palen Project requires the West of Devers Upgrade Project to achieve FCDS. (EDF Renewable Energy, Inc. reply brief, p. 1; Ex. 13, p. 3:4-7.)

ORA contends that interconnection requests alone, and particularly requests for FCDS, cannot support approval of the proposed project because the CAISO's generation interconnection process does not test economic need for it, particularly as the generators did not have any upfront financial commitments in making such requests. (ORA opening brief, pp. 14-18.)[10] ORA cites to D.09-11-007 to note that the Commission approved the Devers-Palo Verde No. 2 transmission line on the economic basis that the value of its associated generation capacity and reduced congestion costs outweighed its construction costs, and for its proposition that:

> We do not approve construction of transmission lines based solely on the evidence of generator interconnection requests, which have most recently reflected a certain amount of speculation, rather than firm commitments to development. (D.09-11-007 at 12.)

As an initial matter, D.09-11-007 is the Commission's decision *modifying* D.07-01-040, the earlier of which approved the Devers-Palo Verde No. 2 transmission line on an economic basis. D.07-01-040 had approved the project "contingent upon construction of both the California and Arizona portions because the Arizona portion of the Project was critical to delivering the economic benefits that justified approval of the line." (D.09-11-007 at 9.) After the Arizona Corporation Commission rejected the Arizona portion of the project, the

[10] As part of this discussion, ORA asserts that upfront financing results in transmission costs being left out of the least-cost-best-fit analysis made by load-serving entities in rank-ordering renewable generation bids. (ORA opening brief, p. 18.) ORA offers no basis for this assertion, and D.03-06-071 (to which ORA cites in its support) flatly contradicts it. ("Regardless of whether an individual generator, all potential generators, or some other entity pays the upfront cost of new network facilities, 'least cost' requires that less-expensive generation options be pursued first. Incorporating new network facility costs in the rank-ordering of renewable bids will tend to favor generation with existing transmission facilities available." D.03-06-071 at 36.)

Commission granted SCE's petition to modify D.07-01-040 and approved the California-only portion of the project on the basis that:

> Given the potential for renewable resources in the Riverside East CREZ, the substantial work and study already completed on the Project including certification of the Final EIR, the limited environmental impacts of building in an existing high voltage transmission corridor next to an existing 500 kV line, the lack of environmental opposition, and the uncertainty in terms of delay and cost in considering an alternative project to access this CREZ, it is necessary, reasonable and prudent to construct the California-only Project, subject to CAISO approval. (*Id.*, Finding of Fact No. 19.)

Here, as in D.09-11-007, we do not approve the West of Devers Upgrade Project based solely on the evidence of generator interconnection requests. As discussed in Part 4.2, below, we also consider its potential to access renewable resources and the uncertainty in terms of delay and cost in considering alternative means to achieving the 50% Renewable Portfolio Standard (RPS) goal.

However, SCE's current and potential obligations to upgrade its transmission system to meet these requests are a relevant consideration in our determination of project need: Under FERC orders and interconnection agreements executed pursuant to the CAISO's FERC tariff, SCE is obligated to provide for the requested level of interconnection. (*See* 104 FERC ¶ 661,103 (July 24, 2003.)) The CAISO evaluates whether transmission upgrades are needed to safely and reliably satisfy the requests. Here, the CAISO determined in its 2010 generation interconnection process that the existing West of Devers transmission lines are inadequate to meet the requested level of interconnection. (Ex. 5, pp. 5-6; Ex. 6, pp. 4-7.) This evidence of SCE's current and potential obligations to interconnect generation projects and the need for transmission

upgrades in order to safely and reliably do so supports a finding of need for the proposed project.

ORA contends that, with the interim upgrades that are currently in place, the West of Devers transmission system can accommodate 850 MW of FCDS above and beyond that is necessary to accommodate generation projects that currently have executed power purchase agreements. (ORA reply brief, p. 23; Ex. 7, pp. 14-15.) However, this contention does not account for the remaining 4380 MW of generation project capacity requesting FCDS interconnection, or the remaining 149 MW of which is reflected in executed generator interconnection agreements.[11]

Furthermore, as the CAISO's witnesses testified, there is a reliability concern associated with the interim upgrades, namely, that under a double-line outage ("N-2" condition), at least two gas-fired units would need to be online to reduce net load in San Bernardino and provide voltage support. (Ex. 12, pp. 2-3.) In addition, the interim upgrades rely on a "special protection system" that exceeds the CAISO's planning standards regarding the acceptable level of complexity; while it has accepted it as a short-term solution, the CAISO would not accept it as a long-term solution. (CAISO/Millar, Tr. 250:19-28.)[12] Although

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[11] 850 MW plus the 860 MW under executed power purchase agreements as of October 2015 equals 1710 MW. Compare to the 6090 MW requesting FCDS interconnection and 1859 MW reflected in executed generator interconnection agreements as of October 2015.

[12] The CAISO elucidates in its reply brief that the special protection system monitors five transmission line flows and 14 different contingencies, which violates the CAISO Planning Standards that require monitoring of no more than four system elements and six contingencies. (CAISO reply brief, p. 11.) These asserted facts are not in evidence, and the CAISO has not requested official notice of them or provided sufficient information to enable us to do so. (*See* Rule 13.9 and Ev.C. 453(b).)

ORA asserts that this testimony is without merit, it does not point to any contradictory evidence. (ORA opening brief, pp. 36-37.)

4.2. Need Based on State Policy Goals

We also find that the proposed project is needed to facilitate deliverability for renewable energy resources identified in the Commission's renewable portfolios, in furtherance of California's 33% RPS.[13]

The CAISO first identified the proposed project as a necessary element to support renewable generation development in its 2010-2011 transmission plan, based on two of the renewable portfolios it had developed. (Ex. 6, pp. 8, 12.) Since then, beginning with the 2011-2012 transmission planning cycle, the CAISO has relied upon renewable generation portfolios developed in the Commission's Long-Term Procurement Plan proceedings, as contemplated under a May 13, 2010, Memorandum of Understanding between the Commission and the CAISO. (Ex. 11, p. 4; Ex. 5, p. 11 and Attachment A.)[14] Every renewable generation portfolio provided to the CAISO by the Commission has selected renewable projects in the Riverside East and Imperial Valley areas and triggered the need for the proposed project. (Ex. 11, p. 6.)

ORA raises various challenges to this evidence of need.[15] First, ORA argues that, while the CAISO Board of Governors originally approved the

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[13] The RPS is the amount of electricity required to be generated and sold to retail customers per year from eligible renewable energy resources. Senate Bill 2 (1X) (2011) established a 33% RPS by 2024. Senate Bill 350 (2015) increased the RPS to 50% by 2030.

[14] More specifically, the Commission's Energy Division staff develops the renewable generation portfolios in the Long Term Procurement Plan proceeding, the assigned Commissioner to the proceeding identifies them in a ruling, and the Commission president transmits them to the CAISO. (CAISO/Millar, Tr. 251-255; Ex. 41 and Ex. 42.)

[15] ORA asserts that the EIR also finds that there is no need for the West of Devers Upgrade Project at this time, but proposes a Phased Build Alternative in the event a need arises. (ORA

Footnote continued on next page

proposed project as necessary under the generation interconnection process in place prior to the 2010 Memorandum of Understanding, it has never affirmed the need for the proposed project as necessary to support the State's RPS goals. (ORA opening brief, pp. 3 and 19.) The CAISO's testimony and brief refute this assertion:

> Notably, the CAISO specifically identified the Proposed Project in its 2010-2011 approved transmission plan as a necessary element to support California's RPS goals. [Ex. 6, p. 12.] This finding was approved by the CAISO Board of Governors along with the remainder of the 2010-2011 transmission plan. On this basis, the CAISO represented in this proceeding that Proposed Project would have been approved as a policy-driven project if it had not already been identified as necessary under the generation interconnection process. [CAISO/Millar, Tr. 218:9-1, 21-24.] It is not speculation that the Board of Governors would have approved the Proposed Project, had it not already been approved through the generator interconnection process. Instead, it is known, and has been known since 2011, that the CAISO identified the Proposed Project as necessary to meet the state's RPS goals. (CAISO reply brief, p. 9.)

We are satisfied that the proposed project has been properly approved by the CAISO.[16]

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opening brief, p. 3.) This assertion misstates the EIR. The EIR does not reach a conclusion as to project need and, indeed, "project need" is not a CEQA consideration. Rather, the EIR identifies the achievement of an increased deliverability level of 2200 MW as a basic objective of the West of Devers Upgrade Project, and identifies the Phased Build Alternative as a means of achieving it.

[16] ORA also argues that, if the CAISO Board of Governors were to approve the proposed project under its current tariff protocols, the proposed project would be subject to a competitive bid solicitation process. (ORA opening brief, p. 3.) To the contrary, FERC Order 1000 specifically excludes upgrades to existing facilities from competition. (*See* Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities, FERC Order 1000, Docket No. RM10-23-000; 136 FERC ¶ 61,051, p. 319 "the Proposed Rule emphasized that our reforms do not affect the right of an incumbent transmission provider to

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Second, ORA asserts that the CAISO's 2012-2013 and 2013-2014 Transmission Planning Processes (TPP) did not identify a need for the proposed project to access Riverside East area resources. (ORA opening brief, p. 27, citing to Ex. 15, p. 14.) To the contrary, as explained by the CAISO's witness and reflected in the CAISO's 2012-2013 and 2013-2014 Transmission Plans themselves,[17] the plans identified a need for the proposed project based on resources located both in Riverside East *and the Imperial Irrigation District areas*. (CAISO/Zhu, Tr. 270:25-271:13; CAISO 2013-2014 Transmission Plan (July 16, 2014) at 11, 188, and 220.)

Third, ORA asserts that the portfolios that drove the need for the proposed project in the CAISO's 2014-2015 and 2015-2016 TPPs primarily relied on projects with power purchase agreements that have since been cancelled and that, had the RPS calculator that developed those portfolios placed a 70% weight on the cost factor rather than on the commercial interest factor, it would have produced an alternate portfolio that meets the RPS goals at a lower cost. (ORA opening brief, p. 28.) However, ORA fails to provide a record citation for the former factual statement in violation of Rule 13.11,[18] and the latter factual statement does not materially inform the issue of whether the 2014-2015 and 2015-2016 TPPs appropriately relied on the portfolio that it did.

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build, own and recover costs for upgrades to its own transmission facilities, such as in the case of tower change outs or reconductoring, regardless of whether or not an upgrade has been selected in the regional transmission plan for purposes of cost allocation. In other words, an incumbent transmission provider would be permitted to maintain a federal right of first refusal for upgrades to its own transmission facilities."

[17] We take official notice of the CAISO 2012-2013 and 2013-2014 Transmission Plans, as requested and identified in SCE's reply brief at fns. 52 and 58.

[18] Unless otherwise stated, all references to rules are to the Commission's Rules of Practice and Procedure, C.C.R. Title 20, Div.1, Ch.1.

Fourth, ORA asserts that the proposed project is not needed to facilitate compliance with either the 33% or 50% RPS because those are energy-based requirements, and the existing transmission system can accommodate nearly 25,000 MW of energy-only resources. (ORA opening brief, p. 26; ORA reply brief, p. 8, Ex. 7, p. 27.) Nevertheless, SCE's approved solicitation process associated with its 2014 RPS procurement plan for achieving the 33% RPS imposes a congestion adder on energy-only generation projects, recognizing that projects that secure FCDS have a lower risk of curtailment. (Ex. 14, pp. 7-8.) That solicitation process resulted in contractual obligations on the part of renewable generators that explicitly took into account their ability to achieve FCDS and thus provide resource adequacy. (*Id.*, p.9.) The failure to provide transmission capacity to accommodate generation projects under contract for FCDS status could conceivably lead to their failure to develop and set back our progress toward achieving the RPS. Furthermore, energy-only projects are more likely to be subject to congestion and curtailment, making the financing of such projects more difficult (Ex. 13, pp. 4-5), which could conceivably dampen progress toward achieving the RPS standard.

Fifth, ORA challenges the importance of accessing potential renewable resources in the Desert Renewable Energy Conservation Plan (DRECP) area by citing to the October 12, 2015, California Energy Commission Draft Integrated Energy Policy Report for the proposition that there is potentially between 2000 and 3000 MW of solar projects in the San Joaquin Valley, and asserts that there are several areas within the State as well as out of state "with as much as or even more renewable resource potential than in the DRECP area." (ORA reply brief, p. 10.) ORA fails to provide a record citation for this latter factual assertion in violation of Rule 13.11. While it is not reasonably subject to dispute that there is a

potential for renewable resource development in other parts of the State and out of state, we note the record evidence of an estimated 7700 MW of renewable generation potential in the DRECP area that would flow through the West of Devers transmission corridor (Ex. 1, p. 16), and give no weight to ORA's unsupported claim that there are several other areas with as much or more renewable resource potential as the DRECP area. In any event, the potential for solar development in the San Joaquin Valley is not a compelling reason for us to abandon the potential for renewable generation development in the Riverside East and Imperial Valley areas that we have steadily identified in our renewable generation portfolios.

Sixth, ORA argues that the proposed project does not meet the third prong of the test developed in D.07-03-012 as a means to establish need under Section 399.2.5(a),[19] which requires that the cost of the proposed project be "appropriately balanced against the certainty of the line's contribution to economically rational RPS compliance." (ORA opening brief, pp. 32-34; ORA reply brief, p. 15; *and see* D.07-03-012 at 16.)[20] ORA asserts that the proposed project is not economically rational because California is not in need of system resource adequacy before 2033 and it has not been shown to reduce congestion costs; and because it provides an incremental increase of only 950 MW that, at an

[19] Unless otherwise stated, all references to sections are to the Public Utilities Code.

[20] SCE disputes ORA's assertion that Section 399.2.5 establishes an additional legal finding that the Commission must make in order to grant a CPCN for a transmission project on the basis that it would facilitate achievement of RPS goals. (SCE reply brief, pp. 20-21.) This debate it appears to be largely one of mere semantics: There is no question that a CPCN is predicated upon a determination of need under Section 1001 *et seq*. Section 399.2.5(a) simply provides that "necessary to facilitate achievement of the renewables portfolio standard" is one way that a project might be "required by the present or future public convenience and necessity" under Section 1001.

estimated cost of $992 million, results in a cost of $1,044 per megawatt, which far exceeds the cost of other recent transmission projects. (ORA opening brief, pp. 21-22, 33-36.) These arguments lack merit.

As an initial matter, economically rational RPS compliance does not turn on a project's contribution to resource adequacy or reduced congestion costs. For example, the Commission found that the Eldorado-Ivanpah Transmission Project was economically rational by virtue of enabling interconnection to renewable generation under Commission-approved power purchase agreements and by providing the most cost-effective means to interconnect and deliver the substantial renewable resource potential in the Ivanpah Dry Lake Area. (D.10-12-052 at 32, as modified by D.11-04-034, Ordering Paragraph 9.) Here, likewise, the proposed project would enable interconnection to renewable projects under Commission-approved power purchase agreements and provide interconnection to and facilitate delivery of the substantial renewable resource potential in the Riverside East and Imperial areas, including the potential represented by generator interconnection requests in the CAISO queue. Moreover, it would do so consistent with the Garamendi Principles for transmission planning that favor the use of existing rights-of-way by upgrading existing transmission facilities where technically and economically justifiable.[21]

Furthermore, ORA's calculation of the proposed project's per MW cost is misleading, as it is based on the megawatt metric of deliverability instead of power transfer capability as was used in SCE's calculation, and it discounts the 1050 MW of deliverability currently provided by the interim upgrades. As discussed previously in Part 4.1, the interim upgrades are not sustainable as a

[21] Senate Bill 2431 (Garamendi), Ch. 1457, Statutes 1988.

permanent solution. Correcting for this error and comparing project costs on the basis of the same metric of power transfer capability, the proposed project's estimated cost of $310,000/MW compares favorably to the cost of other approved projects which range from $574,465/MW to $1,182,922/MW.[22] (*See* Ex. 10, p. 11, Table II-1.)

Finally, ORA argues that the proposed project is not economically rational because the value of the solar resources represented by the generation resources it would serve is expected to significantly decline when California transitions to the use of effective load carrying capability methodology for calculating system resource adequacy. (ORA opening brief, p. 33.) ORA asserts that, by taking this factor as well as distributed generation and out-of-state resources into greater account, the newer RPS calculator (version 6) is unlikely to lead to the identification of need for the proposed project in the CAISO's 2016-2017 TPP. (ORA opening brief, pp. 29-31.)[23] However, the Commission has yet to rely upon version 6 to develop its renewable generation portfolios (*see* Ex. 40), and the premise that the Commission should use it to develop the 2016-2017 renewable generation portfolio is subject to dispute.[24]

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[22] The comparison projects include the Tehachapi Renewable Transmission Project 1-3, Sunrise, TRTP 4-11, and Devers-Colorado River. (*Id.*)

[23] ORA largely relies on extra-record information for this assertion. (*See* ORA opening brief, fns. 65, 67, 72 and 73, citing to Appendix A of "RPS Calculator User Guide version 6.1, August 20, 2015" and slide nos. 47, 51 and 55 of "RPS Calculator Land Use Data and Portfolio Selection for 2016.") It is not apparent that the matter is officially noticeable, nor does ORA request official notice of this information or furnish sufficient information to enable us to do so. (*See* Rule 13.9 and Ev.C. § 450 *et seq*.)

[24] The CAISO states its opinion that, even if the Commission develops future portfolios to meet the new 50% RPS goal based on the RPS calculator version 6, those new portfolios should only inform transmission needs for incremental requirements to increase renewable penetration from 33% to the new 50% RPS goal. (CAISO reply brief, p. 5.)

ORA ultimately recommends that the Commission dismiss this application without prejudice to await the incorporation of the version 6 into the RPS portfolio process to see whether it supports the proposed project. (ORA reply brief, pp. 22-24.) ORA vaguely refers to D.15-05-040, in which the Commission dismissed SCE's application for a CPCN for the Coolwater-Lugo Transmission Project (Application (A.) 13-08-023), as precedent for doing so here. The circumstances surrounding D.15-05-040 are entirely distinguishable from the instant application: The Coolwater-Lugo Transmission Project was proposed to accommodate FCDS for the Mojave Solar Project. Shortly after SCE brought that application, the Coolwater Generating Station was permanently retired, freeing a significantly large amount of transfer capability and enabling the Mojave Solar Project to be assigned FCDS without the project. Those circumstances constituted a "fundamental" change to the status quo with respect to that particular application. (D.15-05-040 at 20.) In contrast, the development of version 6 has yet to change the status quo, and whether it will do so, particularly with respect to the determination of transmission needs to meet the earlier 33% RPS, has yet to be determined.[25]

For all these reasons, we find a need to increase the transfer capability of the West of Devers transmission corridor in order to facilitate deliverability for

[25] ORA asserts that CAISO witness Millar conceded that "a change in the portfolios by the CPUC could cause the CAISO to consider whether the [proposed project] is necessary." (ORA reply brief, p. 24.) This statement mischaracterizes Millar's testimony, which emphasized his view that "The RPS Calculator 6.0 and 6.12 are the evolution of the CPUCs calculator that are being developed specifically forgoing [sic] beyond the 33 percent RPS by 202, moving towards a 540 percent RPS goal by 2030. So the – using the RPS calculator for any 33 percent by 2020 goals wouldn't be appropriate, and the transmittal letter we received signed by President Picker and Chairman Weisenmiller of the Energy Commission specifically stated that those versions were not applicable to the 33 percent RPS analysis." (CAISO/Millar, Tr. 211:18-212:2.)

renewable energy resources identified in the Commission's renewable portfolios, in furtherance of California's 33% RPS).

5. Environmental Impacts of Proposed Project

SCE's proposed project would have significant and unavoidable impacts on air quality, cultural resources, noise, and visual resources. Project construction would generate dust and exhaust emissions of criteria pollutants above threshold levels, as well as construction noise that could substantially disturb sensitive receptors or violate local rules, standards, and/or ordinances. Construction, operation and maintenance, and restoration could cause an adverse change to unknown buried prehistoric and historical archaeological sites or buried Native American human remains. Construction would result in visual contrast due to vegetation removal, and the long-term presence of the project would result in landscape changes that degrade existing visual character or quality. The proposed project would not have any other significant impacts that cannot be mitigated to a less-than-significant level with the mitigation measures identified in the Mitigation Monitoring, Compliance and Reporting Plan.

6. Project Alternatives

An EIR must identify a reasonable range of alternatives to a proposed project that feasibly attain most of the basic project objectives but avoid or substantially lessen any of the significant effects of the project. (CEQA Guidelines § 15126.6(a).) An EIR must also evaluate the environmental impacts of a "no project" alternative. (Guidelines § 15126.6(e).)

The EIR fully analyzed three alternatives: the Tower Relocation Alternative, the Iowa Street 66 kV Underground Alternative, and the Phased Build Alternative. In addition, the EIR fully analyzed two "no project" alternatives: the No Project Alternative Option 1, which assumes the absence of

an agreement with the Morongo and consequentially the removal of all SCE facilities from Morongo land and development of an alternate transmission path from the Devers Substation to the El Casco Substation, and the No Project Alternative Option 2, which assumes that the facilities on Morongo land would be unchanged and that additional capacity would be provided with a new 500 kV circuit between the Valley and Serrano substations.

The Tower Relocation Alternative would place towers along a center line about 50 feet farther from the edge of the right-of-way in particular residential segments of the proposed project where potentially significant visual impacts have been identified. This alternative would reduce visual impacts by causing less incremental visual contrast, structure prominence, and view blockage from the residential locations, and reduce construction noise, emissions and traffic disturbance to nearby residents. The Iowa Street 66 kV Underground Alternative would underground a segment of the proposed 66 kV subtransmission line for about 1600 feet, starting from 275 feet north of Iowa Street's intersection with Orange Avenue and emerging on the south side of Barton Road. This alternative would eliminate the significant visual impacts associated with the proposed project's new overhead 66 kV subtransmission line along this corridor.

The Phased Build Alternative would: (1) remove the two sets of existing single-circuit towers and replace them with one set of new double-circuit towers in the location of the Tower Relocation Alternative; (2) retain the existing double-circuit towers (up to 110 interset towers would be required where the spans between retained towers exceed the strength of existing towers, and at locations where conductor blowout could occur);[26] and (3) install high-capacity

[26] *See* Addendum to EIR.

conductors on all four circuits. This alternative would increase the capacity of the West of Devers corridor from the present 1600 MW to approximately 3000 MW, compared to the proposed project which would increase it to approximately 4800 MW, and would accommodate future upgrades as needed. The Phased Build Alternative would reduce construction-related impacts by eliminating the need to remove and reconstruct the existing double-circuit 220 kV structures. It would also reduce visual impacts by incorporating the Tower Relocation Alternative.

The No Project Alternative Option 1 would require construction of a new Beaumont Substation, a third 500 kV circuit between the existing Devers and new Beaumont Substations, and four new 220 kV circuits between Beaumont and El Casco Substations. The EIR finds that this alternative would create severe impacts to visual resources and land use and recreation due to its significant visibility as it crosses the Pacific Crest Trail and passes through the San Jacinto and Santa Rosa National Monument, the San Bernardino National Forest, the community of Cabazon, and the Cities of Banning and Beaumont. It would also create severe impacts to biological resources as it passes through sensitive desert, mountain, and inland environments with potential to affect listed plants, Peninsular bighorn sheep, Stephens' kangaroo rat, and other species and their habitat.

The No Project Alternative Option 2 would retain the existing 220 kV facilities between Devers, San Bernardino and Vista Substations. It would require construction of a new single-circuit 500 kV line along approximately 40.4 miles adjacent to the Valley-Serrano 500 kV line from Valley Substation to Serrano Substation. The EIR finds that this alternative would create severe impacts to visual resources and land use and recreation due to its significant

visibility as it passes through Weir Canyon Regional Park, the community of Romoland, and the City of Orange. It would also create severe impacts to biological resources as it passes through sensitive mountain and inland environments with potential to affect listed plants, birds, and other species and their habitat.

7. Environmentally Superior Alternative

The EIR identifies the Phased Build Alternative as the environmentally superior alternative, due to its reduced construction and visual impacts relative to the proposed project. The EIR identifies the combination of the Tower Relocation Alternative, the Iowa Street 66 kV Underground Alternative, and the proposed project for the segments otherwise unaffected by these two alternatives as the second environmentally preferred alternative.

8. Certification of the EIR

The EIR was completed after notice and opportunity for public comment on the scope of the environmental review and the draft EIR, as required by CEQA. The Commission issued and distributed the Notice of Preparation of an EIR on May 12, 2014. The Commission conducted four public scoping meetings in three locations, and contacted 10 affected public officials and tribal government representatives to collect input on the scope, alternatives and mitigation measures to consider. The Commission and BLM issued the draft EIR/EIS on August 7, 2015, and conducted three public workshops in August and September 2015. Public comments were received from seven public agencies; nine groups, organizations and companies (including ORA, the CAISO, Palen and NextEra); two tribal governments (including the Morongo Band of Mission Indians); 37 private citizens; and SCE. The public comment period for the draft EIR/EIS ended on September 22, 2015. The final EIR, including

responses to all comments made on the draft EIR/EIS and the complete revised text of the draft EIR/EIS as modified in response to comments, was released on December 11, 2015, and an Addendum responding to information provided in SCE's opening brief was issued on April 12, 2016.

The EIR documents and responds to all written and oral comments made on the draft EIR/EIS, as required by CEQA. As also required by CEQA, the final EIR examines the environmental impacts of the proposed project and a number of alternatives, including the No Project Alternative; it identifies their significant environmental impacts and the mitigation measures that will avoid or substantially lessen them, where feasible, and identifies the environmentally superior alternative pursuant to CEQA.

We have reviewed and considered the information contained in the EIR, as well as parties' challenges to the adequacy of the EIR as discussed below. We find that substantial evidence supports the EIR's findings, and we certify that the EIR was completed in compliance with CEQA, that we have reviewed and considered the information contained in it, and that, with the revisions to the mitigation measures reflected in the Mitigation Monitoring, Compliance, and Reporting Plan attached to this order, it reflects our independent judgment.

8.1. SCE Challenges to Phased Build Alternative

SCE argues that the EIR is flawed for lacking evidentiary support for its defined project objective of increasing system deliverability by at least 2200 MW and for failing to assess the environmental impacts of future build phases of the Phased Build Alternative, which SCE asserts are reasonably foreseeable. SCE argues that, taking into consideration the environmental impacts of future build phases – which SCE asserts are acknowledged by virtue of the word "phase" being used in naming the alternative -- the Phased Build Alternative is not

environmentally superior to the proposed project. (SCE opening brief, pp. 38-42, 46-56.) SCE made these arguments throughout its comments on the draft EIR/EIS, and the final EIR appropriately summarizes and responds to all of them, explaining the basis for using the CAISO 2024 Reliability Base Case in defining the project objective, that the need to further expand the transmission corridor is unknown at this time, and that therefore the EIR is not required to assess the environmental impacts of such speculative future expansions. (EIR, Volume 4, General Responses (GR) GR 1, GR-2, GR-4 and response to comments F1-5, F1-6, F1-7, F1-8, F1-9, F1-10, F1-11, and F1-14.) We reiterate CEQA Guideline § 15151 which states in part, "Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts."

SCE argues that the EIR is flawed for disregarding the Phased Build Alternative's potential for conductor contact between the new and existing sets of 220 kV double-circuit structures due to conductor sway during windy conditions, and for failing to assess the environmental impacts of installing additional interset structures to eliminate that potential. (SCE opening brief, pp. 33-36.) Based on the additional engineering information provided in SCE's opening brief, the Addendum to the EIR resolves this concern by modifying the Phased Build Alternative to add approximately 105 to 110 interset towers. The Addendum considers the environmental impact of this modification and determines that, as modified, the Phased Build Alternative remains environmentally superior to the proposed project because it will require 20% to 25% less new structure construction (and associated ground disturbance) than the proposed project and reduce significant visual impacts relative to the proposed project. (Addendum, p. Ad-23.)

SCE argues that the EIR is flawed for wrongly disregarding the need to develop additional or expanded wire sites to accommodate wire stringing of the 795 conductor. (SCE opening brief, pp. 37, 58-59.) The Addendum acknowledges that SCE's wire training plan for the proposed project would have to be modified for the Phased Build Alternative to replace some of the sites defined for the proposed project and adding additional stringing sites, and determines that amount of ground disturbance for the Phased Build Alternative would remain at between 20 and 25 percent less than the proposed project. (Addendum, p. Ad-27.)

SCE asserts that the EIR incorrectly assumes that the Phased Build Alternative would not require the relocation of the 66 kV subtransmission and 12 kV distribution lines currently located within Segment 1 in order to accommodate installation of the new 220 kV infrastructure. (SCE opening brief, Appendix B, p. B-1.) Based on the additional engineering information provided in SCE's opening brief, the Addendum to the EIR addressed this possibility by including the impacts of the 66 kV subtransmission line relocation and the Iowa Street Underground Alternative with the Phased Build Alternative. (Addendum, p. Ad-4.) The Addendum considers the environmental impact of this modification and determines that the Phased Build Alternative remains environmentally superior to the proposed project because there is only one significant impact associated with the 66 kV subtransmission line relocation, and it is eliminated with the Iowa Street 66 kV Underground Alternative. (Addendum, p. Ad-22.)

SCE asserts that there is a conflict between the EIR's project description of the Tower Relocation Alternative, which would require eliminating approximately 26 existing double circuit towers in order to install the new double

circuit structures, and the Phased Build Alternative, which would re-use those towers. (SCE opening brief, Appendix B, p. B-2.) SCE gives no basis for its assertion that the Tower Relocation Alternative will require removal of 26 existing double circuit towers, and none is apparent. To the contrary, the Phased Build Alternative by definition provides that nearly all of the existing double circuit structure would be retained, so were the Tower Relocation Alternative also in effect, the centerline of the newly constructed double-circuit structure would be located no closer to the edge of the right-of-way than the now-existing structures. (Addendum, p. Ad-26.)

SCE notes a discrepancy on Figures Ap.5-5a and Ap.5-5b of the EIR, whose text boxes indicate that some existing double circuit structures would be retained on Morongo land in Segment 5 under the Phased Build Alternative. (SCE opening brief, Appendix B, pp. B-3 through B-4.) The Addendum revises the text boxes on both figures to clarify that all towers on Morongo land would be removed and replaced with SCE's proposed project towers. In addition, the Addendum presents two options for Segment 5 under the Phased Build Alternative: Option 1 would also remove all Segment 5 towers that are not on Morongo land and replace them with SCE's proposed project towers, and Option 2 would conductor all of Segment 5 with 1590 conductor rather than 795 Drake ACCR conductor. (Addendum, p. Ad-29.) With these revisions, the EIR addresses this concern.

SCE asserts that the Phased Build Alternative requires a significant increase in the number of shoo-fly structures in comparison with the proposed project, and that the incremental environmental impact of installing and removing them renders the Phased Build Alternative environmentally inferior to the proposed project. (SCE opening brief, Appendix B, pp. B-4 through B-5.)

SCE raised this concern in its comments on the draft EIR (EIR, Volume 4, pp. 263, 265, 269), and the final EIR was modified to reflect SCE's opinion (EIR, Volume 3, Appendix 5, p. Ap.5-46). The EIR appropriately summarizes and responds to SCE's comment, concluding that even with a need for additional shoo-flies, the Phased Build Alternative would result in an overall reduction in ground disturbance compared to the proposed project. (*Id.*, pp. 288-289.) The Addendum adds further detail about the shoo-flies, including an estimate of the additional temporary ground disturbance that may be required. (Addendum, pp. Ad-30 to Ad-31.) We reiterate CEQA Guideline § 15151 which states in part, "Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts." The EIR has done so.

8.2. SCE Recommended Revisions to Mitigation Measures

SCE re-iterates, in a table contained as an appendix to its opening brief, its recommended revisions to specific mitigation measures that it had submitted in its comments on the draft EIR. While the appendix failed to sufficiently inform the matter, SCE's comments on the proposed decision presented additional explanation as to why some of these measures are erroneous. We address them below.

SCE asserts that, as drafted in the Addendum to the Final EIR, Mitigation Measure N-1a (implement best management practices for construction noise) does not articulate a clear noise performance standard or acknowledge that SCE's efforts to reduce noise impacts may not always be successful. SCE's assertions have merit, and we revise the mitigation measure accordingly.

SCE asserts that, as drafted in the Addendum to the Final EIR, Mitigation Measure VR-4a (minimize in-line views of retaining walls and land scars)

improperly defers mitigation and delegates it to Commission staff. These assertions have merit, and we revise the mitigation measure accordingly. SCE further asserts that other mitigation measures that require SCE to restore or revegetate areas and to reduce color contrast will already mitigate the significant visual resource impacts to the extent feasible, and therefore recommends deletion of this mitigation measure. To the contrary, this mitigation measure provides additional feasible mitigation.

SCE asserts that the imposition of mitigation measures pursuant to CEQA is triggered only when there are potentially significant environmental impacts, and that Mitigation Measures VR-8a (minimize visual contrast in project design) and VR-9a (treat structure surfaces) improperly apply to the entirety of the project. We agree that these measures need not be applied where there are no potentially significant impacts, and revise the mitigation measures accordingly. SCE recommends additional revisions without explanation, and we see no cause to entertain them.

SCE asks the Commission to revise Mitigation Measures WIL-2c, WIL-2d, WIL-2e, and WIL-2j (conduct surveys and avoidance for threatened and endangered riparian birds, Stephens' kangaroo rat, Coastal California gnatcatcher, and special-status small mammals.) to provide that they will no longer apply in the event that SCE becomes a Participating Special Entity (PSE) under the applicable Multiple Species Habitat Conservation Plans (MSHCP). SCE asserts that, otherwise, these mitigation measures will cause unnecessary duplication, conflict, and ratepayer expense with respect to the conduct of surveys and avoidance of these species under the MSHCPs. We decline to make the requested revisions because it is not apparent that these mitigation measures overlap or conflict with surveys and avoidance measures under the MSHCPs.

Specifically, the surveys conducted under the MSHCPs are conducted (if required) during project planning and siting as part of the PSE application process, for the purpose of assessing the project's expected "incidental take" of covered species for which the applicant requires "take authorization" from the US Fish and Wildlife Service and California Department of Fish and Game. (See, e.g., Western Riverside MSHCP Implementing Agreement, § 11.8.2.) Indeed, as SCE points out, surveys are not required for 104 of the 146 covered species, but are presumed to be present for this purpose. (SCE supplemental comments, p. 6, citing to Western Riverside MSCHP, Appendix E at E-1.) In contrast, the surveys required by the EIR's mitigation measures are pre-construction and during construction, for the purpose of determining the presence and location of specimen in order to avoid direct impacts to them during construction.

Similarly, although the MSHCPs include best management practices and construction guidelines for mitigating incidental disturbance to species (see Western Riverside MSHCP, § 7.5.3 and Appendix C at IC-1 to IC-3), they do not include additional measures to avoid direct impacts to specimen that are known to be present in the area (in large part because, as indicated above, the MSHCPs do not require pre-construction or construction surveys to locate them). Although the permitting agencies have the authority to impose such additional mitigation, it would be premature to conclude that the EIR's mitigation measures will duplicate or conflict with them, and it would be an improper deferral of mitigation for us to do so under CEQA. (CEQA Guidelines § 15126.4(a)(1)(B) ("Formulation of mitigation measures should not be deferred until some future time.") In the meantime, we do not presume that the wildlife agencies' grant of incidental take authority will satisfy our independent responsibility under CEQA to require feasible mitigation to avoid or reduce direct take of covered animals.

8.3. CAISO Challenges

The CAISO asserts that the EIR wrongly claims that the CAISO determined that the generation projects in its 2024 Reliability Base Case to be the most realistic. (CAISO opening brief, p. 10.) However, as the EIR explains, the basis for its statement is that, in developing the 2024 Reliability Base Case, the CAISO included only that generation that was under construction or had received regulatory approval at the time. (Addendum, p. Ad-8.) The EIR defined the base project objective on the basis of known or reasonably anticipated generation projects, and it is reasonable for the EIR to have identified that generation on the same basis as the CAISO did in developing its 2024 Reliability Base Case.

The CAISO asserts that the EIR fails to address the Phased Build Alternative's environmental impacts related to its incremental level of line losses relative to the proposed project. (CAISO opening brief, p. 10.) To the contrary, the EIR addresses this issue. (EIR, Volume 1, p. D.6-16.)

9. Infeasibility of Environmentally Superior Alternative

Where construction of a project would have significant environmental effects, the Commission may not approve the project without the mitigation identified to reduce those effects to a less-than-significant level unless the Commission finds that the identified mitigation or project alternative is infeasible for specific economic, legal, social, technological or other considerations. (CEQA Guidelines § 15091(a)(3).) We find the environmentally superior Phased Build Alternative to be infeasible for the following policy reasons.

Senate Bill 350 (2015) recently increased the RPS to 50% by 2030. Although it is speculative as to how much additional large-scale renewable energy

generation will be needed to meet that goal,[27] it is reasonable to expect such resources to seek to locate where transmission is known to be available. As goes the saying, "If you build it, they will come." Furthermore, notwithstanding that the 50% RPS is an energy-based requirement, it is reasonable to expect renewable energy generation developers and lenders to prefer the security of assured deliverability.

With this in mind, we observe that the environmentally superior Phased Build Alternative would provide 3000 MW of capacity at an estimated cost of $771 million, while the proposed project with the Tower Relocation and Iowa Street 66 kV Alternatives would provide 4800 MW of capacity at an estimated cost of $878 million. (Ex. 2, Appendix A.) Put another way, the proposed project with the Tower Relocation and Iowa Street 66 kV Underground Alternatives would provide 60 percent more capacity than the Phased Build Alternative at an incremental cost of 14 percent. We find it imprudent and infeasible as a matter of policy to fail to seize this opportunity to provide additional infrastructure that will potentially facilitate achievement of the 50% RPS.[28]

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[27] Senate Bill 350 also places a priority on energy efficiency and distributed generation resources.

[28] SCE argues that the environmentally superior Phased Build Alternative is infeasible for all of the same reasons that it argues that the EIR is flawed as discussed above in Part 8; because it would require a one-year delay to implement; because construction would require scheduling more outages than would be required in constructing the proposed project, which the CAISO is not likely to approve or, if the CAISO does approve, would cause significant economic loss to generators currently relying on the existing West of Devers lines; and because it is contrary to Garamendi Principles for not maximizing the availability of the remaining space in the corridor. Because we find the Phased Build Alternative to be infeasible on other grounds, we need not address these arguments.

10. Overriding Considerations

Pursuant to CEQA Guidelines § 15093, the Commission may only approve a project that results in significant and unavoidable impacts upon a finding that there are overriding considerations. Section 15093(a) describes the underlying analysis:

> CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered acceptable. (CEQA Guidelines § 15093(a).)

As discussed at length in Part 4, above, the West of Devers Upgrade Project, configured as the Tower Relocation Alternative, the Iowa Street 66 kV Underground Alternative, and the proposed project for the segments otherwise unaffected by these two alternatives, will allow SCE to comply with its generator interconnection requests, facilitate deliverability for renewable energy resources identified in the Commission's renewable portfolios in furtherance of California's 33% RPS, and provide infrastructure that will potentially facilitate achievement of California's new 50% RPS. These benefits outweigh the project's unavoidable adverse environmental impacts on air quality, noise, visual resources and cultural resources.

11. Electric and Magnetic Field

The Commission has examined EMF impacts in several previous proceedings, concluding that the scientific evidence presented in those proceedings was uncertain as to the possible health effects of EMFs.[29] Therefore, the Commission has not found it appropriate to adopt any related numerical standards. Because there is no agreement among scientists that exposure to EMF creates any potential health risk, and because CEQA does not define or adopt any standards to address the potential health risk impacts of possible exposure to EMFs, the Commission does not consider magnetic fields in the context of CEQA and the determination of environmental impacts.

However, recognizing that public concern remains, we do require, pursuant to GO 131-D, Section X.A, that all requests for a permit to construct include a description of the measures taken or proposed by the utility to reduce the potential for exposure to EMFs generated by the proposed project. We developed an interim policy that requires utilities, among other things, to identify the no-cost measures undertaken, and the low-cost measures implemented, to reduce the potential EMF impacts. The benchmark established for low-cost measures is 4% of the total budgeted project cost that results in an EMF reduction of at least 15% (as measured at the edge of the utility right-of-way).

SCE submitted a Field Management Plan as Appendix B to this application and as Appendix to its testimony in Exhibit 1. The document details the EMF measures for the proposed project, including:

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[29] *See* D.06-01-042 and D.93-11-013.

- Utilize subtransmission structure heights that meet or exceed SCE's EMF preferred design criteria
- Utilize underground substransmission construction for crossing other transmission structures and other engineering reasons
- Utilize double-circuit construction that reduces spacing between circuits as compared with single-circuit construction
- Utilize taller structure heights or increased conductor ground clearance where the proposed transmission lines run adjacent to populated areas
- Arrange conductors of the transmission lines for magnetic field reduction ("phasing")

We find that this design complies with the Commission's EMF decisions, and order SCE to apply it to the approved West of Devers Upgrade Project configured with the Tower Relocation and Iowa Street 66 kV Underground Alternatives.

12. Maximum Cost Cap

Section 1005.5 requires the Commission, in granting a CPCN, to specify a maximum reasonable and prudent cost for the facility. Based on SCE's estimates, the cost of the West of Devers Upgrade Project configured with the Tower Relocation Alternative and Iowa Street 66 kV Underground Alternative is $878 million[30] plus a contingency of $132 million.[31] (Ex. 2, Appendix A.) We adopt a maximum cost cap of $1,010 million.

ORA challenges the reasonableness of the cost based on its assertion that the West of Devers Upgrade Project is not needed and on its assertion that the

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[30] *See* fn. 30, *supra*.

[31] Appendix A shows an estimated contingency of $129 million for the proposed project, $131 million for the proposed project with Tower Relocation Alternative, and $130 million for the proposed project with the Iowa Street 66 kV Underground Alternative.

cost of the proposed project is excessive relative to other transmission projects, as discussed in Part 4, above. These challenges go to the issue of need and not to a determination of a reasonable cost of constructing the approved project.

SCE notes that the reasonableness of costs and the associated ratemaking and revenue requirement associated with the project will be under FERC jurisdiction, where the Commission routinely participates as an intervenor. SCE requests authority to apply to increase the maximum cost cap by advice letter, consistent with Commission precedent. (*See, e.g.,* D.07-03-012 at 25.) However, our more recent experience instructs us that the advice letter may not be an appropriate vehicle when the revisions requested are substantial in nature. (Resolution E-4602, 2014 Cal. PUC LEXIS 64, February 5, 2014.) Accordingly, we direct SCE to consult with the Energy Division on whether an application, advice letter or a petition for modification would be more appropriate when seeking such revision.

13. Section 399.2.5 Backstop Eligibility

Section 399.2.5(b) requires the Commission to allow backstop rate recovery of transmission project construction costs that are not recovered through FERC-administered transmission rates if the transmission project qualifies under Section 399.2.5(a) as necessary to facilitate achievement of the RPS. The Commission has used the three-prong test articulated in D.07-03-012 to determine if a transmission project is necessary to facilitate achievement of the RPS under Section 399.2.5 and thus qualify for this backstop rate recovery:

> (1) [T]hat a project would bring to the grid renewable generation that would otherwise remain unavailable; (2) that the area within the line's reach would play a critical role in meeting the RPS goals; and (3) that the cost of the line is appropriately balanced against the certainty of the line's contribution to economically rational RPS compliance. (D.07-03-012 at 16; *see also* D.10-12-052.)

As discussed above in Part 4, the West of Devers Upgrade Project is necessary to bring this renewable generation to the grid pursuant to the terms of the interconnection requests and the executed generator interconnection agreements and power purchase agreements; it will provide interconnection to the substantial renewable resource potential in the Riverside East and Imperial areas, including the potential represented by generator interconnection requests in the CAISO queue and the renewable generation that the Commission has identified in the renewable generation portfolios provided to the CAISO; and it will do so consistent with the Garamendi Principles for transmission planning that favor the use of existing rights-of-way by upgrading existing transmission facilities where technically and economically justifiable and at a per-MW cost that compares favorably to the cost of other approved projects. We confirm that the West of Devers Upgrade Project is eligible for Section 399.2.5 backstop rate recovery.

14. Proposed transaction between SCE and Morongo Transmission LLC

SCE seeks approval pursuant to Section 851 of a proposed transaction that provides Morongo Transmission LLC with an option to invest up to $400 million or half of the estimated cost of the proposed project's transmission facilities at the time of commercial operation in exchange for 30-year lease rights in the transfer capability. The proposed transaction caps the capital cost rate that Morongo Transmission LLC can recover from ratepayers in transmission rates to the capital cost recovery rate that SCE would charge ratepayers for Morongo Transmission LLC's capital investment. SCE also requests authority to provide notice of the final, executed lease via a Tier 1 advice filing requiring no further action by the Commission.

At the same time, SCE and the Morongo Tribe have negotiated a right-of-way agreement to allow for SCE's 115 kV subtransmission lines, fiber-optic telecommunications lines and appurtenant facilities that are partially located on the Morongo Reservation to remain and for SCE's 200 kV facilities to be torn down and rebuilt. The Morongo Tribe has the right to terminate the right-of-way agreement in the event that the Commission does not approve the proposed transaction.

We find that the proposed transaction is not adverse to the public interest and should be approved.[32] It will enable SCE to retain a right-of-way across the Morongo Reservation and avoid SCE from having to incur the cost of re-routing existing facilities around the Reservation, and it will do so in a manner that is ratepayer neutral.

ORA argues that Section 851 does not allow a public utility to encumber property until and unless the property is used and useful. (ORA opening brief, p. 39.) To the contrary, by its plain language, Section 851 contains no such restriction. Furthermore, the Commission approved a similar option to invest in a project prior to its completion. (*See* D.11-05-048.) We see no reason to deviate from this precedent.

ORA argues that the Commission should dismiss SCE's request for approval of the proposed transaction until it has determined whether Morongo Transmission LLC is a public utility seeking to merge with SCE under Section 851. (ORA opening brief, p. 40.) ORA offers no basis for its suggestion that this might be the case, and none is apparent.

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[32] *See* D.11-05-048 at 9, affirming the Section 851 review standard stated in D.09-07-035 and D.09-04-013, i.e., that the subject transaction should not be adverse to the public interest and that transactions that are in the public interest are to be encouraged.

ORA argues that SCE failed to adequately explain how it decided that it was reasonable to allow Morongo Transmission LLC the option to invest up to half of the cost of the proposed project's facilities. (ORA opening brief, p. 40.) ORA goes on to argue that the proposed transaction places financial risks on SCE's ratepayers by burdening them with the overall cost of the proposed project in the event that Morongo Transmission LLC declines to exercise its investment option. (ORA opening brief, p. 41.) To the contrary, SCE's explanation that the proposed transaction was negotiated in consideration of the right-of-way agreement adequately explains its purpose. Furthermore, the proposed transaction poses no ratepayer risk because, regardless of whether or not Morongo Transmission LLC invests in the proposed project, ratepayers will pay for the costs of the proposed project through FERC-approved transmission rates. (Ex. 1, p. 411:8-14.)

ORA argues that, because the right-of-way agreement is conditioned on Commission approval of the proposed transaction and the West of Devers Upgrade Project as proposed by SCE, the proposed transaction unlawfully cedes the Commission's authority to deny this application or to approve an alternative to the proposed project. (ORA opening brief, pp. 38 and 42.) ORA's point appears to be that the right-of-way agreement (as opposed to the proposed transaction) presents undue pressure on the Commission to approve the West of Devers Upgrade Project as proposed by SCE, and SCE, for its part, appears to concur by arguing that the Commission cannot assume that the Phased Build Alternative (and, by that logic, any other alternative or mitigation measure) is legally feasible because the Morongo Tribe has not yet consented to it. (SCE opening brief, p. 57.) We disagree with both parties. First of all, we do not abdicate our responsibilities by assuming obstacles that have yet to materialize.

Secondly, as the Phased Build Alternative would have the same structures as the proposed project in Segment 5 including the Morongo Reservation (Addendum, p. Ad-4), there is no reasonable basis to assume that it would be less acceptable to the Morongo Tribe than the proposed project and, in any event, we would expect SCE to make a good faith effort to implement whatever project alternative we approve.[33]

ORA also argues that the Commission should apply the Section 1001 standard of review (i.e., whether "the present or future public convenience and necessity require or will require" the proposed transaction) rather than the Section 851 standard of review (i.e., whether the proposed transaction is "not adverse to the public interest") on the basis that the proposed transaction is an integral component to the West of Devers Upgrade Project. (ORA opening brief, pp. 43-44.) ORA offers no authority for its argument, and its argument is unpersuasive.

Finally, ORA raises in its reply brief a new argument that Commission cannot grant a CPCN for the West of Devers Upgrade Project before the Morongo Tribe has approved the right-of-way agreement because, otherwise, the grant would be an impermissible encumbrance on Indian land in violation of 28 U.S.C. § 1360(b). (ORA reply brief, pp. 4-5.) This argument has no merit because granting SCE authority to construct a project does not constitute a mandate requiring any activity on Morongo land.

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[33] To the extent that changes to the approved project become necessary, the proper procedure is for the utility to petition to modify the decision authorizing project construction, and the Commission will properly assess the matter. (*See, e.g.,* D.10-08-009 (SCE) and D.15-01-006 (San Diego Gas & Electric Company.))

15. Comments on Proposed Decision

The proposed decision of Administrative Law Judge (ALJ) Yacknin in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed on May 2, 2016, by SCE, CAISO, EDF and ORA, and reply comments were filed on May 9, 2016, by SCE, CAISO and ORA. SCE filed supplemental comments on May 19, 2016.[34]

In response to comments, the ALJ revised the proposed decision to correct inadvertent errors and to modify the EIR's mitigation measures as discussed in Section 8.2 herein.

16. Assignment of Proceeding

Liane M. Randolph is the assigned Commissioner and Hallie Yacknin is the assigned ALJ in this proceeding.

Findings of Fact

1. The West of Devers Upgrade Project will allow SCE to comply with its generator interconnection requests.

2. The West of Devers Upgrade Project will facilitate deliverability for renewable energy resources identified in the Commission's renewable portfolios in furtherance of California's 33% RPS.

3. The West of Devers Upgrade Project will provide infrastructure that will potentially facilitate achievement of California's new 50% RPS.

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[34] By ruling dated May 13, 2016, the ALJ ordered supplemental comments on the issue of whether SCE's future status as a Participating Special Entity under applicable Multiple Species Habitat Conservation Plans would obviate the need for the EIR's Mitigation Measures WIL-2c, WIL-2d, WIL-2e and WIL-2j regarding the conduct of surveys and avoidance for threatened and endangered riparian birds, Stephen' kangaroo rat, coastal California gnatcatcher, and special-status small mammals.

4. Construction of the proposed project would have a significant and unavoidable impact on air quality by generating dust and exhaust emissions of criteria pollutants above threshold levels.

5. Construction of the proposed project would have a significant and unavoidable noise impact that could substantially disturb sensitive receptors or violate local rules, standards, and/or ordinances.

6. Construction, operation and maintenance of the proposed project and restoration of the construction area could have a significant and unavoidable impact on cultural resources by causing an adverse change to unknown buried prehistoric and historical archaeological sites or buried Native American human remains.

7. The proposed project would have a significant and unavoidable impact on visual resources by resulting in visual contrast due to vegetation removal during construction, and by resulting in long-term landscape changes that degrade existing visual character or quality.

8. The proposed project would not have any other significant impacts that cannot be mitigated to a less-than-significant level with the mitigation measures identified in the Mitigation Monitoring, Compliance and Reporting Plan attached to this order.

9. The Phased Build Alternative is the environmentally superior alternative, due to its reduced construction impacts relative to the proposed project.

10. The combination of the Tower Relocation Alternative, the Iowa Street 66 kV Underground Alternative, and the proposed project for the segments otherwise unaffected by these two alternatives is the second environmentally preferred alternative.

11. The Commission has reviewed and considered the EIR.

12. The Phased Build Alternative would provide 3000 MW of capacity at an estimated cost of $771 million, while the proposed project with the Tower Relocation and Iowa Street 66 kV Alternatives would provide 4800 MW of capacity at an estimated cost of $878 million.

13. The proposed transaction between SCE and the Morongo Transmission LLC will enable SCE to retain a right-of-way across the Morongo Reservation and avoid SCE from having to incur the cost of re-routing existing facilities around the Reservation, and it will do so in a manner that is ratepayer neutral.

Conclusions of Law

1. The West of Devers Upgrade Project will serve a present and future public convenience and necessity.

2. The EIR was completed in compliance with CEQA and, with the revisions to mitigation measures reflected in the Mitigation Monitoring, Compliance and Reporting Plan attached to this order, it reflects the Commission's independent judgment and analysis on all material matters.

3. It is infeasible as a matter of policy to implement the environmentally superior Phased Build Alternative because it fails to capitalize on the opportunity to provide an incremental 1800 MW of capacity and deliverability for renewable energy resources identified in the Commissioner's renewable portfolios for the 33% RPS that will potentially facilitate achievement of the 50% RPS.

4. The West of Devers Upgrade Project, configured as the Tower Relocation Alternative, the Iowa Street 66 kV Underground Alternative, and the proposed project for the segments otherwise unaffected by these two alternatives, provides benefits that outweigh the project's unavoidable adverse environmental impacts on air quality, noise, visual resources and cultural resources, and should be approved.

5. SCE's Field Management Plan is consistent with the Commission's EMF policy for implementing no-cost and low-cost measures to reduce potential EMF impacts.

6. The reasonable and prudent maximum cost cap for the West of Devers Upgrade Project is $1,010 million, including contingency. SCE should consult with the Energy Division on whether an application, advice letter or a petition for modification would be more appropriate in the event that it seeks to revise the cost cap.

7. The West of Devers Upgrade Project construction costs are eligible for Section 399.2.5 backstop rate recovery.

8. The proposed transaction between SCE and the Morongo Transmission LLC is not adverse to the public interest and should be approved.

9. Any pending motions should be deemed denied.

10. This proceeding should be closed.

11. This order should be effective immediately.

O R D E R

IT IS ORDERED that:

1. Southern California Edison Company (SCE) is granted a certificate of public convenience and necessity to construct the West of Devers Upgrade Project, configured with the Tower Relocation and Iowa Street 66 kilovolt Undergrounding Alternatives, subject to SCE obtaining all permits and other approvals required and complying with the Mitigation Monitoring, Compliance, and Reporting Plan attached to this order.

2. The Commission's Energy Division may approve requests by Southern California Edison Company (SCE) for minor project refinements that may be

necessary due to final engineering of the West of Devers Upgrade Project, so long as such minor project refinements are located within the geographic boundary of the study area of the Environmental Impact Report (EIR) and do not, without mitigation, result in a new significant impact or a substantial increase in the severity of a previously identified significant impact based on the criteria used in the EIR; conflict with any mitigation measure or applicable law or policy; or trigger an additional permit requirement. SCE shall seek any other project refinements by a petition to modify today's decision.

3. The Environmental Impact Report is certified.

4. The reasonable and prudent maximum cost cap for the West of Devers Upgrade Project is $1,010 million, including contingency. Southern California Edison Company shall consult with the Energy Division on whether an application, advice letter or a petition for modification would be more appropriate in the event that it seeks to revise the cost cap.

5. We approve the proposed transaction providing Morongo Transmission LLC with an option to invest up to $400 million or half of the estimated cost of the proposed project's transmission facilities at the time of commercial operation in exchange for 30-year lease rights in the transfer capability. Southern California Edison Company may provide notice of the final, executed lease via a Tier 1 advice filing requiring no further action by the Commission.

6. All pending motions are deemed denied.

7. Application 13-10-020 is closed.

This order is effective today.

Dated August 18, 2016, at San Francisco, California.

MICHEL PETER FLORIO
CATHERINE J.K. SANDOVAL
CARLA J. PETERMAN
LIANE M. RANDOLPH
Commissioners

I dissent.

/s/ MICHAEL PICKER
President

ATTACHMENT

Mitigation Monitoring, Compliance and Reporting Plan

Introduction

All mitigation measures presented in the Final EIR, including changes based on the Addendum after publication of the Final EIR, that apply to the Proposed Project, the Tower Relocation Alternative and the Iowa Street 66 kV Underground Alternative are listed below by environmental discipline. There are no mitigation measures associated with Climate Change or Socioeconomics and Environmental Justice. Following the mitigation measures are the Applicant Proposed Measures that Southern California Edison (SCE) presented in its Proponent's Environmental Assessment for the Proposed Project.

Mitigation Measures

Agriculture

AG-3a **Establish agreement and coordinate construction activities with agricultural landowners.** Sixty (60) days prior to the start of project construction, Southern California Edison (SCE) shall coordinate with property owners of Important Farmland (Prime Farmland, Farmland of Statewide Importance, Unique Farmland) that currently is being used for agricultural purposes and that will be used for construction and operation of the project, access and spur roads, staging areas, and other project-related activities. Should SCE require an additional agreement in addition to any new or existing agreement in force, the additional agreement would be for temporary purposes outside of the existing SCE ROW where SCE does not have an existing or newly acquired or modified easement right to perform construction activities.

The purpose of this agreement will be to set forth the use of agriculturally utilized Prime Farmland, Farmland of Statewide Importance, Unique Farmland during construction in order to: (1) schedule proposed construction activities at a location and time when damage to agricultural operations would be minimized, and (2) ensure that any areas damaged or disturbed by construction are restored to a condition mutually agreed upon by the landowner and SCE and in accordance with the existing easement language.

SCE shall coordinate with the agricultural landowners in the affected areas where Important Farmland will be temporarily disturbed in order to determine when and where construction should occur in order to minimize damage to agricultural operations. This includes avoiding construction during peak planting, growing, and harvest seasons as feasible. If damage or destruction does occur, SCE shall perform restoration activities on the disturbed area in order to return the area to a pre-determined condition or the pre-construction condition, whichever option is agreed upon by the landowner and SCE and in accordance with the existing easement language. This could include activities such as soil preparation, regrading, and reseeding. Restoration activities performed by SCE will vary, depending on the language in existing or newly acquired or revised easement documents. This measure applies to landowners with agriculturally utilized land that is impacted by the Proposed Project. SCE shall provide proof of the continued use of Important Farmland currently used for agriculture through the submittal of a signed temporary construction easement or grant of easement agreement between an individual property owner and SCE. The signed agreements shall be submitted to the CPUC for review and approval prior to the start of construction.

Air Quality

AQ-1a **Control fugitive dust.** SCE shall develop a Fugitive Dust Control Plan and at least 60 days prior to construction submit the plan to the CPUC/BLM and SCAQMD for review and approval. The approved plan shall be implemented for all construction activities that may be a source of fugitive dust. Any fugitive dust control requirements in the SCAQMD rules and regulations, specifically Rule 403 and Rule 403.1, that are in addition to or more stringent than the requirements listed below shall be implemented and included in the plan. The plan shall include the following feasible measures:

- Traffic speeds on unpaved roads shall not exceed 15 miles per hour.
- A traffic route plan shall be developed and vehicles shall follow routes that minimize unpaved road travel.
- Unpaved roads, substation areas, and staging areas shall be watered three times daily when being used by construction vehicle traffic, or non-toxic soil stabilizers (e.g., water, tackifiers, and soil binders) shall be applied per manufacturer's recommendations and in sufficient quantities to maintain compliance with SCAQMD and jurisdictional requirements to maintain no visible vehicle travel dust emissions.
- Inactive excavated or graded soils and soil piles shall be sufficiently watered or sprayed with a soil stabilizer to create a surface crust or shall be covered.
- Drop heights from excavators and loaders shall be minimized to a distance no more than 5 feet.
- Soil truck loads shall be covered and gate seals on dump trucks shall be tight.
- Construction activities that occur on unpaved surfaces shall be discontinued during periods when activities are causing visible dust plumes that cannot be avoided by approved dust suppression methods. All grading and excavation activities shall be suspended when wind speeds exceed 30 miles per hour unless otherwise approved in the Fugitive Dust Control Plan. Wind speed measurement methods shall be consistent with the SCAQMD Implementation Handbook for Rule 403 and Rule 403.1.

AQ-1b **Control off-road equipment emissions.** Off-road equipment with engines larger than 50 horsepower shall have engines that meet or exceed U.S. EPA/CARB Tier 3 Emissions Standards. Exceptions will be allowed only on a case by case basis for two specific situations: (1) an off-road equipment item that is a specialty, or unique, piece of equipment that cannot be found with a Tier 3 or better engine after a due diligence search; and/or (2) an off-road equipment item that will be used for a total of no more than 10 days.

AQ-1c **Control helicopter emissions.** Helicopter emissions shall be reduced by the following methods and measures:

- Helicopter idling will occur only when necessary for safe operation and emergency readiness purposes.
- Helicopter operators shall use the smallest practical and available helicopter for each lift operation.

- Fugitive dust from helicopter rotor wash will be reduced through the implementation of the following measures:
  - -- The helicopter staging areas, that are not on existing paved airfields or other large paved sites, shall be treated with soil amendments (e.g., water, tackifiers, soil binders) that shall be applied at a frequency necessary to create and maintain surface soil crusts where rotor wash creates fugitive dust emissions;
  - -- Enough land area shall be obtained for each helicopter staging area not located on existing paved airfields or other large paved sites, so that rotor wash does not create visible fugitive dust emissions outside of the controlled staging area or ROW.
  - -- Helicopter operations will take flight paths (i.e. elevation above ground) that will eliminate dust emissions from rotor wash when travelling between the helicopter staging area and the work sites.
  - -- The helicopter work sites shall be watered prior to helicopter visits. Alternatively, other soil stabilizers shall be applied at a frequency necessary to create and maintain a surface soil crust while helicopter visits are occurring at the work site.

Biological Resources - Vegetation

VEG-1a **Conduct biological monitoring and reporting.** The following provisions shall apply to the approved project during the construction and post-construction restoration phases.

Lead biologist: SCE shall nominate a lead biologist and submit the nominee's resume to the CPUC and BLM for concurrence, no less than 60 days prior to the start of any ground-disturbing activities, including those occurring prior to site mobilization (including, but not limited to geotechnical borings or hazardous waste evaluations). At minimum the lead biologist will hold a bachelor's degree in biological sciences, zoology, botany, ecology, or a closely related field; have at least three years of experience in field biology and at least one year of direct field experience with biological resources found in or near the project area, *OR* relevant education and experience that demonstrates the ability to carry out the tasks required of a lead biologist. The resume shall demonstrate to the satisfaction of the CPUC and BLM the appropriate education and experience to accomplish the assigned biological resources tasks.
The lead biologist will be SCE's primary point of contact to CPUC, BLM, CDFW, and USFWS regarding any biological resources issues and implementation of related mitigation measures and permit conditions throughout project construction and post-construction restoration work. In addition, the lead biologist will oversee supervision and training of biological monitors (below) and preparation and submission of all monitoring reports and notifications (below).

If the lead biologist is replaced, the specified information of the proposed replacement must be submitted to the CPUC and BLM at least ten working days prior to the termination or release of the preceding lead biologist. In an emergency, SCE shall immediately notify the CPUC and BLM to discuss the qualifications and approval of a short-term replacement while a permanent lead biologist is proposed for consideration.

Biological monitors: SCE shall assign qualified biological monitors to the project to monitor all work activities during the construction phase.

Monitors are responsible for ensuring that impacts to special-status species, native vegetation, wildlife habitat, and sensitive or unique biological resources are avoided or minimized to the fullest extent safely possible. Monitors are also responsible to ensure that work activities are conducted in compliance with APMs, mitigation measures, permit conditions, and other project requirements.

Resumes of all biological monitors, including specialty monitors (including but not limited to bat, nesting bird, and special-status species monitors), shall be provided for concurrence by the CPUC and BLM, at least 10 working days prior to the monitor commencing field duties. The resumes shall demonstrate, to the satisfaction of the CPUC and BLM, the appropriate education and experience to accomplish the assigned biological resources tasks.

SCE shall provide training to biological monitors, in addition to WEAP (see Mitigation Measure VEG-1b) and prior to the monitor commencing field duties, on biological resources present or potentially present on the Proposed Project, as well as mitigation measures, permit requirements, project protocols, and the duties and responsibilities of a biological monitor.

Biological monitors shall inform construction crews daily of any environmentally sensitive areas (ESAs), nest buffers, or other resource issues or restrictions that affect the work sites for that day. Biological monitors shall communicate with construction supervisors and crews as needed (e.g., at daily tailgate safety meetings ("tailboards"), by telephone, text message, or email) to provide guidance to maintain compliance with mitigation measures and permit conditions. SCE shall ensure that adequate numbers of monitors are assigned to effectively monitor work activities and that communications from biological monitors are promptly directed to crews at each work site for incorporation into daily work activities. If biological monitors are unavailable for a tailboard meeting, the construction supervisors shall communicate all ESA, nest buffers, or other resource restrictions to crews during the meeting. SCE shall ensure that biological monitors are provided with an accurate daily construction work schedule as well as updated information on any alterations to the daily construction work schedule. This information shall also be provided to CPUC monitors. SCE shall ensure that biological monitors are provided with up-to-date biological resource maps and construction maps in hardcopy or digital format. These maps shall also be provided to CPUC monitors.

Monitors shall be familiar with the biological resources present or potentially present, ESAs, nest buffers, and any other resource issues at the site(s) they are monitoring, as well as the applicable mitigation measures and permit requirements. Monitors shall exhibit diligence in their monitoring duties and refrain from any conduct or potential conflict of interest that may compromise their ability to effectively carry out their monitoring duties.

Biological monitor duties and responsibilities: Throughout the duration of construction, SCE shall conduct biological monitoring of all activities in any area where there is a potential to impact sensitive biological resources or jurisdictional waters, including but not limited to vegetation removal/trimming/disturbance, all ground-disturbing work activities, and initial "drive and crush" in the project area, including work sites, yards, staging areas, access roads, and any area subject to project disturbance. Pre-construction activities (e.g., for geotechnical borings, hazardous waste evaluations, etc.) and post-construction restoration shall also be monitored by a biological monitor during all such activities.

Each day, prior to work activities at each site, a biological monitor shall conduct clearance surveys ("sweeps") for sensitive plant or wildlife resources that may be located within or adjacent to the construction areas. If sensitive resources are found, the biological monitor shall take appropriate action as defined in all adopted mitigation measures, APMs, and permit conditions. Work activities shall not commence at any work site until the clearance survey has been completed and the biological monitor communicates to the contractor that work may begin.

Biological monitors shall clearly mark sensitive biological resource areas with staking, flagging, or other appropriate materials that are readily visible and durable. The monitors will inform work crews of these areas and the requirements for avoidance, and will inspect these areas at appropriate intervals for compliance with regulatory terms and conditions. The biological monitors shall ensure that work activities are contained within approved disturbance area boundaries at all times.

Biological monitors shall have the authority and responsibility to halt any project activities that are not in compliance with applicable mitigation measures, APMs, permit conditions, or other project requirements, or will have an unauthorized adverse effect on biological resources.

Handling, relocation, release from entrapment, or other interaction with wildlife shall be performed consistent with mitigation measures, safety protocols, permits (including CDFW and USFWS permits), and other project requirements.

Biological monitors shall, to the extent safe, practicable, and consistent with mitigation measures and permit conditions, actively or passively relocate wildlife out of harm's way. On a daily basis, biological monitors shall inspect construction areas where animals may have become trapped, including equipment covered with bird exclusion netting, and release any trapped animals. Daily inspections shall also include areas with high vehicle activity (e.g., yards, staging areas), to locate animals in harm's way and relocate them if necessary. If safety or other considerations prevent biological monitors from aiding trapped wildlife or wildlife in harm's way, SCE shall consult with the construction contractor, CDFW, wildlife rehabilitator, or other appropriate party to obtain aid for the animal, consistent with Mitigation Measure WIL-1b (Ensure wildlife impact avoidance and minimization) (See Section D.5.3.3 (Biological Resources – Wildlife, Impacts and Mitigation Measures) for full text).

At the end of each work day, biological monitors shall verify that excavations, open tanks, and trenches have been covered or have ramps installed to prevent wildlife entrapment and communicate with work crews to ensure these structures are installed and functioning properly.

Biological monitors shall regularly inspect any wildlife exclusion fencing daily to ensure that it remains intact and functional. Any need for repairs to exclusion fencing shall be immediately communicated to the responsible party, and repairs shall be carried out in a timely manner, generally within one work day.

Reporting: SCE shall prepare and implement a procedure for communication among biological monitors and construction crews, to ensure timely notification (i.e., daily or sooner, as needed) to crews of any resource issues or restrictions. SCE will notify the CPUC and BLM of the procedure and will maintain records of daily communication. SCE will provide CPUC and BLM on-line access to project resource management maps and GIS data.

Monitoring activities shall be thoroughly and accurately documented on a daily basis. SCE shall prepare and submit daily, weekly, annual, and final monitoring reports to the CPUC and BLM. Prior to the start of monitoring activities, SCE shall provide proposed report formats, describing content and organization, for CPUC and BLM review and approval in consultation with CDFW and USFWS. Report contents shall be as follows:

- **Daily reports:**

-- All daily special status species observations, including location of observation, location and description of project activities in the vicinity, and any avoidance or other measures taken to avoid the species. In addition, all special-status species observations shall be reported to the CNDDB (California Natural Diversity Database; see Weekly reports).

-- All non-compliance incident reports, including nest buffer incursions (see Mitigation Measure WIL-1c (Prepare and implement a Nesting Bird Management Plan).

-- Daily project activity plans, specifying each work site.

- **Weekly reports**:

  -- Copies of all CNDDB records for the preceding week, and any additional reporting information for each species report (see Mitigation Measures WIL-2a through WIL-2k).

  -- Weekly update of bird nesting activities and buffer distances (see Mitigation Measure WIL-1c).

- **Annual reports:** SCE shall submit an annual monitoring report by January 30 of each calendar year, with the following contents:

  -- A summary of all compliance monitoring reports submitted throughout the calendar year;

  -- A summary of all non-compliance records occurring during the calendar year, and remedial actions applied for each one, with additional explanatory text and explanation of resolution of each substantial non-compliance incident (often termed "Level 3 non-compliance");

  -- A summary of all nest buffer incursions, including helicopter incursions, (see Mitigation Measure WIL-1c), with explanation of follow-up actions and resolution for each one;

  -- Running annual compilations of permanent and temporary impact acreages by habitat and land use jurisdiction;

  -- Summaries of all other monitoring reporting requirements, as specified in mitigation measures in the Vegetation and Wildlife Resources sections; and

  -- Discussion of "lessons learned" during the calendar year, and recommended or proposed measures to improve compliance throughout the remainder of the project.

- **Final report:** After construction has been completed, a final environmental compliance monitoring report shall be submitted to the CPUC and BLM for review and approval. This report shall be submitted within twelve (12) months of the completion of construction and shall include:

  -- A summary of all non-compliance records occurring during the construction phase, and remedial actions applied for each one, with additional explanatory text and explanation of resolution of each substantial non-compliance incident (often termed "Level 3 non-compliance");

  -- A summary of all nest buffer incursions, including helicopter incursions, (see Mitigation Measure WIL-1c) occurring during the construction phase, with explanation of follow-up actions and resolution for each one;

  -- Final compilations of permanent and temporary impact acreages by habitat and land use jurisdiction;

-- Summaries of all other monitoring reporting requirements, as specified in mitigation measures in the Vegetation and Wildlife Resources sections; and

-- Discussion of "lessons learned" during construction, and recommended or proposed measures to improve compliance for future projects.

Implementation locations: San Bernardino County (all); WR-MSHCP (within the WR-MSHCP regardless of SCE's PSE status); CV-MSHCP (within the CV-MSHCP regardless of SCE's PSE status); BLM (all); reservation (recommended for all Morongo Tribal Lands).

VEG-1b **Prepare and implement a Worker Environmental Awareness Program (WEAP).** SCE shall prepare and implement a project-specific Worker Environmental Awareness Program (WEAP) to educate on-site workers about the Proposed Project's sensitive environmental issues. The WEAP shall be administered by the lead biologist or a biological monitor to all personnel on-site during the construction phase, including but not limited to surveyors, engineers, inspectors, contractors, subcontractors, supervisors, employees, monitors, visitors, and delivery drivers. If the WEAP presentation is recorded on video, it may be administered by any competent project personnel. Throughout the duration of construction, SCE shall be responsible for ensuring that all on-site project personnel receive this training prior to beginning work. A construction worker may work in the field along with a WEAP-trained crew for up to 5 days prior to attending the WEAP. SCE shall maintain a list of all personnel who have completed the WEAP training. This list shall be provided to the CPUC and BLM upon request.

The WEAP shall consist of a training presentation, with supporting written materials provided to all participants. At least 60 days prior to the start of ground-disturbing activities, SCE shall submit the WEAP presentation and associated materials to the CPUC and BLM for review and approval in consultation with the USFWS and CDFW.

The WEAP training shall include, at minimum:

- Overview of the project, the jurisdictions the project route passes through (e.g., BLM, reservation, WR-MSHCP, CV-MSHCP) and any special requirements of those jurisdictions.
- Overview of the federal and state Endangered Species Acts, Bald and Golden Eagle Protection Act, Migratory Bird Treaty Act, and the consequences of non-compliance with these acts.
- Overview of the project mitigation and biological permit requirements, and the consequences of non-compliance with these requirements.
- Sensitive biological resources on the project site and adjacent areas, including nesting birds, special-status plants and wildlife and sensitive habitats known or likely to occur on the project site, project requirements for protecting these resources, and the consequences of non-compliance.
- Construction restrictions such as limited operating periods, ESAs, and buffers.
- Avoidance of invasive weed introductions onto the project site and surrounding areas, and description of the project's weed control plan and associated compliance requirements for workers on the site.

- Function, responsibilities, and authority of biological and environmental monitors and how they interact with construction crews.
- Requirement to remain within authorized work areas and on approved roads, with examples of the flagging and signage used to designate these areas and roads, and the consequences of non-compliance.
- Procedure for obtaining clearance from a biological monitor to enter a work site and begin work (including moving equipment), and the requirement to wait for that clearance.
- One-hour hold (or other method SCE will use to halt work when necessary to maintain compliance) and the requirement for compliance.
- ESAs and associated restrictions, and other restrictions such as no grading areas, flagging or signage designations, and consequences of non-compliance.
- Nest buffers and associated restrictions and the consequences of non-compliance. Procedure and time frame for halting work and removing equipment when a new buffer is established. Discussion of nest deterrents.
- Explanation that wildlife must not be harmed or harassed. Procedures for covering pipes, securing excavations, and installing ramps to prevent wildlife entrapment. What to do and who to contact if dead, injured, or entrapped animals are encountered (see Mitigation Measure WIL-5b).
- General safety protocols such as hazardous substance spill prevention, containment, and cleanup measures; fire prevention and protection measures; designated smoking areas (if any) and cigarette disposal; safety hazards that may be caused by plants and animals; and procedure for dealing with rattlesnakes in or near work areas or access roads (see Mitigation Measure WIL-5b).
- Project requirements that have resulted in repeated compliance issues on other recent transmission line projects, such as dust control, speed limits, track out (dirt or mud tracked from access roads or work sites onto paved public roads or other areas), personal protective equipment (PPE), work hours, working prior to clearance, and waste containment and disposal.
- Printed training materials, including photographs and brief descriptions of all special-status plants and animals that may be encountered on the project, including behavior, ecology, sensitivity to human activities, legal protection, penalties for violations, reporting requirements, and protection measures.
- Contact information for SCE, construction management, and contractor environmental personnel, and who to contact with questions.
- Training acknowledgment form to be signed by each worker indicating that they understand and will abide by the guidelines, and a hardhat sticker so WEAP attendance may be easily verified in the field.

WEAP Lite. An abbreviated version of WEAP training ("WEAP lite") may be used for individuals who are exclusively delivery drivers, concrete truck drivers, or visitors to the project site, and will be provided by a qualified project biologist, biological monitor, or environmental field staff prior to those individuals entering or working on the project.

Short-term visitors (total of 5 days or less per year) to the project site who will be riding with and in the company of WEAP-trained project personnel for the entire duration of their visit(s) are not required to attend WEAP or WEAP lite training.

WEAP lite training will provide sufficient information for the individual to understand and maintain compliance with project mitigation measures and permit conditions. WEAP lite presentations will be tailored to the situation and emphasize project requirements that are relevant to that situation (e.g., dust control, speed limits, staying within project roads and work areas, and use of washouts for concrete truck drivers).

A training acknowledgment form will be signed by each participant indicating that they understand and will abide by the guidelines, and a hardhat sticker so WEAP lite attendance may be easily verified in the field. SCE will maintain a list of personnel who have completed WEAP lite training. This list will be provided to the CPUC and BLM upon request.

WEAP Refreshers. Biological monitors or environmental field staff will periodically present brief WEAP refresher presentations at tailboards to help construction crews and other personnel maintain awareness of environmental sensitivities and requirements. A 5- to 10-minute informal talk will be presented at each of the project's main contractor/subcontractor tailboards at least once a week.

When a contractor or subcontractor resumes work after a long break (more than six (6) consecutive calendar days with no substantial work on project construction in the field), a biological monitor or environmental field staff will provide an extended WEAP refresher presentation (10-20 minutes) at each of the contractor/subcontractor tailboards on the first day back to work.

The monitor will note the date, contractor or subcontractor, tailboard location and time, and topic(s) discussed during the WEAP refresher and include this information in their daily monitoring report.

Implementation locations: San Bernardino County (all); WR-MSHCP (within the WR-MSHCP regardless of SCE's PSE status); CV-MSHCP (within the CV-MSHCP regardless of SCE's PSE status); BLM (all); reservation (recommended for all Morongo Tribal Lands).

VEG-1c **Minimize native vegetation and habitat loss.** Final engineering of the project shall minimize the extent of disturbance and removal of native vegetation and habitat, to the extent safe and feasible. Wherever feasible, work activities and roadways will avoid or minimize direct or indirect effects to sensitive habitat types or jurisdictional waters and provide buffer areas to minimize disturbance. Wherever feasible, project access will utilize existing routes or bridges over jurisdictional waters.

As feasible, and consistent with project safety and security protocols, landowner preferences, and any other applicable regulations or requirements, existing gates on project access roads will be closed and secured when project personnel enter or leave an area.

Prior to beginning any ground-disturbing activities, SCE shall provide CPUC and BLM with final engineering GIS shapefiles depicting all temporary and permanent disturbance areas, as well as summary data on temporary and permanent disturbance for each vegetation or habitat type within each jurisdictional area (San Bernardino County, WR-MSHCP, CV-MSHCP, reservation, and BLM). All project disturbance areas within

mapped grassland/forbland will be further categorized as either suitable or not suitable as Stephens' kangaroo rat habitat, and the relative cover of native perennial grasses shall be quantified (see VEG-1d, Part B).

On completion of project construction, SCE shall provide CPUC and BLM with GIS shapefiles of all actual temporary and permanent disturbance areas, accurate aerial imagery of the project area, and summary data of all discrepancies between final engineering and "as-built" conditions for each vegetation or habitat type, within each jurisdictional area (San Bernardino County, WR-MSHCP, CV-MSHCP, reservation, and BLM).

To the extent feasible, vegetation removal within work areas will be minimized and construction activities will implement drive and crush access and site preparation rather than grading. To the extent feasible, stockpiling of spoils and salvaged topsoil will be located in previously disturbed areas, and will avoid native vegetation.

Prior to any construction, equipment or crew mobilization at each work site, work areas will be marked with staking or flagging to identify the limits of work and will be verified by project environmental staff and CPUC Environmental Monitor. Staking and flagging will clearly indicate the work area boundaries. Where staking cannot be used, traffic cones, traffic delineators, or other markers will be used. Staking and flagging or other markers will be in place during construction activities at each work site and will be refreshed as needed. Coded flagging colors or color combinations will be consistent and uniform across the project. All work activities, vehicles, and equipment will be confined to approved roads and staked and flagged or marked work areas.

Implementation locations: San Bernardino County (all); WR-MSHCP (within the WR-MSHCP regardless of SCE's PSE status); CV-MSHCP (within the CV-MSHCP regardless of SCE's PSE status); BLM (all); reservation (recommended for all Morongo Tribal Lands).

VEG-1d **Restore or revegetate temporary disturbance areas.** [Supersedes APM BIO-1 to provide further specificity.] This measure has two parts: Part A and Part B. Part A is applicable to all temporary disturbance areas, and Part B is applicable to disturbance occurring in sensitive vegetation types and special-status species habitats.

For all revegetation or restoration areas, if a fire, flood, or other disturbance beyond the control of SCE, CPUC, and BLM damages a revegetation area within the monitoring period, SCE shall be responsible for a one-time replacement. If a second event occurs, no replanting is required, unless the event is caused by SCE's activity (based upon maintenance of erosion control measures; fencing, gates, or other site control; or investigation by a firefighting agency).

Part A: Habitat restoration and revegetation for all temporary disturbance areas.

SCE shall prepare and implement a Habitat Restoration and Revegetation Plan (HRRP), to restore or revegetate all temporary disturbance areas, including temporary disturbance areas around tower construction sites, laydown or staging areas, temporary access and spur roads, cut and fill slopes, and locations of existing towers that are removed during construction of the project. For temporary disturbances in agriculture, developed/disturbed, and most grassland/forbland (excluding suitable Stephens' kangaroo rat habitat and any areas with 10 percent or greater relative cover of native perennial grass species), and for temporary disturbance areas that cannot be effectively

revegetated and are therefore subject to off-site compensation (Mitigation Measure VEG-1e), the overall goals of the HRRP will be to minimize weed invasion, dust generation, and soil erosion. The goals for sensitive vegetation and special-status species habitat are described in Part B of this Mitigation Measure.

The Draft HRRP shall be submitted to CPUC and BLM review and approval prior to the beginning of ground-disturbing activities. SCE shall incorporate all requested revisions in coordination with the CPUC and BLM and finalize the HRRP within 12 months from the start of construction.

For all temporary disturbance areas, the HRRP shall include the following elements:

- A statement of revegetation goals and objectives for each portion of the project area, based on vegetation type and jurisdictional status of each site.
- Quantitative success criteria for each revegetation or restoration site or category.
- Implementation details, including but not limited to topsoil stockpiling and handling; post-construction site preparation; soil decompaction and recontouring; planting and seeding palettes to include only native, locally sourced materials with confirmed availability from suppliers; fall-season planting or seeding dates.
- Maintenance, including but not limited to irrigation or hand-watering schedule and equipment, erosion control, and weed control.
- Monitoring and Reporting, specifying monitoring schedule and data collection methods throughout establishment of vegetation with key indicators of successful or unsuccessful progress, and quantitative values to objectively determine success or failure at the conclusion of the monitoring period.
- Contingency measures such as re-planting, drainage repairs, adjustments to irrigation or weeding schedule, and extension of maintenance beyond the original schedule, to repair or remediate sites not on track to meet success criteria, or not meeting the criteria at the close of the originally scheduled monitoring period.

The Integrated Weed Management Plan (Mitigation Measure VEG-2a) will be implemented throughout implementation of the HRRP. For all revegetation or restoration areas, only seed or potted nursery stock of locally occurring native species from a local source will be used for revegetation. Seeding and planting will be conducted as described in Chapter 5 of *Rehabilitation of Disturbed Lands in California* (Newton and Claassen, 2003). The list of plants observed during botanical surveys of the project area will be used as a guide to site-specific plant selection.

For all revegetation or restoration areas, the HRRP will include objective, quantifiable success criteria, commensurate with the goals for each site. Monitoring of the reclamation, revegetation, or restoration sites will continue annually for no fewer than five (5) years or until the defined success criteria are achieved, whichever is later. SCE will be responsible for implementing remediation measures as needed. Following remediation work, each site will still be subject to the success criteria required for the initial reclamation, revegetation, or restoration. The monitoring period for remediation work will be concurrent with the monitoring period required for the initial reclamation, revegetation, or restoration.

Part B: Additional habitat restoration and revegetation requirements for sensitive vegetation and special-status species habitat.

For temporary disturbances in grassland/forbland that is either suitable Stephens' kangaroo rat habitat, or has 10 percent or greater relative cover of native perennial grass species (see VEG-1c), and in all other vegetation types (alluvial scrub, coast live oak woodland, coastal sage scrub, chaparral, desert scrub, riparian woodland, and aeolian sand), the Habitat Restoration and Revegetation Plan will be designed to replace the habitat values present prior to disturbance (i.e., native plant species cover, habitat structure, and soil or substrate conditions). Stephens' kangaroo rat habitat suitability is to be determined by a qualified SKR biologist. The following performance standards must be met by the end of the monitoring period:

- At least 80 percent of the vegetation cover within the restoration area shall be native species that naturally occur in local native habitats; in grassland or forbland habitat this criterion will be adjusted to account for pre-disturbance non-native grass cover;
- Absolute cover of native plant species and density of native shrubs and trees within the restoration areas shall equal at least 60 percent of the pre-disturbance or reference vegetation cover and density; and
- The site shall have persisted successfully without irrigation or remedial planting for a minimum of two years prior to completion of monitoring.

For revegetation or restoration in these habitats, the HRRP will include (in addition to the components listed in Part A):

- A map depicting the locations of all temporary disturbance areas in these habitats, including a quantitative evaluation of native grass cover and Stephens' kangaroo rat habitat suitability in all mapped grassland/forbland areas, subject to requirements of Part B;
- An inventory of any temporary disturbance areas that cannot be effectively revegetated or restored to replace habitat values within a five-year timeframe (these will be categorized as "long-term disturbance areas," to be addressed under habitat compensation, Mitigation Measure VEG-1e).

Reporting (for Part A and Part B). For all revegetation or restoration areas, SCE will provide annual reports to the CPUC and BLM verifying the total vegetation acreage subject to temporary and permanent disturbance, identifying which items of the HRRP have been completed, and which items are still outstanding. The annual reports will also include a summary of the reclamation, revegetation, or restoration activities for the year, a discussion of whether performance standards for the year were met, any remedial actions conducted and recommendations for remedial action, if warranted, that are planned for the upcoming year. Each annual report will be submitted within 90 days after completion of each year of revegetation and restoration work.

Implementation locations: Parts A and B of this mitigation measure shall apply as follows: San Bernardino County (all); WR-MSHCP (within the WR-MSHCP regardless of SCE's PSE status); CV-MSHCP (within the CV-MSHCP regardless of SCE's PSE status); BLM (all); reservation (recommended for all Morongo Tribal Lands).

VEG-1e **Compensate for permanent habitat loss.** SCE shall compensate for permanent or long-term habitat loss through off-site habitat acquisition and management or through participation in an approved in-lieu fee compensatory mitigation bank. This compensation may be accomplished through participation in the WR-MSHCP, CV-MSHCP (within the respective MSHCP areas) if SCE obtains PSE status. This mitigation measure will be applicable to all permanent project disturbance areas and to areas designated as temporary disturbance, but that cannot be effectively revegetated or restored to replace habitat values within a five-year timeframe.

Habitat compensation for all permanent or long-term habitat loss that is not compensated through participation in the WR-MSHCP or CV-MSHCP will be accomplished by acquisition of mitigation land or conservation easements or by providing funding for specific land acquisition, endowment, restoration, and management actions. SCE will prepare a Habitat Compensation Plan to be reviewed and approved by the CPUC, BLM, in consultation with the USFWS and CDFW.

SCE will acquire and protect, in perpetuity, compensation habitat to mitigate impacts to biological resources as detailed below. SCE shall be responsible for the acquisition, initial protection and habitat improvement, and long-term maintenance and management of compensation lands. The compensation lands will be placed under conservation management to be funded through the terms described herein. If there is any conflict between the requirements of this mitigation measure and requirements of any resource agency permit (e.g., USFWS Biological Opinion or CDFW Incidental Take Permit), the more stringent requirement shall apply.

The acreages of compensation land will be based upon final engineering calculation of impacted acreage for each resource and on ratios set forth in this measure, or in the USFWS Biological Opinion, the CDFW Streambed Alteration Agreement, the CDFW Incidental Take Permit, or the Consistency Determination, whichever presents a higher ratio. Acreages will be adjusted as appropriate for other alternatives or future modifications during implementation.

Compensation will be provided for impacts to the following resources, at the ratios specified below (acres acquired and preserved to acres impacted). These ratios reflect multiple biological resource values, including habitat suitability for special-status species.

- Previously disturbed lands (agriculture, developed/disturbed) and open water: n/a (no habitat compensation required)
- Chaparral, desert scrub, and grassland/forbland: 1:1
- Alluvial scrub, coast live oak woodland, riparian woodland, and aeolian sand: 3:1
- Coastal sage scrub within USFWS designated coastal California gnatcatcher critical habitat and coastal sage scrub outside of designated critical habitat that is occupied by California gnatcatcher: 2:1
- Coastal sage scrub outside of USFWS designated coastal California gnatcatcher critical habitat that is suitable habitat, but not occupied by California gnatcatcher: 1:1

The Habitat Compensation Plan will specify compensation acreage for each habitat type, based on final engineering and on MSHCP coverage as applicable. Final

compensation requirements may be adjusted to account for any deviations in project disturbance, according to the as-built shapefiles aerial imagery (Mitigation Measure VEG-1c).

Compensation Land Selection Criteria. Criteria for the acquisition, initial protection and habitat improvement, and long-term maintenance and management of compensation lands for impacts to biological resources will include all of the following:

- Compensation lands will provide habitat value that is equal to or better than the quality and function of the habitat impacted by the project, taking into consideration soils, vegetation, topography, human-related disturbance, wildlife movement opportunity, proximity to other protected lands, management feasibility, and other habitat values, subject to review and approval by CPUC and BLM;
- To the extent that proposed compensation habitat may have been degraded by previous uses or activities, the site quality and nature of degradation must support the expectation that it will regenerate naturally when disturbances are removed;
- Be near larger blocks of lands that are either already protected or planned for protection, or which could feasibly be protected long-term by a public resource agency or a non-governmental organization dedicated to habitat preservation;
- Not have a history of intensive recreational use or other disturbance that might cause future erosion or other habitat damage, and make habitat recovery and restoration infeasible;
- Not be characterized by high densities of invasive species, either on or immediately adjacent to the parcels under consideration, that might jeopardize habitat recovery and restoration;
- Not contain hazardous wastes that cannot be removed to the extent that the site could not provide suitable habitat;
- Must provide wildlife movement value equal to that on the project site, based on topography, presence and nature of movement barriers or crossing points, location in relationship to other habitat areas, management feasibility, and other habitat values; and
- Have water and mineral rights included as part of the acquisition, unless the CPUC and BLM, in consultation with CDFW and USFWS, agree in writing to the acceptability of land without these rights.

Review and Approval of Compensation Lands Prior to Acquisition. SCE shall submit a Draft Habitat Compensation Plan for review and approval by the CPUC and BLM describing the parcel(s) intended for protection. This Plan will discuss the suitability of the proposed parcel(s) as compensation lands in relation to the selection criteria listed above.

Management Plan. SCE or approved third party will prepare a management plan for the compensation lands in consultation with the entity that will be managing the lands. The goal of the management plan will be to support and enhance the long-term viability of the biological resources. The Management Plan will be submitted for review and approval to the CPUC and BLM, in consultation with CDFW and USFWS.

Compensation Lands Acquisition Requirements. SCE will comply with the following requirements relating to acquisition of the compensation lands after the CPUC and BLM have approved the proposed compensation lands:

- **Preliminary Report.** SCE or an approved third party will provide a recent preliminary title report, initial hazardous materials survey report, biological resources analysis, and other necessary or requested documents for the proposed compensation land to the CPUC and BLM. All documents conveying or conserving compensation lands and all conditions of title are subject to review and approval by the CPUC in consultation with CDFW and USFWS. For conveyances to the State, approval may also be required from the California Department of General Services, the Fish and Game Commission, and the Wildlife Conservation Board.
- **Title/Conveyance.** SCE will acquire and transfer fee title to the compensation lands, a conservation easement over the lands, or both fee title and conservation easement, as required by the CPUC and BLM, in consultation with USFWS and CDFW. Any transfer of a conservation easement or fee title must be to CDFW, to a non-profit organization qualified to hold title to and manage compensation lands (pursuant to California Government Code section 65965), or to BLM or other public agency approved by the CPUC and BLM. If an approved non-profit organization holds fee title to the compensation lands, a conservation easement will be recorded in favor of CDFW or another entity approved by the CPUC and BLM. If an entity other than CDFW holds a conservation easement over the compensation lands, the CPUC and BLM may require that CDFW or another entity approved by the CPUC and BLM, in consultation with CDFW and USFWS, be named a third party beneficiary of the conservation easement. SCE will obtain approval of the CPUC and BLM of the terms of any transfer of fee title or conservation easement to the compensation lands.
- **Initial Protection and Habitat Improvement.** SCE will fund activities that the CPUC and BLM may require for the initial protection and habitat improvement of the compensation lands. These activities will vary depending on the condition and location of the land acquired, but may include trash removal, construction and repair of fences, invasive plant removal, and similar measures to protect habitat and improve habitat quality on the compensation lands. A non-profit organization, CDFW, or another public agency may hold and expend the habitat improvement funds if it is qualified to manage the compensation lands (pursuant to California Government Code section 65965), if it meets the approval of the CPUC and BLM, in consultation with USFWS and CDFW, and if it is authorized to participate in implementing the required activities on the compensation lands. If CDFW takes fee title to the compensation lands, the habitat improvement fund must be paid to CDFW or its designee.
- **Property Analysis Record.** Upon identification of the compensation lands, SCE will conduct a Property Analysis Record (PAR) or PAR-like analysis to establish the appropriate amount of the long-term maintenance and management fund to pay the in-perpetuity management of the compensation lands. The PAR or PAR-like analysis must be approved by the CPUC and BLM, in consultation with USFWS and CDFW, before it can be used to establish funding levels or management activities for the compensation lands.

- **Long-term Maintenance and Management Funding.** SCE will provide funding to establish an account with non-wasting capital that will be used to fund the long-term maintenance and management of the compensation lands. The amount of money will be determined through an approved PAR or PAR-like analysis conducted for the compensation lands. SCE must obtain the BLM and Riverside County's approval of the entity that will receive and hold the long-term maintenance and management fund for the compensation lands. The CPUC and BLM will consult with USFWS and CDFW before deciding whether to approve an entity to hold the project's long-term maintenance and management funds.

  SCE will ensure that an agreement is in place with the long-term maintenance and management fund holder/manager to ensure the following requirements are met:

  -- **Interest.** Interest generated from the initial capital long-term maintenance and management fund will be available for reinvestment into the principal and for the long-term operation, management, and protection of the approved compensation lands, including reasonable administrative overhead, biological monitoring, habitat improvements, patrol and law enforcement activities, and any other action that is approved by the CPUC and BLM and is designed to protect or improve the habitat values of the compensation lands.

  -- **Withdrawal of Principal.** The long-term maintenance and management fund principal will not be drawn upon unless such withdrawal is deemed necessary by the CPUC and BLM, or by the approved third-party long-term maintenance and management fund manager, to ensure the continued viability of the species on the compensation lands.

  -- **Pooling Long-Term Maintenance and Management Funds.** An entity approved to hold long-term maintenance and management funds for the project may pool those funds with similar non-wasting funds that it holds from other projects for long-term maintenance and management of compensation lands. However, for reporting purposes, the long-term maintenance and management funds for this project must be tracked and reported individually to the CPUC and BLM.

- **Other Expenses.** In addition to the costs listed above, SCE will be responsible for all other costs related to acquisition of compensation lands and conservation easements, including but not limited to the title and document review costs incurred from other state agency reviews, overhead related to providing compensation lands to CDFW or an approved third party, escrow fees or costs, environmental contaminants clearance, and other site cleanup measures.

- **Delegation.** The responsibility for acquisition of compensation lands may be delegated to a third party, by written agreement of the CPUC and BLM, in consultation with CDFW, prior to land acquisition, enhancement or management activities.

Implementation Locations: This mitigation measure applies to all locations within San Bernardino County and on all BLM lands, and is recommended for implementation on all tribal lands. Within the WR-MSHCP and CV-MSHCP areas, if SCE does not obtain PSE status under the applicable MSHCP, this mitigation measure shall apply within the MSHCP area. If SCE obtains PSE status under either MSHCP, the project's permanent

habitat impacts will be compensated according to the requirements of the MSHCP and this mitigation measure will not apply within the applicable MSHCP area.

VEG-2a **Prepare and implement an Integrated Weed Management Plan.** SCE shall prepare and implement an Integrated Weed Management Plan (IWMP) describing the proposed methods of preventing or controlling project-related spread of weeds or new weed infestations. The IWMP also must meet BLM's requirements for NEPA disclosure and analysis if herbicide use is proposed for the project. A Draft IWMP shall be submitted to the CPUC and BLM for review and approval at least 60 days prior to SCE's application for Notice to Proceed, and no pre-construction activities (e.g., for geotechnical borings, hazardous waste evaluations, etc.), construction, equipment or crew mobilization, or project-related ground-disturbing activity shall proceed until the IWMP is approved.

For the purpose of the IWMP, "weeds" shall include designated noxious weeds, as well as any other non-native weeds or pest plants identified on the weed lists of the California Department of Food and Agriculture, the California Invasive Plant Council, or identified by BLM as special concern. The IWMP will include the contents listed below. The IWMP will be implemented throughout project pre-construction, construction, and post-construction restoration phases. The IWMP will include the information defined in the following paragraphs.

Background. An assessment of the Proposed Project's potential to cause spread of invasive non-native weeds into new areas, or to introduce new non-native invasive weeds into the ROW. This section must list known and potential non-native and invasive weeds occurring on the ROW and in the project region, and identify threat rankings and potential consequences of project-related occurrence or spread for each species. This assessment will include, but is not limited to, weeds that (1) are rated high or moderate for negative ecological impact in the California Invasive Plant Inventory Database (Cal-IPC, 2006), and (2) aid and promote the spread of wildfires (such as cheatgrass, Saharan mustard, and medusa head). This section will identify control goals for each species (e.g., eradication, suppression, or containment) likely to be found within the Proposed Project area.

Pre-construction weed inventory. SCE shall inventory all areas (both within and outside the ROW) subject to project-related vegetation removal/disturbance, "drive and crush," and ground-disturbing activity, including, but not limited to, tower pad preparation and construction areas, tower removal sites, pulling and tensioning sites, assembly yards, and any potential new or improved access and spur roads. The weed inventory shall also include vehicle and equipment access routes within the ROW and all project staging and storage yards. Weed occurrences shall be mapped and described according to density and area covered. The map will be updated at least once a year.

Pre-construction weed treatment. Weed infestations identified in the pre-construction weed inventory shall be evaluated to identify potential for project-related spread. The IWMP will identify any infestations to be controlled or eradicated prior to project construction, or other site-specific weed management requirements (e.g., avoidance of soil or transport and site-specific vehicle washing where threat or spread potential is high). Control and follow-up monitoring of pre-construction weed treatment sites will follow methods identified in appropriate sections of the IWMP.

Prevention. The IWMP will specify methods to minimize potential transport of weed seeds onto the ROW, or from one section of the ROW to another. The ROW may be divided into "weed zones," based on known or likely invasive weeds in any portion of the ROW. The IWMP will specify inspection procedures for construction materials and equipment entering the Proposed Project area. Vehicles and equipment may be inspected and cleaned at entry points to specified portions of the ROW, and before leaving work sites where weed occurrences must be contained locally. Construction equipment shall be cleaned of dirt and mud that could contain weed seeds, roots, or rhizomes. Equipment shall be inspected to ensure it is free of any dirt or mud that could contain weed seeds, and the tracks, outriggers, tires, and undercarriage will be carefully washed, with special attention being paid to axles, frame, cross members, motor mounts, underneath steps, running boards, and front bumper/brush guard assemblies. Other construction vehicles (e.g., pick-up trucks) that will be frequently entering and exiting the site will be inspected and washed on an as-needed basis. Tools such as chainsaws, hand clippers, pruners, etc., shall be cleaned of dirt and mud before entering project work areas.

All vehicles will be washed off-site when possible. If off-site washing is infeasible, on-site cleaning stations will be set up at specified locations to clean equipment before it enters the work area. Wash stations will be located away from native habitat or special-status species occurrences. Wastewater from cleaning stations will not be allowed to run off the cleaning station site. When vehicles and equipment are washed, a daily log must be kept stating the location, date and time, types of equipment, methods used, and personnel present. The log shall contain the signature of the responsible crewmember. Written or electronic logs shall be available to BLM and CPUC monitors on request.

Erosion control materials (e.g., hay bales) must be certified free of weed seed before they are brought onto the site. The IWMP must prohibit on-site storage or disposal of mulch or green waste that may contain weed material. Mulch or green waste will be removed from the site in a covered vehicle to prevent seed dispersal, and transported to a licensed landfill or composting facility.

The IWMP will specify guidelines for any soil, gravel, mulch, or fill material to be imported into the Proposed Project area, transported from site to site within the Proposed Project area, or transported from the Proposed Project area to an off-site location, to prevent the introduction or spread of weeds to or from the Proposed Project area.

Monitoring. The IWMP shall specify methods to survey for weeds during pre-construction, construction, and restoration phases; and shall specify qualifications of botanists responsible for weed monitoring and identification. It must include a monitoring schedule to ensure timely detection and immediate control of weed infestations to prevent further spread. Surveying and monitoring for weed infestations shall occur at least two times per year, to coincide with the early detection period for early season and late season weeds (i.e., species germinating in winter and flowering in late winter or spring, and species germinating later in the season and flowering in summer or fall). It also must include methods for marking invasive weeds on the ROW, and recording and communicating these locations to weed control staff. The map of weed locations (discussed above) shall be updated at least once a year. The monitoring

section shall also describe methods for post-eradication monitoring to evaluate success of control efforts and any need for follow-up control.

Control. The IWMP must specify manual and chemical weed control methods to be employed. The IWMP shall include only weed control measures with a demonstrated record of success for target weeds, based on the best available information. The plan shall describe proposed methods for promptly scheduling and implementing control activity when any weed infestation is located, to ensure effective and timely weed control. Weed infestations must be controlled or eradicated as soon as possible upon discovery, and before they go to seed, to prevent further spread. All proposed weed control methods must minimize the extent of any disturbance to native vegetation, limit ingress and egress to defined routes, and avoid damage from herbicide use or other control methods to any environmentally sensitive areas identified within or adjacent to the ROW.

Weed infestations will be treated at a minimum of once annually until eradication, suppression, or containment goals are met. For eradication, when no new seedlings or resprouts are observed for three consecutive, normal rainfall years, *OR* for five consecutive years regardless of rainfall, the weed occurrence can be considered eradicated and weed control efforts may cease for the site.

Manual control shall specify well-timed removal of weeds or their seed heads with hand tools; seed heads and plants must be disposed of in accordance with guidelines from the Riverside or San Bernardino County Agricultural Commissioners, if such guidelines are available.

The chemical control section must include specific and detailed plans for any herbicide use. It must indicate where herbicides will be used, which herbicides will be used, and specify techniques to be used to avoid drift or residual toxicity to native vegetation or special-status plants, consistent with BLM's *Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States* (BLM, 2007) and *National Invasive Species Management Plan* (NISC, 2008). Only state and BLM-approved herbicides may be used. Herbicide treatment will be implemented by a Licensed Qualified Applicator. Herbicides shall not be applied during or within 72 hours of predicted rain. Only water-safe herbicides shall be used in riparian areas or within channels (engineered or not) where they could run off into downstream areas. Herbicides shall not be applied when wind velocities exceed six (6) mph. All herbicide applications will follow U.S. Environmental Protection Agency label instructions and will be in accordance with federal, state, and local laws and regulations.

Reporting schedule and contents. The IWMP shall specify reporting schedule and contents of each report.

Implementation locations: San Bernardino County (all); WR-MSHCP (all, regardless of SCE's PSE status); CV-MSHCP (all, regardless of SCE's PSE status); BLM (all); reservation (recommended for all Morongo Tribal Lands).

VEG-3a **Minimize impacts and ensure no net loss for jurisdictional waters and wetlands.**

Impact minimization. Project design and construction activities shall minimize impacts to drainage features, including ephemeral or intermittent washes, streams, and wetlands to the extent feasible. This mitigation measure is not limited to wetlands or

mapped "blueline" streams, but encompasses all jurisdictional waters, generally including intermittent channels or washes.

No net wetlands loss and watercourse impacts minimization. SCE shall prepare an HMMP which will include restoration or compensation mitigation to assure no net loss of wetland acreage or wetland habitat value from direct or indirect project impacts, including reduction of wetland acreage, and downstream or upstream effects to channels or their associated habitat. The no net loss standard shall be reached through (1) ecological restoration or revegetation of temporarily disturbed areas to fully replace habitat extent and habitat value, and (2) compensation at a ratio of 1:1 to replace permanently impacted non-wetland jurisdictional areas, and at 3:1 to replace permanently impacted state or federally jurisdictional wetland areas. Restoration and compensation mitigation for impacts to jurisdictional waters shall conform to the requirements of Mitigation Measures VEG-1d (Restore or revegetate temporary disturbance areas) and VEG-1e (Compensate for permanent habitat loss). All wetlands and watercourses, whether intermittent or perennial, will be retained to the extent feasible, and appropriate setbacks or other means will be employed to prevent adverse impacts to surface waters or associated habitat values. The HMMP shall incorporate wetland/water permit requirements and shall be subject to review and approval by the CPUC and BLM. All restoration or compensation mitigation described in the HMMP shall be implemented in full. In the case of any conflict between the mitigation ratios or other requirements specified in wetland/water permits for the project and the mitigation ratios or other requirements specified in this mitigation measure, the higher mitigation ratios and more stringent requirements shall apply.

Clean Water Act and California Fish and Game Code permit compliance. SCE shall not proceed with any alteration or fill activities in potentially jurisdictional waters until obtaining applicable permits or authorizations, or written agency confirmation that no permit or authorization is required. SCE shall implement all terms or conditions of each permit or authorization. Regardless of any conditions specified in permits or authorizations, SCE shall prevent contaminants or pollutants from entering any state or federal jurisdictional waters.

Implementation locations: San Bernardino County (all); WR-MSHCP (all, regardless of SCE's PSE status); CV-MSHCP (all, regardless of SCE's PSE status); BLM (all); reservation (recommended for all Morongo Tribal Lands).

VEG-4a **Minimize and mitigate impacts to special-status plants.**

Pre-construction survey. SCE shall conduct focused surveys for federal- and state-listed and other special-status plants. All special-status plant species (including listed threatened or endangered species, and all CRPR 1A, 1B, 2, 3, and 4 ranked species) impacted by project activities shall be documented in pre-construction survey reports. Surveys shall be conducted during the appropriate season in all suitable habitat located within the project disturbance areas and access roads and within 100 feet of disturbance areas and access roads, and any additional area where direct or indirect effects to soils or vegetation could affect special-status plants (if present). Surveys shall be conducted by a qualified botanist. The field surveys and reporting must conform to current CDFW botanical field survey protocol (CDFG, 2009) or more recent updates, if available. The reports will describe any conditions that may have prevented target

species from being located or identified, even if they are present as dormant seed or below-ground rootstock (e.g., poor rainfall, recent grazing, or wildfire). In some cases, follow-up surveys may be necessary to adequately evaluate impacts. Prior to construction, SCE shall submit pre-construction field survey reports along with maps showing locations of survey areas and special-status plants to the CPUC and BLM for review and approval in consultation with CDFW and USFWS.

If federally or state-listed plants would be affected, SCE shall notify BLM, USFWS, and CDFW to obtain the appropriate permits from CDFW and USFWS and comply with permit requirements. Additional conservation measures to protect or restore listed plant species or their habitat may be required by BLM, CDFW, or USFWS before impacts are authorized.

Native cactus and *Yucca*. Most native cactus and shrubby *Yucca* species (Joshua tree and Mohave yucca) can be successfully salvaged and transplanted, and yuccas often provide an important vertical component to wildlife habitat. Therefore, native cactus (excluding chollas in the genus *Cylindropuntia*) and yuccas (excluding chaparral yucca, *Y. whipplei*), shall be avoided or salvaged according to the strategies described below.

Mitigation. SCE shall mitigate impacts to any state or federally listed plants or CRPR 1 or 2 ranked plants that may be located on the project disturbance areas or surrounding buffer areas through one or a combination of the following strategies.

Avoidance of special-status plants will be the preferred strategy wherever feasible. Where avoidance is not feasible, and the project would directly or indirectly affect more than 10 percent of a local occurrence,[1] by either number of plants or extent of occupied habitat, SCE shall prepare and implement a mitigation plan to consist of off-site compensation, salvage, or horticultural propagation and off-site introduction.

- **Avoidance.** Where feasible, towers, access roads, and other project work areas shall be located to avoid or minimize impacts to special-status plants. Effective avoidance through project design shall include a buffer area surrounding each avoided occurrence, where no project activities will take place. The buffer area will be clearly staked, flagged, and signed for avoidance prior to the beginning of ground-disturbing activities, and maintained throughout the construction phase. The buffer zone shall be of sufficient size to prevent direct or indirect disturbance to the plants from construction activities, erosion, inundation, or dust. The size of the buffer will depend upon the proposed use of the immediately adjacent lands and the plant's ecological requirements (e.g., sunlight, moisture, shade tolerance, water availability, edaphic physical and chemical characteristics), to be specified by a qualified biologist or botanist. At minimum, the buffer for trees or shrubs species shall be equal to twice the drip line (i.e., two times the distance from the trunk to the canopy edge) to protect and preserve the root systems. The buffer for herbaceous species shall be a minimum of 50 feet from the perimeter of the occupied habitat or the individual. If a

[1] An occurrence for a plant is defined as any population or group of nearby populations located more than 0.25 miles from any other population (CDFW, 2009).

smaller buffer is necessary due to other project constraints, SCE will develop and implement site-specific monitoring and put other measures in place to avoid the take of the species, with the approval of the CPUC and BLM, in consultation with USFWS and CDFW.

- **Off-site compensation.** SCE shall provide compensation lands consisting of habitat occupied by the impacted CRPR 1 or 2 ranked plants at a 1:1 ratio of acreage and number of plants for any occupied habitat affected by the project. Occupied habitat will be calculated on the project site and on the compensation lands as including each special-status plant occurrence and a surrounding 100-foot buffer area. Off-site compensation shall be incorporated into the project's Habitat Compensation Plan (under Mitigation Measure VEG-1e), for review and approval by the CPUC and BLM in consultation with CDFW and USFWS.
- **Salvage.** SCE shall consult with a qualified restoration ecologist or horticulturist at a qualified institution such as Rancho Santa Ana Botanic Garden (RSABG) regarding the feasibility and likely success of salvage efforts for each species. If salvage is deemed to be feasible, based on prior success with similar species, then SCE shall prepare and implement a Special-status Plant Salvage and Relocation Plan, to be reviewed and approved by the CPUC and BLM, in consultation with CDFW and USFWS, prior to direct or indirect disturbance of any occupied habitat. For special-status plants, the goal shall be establishment of a new viable occurrence, equal or greater in extent and numbers to the affected occurrence. For cacti and yuccas, the goal shall be maximum practicable survivorship of salvaged plants. The Plan will include at minimum: (a) species and locations of plants identified for salvage; (b) criteria for determining whether an individual plant is appropriate for salvage; (c) the appropriate season for salvage; (d) equipment and methods for collection, transport, and re-planting plants or seed banks, to retain intact soil conditions and maximize success; (e) for shrubs, cacti, and yucca, a requirement to mark each plant to identify the north-facing side prior to transport, and replant it in the same orientation; (f) details regarding storage of plants or seed banks for each species; (g) location of the proposed recipient site, and detailed site preparation and plant introduction techniques for top soil storage, as applicable; (h) a description of the irrigation, weed control, and other maintenance activities; (i) success criteria, including specific timeframe for survivorship and reproduction of each species; and (j) a detailed monitoring program, commensurate with the Plan's goals.

  Annual monitoring reports shall be submitted to CPUC and BLM. Reports shall include, but not be limited to, details of plants salvaged, stored, and transplanted (salvage and transplanting locations, species, number, size, condition, etc.); adaptive management efforts implemented (date, location, type of treatment, results, etc.); and evaluation of success of transplantation.
- **Horticultural propagation and off-site introduction.** If salvage and relocation is not believed to be feasible for special-status plants, then SCE shall consult with RSABG, or another qualified entity, to develop an appropriate experimental propagation and relocation strategy, based on the life history of the species affected. The Plan will include at minimum: (a) collection and salvage measures for plant materials (e.g., cuttings), seed, or seed banks, to maximize success likelihood; (b) details regarding storage of plant, plant materials, or seed banks; (c) location of the proposed

propagation facility, and proposed methods; (d); time of year that the salvage and other practices will occur; (e) success criteria; and (f) a detailed monitoring program, commensurate with the Plan's goals.

Implementation locations outside of MSCHPs: This mitigation measure shall apply to all lands in San Bernardino County, on all BLM lands, and they are recommended for implementation on Morongo Tribal Lands.

Implementation locations for WR-MSHCP and CV-MSHCP: If SCE does not obtain PSE status under the WR-MSHCP or CV-MSHCP, this mitigation measure shall apply in its entirety within the relevant MSHCP area. The Pre-construction Survey and Native Cactus and Yucca portions of this mitigation measure shall apply within both MSHCP areas regardless of SCE's PSE status. If SCE obtains PSE status under either MSHCP, mitigation for the project's impacts to special-status plants covered under the Plan may be implemented according to the requirements of the MSHCP, and the remainder of this mitigation measure will not apply within the MSHCP area for species covered under the Plan. For potential impacts to special-status plants not covered under the Plan, this measure will apply in full.

VEG-5a **Comply with local tree removal or resource protection policies.** SCE shall obtain permits from local jurisdictions and BLM for tree removal and other plant removal or harvest, in accordance with each applicable ordinance or policy, prior to removal or other impacts to regulated trees or other plants.

Implementation locations: San Bernardino County (all); WR-MSHCP (all, regardless of SCE's PSE status); CV-MSHCP (all, regardless of SCE's PSE status); BLM (all); reservation (recommended for all Morongo Tribal Lands).

VEG-5b **Ensure MSHCP consistency.** If SCE does not obtain PSE status under either the WR-MSHCP or CV-MSHCP, SCE shall prepare an analysis equivalent to the WR-MSHCP Consistency Analysis or the CV-MSHCP Joint Project Review Requirements, as appropriate. This analysis shall identify any potential conflict with the WR-MSHCP or CV-MSHCP and specify detailed measures that SCE will implement, as a non-participant in either plan, to prevent such conflict through habitat compensation or other measures. The analysis and its included specifications for avoiding MSHCP conflicts shall be subject to review and approval by CPUC and BLM, in consultation with CDFW, USFWS, the Western Riverside County Regional Conservation Authority, and the CVCC. The analysis and full implementation of each measure shall be completed prior to the start of any ground-disturbing activity within the WR-MSHCP or CV-MSHCP area.

Implementation locations: WR-MSHCP (all, if SCE does not obtain PSE status); CV-MSHCP (all, if SCE does not obtain PSE status); BLM (all); reservation (recommended for all Morongo Tribal Lands).

Biological Resources - Wildlife

WIL-1a **Conduct pre-construction biological resources surveys.** SCE shall assign qualified biologists to perform pre-construction biological surveys at each project work area and access route, and in the area surrounding each work site or access route. Survey distances will vary, as appropriate, based on target species and as stipulated by project work plans and mitigation plans, but will be no less than 300 feet surrounding each work site and along any access route being created or improved. (Improvement is considered to be both 'drive and crush' and any road work that causes greater disturbance than light blading of previously existing roads.) For project access along existing routes or routes improved during an earlier phase of the project, the survey requirement will be 100 feet. An exception would be if a greater distance is stipulated in other applicable project work plans or mitigation measures. Where suitable nest sites for raptors are present, the pre-construction surveys for raptor nests will extend to a 500-foot area surrounding the work area or road.

Pre-construction surveys shall be planned and implemented to identify locations of special-status plants and wildlife and nesting birds occurring at work areas, other portions of the ROW, or in adjacent buffer areas. Specific pre-construction survey methods or protocols will vary according to the resources which may be present at any given site, and according to season. At minimum, SCE shall complete pre-construction surveys 10 days prior to beginning work in any given area, and repeat the surveys if the work site remains inactive for a period of ten days or more. During nesting season, a qualified biologist shall complete nesting bird surveys no more than four days prior to beginning work at any given area, and repeat the surveys regularly so long as work continues at the site during the nesting season.

SCE shall submit resumes of all biologists performing pre-construction biological surveys to the CPUC and BLM for review and approval, in coordination with CDFW and USFWS. Results of pre-construction surveys shall be submitted to CPUC and BLM for review and approval and no work shall occur until the CPUC Environmental Monitor has validated the survey results and any applicable resource and work area boundary staking. Each pre-construction survey report shall include methods and results of the preconstruction survey, and a list of biological resources detected at each site during prior focused surveys or pre-construction surveys. The pre-construction survey report format and contents shall be subject to CPUC and BLM review and approval.

SCE also shall conduct pre-construction "sweeps" of each work site immediately prior to beginning construction or disturbance work, to identify any vulnerable wildlife that may have entered the site. Based on the results of pre-construction surveys and sweeps, SCE or its contractor shall observe buffer areas or other access or activity restrictions to minimize potential impacts to the resources. SCE shall provide documentation of the methods and results of all pre-construction surveys, and follow-up buffer areas or other avoidance measures that are implemented, to the CPUC and BLM.

Implementation locations: San Bernardino County (all); WR-MSHCP (all, regardless of SCE's PSE status); CV-MSHCP (all, regardless of SCE's PSE status); BLM (all); reservation (recommended for all Morongo Tribal Lands).

WIL-1b **Ensure wildlife impact avoidance and minimization.** SCE shall undertake the following measures during the construction, restoration, and O&M phases to avoid or minimize impacts to wildlife resources. Implementation of all measures shall be subject to review and approval by the CPUC and BLM in consultation with CDFW and USFWS. Impacts to nesting birds are addressed separately in Mitigation Measure WIL-1c (Prepare and implement a Nesting Bird Management Plan).

- **Minimize traffic impacts.** SCE will specify and enforce a maximum 15 mile per hour vehicle speed limit on access roads within the ROW and project vicinity. No project-related pedestrian or vehicle traffic will be permitted outside defined work site boundaries (as marked on the site according to Mitigation Measure VEG-1c (Minimize native vegetation and habitat loss)).
- **Minimize lighting impacts.** Night lighting, when in use, shall be designed, installed, and maintained to prevent side casting of light towards surrounding fish or wildlife habitat.
- **Avoid use of** toxic **substances**. Soil bonding and weighting agents used for dust suppression on unpaved surfaces shall be non-toxic to wildlife and plants.
- **Minimize** noise **and vibration impacts.** To minimize disturbance to wildlife nesting or breeding activities in surrounding habitat, project-related helicopter use shall be avoided or managed to the extent feasible from February 1 to August 31. Unnecessary noise (e.g., blaring radios) shall be avoided.
- **Water**. Potable and non-potable water sources such as tanks, ponds, and pipes shall be covered or otherwise secured to prevent animals (including birds) from entering. Prevention methods may include storing all water within closed tanks, covering open storage ponds or tanks with 2 centimeter netting, or other means as applicable. Water applied to dirt roads and construction areas for dust abatement shall use the minimal amount needed to meet safety and air quality standards. Water sources (e.g., hydrants, tanks, etc.) shall be checked periodically by biological monitors to ensure they are not creating open water sources by leaking or consistently overfilling trucks.
- **Worker guidelines**. All trash and food-related waste shall be contained in vehicles or covered trash containers and removed from the site regularly. Workers shall not feed wildlife or bring pets to the project site. Except for law enforcement personnel, no workers or visitors to the site shall bring firearms or weapons.
- **Wildlife netting or exclusion fencing**. SCE may install temporary or permanent netting or fencing around equipment, work areas, or project facilities to prevent wildlife exposure to hazards such as toxic materials or vehicle strikes, or prevent birds from nesting on equipment or facilities. Bird deterrent netting will be maintained free of holes and will be deployed and secured on the equipment in a manner that, insofar as possible, prevents wildlife from becoming trapped inside the netted area or within the excess netting. The biological monitor will inspect netting (if installed) twice daily, at the beginning and close of each work day, with the exception of netting installed in established material yards, which will be inspected at least once daily. The biological monitor will inspect exclusion fence (if installed) weekly and will inform SCE of any needed repairs; SCE shall promptly repair any damage to the exclusion fencing.

- **Wildlife entrapment.** Project-related excavations shall be secured to prevent wildlife entry and entrapment. Holes and trenches shall be backfilled, securely covered, or fenced. Excavations that cannot be fully secured shall incorporate appropriate wildlife ramp(s) at a slope of no more than a 3:1 ratio, or other means to allow trapped animals to escape. Biological monitors shall provide guidance to construction crews to ensure that wildlife ramps or other means are sufficient to allow trapped animals to escape. At the end of each work day, a biological monitor shall ensure that excavations have been secured or provided with appropriate means for wildlife escape.

  All pipes or other construction materials or supplies will be covered or capped in storage or laydown areas. No pipes or tubing will be left open either temporarily or permanently, except during use or installation. Any construction pipe, culvert, or other hollow materials will be inspected for wildlife before it is moved, buried, or capped.

Dead animals. Dead animals of non-special-status species found on unpaved project roads, work areas, or the ROW shall be reported to the appropriate local animal control agency within 24 hours. A biological monitor shall safely move the carcass out of the road or work area as needed. Dead animals of special-status species found on unpaved project roads, work areas, or the ROW shall be reported to CDFW within one work day and the carcass handled as directed by CDFW.

Injured wildlife. SCE shall create and implement guidelines for dealing with injured or entrapped wildlife found on or near project roads, work areas, or the ROW, and provide these guidelines to all biological monitors. If an animal is entrapped, a qualified biological monitor shall free the animal if feasible, or work with construction crews to free the animal, in compliance with applicable safety regulations and project requirements. If biological monitors cannot free the animal or the animal is too large or dangerous for monitors to handle, SCE shall contact and work with animal control, CDFW, or other qualified party to obtain assistance for the animal as soon as possible.

SCE shall ensure that one or more qualified biological monitors receive training in the safe and proper handling and transport of injured wildlife and are provided with the appropriate equipment. These trained and equipped monitors shall be available to capture and transport injured wildlife to a local wildlife rehabilitator or veterinarian as needed. If the injured animal is too large or dangerous for monitors to handle, or a trained and equipped monitor is not available, SCE shall contact and work with a local wildlife rehabilitator, animal control, CDFW, or other qualified party to obtain assistance for the animal as soon as possible. SCE shall bear the costs of veterinary treatment and rehabilitation for any wildlife injured by project-related activities and any injured wildlife found on or near project roads, work areas, or the ROW, unless the injuries are clearly not project-related, as determined by a qualified biologist. Additionally, any entrapped or injured special-status species found on project roads, work areas, or the ROW shall be reported to the appropriate resource agency within one work day.

Rattlesnake guidelines. Prior to the start of construction, SCE shall prepare and implement guidelines for dealing with rattlesnakes found in or near project work areas and access roads and provide these guidelines to all biological monitors, safety staff,

and other personnel. Killing or harming rattlesnakes or other wildlife is not authorized. If SCE determines that it is appropriate for biological monitors or other project personnel to handle rattlesnakes, SCE shall ensure that an adequate number of qualified individuals are trained in the safe and proper handling of rattlesnakes and provided with the appropriate safety and snake handling equipment, including a secure storage container for transporting snakes. These trained and equipped individuals shall be available to remove rattlesnakes found in or near project work areas and access roads as needed and relocate them to appropriate nearby habitat. Other project personnel shall not harass, or handle rattlesnakes, except as required to maintain immediate safety or in accordance with the guidelines developed by SCE. Handling and relocation of rattlesnakes shall be documented, and the species of rattlesnake determined whenever possible. If a special-status rattlesnake is relocated, documentation shall be submitted to CPUC, BLM, and CDFW.

Alternately, SCE may determine that project personnel shall not handle or approach rattlesnakes. If so, the guidelines shall specify an alternate course of action for rattlesnake encounters, such as avoiding work activity near the snake and monitoring its location and activity until it leaves the area.

Implementation locations: San Bernardino County (all); WR-MSHCP (all, regardless of SCE's PSE status); CV-MSHCP (all, regardless of SCE's PSE status); BLM (all); reservation (recommended for all Morongo Tribal Lands).

WIL-1c **Prepare and implement a Nesting Bird Management Plan.** [Supersedes APM BIO-3] SCE shall prepare a Nesting Bird Management Plan (NBMP) in coordination with CPUC, BLM, CDFW, and USFWS. The NBMP shall describe methods to minimize potential project effects to nesting birds, and avoid any potential for unauthorized take. Project-related disturbance including construction and pre-construction activities shall not proceed within 300 feet of active nests of common bird species or 500 feet of active nests of raptors or special-status bird species (except for golden eagle as described in Mitigation Measure WIL-2f) until approval of the NBMP by CPUC and BLM in consultation with CDFW and USFWS.

NBMP Content. The NBMP shall include: (1) definitions of default nest avoidance buffers for each species or group of species, depending on characteristics and conservation status for each species; (2) a notification procedure for buffer distance reductions should they become necessary; (4) a rigorous monitoring protocol, including qualifications of monitors, monitoring schedule, and field methods, to ensure that any project-related effects to nesting birds will be minimized; and (5) a protocol for documenting and reporting any inadvertent contact or effects to birds or nests.

The paragraphs below describe the NBMP requirements in further detail.

Background. The NBMP shall include the following:

- A summary of applicable state and federal laws and regulations, including definition of what constitutes a nest or active nest under state and federal law.
- A procedure for amendment of the NBMP, should there be changes in applicable state or federal regulations or as necessary for adaptive management upon approval by CDFW, USFWS, CPUC, and BLM.

- A list of bird species potentially nesting on or near the ROW or other work areas, indicating approximate nesting seasons, nesting habitat, typical nest locations (e.g., ground, vegetation, structures, etc.), tolerance to disturbance (if known) and any conservation status for each species. This section will also note any species that do not require avoidance measures (e.g., rock pigeons).
- A list of the types of project activities (construction, operations, and maintenance) that may occur during nesting season, with a short description of the noise and physical disturbance resulting from each activity.
- Clearing of any vegetation, site preparation in open or barren areas, or other project-related activities that may adversely affect breeding birds shall be scheduled outside the nesting season, as feasible.

Pre-construction nest surveys. Pre-construction nest surveys will be conducted prior to any construction activities scheduled during the breeding period. For this project, the breeding period will be defined as January 1 through August 31. The NBMP shall describe the proposed field methods, survey timing, and qualifications of field biologists. Field biologist qualifications will be subject to review by CPUC and BLM. The avian biologists conducting the surveys shall be experienced bird surveyors and familiar with standard nest-locating techniques such as those described in Martin and Guepel (1993). Nest surveys will focus on visual searches for nest locations and observations of bird activities and movement to detect nesting activity (e.g., carrying nest materials or food, territorial displays, courtship behavior). Surveys shall be conducted in accordance with the following guidelines.

- Surveys shall cover all potential nesting habitat within the ROW or other work areas and within 500 feet of these areas for raptors and 300 feet for non-raptors.
- Pre-construction surveys shall be conducted for each work area, no longer than 10 days prior to the start of construction activity. On the first day of construction at any given site, a qualified Avian Biologist will perform a pre-construction “sweep” to identify any bird nests or other resources that may have appeared since the 10-day survey.
- SCE shall provide the CPUC and BLM a report describing the findings of the pre-construction nest surveys, including the time, date, and duration of the survey; identity of the surveyor(s); a list of species observed; and electronic data identifying nest locations and the boundaries of buffer zones. The electronic data set will be updated following each pre-construction nest survey throughout the nesting season. The format and contents of this report will be described in the draft NBMP and will be subject to review and approval by CPUC and BLM.

Nest Buffers and Acceptable Activities

The NBMP shall specify measures to delineate buffers on the work site, to consist of clearly visible marking and signage. Buffer locations shall be communicated to the construction contractor, and shall remain in effect until formally discontinued (when each nest is no longer active). In addition, the NBMP shall specify measures to ensure the buffers are observed, including a direct communication and decision protocol to stop work within buffer areas. In some cases, active nests may be found while work is underway. Therefore, the NBMP shall include a protocol for stopping ongoing work

within the buffer area, securing the work site, and removing personnel and equipment from the buffer.

The NBMP shall describe proposed measures to avoid take or adverse effects to nests, such as buffer distances from active nests. These measures shall be based on the specific nature of the bird species and conservation status, and other pertinent factors.

The NBMP will identify bird species (or groups of species) that are relatively tolerant or intolerant of human activities and specify smaller or larger buffer distances as appropriate for each species. If no information is available to specify a buffer distance for a species, then the NBMP shall specify 300 feet as a standard buffer distance, and 500 feet for raptors and special-status species. Nest management for listed threatened or endangered species will be prescribed in a USFWS Biological Opinion, CDFW Incidental Take Permit, or both. All applicable avoidance measures, including buffer distances, must be continued until nest monitoring (below) confirms that the nestlings have fledged and dispersed, or the nest is no longer active.

For each special-status species potentially nesting within or near project work areas, the NBMP shall specify applicable buffers and any additional nest protection measures, specialty monitoring, or restrictions on work activities, if needed.

The NBMP shall identify acceptable work activities within nest buffers (e.g., pedestrian access for inspection or BMP repair) including conditions and restrictions, and any monitoring required. The NBMP shall include pictorial representation showing buffer distances for ground buffers, vertical helicopter buffers, and horizontal helicopter buffers for nests near the ground and nests in towers.

Nest Buffer Modification or Reduction

At times, SCE or its contractor may propose buffer distances different from those approved in the NBMP. Buffer adjustments shall be reviewed and recommended by a qualified avian biologist who has been approved by CPUC and BLM in consultation with the CDFW and USFWS. The NBMP shall provide a procedure and timing requirements for notifying CPUC, BLM, CDFW, and USFWS of any planned adjustments to nest buffers. Separate and distinct procedures will be provided for special-status birds. The NBMP will list the information to be included in buffer reduction notifications in a standardized format.

Nest deterrents. The NBMP shall describe any proposed measures or deterrents to prevent or reduce bird nesting activity on project equipment or facilities, such as buoys, visual or auditory hazing devices, bird repellents, securing of materials, and netting of materials, vehicles, and equipment. It shall also include timing for installation of nest deterrents and field confirmation to prevent effects to any active nest; guidance for the contractor to install, maintain, and remove nest deterrents according to product specifications; and periodic monitoring of nest deterrents to ensure proper installation and functioning and prevent injury or entrapment of birds or other animals. In the event that an active nest is located on project facilities, materials or equipment, SCE will avoid disturbance or use of the facilities, materials or equipment (e.g., by red-tag) until the nest is no longer active.

Communication. The NBMP shall specify the responsibilities of construction monitors in regards to nests and nest issues, and specify a direct communication protocol to ensure

that nest information and potential adverse impacts to nesting birds can be promptly communicated from nest monitors to construction monitors, so that any needed actions can be taken immediately.

The NBMP shall specify a procedure to be implemented following accidental disturbance of nests, including wildlife rehabilitation options. It also shall describe any proposed measures, and applicable circumstances, to prevent take of precocial young of ground-nesting birds such as killdeer or quail. For example, chick fences may be used to prevent them from entering work areas and access roads. Finally, the NBMP will specify a procedure for removal of inactive nests, including verification that the nest is inactive and a notification/approval process.

Monitoring. SCE shall be responsible for monitoring the implementation, conformance, and efficacy of the avoidance measures (above). The NBMP shall include specific monitoring measures to track any active bird nest within or adjacent to project work areas, bird nesting activity, project-related disturbance, and outcome of each nest. For nests with reduced buffers, SCE shall monitor each nest until nestlings have fledged and dispersed or until the nest becomes inactive. Nests with default buffers do not require further monitoring once construction work is completed in the area. New nests discovered after work completion in an area would not require monitoring. In addition, monitoring shall include pre-construction surveys, daily sweeps of work areas and equipment, and any special monitoring requirements for particular activities (tree trimming, vegetation removal, etc.) or particular species (noise monitoring, etc.). Nest monitoring shall continue throughout the breeding season during each year of the project's construction activities.

Reporting. Throughout the construction phase of the project, nest locations, project activities in the vicinity of nests (including helicopter traces), and any adjustments to buffer areas shall be updated and available to CPUC monitors on a daily basis. All buffer reduction notifications and prompt notifications of nest-related non-compliance and corrective actions will be made via email to CPUC monitors. The draft NBMP shall include a proposed format for daily and weekly reporting (e.g., spreadsheet available online, tracking each nest). In addition, the NBMP shall specify the format and content of nest data to be provided in regular monitoring and compliance reports. At the end of each year's nest season, SCE will submit an annual NBMP report to the CPUC, BLM, CDFW, and USFWS. Specific contents and format of the annual report will be reviewed and approved by the CPUC and BLM in consultation with CDFW and USFWS.

Implementation locations: San Bernardino County (all); WR-MSHCP (all, regardless of SCE's PSE status); CV-MSHCP (all, regardless of SCE's PSE status); BLM (all); reservation (recommended for all Morongo Tribal Lands).

WIL-2a **Conduct desert tortoise surveys, monitoring, and avoidance.** Methods for clearance surveys, fence specification and installation, tortoise handling, artificial burrow construction, egg handling, and other procedures shall be consistent with those described in the USFWS (2009) *Desert Tortoise Field Manual* or more current guidance provided by CDFW and USFWS.

Desert tortoise shall be handled only by a USFWS/CDFW permitted and authorized biologist (Authorized Biologist) following appropriate USFWS protocols and in

compliance with appropriate regulatory permits. A biological monitor shall monitor construction activities in all areas with the potential to support desert tortoise. Observations of desert tortoise or sign shall be immediately communicated to the Authorized Biologist.

Within suitable habitat for desert tortoise, SCE shall survey the project area for desert tortoise burrows and pallets within fourteen (14) days preceding the initial start of construction. Follow-up surveys shall also be conducted within fourteen (14) days preceding additional construction after a gap in significant construction activities of 60 calendar days or more. Surveys shall include 100 percent of the area to be disturbed and a surrounding buffer of 100 feet.

Subject to authorization by CDFW and USFWS, tortoise burrows and pallets encountered within the disturbance area (if any) shall be conspicuously flagged by the surveying biologist(s) and avoided during construction activities. If a burrow suitable for desert tortoise cannot be avoided, it shall be excavated carefully using hand tools, by or under the supervision of an Authorized Biologist, and collapsed or blocked to prevent desert tortoise reentry. If the burrow is occupied, the Authorized Biologist may move the tortoise to another burrow.

Project personnel shall inspect for desert tortoises under parked vehicles or equipment prior to moving same. If a desert tortoise is found beneath a vehicle or equipment, the vehicle or equipment shall not be moved until the tortoise has voluntarily moved to a safe distance away. If the tortoise does not move on its own accord after 20 minutes, the tortoise may be moved by an Authorized Biologist, subject to authorization by CDFW and USFWS.

If a desert tortoise is found in a work area, the tortoise shall be allowed to passively traverse the site while construction in the immediate area is halted. If the tortoise does not move out of harm's way after 20 minutes, the tortoise may be moved by an Authorized Biologist, subject to conditions and authorization by CDFW and USFWS.

Subject to authorization by CDFW and USFWS, desert tortoises shall be moved the minimum distance possible within appropriate habitat. In general, desert tortoise will not be moved in excess of 1,000 feet for adults and 300 feet for hatchlings. Desert tortoises that are moved shall be placed in the shade of a shrub. After being moved, the desert tortoise shall be monitored to ensure its safety. Any time a tortoise is handled, the Authorized Biologist shall take photographs and record pertinent data in their daily monitoring report. This information shall be summarized and submitted to CPUC and BLM in annual environmental compliance reports.

Subject to authorization by CDFW and USFWS, a desert tortoise removed from its burrow shall be placed in an unoccupied burrow of approximately the same size and orientation. If an existing burrow is unavailable, the Authorized Biologist will construct or direct the construction of a burrow of similar shape, size, depth, and orientation as the original burrow. Desert tortoises moved during inactive periods will be monitored for at least two days after placement in the new burrow to ensure their safety.

Subject to authorization by CDFW and USFWS, if a desert tortoise is moved at a time of the day when ambient temperatures are unfavorable (less than 40 degrees F or greater than 90 degrees F), it shall be held overnight in a clean cardboard box. The desert

tortoise shall be kept in the care of the Authorized Biologist under appropriate controlled temperatures and released the following day when temperatures are favorable. All cardboard boxes will be appropriately discarded after one use.

Implementation locations: This mitigation measure shall apply in desert tortoise habitat within the project area (Segments 5 and 6), subject to the stipulations listed above. Specifically, this mitigation measure applies on BLM lands, throughout the CV-MSHCP area (regardless of SCE's PSE status), and is recommended on all Morongo Tribal Lands. No suitable desert tortoise habitat is present within San Bernardino County and the WR-MSHCP; therefore, this mitigation measure does not apply in these jurisdictions.

WIL-2b **Prepare and implement Raven Monitoring, Management, and Control Plan.** SCE shall prepare and implement a Raven Monitoring, Management, and Control Plan (Raven Plan) consistent with USFWS raven management guidelines and that meets the approval of the CPUC and BLM in consultation with USFWS, and CDFW. The purpose of the Raven Plan shall be to minimize project-related predator subsidies and prevent any increases in raven numbers or activity within desert tortoise habitat during construction, restoration, and O&M phases. The Plan shall address all project components and their potential effects on raven numbers and activity. The threshold for implementation of raven control measures shall be any increases in raven numbers from baseline conditions, as detected by monitoring to be implemented pursuant to the Plan. Regardless of raven monitoring results, SCE shall be responsible for all other aspects of raven management described in the Raven Plan, such as avoidance and minimization of project-related trash, water sources, or perch/roost/nest sites that could contribute to increased raven numbers. In addition, to offset the cumulative contributions of the project to desert tortoise impacts from increased raven numbers, SCE shall contribute to the USFWS Regional Raven Management Program. SCE shall:

1. **Prepare and Implement a Raven Management Plan** that shall include, but shall not be limited to the following components. The Plan shall be reviewed and approved by CPUC, BLM, USFWS, and CDFW prior to the start of construction activities.

    a. Identify all potential project activities, structures, components, and other effects that could provide predator subsidies or attractants, including potential sources of food and water, and nesting materials, as well as nest or perch sites. These will include, but will not be limited to: waste food material, road-killed animals, water storage, potential pooling from leaks, dust control, or wastewater, debris from brush clearing, and perch or roost sites on project facilities and infrastructure.

    b. Describe management practices to avoid or minimize conditions that might increase raven numbers and predatory activities.

    c. Appoint a qualified biologist who will implement a monitoring schedule and field methods for the purpose of locating any ravens present in the project vicinity and detecting any increase in raven numbers or activity.

    d. Specify raven activity thresholds for implementation of control measures.

    e. Describe control practices for ravens to be implemented as needed based on the monitoring results.

f. Address monitoring and nest removal during construction and for the life of the project.

g. Describe reporting schedules and requirements.

2. **Contribute to the USFWS Regional Raven Management Program.** No later than 30 days prior to the start of construction, SCE shall contribute to the USFWS Regional Raven Management Program by making a one-time payment of $105 per acre of long-term or permanent project disturbance within the geographic range of desert tortoise, or as specified by the USFWS, to the National Fish and Wildlife Federation Renewable Energy Action Team raven control account.

Implementation locations: This mitigation measure applies on BLM lands and is recommended on all Morongo Tribal Lands. No suitable desert tortoise habitat is present within San Bernardino County and the WR-MSHCP; therefore, this mitigation measure does not apply in these jurisdictions. In the CV-MSHCP, this mitigation measure shall apply in its entirety regardless of SCE's PSE status.

WIL-2c **Conduct surveys and avoidance for threatened or endangered riparian birds.** Construction activities shall avoid suitable habitat for listed riparian birds. If suitable habitat cannot be avoided, SCE shall consult with CDFW and USFWS and obtain appropriate take authorizations or permits. SCE shall implement the conservation measures contained within these permits.

If construction activities will occur during the breeding season potentially suitable habitat for listed riparian birds, a qualified biologist shall conduct protocol surveys of the project area and adjacent areas within 500 feet. USFWS protocol surveys shall be conducted for southwestern willow flycatcher, yellow-billed cuckoo, and least Bell's vireo. The surveys shall be of adequate duration to verify potential nest sites if work is scheduled to occur during the breeding season. Where protocol surveys determine that listed riparian birds are present, SCE shall conduct additional focused nest location surveys, to determine the locations of nests and territories. Survey areas shall include a 500-foot buffer around project disturbance areas.

Protocol surveys, shall be conducted within one year prior to the start of construction and shall continue annually during each nesting season until completion of construction and restoration activities. At a minimum, surveys shall be conducted from 15 May to 17 July for southwestern willow flycatcher, from 10 April to 31 July for least Bell's vireo, and from 1 June to 31 August for yellow-billed cuckoo.

These surveys may be modified through coordination with the USFWS, CDFW, BLM, and the CPUC based on the condition of habitat, the observation of the species, or avoidance of riparian areas during the breeding season. SCE shall submit documentation providing results of the protocol surveys for listed riparian birds to the CPUC and BLM for review and approval in consultation with USFWS and CDFW.

If an active breeding territory or nest is confirmed, the CPUC, BLM, USFWS, and CDFW shall be notified immediately. All active nests shall be monitored on a weekly basis until the nestlings fledge or the nest becomes inactive. SCE shall provide monitoring reports to the CPUC and BLM for review in consultation with USFWS and CDFW.

In coordination with the USFWS and CDFW, a 500-foot disturbance-free ground buffer and 1,000-foot vertical helicopter buffer shall be established around the active nest and demarcated by fencing or flagging. No construction or vehicle traffic shall occur within nest buffers, except on existing paved public roads.

If an active breeding territory or nest is confirmed within 500 feet of any project activity site, SCE shall prepare and implement a Wildlife Noise Monitoring Plan throughout construction and demolition activities taking place while listed riparian birds occupy the nesting territory. Sound levels at the nest sites shall not exceed 8 dBA above ambient levels or 70 dBA (hourly average Leq), whichever is greater. Ambient levels will be established prior to initiation of construction and demolition, using the same methodology that will be used to take noise measurements during monitoring.

If the hourly average noise threshold is exceeded, or if the biological monitor determines that construction activities are disturbing nesting birds, additional noise reduction techniques shall be implemented to reduce project noise below the thresholds. Additional noise monitoring will be conducted to verify the reduction of noise levels below the thresholds. Noise reduction techniques can include, but are not limited to:

- Temporary noise barriers or sound walls
- Noise pads or dampers
- Replace and update noisy equipment
- Moveable task noise barriers
- Queue trucks to distribute idling noise
- Locate vehicle access points and loading and shipping facilities away from the nest site
- Reduce the number of noisy activities that occur simultaneously
- Relocate noisy stationary equipment away from the nest sites

Implementation locations: This mitigation measure applies on BLM lands, throughout the WR-MSHCP and CV-MSHCP areas (regardless of SCE's PSE status), and within San Bernardino County, and is recommended on all Morongo Tribal Lands.

WIL-2d **Conduct surveys and avoidance for Stephens' kangaroo rat.** Prior to the start of construction, within suitable habitat for Stephens' kangaroo rat (SKR), SCE shall conduct focused surveys to determine if SKR sign (burrows, scat, and etc.) is present in all areas within 100 feet of work sites or other project activities that would permanently or temporarily affect soils or vegetation. All surveys shall be conducted by a qualified biologist who holds the appropriate USFWS permits to conduct trapping surveys for SKR. If sign is present, then SCE shall conduct focused trapping surveys according to accepted protocols to determine presence or absence of SKR. If SKR are present, then SCE shall take additional measures to prevent or minimize take, such as installation of exclusion fences or other measures, subject to authorization by USFWS and CDFW.

Construction activities shall avoid suitable SKR habitat to the extent feasible. If SKR habitat cannot be avoided, SCE shall consult with CDFW and USFWS and obtain appropriate take authorization or permits. SCE shall implement the conservation measures contained within these permits.

Implementation locations: This mitigation measure shall apply within San Bernardino County, throughout the WR-MSHCP area (regardless of SCE's PSE status), and is recommended within Morongo Tribal Lands. No suitable SKR habitat is present in the CV-MSHCP portions of the ROW or on BLM land, so this mitigation measure shall not apply within those areas.

WIL-2e **Conduct surveys and avoidance for coastal California gnatcatcher.** SCE shall conduct protocol level surveys for coastal California gnatcatchers (CAGN) in all areas of coastal sage scrub habitat that may be affected by the project. Survey areas will include a 500-foot buffer around project disturbance areas. Presence or absence of CAGN shall be determined prior to construction activities. In occupied CAGN habitat, SCE shall conduct additional focused nest location surveys to determine the locations of nests and territories. Survey areas shall include a 500-foot buffer around project disturbance areas.

Surveys shall be conducted by qualified and permitted biologists. Surveys shall be of adequate duration to verify potential nest sites if work is scheduled to occur during the breeding season. Prior to construction, SCE shall submit documentation providing the results of the pre-construction focused surveys for CAGN to the CPUC and BLM for review and approval in consultation with USFWS and CDFW.

Protocol or focused nest location surveys, as appropriate, shall be conducted within one year prior to the start of construction and shall continue annually until completion of construction and restoration activities.

If an active breeding territory or nest is confirmed, the CPUC, BLM, USFWS, and CDFW shall be notified immediately and the observation will be included in the daily monitoring report. All active nests shall be monitored on a weekly basis until the nestlings fledge or the nest becomes inactive. SCE shall provide monitoring reports to the CPUC and BLM for review on a weekly basis.

In coordination with the USFWS and CDFW, a 500-foot disturbance-free ground buffer and 1,000-foot vertical helicopter buffer shall be established around the active nest and demarcated by fencing or flagging. These buffers may be adjusted in consultation with USFWS and CDFW based on type of work activity performed. No construction or vehicle traffic shall occur within nest buffers, except on existing paved public roads.

If an active breeding territory or nest is confirmed within 500 feet of any project activity site, the authorized nesting bird monitor shall monitor the nesting bird to evaluate impacts to the bird. If the construction, and associated noise, impacts nesting, in the opinion of the authorized nesting bird monitor, construction within 500 feet will immediately discontinue. If the authorized nesting bird monitor determines that construction may continue, SCE shall prepare and implement a Wildlife Noise Monitoring Plan throughout construction and demolition activities taking place while CAGN occupy the nesting territory. Sound levels at the nest sites shall not exceed 8 dBA above ambient levels or 70 dBA (hourly average Leq), whichever is greater. Ambient levels will be established prior to initiation of construction and demolition, using the same methodology that will be used to take noise measurements during monitoring.

If the hourly average noise threshold is exceeded, or if the biological monitor determines that construction activities are disturbing nesting CAGN, additional noise

reduction techniques shall be implemented to reduce project noise below the thresholds. Additional noise monitoring will be conducted to verify the reduction of noise levels below the thresholds. Noise reduction techniques can include, but are not limited to:

- Temporary noise barriers or sound walls
- Noise pads or dampers
- Replace and update noisy equipment
- Moveable task noise barriers
- Queue trucks to distribute idling noise
- Locate vehicle access points and loading and shipping facilities away from the nest site
- Reduce the number of noisy activities that occur simultaneously
- Relocate noisy stationary equipment away from the nest sites

Construction activities shall avoid suitable habitat for CAGN, to the extent feasible. If suitable habitat cannot be avoided, SCE shall consult with CDFW and USFWS to obtain appropriate take authorization, permits, and/or Participating Special Entity (PSE) status. SCE shall implement the conservation measures contained within these permits.

Implementation locations: This mitigation measure shall apply within San Bernardino County, throughout the WR-MSHCP lands (regardless of SCE's PSE status), and is recommended within Morongo Tribal Lands. No suitable CAGN habitat is present in the CV-MSHCP portions of the ROW or on BLM land, so this mitigation measure shall not apply within those areas.

WIL-2f **Conduct surveys and avoidance for golden eagle.** SCE shall implement the following measures to document golden eagle occurrence in the project area and surrounding mountains. Survey schedule and requirements will be as identified below unless otherwise authorized by the CPUC and BLM in consultation with the USFWS and CDFW.

- **Annual Nesting Season Surveys.** Beginning at least one year prior to the start of construction, and continuing throughout the construction phase of the project, SCE shall contract with a qualified biologist to conduct nesting season surveys of golden eagle habitat use within a 2-mile radius of the portions of the project area where work will occur during the breeding season (December 1 through July 31). Nesting season surveys will determine occupancy, productivity, and chronology of known or newly discovered nesting territories within the 2-mile radius. Survey methods for the inventory shall be either ground-based or helicopter-based, as described in the Golden Eagle Technical Guidance (Pagel et al., 2010) or more current guidance from the USFWS.
- **Nesting Season Inventory Data.** At a minimum, data collected during the nesting season surveys shall include the following: territory status (unknown, vacant, occupied, breeding successful, breeding unsuccessful); nest location, nest elevation; age class of golden eagles observed; nesting chronology; number of young at each visit; photographs; and substrate upon which nest is placed.
- **Determination of Unoccupied Territory Status.** A nesting territory or inventoried habitat shall be considered unoccupied by golden eagles only after completing at least two full surveys in a single breeding season.

- **Nest Buffer.** If an occupied nest (as defined by Pagel et al., 2010) is detected within 2 miles of the project, SCE shall implement a one mile line-of-sight and one-half mile no line-of-sight buffer to ensure that project construction activities do not result in injury or disturbance to golden eagles. Triggers for adaptive management shall include any evidence of project-related disturbance to nesting golden eagles, including but not limited to: agitation behavior (displacement, avoidance, and defense); increased vigilance behavior at nest sites; changes in foraging and feeding behavior, or nest site abandonment. Adaptive management actions, include, but are not limited to, cessation of construction activities that are deemed by a qualified biologist to be the source of golden eagle disturbance.
- **Reporting.** Golden eagle survey data and, if applicable, nest activity monitoring results and any adaptive management actions taken, will be provided to CPUC, BLM, CDFW, and USFWS in monthly monitoring reports, as seasonal data becomes available and if specific nest monitoring or any adaptive management actions are taken, and summarized in annual project monitoring reports.

Implementation locations: This mitigation measure shall apply within San Bernardino County, on BLM lands, and within the CV-MSHCP and WR-MSHCP areas (regardless of SCE's PSE status), and is recommended within Morongo Tribal Lands.

WIL-2g **Conduct surveys and avoidance for burrowing owl.** Burrowing owl surveys shall be conducted in accordance with the most current CDFW guidelines (CDFG, 2012; or updated guidelines as they become available). SCE shall take measures to avoid impacts to any active burrowing owl burrow within or adjacent to a work area. The default buffer for a burrowing owl burrow is 300 feet for ground construction, and 300 feet horizontal and 200 feet vertical for helicopter construction. The Nesting Bird Management Plan (Mitigation Measure WIL-1c) will specify a procedure for adjusting this buffer, if needed. Binocular surveys may be substituted for protocol field surveys on private lands adjacent to the project site only when SCE has made reasonable attempts to obtain permission to enter the property for survey work but was unable to obtain such permission.

If active burrowing owl burrows are located within project work areas, SCE may passively relocate the owls by preparing and implementing a Burrowing Owl Passive Relocation Plan, as described below. SCE shall prepare a draft Burrowing Owl Passive Relocation Plan for review and approval by CPUC and BLM in consultation with CDFW and USFWS prior to the start of any ground-disturbing activities. SCE may not initiate burrowing owl passive relocation prior to finalization of the Plan and approval by CPUC and BLM. No active relocation shall be permitted. No passive relocation of burrowing owls shall be permitted during breeding season, unless a qualified biologist verifies through non-invasive methods that an occupied burrow is not occupied by a mated pair, and only upon authorization by CDFW. The Plan shall include, but not be limited to, the following elements:

- **Assessment of Suitable Burrow Availability.** The Plan shall include an inventory of existing, suitable, and unoccupied burrow sites within 300 feet of the affected project work site. Suitable burrows will include inactive desert kit fox, ground squirrel, or desert tortoise burrows that are deep enough to provide suitable burrowing owl nesting sites, as determined by a qualified biologist. If two or more suitable and

unoccupied burrows are present in the area for each burrowing owl that will be passively relocated, then no replacement burrows will need to be built.

- **Replacement Burrows.** For each burrowing owl that will be passively relocated, if fewer than two suitable unoccupied burrows are available within 300 feet of the affected project work site, then SCE shall construct at least two replacement burrows within 300 feet of the affected project work site. Burrow replacement sites shall be in areas of suitable habitat for burrowing owl nesting, and subject to minimal human disturbance and access. The Plan shall describe measures to ensure that burrow installation or improvements would not affect sensitive species habitat or any burrowing owls already present in the relocation area. The Plan shall provide guidelines for creation or enhancement of at least two natural or artificial burrows for each active burrow within the project disturbance area, including a discussion of timing of burrow improvements, specific location of burrow installation, and burrow design. Design of the artificial burrows shall be consistent with CDFW guidelines (CDFG, 2012; or more current guidance as it becomes available) and shall be approved by the CPUC, BLM, CDFW, and USFWS.
- **Methods.** Provide detailed methods and guidance for passive relocation of burrowing owls, outside the breeding season. An occupied burrow may not be disturbed during the nesting season (generally, but not limited to, February 1 to August 31), unless a qualified biologist determines, by non-invasive methods, that it is not occupied by a mated pair. Passive relocation would include installation of one-way doors on burrow entrances that would let owls out of the burrow but would not let them back in. Once owls have been passively relocated, burrows will be carefully excavated by hand and collapsed by, or under the direct supervision, of a qualified biologist.
- **Monitoring and Reporting.** Describe monitoring and management of the replacement burrow site(s), and provide a reporting plan. The objective shall be to manage the relocation area for the benefit of burrowing owls, with the specific goal of maintaining the functionality of the burrows for a minimum of two years. Monitoring reports shall be available to the CPUC and BLM on a weekly basis.

Implementation locations: This mitigation measure shall apply within San Bernardino County, on BLM lands, and within the WR-MSHCP and CV-MSHCP areas (regardless of SCE's PSE status), and is recommended within Morongo Tribal Lands.

WIL-2h **Conduct surveys and avoidance for special-status terrestrial herpetofauna.** This measure will not apply to desert tortoise; instead, surveys and avoidance for desert tortoise are addressed in Mitigation Measure WIL-2a. Biological monitors shall conduct clearance surveys in areas with suitable habitat for special-status terrestrial herpetofauna prior to construction each day, monitor construction activities for compliance, and submit monitoring reports to the CPUC and BLM for review on a weekly basis. Following the clearance surveys, either (1) exclusion fencing will be erected or (2) a biological monitor will be on the site during construction activities, to prevent take of special-status herpetofauna. If the installation of exclusion fencing is deemed necessary, the biological monitor shall direct the installation of the fence.

If any terrestrial herpetofauna are found on the construction site, the animal will be allowed to move away from the construction site on its own, or a qualified biologist will

relocate it nearby suitable habitat outside the construction area and place it in the shade of a shrub. If potentially suitable burrows or rock piles are found, they will be checked for occupancy. Occupied burrows will be flagged and avoided (employing a 50-foot buffer) during construction. If the burrow cannot be avoided, it will be excavated and the occupant relocated to an unoccupied burrow outside the construction area and of approximately the same size as the one from which it was removed. If an existing burrow is unavailable, the biologist will construct or direct the construction of a burrow of similar shape, size, depth, and orientation as the original.

Implementation locations: This mitigation measure shall apply within San Bernardino County, on BLM lands, within the WR-MSHCP and CV-MSHCP areas (regardless of SCE's PSE status), and is recommended within Morongo Tribal Lands.

WIL-2i **Conduct surveys and avoidance for bats.** SCE shall conduct surveys for roosting bats within 300 feet of project activities, within 14 days prior to any grading of rocky outcrops or removal of towers or trees, particularly palm trees and large trees (12 inches in diameter or greater at 4.5 feet above grade) with loose bark or other cavities. Surveys shall be conducted during the breeding season (1 March to 31 July) and the non-breeding season. Surveys shall be performed by a qualified bat biologist (i.e., a biologist holding a CDFW collection permit and a Memorandum of Understanding with CDFW allowing the biologist to handle bats). The resume of the biologist shall be provided to the CPUC and BLM for concurrence in consultation with CDFW and USFWS prior to the biologist beginning field duties on the project. Surveys shall include a minimum of one day and one evening.

Any active bat roosts, including occupied day roosts, maternity roosts, and hibernacula, will be identified and clearly marked. An exclusion area will be established 165 feet from any active roost, and these areas will be avoided during construction activities. If active roosts are found, then focused surveys shall be conducted to determine if the sites support special-status bat species.

SCE shall submit documentation providing pre-construction survey results and any avoidance of roosting and nursery sites to the CPUC and BLM for review and approval.

Non-special-status bats. If non-breeding bat hibernacula are found in towers or trees scheduled to be removed or in crevices in rock outcrops within the grading footprint, the bats shall be safely evicted, under the direction of a qualified bat biologist, by opening the roosting area to allow airflow through the cavity or other means determined appropriate by the bat biologist (e.g., installation of one-way doors). In situations requiring one-way doors, a minimum of one week shall pass after doors are installed and temperatures must be sufficiently warm for bats to exit the roost because bats do not typically leave their roost daily during winter months in southern coastal California. This action will allow all bats to leave during the course of one week. Roosts that need to be removed, in situations where the use of one-way doors is not necessary in the judgment of the qualified bat biologist, shall first be disturbed by various means at the direction of the bat biologist at dusk to allow bats to escape during the darker hours, and the roost tree shall be removed or the grading shall occur the next day (i.e., there shall be no less or more than one night between initial disturbance and the grading or tree removal).

If active maternity roosts or hibernacula are found, the rock outcrop or tree occupied by the roost shall be avoided (i.e., not removed) by the project. If avoidance of the maternity roost is not feasible, the bat biologist shall survey (through the use of radio telemetry or other CDFW approved methods) for nearby alternative maternity colony sites. If the bat biologist determines in consultation with and with the approval of the CDFW, BLM, and CPUC that there are alternative roost sites used by the maternity colony and young are not present, then no further action is required and it will not be necessary to provide alternate roosting habitat. However, if there are no alternative roosts sites used by the maternity colony, substitute bat roosting habitat shall be provided, as detailed below. If an active maternity roost is located in an area to be impacted by the project, and alternative roosting habitat is available, the demolition of the roost site must commence before maternity colonies form (i.e., prior to 1 March) or after young are flying (i.e., after 31 July) using the exclusion techniques described above.

If a maternity roost will be impacted by the project, and no alternative maternity roosts are in use near the site, substitute roosting habitat for the maternity colony shall be provided on, or in close proximity to, the project site no less than three months prior to the eviction of the colony. Alternative roost sites will be constructed in accordance with the specific bats requirements in coordination with CDFW. By making the roosting habitat available prior to eviction, the colony will have a better chance of finding and using the roost. Large concrete walls (e.g., on bridges) on south or southwestern slopes that are retrofitted with slots and cavities are an example of structures that may provide alternative roosting habitat appropriate for maternity colonies. Alternative roost sites must be of comparable size and proximal in location to the impacted colony. The CDFW shall also be notified of any hibernacula or active nurseries within the construction zone.

Special-status bats. If special-status bat species occur at these day roosts, maternity roosts, or hibernacula, then construction activities shall avoid these sites and a surrounding buffer distance of 300 feet. If construction activities cannot avoid these sites, construction at these sites shall be delayed until the breeding cycles for the special-status bats are completed. SCE shall consult with a bat specialist in order to determine when the breeding cycle for the special-status bats is completed. SCE shall consult with CDFW regarding eviction of non-breeding special-status bats.

Implementation locations: This mitigation measure shall apply within San Bernardino County, on BLM lands, within the WR-MSHCP and CV-MSHCP areas (regardless of SCE's PSE status), and is recommended within Morongo Tribal Lands.

WIL-2j **Conduct surveys and avoidance for special-status small mammals.** SCE shall implement pre-construction surveys for special-status small mammals including San Diego black-tailed jackrabbit, northwestern San Diego pocket, pallid San Diego pocket mouse, Palm Springs pocket mouse, Los Angeles pocket mouse, Palm Springs round-tailed ground squirrel, and San Diego desert woodrat in suitable habitats. SCE shall submit documentation providing pre-construction survey results to the CPUC and BLM for review and approval in consultation with CDFW and USFWS. Prior to initiating construction-related activities, SCE shall prepare and implement construction minimization measures and habitat conservation measures for review and approval by

CPUC and BLM in consultation with USFWS and CDFW to minimize habitat loss and potential take.

Active woodrat nests that may be occupied by *Neotoma lepida* shall be flagged and ground-disturbing activities shall be avoided within a minimum of 10 feet surrounding each active nest unless otherwise authorized by the CDFW and CPUC. If avoidance is not possible, SCE shall take the following sequential steps: (1) all understory vegetation will be cleared in the area immediately surrounding active nests followed by a period of one night without further disturbance to allow woodrats to vacate the nest, (2) each occupied nest will then be disturbed by a qualified wildlife biologist until all woodrats leave the nest and seek refuge off-site, and (3) the nest sticks shall be removed from the project site and piled at the base of a nearby shrub or tree. Relocated nests shall not be spaced closer than 100 feet apart, unless a qualified wildlife biologist has determined that a specific habitat can support a higher density of nests. SCE shall document all woodrat nests moved in weekly monitoring reports, and will include a written summary in each annual report to the CPUC, BLM, and CDFW. The resumes of the qualified biologists shall be provided to the CPUC and BLM (as appropriate) for concurrence.

Implementation locations: This mitigation measure shall apply within San Bernardino County, on BLM lands, within the WR-MSHCP and CV-MSHCP areas (regardless of SCE's PSE status), and is recommended within Morongo Tribal Lands.

WIL-2k **Conduct surveys and avoidance for American badger, ringtail, and desert kit fox.** SCE shall conduct pre-construction surveys for desert kit fox, ringtail, and American badger no more than 30 days prior to initiation of construction activities. Surveys shall be conducted in areas that contain habitat for this these species and shall include project disturbance areas and access roads plus a 300 buffer surrounding these areas. SCE shall submit documentation providing pre-construction survey results to the CPUC and BLM for review and approval. If dens are detected, each den shall be classified as inactive, potentially active, active non-natal, or active natal.

Inactive dens located in project disturbance areas may be excavated by hand and backfilled to prevent reuse, only upon confirmation that they are inactive.

Active or potentially active dens shall be flagged and project activities, with exceptions as listed below, within 100 feet (non-natal dens) or 500 feet (natal dens, or any active den during the breeding season) shall be avoided. Ingress/egress of construction vehicles and equipment through buffers and low intensity activities such as inspections and BMP maintenance within buffers is allowed, provided a qualified biologist determines that these activities will not impact dens or denning animals. Buffers may be modified with concurrence of CPUC and BLM, in consultation with CDFW and USFWS. If active dens are found within project disturbance areas and avoidance is not possible, SCE shall take action as specified below, after notifying and obtaining concurrence from CPUC, BLM, and CDFW.

Active and potentially active non-natal dens. Outside the breeding season, any potentially active dens that would be directly impacted by construction activities shall be monitored by a qualified mammologist or biologist for three consecutive nights using a tracking medium (such as diatomaceous earth or fire clay) or infrared camera stations

at the entrance. If no tracks are observed in the tracking medium or no photos of the target species are captured after three nights, the den may be excavated and backfilled by hand. If tracks are observed, the den may be progressively blocked with natural materials (rocks, dirt, sticks, and vegetation piled in front of the entrance) for the next three to five nights to discourage continued use. After verification that the den is no longer active, the den may be excavated and backfilled by hand.

Active natal dens. Active natal dens (any den with cubs or pups) or any den active during the breeding season will not be excavated or passively relocated. The cub or pup-rearing season is generally from January 15 through mid-September. A 500-foot no-disturbance buffer shall be maintained around all active natal dens. Discovery of an active natal den that could be impacted by the project shall be reported to the CPUC, BLM, and CDFW within 24 hours of the discovery along with a map of the den location and a copy of the survey results. A qualified biologist shall monitor the natal den until he or she determines that the pups have dispersed. Any disturbance to denning animals or activities that might disturb denning activities shall be prohibited within the buffer zone. Once the pups have dispersed, methods listed above for non-natal dens may be used to discourage den reuse. After verification that the den is unoccupied, it shall then be excavated by hand and backfilled to ensure that no animals are trapped in the den.

If canine distemper is reported in desert kit fox on the site or surrounding areas, then SCE shall coordinate with CPUC, BLM, and CDFW to identify appropriate actions prior to continuing implementation of this mitigation measure in respect to desert kit fox. Any observations of a kit fox that appears sick or any kit fox mortality shall be reported to CPUC, CDFW, and BLM within one work day.

In the event that passive relocation techniques fail, SCE shall contact the CPUC, BLM, and CDFW to explore other relocation options.

All den monitoring and excavation activities and passive relocations shall be documented and reported to the CDFW, BLM, and CPUC in weekly monitoring reports, and a written summary will be included in each annual monitoring report.

Implementation locations: This mitigation measure shall apply within San Bernardino County, on BLM lands, within the CV-MSHCP and WR-MSHCP areas (regardless of SCE's PSE status), and is recommended within Morongo Tribal Lands.

WIL-3a **Evaluate bird collision risk and implement APLIC design guidelines.** SCE shall adhere to recommendations published by APLIC (2012, *Reducing Avian Collisions with Power Lines: The State of the Art in 2012*).

Cultural Resources

CL-1a **Avoid environmentally sensitive areas.** SCE shall perform focused pre-construction surveys for any project areas not yet surveyed (e.g. new or modified staging areas, pull sites, or other work areas). Resources discovered during the surveys would be subject to Mitigation Measures CL-1b (Develop Cultural Resource Management Plan [CRMP]) and CL-1d (Conduct construction monitoring). Where operationally feasible, all NRHP- and CRHR-eligible resources shall be protected from direct project impacts by project redesign (i.e., relocation of the line, ancillary facilities, or temporary facilities or work areas). In addition, all historic properties/historic resources shall be avoided by all project construction, operation and maintenance, and restoration activities. Avoidance mechanisms shall include fencing off such areas as Environmentally Sensitive Areas (ESAs) for the duration of the Proposed Project or as outlined in the CRMP.

CL-1b **Develop Cultural Resource Management Plan (CRMP).** SCE shall prepare and submit for approval a Cultural Resource Management Plan (CRMP) to guide all cultural resource management activities during project construction. Management of cultural resources shall follow the standards and guidelines established by the National Park Service for implementing Section 106 of the National Historic Preservation Act ("Archeology and Historic Preservation; Secretary of the Interior's Standards and Guidelines," 48 Federal Register 190 (29 September 1983), pp. 44716-44742). The CRMP shall be submitted to the CPUC and BLM for review and approval at least 60 days before the start of construction.

The CRMP shall define and map all known NRHP- and CRHR-eligible properties in or within 100 feet of the Proposed Project APE and shall identify the cultural values that contribute to their NRHP- and CRHR-eligibility. A cultural resources protection plan shall be included that details how NRHP- and CRHR-eligible properties will be avoided and protected during construction. Measures shall include, at a minimum, designation and marking of ESAs, archaeological monitoring, personnel training, and effectiveness reporting. The plan shall detail: what measures will be used; how, when, and where they will be implemented; and how protective measures and enforcement will be coordinated with construction personnel.

The CRMP shall also define any additional areas that are considered to be of high-sensitivity for discovery of buried NRHP- and CRHR-eligible cultural resources, including burials, cremations, or sacred features. The CRMP shall detail provisions for monitoring construction in these high-sensitivity areas. It shall also detail procedures for halting construction, making appropriate notifications to agencies, officials, and Native Americans, and assessing NRHP- and CRHR-eligibility in the event that unknown cultural resources are discovered during construction. For all unanticipated cultural resource discoveries, the CRMP shall detail the methods, the consultation procedures, and the timelines for assessing NRHP- and CRHR-eligibility, formulating a mitigation plan, and implementing treatment. Mitigation and treatment plans for unanticipated discoveries shall be reviewed by appropriate Native Americans and approved by the BLM, CPUC, and the California Office of Historic Preservation (OHP) prior to implementation.

The CRMP shall include provisions for analysis of data in a regional context, reporting of results within one year of completion of field studies, curation of artifacts (except from private land) and data (maps, field notes, archival materials, recordings, reports, photographs, and analysts' data) at a facility that is approved by BLM, and dissemination of reports to local and State repositories, libraries, and interested professionals. The BLM will retain ownership of artifacts collected from BLM managed lands. SCE shall attempt to gain permission for artifacts from privately held land to be curated with the other project collections. The CRMP shall specify that archaeologists and other discipline specialists conducting the studies meet the Professional Qualifications Standards mandated by the OHP.

CL-1c **Train construction personnel.** Prior to the initiation of construction, all construction personnel shall be trained, by a qualified archaeologist, regarding the recognition of possible buried cultural resources (i.e., prehistoric and/or historical artifacts, objects, or features) and protection of all archaeological resources during construction. SCE shall complete training for all construction personnel. Training shall inform all construction personnel of the procedures to be followed upon the discovery of cultural materials. All personnel shall be instructed that unauthorized removal or collection of artifacts is a violation of State law. Any excavation contract (or contracts for other activities that may have subsurface soil impacts) shall include clauses that require construction personnel to attend the Workers' Environmental Training Program so they are aware of the potential for inadvertently exposing buried archaeological deposits. SCE shall provide a background briefing for supervisory construction personnel describing the potential for exposing cultural resources, the location of any potential ESA and anticipated procedures to treat unexpected discoveries.

CL-1d **Conduct construction monitoring.** Archaeological monitoring shall be conducted by a qualified archaeologist familiar with the types of historic and prehistoric resources that could be encountered within the Proposed Project area. Monitoring shall occur in all areas of ground-disturbing activity that occur within 100 feet of a cultural resource ESA. The qualifications of the principal archaeologist and cultural resource monitors shall be approved by the CPUC and BLM. As specified in the CRMP, intermittent monitoring may occur in areas of moderate archaeological sensitivity at the discretion of the principal archaeologist, as identified in the CRMP. Copies of monitoring reports shall be submitted to the CPUC/BLM on a weekly basis.

A Native American monitor may be required at culturally sensitive locations specified by the BLM following government-to-government consultation with Native American tribes. SCE shall retain and schedule any required Native American monitors.

CL-2a **Treat previously unidentified cultural resources.** If previously unidentified cultural resources are unearthed during construction activities, construction work in the immediate area of the find shall be halted and directed away from the discovery until a qualified archaeologist assesses the potential significance of the resource. Once the find has been inspected and a preliminary assessment made, SCE will consult with the CPUC and BLM to make the necessary plans for evaluation and treatment of the find(s).

CL-2b **Properly treat human remains.** SCE shall follow all State and federal laws, statutes, and regulations that govern the treatment of human remains. Avoidance and protection of inadvertent discoveries which contain human remains shall be the preferred protection

strategy with complete avoidance of impacts to such resources protected from direct project impacts by project redesign.

If human remains are discovered during construction, all work shall be diverted from the area of the discovery and the BLM authorized officer and CPUC shall be informed immediately. If the remains are on federal land, the remains shall be treated in accordance with the Native American Graves Protection and Repatriation Act (NAGPRA). If the remains are not on federal land, the remains shall be treated in accordance with Health and Safety Code Section 7050.5, CEQA Section 15064.5(e), and Public Resources Code Section 5097.98. SCE shall assist and support the CPUC and BLM, as appropriate, in all required NAGPRA and Section 106 actions, government to-government and consultations with Native Americans, agencies and commissions, and consulting parties as requested by the CPUC or BLM. SCE shall comply with and implement all required actions and studies that result from such consultations.

Geology and Soils

G-1a **Conduct fault evaluation study and minimize project structures within active fault zones.** Prior to final Project design, SCE shall perform fault evaluation studies to confirm the location of mapped traces of active and potentially active faults crossed by the project route or other project structures, as described in Section D.9.1.2 for each project segment. For crossings of active faults, the project design shall not locate towers or other project structures on the traces of active faults; and additionally, all other project components shall be placed as far as feasible outside the areas of mapped fault traces.

SCE shall provide CPUC and BLM a letter signed by a California registered geotechnical engineer following the completion date of all of the foundation activities for each segment. The letter will confirm that SCE followed the geotechnical report recommendations and the common engineering practice in southern California at the time of project construction.

G-2a **Conduct geotechnical surveys for landslides and unstable slopes.** SCE shall conduct design-level geotechnical surveys for the project that include slope stability surveys in areas where project components are located on hills or hill tops. These surveys will acquire data that will allow identification of specific areas with the potential for unstable slopes, landslides, earth flows, and debris flows along the approved transmission line route and along other project components crossing these hills such as access and spur roads. The investigations shall include an evaluation of subsurface conditions, identification of potential landslide hazards, and provide potential modifications to the project design to avoid areas of unstable slopes and landslide hazards, such as modification of tower locations. Where the geotechnical surveys determine that landslide hazard areas cannot be avoided, best engineering design and construction measures shall be incorporated into the project designs to prevent potential damage to project facilities.

SCE shall provide CPUC and BLM a copy of the geotechnical survey report for review, at least 60 days before construction. In addition, SCE shall submit a letter signed by a California registered geotechnical engineer following the completion date of all of the foundation activities for each segment. The letter will confirm that SCE followed the geotechnical report recommendations and the common engineering practice in southern California at the time of the project.

G-5a **Assess soil characteristics to aid in appropriate foundation design.** The design-level geotechnical studies conducted for the project shall include soils analyses to identify the presence, if any, of potentially detrimental soil chemicals, such as chlorides and sulfates, and soils with moderate to high shrink/swell or expansion potential. If corrosive soils are identified, appropriate design measures for protection of reinforcement, concrete, and metal structural components against corrosion shall be utilized, such as use of corrosion-resistant materials and coatings, increased thickness of project components exposed to potentially corrosive conditions, and use of passive and/or active catholic protection systems. If expansive soils are identified, the project design shall be modified to include appropriate design features, such as including excavation of

potentially expansive or during construction and replacement with engineered backfill, ground-treatment processes, and redirection of surface water and drainage away from expansive foundation soils.

SCE shall provide CPUC and BLM a copy of the design-level geotechnical studies for review at least 60 days before the start of construction. In addition, SCE shall submit a letter signed by a California registered geotechnical engineer following the completion date of all of the foundation activities for each segment. The letter will confirm that SCE followed the geotechnical report recommendations and the common engineering practice in southern California at the time of the project.

Hazards and Hazardous Materials

HH-1a **Prepare a Hazardous Materials and Waste Management Plan.** SCE shall prepare a Project-specific Hazardous Materials and Waste Management Plan. Hazardous materials used and stored on site for the proposed construction activities — as well as hazardous wastes generated onsite as a result of the proposed construction activities — shall be managed according to the specifications outlined below.

- **Hazardous Materials and Hazardous Waste Handling:** A project-specific hazardous materials management and hazardous waste handling program shall developed prior to initiation of the project. The program will include the following components: (1) proper hazardous materials use, storage and disposal requirements as well as hazardous waste management procedures; (2)the program shall identify types of hazardous materials to be used during the project and the types of wastes that would be generated; and (3) all project personnel shall be provided with project-specific training to ensure that all hazardous materials and wastes associated with the project are handled in a safe and environmentally sound manner and disposed of according to applicable rules and regulations. Specifically, employees handling wastes shall have or receive hazardous materials training and shall be trained in hazardous waste procedures, spill contingencies, waste minimization procedures and treatment, storage and disposal facility (TSDF) training in accordance with current OSHA Hazard Communication Standard and Title 22 CCR. SCE shall use landfill facilities that are authorized to accept the types of waste generated and hauled.
- **Transport of Hazardous Materials**: Hazardous materials that would be transported by truck include fuel (diesel fuel and gasoline) and oil and lubricants for equipment. Containers used to stored hazardous materials would be properly labeled and kept in good condition. Written procedures for the transport of hazardous materials used would be established in accordance with U.S. Department of Transportation and Caltrans regulations. A qualified transporter would be selected to comply with U.S. Department of Transportation and Caltrans regulations.
- **Fueling and Maintenance of Construction Equipment**: Written procedures for fueling and maintenance of construction equipment would be prepared prior to construction. Refueling and maintenance procedures may require vehicles and equipment to be refueled on site or by tanker trucks. Procedures will require the use of drop cloths made of plastic, drip pans and trays to be placed under refilling areas to ensure that chemicals do not come into contact with the ground. Refueling would be located in areas where absorbent pad and trays would be available. The fuel tanks would also contain a lined area to ensure that accidental spillage does not occur. Drip pans or other collection devices would be placed under the equipment at night to capture drips or spills. Equipment would be inspected daily for potential leakage or failures. Hazardous materials such as paints, solvents, and penetrants would be kept in an approved locker or storage cabinet.
- **Fueling and Maintenance of Helicopters**: Written procedures for fueling and maintenance of helicopters would be prepared prior to construction. Procedures may require helicopters be refueled at construction work areas, helicopter staging areas, or local airports. Procedures would include the use of drop cloths made of plastic,

drip pans and trays to be placed under refilling areas to ensure that chemicals do not come into contact with the ground. Refueling areas would be located in areas where absorbent pad and trays are available.

- **Emergency Release Response Procedures**: An Emergency Response Plan detailing responses to releases of hazardous materials would be developed prior to construction activities. The plan must prescribe hazardous materials handling procedures for reducing the potential for a spill during construction, and would include an emergency response program to ensure quick and safe cleanup of accidental spills. Hazardous materials shall not be stored near drains or waterways. Fueling shall not take place within 200 feet of drains or waterways with flowing water or within 75 feet of drains or waterways that are dry. All construction personnel, including environmental monitors, would be made aware of state and federal emergency response reporting guidelines for accidental spills.

The Plan shall be submitted to CPUC and BLM 30 days prior to the start of construction for review and approval.

HH-2a **Prepare a Soil Management Plan.** A Soil Management Plan shall be developed and implemented for construction of the Proposed Project. The objective of the Soil Management Plan is to provide guidance for the proper handling, onsite management, and disposal of impacted soil that might be encountered during construction activities. The plan would include practices that are consistent with the California Title 8, Occupational Safety and Health Administration (Cal-OSHA) regulations, as well as appropriate remediation standards that are protective of the planned use. Appropriately trained professionals would be on site during preparation, grading, and related earthwork activities to monitor soil conditions encountered. The Soil Management Plan would provide guidelines for the following:

- Identifying impacted soil
- Assessing impacted soil
- Soil excavation
- Impacted soil storage
- Verification sampling
- Impacted soil characterization and disposal

The plan shall outline how Project construction crews would identify, handle, and dispose of potentially contaminated soil; identify the qualifications of the appropriately trained professionals that would monitor soil conditions and conduct soil sampling during construction; coordinate laboratory testing; and oversee disposal. The Plan shall identify the anticipated field screening methods and appropriate regulatory limits to be applied to determine proper handling and disposal. The Soil Management Plan shall also include requirements for documenting and reporting incidents of encountered contaminants, such as documenting locations of occurrence, sampling results, and reporting actions taken to dispose of contaminated materials. In the event that potentially contaminated soils were encountered within the footprint of construction, soils would be tested and stockpiled. The appropriate Certified Unified Program Agency (CUPA) or RWQCB would determine whether further assessment is warranted.

The Soil Management Plan shall be submitted to the CPUC and BLM 30 days prior to the start of construction for review and approval. Once the Soil Management Plan is made final, a copy shall be provided as a courtesy to each jurisdiction through which the Project passes.

HH-3a **Identify pesticide/herbicide contamination.** Prior to construction, soil samples shall be collected in construction areas where the land has historically or is currently being used for agriculture and would be subject to ground disturbance by the project. The sampling is to identify the possible presence of and to delineate the extent of pesticide and/or herbicide contamination. Excavated project materials containing elevated levels of pesticide or herbicide will require special handling and disposal procedures consistent with the requirements of Mitigation Measure HH-2a (Prepare a soils management plan). In the event pesticide or herbicide contamination is found, CPUC/BLM shall be notified of the event and shall be kept apprised of the steps taken to address the problem.

Land Use and BLM Realty

LU-1a **Prepare construction notification plan.** Sixty days prior to construction, SCE shall prepare and submit a Construction Notification Plan to the CPUC and BLM for approval. The Plan shall identify the procedures to ensure that SCE will inform property and business owners of the location and duration of construction, identify approvals that are needed prior to posting or publication of construction notices, and include template copies of public notices and advertisements (i.e., formatted text). The details of notification, as described below, may be modified in consultation with CPUC and BLM as warranted by circumstances. To ensure effective notification of construction activities, the plan shall address at a minimum the following components:

Public notice mailer. No less than 15 days prior to construction that would affect property access, a public notice mailer shall be distributed. The notice shall identify construction activities that would restrict, block, or require a detour to access existing residential properties, retail and commercial businesses, wilderness and recreation facilities, and public facilities (e.g., schools and memorial parks). The notice shall state the type of construction activities that will be conducted, and the location and duration of construction. SCE shall mail the notice to all residents or property owners within 300 feet of the right-of-way and to specific public agencies with facilities that could be impacted by construction. If construction delays of more than seven days occur, SCE shall notify residents or property owners of the delay and provide an estimated of when construction would occur.

Newspaper advertisements. Fifteen days prior to construction, within a route segment a newspaper advertisement shall be placed in local newspapers and bulletins of general circulation in the area. The advertisement shall state when and where construction will occur and provide information on the public liaison person and hotline identified below. If construction is delayed as noted above, an additional round of newspaper ads shall be placed to discuss the status and schedule of construction.

Public venue notices. Thirty days prior to construction, notice of construction shall be posted at public venues such as trail crossings, rest stops, desert centers, resource management offices (e.g., Bureau of Land Management field offices, San Bernardino National Forest Ranger Station), and other public venues to inform residents and visitors of the purpose and schedule of construction activities. For public trail closures, SCE shall post information regarding the closure and any related trail detour at applicable resource management offices and post the notice within 2 miles north and south of any such point of trail closure and detour. For recreation facilities, the notice shall be posted along the access routes to known recreational destinations that would be restricted, blocked, or detoured and shall provide information on alternative recreation areas that may be used during the closure of these facilities.

Public liaison person and toll-free information hotline. SCE shall identify and provide a public liaison person before and during construction to respond to concerns of neighboring property owners about noise, dust, and other construction disturbance. Procedures for reaching the public liaison officer via telephone or in person shall be included in notices distributed to the public. SCE shall also establish a toll-free telephone number for receiving questions or complaints during construction and shall

develop procedures for responding to callers. Procedures for handling and responding to calls shall be addressed in the Construction Notification Plan. SCE shall provide CPUC and BLM an itemized monthly summary of complaints and inquiries received and their resolution. This shall include the name and telephone number of the caller, if provided, and the location and resolution of the complaint or inquiry.

Mineral Resources

MR-1a **Coordinate with quarry operations.** Prior to construction within the Banning Rock Plant No. 66, SCE would consult with the plant owners and plant operations and management personnel. The consultation will include identification of locations of active mining and coordination of construction activities in and through those areas and to determine the best way to proceed with project construction, all with the goal of minimizing any disruption to plant operations. A plan to avoid or minimize interference with mining operations shall be prepared by SCE documenting how coordination with the quarry operators is expected to occur. Prior to construction in the quarry area, SCE shall provide CPUC and BLM a copy of this plan.

Noise

N-1a **Implement best management practices for construction noise.** SCE shall employ the following noise-control techniques, at a minimum, to reduce construction noise exposure at noise-sensitive receptors and to avoid possible violations of local rules, standards, and ordinances during construction:

- Construction noise shall be confined to daytime, weekday hours (7:00 a.m. to 6:00 p.m.) or an alternative schedule developed by SCE based on its coordination with the local jurisdiction.
- Construction equipment shall use noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.
- Stationary noise sources (e.g., generators, pumps) at staging areas and on the ROW within 1,400 feet of sensitive receptors shall be shielded at the source to the extent feasible. Examples of feasible shielding include an enclosure, temporary sound walls, or acoustic blankets. For best performance, sound walls or acoustic blankets shall have a height of no less than 8 feet, a Sound Transmission Class (STC) of 27 or greater, and a surface with a solid face from top to bottom without any openings or cutouts.
- Construction traffic and helicopter flight shall be routed away from residences and schools, where feasible.
- Unnecessary construction vehicle use and idling time shall be minimized to the extent feasible, such that if a vehicle is not required for use immediately or continuously for safe construction activities, its engine should be shut off.

N-1b **Implement a helicopter noise control strategy.** As part of the final Helicopter Use Plan, SCE shall include a helicopter noise control strategy that identifies the established helicopter flight corridors and minimum transit elevations above ground level to avoid noise-sensitive receptors on the ground. The noise control strategy shall prohibit helicopter hovering (greater than 15 minutes) within 250 feet of residences in any vertical or horizontal direction.

Paleontological Resources

PAL-1a **Inventory and evaluate paleontological resources.** Prior to construction and all other surface-disturbing activities, the Applicant shall have conducted and submitted an inventory of significant paleontological resources within the Proposed Project area. The report shall be based on the paleontological field reconnaissance surveys (conducted by PaleoSolutions, February 2012 to April 2013).

If any changes are made to the extent or alignment of the Proposed Project subsequent to the completed field surveys, then additional field surveys shall be conducted within new project areas. The additional field surveys shall be conducted in areas identified as having moderate, undetermined, or high paleontological resource potential. The purpose of the field survey is to visually inspect the ground surface for exposed fossils and to evaluate geologic exposures for their potential to contain preserved fossil material at the subsurface. Field surveys shall be conducted in all areas of potential ground disturbance, outside of the previously surveyed potential impact areas.

As part of the inventory report, the paleontological sensitivity rankings of geologic units examined in the field shall be evaluated using the BLM's (2008) PFYC System and refined based on the results of the pedestrian surveys. The report shall be submitted to the CPUC and BLM for review at least 60 days before the start of construction, and shall be modified in response to agency comments, with the final report completed at least 30 days before the first ground disturbance.

PAL-1b **Develop Paleontological Resource Mitigation and Monitoring Plan.** Following completion and approval of the Paleontological Resources Report (required in Mitigation Measure PAL-1a) and prior to the start of ground-disturbing construction, the Applicant shall prepare and submit to CPUC and BLM for review and approval, a Paleontological Resources Mitigation and Monitoring Plan (Plan), consistent with the following requirements:

- The Plan shall be prepared by a Qualified Paleontologist and shall be based on Society of Vertebrate Paleontology (SVP) guidelines and meet all regulatory requirements. The qualified paleontologist shall have a Master's Degree or Ph.D. in paleontology, shall have knowledge of the local paleontology, and shall be familiar with paleontological procedures and techniques.
- The Plan shall include a site-specific investigation to identify construction impact areas of moderate (PFYC 3a) to very high (PFYC 5) sensitivity for encountering significant resources and the approximate depths at which those resources are likely to be encountered for each component of each segment of the Proposed Project.
- The Plan shall require the qualified paleontological monitor to monitor all construction-related ground disturbance in sediments determined to have a moderate (PFYC 3a) to very high (PFYC 5) sensitivity.
- The Plan shall define monitoring procedures and methodology, and shall specify that sediments of undetermined sensitivity shall be monitored on a part-time basis (as determined by the Qualified Paleontologist). Sediments with very low or low sensitivity will not require paleontological monitoring.

- The Plan shall state which resources will be avoided and which shall be recovered for their data potential. Where possible, recovery is preferred over avoidance in order to mitigate the potential for looting of paleontological resources. The Plan shall also detail methods of recovery, preparation and analysis of specimens, final curation of specimens at a federally accredited repository, data analysis, and reporting.
- The Plan shall specify that all paleontological work undertaken by the Applicant on public lands administered by BLM shall be carried out by qualified, permitted paleontologists with the appropriate current Paleontological Resources Use Permit.

PAL-1c **Train construction personnel.** Prior to the initiation of construction, all construction personnel shall be trained regarding the recognition of possible subsurface paleontological resources and protection of all paleontological resources during construction. The Applicant shall complete training for all construction personnel. Training shall inform all construction personnel of the procedures to be followed upon the discovery of paleontological materials. Training shall inform all construction personnel that Environmentally Sensitive Areas (ESAs) may include areas determined to be paleontologically sensitive. The ESAs must be avoided and travel and construction activity must be confined to designated roads and areas. All personnel shall be instructed that unauthorized collection or disturbance of protected fossils on or off the right-of-way by the Applicant, his representatives, or employees will not be allowed. Violators will be subject to prosecution under the appropriate State and federal laws and violations will be grounds for removal from the project. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order. The following issues shall be addressed in training or in preparation for construction:

- The Applicant shall provide a background briefing for supervisory personnel describing the potential for exposing paleontological resources, the location of any potential ESAs, and procedures and notifications required in the event of discoveries by project personnel or paleontological monitors. Supervisory personnel shall enforce restrictions on collection or disturbance of fossils.
- Upon discovery of paleontological resources by paleontologists or construction personnel, work in the immediate area of the find shall be halted and the Applicant's paleontologist notified. Once the find has been inspected and a preliminary assessment made, the Applicant's paleontologist will notify the BLM and CPUC and proceed with data recovery in accordance with the approved Plan consistent with Mitigation Measure PAL-1b (Develop Paleontological Resource Mitigation and Monitoring Plan).

PAL-1d **Monitor construction for paleontological resources.** Based on the paleontological sensitivity assessment and Paleontological Resource Mitigation and Monitoring Plan consistent with Mitigation Measure PAL-1b (Develop Paleontological Mitigation and Monitoring Plan), the Applicant shall conduct full-time construction monitoring through its qualified paleontological monitor in areas determined to have moderate (PFYC 3a) to very high (PFYC 5) sensitivity. Sediments of unknown (PFYC 3b) sensitivity shall be monitored by a qualified paleontological monitor on a part-time basis (as outlined in the Plan). Geologic Units with very low (PFYC 1) or low (PFYC 2) sensitivity shall not be monitored. Monitoring will entail the visual inspection of excavated or graded areas and trench sidewalls. In the event that a paleontological resource is discovered, the monitor

will have the authority to temporarily halt the construction equipment around the find until it is assessed for scientific significance, and collected. A temporary construction exclusion zone (i.e., environmentally sensitive area [ESA]) of at least 50 feet, consisting at a minimum of lath and flagging tape, will be erected around the discovery. The exclusion zone acts as a buffer around the discovery and is maintained for safety. SCE will report the discovery to the CPUC and BLM within 24 hours and/or as outlined in the Plan. Construction activities can occur outside the buffer if it is safe to do so. The size of the buffer may be increased or decreased once the monitor adequately explores the discovery to determine its size and significance. If indicators of potential microvertebrate fossils are found, screening of a test sample shall be carried out as outlined in SVP 2010. This procedure will be outlined in the Plan.

Paleontological resource monitors per SVP (2010) shall have the equivalent of the following qualifications:

- BS or BA degree in geology or paleontology and one year experience monitoring in the state or geologic province of the specific project. An associate degree and/or demonstrated experience showing ability to recognize fossils in a biostratigraphic context and recover vertebrate fossils in the field may be substituted for a degree. An undergraduate degree in geology or paleontology is preferable, but is less important than documented experience performing paleontological monitoring, or
- AS or AA in geology, paleontology, or biology and demonstrated two years of experience collecting and salvaging fossil materials in the state or geologic province of the specific project, or
- Enrollment in upper division classes pursuing a degree in the fields of geology or paleontology and two years of monitoring experience in the state or geologic province of the specific project.
- Monitors must demonstrate proficiency in recognizing various types of fossils, in collection methods, and in other paleontological field techniques

Copies of Monitoring Reports shall be submitted to the CPUC/BLM on a weekly basis.

PAL-1e **Final reporting and curation.** At the conclusion of laboratory work and museum curation, a final report will be prepared describing the results of the paleontological monitoring efforts associated with the project. The report will include a summary of the field and laboratory methods, an overview of the Proposed Project area geology and paleontology, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. If the monitoring efforts produced fossils, then a copy of the report will also be submitted to the designated museum repository.

All significant fossils collected will be prepared in a properly equipped paleontology laboratory to a point ready for curation no more than 60 days after all analyses are completed. Preparation will include the careful removal of excess matrix from fossil materials and stabilizing and repairing specimens, as necessary. Following laboratory work, all fossils specimens will be identified to the lowest taxonomic level, cataloged, analyzed, and delivered to an accredited museum repository for permanent curation and storage. The cost of curation is assessed by the repository and is the responsibility of the Applicant.

Recreation

R-1a **Coordinate construction schedule and activities with a representative for the recreation area.** No less than 30 days prior to construction that would affect recreation areas, SCE shall coordinate construction activities and the project construction schedule with a representative of the recreation areas listed below. SCE shall use best efforts to schedule construction activities to avoid heavy recreational use periods, including major holidays, in coordination with the representative. If SCE is unable to accommodate this avoidance, it will notify the CPUC and BLM as to the dates and reasons they are not able to comply. SCE shall locate construction equipment to avoid temporary preclusion of recreation area use whenever feasible per the recommendations of the representative. SCE shall also prepare a public notice of construction activities consistent with Mitigation Measure LU-1a (Prepare Construction Notification Plan). SCE shall document its coordination efforts with the representative, and provide this documentation to the CPUC and the BLM 30 days prior to construction.

- Rancho Mediterrania Park
- South Hills Preserve
- Lillian V. Miller Memorial Trail
- Rest areas
- Stetson Community Park
- Noble Creek Regional Park
- Trevino Community Park
- Bike lane on Barton Road, Beaumont Avenue, Drainage and SCE Corridor Class I path, Cherry Avenue
- Norton Younglove Preserve
- San Timoteo Canyon State Park
- Cherry Valley Lakes RV Campground
- Oak Valley Golf Club and Park
- Pacific Crest Trail

R-1b **Coordinate with local agencies to identify alternative recreation areas.** SCE shall coordinate with the local parks and recreation departments regarding construction activities at the park and recreation facilities listed in R-1a, in order to identify alternative recreation sites that may be used by the public. SCE shall post a public notice at recreation facilities to be closed or have limited access during construction consistent with Mitigation Measure LU-1a (Prepare Construction Notification Plan) as allowed by the facility representative and identify any alternative recreation sites. SCE shall document its coordination with the parks and recreation departments and shall submit this documentation to the CPUC and the BLM 30 days prior to initiating project construction.

R-1c **Provide a temporary detour for Pacific Crest National Scenic Trail users.** No less than 60 days prior to construction affecting the PCT, SCE shall coordinate with the USFS to establish a temporary detour of the trail during trail closure to avoid hazardous construction areas. SCE shall prepare a public notice of the temporary trail closure and information on the trail detour consistent with Mitigation Measure L-1a (Prepare Construction Notification Plan). SCE shall document its coordination efforts with the USFS and submit this documentation to the CPUC and the BLM 30 days prior to construction.

Transportation and Traffic

T-1a **Prepare Construction Transportation Plan.** Where construction traffic has the potential to significantly affect regional and local roadways by generating additional vehicle trips, SCE shall prepare a Construction Transportation Plan (CTP) describing timing of commutes, methods of reducing crew-related traffic, and other methods for reducing construction-generated additional traffic on regional and local roadways. The CTP also shall require construction workers to park personal vehicles at yards or designated assembly points and carpool to work locations in order to limit the number of construction-related vehicles on the road. At construction sites, vehicles shall be required to park within the project ROW or approved disturbance areas or on access roads to the maximum extent possible. Parking shall not be permitted in areas with dry vegetation that could pose a fire hazard. SCE shall submit the CTP to Caltrans and the affected local jurisdictions for review and approval at least 30 days prior to commencing construction activities.

At least 15 days prior to construction, SCE shall provide a letter or email to CPUC and BLM confirming that the mitigation measure has been executed and shall provide a copy of the final CTP. This communication shall identify persons or agencies contacted, contact information, and the date of contact, and shall summarize discussions and/or agreements reached, if any.

T-1b **Prepare Traffic Control Plans.** Prior to the start of construction and as part of the required traffic encroachment permits, SCE shall submit Traffic Control Plans (TCPs) to agencies with jurisdiction over the public roads that would be affected by overhead or underground construction. The measures included in the TCPs shall be consistent with the California Joint Utility Traffic Control Manual and the standard guidelines outlined in the Caltrans Traffic Manual, the Standard Specifications for Public Works Construction, the U.S. Department of Transportation's Manual on Uniform Traffic Control Devices (MUTCD), and the Work Area Traffic Control Handbook (WATCH).

Road Safety

TCPs shall identify:

- the locations of all roads or traffic lanes that would need to be temporarily closed due to construction activities, including aerial hauling by helicopter and conductor stringing activities
- the use of flag persons, warning signs, lights, barricades, cones, and similar means to provide safe work areas and to warn, control, protect, and expedite vehicular and pedestrian traffic
- use of guard poles, netting, or similar means to protect moving traffic and structures for any construction or installation work requiring the crossing of a local street, highway, or rail line
- the use of continuous traffic breaks operated by the California Highway Patrol on state highways

- measures to avoid disruptions or delays in access for emergency service vehicles (such as immediately stopping work for emergency vehicle passage, short detours, and alternate routes developed in conjunction with local agencies).

Emergency Services

Police departments, fire departments, ambulance services, and paramedic services shall be notified at least 30 days in advance by SCE of the proposed locations, nature, timing, and duration of any construction activities affecting roads and advised of any access restrictions that could impact their effectiveness. TCPs shall also include measures ensuring work crews are ready at all times to accommodate emergency vehicles, such as having the ability to immediately stop work for emergency vehicle passage and implement short detours and alternate routes developed in conjunction with local agencies. TCPs also shall identify all emergency service agencies, include contact information for those agencies, assign responsibility for notifying service providers, and specify coordination procedures.

Copies of the TCPs shall be provided to the CPUC, BLM, Caltrans, the planning or traffic departments of the affected local jurisdictions, and all affected police departments, fire departments, and ambulance and paramedic services. Documentation of coordination with service providers shall be provided to the CPUC and BLM at least 30 days prior to the start of construction.

T-1c **Restrict lane closures.** To minimize traffic congestion and delays during construction, SCE shall restrict all necessary lane closures or obstructions on major roadways (as designated by applicable County and City General Plans) associated with overhead construction activities to off-peak traffic periods. Unless absolutely necessary, lane closures must not occur between the peak hours of 6:00 and 9:00 a.m. and 3:30 and 6:30 p.m., or as directed in writing by the affected public agency in the encroachment permit

T-1d **Minimize disruption of bus and transit service.** SCE shall coordinate with local and regional agencies or organizations providing regular bus or transit service in the project area at least 30 days prior to construction to reduce potential interruption of these services. At least 15 days prior to construction, SCE shall provide a letter or email to CPUC and BLM confirming that the mitigation measure has been executed. This communication shall identify persons or agencies contacted, contact information, and the date of contact, and shall summarize discussions and/or agreements reached, if any.

T-1e **Ensure pedestrian and bicycle circulation and safety.** Where construction will result in temporary closures of sidewalks or other pedestrian facilities, SCE shall provide temporary pedestrian access, through detours or safe areas along the construction zone. Where construction activity will result in bike route or bike path closures, appropriate detours shall be established, and detour signs shall be posted. Detours and closures required for safe pedestrian and bicycle access through or around the construction area shall be identified in a circulation plan included in the TCP's required under Mitigation Measure T-1b. All detours and related signage shall be consistent with the standard guidelines outlined in the U.S. Department of Transportation's Manual on Uniform Traffic Control Devices (MUTCD).

T-1f **Provide access to property.** When construction activities block access to a property and the property includes a residence or business, SCE shall work with the property owner, tenant, or business owner to provide reasonable alternate access. If construction involves trenching across or in front of the property's point of access and alternative access is not available, SCE shall lay a temporary steel plate trench bridge as needed and upon request in order to ensure access when not actively constructing at the affected location.

T-3a **Avoid conflicts with planned transportation improvements.** Prior to final project design, SCE shall review project plans with Caltrans and local traffic departments or public works departments of the counties and the individual cities through which the proposed transmission route would pass. The review will be conducted to identify planned transportation projects potentially affected, to ensure that Project structures are placed to avoid conflict with any planned transportation projects, and to inform the jurisdictions of the timing and location of any trenching or boring that may affect road surfaces and the flow of traffic. If there are conflicts they shall be addressed through mutual agreement of SCE and the jurisdiction.

At least 15 days prior to construction, SCE shall provide a letter or email to CPUC and BLM confirming that the mitigation measure has been executed. This communication shall identify persons or agencies contacted, contact information, and the date of contact, and shall summarize discussions and/or agreements reached.

T-4a **Repair roadways damaged by construction activities.** If roadways, sidewalks, medians, curbs, shoulders, or other such features are damaged by the project's construction activities, as determined by the affected public agency, such damage shall be repaired and streets restored to their pre-project condition by SCE. Prior to construction, SCE shall confer with agencies having jurisdiction over the roads anticipated to be used by delivery vehicles and equipment. Unless an alternative method for determining roadway condition is required by a given jurisdiction, at least 30 days prior to construction, SCE shall photograph or video record all construction route public roads within 500 feet in each direction of project access points (i.e., locations where vehicles leave public roads to reach project sites) and roadways where the road surface will be damaged by project-related trenching or digging, and shall provide the respective local jurisdictions, CPUC, BLM, and Caltrans (if applicable) with a copy of these images.

At least 15 days prior to construction, SCE shall provide a letter or email to CPUC and BLM confirming that the mitigation measure has been executed. This communication shall identify persons or agencies contacted, contact information, and the date of contact, and shall summarize discussions and/or agreements reached.

At the end of major construction, SCE shall coordinate with each affected jurisdiction to confirm what repairs would be required. Any damage shall be repaired to the pre-construction condition within 60 days from the end of all construction, or on a schedule mutually agreed to by SCE and the jurisdiction. SCE shall provide CPUC and BLM confirming documentation when the coordination has been completed and when the repairs have been completed.

T-5a **Obtain required permits or approvals for crossing or working in railroad rights-of-way.** SCE shall obtain permits/approvals from affected railway operators (Union Pacific

Railroad and Burlington Northern Santa Fey Railway) to ensure that project construction activities in the rail ROW comply with each company's safety requirements and to avoid disruption to rail traffic. Copies of required permits or approvals shall be submitted to the CPUC and BLM prior to construction in or across rail ROWs.

T-6a **Notify public of short-term elimination of public parking spaces.** As required in Mitigation Measure LU-1a, prior to construction activity on major roadways, using media such as local newspapers and on-site postings, SCE shall notify the public of the potential for public parking spaces to be temporarily eliminated and identify where temporary parking spaces would be located. This requirement shall apply when more than five parking spaces are affected. The elimination of parking and location of alternative parking must be in conformance with the requirements of agencies responsible for parking management.

T-7a **Prepare and implement a final helicopter use plan.** SCE and its contractor shall prepare and obtain approval of a Final Helicopter Use Plan prior to using helicopters to transport personnel, materials, or equipment for the deconstruction of existing project facilities or construction of new or replacement project facilities. The Final Helicopter Use Plan shall draw upon protocols and methods used on previous transmission line projects and shall be submitted to CPUC and BLM for approval.

The Federal Aviation Agency (FAA) has jurisdiction over U.S. airspace, aircraft, aircraft operations, airports, and pilots. To the extent that they do not conflict with any FAA requirements, the following shall apply to helicopter use and be incorporated in the Final Helicopter Use Plan.

- All aircraft and pilots shall be in full compliance with applicable FAA requirements and standards.
- On the prior day, helicopter flight information shall be provided to CPUC/BLM monitors regarding the specific sites to be used for helicopter picks and the destination of the materials or assemblages being lifted out.
- Daily flight notifications shall be issued by e-mail prior to commencement of any project flight activity. Information provided in the e-mail shall include pilot name, contact number, aircraft type, aircraft registration number, aircraft color, work/flight area, beginning time, estimated completion time, and scope of work. This information will be provided to CPUC/BLM monitors as well.
- The specific facilities, towers, poles, and spans requiring deconstruction or construction using helicopters shall be identified.
- Temporary staging of materials and assembly of tower sections outside of approved yards shall not occur without prior approval of CPUC or BLM, as appropriate.
- The yards to and from which helicopters would fly (fly yards) shall be identified and shall be of sufficient size to ensure safe operations, given the other activities occurring at the yards and the vicinity.
- Fly yards shall be sufficiently far from occupied residences to not create an unacceptable level of noise or dust.

- The means used for dust and noise control and for safe refueling shall be specified for each fly yard.
- Flight paths that minimize flights near schools, hospitals, nursing homes, and other sensitive group receptors shall be identified and followed.
- Except in an emergency, helicopters shall land or hover near the ground only in areas previously approved for landing, and all dust control and biological and cultural resource protection requirements shall apply.
- External loads will be secured by appropriate rigging, including boxing, netting, choking, and cabling, or other suitable means. Only qualified riggers shall prepare and attach external loads to helicopters, and rigging shall be appropriate to the nature of the load, including the use of devices as necessary to prevent materials being lost in flight. Where appropriate to reduce load in-flight spinning and movement, drag chutes will be attached to loads. The need for drag chutes will be determined by the pilot and rigging personnel, where appropriate. At locations where rigging is to occur, a sufficient supply of appropriate rigging and containment materials in good repair shall be on hand at all times.
- All aircraft are to be configured with weight sensors such that, when preparing to haul external loads, the pilot is able to determine the weight of the load being lifted.
- Yards or landing zones shall have a designated qualified individual managing the movement of aircraft in and out of the yard or landing zone when flight activity is high.
- Appropriate protocols for communication among pilots and between pilots and the ground shall be developed and implemented.
- A GPS-based data system shall be installed in each aircraft
  - -- The system shall identify for the pilot all project-approved project flight paths and those areas where overflights are restricted (such as seasonally restricted bird nesting areas and sensitive residential or institutional areas), and shall be updated as often as any flight restrictions are implemented or lifted.
  - -- The system shall automatically record and preserve flight data sufficient to identify the aircraft's flight path, including altitude above ground. The system shall be capable of providing the information required with regard to flight path and aircraft identifier, and provide a location "ping" no less frequently the once every 3 seconds. These data shall be collected daily and maintained by SCE or its contractor for a period of no less than six months and made available to CPUC or BLM upon request.

The Helicopter Use Plan shall be submitted to CPUC and BLM for review and approval at least 60 days prior to the use of helicopters on the project. Once the Helicopter Use Plan is made final, a copy shall be provided as a courtesy to each jurisdiction through which the Project passes.

T-8a **Obtain FAA review and approval of all structures and spans posing potential aircraft safety hazards.** SCE shall submit the required forms and information to FAA for its review and approval of transmission structures and conductor spans that may require

installation of safety devices or other restrictions. Copies of FAA's review and approval shall be provided to CPUC and BLM at least 60 days prior to erection of structures or installation of conductors that would be in violation of FAA standards and requirements. These structures and spans shall be identified to CPUC and BLM, and the planned installation of required lighting and marker balls described.

Utilities and Public Services

UPS-1a **Use non-potable water for construction purposes.** Project water supply for dust control, soil compaction activities, and site restoration/revegetation shall be obtained from non-potable sources, as feasible, and ensured in a water contract through a local water agency or district. The Applicant shall provide a letter describing the availability of non-potable water and efforts made to obtain it for use during construction to the CPUC and BLM a minimum of 60 days prior to the start of construction.

UPS-2a **Protect pipelines and overhead and underground utilities.** Prior to commencing construction, SCE shall perform engineering studies to determine whether and what cathodic protection would be required on pipelines potentially affected. SCE shall submit to the CPUC and BLM written documentation of the following:

- Evidence of coordination with all pipeline and utility owners with facilities in the vicinity of planned construction, including their review of SCE's construction plans and a description of any protective measures or compensation to be implemented to protect affected facilities;
- Copy of the Applicant's database of emergency contacts for pipelines and utilities that may be in close proximity or require monitoring during construction of the project; and
- Evidence that the project meets all applicable local requirements.

Visual Resources

VR-1a **Screen construction activities from view.** Construction yards, staging areas, and material and equipment storage areas shall be visually screened using temporary screening fencing. Fencing will be of an appropriate structure, material, and color for each specific location. This requirement shall not apply if SCE can demonstrate that construction yards are located away from areas of high public visibility including public roads, residential areas, and public recreational facilities. For any site that SCE proposes to exempt from the screening requirement, SCE shall define the site on a detailed map demonstrating its visibility from nearby roads, residences, or recreational facilities to the CPUC and BLM for review and approval at least 60 days prior to the start of construction at that site.

VR-2a **Minimize vegetation removal and ground disturbance.** Only the minimum amount of vegetation necessary for the construction of structures and facilities shall be removed during construction. **.** At the structure locations defined in Table D.18-11, structure and access road scars may be highly visible when located on hill slopes and along ridges, or when visible from elevated vantage points. In order to reduce visual impacts, the boundaries of all areas to be disturbed at the locations defined in Table D.18-11 shall be delineated consistent with the requirements of Biological Resources Mitigation Measure VEG-1c. Staking shall define staging areas, access roads, spur roads, tower locations, pulling sites, and sites for temporary placement of spoils. Stakes and flagging shall be installed before construction and in consultation with the Project Biologist and the CPUC/BLM Environmental Monitor or Visual Specialist. Areas staked shall be as small as possible in order to minimize the visibility of ground disturbance from sensitive viewing locations such as roads, trails, residences, and recreation facilities and areas. Parking areas and staging and disposal site locations shall be similarly located in areas approved by the Project Biologist and CPUC/BLM's Environmental Monitor or Visual Specialist prior to the start of construction. All disturbances by Proposed Project vehicles and equipment shall be confined to the staked and flagged areas.

VR-3a **Reduce color contrast of retaining walls, land scars, and graveled surfaces.** Where construction would unavoidably create land scars or retaining walls visible from sensitive public viewing locations (as defined in Table D.18-11), disturbed soils and new walls shall be treated with an appropriate color or material (Natina Concentrate, Eonite, or Permeon, or similar). The material shall be approved by the CPUC and BLM, and the intent shall be to reduce the visual contrast created by the lighter-colored disturbed soils and rock with the darker soil and vegetated surroundings. SCE shall consult with the CPUC and BLM and/or their authorized representative(s) on a site-by-site basis and obtain written approval prior to the use of any colorants.

VR-4a **Minimize in-line views of retaining walls and land scars.** In its final Project design, SCE shall incorporate design features that reduce the in-line visibility of all access and spur roads, retaining walls, and ground disturbance areas at the locations defined in Table D.18-11. These design features include alternative access and spur road routes, the use of "drive and crush" access, and redesign and placement of retaining walls to reduce the need for new roads and retaining walls and to reduce or eliminate the in-line visibility of these facilities. SCE's final design shall document the process used to

minimize visibility of the access roads or other visible road features and shall include the following:

- Vegetation that would be affected and steepness of terrain for consideration of vegetation and erosion impacts.
- Areas where "drive and crush" access is a feasible measure to avoid access road scars (i.e., no grading or vegetation removal is required). SCE shall define frequency of driving, vehicle types to be used, and likelihood of vegetation recovery.
- This documentation shall be provided to the CPUC/BLM at least 90 days prior to the start of construction.

VR-5a **Prohibit construction marking of natural features.** SCE shall not apply paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits or for any other purpose. This measure does not apply to temporary marking agents used to identify underground utilities.

VR-7a **Minimize night lighting at project facilities.** SCE shall avoid night lighting where possible and minimize its use under all circumstances. To ensure this, SCE shall prepare a Night Lighting Management Plan for both construction and operation, incorporating the following general principles and specifications:

- Use of portable truck-mounted lighting.
- Emphasis on use of low-pressure sodium (LPS) or amber light-emitting diode (LED) lighting.
- White lighting (metal halide) would: a) only be used when necessitated by specific work tasks; b) would not be used for dusk-to-dawn lighting; and c) would be less than 3500 Kelvin color temperature.
- All lamp locations, orientations, and intensities including security, roadway, and task lighting.
- Each light fixture and each light shield.
- Total estimated outdoor lighting footprint expressed as lumens or lumens per acre.
- Detailed list of anticipated circumstances and activities that would require night lighting including the expected frequency of the activity, the duration of the activity, and the expected amount of lighting that would be necessary for that activity.
- Light fixtures that could be visible from beyond project facility boundaries shall have cutoff angles sufficient to prevent lamps and reflectors from being visible beyond the project facility boundary, including security lighting.
- Motion sensors and other controls to be used, especially for security lighting such that lights operate only when the area is occupied.
- Surface treatment specification that will be employed to minimize glare and sky glow.

The Night Lighting Management Plan shall also consider the following factors:

- All temporary construction lighting and permanent exterior lighting shall include: (a) lamps and reflectors that are not visible from beyond the construction site or facility including any off-site security buffer areas; (b) lighting that shall not cause

excessive reflected glare; (c) direct lighting that shall not illuminate the nighttime sky, except for required FAA aircraft safety lighting (which, if required, shall be an on-demand, audio-visual warning system that is triggered by radar technology); (d) minimization of illumination of the Proposed Project and its immediate vicinity; (e) creation of sky glow caused by project lighting shall be avoided; and (f) compliance with local policies and ordinances to be outlined in the Night Lighting Management Plan. All permanent light sources shall be below 3,500 Kelvin color temperature (warm white) and shall be full cutoff fixtures.

- Always-on security lighting is to be limited to one low-wattage, fully shielded, full cutoff light fixture at the main entrance to facilities. All other security lighting is to be motion activated only through the use of passive infrared sensors and controlled as specific zones such that only targeted areas are illuminated. No other lighting is to be utilized on a nightly basis when a facility is not occupied.
- Lighted nighttime maintenance is to be minimized or avoided as a routine practice and should occur only during emergencies.

The draft Night Lighting Management Plan shall be submitted to the CPUC and BLM at least 60 days prior to the start of construction. Following the BLM's and CPUC's review of the draft plan, and at least 15 days prior to the start of construction, SCE shall submit to the CPUC and BLM for review and approval, a final Night Lighting Management Plan. Construction activities shall not start until CPUC's and BLM's approvals of the plan have been received.

VR-8a **Minimize visual contrast in project design.** In the final design of approved project structures in locations identified in the Final EIR (pages D.18-62, D.18-64) as having Class I impacts, SCE shall use design fundamentals that reduce the visual contrast of new structures and components to the characteristic landscape to the extent feasible. These include siting and location; reduction of visibility; repetition of form, line, color, and texture of the landscape; and reduction of unnecessary disturbance. SCE shall provide to the CPUC and BLM for review, a draft Project Design Plan describing the siting, placement, and other design considerations to be employed to minimize Proposed Project contrast. The plan must explain how the design will minimize visual intrusion and contrast by blending the earthwork, vegetation manipulation, and facilities with the landscape. Design strategies to address these fundamentals shall be based on the following factors.

- **Earthwork**. Select locations and alignments that fit into the landforms to minimize the sizes of cuts and fills.
- **Vegetation Manipulation**. Use existing vegetation to screen graded areas and facilities from public viewing to the extent feasible. Feather and thin the edges of cleared areas and retain a representative mix of plant species and sizes.
- **Reclamation and Restoration**. Blend the disturbed areas into the characteristic landscape including access and spur roads and disturbed areas created during construction (transmission line structures, and construction yards and staging areas). Replace soil, brush, rocks, and natural debris over these disturbed areas. Newly introduced plant species shall be of a form, color, and texture that blend with the landscape.

The Project Design Plan shall be submitted to CPUC and BLM at least 60 days prior to the start of construction. If the CPUC or BLM notifies SCE that revisions to the plan are needed before the plan can be approved, within 30 days of receiving that notification, SCE shall submit a revised plan. Once the plan is made final, SCE shall provide a copy as a courtesy to the incorporated cities and county jurisdiction where the significant visual impacts have been identified.

VR-9a **Treat structure surfaces.** For locations of the project identified in the Final EIR (pages D.18-62, D.18-64) as having significant and unmitigable impacts (Class I), SCE shall treat the surfaces of all structures and new buildings visible to the public such that: a) their colors minimize visual contrast by blending with the characteristic landscape colors; and b) their colors and finishes do not create excessive glare. The transmission structures and conductors within these locations shall be non-specular and non-reflective, and the insulators shall be non-reflective and non-refractive. SCE shall consider the use of special galvanizing treatments or post-manufacture application of chemical treatments (such as Natina Steel) to ensure that transmission structures are sufficiently dulled and non-reflective and are of the appropriate color to blend effectively with the surrounding landscape. SCE shall comply with CPUC and BLM requirements regarding appropriate surface treatments for Proposed Project elements.

SCE shall provide to the CPUC and BLM for review, a draft Surface Treatment Plan describing the application of colors and textures to all new facility structures, buildings, walls, fences, and components comprising all facilities to be constructed within these locations. The draft Surface Treatment Plan must explain how the design will reduce glare and minimize visual intrusion and contrast by blending the facilities with the landscape. The draft plan shall be submitted to CPUC and BLM at least 60 days prior to ordering the first structures that are to be color-treated during manufacture or prior to construction of any of the facility components, whichever comes first. If the BLM or CPUC notifies SCE that revisions to the plan are needed before the plan can be approved, within 30 days of receiving that notification, SCE shall prepare and submit for review and approval a revised plan. The draft Surface Treatment Plan shall include the following components and specifications.

- Specification, and 11” x 17” color simulations at life-size scale, of the treatment proposed for use on structures, including structures treated during manufacture.
- A list of each major structure, building, tower and/or pole, and fencing specifying the color(s) and finish(es) proposed for each (colors must be identified by name and by vendor brand or a universal designation).
- Two sets of brochures and/or color chips for each proposed color.
- A detailed schedule for completion of the treatment.
- A procedure to ensure proper treatment maintenance for the life of the Proposed Project.
- Until SCE receives notification of approval of the Surface Treatment Plan by the CPUC and BLM, SCE shall not specify to the vendors the treatment of any buildings or structures for manufacture and shall not perform the final treatment on any buildings or structures treated on site. Additionally, construction activities shall not start until approval of the plan from the CPUC and BLM has been received. Within 14 days

following the completion of treatment on any facility component, SCE shall notify the CPUC and BLM that the component (e.g., structure or building) is ready for inspection.

Water Resources and Hydrology

WR-2a **Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** SCE shall develop and submit an Erosion Control Plan to the CPUC and BLM at least 60 days prior to construction. The Erosion Control Plan may be part of the Stormwater Pollution Prevention Plan, and kept onsite and readily available on request.

Soil disturbance at structures and access roads is to be minimized and designed to prevent long-term erosion. The Erosion Control Plan shall include:

- The location of all soil-disturbing activities, including but not limited to new and/or improved access and spur roads.
- The location of all streams and drainage structures that would be directly affected by soil-disturbing activities (such as stream crossings or public storm drains by the right-of-way and access roads).
- BMPs to protect drainage structures, such as public storm drains, downstream of soil disturbance activities.
- Design features to be implemented to minimize erosion during construction and during operation (if the project feature is to remain permanent after construction).
- If soil cement is proposed, the specific locations must be defined in the Plan, and evidence of approval by the appropriate jurisdiction shall be submitted to the CPUC and BLM prior to its use.
- If design features include the use of retaining structures and/or walls, the design of the features shall be consistent with Mitigation Measure VR-3a (Reduce color contrast of retaining walls and land scars).
- The location and type of BMPs that would be installed to prevent off-site sedimentation and to protect aquatic resources.
- Specifications for the implementation and maintenance of erosion control measures and a description of the erosion control practices, including appropriate design and installation details.
- Proposed schedule for inspection of erosion control/SWPPP measures and schedule for corrective actions/repairs, if required. Erosion control/SWPPP inspection reports shall be provided to the CPUC EM.

Locations requiring erosion control/SWPPP corrective actions/repairs shall be tracked, including dates of completion, and documented during inspections. Inspections and monitoring shall be performed in compliance with the Federal and California Construction General Permits. The inspection reports shall be maintained and kept in their respective SWPPP, kept on site as required by the Federal and State Construction General Permits, and made available to the RWQCB, CPUC, BLM, counties, local municipalities, and tribal governments, on request. Additionally, an Annual Report shall be filed for each reporting period in compliance with Federal and California Construction General Permit reporting requirements.

SCE shall submit to the CPUC and BLM Grading Plans that define the locations of the specific features listed above.

SCE shall submit to the CPUC and BLM evidence of possession of applicable required permits for the representative land disturbance prior to engaging in soil-disturbing construction/demolition activities. Such permits may include, but are not limited to, a CWA Section 402 NPDES California General Permit for Storm Water Discharges Associated with Construction Activities (General Permit) from the applicable Regional Water Quality Control Board(s) (RWQCBs), and the Federal General Permit for Storm Water Discharges Associated with Construction Activities on Tribal Land.

Prior to ground disturbance in stream channels or other waters jurisdictional to the State of California or the Federal Government, SCE shall obtain a Streambed Alteration Agreement from the California Department of Fish and Wildlife, a Section 404 permit from the USACE, and a CWA Section 401 certification from the SWRCB.

WR-3a **Implement flood, erosion, and scour protection for aboveground and belowground improvements.** SCE shall make a determination during final project design phase as to the lateral erosion and 100-year scour potential for watercourses near proposed structures and other above-ground features, as well as new underground conduits. This determination shall be made by a registered professional engineer with expertise in river mechanics. If the determination identifies specific structures or underground conduits that may be subject to scour or lateral movement of a stream channel, these structures shall be protected against 100-year scour and/or lateral erosion through modifications of the foundation design, or otherwise in a manner determined to be appropriate by the river mechanics engineer.

SCE shall provide the determination of lateral erosion and scour potential, and documentation of corrective actions and the engineering basis thereof, to the CPUC and BLM prior to the start of construction (as defined in Mitigation Measure EM-1a (Prepare monitoring plan).

SCE shall evaluate and conform to NPDES MS4 Phase I and II requirements for post-construction BMPs and, in consultation with San Bernardino and Riverside Counties and applicable local jurisdictions and agencies, prepare or conform to existing Water Quality Management Plans where determined necessary.

Wildland Fire

WF-1a **Prepare and implement a Fire Management Plan.** A Project-specific fire prevention plan for both construction and operation of the project shall be prepared by SCE and submitted to for review prior to initiation of construction. The draft copy of this Plan is to be provided to each fire agency at least 90 days before the start of any construction activities in areas designated as Very High or High Fire Hazard Severity Zones. Plan reviewers shall include CPUC, BLM, CAL FIRE, San Bernardino and Riverside Counties, and local municipal fire agencies with jurisdiction over areas where the project is located. Comments on the Plan shall be provided by SCE to all other participants, and SCE shall resolve each comment in consultation with CAL FIRE, BLM, and the Morongo Fire Department, as appropriate. The final Plan shall be approved by these agencies at least 30 days prior to the initiation of construction activities. SCE shall fully implement the Plan during all construction and maintenance activities.

A project Fire Marshal or similar qualified position shall be established by SCE to enforce all provisions of the Fire Management Plan as well as perform other duties related to fire detection, prevention, and suppression for the project. SCE shall monitor construction activities to ensure implementation and effectiveness of the plan.

The Plan shall include at a minimum SCE's Specification E-2005-104 (Transmission line Project Fire Plan), including any updates and amendments, and other requirements specified below.

The plan should recognize and prepare for the high probability that fast moving, wind driven wildfires will burn adjacent or through the Proposed Project with some regularity as the result of severe fire weather conditions, flash fuels such as provided by perennial grasslands, and abundant ignition sources. Wind driven fires can quickly overcome operational and maintenance crews, placing their health and safety at risk.

The Plan shall cover:

- The purpose and applicability of the plan;
- Responsibilities and duties;
- Preparedness training and drills;
- Procedures for fire reporting, response, and prevention that include
  - -- identification of daily site-specific risk conditions
  - -- the tools and equipment needed on vehicles and to be on hand at sites
  - -- reiteration of fire prevention and safety considerations during tailboard meetings
  - -- daily monitoring of the red-flag warning system with appropriate restrictions on types and levels of permissible activity,
- Coordination procedures with BLM and San Bernardino and Riverside County fire officials.
- Crew training, including fire safety practices and restrictions,
- Method for verification that Plan protocols and requirements are being followed.

Electrical Interference and Safety

EIS-1a **Limit the conductor surface gradient.** As part of the design and construction process for the project, SCE shall limit the conductor surface gradient in accordance with the Institute of Electrical and Electronic Engineers Radio Noise Design Guide.

EIS-1b **Document and resolve electronic interference complaints.** After energizing the transmission line, SCE shall respond to, document, and resolve radio/television/electronic equipment interference complaints received. These records shall be made available to the CPUC and BLM for review upon request. All unresolved disputes shall be referred by SCE to the CPUC for resolution.

EIS-2a **Implement grounding measures.** As part of the siting and construction process, SCE shall identify objects (such as metal fences, metal buildings, and metal pipelines) within and near the right-of-way that have the potential for induced voltages and shall implement electrical grounding of metallic objects in accordance with SCE's standards. The identification of objects shall document the threshold electric field strength and metallic object size at which grounding becomes necessary.

Applicant Proposed Measures

The following Applicant Proposed Measures (APMs) were identified by SCE in its Proponent's Environmental Assessment submitted to the CPUC. The impact analysis assumes that all APMs would be implemented as defined in the table. In some cases, mitigation measures either expand upon or add detail to the APMs, as necessary to ensure that potential impacts would be reduced to less than significant levels.

Applicant Proposed Measures (APMs)

APM	Description
Air Quality	
APM AIR-1	SCE would prepare an Exhaust Emissions Control Plan to establish a target goal of a project-wide fleet average reduction of 20 percent NO_X compared to the estimated unmitigated emissions as presented in the PEA for applicable diesel-fueled off-road construction equipment of more than 50 horsepower. Acceptable options for reducing emissions could include, but are not limited to: the use of newer model engines meeting USEPA Tier 3 standards if available (or better), low emissions diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other similar available options.
APM AIR-2	SCE would prepare a Fugitive Dust Control Plan to reduce fugitive dust emissions (fugitive PM_{10} and $PM_{2.5}$). Acceptable control measures for reducing emissions described within the Fugitive Dust Control Plan may include, but are not limited to: limit traffic speeds on unpaved roads to 15 mph; apply water as needed to comply with SCAQMD Rule 403 requirements, or apply soil stabilizers (e.g., gravel for substation area) on active unpaved access roads, the substation area, and staging areas if construction activity causes persistent visible emissions of fugitive dust beyond the work area; apply soil stabilizers to inactive construction areas as described in the SWPPP; where applicable, install gravel, shaker plates, or other BMPs at the point of intersection with public paved surfaces. The Fugitive Dust Control Plan would describe how the measures would be implemented and monitored during Project construction. Furthermore, as construction details become available, the Fugitive Dust Control Plan would include site-specific mitigation measures for Project areas that could be more likely to generate dust near sensitive receptors.
Biology	
APM BIO-1	**Revegetation Plan.** Prior to starting construction, a draft revegetation plan would be prepared to guide the revegetation of those areas subject to temporary project impacts during construction and that are not included within either the WR-MSHCP or CV-MSHCP (e.g., land areas within the Morongo Reservation or San Bernardino County), and where dominant land cover consists of native vegetation. The objective of revegetation would be to re-establish vegetation back to pre-construction conditions (e.g., by maintaining roughly equivalent or comparable native to non-native dominance patterns) with consideration of adjacent community composition. Areas dominated primarily by non-native vegetation and that are temporarily disturbed by construction activities may also be revegetated; however, the primary objective for those areas would be to stabilize soils to minimize erosion potential in accordance with any applicable SWPPP requirements. Prior to completing construction activities, the revegetation plan would be finalized to address site-specific conditions, methodology and technique, implementation schedule, monitoring and maintenance, and success criteria. The revegetation plan would also direct revegetation of temporarily impacted native-dominated vegetation areas located in the WR-MSHCP and the CV-MSHCP plan areas consistent with MSHCP standards and pursuant to any agreements negotiated between SCE and the MSHCP management entities (e.g., RCA and CVCC) regarding SCE's obligations as a PSE receiving coverage for impacts to various resources. If SCE does not gain PSE status under either MSHCP, the draft revegetation plan to re-establish native-dominated vegetation back to pre-construction conditions (as noted above) would include native dominated areas within MSHCP areas also. The draft revegetation plan would be submitted to the CPUC, BLM, and applicable wildlife agencies for approval after completion of final engineering and prior to the start of construction. The Revegetation Plan will include the following elements: (a) A statement of revegetation goals for different areas within the project (e.g., to mitigate project impacts to

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APM	Description
	specific resources) based on the administrative land jurisdiction particular areas fall in and also based on the different vegetation types and the constituent elements therein. In particular, revegetation objectives for areas supporting native vegetation may differ substantially from the objectives for revegetation in other areas. Revegetation objectives will be specified for different habitat and vegetation types and for the following administrative areas: 1) San Bernardino County, including specific reference to goals for revegetation within USFWS-designated Critical Habitat for California gnatcatcher and areas deemed occupied by Stephens' kangaroo rat; 2) WRC MSHCP areas, including Public/Quasi-Public conservation areas and Additional Reserve Lands; 3) CVMSHCP areas; and 4) areas to be re-vegetated on land within the Morongo Reservation. Examples of likely goals may include preventing or minimizing further site degradation; stabilizing soils; promoting passive vegetation recovery over time; replacing degraded natural vegetation and habitat value with equivalent vegetation cover and composition as compared to pre-construction conditions; and minimizing soil erosion, dust generation, and weed invasions. (b) Quantitative success criteria. Because restoration goals will differ according to location, success criteria shall be tailored appropriately to areas in different administrative jurisdictions (please see above) and will also be defined specifically for areas containing habitat for listed species and other special-status species for which habitat value is being replaced along the route. (c) Implementation. The Plan will describe SCE's proposed implementation measures, including: (a) pre-construction characterization of specific areas subject to temporary construction impacts; (b) soil preparation measures, including locations of recontouring, decompacting, soil amendments, imprinting, or other treatments; (c) details for top soil salvage and storage, as applicable; (d) plant material collection and acquisition guidelines, including guidelines for obtaining plants or seed from vendors; (e) scheduling and methods for planting or seeding; (f) proposed irrigation methods. (d) Maintenance. The Plan will include scheduling and methods for proposed maintenance activities such as weeding, trash removal, etc. (e) Monitoring and Reporting. The Restoration Plan will include a detailed monitoring and reporting program, commensurate with the goals and success criteria for each revegetation site. The monitoring and reporting program will be designed to evaluate progress toward success criteria at appropriate milestones, provide an objective determination whether each site meets success criteria at the end of the monitoring period, and report this information to the relevant agencies. (f) Contingency. The Plan will include contingency measures for implementation if revegetation efforts make insufficient progress toward success criteria at specified milestones
APM BIO-2	**Biological Monitoring.** Where special-status species (e.g., reptiles, birds, mammals, and bat roosts) or unique resources (defined by regulations and local conservation plans) are known to occur, biologists would monitor construction activities, unless otherwise mitigated for or as appropriate actions are described in species-specific APMs.
APM BIO-3	**Nesting Birds.** SCE would prepare and implement a Nesting Bird Management Plan to address nesting birds undertaken in collaboration with the CDFW, USFWS, and BLM. The Plan would be an adaptive management plan that may be updated as needed if improvements are identified or conditions in the field change. The Plan would include the following: nest management and avoidance, field approach (survey methodology, reporting, and monitoring), and the Project avian biologist qualifications. The avian biologist would be responsible for oversight of the avian protection activities including the biological monitors. In order to minimize impacts to nesting birds during nesting season, pre-construction surveys and regular sweep surveys of active construction areas by a qualified biologist would focus on breeding behavior and a search for active nests within 500 feet of the project disturbance areas where survey access is not limited. (a) For vegetation clearing that needs to occur during the typical nesting bird season (February 1 to August 31; as early as January 1 for raptors) qualified biologists would conduct nesting bird surveys. If an active nest (e.g., nests with eggs or chicks) was located, the appropriate avoidance and minimization measures from the management plan would be implemented. If it is determined that removal of an active nest is required, the project avian biologist will evaluate the appropriate level of consultation with CDFW, USFWS, and BLM; (b) During the typical nesting bird season, SCE would conduct pre-construction clearance surveys no more than 14 days prior to initial start of construction and in accordance with the adaptive management plan, to determine the location of nesting birds and territories;

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APM	Description
	(c) Nest monitoring would be conducted by Project biological monitors with knowledge of bird behavior under the direction of a BLM and/or CDFW approved avian biologist; (d) Nesting deterrents (e.g. mooring balls, netting, etc.) could be used for inactive nests where appropriate at the direction of the Project avian biologist; (e) A Project avian biologist would determine the appropriate buffer area around active nest(s) and provisions for buffer exclusion areas (e.g. highways, public access roads, etc.) along with construction activity limits. Unless restricted by the Project avian biologist, construction vehicles would be allowed to move through a buffer area with no stopping or idling. The Project avian biologist would determine, evaluate, and modify buffers as appropriate based on species tolerance and behavior, the potential disruptiveness of construction activities, and existing conditions; and (f) The Project biological monitor would observe and document implementation of appropriate buffer areas around active nest(s) during project activities. The active nest site and applicable buffer would remain in place until nesting activity concluded. Nesting bird status reports would be submitted according to the management plan.
APM BIO-4	**Burrowing Owl.** A pre-construction, focused burrowing owl survey would be conducted no more than 30 days prior to commencement of ground-disturbing activities within suitable habitat to determine if any occupied burrows are present. If occupied burrows are found, adequate buffers shall be established around burrows. Adequate buffers would be determined by a Project Avian biologist based upon field conditions and resource agency guidelines for wintering burrows and breeding season burrows. SCE would develop a Burrowing Owl Management Plan for the Project. The Plan would include information related to construction monitoring, avoidance and minimization measures, relocation strategy, exclusionary devices, and reporting requirements.
APM BIO-5	**Desert Tortoise.** In desert tortoise habitat in Segments 5 and 6, from Deep Creek Road east to Devers Substation, project personnel in non-desert tortoise exclusion fenced areas would be required to inspect for desert tortoises under vehicles prior to moving the vehicle. If a desert tortoise is found beneath a vehicle, the vehicle would not be moved until the tortoise leaves on its own accord, or if necessary, the tortoise may be moved by an Authorized Biologist. If a vehicle must be moved in the event of an emergency, placing a tortoise in harm's way, a USFWS Authorized Biologist may move the tortoise to an appropriate location. All burrows suitable for desert tortoise found during clearance surveys within project ground disturbance areas within desert tortoise habitat, whether occupied or vacant, that would be subject to construction-related disturbance, would be excavated by a Biologist authorized by USFWS, and collapsed or blocked to prevent desert tortoise reentry. All desert tortoise handling, including excavations of nests, would be conducted by a Biologist authorized by USFWS, in accordance with USFWS-approved protocol in compliance with appropriate regulatory permits. Desert tortoise exclusion fencing shall be installed around staging yards within suitable, occupied habitat according to USFWS recommended specifications (USFWS, 2005) and in compliance with appropriate regulatory permits. Trash and food items would be contained in closed containers during construction to discourage attracting opportunistic predators such as ravens.
APM BIO-6	**Least Bell's Vireo, Southwestern Willow Flycatcher, & Western Yellow-billed Cuckoo.** *Pre-construction:* In areas of potentially suitable riparian habitat for the least Bell's vireo (or other listed riparian birds), which occurs in Segment 3 and may occur in limited areas in Segment 4, SCE would conduct non-protocol pre-construction surveys no more than 7 days prior to commencing construction activities to determine the location of nests and territories. Survey areas would include potentially suitable habitat within a 500-foot buffer around project disturbance areas unless property access is not allowed. *Buffer:* If active least Bell's vireo (or other listed riparian bird) nesting activity is identified, SCE's avian biologist would establish a buffer area where construction activities are prohibited around active least Bell's vireo nest(s) and would monitor construction activities to evaluate the adequacy of the buffer. The buffer would be established and may be subsequently adjusted based on construction activities, noise and disturbance levels in the area not attributable to construction, and observed behavior of individual vireos (or as specified by conditions established under a Biological Opinion issued by the U.S. Fish & Wildlife Service or as directed by provisions established under the WR-MSHCP if SCE obtains PSE status).

Applicant Proposed Measures (APMs)

APM	Description
	As SCE intends to apply for PSE status, if granted, potential impacts to the least Bell's vireo would be mitigated by participation in the WR-MSHCP. SCE's participation would include following provisions and measures outlined in the WR-MSHCP. SCE would prepare a Determination of Biological Equivalent or Superior Preservation (DBESP) that would include conservation recommendations similar to those that would be established under a Biological Opinion. The Riverside Conservation Authority (RCA) would request USFWS and CDFW concurrence with the MSHCP "findings of consistency," as well as DBESP approval. Subsequent coordination on any biological issues would be handled through consultation with the RCA. The RCA would determine the need for additional consultation with the USFWS and CDFW. If SCE does not participate in the WR-MSHCP, then any temporary and permanent impacts to least Bell's vireo and its habitat that may occur in Segments 3 and 4 would be mitigated by obtaining an incidental take authorization under the Federal and State Endangered Species Acts and implementing relevant permit conditions.
APM BIO-7	**Special Status Plants.** Pre-construction surveys for plant species assigned a State Rare Plant Rank of 1B would be performed during the appropriate season and observed populations compared to impact area limits associated with final design. If substantial adverse impacts to a population are unavoidable then replacement or translocation of equivalent numbers of plants would be planned and implemented. (Substantially adverse impacts are defined as damage or loss of at least 20 percent of the total number of individuals in a local population within the Project Area or 20 percent of the total area occupied by a population of special status plants. Potential impacts to species ranked 2 or 4 would not be considered significant but may still be avoided to the extent practicable). Special status plants designated on List 1B that are substantially adversely affected would be salvaged and relocated. SCE will prepare plan to accomplish salvage and relocation/replacement that states methods of salvage, storage, and replacement planting of seeds or plants, and to identify receptor sites, set target numbers to be established, describe monitoring methods, and define requirements for maintenance and annual monitoring reports. List 1B species observed in project area include: Yucaipa onion, smooth tarplant, Parry's spineflower, white-bracted spineflower, and chaparral sand verbena.
APM BIO-8	**Coachella Valley Milk-vetch.** Focused surveys for Coachella Valley milk-vetch would be conducted during the appropriate season within designated Critical Habitat along the Whitewater River during the season immediately preceding proposed construction activities in that area. This species was not found during focused surveys conducted in 2011 and 2012. If this species is located and occurs within areas potentially subject to impacts during construction, a plan to avoid impacts, protect specimens in place, and/or salvage and replace affected specimens would be developed in consultation with the CVCC, USFWS, and CDFW.
APM BIO-9 (Revised by SCE in Comment Letter on DEIR/EIS)	**Jurisdictional Water Permits.** Jurisdictional waters permits would be obtained from CDFW under Cal. Fish & Game Code Section 1602, and from USACE, EPA and the SWRCB in accordance with Sections 404 and 401 of the Clean Water Act, to address unavoidable impacts to State and Federal jurisdictional waters. Impacts would be mitigated based on the terms of the permits. The applicant would develop a Habitat Mitigation and Monitoring Plan (HMMP) for affected jurisdictional areas within established riparian areas, as needed, for review and approval by the USACE, CDFW, the EPA and the SWRCB as appropriate. The plan would describe measures to accomplish restoration or revegetation, provide criteria for restoration success, and specify compensation ratios. Monitoring and reporting requirements and the duration of post-construction monitoring would be specified. A copy of the final HMMP would be provided to the CPUC, USACE EPA, SWRCB, and CDFW. Regarding any affected Riparian/Riverine drainages and habitat areas in Segments 3 and 4 in Western Riverside County, if SCE participates in the WR-MSHCP, SCE would prepare a DBESP that would include mitigation measures consistent with the HMMP as previously described. The RCA would request USFWS and CDFW concurrence with the MSHCP "findings of consistency," as well as DBESP approval. Subsequent coordination on any biological issues would be addressed through consultation with the RCA. The RCA would determine the need for additional consultation with the USFWS and CDFW.

Applicant Proposed Measures (APMs)

APM	Description
APM BIO-10	**Coastal California Gnatcatcher and Designated Critical Habitat.** In San Bernardino County, SCE would develop construction minimization measures and habitat conservation measures to be incorporated into Section 7 consultation, with the intent to obtain take authorization for the expected minimal impact (based on negative surveys to date), as well as a finding of no adverse modification to Critical Habitat. Expected measures would include: pre-construction protocol surveys to identify the locations of any gnatcatchers; monitoring of all vegetation clearing in coastal sage scrub habitat or designated Critical Habitat in San Bernardino County; restoration of temporarily impacted coastal sage habitat; and additional restoration of degraded areas within the SCE right-of-way as compensation for permanent impacts to coastal sage scrub habitat, such that there is no net loss of habitat value for coastal California gnatcatcher in San Bernardino County.
APM BIO-11	**Stephens' Kangaroo Rat.** For portions of the Proposed Project within SKR habitat in Segments 2 and 3, from the San Bernardino Junction to the Riverside County line, avoidance and mitigation measures would be incorporated into conditions established in a Biological Opinion issued through Section 7 consultation with USFWS, which would be required to obtain incidental take authorization for the expected minimal impact (based on surveys to date). Expected measures would include: pre-construction protocol surveys to identify the locations of any SKR present and delineate extent of suitable habitat: monitoring by a qualified biologist during all vegetation clearing and ground disturbance in suitable habitat; flagging of potential burrows for avoidance where possible; covering all excavated, steep-walled holes or trenches more than 2 feet deep at the close of each working day with plywood or provide one or more escape ramps constructed of earth fill or wooden planks to prevent entrapment of SKR during construction; thorough inspection of construction pipes, poles, culverts, or similar structures with a diameter of 1.5 inches or greater stored at a construction site for one or more overnight periods shall be done by a qualified biologist for the presence of SKR before the construction pipes, poles, culverts, or similar structures is subsequently buried, capped, or otherwise used or moved in any way; where construction traffic over identified burrows is unavoidable, covering burrows during daytime operations with 1-inch plywood or steel plates to avoid collapsing burrow; restoration of all temporarily affected areas within suitable habitat; and additional restoration of degraded areas within the SCE right-of-way as compensation for permanent impacts to suitable habitat, such that there is no net loss of habitat value for SKR, as agreed upon by USFWS.
APM BIO-12	**Los Angeles Pocket Mouse; Palm Springs Pocket Mouse.** SCE would develop construction minimization measures and habitat conservation measures, as necessary through MSHCP participation, or, in the absence of such participation, in consultation with USFWS and CDFW. Habitat mitigation measures would be a combination of revegetation of temporarily impacted areas (see APM-BIO-1) and restoration of degraded areas as necessary to conserve the equivalent of 90 percent of the long-term conservation value habitat for LAPM, as determined by the RCA and/or USFWS and CDFW.
APM BIO-13	In areas where foot travel is necessary outside of already identified temporary or permanent disturbance areas. Biological Monitors, present in areas as required by APM BIO-2, would assist construction crews in determining the most appropriate foot path having the least potential to disturb sensitive biological resources.

Applicant Proposed Measures (APMs)

APM	Description
Cultural/Paleontological	
APM CUL-1	Potential Project effects to Historical Resources/Historic Properties may be mitigated or reduced to a less than significant level by utilizing one, or a combination of standard-practice mitigation scenarios potentially including, but not limited to: **Prehistoric Resources:** a. avoid (avoidance by design, preserve in place, capping); b. minimize (reduction of Area of Direct Impact/Effect); c. mitigate (data recovery). **Historic Resources:** a. avoid (avoidance by design, preserve in place, capping); b. minimize (reduction of Area of Direct Impact/Effect); c. mitigate (historic context statement, data recovery). **Historic Architecture/Utility Infrastructure:** a. avoid (avoidance by design, preserve in place); b. minimize (reduction of Area of Direct Impact/Effect); c. mitigate (historic context statement, Historic American Engineering Record, Historic American Building Survey, advanced DPR recordation). **Traditional Cultural Property:** a. consult with Native American stakeholders on perceived impacts/effects and negotiate mutually agreeable treatment.
APM CUL-2	During construction, it is possible that previously unknown archaeological or other cultural resources or human remains could be discovered. Prior to construction, SCE would prepare a Construction Monitoring and Unanticipated Cultural Resources Discovery Plan or similar document to be implemented if an unanticipated discovery is made. At a minimum the Plan would detail the following elements: Worker and supervisor training in the identification of cultural remains that could be found in the Proposed Project area, and the implications of disturbance and collection of cultural resources per applicable federal and state laws. Worker and supervisor response procedures to be followed in the event of an unanticipated discovery, including appropriate points of contact for professionals qualified to make decisions about the potential significance of any find. Identification of persons authorized to stop or redirect work that could affect the discovery, and their on-call contact information. Procedures for monitoring construction activities in archaeologically sensitive areas. A minimum radius around any discovery within which work would be halted until the significance of the resource has been evaluated and mitigation implemented as appropriate. Procedures for identifying and evaluating the historical significance of a discovery. Procedures for consulting Native Americans when identifying and evaluating the significance of discoveries involving Native American cultural materials. Procedures to be followed for treatment of discovered human remains per current state law on non-Federal land, Federal law (including the Native American Graves Protection and Repatriation Act) on Federal land and protocol developed in consultation with Native Americans.
APM PAL-1	Potential effects of the Proposed Project to sensitive paleontological resources may be mitigated or reduced to a less-than-significant level by implementing a Paleontological Resource Mitigation and Monitoring Plan, which would identify monitoring and treatment requirements for sensitive paleontological resources of significance.
Hydrology	
APM HYDRO-1	Installation of drainage improvements would be designed to maintain the existing flow patterns as practicable.
APM HYDRO-2	Soil disturbance at structures and access roads would be minimized and designed to prevent long-term erosion through revegetation or construction of permanent erosion control structures.
APM HYDRO-3	Erosion control and hazardous material plans will be incorporated into the construction bidding specifications to ensure compliance.

Applicant Proposed Measures (APMs)

APM	Description
Minerals	
APM MIN-1	To minimize interference with mining operations at Robertson's Ready Mix Banning Rock Plant #66, SCE will coordinate with the owner/operator to avoid critical mining periods and high volume earthmoving days and will document said coordination.
Recreation	
APM REC-1	SCE would coordinate temporary closures with recreational facility managers and would post a public notice at recreation facilities indicating that the facilities would be closed or have limited use during construction.
APM REC-2	SCE would prepare a construction notification plan identifying procedures for notifying the public of the location and duration of construction.
Transportation	
APM TRANS-1	SCE would prepare a project specific helicopter use plan to describe anticipated helicopter activities. The helicopter plan will include information related to the types of activities to be conducted by helicopters, locations of and activities to be conducted at helicopter yards, flight and data management procedures, and safety information.

(End of Attachment)