Appendix A
Page 1

ACRONYMS

A. – Application
AB – Assembly Bill
ALJ – Administrative Law Judge
AMI – Advanced Metering Infrastructure
Anza-Borrego – Anza-Borrego Desert State Park
BLM – Bureau of Land Management
Btu – British thermal units
Cabrillo – Cabrillo Power I LLC
CAISO – California Independent System Operator
Cal Fire – California Department of Forestry and Fire Protection
CARB – California Air Resources Board
CEQA – California Environmental Quality Act
CO_2 – Carbon Dioxide
Comision Federal de Electricidad – Mexican Electricity Commission
Compliance Exhibit – Exhibit Compliance - 1
Conservation Groups – Center For Biological Diversity and the Sierra Club, San Diego Chapter
CPCN – Certificate of Public Convenience and Necessity
D. – Decision
DRA – Division of Ratepayer Advocates
Edison – Southern California Edison Company
EIR/EIS – Environmental Impact Report/Environmental Impact Statement
EMFs – Electromagnetic Fields
Energy Commission – California Energy Commission
Farm Bureau – California Farm Bureau Federation
FERC – Federal Energy Regulatory Commission
GHG – Greenhouse gas
GWh – gigawatt hour
kV – kilovolt
kWh – kilowatt hour
LEAPS – Lake Elsinore Advanced Pump Storage
LTPP Decision – Long Term Procurement Plan Decision (D.07-12-052)
LSE – Load Serving Entity
Miguel – San Miguel Substation
MMBtu – million British thermal units
Mussey Grade – Mussey Grade Road Alliance
Must Run – Reliability Must Run

Appendix A
Page 2

MW – Megawatt
MWh – Megawatt hour
NEPA – National Environmental Policy Act
NERC – North American Electric Reliability Corporation
Nevada Hydro – Nevada Hydro Company
PEA – Proponent's Environmental Assessment
PHC – Prehearing Conference
PV – photovoltaic
Rancho Peñasquitos – Rancho Peñasquitos Concerned Citizens
REC – renewable energy credits
Request – Performance Category Upgrade Request
RETI – Renewable Energy Transmission Initiative
RFO – Request for Offers
RPS – Renewable Portfolio Standard
SB – Senate Bill
SDG&E – San Diego Gas & Electric Company
SONGS – San Onofre Nuclear Generating Station
South Bay – South Bay Replacement Project (the party name)
State Parks – California Department of Parks and Recreation
State Parks Foundation – California State Parks Foundation
STEP – Southwest Transmission Expansion Plan
Sunrise – Sunrise Powerlink Transmission Project
TEAM – Transmission Economic Assessment Methodology
TEPPC – Transmission Expansion Planning and Policy Committee
TE/VS Project – Talega-Escondido/Valley-Serrano Project
WECC – Western Electricity Coordinating Council
WECC Reliability Work Group – WECC Reliability Performance Evaluation Work Group
UCAN – Utility Consumers' Action Network
Update – Compliance Exhibit Update
US Fish & Wildlife – United States Fish and Wildlife Service

(END OF APPENDIX A)

APPENDIX B – TABLE B-1

MODELING ASSUMPTIONS FOR COMPLIANCE FILING BY CAISO

	CASE 1	**CASE 2**	**CASE 3**	**CASE 4**	**CASE 5**	**CASE 6**	**CASE 7**	**CASE 8**	**CASE 9**	**CASE 10**	**CASE 11**	**CASE 12**	**CASE 13**
	Reference Case assumptions	~~*Sunrise per Applicant*~~ *Enhanced Northern Route*	*Modified Southern Route*	*Non-Wires Alternative*	*Sensitivity Case 1: Higher Renewables Reference Case*	*Sensitivity Case 1: Higher Renewables with ~~Sunrise per Applicant~~ Enhanced Northern Route*	*Sensitivity Case 1: Higher Renewables with Modified Southern Route*	*Sensitivity Case 1: Non-Wires Alternative*	*Sensitivity Case 2: Higher Renewables with ~~Sunrise per Applicant~~ Enhanced Northern Route (online in 2011)*	*Sensitivity Case 3: Higher Renewables with Phase 2 CT Costs*	*Sensitivity Case 3: Higher Renewables with Phase 2 CT Costs*	*Sensitivity Case 3: Higher Renewables with Phase 2 CT Costs*	*Sensitivity Case 3: Higher Renewables with Phase 2 CT Costs*
					Same assumptions as Case 1 except as shown below	Same assumptions as Case 2 except as shown below	Same assumptions as Case 3 except as shown below	Same assumptions as Case 4 except as shown below	Same assumptions as Case 6 except as shown below	Same assumptions as Case 5 except as shown below	Same assumptions as Case 6 except as shown below	Same assumptions as Case 7 except as shown below	Same assumptions as case 8 except as shown below
POLICY													
RPS Targets													
2010	20%	20%	20%	20%	20%	20%	20%	20%					
2015	20%[1]	20%[1]	20%[1]	20%[1]	27%	27%	27%	27%					
2020	20%[1]	20%[1]	20%[1]	20%[1]	33%	33%	33%	33%					
YEARS MODELED	2012 and 2015	2012 and 2015	2012 and 2015	2012 and 2015									
LOADS													
Base In-Area Loads	CEC 10/2007 forecast of 1-in-10 loads from LTPP	CEC 10/2007 forecast of 1-in-10 loads from LTPP	CEC 10/2007 forecast of 1-in-10 loads from LTPP	CEC 10/2007 forecast of 1-in-10 loads from LTPP									

[1] The CAISO did not perform any production cost modeling (Gridview) assuming 20% RPS targets in 2015 and 2012. For the reasons discussed on the July 2, 2008 all-party conference call, the CAISO will not perform new Gridview runs assuming 20% RPS targets. The CAISO will provide its expert opinion on the affect a 20% RPS target in 2015 and 2020 would have on Gridview results for Cases 1-4.

APPENDIX B – TABLE B-1

	CASE 1	CASE 2	CASE 3	CASE 4	CASE 5	CASE 6	CASE 7	CASE 8	CASE 9	CASE 10	CASE 11	CASE 12	CASE 13
Adjustments to Loads													
Demand Response	From LTPP	From LTPP	From LTPP	From LTPP									
Energy Efficiency	From LTPP	From LTPP	From LTPP	From LTPP									
CSI	From LTPP	From LTPP	From LTPP	From LTPP									
Distributed Gen.	From LTPP	From LTPP	From LTPP	From LTPP									
Out-of-Area Loads	Per ISO	Per ISO	Per ISO	Per ISO									
CFE loads[2]	Per SDG&E/ UCAN	Per SDG&E/ UCAN	Per SDG&E/ UCAN	Per SDG&E/ UCAN									
FUEL PRICES													
Fuel Prices													
Henry Hub Prices	Per ISO	Per ISO	Per ISO	Per ISO									
AZ gas prices	Per ISO	Per ISO	Per ISO	Per ISO									
All other gas prices	Per ISO	Per ISO	Per ISO	Per ISO									
GENERATION (NON-RENEWABLE)													
Existing In-Area Resources													
Existing South Bay Plant[3]	Online through 2012	Online through 2012	Online through 2012	Online through 2012					Online through 2011				
New Generation in SDG&E Area													

[2] The CAISO will provide its expert opinion on the effects of adopting SDG&E/UCAN assumptions for CFE loads on Gridview results for each case.
[3] The online date for the existing South Bay Plant will be considered for local capacity requirements purposes only. For the reasons discussed on the all-party conference call, the CAISO will not perform new Gridview runs assuming South Bay remains online until 2012 but will provide its expert opinion on the effect of South Bat remaining online until 2012 on Gridview results for each case.

APPENDIX B – TABLE B-1

	CASE 1	CASE 2	CASE 3	CASE 4	CASE 5	CASE 6	CASE 7	CASE 8	CASE 9	CASE 10	CASE 11	CASE 12	CASE 13
Peakers	Add enough peaking capacity to meet reliability requirements of ISO	Add enough peaking capacity to meet reliability requirements of ISO	Add enough peaking capacity to meet reliability requirements of ISO	Add enough peaking capacity to meet reliability requirements of ISO									
CCs[4]	Assume Carlsbad Energy Center comes online in 2013	Assume Carlsbad Energy Center comes online in 2013	Assume Carlsbad Energy Center comes online in 2013	Assume Carlsbad Energy Center comes online in 2013									
New Out-of-Area Resources													
Coal generation[5]	Use ISO assumptions except reduce all coal generation by 75%	Use ISO assumptions except reduce all coal generation by 75%	Use ISO assumptions except reduce all coal generation by 75%	Use ISO assumptions except reduce all coal generation by 75%									
Fill Resources[6]	Add combined cycles as needed to replace coal plants to meet reliability targets	Add combined cycles as needed to replace coal plants to meet reliability targets	Add combined cycles as needed to replace coal plants to meet reliability targets	Add combined cycles as needed to replace coal plants to meet reliability targets									
Costs of New Generation													

[4] The addition of the Carlsbad Energy Center in 2013 will be considered for local capacity requirements purposes. For the reasons discussed on the all-party conference call, the CAISO will not perform new Gridview runs assuming the Carlsbad Energy Center comes online in 2013 but will provide its expert opinion on the effect of the Carlsbad Energy Center coming online in 2013 on Gridview results for each case.

[5] Changes to "out-of-area" resources would affect production cost modeling. For reasons discussed on the all-party conference call, the CAISO will not perform new Gridview runs adjusting the amount of coal and combined cycle generation but will provide its expert opinion on the affect of such changes on each case.

APPENDIX B – TABLE B-1

	CASE 1	CASE 2	CASE 3	CASE 4	CASE 5	CASE 6	CASE 7	CASE 8	CASE 9	CASE 10	CASE 11	CASE 12	CASE 13
CTs	ISO Phase 1	ISO Phase 1	ISO Phase 1	ISO Phase 1						ISO Phase 2	ISO Phase 2	ISO Phase 2	ISO Phase 2
CCs[6]	ISO Phase 1	ISO Phase 1	ISO Phase 1	ISO Phase 1									
GENERATION (RENEWABLE)													
New Generation in SDG&E Area													
Solar Thermal	None other than current contracts[7]	None other than current contracts[7]	None other than current contracts[7]	Additions consistent with DEIR All-Source Alternative[8]									
Wind	None other than current contracts[7]	None other than current contracts[7]	None other than current contracts[7]	Additions consistent with DEIR All-Source Alternative[8]									
Biomass	None other than current contracts[7]	None other than current contracts[7]	None other than current contracts[7]	Additions consistent with DEIR All-Source Alternative[8]									
Rooftop PV	No incremental beyond CSI from above	No incremental beyond CSI from above	No incremental beyond CSI from above	Per DEIR (net of CSI assumed above)									
New Renewables Outside of SDG&E	ISO assumptions to meet 20% RPS target[9]	ISO assumptions to meet 20% RPS target[9]	ISO assumptions to meet 20% RPS target[9]	ISO assumptions to meet 20% RPS target[9]	ISO assumptions to meet 33% RPS target	ISO assumptions to meet 33% RPS target	ISO assumptions to meet 33% RPS target	ISO assumptions to meet 33% RPS target					

[6] CC costs do not affect any of the cases per the CAISO's modeling methodology.
[7] To the extent SDG&E's "current contracts" are different than the resources previously modeled by the CAISO, such differences would affect production cost modeling. For reasons discussed on the all-party conference call, the CAISO will not perform new Gridview runs but will use SDG&E's current contracts for modeling RPS benefits and will provide its expert opinion on the effects of SDG&E's current contracts on Gridview results for each case.
[8] The CAISO will add resources identified in the DEIR All-Source Alternative then add additional CT resources (if needed).
[9] *See supra note 1.*

APPENDIX B – TABLE B-1

	CASE 1	CASE 2	CASE 3	CASE 4	CASE 5	CASE 6	CASE 7	CASE 8	CASE 9	CASE 10	CASE 11	CASE 12	CASE 13
Imperial Valley renewables	~~Only add~~ Add renewables ~~that are~~ in least cost ~~effective~~ order per ISO supply curve	Add renewables in Imperial Valley ~~per ISO Phase 2 assumptions regardless of cost-effectiveness~~ first. Additional renewables added in least cost order per ISO supply curve	Add renewables in Imperial Valley ~~per ISO Phase 2 assumptions regardless of cost-effectiveness~~ first. Additional renewables added in least cost order per ISO supply curve	~~Only add~~ Add renewables ~~that are~~ in least cost-~~effective~~ order per ISO supply curve									
Other areas (in or out of CAISO)[10]	~~Only add~~ Add renewables ~~that are~~ in least cost ~~effective~~ order per ISO supply curve	~~Only add cost-effective~~ Add renewables in least cost order per CAISO supply curve after ~~adding renewables~~ accounting for additions to Imperial Valley	~~Only add cost-effective~~ Add renewables in least cost order per CAISO supply curve after ~~adding renewables~~ accounting for additions to Imperial Valley	~~Only add~~ Add renewables ~~that are~~ in least cost- ~~effective~~ order per ISO supply curve									
Success rate for out-of-state renewables	ISO base case (50%)	ISO base case (50%)	ISO base case (50%)	ISO base case (50%)									
Costs of Renewables	Costs assumed by ISO in its Phase 1 Base Case	Costs assumed by ISO in its Phase 1 Base Case	Costs assumed by ISO in its Phase 1 Base Case	Costs assumed by ISO in its Phase 1 Base Case									

[10] Note: the description of the inputs in this row is functionally equivalent to the description of the inputs in the previous row.

APPENDIX B – TABLE B-1

	CASE 1	CASE 2	CASE 3	CASE 4	CASE 5	CASE 6	CASE 7	CASE 8	CASE 9	CASE 10	CASE 11	CASE 12	CASE 13
TRANSMISSION													
Sunrise													
Online Date	No	Yes (SDG&E's Enhanced Northern Route in 2012)	Yes (SDG&E Proposed Southern Route in 2012)	No					Yes (SDG&E's Enhanced Northern Route in 2011)				
RPCC Coastal Alternative	n/a	Yes	Yes	n/a									
Other Bulk Transmission													
IID													
Rating of Path 42	~~800~~ 1,200 MW	~~800~~ 1,200 MW	~~800~~ 1,200 MW	~~800~~ 1,200 MW									
Coachella Valley-Devers 2	No	No	No	No									
Green Path North	No	No	No	No									
Dixieland - Imperial Valley	Yes	Yes	Yes	Yes									
CV-Devers 2 / GPN	No	No	No	No									
SCE													
Path 44 upgrades	No	No	No	No									
TE/VS	No	No	No	No									
DPV2[11]	Online in 2013	Online in 2013	Online in 2013	Online in 2013									
SDG&E													
Miguel Import Nomogram eliminated	Yes	Yes	Yes	Yes									

[11] The CAISO did not perform any production cost modeling assuming a 2013 online date for DPV2. For the reasons discussed on the all-party conference call, the CAISO will not perform new Gridview runs assuming 2013 online date but will provide its expert opinion on the affect a 2013 online date would have on the Gridview results for each case.

APPENDIX B – TABLE B-1

	CASE 1	CASE 2	CASE 3	CASE 4	CASE 5	CASE 6	CASE 7	CASE 8	CASE 9	CASE 10	CASE 11	CASE 12	CASE 13
Other transmission additions	ISO assumptions	ISO assumptions	ISO assumptions	ISO assumptions									
Transmission System Operation													
1150 MW limit east of Miguel?	Use ISO modeling	Use ISO modeling	Use ISO modeling	Use ISO modeling									
Costs of Sunrise													
Capital Costs	n/a	ISO Phase 2	ISO Phase 2	n/a									
O&M costs	n/a	UCAN	UCAN	n/a									
Sunrise Amortization Period	n/a	58 years	58 years	n/a									
RELIABILITY AND RMR MODELING APPROACH													
Avoided RMR/Capacity Costs	ISO approach	ISO approach	ISO approach	ISO approach									
Model RMR for SDG&E and LA?	yes	yes	yes	yes									
Note: "LTPP" = D.07-12-052													

APPENDIX B – TABLE B-2

IMPACT OF DEMAND RESPONSE ON NOVEMBER 2007 FORECAST OF 1-IN-10 PEAK DEMAND (MW)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
November 2007 1-in-10 Forecast (1)	4,970	5,049	5,127	5,205	5,283	5,358	5,433	5,509	5,582	5,655	5,728	5,801	5,874
Price Sensitive Demand Response (2)	(96)	(230)	(233)	(236)	(240)	(244)	(242)	(245)	(249)	(249)	(249)	(249)	(249)
Interruptible/DR Curtailable DR (3)	(39)	(39)	(39)	(39)	(39)	(39)	(39)	(39)	(39)	(39)	(39)	(39)	(39)
Net 1 in 10 Load Forecast	**4,835**	**4,780**	**48,55**	**4,930**	**5,004**	**5,075**	**5,152**	**5,225**	**5,294**	**5,367**	**5,440**	**5,513**	**5,586**

(1) California Energy Demand 2008-2018, Staff Revised Forecast, CEC-200-2007-015-SF2, November 2007, 144. Impacts of CSI and Energy Efficiency imbedded in forecast.

(2) A.06-02-013, SDG&E Long Term Procurement Plan Table V-3.

(3) A.06-02-013, SDG&E Long Term Procurement Plan Table III-1.

APPENDIX B – TABLE B-3

Table B-3: Parties' Final Estimates of Levelized Net Benefits ($ millions – see footnotes for details)

Alternative Name	SDG&E[1]	CAISO[2]	UCAN[3]	DRA[4]	TNHC[5]	South Bay[6]
Sunrise Relative to Gas Turbine Reference Case	41	145	-	(69.7)	41	< Base Case
SDG&E Enhanced Northern Route	40	143	(74.3)	-	40	-
SDG&E Modified Southern Route	31	-	-	-	31	-
DEIR/EIS Environmentally Superior Southern Route	42	155	(72.3)	(48.7)	42	-
DEIR/EIS Environmentally Superior Northern Route	(88)	13	-	(195.2)	(88)	-
All Source Generation Alternative	(79)	-	46	-	(79)	> Sunrise Case
In-Area Renewable Alternative	(260)	-	-	-	(260)	-
TE/VS	-	(91)	-	-	103	-
TE/VS + LEAPS	(315.9)*	(26)	-	> SDG&E Estimate+	> CAISO & SDG&E*	-
In area CC	72.1*	-	-	> SDG&E Estimate+	-	-
Enpex CC	20.7*	-	-	> SDG&E Estimate+	-	-

[1] SDG&E Exhibit SD-142; * Indicates SDG&E Exhibit SD-26, Exhibit H, Tables H-16 to H-29. Note that this was not relied on by SDG&E in Phase 2 and is included only as a point of reference.

[2] CAISO Exhibit I-13, 22, Table 1 ($2010-2012); Based on RPS Base Case.

[3] UCAN Phase 2 Opening Brief, Attachment 2, Table 11-6.

[4] DRA Phase 2 Opening Brief, p. 10 ($2011), Based on "Medium" scenario for 2012 online date; + Indicates DRA Phase 1 Opening Brief, pp. 33-35, * Indicates number from Phase 1 Opening Brief, p. 77 ($2010) table based on CAISO estimates.

[5] TNHC Phase 2 Opening Brief, p. 50 ($2011), 56 ($2010); * Indicates TNHC Phase 1 Opening Brief, p. 25.

[6] South Bay Phase 1 Opening Brief, p. 18, 41.

Alternative Name	SDG&E	CAISO	UCAN	DRA	TNHC	South Bay
South Bay Repower	35.2*	104	-	29*	-	-
LEAPS Transmission-Only	(177)	-	-	-	59	-
Sunrise + South Bay Repower	-	229	-	70*	-	-
TE/VS + LEAPS + Green Path	-	131	-	45*	> CAISO & SDG&E*	-
Sunrise + TE/VS	-	8	-	-	> CAISO & SDG&E*	-
Sunrise + TE/VS + LEAPS + Green Path	-	48	-	-	> CAISO & SDG&E*	-
Sunrise + TE/VS + Green Path	-	(22)	-	-	> CAISO & SDG&E*	-
Sunrise + South Bay Repower + Green Path	-	194	-	-	-	-
TE/VS + Green Path (Green Path North)	-	78	-	28*	57	-
Sunrise + Green Path	-	122	-	-	-	-
Sunrise + TE/VS + LEAPS	-	63	-	-	-	-
Path 44 Upgrade	-	-	22	-	-	-
UCAN Route	-	-	(-75.3)	-	-	-
Sunrise Relative to GT-CC Reference Case with 7900 Btu/kWh CC	36	-	6.6	-	-	-
Sunrise Relative to GT-CC Reference Case with 7165 Btu/kWh CC	11	-	32.1	-	-	-
Sunrise Relative to GT-CC Reference Case with 7000 Btu/kWh CC	-	-	36.6	-	-	-
SWPL 2	37.2*	-	-	> SDG&E+	-	-

(END OF ATTACHMENT B)

Appendix C
Page 1

RISK OF FIRE IGNITION

Though some causes of fire ignition are unavoidable, nonetheless, fire risk can be mitigated. Mitigation measures include power line maintenance that reduces the risk of sparking and vegetation control around towers and lines to reduce the possibility that a spark ignites a fire, and that trees and other vegetation fall on power line equipment, causing line failure.

Construction projects may also increase the risk of human-induced fires. Traditional mitigations include prohibiting construction during high fire risk times and at other times ensuring appropriate equipment is available to quickly extinguish any fire that may start. Where power lines cut paths through previously undisturbed areas, or include maintenance access roads, the resulting increase in human access raises the risk of fire due to arson or inadvertent human activity.[1]

The predominant causes of power line wildfires are distribution-level power lines (12 kV and under) and low-voltage or "sub-transmission" lines (69-138 kV). Below, we review the physical characteristics that make distribution-level power lines and sub-transmission lines more conducive to sparking and ignition than high voltage lines (230-500 kV).

As an initial matter, the energized conductors on distribution-level power lines and sub-transmission lines are much closer together than on high voltage transmission lines. The distance on the former may be as little as 2 feet, whereas conductors are at least 18 feet apart on 230 kV towers, and 35 feet apart on

[1] See Draft EIR/EIS, Sec. D.15.1.1 for more information on this issue.

500 kV towers. Fallen or wind-blown tree limbs, wildlife, and debris, such as kites and Mylar balloons, can more easily come into contact with and bridge two distribution-level or sub-transmission line conductor phases,[2] causing electrical arcs[3] that can set fire to woody debris. Because high voltage transmission line conductors are spaced much further apart, this phenomenon is extremely rare on 230 and 500 kV transmission lines.

Because the conductor spacing is closer, distribution-level and sub-transmission lines can spark when they experience conductor-to-conductor contact, also known as "mid-line slap" hazard. This occurs when extremely high winds force two conductors on a single pole to oscillate so much that they contact one another. This phenomenon does not occur on high voltage transmission lines. Further, pursuant to Rule 35 of the Commission's General Order 95, transmission-level conductors must have higher ground clearance (25 feet) than distribution-level conductors (17 feet). This additional height above the ground can mitigate the risk of ignition, depending upon the terrain.

Differences in power line support structures also affect their fire risk. Distribution-level power lines and sub-transmission lines often are supported by wood poles, which do not withstand the same level of wind loading as the steel monopoles and lattice steel towers used to support extra-high voltage transmission lines. Therefore, wood poles have a higher potential for structural

---

[2] Multiple conducting wires (conductors) on a single transmission or distribution line are clustered in groups of three wires that carry currents alternating at different phases.

[3] Electrical arcing is an electric discharge that occurs when electrons are able to jump a gap in a circuit, which often results in a display of sparks.

failure during extreme winds, like the Santa Anas. Multiple wood pole failures on a single distribution-level or sub-transmission line can result in conductors contacting the ground and igniting nearby vegetation or the wood poles themselves.

Another source of sparking on distribution-level lines is equipment failure associated with the transformers and capacitors mounted on the lines, which may arc and ignite nearby vegetation. Transmission lines of any voltage do not carry this particular risk, because they do not serve customer load directly and are not mounted with transformers and capacitors.

Transmission line protection and control systems are designed to detect faults (such as arcing when debris contacts the line) and to shut off power rapidly (in 1/60 to 3/60 of a second), thus reducing the risk of sparking and ignition. Distribution system faults are harder to detect. The fault current and the normal load current are very close in value, in some cases. Consequently, distribution line protection and control systems are set to allow faults to last longer. Almost all distribution circuits have reclosing equipment that automatically re-energizes a faulted line after a very brief delay of a second or so. If a fault has not cleared, debris tangled in the conductors can cause repeated sparks and ignite nearby vegetation.

While gunshots also have been a cause of power line ignitions, they are more likely to affect distribution-level and sub-transmission lines than higher voltage transmission lines. Support structures for distribution-level and sub-transmission lines are shorter (typically 50-80 feet) than high voltage transmission lines (typically 120 feet for 230 kV and 150 feet for 500 kV). Thus,

the insulators on the lower poles make easier targets than those on high-voltage lines. In addition, steel conductors on high voltage lines have much greater structural integrity than sub-transmission conductors, making them less susceptible to harm in the event of a gunshot. Typical 230 kV and 500 kV conductors have circumferences at least three times greater than a typical 69 kV conductor (300 kcmil[4] for 69 kV vs. 900 kcmil for 230 kV and 1033.5 kcmil for 500 kV), with a correspondingly greater strength.[5]

Finally, vegetation management practices differ for transmission and distribution-level power lines. Typically, utilities completely remove trees and tall shrubs in transmission line corridors. However, they typically trim trees and shrubs near distribution-level conductors, rather than removing them, because the bulk of distribution-level lines are located in more urban areas that seek to preserve vegetation. Because of the comparative closeness of vegetation that can ignite – generally a tree is trimmed to within 4 feet of a distribution-level conductor, whereas vegetation is kept 10 feet away from a 230 kV transmission line and 15 feet away from a 500 kV transmission line – the risk of distribution line ignitions is higher.

Fire risks that appear to apply equally to all power lines include accidents related to airplanes and helicopters contacting conductors, poles, and towers. While theoretically it is possible for equipment failures to occur on lines of any voltage and to cause ignitions, the record provides no example of an equipment

---

[4] Kcmil (1000 cmils) is a measure of the size of a conductor; kcmil wire size is the equivalent cross-sectional area in thousands of circular mils. A circular mil (cmil) is the area of a circle with a diameter of one thousandth (0.001) of an inch.

[5] Draft EIR/EIS, Sec. D.15.1.1.

failure on a 500 kV line resulting in an ignition. The only 500 kV-related ignition we have found reported in the United States was caused not by an equipment failure, but by a large tree falling on the transmission line – an event that could be mitigated through proper vegetation management.[6]

The physical impact of fires attributable to power lines between 2004 and 2007 varies greatly. Though more prevalent, distribution system ignitions burned fewer acres (9,818) than sub-transmission system ignitions (198,025.8).[7] The 2007 Rice Fire burned 9,472 acres -- almost all of the acres attributable to distribution system ignitions during that period. The California Department of Forestry and Fire Protection (Cal Fire) and the Commission's Consumer Protection and Safety Division (CPSD) have determined that the Rice Fire was started when a 12 kV distribution-level line ignited improperly maintained vegetation around the line.[8] However, the 2007 Witch Fire burned 197,990 acres -- almost all of the acres attributable to sub-transmission system ignitions between 2004 and 2007. Cal Fire and CPSD have determined that a 69 kV sub-transmission line ignited the Witch Fire.[9] The Witch Fire and the Guejito Fire merged into a single fire, and although Cal Fire reports that the Witch Fire, ignited by a 69 kV sub-transmission line, was the dominant of the two and is named as responsible for all of the acres burned by the two fires in 2007, the Guejito Fire was ignited by cable television lashing wire and a 12 kV distribution

---

[6] *Id.*

[7] *Id.*

[8] *Id.*

[9] *Id.*

line. The 230 kV transmission system ignitions burned 8.1 acres during the same period.

Of the 12 sub-transmission system (69-138 kV) fires that occurred in SDG&E's service area between 2004 and 2007, Cal Fires reports that:

- Four were caused by Mylar balloons contacting conductors;
- Two were caused by conductor-to-conductor contact;
- One was caused by dust on insulators;
- One was caused by static line failure due to heavy wind and corrosion;
- One was caused by a wire down due to a gun shot;
- One was caused by a wire down due to heavy wind;
- One was caused by a plane crashing into a tower; and
- One was caused by a bird contacting conductors.[10]

Of the three 230 kV transmission system fires that occurred in SDG&E's service area between 2004 and 2007, Cal Fires reports that:

- Two were caused by static line failure due to heavy wind and corrosion on the equipment; and
- One was caused by a kite tail becoming entangled in the insulators and arcing across conductor phases.

New SDG&E data on these 230 kV transmission system fires became available after publication of the Draft EIR/EIS and has been included in the Final EIR/EIS.[11] These data present a more complete picture of the role inadequate transmission system inspections appear to have played in the cause

---

[10] *Id*.

[11] Final EIR/EIS, Sec. D.15.1.1 and General Response GR-9; Mussey Grade Exhibit MG-20.

of fires. With regard to the fires caused by equipment failure (static line failure due to heavy wind and corrosion), SDG&E had inspected both lines from helicopters using infrared technology 4 and 10 months prior to the line failures. The resulting fires, due in large part to corrosion of the transmission equipment, suggest that these inspection methods may be an inadequate means of detecting fire threats posed by such corrosion and should be reviewed.

(END OF APPENDIX C)

APPENDIX D

Introduction

All mitigation measures presented in the Final EIR/EIS that apply to the Final Environmentally Superior Southern Route Alternative are listed below. Measures are presented by environmental discipline. Following the mitigation measures are the Applicant Proposed Measures that SDG&E presented in its Proponent's Environmental Assessment for the Proposed Project. While these APMs were not specifically developed to apply to a Southern Route, most are not geographically specific so would apply to transmission line and substation construction in any location.

Mitigation Measures

The text of some of the mitigation measures originally included reference to specific geographic locations that would not be affected by the Final Environmentally Superior Southern Route Alternative. These portions of the Mitigation Measures have been deleted. Additionally, some biological resources mitigation measures require specific amounts of habitat to be restored or mitigated. The acreage defined herein for specific habitats is specific to the Final Environmentally Superior Southern Route Alternative as presented in the Final EIR/EIS.

Biological Resources

The Applicant Proposed Mitigation measures for biology (BIO-APMs) referred to in some of the mitigation measures below include environmental measures that are already required by existing regulations and/or requirements, or are SDG&E's standard practices designed to address temporary and/or permanent impacts, as well as impacts anticipated during operations and maintenance of the completed project. The applicable parts of these measures would be implemented regardless of any regulatory oversight by the CPUC and BLM and are not measures added to the project based on the EIR/EIS analysis. Rather, they are integrated as part of the project description. However, it should be noted that some APMs were based on SDG&E's NCCP, which is not applicable (see discussion in Section D.2.3.3). As a result, in some cases, portions of the APMs are not appropriate or are not adequate to provide mitigation for the project's impacts. In these cases, the portions of the APMs which are not appropriate or adequate are shown in struck text in Appendix 8N, and the mitigation measures that are proposed in addition to the applicable portions of the APMs to avoid, minimize, or mitigate the relevant impacts of the project are shown in the second column of Appendix 8N. Appendix 8N clarifies applicable requirements for the Mitigation Monitoring Reporting Program (Section D.2.27).

Final EIR/EIS Appendix 8P presents a Consolidated Biology Impact Matrix that includes the acreage of impacted habitat for vegetation communities and special status animal species for the Final Environmentally Superior Southern Route Alternative.

B-1a **Provide restoration/compensation for affected sensitive vegetation communities.** Surface-disturbing components of the project shall be located in previously disturbed areas or where habitat quality is poor to the extent possible, and disturbance of vegetation and soils shall be minimized. Temporary construction mats may be used to minimize vegetation and soil disturbance only where deemed appropriate by the qualified biologist (see Mitigation Measure B-1c). The construction mats shall not be left on the ground for more than three weeks. Use of construction mats shall be considered a temporary impact to vegetation and shall be mitigated in accordance with this mitigation measure. If avoidance of sensitive vegetation communities is not feasible due, for example, to physical or safety constraints, the applicant shall restore temporarily

impacted areas to pre-construction conditions following construction (or emergency repairs) and shall permanently block off all public access to them, and/or shall purchase/dedicate suitable habitat for preservation to off-set permanently impacted areas. Restoration of some vegetation communities in temporarily impacted areas may not be possible if those areas are subject to vegetation management to maintain proper clearance between transmission lines and vegetation. In those instances, the mitigation shall consist of off-site acquisition and preservation of the vegetation community instead. Any area that can be preserved as intact or restored habitat, or if it contains any species (plant or animal) that require project-related compensatory mitigation will qualify as off-site mitigation lands. Restoration involves recontouring the land, replacing the topsoil (if it was collected), planting seed and/or container stock, and maintaining (i.e., weeding, replacement planting, supplemental watering, etc.) and monitoring the restored area for a period five years (or less if the restoration meets all success criteria). Restoration in ABDSP shall be maintained and monitored for a minimum of five years. The success of the restoration is usually based on how the habitat compares with similar, nearby, undisturbed habitat. Any restoration efforts would be subject to a Habitat Restoration Plan approved by the CPUC, BLM, Wildlife Agencies, State Parks (for restoration in ABDSP), and USDA Forest Service (for alternatives with restoration on National Forest lands). Mitigation ratios and mitigation acreages for construction within authorized limits are provided in Table D.2-7 for the Proposed Project (see Impacts to Vegetation Communities and Required Mitigation tables in alternatives sections for the alternatives). The mitigation ratios also apply to impacts from emergency repairs. In cases where the impacts to sensitive vegetation communities occur on lands already in use as mitigation for other projects, the mitigation ratios shall be doubled, as is standard practice in San Diego County.

All limits of construction shall be delineated with orange construction fencing. SDG&E shall coordinate with the authorized officer for the applicable federal, State, or local land owner/administrator at least 60 days before construction in order to determine if gates shall be installed on access roads, especially trails that would be dually used as access roads, to prevent unauthorized vehicular access to the ROW. Gate installation shall be required at the discretion of the land management agency. On trails proposed for dual use as access roads, gates shall be wide enough to allow horses, bicycles, and pedestrians to pass through. SDG&E shall document its coordination efforts with the administering agency of the road/trail and provide this documentation to the CPUC, BLM, and all affected jurisdictions 30 days prior to construction. Signs prohibiting unauthorized use of the access roads shall be posted on the installed gates. To control unauthorized use of project access roads by off-road vehicle enthusiasts, SDG&E shall provide funding to land management entities responsible for areas set aside for habitat conservation to provide for off-road vehicle enforcement patrols. The responsible land management entities will formulate what funding is reasonable to control unauthorized use of project access roads.

Any impacts associated with unauthorized activity (e.g., exceeding approved construction footprints) shall be mitigated at a 5:1 ratio (5.5:1 in FTHL MA). Restoration of the unauthorized impacts shall be credited at a 1:1 ratio (i.e., mitigated by in-place habitat restoration); the remaining 4:1 (or 4.5:1 in FTHL MA) shall be acquired off site.

Areas to be restored shall include all areas temporarily impacted by construction, such as tower construction sites, laydown/staging areas, temporary access and spur roads, and existing tower locations where towers are removed. Where on-site restoration is planned, the applicant shall identify a qualified Habitat Restoration Specialist to be approved by the CPUC, BLM, State Parks (for restoration in ABDSP), USDA Forest Service (for alternatives with restoration on National Forest lands), and the Wildlife Agencies. The Habitat Restoration Specialist shall prepare and implement a Habitat Restoration Plan, for restoring temporarily impacted sensitive vegetation

communities, to be approved by the CPUC, Wildlife Agencies, BLM, State Parks (for ABDSP restoration), and USDA Forest Service (for National Forest land restoration). The applicant shall work with the CPUC, BLM, Wildlife Agencies, and State Parks until a plan is approved by all. This Habitat Restoration Plan must be approved in writing by the above-listed agencies prior to the initiation of any vegetation disturbing activities. Hydroseeding, drill seeding, or an otherwise proven restoration technique shall be utilized on all disturbed surfaces using a locally endemic native seed mix approved by the CPUC, Wildlife Agencies, BLM, State Parks (for ABDSP restoration), and USDA Forest Service (for National Forest land restoration).

The Habitat Restoration Plan shall incorporate Desert Bioregion Revegetation/Restoration Guidance measures for restoration of temporary impacts to desert scrub and dune habitats. These measures generally include alleviating soil compaction, returning the surface to its original contour, pitting or imprinting the surface to allow small areas where seeds and rain water can be captured, planting seedlings that have acquired the necessary root mass to survive without watering, planting seedlings in the spring with herbivory cages, broadcasting locally collected seed immediately prior to the rainy season, and covering the seeds with mulch.

The Habitat Restoration Plan shall also incorporate the measures identified in the May 25, 2006 Memorandum of Understanding among Edison Electric Institute, USDA Forest Service, BLM, USFWS, National Park Service, and the Environmental Protection Agency (Edison Electric Institute, et al., 2006) where applicable. The MOU discusses vegetation management along ROWs for electrical transmission and distribution facilities on federal lands. The major provisions of the MOU include reducing soil erosion and water quality impacts; promoting local ecotypes in revegetation projects; planting native species and protecting rare species; and reducing the introduction of non-native, invasive or noxious plant species to the ROWs. The MOU can be viewed online at http://www.eei.org/industry_issues/environment/land/vegetation_management/ EEI_MOU_FINAL_5-25-06.pdf.

The following habitat restoration requirements are not included in the MOU described above. The restoration of habitat shall be maintained and monitored for five years after installation by an experienced, licensed Habitat Restoration Contractor, or until established success criteria identified in the Restoration Plan (specified percent cover of native and non-native species, species diversity, and species composition as compared with an undisturbed reference site) are met. Maintenance and monitoring for restoration in ABDSP shall be for a minimum of five years, even if established success criteria are met before the end of five years. Maintenance and monitoring shall be conducted following a prescribed schedule to assess progress and identify potential problems with the restoration. Remedial action (e.g., additional planting, weeding, erosion control, use of container stock, supplemental watering, etc.) shall be taken by an experienced, licensed Habitat Restoration Contractor during the maintenance and monitoring period if necessary to ensure the success of the restoration. If the restoration fails to meet the established success criteria after the maintenance and monitoring period, maintenance and monitoring shall extend beyond the five-year period until the criteria are met or unless otherwise approved by the CPUC, BLM, State Parks (for ABDSP restoration), USDA Forest Service (for alternatives with restoration on National Forest lands), and the Wildlife Agencies. For areas where habitat restoration cannot meet mitigation requirements, as determined by the Habitat Restoration Specialist in coordination with CPUC, BLM, State Parks (for ABDSP restoration), USDA Forest Service (for alternatives with restoration on National Forest lands), and the Wildlife Agencies, off-site purchase and dedication of habitat shall be provided at the mitigation ratios provided in Table D.2-7 for the Proposed Project (see Impacts to Vegetation Communities and Required Mitigation tables in alternatives sections for the alternatives) or as otherwise required by

the Wildlife Agencies, ABDSP, or USDA Forest Service (supersedes the mitigation ratios in BIO-APM-1).

Tree Mitigation. Mitigation for loss of native trees or native tree trimming shall be provided by (1) acquiring and preserving habitat within which the trees occur and/or (2) restoring (i.e., planting) trees on land that would not be subject to vegetation clearing (either in the applicant's ROW and/or on land acquired and preserved). Any land to be used for this mitigation shall be approved by the CPUC, BLM, State Parks (for ABDSP restoration), USDA Forest Service (for alternatives with restoration on National Forest lands), and the Wildlife Agencies.

For habitat acquisition and preservation, the mitigation ratios shall follow those in Table D.2-7 for the Proposed Project (see Impacts to Vegetation Communities and Required Mitigation tables in alternatives sections for the alternatives). For example, removal of coast live oak trees (that occur in coast live oak woodland) shall require mitigation at a 3:1 ratio based on the permanent impact to the summed acreage of all individual coast live oak trees impacted. Therefore, if the total acreage of all individual coast live oak trees in coast live oak woodland impacted is 10 acres, then 30 acres of coast live oak woodland shall be acquired and preserved. For all trimmed native trees, the trees shall be monitored for a period of three years. If a trimmed tree declines or suffers mortality during that period, the tree shall be replaced in-kind (by species) at a 2:1 or 5:1 ratio as recommended by the CDFG (see below). If a tree does not decline or suffer mortality, no mitigation shall be required.

For restoration (planting trees), these guidelines, based on recommendations from the CDFG, shall be followed.

Native trees that are removed shall be replaced in-kind (by species) as follows.

- Trees less than five inches diameter at breast height (DBH) shall be replaced at 3:1
- Trees between five and 12 inches DBH shall be replaced at 5:1
- Trees between 12 and 36 inches shall be replaced at 10:1
- Trees greater than 36 inches shall be replaced at 20:1

Native trees that are trimmed shall be replaced in-kind (by species) as follows.

- Trees less than 12 inches DBH shall be replaced at 2:1
- Trees greater than 12 inches DBH shall be replaced at 5:1

All restoration shall be maintained and monitored for a minimum of 10 years. The restoration shall be directed according to a Habitat Restoration Plan approved by the CPUC, BLM, State Parks (for ABDSP restoration), USDA Forest Service (for National Forest land restoration), and the Wildlife Agencies.

Mitigation Parcels/Habitat Management Plans. All off-site mitigation parcels shall be approved by the CPUC, BLM, Wildlife Agencies, State Parks (for impacts to ABDSP), and USDA Forest Service (for alternatives with impacts to National Forest lands) and must be acquired or their acquisition must be assured before the line is energized . To demonstrate that such parcels shall be acquired, SDG&E shall submit a Habitat Acquisition Plan at least 120 days prior to any ground disturbing activities. The Plan shall be submitted to the CPUC, BLM, the Wildlife Agencies, State Parks (for impacts in ABDSP) and USDA Forest Service (for impacts on National Forest Lands) for review and approval, and shall include, but shall not be limited to: legal descriptions and maps of all parcels to be acquired; schedule that includes phasing relative to impacts; timing of conservation easement recording; initiation of habitat management activities

relative to acquisition; and assurance mechanisms (e.g., performance bonds to assure adequate funding) for any parcels not actually acquired prior to vegetation disturbing activities.

A Habitat Management Plan shall be prepared by a biologist approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) for all acquired off-site mitigation parcels. The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) prior to the initiation of any vegetation disturbing activities. The applicant shall work with the CPUC, BLM, Wildlife Agencies, State Parks, and USDA Forest Service until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired, off-site mitigation parcels. The Habitat Management Plan shall include, but shall not be limited to:

- Legal descriptions of all mitigation parcels approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands)
- Baseline biological data for all mitigation parcels
- Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to National Forest lands) to provide in-perpetuity management
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- Designation of responsible parties and their roles (e.g., provision of endowment by the applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity)
- Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands).

B-1c **Conduct biological monitoring.** Monitoring shall be provided by a qualified biologist approved by the CPUC, BLM, State Parks (for monitoring in ABDSP), USDA Forest Service (for alternatives that require monitoring on National Forest lands), and the Wildlife Agencies to ensure that all impacts occur within designated limits. Monitoring entails communicating with contractors, taking daily notes, and ensuring that the requirements of the APMs and mitigation measures are being met by being present during construction activities including all initial grubbing and clearing of vegetation. Additionally, a qualified biologist employed by SDG&E shall be present during maintenance involving ROW repair requiring ground disturbance (i.e., grading/repair of access road and work areas and spot repair of areas subject to flooding or scouring). Biological monitoring of these maintenance activities is to prevent impacts to vegetation communities or wildlife habitat not within the permanent project impact footprint or to record and report unauthorized impacts outside the footprint to the CPUC, BLM, State Parks (for monitoring in ABDSP), USDA Forest Service (for alternatives that require monitoring on National Forest lands), and the Wildlife Agencies to ensure the unauthorized impacts are mitigated in accordance with Mitigation Measure B-1a. The qualified biologist shall conduct monitoring for any area subject to disturbance from construction and the maintenance activities listed above (or access roads used during maintenance activities in the case of vernal pools/water-holding basins; see

Mitigation Measure B1b). The qualified biologist shall perform periodic inspections of construction once or twice per week, as defined by the Wildlife Agencies, depending on the sensitivity of the resources. The qualified biologist shall send weekly monitoring reports to the CPUC and BLM and shall record any reduction or increase in construction impacts so that mitigation requirements can be revised accordingly. The final impact/mitigation calculations shall be submitted to the CPUC, BLM, State Parks (for monitoring in ABDSP), USDA Forest Service (for alternatives that require monitoring on National Forest lands), and the Wildlife Agencies for review and approval. The qualified biologist shall send annual monitoring reports of maintenance activities to the CPUC, BLM, State Parks (for monitoring of maintenance activities in ABDSP), and USDA Forest Service (for alternatives that require monitoring of maintenance activities on National Forest lands) that describe the types of maintenance that occurred, at what locations they occurred, and whether or not there were unauthorized impacts that require mitigation. The applicant, its contractors and subcontractors, and their respective project personnel, shall refer all environmental issues, including wildlife relocation, sick or dead wildlife, hazardous waste, or questions about environmental impacts to the qualified biologist. Experts in wildlife handling (e.g., Project Wildlife) may need to be brought in by the qualified biologist for assistance with wildlife relocations.

The qualified biologist shall have the authority to issue stop work orders if any part of the mitigation measures or APMs are being violated. The qualified biologist shall immediately notify the CPUC, BLM, State Parks (for monitoring in ABDSP), USDA Forest Service (for alternatives that require monitoring on National Forest lands), the Wildlife Agencies, and SDG&E of any significant events, including impacts outside the construction zone or maintenance impacts outside the authorized permanent impact footprints if they are discovered during construction or monitoring of maintenance activities. Reinitiation of work following a stop work order shall only occur when the CPUC, BLM, State Parks (for impacts in ABDSP), USDA Forest Service (for alternatives with impacts on National Forest lands), and the Wildlife Agencies are satisfied that the impacts have been fully documented, that compensation for these impacts shall be made, and that any additional protection measures they deem necessary shall be undertaken.

B-1k **Re-seed disturbed areas after a transmission line–caused fire.** Should a fire occur and be determined by the CPUC's Consumer Protection and Safety Division (CPSD) or the California Department of Forestry and Fire Protection (CAL FIRE) to be caused by the Proposed Project or a constructed alternative, the Applicant shall re-seed all natural areas—both public and private—that are burned as a result of the project-caused fire. Re-seeding shall be required for areas that have been burned due to the minimum 10-year period required for arid chaparral to establish an adequate seed bank and thereby resist vegetation type conversion. A re-seeding plan shall be developed with input from Cal Fire, the US Forest Service, BLM, and CPUC, based on a native seed mix. Seeds shall be raked into the soil to avoid seed predation, and re-seeding shall be carried out once to coincide with the rainy season (October 1 through April 1) to increase the likelihood of germination success. The Applicant shall provide a written report documenting all re-seeding activities to the CPUC. The Applicant shall make a good faith effort to obtain approval to re-seed on private lands as appropriate, and documentation of this good faith effort shall be submitted to the CPUC upon request. Specific re-seeding requirements stipulated in this mitigation measure shall be subject to approval and modification by any public landowning agency.

B-1l **SDG&E shall continue to work with the USDA Forest Service to minimize impacts to the RCA between Structures 184 and 187.** SDG&E shall continue to work with the USDA Forest Service to adjust the siting of project features to minimize impacts to the RCA located between Structures 184 and 187 of the BCD South Option. SDG&E shall continue to coordinate with the USDA Forest Service until the impacts to this RCA are fully resolved to the satisfaction of the USDA Forest Service.

B-2a **Provide restoration/compensation for affected jurisdictional areas.** Impacts to areas under the jurisdiction of the ACOE, Regional Water Boards, State Water Board, and CDFG shall be avoided to the extent feasible. Where avoidance of jurisdictional areas is not feasible (including for emergency repairs), the applicant shall provide the necessary mitigation required as part of wetland permitting by creation/restoration/preservation of suitable jurisdictional or equivalent habitat along with adequate buffers to protect the function and values of jurisdictional area mitigation. The location(s) of the mitigation would be determined in consultation with the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation in ABDSP), USDA Forest Service (for alternatives with mitigation on National Forest lands), ACOE, Regional Water Boards, State Water Board, and CDFG as part of the wetland permitting process. It is anticipated that the sites would be in close proximity to the impacts or in the same watershed. A jurisdictional delineation and impact assessment shall be prepared based on the final alignment and final engineering plans when they are complete. Mitigation ratios would range from 1:1 up to 4:1 and would depend on the sensitivity of the jurisdictional habitat and on the requirements of the wetland permitting agencies. The width of wetland buffers would also depend on the sensitivity of the jurisdictional habitat and on the requirements of the wetland permitting agencies. Recommended mitigation ratios for vegetation communities that generally occur in jurisdictional areas are provided in Table D.2-7 for the Proposed Project (see Impacts to Vegetation Communities and Required Mitigation tables in alternatives sections for the alternatives). It is anticipated that at least a 1:1 ratio of the mitigation would include creation of jurisdictional habitat so there would be no net loss of jurisdictional habitat. For example, permanent impacts to emergent wetland would require a 2:1 mitigation ratio. Half (or 1:1) of the mitigation acreage would have to consist of created emergent wetland in an appropriate location to be preserved, and the other half (1:1) would require acquisition and preservation of already-existing emergent wetland (or other wetland community acceptable to the permitting agencies — ACOE, Regional Water Boards, State Water Board, and CDFG). It is also anticipated that a 1:1 ratio would be required for impacts to jurisdictional non-wetland Waters of the U.S. in the form of wetland enhancement, restoration, or creation as determined in consultation with the permitting agencies. Wetland permits shall be obtained from the ACOE, Regional Water Boards, State Water Board, and CDFG prior to initiating construction in jurisdictional areas.

All limits of construction shall be delineated with orange construction fencing and/or silt fencing. All stakes, flagging, or fencing shall be removed no later than 30 days after construction is complete. If silt fencing is used to delineate the limits of construction or as part of implementation of erosion control BMPs, the silt fencing may be left in place longer than 30 days if erosion control is still necessary. During and after construction, entrances to access roads shall be gated to prevent the unauthorized use of these roads by the general public. Signs prohibiting unauthorized use of the access roads shall be posted on these gates.

Any impacts associated with unauthorized activity (e.g., exceeding approved construction footprints) shall be mitigated at a 5:1 ratio, unless otherwise directed by the ACOE, Regional Water Boards, State Water Board, and CDFG: restoration of the unauthorized impacts shall be credited at a 1:1 ratio; the remaining 4:1 (or 4.5:1 in FTHL MA) shall be acquired off site.

The applicant shall identify a qualified Habitat Restoration Specialist to be approved by the CPUC, BLM, ACOE, Regional Water Boards, State Water Board, CDFG, State Parks (for restoration in ABDSP), and USDA Forest Service (for alternatives with restoration on National Forest lands). The Habitat Restoration Specialist shall prepare and implement a Wetland Mitigation Plan to be approved in writing by the CPUC, BLM, ACOE, Regional Water Boards, State Water Board, CDFG, State Parks (for ABDSP mitigation), and USDA Forest Service (for alternatives with mitigation on National Forest lands). The applicant shall work with the above-listed agencies until a plan is approved by all. The mitigation of habitat shall be maintained and monitored for

five years after installation, or until established success criteria (specified percent cover of native and non-native species, species diversity, and species composition as compared with an undisturbed reference site) are met, to assess progress and identify potential problems with the mitigation. Maintenance and monitoring in ABDSP shall be for a minimum of five years, even if established success criteria are met before the end of five years. Remedial action (e.g., additional planting, weeding, erosion control, use of container stock, supplemental watering, etc.) shall be taken during the maintenance and monitoring period if necessary to ensure the success of the mitigation. If the mitigation fails to meet the established performance criteria after the five-year maintenance and monitoring period, maintenance and monitoring shall extend beyond the five-year period until the criteria are met or unless otherwise approved by the CPUC, BLM, ACOE, Regional Water Boards, State Water Board, CDFG, State Parks (for ABDSP restoration), and USDA Forest Service (for alternatives with restoration on National Forest lands).

A Habitat Management Plan shall be prepared by a biologist approved by the CPUC, BLM, ACOE, Regional Water Boards, State Water Board, CDFG, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) for all acquired off-site mitigation parcels. The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) prior to the initiation of any activities which may impact jurisdictional areas. The applicant shall work with the CPUC, BLM, Wildlife Agencies, State Parks, and USDA Forest Service until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired, off-site mitigation parcels. The Habitat Management Plan shall include, but shall not be limited to:

- Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) mitigation parcels approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands)
- Baseline biological data for all mitigation parcels
- Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) to provide in-perpetuity management
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- Designation of responsible parties and their roles (e.g., provision of endowment by the applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity)
- Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands).

B-3a **Prepare and implement a Weed Control Plan.** The applicant shall prepare and implement a comprehensive, adaptive Weed Control Plan for pre-construction and long-term invasive weed abatement. Where the applicant owns the ROW property, the Weed Control Plan shall include specific weed abatement methods, practices and treatment timing developed in consultation with the San Diego County Agriculture Commissioner's Office and the California Invasive Plant Council

(Cal-IPC), or the tribal government, as appropriate. On the ROW easement lands administered by public agencies (BLM, USDA Forest Service (for alternatives routes within Cleveland National Forest lands), Wildlife Agencies, and State Parks (ABDSP) the Weed Control Plan shall incorporate all appropriate and legal agency-stipulated regulations. The Weed Control Plan shall be submitted to the ROW land-holding governmental agencies for final authorization of weed control methods, practices, and timing prior to implementation of the Weed Control Plan on public lands. ROW easements located on private lands shall include adaptive provisions for the implementation of the Weed Control Plan. Prior to implementation, the applicant shall work with the landowners to obtain authorization of the weed control treatment that is required. State Parks shall have review and approval authority over the Weed Control Plan for ROW within or adjacent to the boundaries of ABDSP. Developed land shall be excluded from weed control.

The Weed Control Plan shall include the following:

- A pre-construction weed inventory shall be conducted by surveying the entire ROW and areas immediately adjacent to the ROW (where access and permission can be secured) as well as at all ancillary facilities associated with the project for weed populations that: (1) are considered by the San Diego County Agriculture Commissioner or State Parks (for ROW within or adjacent to ABDSP) as being a priority for control and (2) aid and promote the spread of wildfires (such as cheatgrass [*Bromus tectorum*], Saharan mustard [*Brassica tournefortii*] and medusa head [*Taeniatherum caput-medusae*]). These populations shall be mapped and described according to density and area covered. These plant species shall be treated (where access and permission can be secured) prior to construction or at a time when treatments would be most effective based on phenology according to control methods and practices for invasive weed populations designed in consultation with the San Diego County Agriculture Commissioner's Office and Cal-IPC, or the tribal government, as appropriate.
- A pre-construction weed inventory shall also be conducted by surveying areas that will be directly impacted by the project for weed populations that are rated High or Moderate for negative ecological impact in the California Invasive Plant Inventory Database (Cal-IPC, 2006) or are weed species of concern to State Parks (for ROW within or adjacent to ABDSP). These plant species shall be treated prior to construction or at a time when treatments would be most effective based on phenology according to control methods and practices for invasive weed populations designed in consultation with Cal-IPC and State Parks (for treatment in ROW within ABDSP).
- Weed control treatments shall include all legally permitted chemical, manual and mechanical methods applied with the authorization of the San Diego County Agriculture Commissioner and the ROW easement land-holding agencies where appropriate. The application of herbicides shall be in compliance with all state and federal laws and regulations under the prescription of a Pest Control Advisor (PCA) and implemented by a Licensed Qualified Applicator. Where manual and/or mechanical methods are used, disposal of the plant debris will follow the regulations set by the San Diego County Agriculture Commissioner. The timing of the weed control treatment shall be determined for each plant species in consultation with the PCA, the San Diego County Agriculture Commissioner, State Parks (for treatment in ABDSP) and Cal-IPC, or the tribal government, as appropriate, with the goal of controlling populations before they start producing seeds.

For the lifespan of the project (i.e., as long as the project is physically present), long-term measures to control the introduction and spread of noxious weeds in the project area shall be taken as follows.

— From the time construction begins until two years after construction is complete, annual surveying for new invasive weed populations and the monitoring of identified and treated populations shall be required in the survey areas described above. After this time, surveying for new invasive weed populations and monitoring of identified and treated populations shall be required at an interval of every two years. However, the treatment of weeds shall occur on a minimum annual basis, unless otherwise approved by the PCA, the San Diego County Agriculture Commissioner, State Parks (for treatment in ABDSP) and Cal-IPC.

— During project construction and operation/maintenance, all seeds and straw materials shall be certified weed free, and all gravel and fill material shall be certified weed free by the San Diego County Agriculture Commissioner's Office, or the tribal government, as appropriate.

— During project construction and operation/maintenance, vehicles and all equipment shall be washed (including wheels, undercarriages, and bumpers) at an off-site washing facility (e.g., a car wash or truck wash) immediately before project construction begins and prior to returning to project construction should equipment be used in a different construction area. In addition, tools such as chainsaws, hand clippers, pruners, etc. shall be washed at an off-site washing facility immediately before project construction begins and prior to returning to project construction should tools be used in a different construction area. In addition, vehicles, tools, and equipment shall be washed at an off-site washing facility should these vehicles, tools, and equipment have been used in an area where invasive plants have been mapped during the pre-construction weed control inventory and as directed by the biological construction monitor, prior to entering a project area free of populations of invasive plants (as determined by the pre-construction weed control inventory). Finally, vehicles, tools, and equipment used for maintenance shall be washed at an off-site washing facility immediately before each maintenance event. All washing shall take place where rinse water is collected and disposed of in either a sanitary sewer or landfill; an effort shall be made to use wash facilities that use recycled water. A written daily log shall be kept for all vehicle/equipment/tool washing that states the date, time, location, type of equipment washed, methods used, and staff present. The log shall include the signature of a responsible staff member. Logs shall be available to the CPUC, BLM, USDA Forest Service (for alternative routes within Cleveland National Forest lands), Wildlife Agencies, State Parks (for weeds in ABDSP), tribal governments (for weeds on tribal lands), and biological monitor for inspection at any time and shall be submitted to the CPUC on a monthly basis during construction and submitted annually to the CPUC during operation/maintenance.

B-5a **Conduct rare plant surveys, and implement appropriate avoidance/minimization/compensation strategies.** A qualified biologist shall survey for special status plants in the spring of a year with adequate rainfall prior to initiating construction activities in a given area. If a survey can not be conducted due to inadequate rainfall, then SDG&E shall consult with the Wildlife Agencies, State Parks (for impacts in ABDSP), and the USFS (for impacts on National Forest lands) to determine if construction may begin in the absence of survey data and what mitigation would be required, or whether construction would not be allowed until such data is collected. A report of special status plants observed shall be prepared and submitted for approval by the CPUC, BLM, State Parks (for activities in ABDSP), USDA Forest Service (for alternatives with activities on National Forest lands), and the Wildlife Agencies prior to activities which may impact the plant resources.

All special status plant populations shall be staked or flagged by a qualified biologist approved by the CPUC, BLM, State Parks (for activities in ABDSP), USDA Forest Service (for alternatives with activities on National Forest lands), and the Wildlife Agencies. All stakes, flagging, or fencing shall be removed no later than 30 days after construction is complete.

Impacts to federal or State listed plant species shall first be avoided where feasible, and, where not feasible, impacts shall be compensated through salvage and relocation (salvage and relocation for plants in ABDSP shall be determined in consultation with, and approval of, State Parks) via a restoration program and/or off-site acquisition and preservation of habitat containing the plant at a 2:1 ratio. Avoidance may not be feasible due to physical or safety constraints. The CPUC, BLM, State Parks (for activities in ABDSP), USDA Forest Service (for alternatives with activities on National Forest lands), and the Wildlife Agencies shall decide whether the applicant can restore rare plant populations or shall acquire habitat with rare plant populations off site (locations to be approved by the CPUC, BLM, State Parks [for activities in ABDSP], USDA Forest Service [for alternatives with activities on National Forest lands], and the Wildlife Agencies). A qualified biologist shall prepare a Restoration Plan that shall indicate where restoration would take place. The restoration plan shall also identify the goals of the restoration, responsible parties, methods of restoration implementation, maintenance and monitoring requirements, final success criteria, and contingency measures. The applicant shall work with the CPUC, BLM, Wildlife Agencies, State Parks, and USDA Forest Service (for alternatives with restoration on National Forest lands) until a plan is approved by all.

Impacts to moderately sensitive plant species (i.e., BLM Sensitive, USDA Forest Service Sensitive, CNPS List 1 and 2 species) shall first be avoided where feasible, and, where not feasible, impacts shall be compensated through reseeding (with locally collected seed stock) or relocation to temporarily disturbed areas (reseeding and relocation of plants in ABDSP shall be determined in consultation with, and approval of, State Parks). Avoidance may not be feasible due to physical or safety constraints. Mitigation Measure B-1a would also provide habitat-based mitigation for these impacts.

Where reseeding or salvage and relocation is required, the applicant shall identify a qualified Habitat Restoration Specialist to be approved by the CPUC, BLM, State Parks (for restoration in ABDSP), USDA Forest Service (for alternatives with restoration on National Forest lands), and the Wildlife Agencies. The Habitat Restoration Specialist shall prepare and implement a Restoration Plan for reseeding or salvaging and relocating special status plant species to be approved by the CPUC, BLM, State Parks (for restoration in ABDSP), USDA Forest Service (for alternatives with restoration on National Forest lands), and the Wildlife Agencies in writing prior to impacting the plant resources. The applicant shall work with the above-listed agencies until a plan is approved by all. The reseeding or relocation of plants shall be maintained and monitored for five years after installation, or until established success criteria are met, to assess progress and identify potential problems with the mitigation. The reseeding or relocation of plants in ABDSP shall be maintained and monitored for a minimum of five years, even if established success criteria are met before the end of five years. Remedial action (e.g., additional seeding, weeding, erosion control, use of container stock, supplemental watering, etc.) shall be taken during the maintenance and monitoring period if necessary to ensure the success of the restoration. If the restoration fails to meet the established performance criteria after the five-year maintenance and monitoring period, maintenance and monitoring shall extend beyond the five-year period until the criteria are met or unless otherwise approved by the CPUC, BLM, State Parks (for restoration in ABDSP), USDA Forest Service (for alternatives with restoration on National Forest lands), and the Wildlife Agencies.

A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands). The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) prior to the initiation of any activities which may impact special status plant resources. The applicant shall work with the CPUC, BLM, Wildlife Agencies, State Parks, and USDA Forest Service until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired off-site mitigation parcels. The Habitat Management Plan shall include, but shall not be limited to:

- Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) off-site mitigation parcels approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands)
- Baseline biological data for all mitigation parcels
- Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) to provide in-perpetuity management
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- Designation of responsible parties and their roles (e.g., provision of endowment by the applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity)
- Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands).

B-7a **Cover all steep-walled trenches or excavations used during construction to prevent the entrapment of wildlife (e.g., reptiles and small mammals)**. BIO-APM-14 shall be modified to ensure that all steep-walled trenches or excavations used during construction shall be covered at all times except when being actively utilized. If the trenches or excavations cannot be covered, exclusion fencing (i.e., silt fencing) shall be installed around the trench or excavation, or it shall be covered to prevent entrapment of wildlife. Open trenches, or other excavations that could entrap wildlife shall be inspected by the qualified biologist (see Mitigation Measure B-1c) a minimum of three times per day and immediately before backfilling. Furthermore, employees and contractors shall look under vehicles and equipment for the presence of wildlife before movement. If wildlife is observed, no vehicles or equipment would be moved until the animal has left voluntarily or is removed by the qualified biologist. Should a dead or injured listed species be found in a trench or excavation or anywhere in the construction zone or along an access road, the qualified biologist shall contact the CPUC, BLM, State Parks (for activities in ABDSP), USDA Forest Service (for alternatives with activities on National Forest lands), and the Wildlife Agencies within 48 hours of the finding. The qualified biologist shall report the species found, the location of the finding, the cause of death (if known), and shall submit a photograph and any other pertinent information.

B-7b Implement avoidance/mitigation/compensation according to the Flat-Tailed Horned Lizard Rangewide Management Strategy. Mitigation for impacts to the FTHL shall follow all applicable measures in the Flat-Tailed Horned Lizard Rangewide Management Strategy (Flat-Tailed Horned Lizard Interagency Coordinating Committee, 2003). This mitigation includes, but is not limited to, locating impacts outside of MAs, delineating work limits, using existing roads, biological monitoring, and worker education.

According to the Flat-Tailed Horned Lizard Rangewide Management Strategy (Flat-Tailed Horned Lizard Interagency Coordinating Committee, 2003), compensation for FTHL habitat impacts could involve purchase of FTHL habitat and/or monetary compensation as determined by the Flat-Tailed Horned Lizard Interagency Coordinating Committee. Impacts shall be mitigated at a 1:1 ratio for habitat outside a MA. Furthermore, mitigation inside a MA shall be at a 3.5:1 ratio for temporary impacts (2.5:1 for disturbed habitat, developed land, or agriculture) and a 5.5:1 ratio for permanent impacts (4.5:1 for disturbed habitat, developed land, or agriculture). For the Project, the required mitigation for FTHL impacts (if off-site acquisition is the method of compensation) is 403.48 acres. On-site restoration requirements for the Project would be 232.84 acres. Any FTHL habitat acquired shall be approved by the Flat-Tailed Horned Lizard Interagency Coordinating Committee, CPUC, BLM, Wildlife Agencies, and State Parks (for land in ABDSP).

A Habitat Management Plan shall be prepared by a biologist approved by the Flat-Tailed Horned Lizard Interagency Coordinating Committee, CPUC, BLM, Wildlife Agencies, and State Parks (for land in ABDSP) for all acquired FTHL habitat. The Habitat Management Plan must be approved in writing by the Flat-Tailed Horned Lizard Interagency Coordinating Committee, CPUC, BLM, Wildlife Agencies, and State Parks (for land in ABDSP) prior to the initiation of any activities which may impact (directly or indirectly) the FTHL or its habitat. The applicant shall work with the Flat-Tailed Horned Lizard Interagency Coordinating Committee, CPUC, BLM, Wildlife Agencies, and State Parks until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired FTHL habitat. The Habitat Management Plan shall include, but shall not be limited to:

- Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) FTHL habitat approved by the Flat-Tailed Horned Lizard Interagency Coordinating Committee, CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP)
- Baseline biological data for all acquired FTHL habitat
- Designation of a land management entity approved by the Flat-Tailed Horned Lizard Interagency Coordinating Committee, CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP) to provide in-perpetuity management
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- Designation of responsible parties and their roles (e.g., provision of endowment by the applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity)
- Management specifications including, but not limited to, regular biological surveys to compare with baseline exotic, non-native species control fence/sign replacement or repair, public education trash removal and annual reports to Flat-Tailed Horned Lizard Interagency Coordinating Committee, CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP).

B-7c Minimize impacts to Peninsular bighorn sheep and provide compensation for loss of critical habitat. With regard to timing of activities, construction and maintenance activities (including the use of helicopters) in bighorn sheep critical habitat shall be limited to outside the lambing season and the period of greatest water need, or a minimum ceiling of 1,500 feet for helicopter flights shall be maintained. The lambing season is January 1 through June 30. The period of greatest water need is May through September. Construction and maintenance activities in PBS critical habitat may occur during the lambing season and/or period of greatest water need if prior approval is obtained from the Wildlife Agencies.

To help reconnect PBS subpopulations and at least partially offset impacts to the overall population of PBS caused by the project, the applicant shall:

- fund the design and construction of an overpass (for sheep) or tunnel (for vehicles) to facilitate PBS movement across a highway at a location determined by the USFWS (in coordination with State Parks and CDFG). Tunnel or overpass design must be approved by the Wildlife Agencies.
- fund removal of tamarisk and fences for the life of the project, and install and maintain water sources at locations determined by the USFWS (in coordination with State Parks and CDFG)
- fund a minimum 10-year-long program to monitor the effects of the project on PBS behavior, movements, and dispersal in the project corridor (ten years is needed to measure the influence of the project while factoring in rainfall cycles, vegetative productivity, and drought). This program would be implemented by the Wildlife Agencies and State Parks following construction.

Furthermore, the applicant shall provide compensation for direct loss of critical habitat at a 5:1 ratio for permanent impacts and at a 3:1 ratio (including a combination of on-site restoration and off-site purchase) for temporary impacts with PBS critical habitat or other habitat acceptable to the Wildlife Agencies, BLM, and State Parks (for critical habitat in ABDSP). Impacts to PBS critical habitat must be mitigated within the same Critical Habitat Unit where the impacts occurred. For the Project, the required mitigation for PBS impacts includes off-site purchase of 525.71 acres and on-site restoration of 111.81 acres. The determination of impact acreage shall be based on the definition of critical habitat in effect as of the time of publication of the Final EIR/EIS.

A Habitat Management Plan shall be prepared by a biologist approved by the CPUC, BLM, Wildlife Agencies, and State Parks for all acquired PBS habitat. The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, and State Parks (for land in ABDSP) prior to the initiation of any activities which may impact (directly or indirectly) PBS or its habitat. The applicant shall work with the CPUC, BLM, Wildlife Agencies, and State Parks until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired PBS habitat. The Habitat Management Plan shall include, but shall not be limited to:

- Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) PBS habitat approved by the CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP)
- Baseline biological data for all acquired PBS habitat
- Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP) to provide in-perpetuity management

- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- Designation of responsible parties and their roles (e.g., provision of endowment by the applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity)
- Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP).

B-7d **Conduct burrowing owl surveys, and implement appropriate avoidance/minimization/ compensation strategies.** A survey shall be conducted within 30 days prior to the initiation of construction by a qualified biologist to determine the presence or absence of the burrowing owl in the construction zone plus 250 feet beyond. In addition, the burrowing owl shall be looked for opportunistically as part of other surveys and monitoring required during project construction. If the burrowing owl is absent, then no mitigation is required.

If the burrowing owl is present, no disturbance shall occur within 50 meters (approximately 160 ft) of occupied burrows from September 1 through January 31 or within 75 meters (approximately 250 ft) of occupied burrows from February 1 through August 31 (CDFG, 1995).

During construction, any pipe or similar construction material that is stored on site for one or more nights shall be inspected for burrowing owls by a qualified biologist before the material is moved, buried, or capped.

Passive relocation of owls shall be implemented prior to construction only at the direction of the CDFG and only if the above-described occupied burrow disturbance absolutely cannot be avoided (e.g., due to physical or safety constraints). Relocation of owls shall only be implemented during the non-breeding season (September 1 through January 31; CDFG, 1995). Passive relocation is defined as encouraging owls to move from occupied burrows to alternate natural or artificial burrows that are beyond 50 meters from the impact zone and that are within or contiguous to a minimum of 6.5 acres of preserved (or acquired and preserved if not already preserved) foraging habitat for each relocated owl (single owl or owl pair). Passive relocation is accomplished by first creating two artificial burrows in contiguous, preserved foraging habitat (if no natural burrows exist) for each occupied burrow that would be impacted; and second, installing one-way doors on occupied burrow entrances so owls can leave the burrow but not re-enter it. Following passive relocation, the area of impact and the preserved foraging habitat with alternate burrows are surveyed daily for one week to confirm owl use of alternate burrows before excavation of burrows in the impact zone. All passive relocation shall be conducted by a biologist approved by the CDFG. If the alternate burrows are not used by the relocated owls, then the applicant shall work with the CDFG to provide alternate mitigation for burrowing owls. If the alternate burrows are used, no other mitigation shall be required.

If it is not possible to preserve contiguous habitat on which to provide alternate burrows (e.g., on private land), and occupied owl burrows would be directly impacted, then the owls shall be passively relocated without the creation of alternate burrows prior to construction (relocation should only be implemented during the non-breeding season [September 1 through January 31]). The loss of occupied owl habitat shall be mitigated by acquiring and preserving other occupied habitat elsewhere (as explained below) per the Staff Report on Burrowing Owl Mitigation (CDFG, 1995) and the Burrowing Owl Survey Protocol and Mitigation Guidelines (The Burrowing Owl Consortium, 1993), or as otherwise determined in consultation with the CDFG.

Impacted occupied habitat shall be mitigated by 1) acquiring and preserving occupied habitat at a rate of 1.5 times 6.5 acres (or 9.75 acres) per pair or single bird impacted, or 2) acquiring and preserving unoccupied habitat contiguous with currently occupied habitat at a rate of two times 6.5 acres (or 13 acres) per pair or single bird impacted, or 3) acquiring and preserving suitable unoccupied habitat at a rate of three times 6.5 acres (or 19.5 acres) per pair or single bird impacted. All acquired habitat shall be acceptable to the CDFG and shall be protected and managed for the burrowing owl in perpetuity.

The survey required within 30 days prior to the initiation of construction will determine the presence or absence of the burrowing owl in the construction zone plus 250 feet beyond and whether or not the mitigation needs to be revised.

A Habitat Management Plan shall be prepared by a biologist approved by the CPUC, BLM, CDFG, and State Parks (for land in ABDSP) for all acquired burrowing owl habitat. The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, and State Parks (for land in ABDSP) prior to the initiation of any activities which may impact (directly or indirectly) the burrowing owl or its habitat. The applicant shall work with the CPUC, BLM, Wildlife Agencies, and State Parks until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired burrowing owl habitat. The Habitat Management Plan shall include, but shall not be limited to:

- Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) burrowing owl habitat approved by the CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP)
- Baseline biological data for all acquired burrowing owl habitat
- Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP) to provide in-perpetuity management
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- Designation of responsible parties and their roles (e.g., provision of endowment by the applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity)
- Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP).

B-7e **Conduct least Bell's vireo and southwestern willow flycatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.** All grading or brushing taking place within riparian habitats of the least Bell's vireo or southwestern willow flycatcher during construction shall be conducted from September 16 (October 1 in ABDSP) through March 14, which is outside the least Bell's vireo and southwestern willow flycatcher breeding seasons.

When conducting all other construction activities during the breeding season of March 15 through September 15 (September 30 in ABDSP) within 500 feet (USFWS, 2007b) of habitat in which least Bell's vireos and/or southwestern willow flycatchers are known to occur or have potential to occur, a biologist permitted by the USFWS shall survey for least Bell's vireos and southwestern willow flycatchers within 10 calendar days prior to initiating activities in an area. The results of

the survey shall be submitted to the Wildlife Agencies for review and approval prior to initiating any construction activities.

If least Bell's vireos or southwestern willow flycatchers are present, a permitted biologist shall survey for nesting vireos and flycatchers approximately once per week within 500 feet of the construction area (USFWS, 2007b), for the duration of the activity in that area during the breeding season.

If/when an active nest is located, a 300-foot no-construction buffer zone (USFWS, 2007b) shall be established around each nest site; however, there may be a reduction of this buffer zone depending on site-specific conditions or the existing ambient level of activity. The Applicant shall contact Wildlife Agencies to determine the appropriate buffer zone. No construction shall take place within this buffer until the nest is no longer active unless there are physical or safety constraints. If construction must take place within the buffer, a qualified acoustician shall monitor noise as construction approaches the edge of the occupied vireo/flycatcher habitat as directed by the permitted biologist. If the noise meets or exceeds the 60 dB(A) Leq threshold, or if the biologist determines that the activities in general are disturbing the nesting activities, the biologist shall have the authority to halt construction and shall consult with the Wildlife Agencies, State Parks (for activities in ABDSP), and USDA Forest Service (for activities on National Forest lands) to devise methods to reduce the noise and/or disturbance. This may include methods such as, but not limited to, turning off vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nesting birds and the activities, and working in other areas until the young have fledged. The permitted biologist shall monitor the nest daily until either activities are no longer within 300 feet of the nest, or the fledglings become independent of their nest.

Mitigation for the loss of least Bell's vireo- or southwestern willow flycatcher-occupied habitat (or designated critical habitat for the flycatcher) shall be implemented as follows. Permanent impacts to occupied habitat and/or designated critical habitat shall include off-site acquisition and preservation of occupied habitat or designated critical habitat at a 3:1 ratio. Temporary impacts to occupied habitat or designated critical habitat shall include 1:1 on-site restoration and 2:1 off-site acquisition and preservation of occupied habitat and/or designated critical habitat. Impacts to least Bell's vireo or southwestern willow flycatcher critical habitat must be mitigated within the same Critical Habitat Unit where the impacts occurred.

For the Project, the required mitigation for least Bell's vireo occupied habitat is on-site restoration of 13.5 acres and off-site acquisition and preservation of 52.8 acres of least Bell's vireo occupied habitat. For the Project, the required mitigation for southwestern willow flycatcher occupied habitat is on-site restoration of 33.14 acres and off-site acquisition and preservation of 68.41 acres of southwestern willow flycatcher occupied habitat If a USFWS protocol, pre-construction survey, conducted in an area where presence of the vireo or flycatcher was assumed in this analysis (see Appendix 8B) determines that the species is absent, then the mitigation shall be reduced accordingly. Any acquired habitat shall be approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands).

A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands). The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) prior to the initiation of any activities which may impact

(directly or indirectly) the least Bell's vireo or southwestern willow flycatcher or its habitat. The applicant shall work with the CPUC, BLM, Wildlife Agencies, State Parks, and USDA Forest Service until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired vireo or flycatcher habitat. The Habitat Management Plan shall include, but shall not be limited to:

- Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) least Bell's vireo or southwestern willow flycatcher habitat approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands)
- Baseline biological data for all least Bell's vireo or southwestern willow flycatcher habitat
- Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) to provide in-perpetuity management
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- Designation of responsible parties and their roles (e.g., provision of endowment by the applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity)
- Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands).

B-7h **Implement appropriate avoidance/minimization strategies for eagle nests.** No construction or maintenance activities shall occur within 4,000 feet of an eagle nest during the eagle breeding season (December through June).

B-7i **Conduct Quino checkerspot butterfly surveys, and implement appropriate avoidance/ minimization/compensation strategies.** A biologist permitted by the USFWS shall determine suitable habitat areas (i.e., non-excluded areas per the 2002 USFWS protocol; USFWS, 2002b) within any designated USFWS QCB survey area (e.g., Survey Area 2) that would be impacted by project construction.

A pre-construction, USFWS protocol presence/absence survey for the adult QCB shall be conducted within all suitable habitat for this species in the construction zone within any designated USFWS QCB survey area. The survey shall be conducted in a year where the QCB is readily observed at USFWS QCB-monitored reference sites to determine what areas are occupied by the QCB (i.e., any suitable habitat within 1 km of a current QCB sighting is considered occupied) and what areas are not occupied. The USFWS permitted biologist shall record the precise locations of QCB larval host plants within the construction zone (and 10 meters beyond) using GPS technology.

If the protocol pre-construction survey is conclusive for determining absence of the QCB, then areas without the butterfly would not require mitigation.

If the protocol pre-construction survey is not conclusive for determining QCB absence (due to limited detectability per the 2002 protocol, for example), or if a survey is not conducted, then all

suitable habitat areas would be considered potentially occupied and would require mitigation as follows. If construction occurs outside the larvae and adult activity season (June 1 through October 15) and stays at least 10 meters away from all host plant locations, then no mitigation is required (USFWS, 2007d). If construction occurs between October 16 and May 31 or within 10 meters of host plant locations, or within designated critical habitat, then (1) temporary impacts to the habitat shall be mitigated through on-site restoration of temporarily disturbed areas and off-site acquisition and preservation of an equal sized area of QCB-occupied habitat (a 2:1 mitigation ratio) and (2) permanent impacts shall be mitigated through off-site acquisition and preservation of QCB-occupied habitat (or QCB-designated critical habitat for impacts to designated critical habitat) at a 2:1 ratio (i.e., two acres acquired for each acre lost). Any acquired habitat shall be approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation land to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands). A USFWS permitted biologist shall be present during all construction activities in potentially occupied habitat to monitor and assist the construction crews to ensure impacts occur only as allowed. This same mitigation shall apply where the protocol pre-construction survey was conclusive for determining that the QCB is present and where construction would occur in designated critical habitat. Impacts to QCB critical habitat must be mitigated within the same Critical Habitat Unit where the impacts occurred.

For the Project, the required mitigation for impacts to designated critical habitat includes 55.7 acres of onsite restoration and 94.12 acres of offsite acquisition and preservation of acres of QCB critical habitat or other habitat acceptable to Wildlife Agencies, BLM, or other applicable agencies. Impacts to QCB critical habitat must be mitigated within the same Critical Habitat Unit where the impacts occurred.

If host plant mapping is not possible during the pre-construction survey (e.g., drought prevents plant germination), then all suitable habitat (i.e., non-excluded habitat per the 2002 protocol) shall be considered occupied by the QCB and mitigated under the assumption that the QCB is present.

A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands). The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) prior to the initiation of any activities which may impact (directly or indirectly) the QCB or its habitat. The applicant shall work with the CPUC, BLM, Wildlife Agencies, State Parks, and USDA Forest Service until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired QCB habitat. The Habitat Management Plan shall include, but shall not be limited to:

- Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) QCB habitat approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands)
- Baseline biological data for all QCB habitat
- Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) to provide in-perpetuity management

- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- Designation of responsible parties and their roles (e.g., provision of endowment by the applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity)
- Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands).

B-7j **Conduct arroyo toad surveys, and implement appropriate avoidance/minimization/compensation strategies.** A pre-construction, USFWS protocol survey shall be conducted for the toad in the construction zone (by a biologist permitted by the USFWS to handle the toad), where absence of the species has not been proven, to conclusively define the impacts to occupied habitat. In the absence of this survey data, the mitigation acreages required below shall stand. Where the pre-construction survey determines the species is absent, the mitigation shall be reduced accordingly.

The removal of toad riparian breeding habitat shall occur from October through December to minimize potential impacts to breeding adults (including potential sedimentation impacts to toad eggs) and dispersing juveniles.

Where the toad is present (or assumed to be present if no pre-construction survey is conducted), the construction zone shall be fenced with exclusion fencing to prevent toad access to it. The fencing shall be a silt-screen type barrier comprised of a minimum 24-inch high fence with the remainder (minimum 12 inches) anchored firmly against the ground. The fence may be buried if necessary to exclude toad access. The fence locations shall be identified by a USFWS permitted biologist and adjusted as necessary. Exclusion fencing shall be monitored daily by a qualified biologist (see Mitigation Measure B-1c) and maintained in its original condition by construction personnel for the entire length of the construction period in toad habitat.

Pre- and post-exclusion fencing surveys within the construction zone shall be conducted for arroyo toads by a biologist permitted by the USFWS to handle the toad. Prior to construction commencement, a minimum of three surveys shall be conducted by this biologist following installation of the fencing and prior to construction activities. One of these clearance surveys must take place no more than 24 hours prior to activity commencement. These surveys shall be conducted during appropriate climatic conditions and during the appropriate time of day or night to maximize the likelihood of encountering arroyo toads. If conditions are not appropriate for arroyo toad movement during surveys, the biologist may attempt to elicit a response from the toads during nights (i.e., at least one hour after sunset), provided that temperatures are above 50°F, by spraying the project area with water to simulate a rain event. After the three clearance surveys outlined above have been completed, daily surveys shall be conducted each morning prior to the continuation of construction or maintenance activity. Any toads found shall be relocated to appropriate similar habitat outside project impact areas.

Mitigation for the loss of arroyo toad-occupied habitat shall be implemented as follows. Permanent impacts to occupied, arroyo toad breeding habitat shall include off-site acquisition and preservation of occupied arroyo toad breeding habitat at a 3:1 ratio. Permanent impacts to occupied, upland burrowing habitat shall include off-site acquisition and preservation of occupied, upland burrowing habitat at a 2:1 ratio. Temporary impacts to occupied breeding habitat shall include 1:1 on-site restoration and 2:1 off-site acquisition and preservation of occupied breeding habitat. Temporary impacts to occupied, upland burrowing habitat shall

include 1:1 on-site restoration and 1:1 off-site acquisition and preservation of occupied, upland burrowing habitat. For the Proposed Project, the required mitigation for arroyo toad occupied habitat includes 150.69 acres of on-site restoration and 216.18 acres of off-site acquisition and preservation of occupied toad habitat consisting of 0.6 acres of breeding habitat and 215.58 acres of upland burrowing habitat. Any acquired arroyo toad habitat shall be approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands).

A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands). The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands) prior to the initiation of any activities which may impact (directly or indirectly) the arroyo toad or its habitat. The applicant shall work with the CPUC, BLM, Wildlife Agencies, and USDA Forest Service until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired arroyo toad habitat. The Habitat Management Plan shall include, but shall not be limited to:

- Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) arroyo toad habitat approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands)
- Baseline biological data for all arroyo toad habitat
- Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands) to provide in-perpetuity management
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- Designation of responsible parties and their roles (e.g., provision of endowment by the applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity)
- Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands).

B-7l **Conduct coastal California gnatcatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.** All brushing or grading taking place within occupied habitat of the coastal California gnatcatcher (defined as within 500 feet of any gnatcatcher sightings [USFWS, 2007b]) during construction shall be conducted from September 1 through February 14, which is outside the coastal California gnatcatcher breeding season.

When conducting all other construction activities during the coastal California gnatcatcher breeding season of February 15 through August 30, within habitat in which coastal California gnatcatchers are known to occur or have potential to occur, the following avoidance measures shall apply.

A USFWS permitted biologist shall survey for coastal California gnatcatchers within 10 calendar days prior to initiating activities in an area. The results of the survey shall be submitted to the Wildlife Agencies for review and approval prior to initiating any construction activities. If coastal California gnatcatchers are present, but not nesting, a USFWS permitted biologist shall survey for

nesting coastal California gnatcatchers approximately once per week within 500 feet of the construction area for the duration of the activity in that area during the breeding season.

If/when an active nest is located, a 300-foot no-construction buffer (USFWS, 2007b) shall be established around each nest site; however, there may be a reduction of this buffer zone depending on site-specific conditions or the existing ambient level of activity. The applicant shall contact Wildlife Agencies to determine the appropriate buffer zone. To the extent feasible, no construction shall take place within this buffer until the nest is no longer active. However, if construction must take place within the 300-foot buffer, a qualified acoustician shall monitor noise as construction approaches the edge of the occupied gnatcatcher habitat as directed by the permitted biologist. If the noise meets or exceeds the 60 dB(A) Leq threshold, or if the biologist determines that the activities in general are disturbing the nesting activities, the biologist shall have the authority to halt construction and shall consult with the Wildlife Agencies to devise methods to reduce the noise and/or disturbance in the vicinity. This may include methods such as, but not limited to, turning off vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nesting coastal California gnatcatchers and the activities, and working in other areas until the young have fledged.

Mitigation for the loss of coastal California gnatcatcher-occupied habitat shall be implemented as follows. Permanent impacts to occupied habitat shall include off-site acquisition and preservation of occupied habitat at a 2:1 ratio. Temporary impacts to occupied habitat shall be mitigated at a 2:1 ratio and shall include 1:1 on-site restoration and 1:1 off-site acquisition and preservation of occupied habitat.

Mitigation for the loss of unoccupied designated critical habitat for the gnatcatcher shall be implemented as follows. Permanent impacts to unoccupied designated critical habitat shall include off-site acquisition and preservation of designated critical habitat at a 2:1 ratio. Temporary impacts to unoccupied designated critical habitat shall include 1:1 on-site restoration. Impacts to coastal California gnatcatcher critical habitat must be mitigated within the same Critical Habitat Unit where the impacts occurred.

For the Proposed Project, the required mitigation for the loss of assumed occupied gnatcatcher habitat includes 52.69 acres of on-site restoration and 103.73 acres of off-site acquisition and preservation of occupied gnatcatcher habitat. Furthermore, the required mitigation for the loss of unoccupied designated critical habitat includes 32.97 acres of on-site restoration and off-site acquisition and preservation of 4.44 acres of designated critical habitat for the gnatcatcher. Any acquired coastal California gnatcatcher habitat shall be approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands).

A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands). The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands) prior to the initiation of any activities which may impact (directly or indirectly) the coastal California gnatcatcher or its habitat. The applicant shall work with the CPUC, BLM, Wildlife Agencies, and USDA Forest Service until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired coastal California gnatcatcher. The Habitat Management Plan shall include, but shall not be limited to:

- Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) coastal California gnatcatcher habitat approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands)

- Baseline biological data for all coastal California gnatcatcher habitat
- Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands) to provide in-perpetuity management
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- Designation of responsible parties and their roles (e.g., provision of endowment by the applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity)
- Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands).

B-8a **Conduct pre-construction surveys and monitoring for breeding birds.** All vegetation clearing, except tree trimming or removal, shall take place between August 16 and January 14 (i.e., outside of the general avian breeding season of January 15 through August 15). Tree removal or trimming shall take place between September 16 and December 31 (i.e., outside the raptor breeding season of January 1 through September 15).

If project construction (not vegetation clearing or tree trimming/removal) cannot occur completely outside the general avian breeding season, then pre-construction surveys for non-listed bird species' nests shall be conducted by a qualified biologist within 100 feet of the construction zone within 10 calendar days prior to the initiation of construction that would occur between January 15 and August 15. The results of the survey shall be submitted to the Wildlife Agencies for review and approval prior to initiating any construction activities.

If project construction (not vegetation clearing or tree trimming/removal) including the use of helicopters cannot occur completely outside the raptor breeding season, then pre-construction surveys for active raptor nests shall be conducted by a qualified biologist within 500 feet of the construction zone within 10 calendar days prior to the initiation of construction that would occur between January 1 and September 15. The results of the survey shall be submitted to the Wildlife Agencies for review and approval prior to initiating any construction activities.

If no active nests are observed, construction may proceed. If active nests are found, work may proceed provided that construction activity is 1) located at least 500 feet from raptor nests (USFWS, 2007b), 2) located at least 160 to 250 feet from occupied burrowing owl burrows (CDFG, 1995; see Mitigation Measure B-7d), 3) located at least 300 feet from listed bird species nests (see Mitigation Measure B-7e and B-7l), 4) located at least 100 feet from non-listed bird species nests, and 5) noise levels do not exceed 60 dB(A)hourly Leq at the edge of nesting territories (American Institute of Physics, 2005) as determined by a qualified biologist in coordination with a qualified acoustician. There may be a reduction of these buffer zones depending on site-specific conditions or the existing ambient level of activity. The applicant shall contact Wildlife Agencies to determine the appropriate buffer zone. In the case of raptors (except the burrowing owl), the noise level restriction stated above does not apply (USFWS, 2007b). Otherwise, if the noise meets or exceeds the 60 dB(A) Leq threshold, or if the biologist determines that the construction activities are disturbing nesting activities, the biologist shall have the authority to halt the construction and shall devise methods to reduce the noise and/or disturbance in the vicinity. This may include methods such as, but not limited to, turning off vehicle engines and other equipment whenever possible to reduce noise, installing a protective

noise barrier between the nest site and the construction activities, and working in other areas until the young have fledged. If noise levels still exceed 60 dB(A) Leq hourly at the edge of nesting territories and/or a no-construction buffer cannot be maintained, construction shall be deferred in that area until the nestlings have fledged. All active nests shall be monitored on a weekly basis until the nestlings fledge. The qualified biologist shall be responsible for documenting the results of the surveys and the ongoing monitoring and for reporting these results to the CPUC, BLM, Wildlife Agencies, State Parks (for construction in ABDSP), and USDA Forest Service (for alternatives with construction on National Forest lands).

B-9a **Survey for bat nursery colonies.** A CDFG-approved biologist shall conduct a habitat assessment for bat nursery colonies prior to any construction activity. Then, the approved biologist shall conduct a survey for bat nursery colonies or signs of such colonies prior to construction. Direct impacts to a nursery colony site shall not be allowed, and approach of, or entrance to, an active nursery colony site shall be prohibited. Before any blasting or drilling in the vicinity of a nursery colony site, the CDFG-approved biologist shall work with the construction crew to devise and implement methods to minimize potential indirect impacts to the nursery colony site from falling rock or substantial vibration (while a nursery colony is active). The methods shall include an option to halt any construction activity that would cause falling rock, substantial vibration impacts, or any other construction-related impact (including lighting used for night work) to a nursery colony as determined by the approved biologist, until the colony is inactive. Should falling rock block the entrance to a nursery colony site, the contractor shall work with the approved biologist to re-open an entrance to the site.

B-10a **Utilize collision-reducing techniques in installation of transmission lines**. The applicant shall install the transmission lines utilizing Avian Power Line Interaction Committee standards for collision-reducing techniques as outlined in "Mitigating Bird Collisions with Power Lines: The State of the Art in 1994" (APLIC, 1994) as follows. Placement of towers and lines shall not be located above existing towers and lines, topographic features, or tree lines to the maximum extent practicable. Power lines should be clustered in the vertical and horizontal planes, aligned with existing geographic features or tree lines, and located parallel (rather than perpendicular) to prevailing wind patterns to the maximum degree feasible.

Additionally, overhead lines that are located in highly utilized avian flight paths (from MP 50 through MP 88 for the SRPL Proposed Project) shall be marked utilizing fixed mount Firefly Flapper/Diverters, swan flight diverter coils, or other diversion devices, if proven more effective, as to be visible to birds and to reduce avian collision with power lines.

- Where such markers are installed, the applicant shall fund a study to determine the effectiveness of the markers as a collision prevention measure since there are few, if any, studies that show if such markers work, especially on transmission lines (CEC, 2007). The applicant shall develop a draft study protocol and submit it to the Wildlife Agencies and State Parks, as well as to CPUC and BLM, for review. The applicant shall continue to work with these agencies until approval of a final study protocol is obtained. If the study shows the markers to be ineffective, the applicant shall coordinate with the Wildlife Agencies and State Parks (for markers in ABDSP) to develop alternate collision protection measures.
- The applicant shall implement an avian reporting system for documenting bird mortalities to help identify problem areas. The reporting system shall follow the format in Appendix C of "Suggested Practices for Avian Protection On Power Lines: The State of the Art in 2006" (APLIC, 2006) or a similar format. The applicant shall submit a draft reporting protocol and reporting system to the Wildlife Agencies and

State Parks, as well as to CPUC and BLM, for review and approval. The applicant shall continue to work with these agencies until approval of a final reporting protocol and reporting system is obtained. The applicant shall develop and implement methods to reduce mortalities in identified problem areas. The methods shall be approved by the Wildlife Agencies, State Parks (for problem areas in ABDSP), CPUC, and BLM prior to implementation. Bird mortality shall continue to be documented in the problem areas per the avian reporting system to determine the effectiveness of the mortality reduction methods and to determine if new methods need to be developed.

B-11a Prepare and implement a raven control plan. A Raven Control Plan shall be prepared and implemented for the I-8 Alternative where it occurs in FTHL MAs and FTHL habitat outside of MAs. The raven control plan shall include the use of raven perching/nesting deterrents (such as those manufactured by Prommel Enterprises, Inc. [www.ZENAdesign.com], Mission Environmental [www.missionenviro.co.za], or Kaddas Enterprises, Inc. [www.kaddas.com]) and/or shall describe the procedure for obtaining a permit from the USFWS Law Enforcement Division to legally remove ravens. The plan shall identify the purpose of conducting raven control; provide training in how to identify raven nests and how to determine whether a nest belongs to a raven or a raptor species; describe the seasonal limitations on disturbing nesting raptors; and describe procedures for documenting the activities on an annual basis. SDG&E shall obtain approval of this plan from the USFWS prior to the start of construction. SDG&E shall work with the USFWS until approval of a plan is obtained.

B-12a Conduct maintenance activities outside the general avian breeding season. The applicant shall educate all maintenance workers about the sensitivity of biological resources associated with the project and the necessity to avoid unauthorized impacts to them.

In areas not cleared of vegetation in the prior two years, all vegetation clearing, except tree trimming or removal, shall take place between September 16 and February 14 (i.e., outside of the general avian breeding season of February 15 through September 15). Tree trimming or removal shall only take place between September 16 and December 31 (i.e., outside the raptor breeding season of January 1 through September 15).

Other maintenance activities shall occur outside the general avian breeding season where feasible. For other maintenance activities that cannot occur outside the above-listed breeding seasons, a qualified biologist shall work with a qualified acoustician to determine if a maintenance activity would meet or exceed the 60 dB(A) Leq hourly noise threshold where nesting territories of the coastal California gnatcatcher, least Bell's vireo, southwestern willow flycatcher, and burrowing owl occur. If the noise threshold would not be met or exceeded at the edge of their nesting territories, then maintenance may proceed. If the noise threshold would be met or exceeded at the edge of their nesting territories, pre-maintenance surveys for nests of these species shall be conducted by a qualified biologist (USFWS permitted biologist for gnatcatcher, vireo, and flycatcher) within 300 feet of the maintenance area no more than seven days prior to initiation of maintenance that would occur between February 15 and August 30 for the gnatcatcher, March 15 and September 15 for the vireo, April 15 and September 15 for the flycatcher, and February 1 and August 31 for the burrowing owl. If active nests are found, work may proceed provided that methods, determined by the qualified acoustician to be effective, are implemented to reduce noise below the threshold. These methods include, but are not limited to, turning off vehicle engines and other equipment whenever possible and/or installing a protective noise barrier between a nesting territory and maintenance activities. If the qualified acoustician determines that no methods would reduce noise to below the threshold, maintenance shall be deferred until the nestlings have fledged as determined the qualified biologist. Where noise-reducing methods are

employed, active nests shall be monitored by the qualified biologist on a weekly basis until maintenance is complete or until the nestlings fledge, whichever comes first. The qualified biologist shall be responsible for documenting the results of the pre-maintenance nest surveys and the nest monitoring and for reporting these results to the CPUC, BLM, Wildlife Agencies, State Parks (for maintenance in ABDSP), and USDA Forest Service (for alternatives with maintenance on National Forest lands).

Animal Burrows/Dens. If any animal burrows or dens are identified during the pre-maintenance surveys for active bird nests, soil in a brush-clearing area shall be sufficiently dry before brush clearing to prevent damage to burrows or dens. At any time of year where maintenance would occur in occupied SKR habitat, all equipment and vehicles shall remain on existing access roads/staging areas (e.g., they shall not pull off the shoulder) to prevent the crushing of SKR burrows.

B-12b **Conduct maintenance when arroyo toads are least active.** To avoid impacts to arroyo toads during project maintenance (specifically the use and maintenance of access roads within 2 kilometers of occupied toad habitat), use and maintenance of these access roads shall only occur between two hours after sunrise until two hours before sunset.

B-12c **Maintain access roads and clear vegetation in Quino checkerspot butterfly habitat.** If access roads in QCB-occupied or potentially occupied habitat (see Impact B-7J and Mitigation Measure B-7i) are maintained (i.e., regraded) and vegetation around structures is cleared at least once every two years, then no additional mitigation shall be required for this ongoing maintenance. If more than two years pass without regrading or clearing, then the maintenance shall be considered a new impact to QCB habitat and shall be mitigated as prescribed in Mitigation Measure B-7i (i.e., protocol pre-maintenance survey, biological monitoring, and avoidance or mitigation).

Visual Resources

V-1a **Reduce visibility of construction activities and equipment.** Substation construction sites and all staging and material and equipment storage areas including storage sites for excavated materials, and helicopter fly yards shall be appropriately located away from areas of high public visibility. If visible from nearby roads, residences, public gathering areas, or recreational areas, facilities, or trails, construction sites and staging areas and fly yards shall be visually screened using temporary screening fencing. Fencing will be of an appropriate design and color for each specific location. Additionally, construction in areas visible from recreation facilities and areas during holidays and periods of heavy recreational use shall be avoided. SDG&E shall submit final construction plans demonstrating compliance with this measure to the BLM and CPUC for review and approval at least 60 days prior to the start of construction. Where the project crosses lands administered by other public agencies (e.g., Forest Service, Anza-Borrego Desert State Park), construction plans shall also be submitted to those agencies for review and approval within the same 60-day timeframe.

V-1b **Reduce construction night lighting impacts.** SDG&E shall design and install all lighting at construction and storage yards and staging areas and fly yards such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the project facilities, vicinity, and nighttime sky is minimized. SDG&E shall submit a Construction Lighting Mitigation Plan to the BLM (only if on BLM lands), Forest Service (only if on National Forest lands), Anza-Borrego Desert State Park (for Park lands) and CPUC (for all areas) for review and approval at least 90 days prior to the start of construction or the ordering of any exterior lighting fixtures or components, whichever comes first. SDG&E shall not order any exterior lighting fixtures or components until the Construction Lighting Mitigation Plan is

approved by the reviewing agency. The Plan shall include but is not necessarily limited to the following:

- Lighting shall be designed so exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light sources is shielded to prevent light trespass outside the project boundary
- All lighting shall be of minimum necessary brightness consistent with worker safety
- High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.

V-2a **Reduce in-line views of land scars.** Construct access or spur roads at appropriate angles from the originating, primary travel facilities to minimize extended, in-line views of newly graded terrain. Contour grading should be used where possible to better blend graded surfaces with existing terrain. All proposed new access roads shall be evaluated for their visibility from sensitive viewing locations prior to final design. Prior to final design, SDG&E shall consult with a visual resources specialist representing the CPUC and BLM and a qualified biologist to identify the following:

- Definition of access roads with sensitive viewing areas from which visibility of access roads is a concern.
- Approximate location and length of alternative access road routes if straight line roads are not used. Define habitat affected and steepness of terrain for consideration of habitat and erosion impacts. The biologist and visual resources specialist shall confirm that the overall impacts of the alternate access road are less than that of the original access road design.
- "Drive and crush" access is a feasible measure for avoiding access road scars (i.e., no grading or vegetation removal is required). If this means of access is to be used, SDG&E shall define frequency of driving and vehicle types such that a biologist confirms that vegetation would be likely to recover.
- A table shall be submitted to the CPUC and BLM for review and approval at least 60 days before the start of construction to document towers for which this measure is applied, and the proposed resolution for each access road (i.e., retain straight line roads due to greater impacts from alternative routes, use "drive and crush" access, or develop alternate access road route).

SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC and BLM, as well as the Forest Service and Anza-Borrego Desert State Park (as appropriate), for review and approval at least 60 days prior to the start of construction.

V-2b **Reduce visual contrast from unnatural vegetation lines.** In those areas where views of land scars are unavoidable, the boundaries of disturbed areas shall be aggressively revegetated to create a less distinct and more natural-appearing line to reduce visual contrast. Furthermore, all graded roads and areas not required for on-going operation, maintenance, or access shall be returned to pre-construction conditions. In those cases where potential public access is opened by construction routes, SDG&E shall create barriers or fences to prevent public access and patrol construction routes to prevent vandalized access and litter clean-up until all vegetation removed returns to its pre-project state. SDG&E shall submit final construction and restoration plans demonstrating compliance with this measure to the BLM and CPUC, as well as Forest Service

and Anza-Borrego Desert State Park (as appropriate), for review and approval at least 60 days prior to the start of construction.

V-2c **Reduce color contrast of land scars on non-Forest lands.** For non-USFS-administered land areas where views of land scars from sensitive public viewing locations are unavoidable, disturbed soils shall be treated with Eonite or similar treatments to reduce the visual contrast created by the lighter-colored disturbed soils with the darker vegetated surroundings (Eonite and Permeon are commercially available chemical treatments that "age" or oxidize rock and are used specifically for coloring concrete or rock surfaces to tone down glare and contrast and simulate naturally occurring desert varnish). SDG&E will consult with the Authorized Officer (as determined by the CPUC and BLM as appropriate) on a site-by-site basis for the use of Eonite. SDG&E shall submit final construction and restoration plans demonstrating compliance with this measure to the BLM and CPUC, as well as Anza-Borrego Desert State Park (as appropriate), for review and approval at least 60 days prior to the start of construction.

V-2d **Construction by helicopter.** In those areas where long-term land-scarring and vegetation clearance impacts would be visible to sensitive public viewing locations, or where construction would occur on slopes over 15 percent, SDG&E will consult with the Authorized Officer and appropriate land management agency, on a site-by-site basis regarding the use of helicopter construction techniques and the prohibition of access and spur roads. Agency consultations must be conducted and approvals received at least 120 days prior to the start of construction.

V-2f **Reduce land scarring and vegetation clearance impacts on USFS-administered lands.** Vegetation within the right of way and ground clearing at the foot of each tower and between towers will be limited to the clearing necessary to comply with electrical safety and fire clearance requirements. Mitigation will be incorporated to reduce the total visual impact of all vegetation clearing performed for the power line (USFS Scenery Conservation Plan)

V-3a **Reduce visual contrast of towers and conductors.** The following design measures shall be applied to all new structure locations, conductors, and re-conductored spans, in order to reduce the degree of visual contrast caused by the new facilities:

- All new conductors and re-conductored spans are to be non-specular in design in order to reduce conductor visibility and visual contrast.
- All proposed new access roads shall be evaluated for their visibility from sensitive viewing locations prior to final design. Sensitive viewing locations have been defined by Cleveland National Forest as campgrounds, trailheads, trails, wilderness areas, backcountry roads, heavily traveled roads, and overlooks. Access roads of concern are those that would be visible as they directly approach existing or proposed towers in a straight line from locations immediately downhill of the structures. Prior to final design, SDG&E shall consult with a visual resources specialist representing the CPUC and BLM and a qualified biologist to identify the following:
    - Definition of towers with sensitive viewing areas from which visibility of access roads is a concern.
    - Approximate location and length of alternative access road routes if straight line roads are not used. Define habitat affected and steepness of terrain for consideration of habitat and erosion impacts. The biologist and visual resources specialist shall confirm that the overall impacts of the alternate access road are less than that of the original access road design.

- "Drive and crush" access is a feasible measure for avoiding access road scars (i.e., no grading or vegetation removal is required). If this means of access is to be used, SDG&E shall define frequency of driving and vehicle types such that a biologist confirms that vegetation would be likely to recover.
- A table shall be submitted to the CPUC and BLM for review and approval at least 60 days before the start of construction to document towers for which this measure is applied, and the proposed resolution for each tower (i.e., retain straight line roads due to greater impacts from alternative routes, use "drive and crush" access, or develop alternate access road route).

V-7a **Reduce visual contrast associated with ancillary facilities.** SDG&E shall submit to BLM and CPUC a Surface Treatment Plan describing the application of colors and textures to all new facility structures, buildings, walls, fences, and components comprising all ancillary facilities including substations. The Surface Treatment Plan must reduce glare and minimize visual intrusion and contrast by blending the facilities with the landscape. The Treatment Plan shall be submitted to BLM and CPUC for approval at least 90 days prior to (a) ordering the first structures that are to be color treated during manufacture, or (b) construction of any of the ancillary facility component, whichever comes first. If the BLM or CPUC notifies SDG&E that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, SDG&E shall prepare and submit for review and approval a revised Plan. The Surface Treatment Plan shall include:

- Specification, and 11" x 17" color simulations at life size scale, of the treatment proposed for use on project structures, including structures treated during manufacture
- A list of each major project structure, building, tower and/or pole, and fencing specifying the color(s) and finish 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 project.

SDG&E shall not specify to the vendors the treatment of any buildings or structures treated during manufacture, or perform the final treatment on any buildings or structures treated onsite, until SDG&E receives notification of approval of the Treatment Plan by the BLM and CPUC. Within 30 days following the start of commercial operation, SDG&E shall notify the BLM and CPUC that all buildings and structures are ready for inspection.

V-7b **Screen ancillary facilities.** SDG&E shall provide a Screening Plan for screening vegetation, walls, and fences that reduces visibility of ancillary facilities (except Imperial Valley Substation) and helps the facility blend in with the landscape. The use of berms to facilitate project screening may also be incorporated into the Plan. SDG&E shall submit the Plan to the BLM and CPUC for review and approval at least 90 days prior to installing the landscape screening. If the BLM or CPUC notifies SDG&E that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, SDG&E shall prepare and submit for review and approval a revised Plan. The plan shall include but not necessarily be limited to:

- An 11" x 17" color simulation of the proposed landscaping at 5 years
- A plan view to scale depicting the project and the location of screening elements

- A detailed list of any plants to be used; their size and age at planting; the expected time to maturity, and the expected height at five years and at maturity.

SDG&E shall complete installation of the screening prior to the start of project operation. SDG&E shall notify the BLM and CPUC within seven days after completing installation of the screening, that the screening components are ready for inspection.

V-21a **Reduce night lighting impacts.** SDG&E shall design and install all permanent lighting such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the project facilities, vicinity, and nighttime sky is minimized. SDG&E shall submit a Lighting Mitigation Plan to the CPUC for review and approval at least 90 days prior to ordering any permanent exterior lighting fixtures or components. SDG&E shall not order any exterior lighting fixtures or components until the Lighting Mitigation Plan is approved by the CPUC. The Plan shall include but is not necessarily limited to the following:

- Lighting shall be designed so exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light sources is shielded to prevent light trespass outside the project boundary
- All lighting shall be of minimum necessary brightness consistent with worker safety
- High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.

V-45a **Prepare and implement Scenery Conservation Plan.** Within one year after license issuance, or prior to any ground disturbing activities, the Licensee shall file with the Commission a Scenery Conservation Plan that is approved by the Forest Service. The purpose of this Scenery Conservation Plan is to identify specific actions that will minimize the project's visible disturbance to the naturally established scenery and to establish final direction to best achieve the spirit and intent of the Scenic Integrity Objectives of the Cleveland National Forest Land and Resource Management Plan. To achieve the greatest consistency with the Scenic Integrity Objectives, the project shall detail and integrate the following design recommendations into the Scenery Conservation Plan:

- **Power Line and Support Towers.** Transmission lines shall be non-specular (non-reflective) and neutral in coloration. Support towers shall be custom-colored with a flat, non-reflective finish, to visually blend with native vegetation colors to appear as visually transparent as possible within the natural landscape pattern. Towers shall be designed to minimize their visual prominence and contrast to the natural landscape.
- **Distance Zones.** The Applicant shall consult with the Forest Service on tower design for any approved route on Forest lands and implement tower styles in accordance with agency direction. In general, the USFS requires that support towers within approximately one mile of sensitive primary viewpoints and without a backdrop, should be a monopole design with a simple, clean and less industrial appearance and support towers viewed beyond one mile from sensitive viewpoints or only at distance be lattice towers.
- **Vegetation Clearing.** Vegetation within the right of way and ground clearing at the foot of each tower and between towers will be limited to the clearing necessary to comply with electrical safety and fire clearance requirements. Mitigation will be incorporated to reduce the total visual impact of all vegetation clearing performed for the power line.

- **Roads.** No new access or spur roads, or improvements (reconstruction/expansion) to existing roads are to be constructed in the following areas: (1) where ground slopes exceed 15%, or (2) on Forest lands subject to a HIGH Scenic Integrity Objective (SIO) where the new access or spur road would be visible from primary travel (paved) roads or the Pacific Crest National Scenic Trail, regardless of ground slope. Existing roads needing reconstruction/expansion on other areas of the forest shall be configured to minimize the creation of cut/fill slopes. Where such slopes are created, they shall be immediately treated to minimize their level of scenery disturbance. These treatments may include construction of structural elements designed to blend with the adjacent natural scenery, or revegetation with native species.
- **Structures.** All structures and structural elements, that may be constructed as part of the project shall be designed, located, shaped, textured, colored and/or screened as necessary to minimize their visual contrast, blend, and complement the adjacent forest and community architectural character.
- **Evaluation of Effects.** The Licensee may be required to provide photorealistic visual simulations of proposed designs and mitigation measures to demonstrate their effectiveness in achieving Land and Resource Management Plan Scenic Integrity Objectives as viewed from sensitive viewsheds.
- **Offsite Mitigation.** Where project features create unavoidable and permanent negative scenery effects that are inconsistent with CNF Plan Scenic Integrity Objectives, additional scenery enhancement activities approved by the Forest Service shall be performed in the nearest suitable areas in new viewsheds agreeable to the Forest shall be purchased and assigned to the Forest for its stewardship.

V-66a **Reduce structural prominence and visual contrast associated with the Interstate 8/Chocolate Canyon transition structures.** In order to reduce the structural prominence and visual contrast associated with the Interstate 8/Chocolate Canyon transition structures, SDG&E shall reconsider the location of the transition structures and attempt to lower their height by either relocating the next tower to shorten the span, or by moving the transition structures further downslope. This measure shall be implemented by SDG&E's submittal of a memo to the CPUC for review and approval that documents its attempts to fine-tune the location of the transition structures, as well as the submittal of final construction plans for review and approval at least 120 days prior to the start of construction.

V-68a **Eliminate skylining of ridgeline towers and conductors.** In order to eliminate the skylining of ridgeline towers and conductors, the ridgeline towers shall be relocated to elevations sufficiently low on the ridge to eliminate structure skylining when viewed from Moreno Boulevard, SR67, and residences on the slopes west of SR67. SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC for review and approval at least 120 days prior to the start of construction.

Land Use

L-1a **Prepare Construction Notification Plan.** Forty-five days prior to construction, SDG&E shall prepare and submit a Construction Notification Plan to the CPUC and the BLM for approval. The Plan shall identify the procedures SDG&E will use to 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 text of proposed public notices and advertisements. The plan shall address at a minimum the following components:

- **Public notice mailer.** A public notice mailer shall be prepared and mailed no less than 15 days prior to construction. The notice shall identify construction activities that would restrict, block, remove parking, 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, including all helicopter activities. SDG&E shall mail the notice to all residents or property owners within 1,000 feet of the right-of-way, any property owners or tenants that could be impacted by construction activities and specific public agencies with facilities that could be impacted by construction. If construction delays of more than seven days occur, an additional notice shall be prepared and distributed.
- **Newspaper advertisements.** Fifteen days prior to construction, within a route segment, notices shall be placed in local newspapers and bulletins, including Spanish language newspapers and bulletins. The notice shall state when and where construction will occur and provide information on the public liaison person and hotline identified below. If construction is delayed for more than seven days, an additional round of newspaper notices 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, Anza-Borrego Desert State Park offices and campgrounds, Cleveland National Forest Ranger Stations), and other public venues to inform residents and visitors to the purpose and schedule of construction activities. For public trail closures, SDG&E shall post information on the trail detour at applicable resource management offices and post the notice on the trail within two miles of the 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.** SDG&E 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. SDG&E 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.

L-1c **Coordinate with MCAS Miramar**. At least 90 days before construction, SDG&E shall provide all required project engineering details to MCAS Miramar for review and approval. Information provided shall include access roads to be used, expanded, or added. Information shall also include completed and authorized FAR Part 77 evaluations (Form 7460-1) for all objects exceeding the Outer Horizontal Surface (978 Ft AMSL) at MCAS Miramar. SDG&E shall provide the CPUC and BLM with evidence of its coordination with MCAS Miramar at least 60 days prior to the start of construction.

When any towers are to be removed on MCAS Miramar, all portions of the towers/poles shall be removed. Cutting poles and leaving buried portions is not acceptable on MCAS Miramar lands.

L-2b **Revise project elements to minimize land use conflicts.** At least 90 days prior to completing final transmission line design for the approved route, SDG&E shall notify landowners of parcels

through which the alignment would pass regarding the specific location of the ROW, individual towers, staging areas, pull sites, access roads, or other facilities associated with the project that would occur on the subject property or within 1,000 feet of the property. The notified parties shall be provided at least 30 days in which to identify conflicts with any existing structures or planned development on the subject property and to work with SDG&E to identify potential reroutes of the alignment that would be mutually acceptable to SDG&E and the landowner. Property owners whose land may be divided into potentially uneconomic parcels shall be afforded this same opportunity, even if development plans have not been established. SDG&E shall endeavor to accommodate these reroutes only to the extent that they are reasonable and feasible, do not create a substantial increase in cost, and do not create adverse impacts to resources or to other properties that would be greater in magnitude than impacts that would occur from construction and operation of the alignment as originally planned.

At or before the time property owners are notified and based on SDG&E's own review of the alignment and facilities, SDG&E shall provide CPUC and BLM a written report identifying properties that are suspected of having a land use conflict as described above. This report shall identify and characterize existing buildings within the ROW and residences or occupied structures within or adjacent to the ROW, with which the alignment or other permanent facilities may conflict.

SDG&E shall provide a written report to the CPUC and BLM providing evidence of the notice provided to landowners and copies of any responses to the notice within 30 days of the notice closing date for responses. SDG&E shall also identify in the documentation submitted to CPUC and BLM whether reroutes recommended by the landowner or SDG&E can be accommodated. Where they cannot be accommodated, the reasons shall be provided. SDG&E shall provide information sufficient for the CPUC and BLM to determine that the reroute creates no more adverse impact than the originally planned alignment location. SDG&E shall include environmental information consistent with that required for a Variance (as defined in Section I, Mitigation Monitoring). Where a reroute is proposed, the CPUC and BLM will review and agree to accept or reject individual reroutes. CPUC and BLM also may recommend compromise reroutes for any of the parcels for which responses were provided to SDG&E in a timely fashion.

The following specific modifications shall be developed by SDG&E, following the procedures defined above:

- **Interstate 8 Alternative: MP I8-87 through I8-89.5, High Meadow Ranch**. The initial alignment shall be shifted approximately 200 feet to the west, downslope, in order to minimize visual effects of the towers on the development. See Figure Ap.11C-56 for map of this area.
- **Interstate 8 Alternative: MP I8-92 to I8-92.7, Private home.** The alignment shall be shifted to the east side of Highway 67, to a point just south of the Preserve parking lot, where the alignment would cross Highway 67 to join the Proposed Project route. See Figure Ap.11C-57 for map of this area.
- **Star Valley Option Revision**: SDG&E shall work with affected landowners to refine the route in order to minimize effects on private properties along Star Valley Road.

Wilderness and Recreation

WR-1a **Coordinate construction schedule and activities with the authorized officer for the recreation area.** No less than 60 days prior to construction, SDG&E shall coordinate construction activities and the project construction schedule with the authorized officer for the recreation

areas listed below. SDG&E shall schedule construction activities to avoid heavy recreational use periods in coordination with and at the discretion of the authorized officer. SDG&E shall locate construction equipment to avoid temporary preclusion of recreation areas in accordance with the recommendation of the authorized officer. SDG&E shall document its coordination efforts with the authorized officer and provide this documentation to the CPUC, BLM, and affected park jurisdictions at least 30 days prior to construction.

BLM Dunaway Camp
Juan Bautista de Anza National Historic Trail (County of San Diego Regional Trail)
Trans-County Trail (County of San Diego Regional Trail)
Pacific Crest National Scenic Trail (County of San Diego Regional Trail)
California Riding and Hiking Trail (County of San Diego Regional Trail)
Sycamore Canyon Open Space Preserve
Mission Trails Regional Park

WR-1b Provide temporary detours for trail users. No less than 60 days prior to construction, SDG&E shall coordinate with the authorized officer of the trails listed below to establish temporary detours of the trails to avoid construction area hazards, if the trail is deemed unsafe to use during construction. Should new trail segments be constructed as detours during construction, the temporary new trail segments would be sited to avoid sensitive resources, in coordination with the authorized officer of the trail or recreation area, and would be restored to pre-construction condition by SDG&E when SRPL construction is complete, if required by the authorized officer of the trail or recreation area. SDG&E shall post a public notice of the temporary trail closure and information on the trail detour. SDG&E shall document its coordination efforts with the authorized officer and submit this documentation to the CPUC, BLM, and affected park jurisdictions at least 30 days prior to construction.

- Juan Bautista de Anza National Historic Trail
- Trans-County Trail
- Pacific Crest National Scenic Trail
- California Riding and Hiking Trail
- Mission Trails Regional Park (Fortuna, Rim, and Quarry Loop Trails)

WR-1c Coordinate with local agencies to identify alternative recreation areas. SDG&E shall coordinate with the authorized officer for the applicable federal, State, or local parks and recreational facilities listed below at least 60 days before construction in order to identify alternative recreation facilities that may be used by the public during construction. SDG&E shall post a public notice at recreation facilities that are to be closed or where access would be limited during project construction. SDG&E shall document its coordination efforts with the parks and recreation departments and provide this documentation to the CPUC, BLM, and all affected park jurisdictions 30 days prior to construction.

- BLM Dunaway Camp
- Juan Bautista de Anza National Historic Trail
- Trans-County Trail
- Pacific Crest National Scenic Trail
- California Riding and Hiking Trail
- Sycamore Canyon Open Space Preserve
- Mission Trails Regional Park

WR-2a Develop a reroute for the BCD Alternative Revision to reduce effects on recreation. SDG&E shall relocate the overhead 500 kV transmission line along the southern boundary of JAM properties as shown in Figure E.2.1-b to shorten the route and minimize effects on BLM land, Forest land, and private property. This reroute and its ground-disturbing components shall avoid Back Country Non-Motorized land use zones of the Cleveland National Forest, while also minimizing towers and disturbance on private property. SDG&E shall submit a memo to the CPUC for review and approval that documents its attempts to fine-tune the location of the BCD Alternative Revision, as well as the submittal of final construction plans for review and approval at least 120 days prior to the start of construction.

WR-2b Evaluate and Implement PCT Route Revision. SDG&E shall consult and coordinate with the U.S. Forest Service, BLM, and the Pacific Crest Trail Association to develop route options for revising the PCT so it would cross the Modified Route D Alternative only once, rather than three times. SDG&E shall prepare and submit a report to the BLM and U.S. Forest Service prior to energizing the new transmission line. The report shall identify feasible PCT relocation options, and, under the direction of the federal agencies, shall evaluate whether its construction and restoration of the old trail segment would create overall greater impacts than those created by three crossings of the PCT that would occur with the Modified Route D Alternative. If directed by the BLM, SDG&E shall be responsible for constructing the new trail segment and restoring the old trail segment in manner acceptable to the BLM and U.S. Forest Service. Trail construction and restoration shall be completed within one year of energizing the transmission line.

WR-3a Coordinate tower and road locations with the authorized officer for the recreation area. Where the Proposed Project crosses the recreation areas listed below, SDG&E shall coordinate with the authorized officer for the recreation area to determine specific tower site and spur road locations in order to minimize impacts to recreational resources. If it is not feasible to site structures outside of a park/preserve, compensation shall be required for permanent impacts (i.e., structure footings, access roads not dually used as trails) to park/preserve land at a 1:1 ratio. However, this mitigation measure is superseded by biological resource Mitigation Measure B-1a, which specifies restoration and compensation ratios for affected vegetation. In cases where the impacts to recreational resources occur on lands already in use as mitigation for other projects, the mitigation ratios shall be doubled, as is standard practice in San Diego County.

In consultation with the authorized officer of the trail or recreation area, access roads shall not be located on trails (e.g., PCT, Trans-County Trail) unless the authorized officer determines that the construction of new access roads would result in greater impacts than modifying the trail for use as an access road. If it is not feasible to site transmission structures off of a trail, SDG&E shall provide full funding for relocation of trail segments, including planning and trail construction, at location(s) identified by the authorized officer of the trail or recreation area. Trail segment relocation shall maintain the connectivity of regional and community trails.

This coordination shall occur no less than 60 days prior to the start of construction. SDG&E shall document its coordination with the authorized officer and shall submit this documentation to the CPUC, BLM, and ABDSP, at least 30 days prior to project construction.

- Juan Bautista de Anza National Historic Trail
- Cleveland National Forest
- Trans-County Trail
- Pacific Crest National Scenic Trail
- California Riding and Hiking Trail
- San Vicente Highlands Open Space Preserve

Agriculture

AG-1a Avoid interference with agricultural operations. The Applicant shall coordinate with property owners and tenants to ensure that project construction will be conducted so as to avoid or minimize interference with agricultural operations. Agricultural operations include, but are not limited to, the use of farm vehicles and equipment, access to property; water delivery, drainage, and irrigation.

AG-1b Restore compacted soil. The Applicant shall restore soils compacted or disturbed such as by excavation during construction by conferring with the property owner or tenant to identify and then implement a mutually agreed means to restore such soils. Restoration actions may include, but are not be limited to, disking, plowing, removal of excavated soil, or other suitable restoration methods.

AG-1c Coordinate with grazing operators. SDG&E shall coordinate with grazing operators to ensure that agricultural productivity and animal welfare are maintained both during and after construction to the maximum extent feasible. Coordination efforts will address issues including, but not necessarily limited to:

- Interference with access to water (e.g., provide alternate methods for livestock access to water)
- Impairment of cattle movements (e.g., provide alternate routes; reconfigure fencing/gates)
- Removal and replacement of fencing (e.g., during construction install temporary fencing/ barriers, as appropriate, and following construction restore equal or better fencing to that which was removed or damaged)
- Impacts to facilities such as corrals and watering structures, as well as related effects such as ingress/egress, and management activities (e.g., replacement of damaged/removed facilities in kind; provide alternate access)

AG-3b Consult with and inform aerial applicators. The Applicant shall consult with landowners and the County Farm Bureaus to determine which aerial applicators operate in the county. The Applicant shall provide written notification to all aerial applicators working in the county and to the CPUC stating when and where the new transmission lines and towers will be erected. The Applicant shall also provide all aerial applicators, the County Farm Bureaus, and the CPUC with aerial photos or topographic maps clearly showing the new lines and towers in relation to agricultural lands.

Cultural Resources

C-1a Inventory and evaluate cultural resources in Final APE. Prior to construction and all other surface disturbing activities, the Applicant shall have conducted and submitted for approval by the BLM and CPUC an inventory of cultural resources within the project's final Areas of Potential Effect.[1] This survey will supplement inventories conducted for the EIS/EIR and shall satisfy Section 106 requirements for inventory of historic properties within all Areas of Potential Effect. The nature and extent of this inventory shall be determined by the BLM and CPUC in consultation with the appropriate State Historic Preservation Officer (SHPO) and other land-managing agencies (e.g., Anza-Borrego Desert State Park, U.S. Forest Service, Bureau of Indian

[1] Area of Potential Effect is the horizontal and vertical extent of anticipated impacts that could affect historic properties. This includes direct impacts (physical disturbance from any project activity during or after construction) and indirect impacts, such as noise, vibration, visual intrusion, or erosion.

Affairs, etc.) and shall be based upon project engineering specifications and in accordance with the Secretary of the Interior's Standards and Guidelines (Secretary's Standards) (36 CFR 61).

A report documenting results of this inventory shall be filed with appropriate State repositories and local governments. As part of the inventory report, the Applicant shall evaluate the significance of all potentially affected cultural resources on the basis of surface observations Evaluations shall be conducted by professionals meeting the Secretary's Standards and in accordance with those Standards, to provide recommendations with regard to their eligibility for the NRHP, CRHR, or local registers. Preliminary determinations of NRHP eligibility will be made by the BLM, in consultation with the CPUC and other appropriate agencies and local governments, and the SHPO.

As part of the inventory, the Applicant shall conduct field surveys of sufficient nature and extent to identify cultural resources that would be affected by tower pad construction, reconductoring activities, trenching for underground transmission lines, access road installation, and transmission line construction and operation. At a minimum, field surveys shall be conducted along newly proposed access roads, new construction yards, new tower sites, and any other projected areas of potential ground disturbance outside of the previously surveyed potential impact areas. Site-specific field surveys also shall be undertaken at all projected areas of impact within the previously surveyed corridor that coincide with previously recorded resource locations. The selected right-of-way and tower locations shall be staked prior to the cultural resource field surveys.

C-1b **Avoid and protect potentially significant resources.** Where feasible, potentially register-eligible resources and register-eligible resources shall be protected from direct project impacts by project redesign; complete avoidance of impacts to such resources shall be the preferred protection strategy. On the basis of preliminary National Register of Historic Places (NRHP) eligibility assessments (Mitigation Measure C-1a) or previous determinations of resource eligibility, the BLM and CPUC, in consultation with the SHPO, may request the relocation of the line, ancillary facilities, or temporary facilities or work areas, if any, where relocation would avoid or reduce damage to cultural resource values.

Where the BLM and CPUC, in consultation with the Applicant, decide that potentially NRHP- and/or CRHR-eligible cultural resources cannot be protected from direct impacts by project redesign, or that avoidance is not feasible, the Applicant shall undertake additional studies to evaluate the resources' NRHP- and/or CRHR-eligibility and to recommend further mitigative treatment. The nature and extent of this evaluation shall be determined by the BLM in consultation with the CPUC and the SHPO and shall be based upon final project engineering specifications. Evaluations will be based on surface remains, subsurface testing, archival and ethnographic resources, and in the framework of the historic context and important research questions of the project area. Results of those evaluation studies and recommendations for mitigation of project effects shall be incorporated into a Historic Properties Treatment Plan consistent with Mitigation Measure C-1c (Develop and implement Historic Properties Treatment Plan).

All potentially NRHP- and/or CRHR-eligible resources (as determined by the BLM and CPUC, in consultation with the SHPO) that will not be affected by direct impacts, but are within 50 feet of direct impact areas, will be designated as Environmentally Sensitive Areas (ESAs) to ensure that construction activities do not encroach onsite peripheries. Protective fencing, or other markers (after approval by CPUC/BLM), shall be erected and maintained to protect ESAs from inadvertent trespass for the duration of construction in the vicinity. ESAs shall not be identified specifically as cultural resources. A monitoring program shall be developed as part of a Historic

Properties Treatment Plan and implemented by the Applicant to ensure the effectiveness of ESA protection (as detailed in Mitigation Measure C-1e).

C-1c **Develop and implement Historic Properties Treatment Plan.** Upon approval of the inventory report and the National Register of Historic Places (NRHP)-eligibility and CRHR-eligibility evaluations consistent with Mitigation Measures C-1a (Inventory and evaluate cultural resources in Final APE) and C-1b (Avoid and protect potentially significant resources), the Applicant shall prepare and submit for approval a Historic Properties Treatment Plan (HPTP) for register-eligible cultural resources to avoid or mitigate identified potential impacts. Treatment of cultural resources shall follow the procedures established by the Advisory Council on Historic Preservation for compliance with Section 106 of the National Historic Preservation Act and other appropriate State and local regulations, as explicated in Section D.7.8. Avoidance, recordation, and data recovery will be used as mitigation alternatives; avoidance and protection shall be the preferred strategy. The HPTP shall be submitted to the BLM and CPUC for review and approval.

As part of the HPTP, the Applicant shall prepare a research design and a scope of work for evaluation of cultural resources and for data recovery or additional treatment of NRHP- and/or CRHR-eligible sites that cannot be avoided. Data recovery on most resources would consist of sample excavation and/or surface artifact collection, and site documentation. A possible exception would be a site where burials, cremations, or sacred features are discovered that cannot be avoided (see Mitigation Measure C-2).

The HPTP shall define and map all known NRHP- and/or CRHR-eligible properties in or within 50 feet of all project APEs and shall identify the cultural values that contribute to their NRHP- and/or CRHR-eligibility. The HPTP shall also detail how NRHP- and/or CRHR-eligible properties will be marked and protected as ESAs (in accordance with Mitigation Measure C-1b) during construction.

The HPTP shall also define any additional areas that are considered to be of high-sensitivity for discovery of buried register-eligible cultural resources, including burials, cremations, or sacred features. This sensitivity evaluation shall be conducted by an archaeologist who meets the Secretary's Standards and who takes into account geomorphic setting and surrounding distributions of archaeological deposits. The HPTP shall detail provisions for monitoring construction in these high-sensitivity areas for proper implementation of Mitigation Measures C-1e and C-3a. It shall also detail procedures for halting construction, making appropriate notifications to agencies, officials, and Native Americans, and assessing register-eligibility in the event that unknown cultural resources are discovered during construction. For all unanticipated cultural resource discoveries, the HPTP shall detail the methods, consultation procedures, and timelines for assessing register-eligibility, formulating a mitigation plan, and implementing treatment. Mitigation and treatment plans for unanticipated discoveries shall be approved by the BLM and CPUC, other appropriate agencies and local governments, appropriate Native Americans, and the SHPO prior to implementation.

The HPTP shall also identify all historic built environment resources (structures, roads, dams, etc.) that would be affected indirectly by visual intrusion of the Proposed Project on qualities that contribute to their register eligibility. Although the current analysis has assessed the potential for indirect visual impacts to previously recorded historic built environment resources within 0.5 miles of the Proposed Project and Alternatives, the HPTP shall include an identification effort focused on identifying any such resources that may not have been previously recorded. The scope of this identification effort shall be in accordance with 36 CFR 800, which requires a reasonable effort to identify potentially NRHP-eligible resources that would be adversely affected by indirect

project impacts. The HPTP shall also detail the treatment for each affected resource that will minimize those long-term visual impacts (as detailed in Mitigation Measure C-6a).

The HPTP 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. The Applicant shall attempt to gain permission for artifacts from privately held land to be curated with the other project collections. The HPTP shall specify that archaeologists and other discipline specialists conducting the studies meet the Secretary's Standards (per 36 CFR 61).

C-1d **Conduct data recovery to reduce adverse effects.** If NRHP- and/or CRHR-eligible resources, as determined by the BLM and SHPO, cannot be protected from direct impacts of the Proposed Project, data-recovery investigations shall be conducted by the Applicant to reduce adverse effects to the characteristics of each property that contribute to its NRHP- and/or CRHR-eligibility. For sites eligible under Criterion (d), significant data would be recovered through excavation and analysis. For properties eligible under Criteria (a), (b), or (c), data recovery may include historical documentation, photography, collection of oral histories, architectural or engineering documentation, preparation of a scholarly work, or some form of public awareness or interpretation. Data gathered during the evaluation phase studies and the research design element of the Historic Properties Treatment Plan (HPTP) shall guide plans and data thresholds for data recovery; treatment will be based on the resource's research potential beyond that realized during resource recordation and evaluation studies. If data recovery is necessary, sampling for data-recovery excavations will follow standard statistical sampling methods, but sampling will be confined, as much as possible, to the direct impact area. Data-recovery methods, sample sizes, and procedures shall be detailed in the HPTP consistent with Mitigation Measure C-1c (Develop and implement Historic Properties Treatment Plan) and implemented by the Applicant only after approval by the BLM and CPUC. Following any field investigations required for data recovery, the Applicant shall document the field studies and findings, including an assessment of whether adequate data were recovered to reduce adverse project effects, in a brief field closure report. The field closure report shall be submitted to the BLM and CPUC for their review and approval, as well as to appropriate State repositories, local governments, and other appropriate agencies. Construction work within 100 feet of cultural resources that require data-recovery fieldwork shall not begin until authorized by the BLM or CPUC, as appropriate, to ensure that impacts to known significant archaeological deposits are adequately mitigated.

C-1e **Monitor construction at known ESAs.** The Applicant shall implement full-time archaeological monitoring by a professional archaeologist during ground-disturbing activities at all cultural resource Environmentally Sensitive Areas (ESAs). These locations and their protection boundaries shall be defined and mapped in the HPTP.

Archaeological monitoring shall be conducted by a qualified archaeologist familiar with the types of historical and prehistoric resources that could be encountered within the project, and under direct supervision of a principal archaeologist. The qualifications of the principal archaeologist and archaeological monitors shall be approved by the BLM and CPUC.

A Native American monitor may be required at culturally sensitive locations specified by the BLM following government-to-government consultation with Native American tribes. The monitoring plan in the HPTP shall indicate the locations where Native American monitors will be

required and shall specify the tribal affiliation of the required Native American monitor for each location. The Applicant shall retain and schedule any required Native American monitors.

Compliance with and effectiveness of any cultural resources monitoring required by an HPTP shall be documented by the Applicant in a monthly report to be submitted to the BLM and CPUC for the duration of project construction. In the event that cultural resources are not properly protected by ESAs, all project work in the immediate vicinity shall be diverted to a buffer distance determined by the archaeological monitor until authorization to resume work has been granted by the BLM and CPUC.

The Applicant shall notify the BLM of any damage to cultural resource ESAs. If such damage occurs, the Applicant shall consult with the BLM and CPUC to mitigate damages and to increase effectiveness of ESAs. At the discretion of the BLM and CPUC, such mitigation may include, but not be limited to, modification of protective measures, refinement of monitoring protocols, data-recovery investigations, or payment of compensatory damages in the form of non-destructive cultural resources studies or protection within or outside the license area, at the discretion of the BLM.

C-1f **Train construction personnel.** All construction personnel shall be trained regarding the recognition of possible buried cultural remains and protection of all cultural resources, including prehistoric and historic resources during construction, prior to the initiation of construction or ground-disturbing activities. The Applicant shall complete training for all construction personnel and retain documentation showing when training of personnel was completed. Training shall inform all construction personnel of the procedures to be followed upon the discovery of archaeological materials, including Native American burials. Training shall inform all construction personnel that Environmentally Sensitive Areas (ESAs) must be avoided and that travel and construction activity must be confined to designated roads and areas. All personnel shall be instructed that unauthorized collection or disturbance of artifacts or other cultural materials 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:

- All construction contracts shall require construction personnel to attend training so they are aware of the potential for inadvertently exposing buried archaeological deposits, their responsibility to avoid and protect all cultural resources, and the penalties for collection, vandalism, or inadvertent destruction of cultural resources.
- The Applicant shall provide training for supervisory construction personnel describing the potential for exposing cultural resources, the location of any potential ESA, and procedures and notifications required in the event of discoveries by project personnel or archaeological monitors. Supervisors shall also be briefed on the consequences of intentional or inadvertent damage to cultural resources. Supervisory personnel shall enforce restrictions on collection or disturbance of artifacts or other cultural resources.

C-1g **Avoid and protect Old Highway 80 (P-37-024023).** A portion of the Interstate 8 Alternative would be constructed underground within Alpine Boulevard; from approximately MP 74.3 to MP 80 of this underground segment, Alpine Boulevard is also Old Highway 80. Construction impacts to contributing elements of this resource shall be minimized by avoidance of highway segments that retain integrity, as well as associated historic road signs and monuments located on the shoulder. If avoidance is not possible, affected segments shall be formally evaluated to assess

their contribution to the NRHP eligibility of the resource as a whole. Additional protective measures are required to reduce adverse effects include formal documentation (i.e., HABS/HAER), and interpretive signage.

C-2a **Properly treat human remains.** All locations of known Native American human remains shall be avoided through project design and shall be protected by designation as ESAs. If the approved project route will affect sites known to contain human remains that cannot be avoided in their entirety during construction, the Applicant shall contact the California Native American Heritage Commission (NAHC). The NAHC will identify the Most Likely Descendant (MLD), within 48 hours, who will specify the preferred course of treatment in the event that additional human remains are discovered. The Applicant shall also contact the BLM (lead federal agency for the Proposed Project) and any additional land management agencies if the site is located on public lands administered by a State or federal agency other than the BLM. The Applicant shall follow all State and federal laws, statutes, and regulations that govern the treatment of human remains (see Section D.7.7). The Applicant shall assist and support the BLM in all required government-to-government consultations with Native Americans and appropriate agencies and commissions, as requested by the BLM. The Applicant shall comply with and implement all required actions and studies that result from such consultations.

If human remains are discovered during construction, all work shall be diverted from the area of the discovery and the BLM authorized officer shall be informed immediately. The Applicant shall follow all State and federal laws, statutes, and regulations that govern the treatment of human remains. The Applicant shall assist and support the BLM in all required government-to-government consultations with Native Americans and appropriate agencies and commissions, as requested by the BLM. The Applicant shall comply with and implement all required actions and studies that result from such consultations, as directed by the BLM.

Although subject to the recommendations of the MLD, it is likely that the human remains would be respectfully removed by the MLD and/or qualified archaeologists and reinterred in an area not subject to impacts from the Proposed Project. The re-interment location may be identified as a nearby locale within SDG&E ROW, or an offsite location may be selected. The Applicant shall assist and support the MLD in identifying, acquiring, and protecting the re-interment location.

C-3a **Monitor construction in areas of high sensitivity for buried resources.** The Applicant shall implement archaeological monitoring by a professional archaeologist during subsurface construction disturbance at all locations identified in the Historic Properties Treatment Plan (HPTP) as highly sensitive for buried prehistoric or historical archaeological sites or Native American human remains. These locations and their protection boundaries shall be defined and mapped in the HPTP. Intermittent monitoring may occur in areas of moderate archaeological sensitivity at the discretion of the BLM and CPUC. Monitoring shall be conducted in accordance with procedures detailed in Mitigation Measure C-1e

Upon discovery of potential buried cultural materials by archaeologists or construction personnel, or damage to an ESA, work in the immediate area of the find shall be diverted and the Applicant's archaeologist notified. Once the find has been inspected and a preliminary assessment made, the Applicant's archaeologist will consult with the BLM or CPUC, as appropriate, to make the necessary plans for evaluation and treatment of the find(s) or mitigation of adverse effects to ESAs, in accordance with the Secretary's Standards, and as specified in the HPTP.

C-4a **Complete consultation with Native American and other Traditional Groups.** The Applicant shall provide assistance to the BLM, as requested by the BLM, to complete required government-to-government consultation with interested Native American tribes and individuals (Executive Memorandum of April 29, 1994 and Section 106 of the National Historic Preservation Act) and

other Traditional Groups to assess the impact of the approved project on Traditional Cultural Properties or other resources of Native American concern, such as sacred sites and landscapes, or areas of traditional plant gathering for food, medicine, basket weaving, or ceremonial uses. As directed by the BLM, the Applicant shall undertake required treatments, studies, or other actions that result from such consultation. Written documentation of the completion of all pre-construction actions shall be submitted by the Applicant and approved by the BLM at least 30 days before commencement of construction activities. Actions that are required during or after construction shall be defined, detailed, and scheduled in the Historic Properties Treatment Plan and implemented by the Applicant, consistent with Mitigation Measure C-1c (Develop and implement Historic Properties Treatment Plan).

C-5a **Protect and monitor NRHP- and/or CRHR-eligible properties.** The Applicant shall design and implement a long-term plan to protect National Register of Historic Places (NRHP- and/or CRHR)-eligible sites from direct impacts of project operation and maintenance and from indirect impacts (such as erosion and access) that could result from the presence of the project. The plan shall be developed in consultation with the BLM to design measures that will be effective against project maintenance impacts, such as vegetation clearing and road and tower maintenance, and project-related vehicular impacts. The plan shall also include protective measures for NRHP- and/or CRHR-eligible properties within the transmission line corridor that will experience operational and access impacts as a result of the Proposed Project. Measures considered shall include restrictive fencing or gates, permanent access road closures, signage, stabilization of potential erosive areas, site capping, site patrols, and interpretive/educational programs, or other measures that will be effective for protecting NRHP- and/or CRHR-eligible properties. The plan shall be property specific and shall include provisions for monitoring and reporting its effectiveness and for addressing inadequacies or failures that result in damage to NRHP- and/or CRHR-eligible properties. The plan shall be submitted to the BLM, CPUC, and other appropriate land-managing agencies for review and approval at least 30 days prior to project operation.

Monitoring of sites selected during consultation with BLM shall be conducted annually by a professional archaeologist for a period of five years. Monitoring shall include inspection of all site loci and defined surface features, documented by photographs from fixed photo monitoring stations and written observations. A monitoring report shall be submitted to the BLM, CPUC, and other appropriate land-managing agencies within one month following the annual resource monitoring. The report shall indicate any properties that have been affected by erosion or vehicle or maintenance impacts. For properties that have been impacted, the Applicant shall provide recommendations for mitigating impacts and for improving protective measures. After the fifth year of resource monitoring, the BLM, CPUC, or other land-managing agency, as appropriate, will evaluate the effectiveness of the protective measures and the monitoring program. Based on that evaluation, the BLM or CPUC may require that the Applicant revise or refine the protective measures, or alter the monitoring protocol or schedule. If the BLM does not authorize alteration of the monitoring protocol or schedule, those shall remain in effect for the duration of project operation.

If the annual monitoring program identifies adverse effects to National Register of Historic Places (NRHP- and/or CRHR)-eligible properties from operation or long-term presence of the project, or if, at any time, the Applicant, BLM, CPUC, or other appropriate land-managing agency become aware of such adverse effects, the Applicant shall notify the BLM and CPUC immediately and implement additional protective measures, as directed by the BLM and CPUC. At the discretion of the BLM and CPUC, such measures may include, but not be limited to, refinement of monitoring protocols, data-recovery investigations, or payment of compensatory damages in the form of non-destructive cultural resources studies or protection.

C-6a **Reduce adverse visual intrusions to historic built environment properties.** All known historic built environment resources located within 0.5 miles of the Proposed Project shall be inventoried and subjected to a visual analysis to assess which resources would be subject to potential indirect visual intrusions resulting from the project. This inventory will supplement the analysis of built environment resources conducted for the EIS/EIR, and shall meet the requirements of Section 106 to inventory historic properties that could be adversely affected by the Proposed Project. The Applicant shall inventory potentially register-eligible built environment resources within an Area of Potential Indirect Effect established by the BLM and CPUC. A qualified (Secretary of the Interior Standards) professional shall assess the potential for visual intrusions on the qualities that qualify any historic properties within the APE for register eligibility. The results of this inventory shall be included in the HPTP. If any historic properties are identified that would be adversely affected by visual intrusions from the Proposed Project, the HPTP shall also specify mitigation measures that would be implemented to reduce adverse effects, such as screening the visual intrusion with vegetation, moving project towers to less conspicuous locations, if technically feasible, or altering towers to reduce any identified adverse effects. Selection of appropriate and effective treatments shall consider technical feasibility of the measures and potential impacts on other sensitive resources or land uses.

C-6e **Reduce adverse visual intrusions to portions of Old Highway 80.** Visual intrusion by the aboveground portion of this alternative, on portions of Old Highway 80 that retain integrity of setting shall be minimized by a combination of minimizing tower height and screening. In addition, since segments of Old Highway 80 would be crossed by the overhead portion of the alternative, compensatory mitigation including new signage shall be employed. If this alternative is constructed, as part of the Historic Properties Treatment Plan (Mitigation Measure C-1c) SDG&E shall develop a protection plan for Old Highway 80 that defines resources to be protected, includes input from visual resources specialists, and evaluates a menu of protection options.

C-6f **Reduce adverse visual intrusions to the Desert View Tower viewshed.** Visual intrusion to the Desert View Tower viewshed, caused by the aboveground portion of this alternative shall be minimized by a combination of minimizing tower height, screening, and painting towers to match the surroundings. Specific measures to minimize visual effects to the Desert View Tower shall be developed in consultation with the owner of this resource. If this alternative is constructed, SDG&E shall develop a protection plan for the Desert View Tower viewshed that defines resources to be protected, includes input from visual resources specialists, and evaluates a menu of protection options. The report shall be provided to the CPUC and BLM for review and approval at least 60 days before the start of construction.

Paleontological Resources

PAL-1a **Inventory and evaluate paleontological resources in the Final APE.** Prior to construction, the Applicant shall conduct and submit to CPUC, BLM, and other involved land-managing agencies for approval an inventory of significant paleontological resources within the affected area based on field surveys of areas identified as marginal through high or undetermined paleontological sensitivity potential.

PAL-1b **Develop Paleontological Monitoring and Treatment Plan.** Following completion and approval of the paleontological resources inventory and prior to construction, the Applicant shall prepare and submit to CPUC, BLM, and other involved land-managing agencies for approval a Paleontological Monitoring Treatment Plan (Plan). The plan shall be designed 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 identify construction impact areas of moderate to high sensitivity for encountering significant resources and the depths at which those resources are likely to be encountered. The Plan shall outline a coordination strategy to ensure that a qualified paleontological monitor will conduct full-time monitoring of all ground disturbance in sediments determined to have a moderate to high sensitivity. Sediments of low, marginal, and undetermined sensitivity shall be monitored on a part-time basis (as determined by the Qualified Paleontologist) Sediments with zero sensitivity will not require paleontological monitoring. The Qualified Monitor shall have a B.A. in Geology or Paleontology, and a minimum of one year of monitoring experience in local sediments. The Plan shall detail the significance criteria to be used to determine which resources will be avoided or recovered for their data potential. 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 land shall be carried out by qualified paleontologists with the appropriate current permits, including, but not limited to a Paleontological Resources Use Permit (for work on public lands administered by BLM) and a Paleontological Collecting Permit (for work on lands administered by California Department of Parks and Recreation). Notices to proceed will be issued by the BLM, CPUC, and other agencies with jurisdiction, following approval of the Paleontological Monitoring and Treatment Plan.

PAL-1c Monitor construction for paleontology. Based on the paleontological sensitivity assessment and Paleontological Monitoring and Treatment Plan consistent with Mitigation Measure PAL-1b (Develop Paleontological Monitoring and Treatment Plan), the Applicant shall conduct full-time construction monitoring by the qualified paleontological monitor in areas determined to have moderate to high paleontological sensitivity. Sediments of low, marginal undetermined sensitivity shall be monitored by a qualified paleontological monitor on a part-time basis (as determined by the Qualified Paleontologist). Construction activities shall be diverted when data recovery of significant fossils is warranted, as determined by the Qualified Paleontologist

PAL-1d Conduct paleontological data recovery. If avoidance of significant paleontological resources is not feasible or appropriate based on project design, treatment (including recovery, specimen preparation, data analysis, curation, and reporting) shall be carried out by the Applicant, in accordance to the approved Treatment Plan per Mitigation Measure PAL-1b (Develop Paleontological Monitoring and Treatment Plan).

PAL-1e Train construction personnel. Prior to the initiation of construction or ground-disturbing activities, 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) ESAs include areas determined to be paleontologically sensitive as defined on the paleontological sensitivity maps for the project, and must be avoided and that 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:

- All construction contracts shall include clauses that require construction personnel to attend training so they are aware of the potential for inadvertently exposing subsurface paleontological resources, their responsibility to avoid and protect all such resources, and the penalties for collection, vandalism, or inadvertent destruction of paleontological resources.
- 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 diverted 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, CPUC, and other appropriate land managers and proceed with data recovery in accordance with the approved Treatment Plan consistent with Mitigation Measure PAL-1b (Develop Paleontological Monitoring and Treatment Plan).

Noise

N-1a **Implement Best Management Practices for construction noise.** SDG&E shall comply with local noise rules, standards, and/or ordinances by implementing the following noise-suppression techniques and variance standards set by local authorities. SDG&E shall apply for and obtain a variance for construction activities that must occur outside of the daytime hours allowed by local ordinances or within 200 feet of noise-sensitive receptors. At a minimum, SDG&E shall employ the following noise-suppression techniques to avoid possible violations of local rules, standards, and ordinances:

- Confine construction noise to daytime, weekday hours (e.g., 7:00 a.m. to 7:00 p.m.) or an alternative schedule established by the local jurisdiction or land use manager
- On construction equipment, use noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer
- Install temporary sound walls or acoustic blankets to shield adjacent residences. These 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
- Route construction traffic away from residences and schools, where feasible
- Minimize unnecessary construction vehicle use and idling time. The ability to limit construction vehicle idling time is dependent upon the sequence of construction activities and when and where vehicles are needed or staged. A "common sense" approach to vehicle use shall be applied; if a vehicle is not required for use immediately or continuously for construction activities, its engine shall be shut off. (Note: certain equipment, such as large diesel-powered vehicles, require extended idling for warm-up and repetitive construction tasks.)

N-2a **Avoid blasting where damage to structures could occur.** Blasting shall be managed with a plan for each site. The plan shall include the blasting methods, surveys of existing structures and other built facilities, and distance calculations to estimate the area of effect of the blasting. Blasting shall not be allowed where damage to vulnerable structures could occur, and a rock anchoring or mini-pile system shall be used if adjacent structures could be damaged as a result of blasting or any construction method used as an alternative to blasting. If any structure is inadvertently adversely affected by construction vibration, the structure shall be restored to conditions equivalent to those prior to blasting. SDG&E shall then fairly compensate the owner of any damaged structure for lost use.

N-3a **Respond to complaints of corona noise.** SDG&E shall respond to third-party complaints of corona noise generated by operation of the transmission line by investigating the complaints and by implementing feasible and appropriate measures (such as repair damaged conductors, insulators, or other hardware). As part of SDG&E's repair inspection and maintenance program, the transmission line shall be patrolled, and damaged insulators or other transmission line materials, which could cause excessive noise, shall be repaired or replaced.

Transportation and Traffic

T-1a **Restrict lane closures.** SDG&E shall restrict all necessary lane closures or obstructions on major roadways associated with overhead or underground construction activities to off-peak periods in congested areas to reduce traffic delays. Lane closures must not occur between 6:00 and 9:30 a.m. and between 3:30 and 6:30 p.m., unless otherwise directed in writing by the responsible public agency issuing an encroachment permit.

T-4a **Ensure pedestrian and bicycle circulation and safety**. Where construction will result in temporary closures of sidewalks and other pedestrian facilities, SDG&E 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 and signs shall be provided.

T-5a **Repair damaged roads.** If damage to roads occurs as a result of project construction or construction vehicle traffic, SDG&E shall restore damaged roadways at their own expense under the direction of the affected public agencies to ensure that any impacts are adequately repaired. Roads disturbed by construction activities or construction vehicles shall be properly restored to ensure long-term protection of road surfaces. Said measures shall be incorporated into an access agreement/easement with the applicable governing agency prior to construction. Prior to construction, SDG&E will determine with the governing agency the appropriate method for documenting pre- and post-construction conditions.

T-7a **Notify public of potential short-term elimination of parking spaces.** As required in Mitigation Measures L-1a, prior to any construction activity on major roadways, SDG&E shall notify the public of the potential for parking spaces to be temporarily eliminated and where temporary parking spaces will be relocated through multiple media such as local newspapers and onsite postings. The elimination and relocation of parking spaces must be in conformance with the requirements of agencies responsible for parking management.

T-9a **Prepare Construction Transportation Management Plan.** SDG&E shall prepare a Construction Transportation Management Plan (CTMP) to address traffic and transportation issues related to project construction. The CTMP shall describe alternate traffic routes, timing of worker commutes and material deliveries, the need for lane and road closures, the use of helicopters, plans for construction worker parking and transportation to work sites, methods for keeping

roadways clean, and other methods for reducing adverse construction-related traffic impacts on regional and local roadways. The plan must comply with the requirements of the respective county and must be submitted to the respective counties and Caltrans for approval prior to commencing construction activities.

T-11b **Consult with and inform U.S. Customs and Border Protection.** The Applicant shall consult with U.S. Customs and Border Patrol to determine where border patrol aircraft operate in the county. Prior to construction, the Applicant shall provide written notification to all border patrol aircraft working in the county and to the CPUC stating when and where the new transmission lines and towers will be erected and shall install markers as requested by the Border Patrol. The Applicant shall also provide all border patrol aircraft, the U.S. Customs and Border Patrol, and the CPUC with aerial photos or topographic maps clearly showing the new lines and towers in relation to the U.S./Mexico border within the San Diego and Imperial Counties.

Public Health and Safety – Environmental Contamination

P-1a **Implement Environmental Monitoring Program.** An environmental monitoring program will be implemented by SDG&E or its contractors to ensure that the plans defined in HS-APM-1 (personnel trained in proper use and safety procedures for the chemicals used), HS-APM-2 (personnel trained in refueling of vehicles), HS-APM-3 (preparation of environmental safety plans including spill prevention and response plan), HS-APM-8 (SDG&E's and/or General Contractor environmental/health and safety personnel), and HS-APM-10 (storage and disposal of hazardous and solid waste) are followed throughout the period of construction. SDG&E will designate an Environmental Field Representative, who will be onsite to observe, enforce, and document adherence to the plans for all construction activities.

P-1b **Maintain emergency spill supplies and equipment.** Hazardous material spill kits will be maintained onsite by SDG&E or its contractors for response to small spills. This shall include oil-absorbent material, tarps, and storage drums to be used to contain and control any minor releases. Emergency spill supplies and equipment will be kept adjacent to all areas of work and in staging areas, and will be clearly marked. Detailed information for responding to accidental spills and for handling any resulting hazardous materials will be provided in the project's Spill Response Plan defined in HS-APM-3.

P-2a **Test for residual pesticides/herbicides on currently or historically farmed land.** In areas where the land has been or is currently being farmed, soil samples shall be collected and tested for herbicides, pesticides, and fumigants to determine the presence and extent of any contamination. The sampling and testing plan shall be prepared in consultation with the County Agricultural Commission, and conducted by an appropriate California licensed professional and sent to a California Certified laboratory. Samples shall be tested at a California Certified Laboratory. A report documenting the areas proposed for sampling, and the process used for sampling, testing shall be submitted to the CPUC and BLM for review and approval at least 60 days before construction. Results of the laboratory testing and recommended resolutions for handling and excavation of material found to exceed regulatory requirements shall be submitted to the CPUC and BLM (if on BLM land) 30 days prior to construction.

Excavated materials containing elevated levels of pesticide or herbicide will require special handling and disposal according to procedures established by the regulatory agencies. Effective dust suppression procedures will be used in construction areas to reduce airborne emissions of these contaminants and reduce the risk of exposure to workers and the public. Regulatory

agencies for the State of California (DTSC or RWQCB) and the appropriate County (San Diego or Imperial) shall be contacted by SDG&E or its contractor to plan handling, treatment, and/or disposal options.

P-3a **Appoint individuals with correct training for sampling, data review, and regulatory coordination.** In the event that potential contaminated soil or groundwater is encountered, samples shall be collected by an OSHA-trained individual with a minimum of 40-hours hazardous material site worker training. Laboratory data from suspected contaminated material shall be reviewed by the contractor's Health and Safety Officer and/or SDG&E's Field Environmental Representative and they shall coordinate with the appropriate regulatory agency (RWQCB or local CUPA agency) if contamination is confirmed to determine the suitable level of worker protection and the necessary handling and/or disposal requirements.

P-3b **Documentation of compliance with measures for encountering unknown contamination.** If during grading or excavation work, the contractor observes visual or olfactory evidence of contamination in the exposed soil a report of the location and the potential contamination, results of laboratory testing, recommended mitigation (if contamination is verified), and actions taken shall be submitted to the CPUC and BLM (if on BLM lands) for each event. This report shall be submitted within 30 days of receipt of laboratory data.

P-7a **Evaluate contaminated sites**. SDG&E shall implement the following steps, at locations where excavation or significant ground disturbance will occur; all steps be completed at least 60 days prior to project construction, to prevent mobilization of contaminants and exposure of workers and the public:

- **Step 1.** Investigate the site to determine whether it has a record of hazardous material contamination which would affect construction activities. This investigation should be performed as a Phase I – Environmental Site Assessment (ESA). If contamination is found that could potentially affect the health and safety of workers or the public during construction of the Proposed Project, proceed to Step 2.
- **Step 2.** Perform a characterization study of the site to determine the nature and extent of the contamination present at the location before construction activities proceed within the project ROW near the suspect site.
- **Step 3.** Determine the need for further investigation and/or remediation of the soil or groundwater conditions at or near the contaminated site, i.e., within areas of ground disturbance for the Proposed Project. (For example, if there would be little or no contact with contaminated materials, industrial cleanup levels would likely be applicable. If site activities would involve human contact with the contaminated materials, such as would be the case with excavation of contaminated materials during project construction, then Step 4 shall be completed. If no human contact is anticipated, then no further mitigation would be required for the location.)
- **Step 4.** If it is determined that disturbance or excavation of soils or groundwater with contamination would accompany construction at the site, undertake a Phase II Environmental Site Investigation (Phase II ESI) involving sampling and further characterization of potentially contaminated areas with the project ROW or reroute the line away from the contamination area. Should further investigation reveal high levels of hazardous materials, mitigate health and safety risk according San Diego County CUPA or RWQCB regulations or requirements. This would include site-specific Health and Safety Plans, Work Plans, and/or Remediation Plans.

Public Health and Safety – Electric and Magnetic Fields and Other Field-Related Concerns

PS-1a Limit the conductor surface electric gradient. As part of the design and construction process for the Proposed Project, the Applicant shall limit the conductor surface electric gradient in accordance with the IEEE Radio Noise Design Guide.

PS-1b Document and resolve electronic interference complaints. After energizing the transmission line, SDG&E shall respond to and document all radio/television/equipment interference complaints received and the responsive action taken. These records shall be made available to the CPUC for review upon request. All unresolved disputes shall be referred by SDG&E to the CPUC for resolution.

PS-2a Implement grounding measures. As part of the siting and construction process for the Proposed Project, SDG&E shall identify objects (such as fences, metal buildings, and 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 SDG&E's standards. The identification of objects shall document the threshold electric field strength and metallic object size at which grounding becomes necessary.

Air Quality

AQ-1a Suppress dust at all work or staging areas and on public roads. SDG&E shall: (a) pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas if construction activity causes persistent visible emissions of fugitive dust beyond the work area; (b) pre-water sites for 48 hours in advance of clearing; (c) reduce the amount of disturbed area where possible; (d) all dirt stock-pole areas should be sprayed daily as needed; (e) cover loads in haul trucks or maintain at least six inches of free-board when traveling on public roads; (f) pre-moisten, prior to transport, import and export dirt, sand, or loose materials; (g) sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets or wash trucks and equipment before entering public streets; (h) plant vegetative ground cover in disturbed areas as soon as possible following construction; (i) apply chemical soil stabilizers or apply water to form and maintain a crust on inactive construction areas (disturbed lands that are unused for four consecutive days); and (j) prepare and file 30 days in advance of construction with the ICAPCD, SDAPCD, BLM, and CPUC a Dust Control Plan that describes how these measures would be implemented and monitored at all locations of the project. The Dust Control Plan shall identify nearby sensitive receptors, such as land uses that include children, the elderly, the acutely ill and the chronically ill, and specify the means of minimizing impacts to these populations (for example, by locating equipment and staging areas away from sensitive receptors).

AQ-1b Use low-emission construction equipment. SDG&E shall maintain construction equipment per manufacturing specifications and use low-emission equipment described here. All off-road and portable construction diesel engines not registered under the CARB Statewide Portable Equipment Registration Program, which have a rating of 50 horsepower (hp) or more, shall meet, at a minimum, the Tier 2 California Emission Standards for Off-Road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, Sec. 2423(b)(1) unless that engine is not available for a particular item of equipment. In the event a Tier 2 engine is not available for any off-road engine larger than 100 hp, that engine shall be equipped with a Tier 1 engine. If any engine larger than 100 hp does not meet Tier 1 standards, that engine shall be equipped with a catalyzed diesel particulate filter (soot filter), unless the engine manufacturer indicates that the

use of such devices is not practical for that particular engine type. SDG&E shall substitute small electric-powered equipment for diesel- and gasoline-powered construction equipment where feasible.

AQ-1h Obtain NOx and particulate matter emission offsets. SDG&E shall obtain and hold for the duration of construction NOx emission reduction credits or fund incentive programs approved by ICAPCD and SDAPCD at sufficient levels to offset the construction emissions of NOx that exceed the ozone nonattainment area federal General Conformity Rule applicability threshold. SDG&E shall secure 99 tons per year of NOx reductions and 276 tons per year of particulate matter reductions in Imperial County, and SDG&E shall secure 212 tons per year of NOx reductions in San Diego County to satisfy this requirement. The emission reduction credits or incentive program shall comply with ICAPCD and SDAPCD rules and regulations, and the credits or reductions shall be obtained by SDG&E prior to commencing construction.

AQ-4a Offset construction-phase greenhouse gas emissions with carbon credits. SDG&E shall create greenhouse gas emission reductions or obtain and hold for the duration of project construction sufficient carbon credits to fully offset construction-phase greenhouse gas emissions. During construction SDG&E shall report to the CPUC quarterly the status of efforts to create reductions or obtain banked credits and the quantity of construction-phase greenhouse gas emissions offset by credits. At a minimum, SDG&E shall create or obtain and hold carbon credits to offset 55,000 tons of carbon dioxide emissions for each of the two years of construction. Carbon Reduction Tons (CRTs) verified according to the rules of the California Climate Action Registry may be retired by SDG&E to satisfy this requirement.

AQ-4b Offset operation-phase greenhouse gas emissions with carbon credits. SDG&E shall create greenhouse gas emission reductions or obtain and hold for the life of the project sufficient carbon credits to fully offset greenhouse gas emissions caused by activity to support transmission line operation, maintenance, and inspection activities. To determine the quantity of carbon credits that must be created or obtained and held each year, SDG&E must develop a complete GHG inventory annually for project-related operational emissions. SDG&E shall follow established methodologies to report and inventory indirect GHG emissions from energy imported and consumed to support operation of the Proposed Project and indirect GHG emissions from transmission and distribution losses associated with the Proposed Project. SDG&E shall report to the CPUC annually the status of efforts to obtain banked credits and the quantity of greenhouse gas emissions offset by credits. Established methodologies for determining project-related emissions include the current California Climate Action Registry (CCAR) General Reporting Protocol, and the Power/Utility Reporting Protocol appendix to the General Reporting Protocol. Carbon Reduction Tons (CRTs) verified according to the rules of the California Climate Action Registry may be retired by SDG&E to satisfy this requirement.

AQ-4c Avoid sulfur hexafluoride emissions. SDG&E shall identify sulfur hexafluoride (SF_6) leaks and establish a strategy for replacing leaking equipment to reduce SF_6 leaks. To accomplish this, SDG&E shall develop and maintain a record of SF_6 purchases, an SF_6 leak detection and repair program using laser imaging leak detection and monitoring no less frequently than quarterly, an SF_6 recycling program, and an employee education and training program for avoiding or eliminating SF_6 emissions caused by the Proposed Project. The SF_6 leak detection and repair program shall be provided to the CPUC and BLM 90 days prior to project construction. Prior to construction, SDG&E shall also become a Partner in the U.S. EPA's SF_6 Emissions Reduction Partnership for Electric Power Systems. SDG&E shall also report SF_6 emissions from the Proposed Project to the California Climate Action Registry according to CCAR methodologies or alternate methodology approved by the California Air Resources Board. To develop a complete GHG inventory, SDG&E shall follow established methodologies to report indirect GHG

emissions from energy imported and consumed to support operation of the Proposed Project and indirect GHG emissions from transmission and distribution losses associated with the Proposed Project.

Water Resources

H-1a **Prepare Substation Grading and Drainage Plan; construct during the dry season.** Prior to construction of new substations, a grading and drainage plan, with SWPPP for construction and post-construction BMPs (as defined by the RWQCB), shall be prepared and submitted to the CPUC and RWQCB for review and approval. All grading for the substation shall occur either during the dry season months, or a settling pond shall be installed on the construction site with sufficient capacity to contain expected runoff during a rainfall event. In addition, for construction during a rainfall event, construction shall cease when rutting occurs in greater than 10% of the road or when rills more than 10 feet in length develop and lead off the road surface in the work area. Approved drainage control and erosion control BMPs shall be in place prior to the normal onset of winter rains.

H-1a(CC)
Construct during the dry season. All construction of the Chocolate Canyon Option shall occur during the dry season months. Approved drainage control and erosion control BMPs shall be in place prior to the normal onset of winter rains. Implement the City of San Diego Source Water Protection Guidelines for New Development (2004) that describes procedures for minimizing the adverse water quality effect of new development near water supply reservoirs such as El Capitan. These guidelines specify best management practice procedures to be used by the development, which would include the Chocolate Canyon Option.

H-1b **Construction in Los Peñasquitos Canyon Preserve to be in the dry season; SWPPP to be reviewed and approved by San Diego County and City of San Diego.** Construction within the Los Peñasquitos Canyon Preserve (the Preserve) shall occur during the summer (dry season) months. Project construction plans and the SWPPP for project construction shall be submitted to the CPUC, the City of San Diego and the County of San Diego for review and approval prior to construction. The SWPPP shall address erosion and sedimentation control, groundwater dewatering procedures, hazardous materials identification, handling, disposal and emergency spill procedures, and any other best management procedures necessary to prevent contaminants from entering the waters of the preserve, including consideration of using directional drilling. Construction activities within the Preserve shall be open to City and County monitors who shall have the authority to ensure compliance with the approved SWPPP.

H-1k **Comply with Forest Service conditions.** Where the power line crosses Forest Service property, the following conditions, or others defined by the Forest Service, based on consultation, shall be complied with:

- The Forest Service reserves the right, after notice and opportunity for comment, to modify project conditions, if necessary, to respond to any Final Biological Opinion issued for this project by the United States Fish and Wildlife Service, NOAA Fisheries, or any Certification or permit issued for this Project by the State Water Resources Control Board or Army Corps of Engineers.
- Within one year of license issuance, or prior to any ground disturbing activities, the Licensee shall file with the California Public Utilities Commission a plan approved by the Forest Service for hazardous substances storage, spill prevention, and spill cleanup for project facilities on or directly affecting National Forest System Lands. In addition, during plan-

ning and prior to any new construction or maintenance not addressed in an existing plan, the Licensee shall notify the Forest Service, and the Forest Service shall make a determination whether a plan approved by the Forest Service for oil and hazardous substances storage and spill prevention and cleanup is needed.

- At a minimum, the plan must require the Licensee to (1) maintain in the project area, or at an alternative location approved by the Forest Service, a cache of spill cleanup equipment suitable to contain any spill from the project; (2) to periodically inform the Forest Service of the location of the spill cleanup equipment on National Forest System lands and of the location, type, and quantity of oil and hazardous substances stored in the project area; (3) to inform the Forest Service immediately of the nature, time, date, location, and action taken for any spill affecting National Forest System lands, and Licensee adjoining property when such spill could reasonably be expected to affect National Forest System lands, and (4) provide annually to the Forest Service a list of Licensee project contacts.
- The Licensee shall confine all vehicles being used for project purposes, including but not limited to administrative and transportation vehicles and construction and inspection equipment, to roads or specifically designed access routes, and approved construction and staging areas, as identified in a Road and Traffic Management Plan developed by the Licensee. The Forest Service reserves the right to close any and all such routes where damage (impacts beyond the expected and approved disturbance) is occurring to the soil or vegetation, or, if requested by Licensee, to require reconstruction/construction by the Licensee to the extent needed to accommodate the Licensee's use. The Forest Service agrees to provide notice to the Licensee and the Public Utilities Commission prior to road closures, except in an emergency, in which case notice will be provided as soon as practicable.
- During planning and before any new construction or non-routine maintenance projects with the potential for causing erosion and/or stream sedimentation on or affecting National Forest System Lands, the Licensee shall file with the Public Utilities Commission an Erosion Control Measures Plan that is approved by the Forest Service. The Plan shall include measures to control erosion, stream sedimentation, dust, and soil mass movement attributable to the project.

The plan shall be based on actual-site geological, soil, and groundwater conditions and shall include:

1. A description of the actual site conditions
2. Detailed descriptions, design drawings, and specific topographic locations of all control measures
3. Measures to divert runoff away from disturbed land surfaces
4. Measures to collect and filter runoff over disturbed land surfaces
5. Revegetating disturbed areas in accordance with current direction on use of native plants and locality of plant and seed sources
6. Measures to dissipate energy and prevent erosion
7. A monitoring and maintenance schedule.

Upon Commission approval, the Licensee shall implement the plan.

- Ground disturbing activities may proceed only after appropriate NEPA analysis and documentation completion. If the licensee proposes new activities to the Public Utilities Commission not previously addressed in the Commission's NEPA analysis processes, the licensee, in consultation with the Forest Service, shall determine the scope of work, and the potential project related effects and whether additional information is required to proceed with the planned ground disturbing activity. The licensee shall enter into a cost recovery agreement with the Forest Service under which the licensee shall fund the Forest Service staff time required for staff activities related to the analysis, documentation and administration of the proposed activities.
- The Licensee shall within 6 months after license issuance file with the Public Utilities Commission a Water Resources Management Plan that is approved by the Forest Service, for the purpose of controlling and monitoring the project-related effects to water resources on National Forest System lands, which are related to the Licensee's activities. The purpose of the plan is to protect groundwater related surface water and other groundwater-dependent resources.
- Within one year of license issuance the Licensee shall file with the Public Utilities Commission a plan approved by the Forest Service for the management of groundwater and the associated surface waters on or affecting National Forest System lands. The purpose of the plan shall be to reduce the potential for groundwater extraction or contamination and related effects to surface water resources.

H-1l **Construction on Forest Service land to be subject to an approved, site-specific SWPPP and Sediment Control Plan.** A site-specific sediment control plan and SWPPP shall be prepared for construction within the National Forest. These plans shall identify and characterize potentially affected water resources and provide site-specific remedies to minimize project-related sedimentation, as well as provide post-construction remediation and monitoring details. The sediment control plan shall include construction in the dry period, as well as construction by helicopter in areas where terrain is steep and the potential consequences of sedimentation severe. These plans shall be submitted to the Forest Service and CPUC for review and approval prior to construction.

H-2d **Maintain vehicles and equipment.** All vehicles and equipment, including all hydraulic hoses, shall be maintained in good working order so that they are free of any and all leaks that could escape the vehicle or contact the ground. A vehicle and equipment maintenance log shall be updated and provided to CPUC and BLM once monthly during project construction.

H-4b **Avoid blasting where damage to groundwater wells or springs could occur.** Blasting shall be managed with a Blasting Plan for each site. The Plan shall include the blasting methods, distance calculations to estimate the area of effect of the blasting, and surveys for wells and springs within the blast influence area (no less than ½ mile from the blasting location). Blasting shall not be allowed where damage to wells or springs could occur according to the Applicant's Blasting Plan, and a rock anchoring or mini-pile system shall be used if these resources could be damaged as a result of blasting or any earthworking method used as an alternative to blasting. Where inadvertent damage to wells within an EPA-designated Sole Source Aquifer occur as a result of earthwork, the Applicant shall compensate the landowner in the form of well repair or replacement, and shall provide the landowner with a water storage tank and sufficient potable water within 48 hours and throughout the interim between damage and repair or replacement. Where inadvertent damage to other wells or springs occurs as a result of earthwork, the Applicant shall compensate the landowner in the form of remedial cash payment, repair, or replacement, as appropriate. The burden of proof of no impact shall rest with the Applicant.

H-5a **Install substation runoff control.** The pad for new substations shall be constructed with a pervious and/or high-roughness (for example, gravel) surface where possible to ensure maximum percolation of rainfall after construction. Detention/retention basins shall be installed to reduce local increases in runoff, particularly on frequent runoff events (up to 10-year frequency). Downstream drainage discharge points shall be provided with erosion protection and designed such that flow hydraulics exiting the site mimics the natural condition as much as possible. A drainage design hydrologic and hydraulic analysis shall be provided to the CPUC for review and approval prior to the initiation of construction.

H-6a **Scour protection to include avoidance of bank erosion and effects to adjacent property.** A determination of towers requiring scour protection under WQ-APM-10 shall be made during the design phase by a registered professional engineer with expertise in river mechanics. All towers within the project shall be reviewed by the river mechanics engineer and the foundations of those towers determined to be subject to scour or lateral movement of a stream channel shall be protected by burial beneath the 100-year scour depth, setbacks from the channel bank, or bank protection as determined by the river mechanics engineer. An evaluation shall also be made regarding the potential for the tower and associated structures to induce erosion onto adjacent property. Should the potential for such erosion occur, the tower location shall be moved to avoid this erosion, or erosion protection (such as rip rap) provided for the adjacent property. This evaluation, and associated scour/erosion protection design plans, shall be submitted to the CPUC for review and approval 60 days prior to the initiation of construction of the towers.

H-7a **Develop Hazardous Substance Control and Emergency Response Plan for project operation.** SDG&E shall prepare and implement a Hazardous Substance Control and Emergency Response Plan for project operation, and a copy shall be kept onsite at substations. This plan shall include definition of an emergency response program to ensure quick and safe cleanup of accidental spills, including prescriptions for hazardous-material handling to reduce the potential for a spill during construction. The plan will identify areas where refueling and vehicle-maintenance activities and storage of hazardous materials, if any, will be permitted. These directions and requirements will also be reiterated in the project SWPPP. SDG&E shall submit this Response Plan to the CPUC and BLM for review and approval at least 60 days before construction.

H-8a **Bury power line below 100-year scour depth.** At locations where the buried power line is to be at or adjacent to a stream bed capable of scour, the power line shall be located below the expected depth of scour from a 100-year flood, or otherwise protected from exposure by scour which, for purposes of this mitigations measure, also includes lateral (streambank) erosion and potential scour associated with flows overtopping or bypassing a culvert or bridge crossing. During final design, a registered civil engineer with expertise in hydrology, hydraulics, and river mechanics shall make a determination of where the underground line could be at risk of exposure through scour or erosion from a 100-year event. Plans for burying the line below the 100-year scour depth, or otherwise protecting the line from erosion, shall be submitted to CPUC for review and approval prior to construction.

Geology, Mineral Resources, and Soils

G-2a **Protect desert pavement.** Grading for new access roads or work areas in areas covered by desert pavement shall be avoided or minimized. If avoidance of these areas is not possible, the desert pavement surface shall be protected from damage or disturbance from construction vehicles by use of temporary mats placed on the ground surface. A plan for identification and avoidance or protection of sensitive desert pavement shall be prepared and submitted to the CPUC and BLM

for review and approval at least 60 days prior to start of construction. The plan shall define how protective measures will prevent destruction of desert pavement.

G-3a **Conduct geotechnical studies for soils to assess characteristics and aid in appropriate foundation design.** The design-level geotechnical studies to be performed by the Applicant shall identify the presence, if any, of potentially detrimental soil chemicals, such as chlorides and sulfates. 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 cathodic protection systems. The geotechnical studies shall also identify areas with potentially expansive or collapsible soils and include appropriate design features, including excavation of potentially expansive or collapsible soils during construction and replacement with engineered backfill, ground-treatment processes, and redirection of surface water and drainage away from expansive foundation soils. Studies shall conform to industry standards of care and ASTM standards for field and laboratory testing. Study results and proposed solutions shall be provided to the CPUC and BLM for review and approval at least 60 days before final project design.

G-4a **Reduce effects of groundshaking.** The design-level geotechnical investigations performed by the Applicant shall include site-specific seismic analyses to evaluate the peak ground accelerations for design of project components. Based on these findings, project structure designs shall be modified/strengthened, as deemed appropriate by the project engineer, if the anticipated seismic forces (high calculated peak vertical and horizontal ground accelerations due to severe groundshaking) are found to be greater than anticipated wind load stresses on project structures. Study results and proposed design modifications shall be provided to the CPUC and BLM for review and approval at least 60 days before final project design.

G-4b **Conduct geotechnical investigations for liquefaction.** Because seismically induced liquefaction-related ground failure has the potential to damage or destroy project components, the design-level geotechnical investigations to be performed by the Applicant shall include investigations designed to assess the potential for liquefaction to affect the approved project and all associated facilities, specifically at tower locations in areas with potential liquefaction-related impacts. Where these hazards are found to exist, appropriate engineering design and construction measures shall be incorporated into the project designs as deemed appropriate by the project engineer. Design measures that would mitigate liquefaction-related impacts could include construction of pile foundations, ground improvement of liquefiable zones, installation of flexible bus connections, and incorporation of slack in cables to allow ground deformations without damage to structures. Study results and proposed solutions to mitigate liquefaction shall be provided to the CPUC and BLM for review and approval at least 60 days before final project design.

G-5a **Minimize project structures within active fault zones.** Prior to final project design SDG&E shall perform a geologic/geotechnical study to confirm the location of mapped traces of active and potentially active faults crossed by the project route. For crossings of active faults, the project design shall be planned so as not to locate towers or other project structures on the traces of active faults and in addition project components shall be placed as far as feasible outside the areas of mapped fault traces. Compliance with this measure shall be documented to the CPUC and BLM in a report submitted for review and approval at least 60 days prior to the start of construction.

G-6a **Conduct geotechnical surveys for landslides and protect against slope instability.** The design-level geotechnical surveys conducted by the Applicant shall perform slope stability analyses in areas in areas of planned grading and excavation that cross and are immediately adjacent to hills and mountains. 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 in other areas of ground disturbance, such as grading for access and spur roads. The investigations shall include an evaluation of subsurface conditions, identification of potential landslide hazards, and provide information for development of excavation plans and procedures. If the results of the geotechnical survey indicate the presence of unstable slopes at or adjacent to Proposed Project structures, appropriate support and protection measures shall be designed and implemented to maintain the stability of slopes adjacent to newly graded or re-graded access roads, work areas, and project structures during and after construction, and to minimize potential for damage to project facilities. These design measures shall include, but are not limited to, retaining walls, visquene, removal of unstable materials, and avoidance of highly unstable areas. SDG&E shall document compliance with this measure prior to the final project design by submitting a report to the CPUC for review and approval at least 60 days before construction. The report shall document the investigations and detail the specific support and protection measures that will be implemented.

G-9a **Coordinate with quarry operations.** SDG&E shall coordinate with operations and management personnel, and with BLM, to determine status of and plans for active quarries adjacent to or crossed by project alignments. SDG&E shall develop a plan to avoid or minimize interference with mining operations in conjunction with mine/quarry operators prior to construction, and submit it for review and approval to the BLM and CPUC. If mine operators are out of compliance with BLM lease requirements, SDG&E shall coordinate with all parties to resolve the situation and shall demonstrate compliance with this measure prior to the start of construction by submitting the plan to the CPUC and BLM for review at least 60 days prior to the start of construction. If active mining areas require a reroute of the existing SWPL or the Interstate 8 Alternative route, SDG&E shall provide a detailed map documenting proposed new tower and access road location(s), as well as a summary of environmental impacts that would occur (biological and cultural resources surveys must be completed).

Socioeconomics, Services, and Utilities

S-2a **Notify public of utility service interruption.** Prior to construction in which a utility service interruption is known to be unavoidable, SDG&E shall notify members of the public affected by the planned outage by mail of the impending interruption, and shall post flyers informing the public of the service interruption in neighborhoods affected by the planned outage. Copies of notices and dates of public notification shall be provided to the CPUC and BLM.

S-2b **Protect underground utilities.** Prior to construction of the underground transmission line, SDG&E shall submit to the CPUC and BLM written documentation, including evidence of review by the appropriate jurisdictions, including the following:

- Construction plans designed to protect existing utilities and showing the dimensions and location of the finalized alignment
- Records that the Applicant provided the plans to affected jurisdiction for review, revision and final approval
- Evidence that the project meets all necessary local requirements
- Evidence of compliance with design standards
- Copies of any necessary permits, agreements, or conditions of approval
- Records of any discretionary decisions made by the appropriate agencies.

S-3a **Recycle construction waste**. To comply with the Integrated Waste Management Act of 1989, during project construction SDG&E and/or its construction contractor shall recycle a minimum of 50 percent of the waste generated during construction activities. In unincorporated San Diego County, to comply with the construction and demolition debris ordinance, SDG&E and/or its construction contractor shall recycle a minimum of 90 percent of inerts and 70 percent of all other materials, and submit all applicable plans and documentation. Following the completion of construction activities, SDG&E shall provide the CPUC and BLM with documentation from the recycling and landfill facilities used to show that the amount of waste recycled was 50 percent or more in Imperial Valley and incorporated San Diego County, and 90 percent of inerts and 70 percent of all other materials in unincorporated San Diego County.

S-3b **Use reclaimed water.** To the extent feasible, SDG&E shall coordinate with local water districts in advance in order to efficiently obtain reclaimed or potable water for delivery to the construction sites and to meet any restrictions imposed by them. The Applicant shall provide a letter describing the availability of reclaimed 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.

Fire and Fuels Management

F-1a **Develop and implement a Construction Fire Prevention Plan**. SDG&E shall develop a multi-agency Construction Fire Prevention Plan for the SRPL and monitor construction activities to ensure implementation and effectiveness of the plan. Plan reviewers shall include: CPUC, CAL FIRE, San Diego and Imperial Counties, BLM, CNF, and City fire agencies. SDG&E shall provide a draft copy of this Plan to each listed agency at least 90 days before the start of any construction activities. Comments on the Plan shall be provided by SDG&E to all other participants, and SDG&E shall resolve each comment in consultation with CAL FIRE. The final Plan shall be approved by CAL FIRE at least 30 days prior to the initiation of construction activities. SDG&E shall fully implement the Plan during all construction and maintenance activities

All construction work on the SRPL shall follow the Construction Fire Prevention Plan guidelines and commitments, and Plan contents are to be incorporated into the standard construction contracting agreements for the construction of the SRPL. Primary Plan implementation responsibility shall remain with SDG&E.

At a minimum, Plan contents shall include the requirements of Title 14 of the California Code of Regulations, Article 8 #918 "Fire Protection" (Refer to Section D.15.3), all components of the Sempra Utilities Wildland Fire Prevention and Fire Safety Guide (2007) in Appendix 3D, and the elements listed below:

- During the construction phase of the project, SDG&E shall implement ongoing fire patrols during the fire season as defined each year by local, State, and federal fire agencies. These dates vary from year to year, generally occurring from late spring through dry winter periods.
- Fire Suppression Resource Inventory – In addition to CCR Title 14, 918.1(a), (b), and (c), SDG&E shall update in writing the 24-hour contact information and onsite fire suppression equipment, tools, and personnel list on quarterly basis and provide it to the CPUC, BLM, and to State and federal fire agencies.
- During Red Flag Warning events, as issued daily by the National Weather Service in SRAs and Local Responsibility Areas (LRA), and when the USFS Project Activity Level (PAL) is Very High on CNF (as appropriate), all construction and maintenance activities shall cease. Exception for transmission line testing: A transmission line may be tested,

one time only, if the loss of another transmission facility could lead to system instability or cascading outages. Utility and contractor personnel shall be informed of changes to the Red Flag event status and PAL as stipulated by CAL FIRE and CNF.

- All construction crews and inspectors shall be provided with radio and cellular telephone access that is operational along the entire length of the approved route to allow for immediate reporting of fires. Communication pathways and equipment shall be tested and confirmed operational each day prior to initiating construction activities at each construction site. All fires shall be reported to the fire agencies with jurisdiction in the project area immediately upon ignition.
- Each crew member shall be trained in fire prevention, initial attack firefighting, and fire reporting. Each member shall carry at all times a laminated card listing pertinent telephone numbers for reporting fires and defining immediate steps to take if a fire starts. Information on contact cards shall be updated and redistributed to all crewmembers as needed, and outdated cards destroyed, prior to the initiation of construction activities on the day the information change goes into effect.
- Each member of the construction crew shall be trained and equipped to extinguish small fires in order to prevent them from growing into more serious threats. Each crew member shall at all times be within 100 yards of a vehicle containing equipment necessary for fire suppression as outlined in the final Construction Fire Plan.

F-1b **Amend and implement Sempra Utilities Wildland Fire Prevention and Fire Safety Guide (2007).** The draft SDG&E Plan and final Sempra Utilities Wildland Fire Prevention and Fire Safety Guide (2007) are presented in Appendix 3D. The Amended Plan shall, at a minimum, include all of the provisions of the Final Plan and the Construction Fire Plan (per Mitigation Measure F-1a). The plan shall be revisited and updated once every five years to incorporate new regulations, practices, technologies, and fire science research. SDG&E shall submit the Plan for review and comment by the following agencies at least 90 days prior to energizing the Proposed Project: CPUC, BLM, U.S. Forest Service, and ABDSP, and shall submit the Plan (with agency comments incorporated) for review and approval by Cal Fire at least 90 days prior to energizing the Proposed Project.

F-1c **Ensure coordination for emergency fire suppression.** SDG&E shall ensure that personnel, construction equipment, and aerial operations do not create obstructions to firefighting equipment or crews. The following provisions shall be defined based on consultation with fire agencies.

Onsite SDG&E and contracted personnel shall coordinate fire suppression activities through the active Fire Incident Commander, and emergency ingress and egress to construction-related access roads shall remain unobstructed at all times.

Construction in the work area shall cease in the event of a fire within 1,000 feet of the work area. The work area includes the transmission right-of-way (ROW), construction laydown areas, pull sites, access roads, parking pads, and any other sites adjacent to the ROW where personnel are active or where equipment is in use or stored. SDG&E shall contact CAL FIRE and CNF dispatch two days prior to helicopter use and shall provide dispatch centers with radio frequencies being used by the aircraft, aircraft identifiers, the number of helicopters that will be used while working on or near SRA and CNF lands at any given time, and the flight pattern of helicopters to be used. Should a wildfire occur within one (1) mile of the work area, upon contact from the CAL FIRE Incident Commander and/or Forest Aviation Officer, helicopters in use by SDG&E shall immediately cease construction activities and not restart aerial operations until authorized by the appropriate fire agency.

F-1d **Remove hazards from the work area**. The Applicant shall clear dead and decaying vegetation from the work area prior to starting construction and/or maintenance work. The work area includes only those areas where personnel are active or where equipment is in use or stored, and may include portions of the transmission right-of-way (ROW), construction laydown areas, pull sites, access roads, parking pads, and any other sites adjacent to the ROW where personnel are active or where equipment is in use or stored. Cleared dead and decaying vegetation shall either be removed or chipped and spread onsite in piles no higher than six (6) inches.

F-1e **Contribute to defensible space grants fund.** SDG&E shall contribute an annual sum to a fund that shall be distributed as homeowner grants for the creation of defensible space around homes, to promote compliance with PRC 4291, and to facilitate firefighting efforts and reduce structure damage from wildfires potentially ignited by the transmission line. The dollar value of the contribution is set forth in Table D.15-25. Grants from the fund shall be distributed to those homeowners at highest risk of sustaining structure damage from an ignition related to the transmission line, as demonstrated by the Fire Behavior Trend Model results. Grants may alternatively be used toward retrofitting rooftops with fire-proof materials, fire shutters, double pane windows, cave boxing, removal of attic vents and/or installation of alternatives, automatic or remotely-operated water sprinklers and automatic or remotely-operated generator-supported water systems, and removal or replacement of wood fencing and decks with fire-resistant materials, at the discretion of the homeowner and under advisement by the agencies. The mechanism for grants distribution shall be determined through agency negotiations and detailed in the Memorandum of Understanding (Mitigation Measure F-3b).

Table D.15-25. Mitigation Measure F-1e Compliance Contributions

Segment Identification	Homes at Risk	Annual Contribution Per Home	Total Annual Contribution for 2008 (USD)
Final Environmentally Superior Southern Route Alternative	1,300	$2,000	$2,600,000

a To be determined through Fire Behavior Trend Modeling Analyses that shall be performed by SDG&E should any of these future routes be constructed.

b No additional homes would be placed at risk should this alternative be selected in addition to the primary route to which this alternative would connect.

F-2a **Establish and maintain adequate line clearances.** The Applicant shall establish adequate conductor clearances prior to energizing the project by removing all vegetation from within 15 radial feet of new and relocated overhead 69 kV, 230 kV, and 500 kV conductors under maximum sag and sway. Only trees and vegetation with a mature height of 15 feet or less shall be permitted within the ROW, except where the transmission line spans a canyon. In addition, tree branches that overhang the ROW within 15 horizontal feet of any conductor shall be trimmed or removed, as appropriate, including those on steep hillsides that may be many vertical feet above the facility. Cleared vegetation shall either be removed or chipped and spread onsite in piles no higher than six (6) inches.

During the life of the project, the Applicant shall maintain adequate conductor clearances by inspecting the growth of vegetation along the entire length of the overhead transmission line at least once each spring and documenting the survey and results in a report submitted to the CPUC before June 1 of each year. Conductor clearance of 15 radial feet under maximum sag and sway shall be maintained at all times.

Maximum sag and sway shall be computed based on ambient temperatures of no less than 120 degrees Fahrenheit and wind gusts of no less than 100 miles per hour.

F-2b **Install existing conductors on steel poles.** Where construction of the Proposed Project or an alternative would result in the relocation of existing 69 kV transmission lines, these lines shall be relocated onto non-specular steel poles using vertical conductor construction. Also, all existing 69 kV or distribution lines with poles located within 100 feet of the Proposed Project or alternative shall be reconstructed so the existing conductors are on non-specular steel poles using vertical conductor construction to eliminate pole combustion hazard potential, increase wind loading capacity, and reduce mid-line slap ignition potential. Steel poles shall be finished to give the appearance of wood poles. This measure shall not apply to conductors that would be underbuilt on steel poles or lattice towers or installed underground. The vertical conductor construction requirement shall not apply to isolated towers that would be adjacent to existing structures with horizontal conductor construction, and shall apply to sets of four or more sequential towers.

F-2c **Perform climbing inspections.** The Applicant shall perform climbing inspections on 10 percent of project structures annually, such that every project structure has been climbed and inspected at the end of a 10-year period, for the life of the project. In addition, the applicant shall keep a detailed inspection log of climbing inspections, and any potential structural weaknesses or imminent component failures shall be acted upon immediately. The inspection log shall be submitted to CPUC for review on an annual basis.

F-3a **Contribute to Powerline Firefighting Mitigation Fund.** The Applicant shall contribute an annual sum to local, State, and federal fire protection districts in the project vicinity through the mechanism of a new Powerline Firefighting Mitigation Fund, which shall be organized and carried out by SDG&E, and shall be subject to the oversight of the CPUC for the life of the Fund. Funding shall be used toward fire prevention measures and protection equipment and services, as appropriate to each jurisdiction. An increase in funding for fire prevention and suppression services and equipment will increase the probability of a fire being successfully contained, especially during normal weather conditions, and will therefore partially mitigate the significant barrier the transmission line poses to firefighting operations. The annual sum shall be based on an equivalent fuelbreak mitigation (presented as Mitigation Measure F-3a in the Draft EIR/EIS), which is an alternative means of partially mitigating the significant effect that the presence of the transmission line on firefighting operations, but which would be jurisdictionally infeasible. This shall be $1,000 per acre for the first year plus $250 per acre for each subsequent year for the life of the project, based on the number of miles of Wildfire Containment Conflict listed in Table D.15-26. Should CAL FIRE wish to take over administrative authority for the Powerline Firefighting Mitigation Fund, an administrative transfer shall not be in violation of Mitigation Measure F-3a.

Table D.15-26. Mitigation Measure F-3a Compliance Locations

Segment Identification	Location of Significant Conflict	Length of Significant Conflict (miles)	Area of Significant Conflict (acres)
Final Environmentally Superior Southern Route Alternative	MRD 11-13, MRD 23-26.5, and MP just before 131-133	6.5	236

F-3b **Prepare and implement a Multi-agency Fire Prevention MOU**. A Memorandum of Understanding (MOU) for the SRPL shall be created and implemented between SDG&E and the CAL FIRE San Diego Unit, Cleveland National Forest, and other agencies as appropriate using the

existing Southwest Powerlink MOU as a template. The MOU shall be adopted prior to energizing the new transmission line. The purpose of this Multi-agency Fire Prevention MOU is to efficiently coordinate all aspects of agency and utility fire prevention plans and practices. The MOU shall integrate the following components of the utility fire plan with existing agency fire plans: fire prevention, firefighter safety, emergency communication, firefighter training of both ground and aerial utility personnel, and others as appropriate. Financial commitments of each participating organization to pre-fire planning, preparedness, and prevention programs shall be stipulated in the MOU. The MOU shall stipulate the mechanism for defensible space grants distribution (Mitigation Measure F-1e). This MOU shall be periodically reviewed and updated at a minimum of once every five years to accommodate changes in regulations and environmental conditions. A community education and outreach program on the fire prevention plans and practices implemented by the MOU shall be adopted.

A key element of the MOU shall be ensuring immediate transmission line de-energizing during fire emergencies and ensuring adequate and immediate communication to fire agencies of line de-energizing. SDG&E shall provide all appropriate local, State, and federal fire dispatching agencies with an on-call contact person (Fire Coordinator) who has the authority to shut down the line in areas affected by a fire. The transmission line shall be de-energized prior to and during fire suppression activities within 1,000 feet of the transmission corridor to maintain firefighter safety, and re-energizing shall require notification of all fire agencies.

Applicant Proposed Measures

The following Applicant Proposed Measures (APMs) were identified by SDG&E 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.

Applicant Proposed Measures

APM No.	Description
	AIR QUALITY
AQ-APM-1	For activities in Imperial County, the project will comply with ICAPCD Rule 800 (Fugitive Dust Requirement for Control of Fine Particulate Matter [PM10]). A Dust Control Plan for construction activities would be filed with the ICAPCD.
AQ-APM-2	1. Prohibit construction grading on days when the wind gusts exceed 25 mph to the extent feasible to control fugitive dust. 2. All trucks hauling soil and other loose material will be covered or maintain at least two feet of freeboard. 3. Snow fence-type windbreaks will be erected in areas identified as needed by SDG&E. 4. Vehicle speeds will be limited to 15 mph on unpaved (no gravel or similar surfacing material) roads. 5. Unpaved roads will be treated by watering as necessary. 6. Soil stabilizers will be applied to inactive construction areas on an as-needed basis. 7. Exposed stockpiles of soil and other excavated materials will be contained within perimeter silt fencing, watered or treated with soil binders, as necessary.
AQ-APM-3	To minimize mud and dust from being transported onto paved roadway surfaces, pave, gravel, use rattle plates or apply chemical stabilization at sufficient concentration and frequency to maintain a stabilized surface starting from the point of intersection with the public paved surface. SDG&E will implement this measure where applicable and not conflicting with other requirements.
AQ-APM-4	If suitable park-and-ride facilities are available in the project vicinity, construction workers will be encouraged to carpool to the job site to the extent feasible. The ability to develop an effective carpool program for the Proposed Project would depend upon the proximity of carpool facilities to the job site, the geographical commute departure points of construction workers, and the extent to which carpooling would not adversely affect worker show-up time and the project's construction schedule.
AQ-APM-5	To the extent feasible, unnecessary construction vehicle and idling time will be minimized. The ability to limit construction vehicle idling time is dependent upon the sequence of construction activities and when and where vehicles are needed or staged. Certain vehicles, such as large diesel-powered vehicles, have extended warm-up times following start-up that limit their availability for use following start-up. Where such diesel-powered vehicles are required for repetitive construction tasks, these vehicles may require more idling time. The project will apply a "common sense" approach to vehicle use; if a vehicle is not required for use immediately or continuously for construction activities, its engine will be shut off. Construction foremen will include briefings to crews on vehicle use as a part of pre-construction conferences. Those briefings will include discussion of a "common sense" to vehicle use.
	BIOLOGICAL RESOURCES
BIO-APM-1	SDG&E would perform any detailed on-the-ground protocol surveys, with regard to specific sensitive plant or wildlife species whose habitat would be impacted by the project based on final design, in accordance with state or federal regulations or statutes. SDG&E would submit results of these surveys to the USFWS and CDFG and consult on reasonable and feasible mitigation measures for potential impacts, prior to any ground disturbing activities in a particular area. Mitigation would prioritize avoidance as the primary means to address impacts. If avoidance is not feasible, then relocation/restoration would be implemented. Where relocation/restoration is not feasible or deemed not to fully address impacts, then mitigation through SDG&E's NCCP mitigation credits or if necessary compensation via another on- or off-site purchase or dedication of habitat at a ratio of 2:1 for impacts inside preserves and 1:1 for impacts outside of preserves would be identified and implemented.
BIO-APM-2	Prior to construction, all SDG&E's contractors, subcontractors and project personnel would receive training regarding the appropriate work practices necessary to effectively implement the biological APMs and to comply with the applicable environmental laws and regulations including appropriate wildlife avoidance, and impact minimization procedures, the importance of these resources and the purpose and necessity of protecting them; and methods for protecting sensitive ecological resources.

Applicant Proposed Measures

APM No.	Description
BIO-APM-3	Except when not feasible due to physical or safety constraints, all project vehicle movement would be restricted to existing access roads and access roads constructed as a part of the project and determined and marked by SDG&E in advance for the contractor, contractor-acquired accesses, or public roads. New access road construction for the project would be allowed year-round. However, when feasible, every effort would be made to avoid constructing roads during the nesting season. When it is not feasible to keep vehicles on existing access roads or to avoid constructing new access roads during the nesting, breeding, or flight season, SDG&E would perform a site survey, or more as appropriate, in the area where the work is to occur. This survey would be performed to determine presence or absence of endangered nesting birds, or other endangered species in the work area. SDG&E would submit results of this survey to the USFWS and CDFG and consult on reasonable mitigation measures to avoid or minimize for potential impacts, prior to vehicle use off existing access roads or the construction of new access roads. However, this survey would not replace the need for SDG&E to perform detailed on-the-ground surveys otherwise required by BIO-APM-1. Parking or driving underneath oak trees is not allowed in order to protect root structures. In addition to regular watering to control fugitive dust created during clearing, grading, earth-moving, excavation, and other construction activities which could interfere with plant photosynthesis, a 15 miles per hour speed limit shall be observed on dirt access roads to reduce dust and allow reptiles and small mammals to disperse.
BIO-APM-4	The area limits of project construction and survey activities would be predetermined based on the temporary and permanent disturbance areas noted on the final design engineering drawings, with activity restricted to and confined within those limits. Survey personnel shall keep survey vehicles on existing roads. During project surveying activities, brush clearing for footpaths, line-of-sight cutting, and land surveying panel point placement in sensitive habitat would require prior approval from the project biological resource monitor in conformance with the APMs. Hiking off roads or paths for survey data collection is allowed year-round as long as other APMs are met. Stringing of new wire and reconductoring for the project would be allowed year round in sensitive habitats if the conductor is not allowed to drag on the ground or in brush and all vehicles used during stringing remain on project access roads. Where stringing requires that conductor drop within brush of drag on or through the brush or ground or vehicles leave project access roads, SDG&E would perform a site survey, or more as appropriate, to determine presence or absence of endangered nesting birds or other endangered species in the work area. SDG&E would submit results of this survey to the USFWS and CDFG and consult on reasonable and feasible mitigation measures for potential impacts, prior to dropping wire in brush, dragging wire on the ground or through brush, or taking vehicles off project access roads. However, this survey would not replace the need for SDG&E to perform detailed on-the-ground surveys as otherwise required by BIO-APM-1. No paint or permanent discoloring agents would be applied to rocks or vegetation to indicate limits of survey or construction activity where any sensitive biological resources or wildlife habitats are encountered in the field.
BIO-APM-5	To the extent feasible, access roads would be built at right angles to the streambeds and washes. Where it is not feasible for access roads to cross at right angles, SDG&E would limit roads constructed parallel to streambeds or washes to a maximum length of 500 feet at any one transmission line crossing location. Such parallel roads would be constructed in a manner that minimizes potential adverse impacts on “waters of the U.S.” or waters of the state. Streambed crossings and roads constructed parallel to streambeds would require review and approval of necessary permits from the ACOE, CDFG, and RWQCB. Culverts would be installed where needed for right angle crossings, but rock crossings would be utilized across most right angle drainage crossings. All construction and maintenance activities would be conducted in a manner that would minimize disturbance to vegetation, drainage channels and stream banks (e.g., structures would not be located within a stream channel, construction activities would avoid sensitive features). Prior to construction in streambeds and washes, SDG&E would perform a pre-activity survey, or more as appropriate, to determine the presence or absence of endangered riparian species. However, this survey would not replace the need for SDG&E to perform detailed on-the-ground surveys as otherwise required by the BIO-APM-1.
BIO-APM-6	In the construction, operation, and maintenance of the project, SDG&E would comply with all applicable environmental laws and regulations, including, without limitation, those regulating and protecting wildlife and its habitat.
BIO-APM-7	Littering is not allowed. project personnel would not deposit or leave any food or waste in the project area, and no biodegradable or non-biodegradable debris would remain in the right-of-way following completion of construction.

Applicant Proposed Measures

APM No.	Description
BIO-APM-8	Prior to construction, the boundaries of plant populations designated as sensitive by USFWS or CDFG and other resources designated sensitive by SDG&E and the resource agencies would be clearly delineated with clearly visible flagging or fencing. The flagging and fencing shall remain in place for the duration of construction. Flagged areas would be avoided to the extent practicable during construction activities in that area. Where these areas cannot be avoided, focused surveys for covered plant species shall be performed in conformance with BIO-APM-1, and the responsible resource agency(s) would be consulted for appropriate mitigation and/or re-vegetation measures prior to disturbance. Notification of the presence of any covered plant species to be removed in the work area would occur within ten (10) working days prior to the project activity, during which time the USFWS or CDFG may remove such plant(s) or recommend measures to minimize or reduce the take. If neither USFWS nor CDFG has removed such plant(s) within the ten (10) working days following the written notice, SDG&E may proceed with the work and cause a take of such plant(s), if minimization measures are not implemented.
BIO-APM-9	Brush clearing around any project facilities (e.g., structures, substations) for fire protection, visual inspection or project surveying, in areas which have been previously cleared or maintained within a two-year or shorter period shall not require a pre-activity survey. In areas not cleared or maintained within a two-year period, brush clearing shall not be conducted during the breeding season (March through August) without a pre-activity survey for vegetation containing active nests, burrows, or dens. The pre-activity survey performed by the on-site biological resource monitor would make sure that the vegetation to be cleared contains no active migratory bird nests, burrows, or active dens prior to clearing. If occupied migratory bird nests are present, fire protection or visual inspection brush clearing work would be avoided until after the nesting season, or until the nest becomes inactive. If no nests are observed, clearing may proceed. Where burrows or dens are identified in the reconnaissance-level survey, soil in the brush clearing area would be sufficiently dry before clearing activities occur to prevent mechanical damage to burrows that may be present.
BIO-APM-10	No wildlife, including rattlesnakes, may be harmed except to protect life and limb. Firearms shall be prohibited in all project areas except for those used by security personnel.
BIO-APM-11	Feeding of wildlife is not allowed.
BIO-APM-12	Project personnel are not allowed to bring pets to any project area in order to minimize harassment or killing of wildlife and to prevent the introduction of destructive animal diseases to native wildlife populations.
BIO-APM-13	Plant or wildlife species may not be collected for pets or any other reason.
BIO-APM-14	All steep-walled trenches or excavations used during construction shall be inspected twice daily (early morning and evening) to protect against wildlife entrapment. If wildlife is located in the trench or excavation, the on-site biological resource monitor shall be called immediately to remove them if they cannot escape unimpeded. The on-site biological resource monitor would make the required contacts with the USFWS and CDFG resource personnel and obtain verbal approval prior to removing any entrapped wildlife. If the biological resource monitor is not qualified to remove the entrapped wildlife, a recognized wildlife rescue agency (such as Project Wildlife) may be employed to remove the wildlife and transport them safely to other suitable habitats.
BIO-APM-15	Emergency repairs may be required during the construction and maintenance of the project to address situations (e.g., downed lines, slides, slumps, major subsidence, etc.) that potentially or immediately threaten the integrity of the project facilities. During emergency repairs the APMs shall be followed to the fullest extent practicable. Once the emergency has been abated, any unavoidable environmental damage would be reported to the project biological construction monitor, who would promptly submit a written report of such impacts to the USFWS and CDFG and any other government agencies having jurisdiction over the emergency actions. If required by the government agencies, the biological construction monitor would develop a reasonable and feasible mitigation plan consistent with the APMs and any permits previously issued for the project by the governmental agencies.

Applicant Proposed Measures

APM No.	Description
BIO-APM-16	Environmentally sensitive tree trimming locations for the project would be identified in SDG&E's existing vegetation management tree trim database utilized by tree trim contractors. The biological field construction monitor shall be contacted prior to trimming in environmentally sensitive areas. Whenever feasible, trees in environmentally sensitive areas, such as areas of riparian or native scrub vegetation, would be scheduled for trimming during non-sensitive (i.e., outside breeding or nesting) times. Where trees cannot be trimmed during non-sensitive times, SDG&E would perform a site survey, or more as appropriate, to determine presence or absence of endangered nesting bird species in riparian or native scrub vegetation. SDG&E would submit results of this survey to the USFWS and CDFG and consult on mitigation measures for potential impacts, prior to tree trimming in environmentally sensitive areas. However, this survey would not replace the need for SDG&E to perform detailed on-the-ground surveys as otherwise required by BIO-APM-1. Where riparian areas with over-story vegetation are crossed, tree removal (i.e., clear-cut) widths would be varied where feasible to minimize visual landscape contrast and to maintain habitat diversity at established wildlife corridor edges. Where tree removal widths cannot be varied, SDG&E would consult with the USFWS and CDFG to develop alternative tree removal options that could reasonably maintain edge diversity.
BIO-APM-17	All new access roads or spur roads constructed as part of the project that are not required as permanent access for future project maintenance and operation would be permanently closed. Where required, roads would be permanently closed using the most effective feasible and least environmentally damaging methods appropriate to that area with the concurrence of the underlying landowner and the governmental agency having jurisdiction (e.g., stockpiling and replacing topsoil or rock replacement). This would limit new or improved accessibility into the area. Mowing of vegetation can be an effective method for protecting the vegetative understory while at the same time creating access to the work area. Mowing should be used when permanent access is not required since, with time, total re-vegetation is expected. If mowing is in response to a permanent access need, but the alternative of grading is undesirable because of downstream siltation potential, it should be recognized that periodic mowing would be necessary to maintain permanent access. The project biological construction monitor shall conduct checks on mowing procedures to ensure that mowing for temporary or permanent access roads is limited to a 14-foot-wide area on straight portions of the road and a 16- to 20-foot-wide area at turns, and that the mowing height is no less than 4 inches from finished grade.
BIO-APM-18	In areas designated as sensitive by SDG&E or the resource agencies, to the extent feasible structures and access roads would be designed to minimize impacts to sensitive features. These areas of sensitive features include but are not limited to high-value wildlife habitats, sensitive vegetation communities, and high value plant habitats, and/or to allow conductors to clearly span the features, within limits of standard structure design. If the sensitive features cannot be completely avoided, structures and access roads would be placed to minimize the disturbance to the extent feasible. When it is not feasible to avoid constructing poles or access roads in high value wildlife habitats, SDG&E would perform a site survey to determine presence or absence of endangered species in sensitive habitats. SDG&E would submit results of this survey to the USFWS and consult on mitigation measures for potential impacts, prior to constructing structures or access roads. However, this survey would not replace the need for SDG&E to perform detailed on-the-ground surveys as otherwise required by BIO-APM-1. Where it is not feasible for access roads to avoid sensitive water resource features, such as streambed crossings, such crossings would be built at right angles to the streambeds. Where such crossings cannot be made at right angles, roads constructed parallel to streambeds would be limited to a maximum length of 500 feet at any one transmission line crossing location. Such parallel roads would be constructed in a manner that minimizes potential adverse impacts on "waters of the U.S." Streambed crossings or roads constructed parallel to streambeds would require review and approval of necessary permits from the ACOE, CDFG, and RWQCB.
BIO-APM-19	Restoration and habitat enhancement and mitigation measures developed during the consultation period with the BLM under Section 7 of the Endangered Species Act (ESA) would be implemented and complied with as specified in the Biological Opinion (BO) of the USFWS. The Section 7 process would be used to obtain an incidental take authorization through a compensation-based mitigation program for permanent impacts to occupied sensitive plant and animal habitat at a ratio of 1:1 or 2:1 based on site-specific studies, as outlined in BIO-APM-1. The Section 7 process may include consideration of SDG&E's existing NCCP mitigation credits as compensation for project impacts.
BIO-APM-20	In construction areas where re-contouring is not required, vegetation shall be left in place wherever possible to avoid excessive root damage and allow for re-sprouting.
BIO-APM-21	Structures shall be constructed to conform to "Suggested Practices for Raptor Protection on Power Lines" (Raptor Research Foundation, Inc. 1981), to minimize impacts to raptors.

Applicant Proposed Measures

APM No.	Description
BIO-APM-22	Species identified as sensitive by the land managing agency shall be salvaged where avoidance is not feasible in accordance with state law. Generally, salvage may include: • removal and stockpiling for replanting on site, • removal and transplanting out of surface disturbance area, • removal and salvage by private individuals, • removal and salvage by commercial dealers, or • any combination of the above.
BIO-APM-23	Only the minimum amount of vegetation necessary for the construction of structures and facilities will be removed. Topsoil located in areas containing sensitive habitat shall be conserved during excavation and reused as cover on disturbed areas to facilitate re-growth of vegetation. Topsoil located in developed or disturbed areas is excluded from this APM.
BIO-APM-24	Construction holes left open over night shall be covered. Covers shall be secured in place nightly, prior to workers leaving the site, and shall be strong enough to prevent livestock or wildlife from falling through and into a hole. Holes and/or trenches shall be inspected prior to filling to ensure absence of mammals and reptiles.
BIO-APM-25	Disturbed soils shall be re-vegetated with an appropriate seed mix that does not contain invasive, non-native plant species.
BIO-APM-26	Excavations shall be sloped on one end to provide an escape route for small mammals and reptiles.
BIO-APM-27	1. Prior to construction, SDG&E shall remove all existing raptor nests from structures that would be affected by project construction. 2. Removal of nests shall occur outside the raptor breeding season (January to July). 3. If it is necessary to remove an existing raptor nest during the breeding season, a qualified biologist shall survey the nest prior to removal to determine if the nest is active. A nest would be considered active if it contains eggs or fledglings. If the nest does not contain eggs or nestlings and is inactive, it shall be removed promptly. If a nest is determined to be active, the nest shall not be removed and the biologist shall monitor the nest to ensure nesting activities/breeding activities are not disrupted. If the biological monitor determines that project activities are disturbing or disrupting nesting activities, the monitor shall make feasible recommendations to reduce the noise and/or disturbance in the vicinity of the nest.
BIO-APM-28	Potential roost trees that must be removed will be surveyed and identified in the field for application of the following procedures: *Before felling the tree:* 1. Trees should be removed under the warmest possible conditions. 2. Peel any sections of the exfoliating bark off the tree gently and search for any roosting bats underneath. 3. Create noise and vibrations on the tree itself. Noise and vibrations include: a. Running chain saw and making shallow cuts in the trunk (where bark has been peeled off). b. Striking the tree base with fallen limbs or tools such as hammers. *Felling the tree:* 4. Disturbance should be near-continuous for ten minutes, and then another ten minutes should pass, before the tree is felled. 5. When cutting sections of the bole, if any hollows or cavities (such as woodpecker holes) are discovered, be especially careful to check for the presence of bats in those areas. Cut slowly and carefully at all times. If possible, section bole near cavities to focus noise and vibrations, and open hollows by sectioning off a side.
BIO-APM-29	Reduce construction night lighting on sensitive habitats. Exterior lighting within the project area adjacent to preserved habitat shall be of the lowest illumination allowed for human safety, selectively placed, shielded, and directed away from preserved habitat to the maximum extent practicable. Vehicle traffic associated with project activities would be kept to a minimum volume and speed to prevent mortality of nocturnal wildlife species that may be moving about.
	CULTURAL RESOURCES
CR-APM-1	Prior to construction, construction personnel shall be instructed on the protection and avoidance of cultural resources. To assist in this effort, the construction contract will address state and federal laws regarding antiquities, fossils, and plants and wildlife, including the collection and removal, as well as the importance of these resources and the purpose and necessity of protecting them.

Applicant Proposed Measures

APM No.	Description
CR-APM-2	Archeological sites that are eligible or potentially eligible for the National Register will be flagged in the field and spanned or otherwise avoided through routing during construction activities to the extent feasible. Impact avoidance and APMs for cultural resources developed in consultation with appropriate land managing and regulatory (e.g., park personnel and State Historic Preservation Office) and other interested parties will be implemented prior to and during construction.
CR-APM-3	Any previously unidentified cultural resource (historic or prehistoric site or object) discovered by SDG&E or any person working on its behalf during construction on public or park land shall be immediately reported to the appropriate land manager or authorized park officer within 24 hours of discovery. Operations in the immediate area of the discovery shall be suspended until authorization to proceed is issued by the appropriate land manager or authorized park officer. An evaluation of the discovery will be made by the appropriate land manager, authorized park officer or SDG&E in consultation with the former to determine appropriate actions to prevent the loss of significant cultural or scientific values. SDG&E shall be responsible for the cost of evaluation. SDG&E will develop a treatment plan to mitigate the impacts.
CR-APM-4	SDG&E will conduct maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation, and reconstruction of a historical resource in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (1995 – Weeks and Grimmer).
CR-APM-5	SDG&E will use the following as guidance in the implementation of the project: 1. Preservation in-place is the preferred manner of mitigating impacts to archaeological sites. Preservation in-place maintains the relationship between the artifacts and the archaeological context to the extent feasible. Preservation may also avoid conflict with religious or cultural values of groups associated with the site. 2. Preservation in-place may be accomplished by, but is not limited to, the following: a. planning construction to avoid archaeological sites; or b. incorporation of sites within parks, green space, or other open space; or c. deeding the site into a permanent conservation easement. 3. When data recovery through excavation is the only feasible mitigation, a data recovery plan which makes provisions for adequately recovering the scientifically consequential information from and about the historical resources shall be prepared and adopted prior to any excavation being undertaken. Such study shall be deposited with the California Historical Resources Regional Information Center. Archaeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5, Health and Safety Code. If an artifact must be removed during project excavation or testing, curation may be appropriate. 4. Data recovery shall not be required for an historical resource if the lead agency through discussion and consultation with Indian Tribes, professional archaeologists and SHPO determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historical resource, provided that the determination is documented in the EIR and that the studies are deposited with the California Historical Resources Regional Information Center.
CR-APM-6	1. Historic property will be avoided and fenced or barricaded for protection. 2. Contributing portions and sensitive features of the historic property will be avoided and fenced or barricaded for protection. 3. If historic property cannot be avoided, an approved plan for recordation, relocation, or data recovery will be implemented. Recordation of buildings or structures may include Historic American Building Survey (HABS) or Historic American Engineering Record (HAER) documentation.

Applicant Proposed Measures

APM No.	Description
CR-APM-7	1. Erosion, sedimentation, or indirect displacement that could indirectly deteriorate historic property will be controlled by limitation of activities near property, stabilization of sediments or structures, and erosion control. 2. Protective measures will be implemented to minimize erosion and prevent invasion by aggressive weeds near historic property. 3. Control measures will be implemented to minimize vibration, dust, or fumes affecting property. 4. Protective barriers or materials will be used to minimize the effects of vibration, dust, fumes, or changes in vegetation. 5. Buildings or structures will be stabilized or rehabilitated to minimize deterioration that might be accelerated by construction or operations. 6. If deterioration cannot be avoided, SDG&E will implement an approved plan for recordation, relocation, or data recovery.
CR-APM-8	1. In addition to the historic property itself, those elements of the landscape that are essential to the historic setting of the property will be avoided and protected to the extent feasible. 2. The location, appearance, or operational procedures of the undertaking will be modified to minimize intrusion on the historic setting (e.g., qualifications on height, color, emissions, or operational noise levels).
CR-APM-9	1. Permanent fencing or barriers will be installed, or access to the historic property will be controlled as deemed appropriate by the relevant agencies. 2. Use of access for construction or operation will be restricted. 3. Construction and maintenance personnel will be instructed in protection of sensitive properties.
CR-APM-10	1. Project structures will be located so that conductors span linear historic property to the extent feasible. 2. Pipelines or conductors, placed underground, will bore under linear property to avoid disturbance or intrusion.
CR-APM-11	SDG&E would implement its standard practices for cultural and paleontological resources on private lands (see Appendix D).
CR-APM-12	SDG&E will conduct cultural surveys for staging areas that have not yet been identified.
	GEOLOGY, SOILS, AND PALEONTOLOGY
GEO-APM-1	No widening or upgrading of existing access roads will be undertaken where soils are very sensitive to disturbance, except repairs, widening or upgrades necessary to make roads passable.
GEO-APM-2	1. Vehicle and construction equipment use will be restricted to access roads and areas in the immediate vicinity of construction work sites to help reduce soil disturbance. 2. In agricultural areas, topsoil would be left in roughened condition. 3. When practical, construction activities will be avoided on wet soil to reduce the potential for soil compaction, rutting, and loss of soil productivity. 4. Disturbed areas will be returned to their pre-construction contours. Revegetation and monitoring for vegetative success will follow the guidelines outlined in Mitigation Measure B-1a (Provide restoration/ compensation for affected sensitive vegetation communities). 5. Affected landowners having property directly impacted by the project will be compensated to disc or till soil upon construction completion. 6. Construction of access roads in inaccessible terrain will be reduced by using helicopters to place structures in select locations.
GEO-APM-3	Structure placement in areas of high shrink/swell potential will be avoided where possible.
GEO-APM-4	Structures will be placed in geologically stable areas, avoiding fault lines, brittle surface rock and bedrock, etc.
GEO-APM-5	Project construction activities shall be designed and implemented to avoid or minimize new disturbance, erosion on manufactured slopes, and off-site degradation from accelerated sedimentation. Maintenance of cut and fill slopes created by project construction activities would consist primarily of erosion repair. Where re-vegetation is necessary to improve the success of erosion control, planting or seeding with native seed mix would be done on slopes.

Applicant Proposed Measures

APM No.	Description
GEO-APM-6	In areas where ground disturbance is substantial or where re-contouring is required (e.g., marshaling yards, tower sites, spur roads from existing access roads), surface restoration will occur as necessary for erosion control and re-vegetation. The method of restoration will normally consist of returning disturbed areas back to their original contour, reseeding (if required), installing cross drains for erosion control, placing water bars in the road, and filling ditches for erosion control. Potential for erosion will be minimized on access roads and other locations primarily with water bars. The water bars will be constructed using mounds of soil shaped to direct the flow of runoff and prevent erosion. Soil spoils created during ground disturbance or re-contouring shall be disposed of only on previously disturbed areas, or used immediately to fill eroded areas. Cleared vegetation can be hauled off-site to a permitted disposal location, or may be chipped or shredded to an appropriate size and spread in disturbed areas of the ROW with the approval of the biological monitor. To limit impact to existing vegetation, appropriately sized equipment (e.g., bulldozers, scrapers, backhoes, bucket-loaders, etc.) will be used during all ground disturbance and re-contouring activities.
GEO-APM-8	During construction, SDG&E would remove or stabilize boulders uphill of structures that pose potentially high risk of landslide damage to those structures and would position structures to span over potential landslide areas to the greatest extent feasible.
GEO-APM-9	If paleontological resources are encountered, appropriate field mitigation efforts would be implemented to protect the resources. For example, if significant resources are discovered, such as vertebrate fossils, construction would be stopped in the immediate area of the find while SDG&E and its designated paleontologist determine the appropriate method and schedule to recover or protect the resource. However, work may continue in areas outside the immediate area of the find with the approval of the paleontologist. When it is not feasible to avoid paleontological sites, SDG&E would consult with the appropriate federal, state, and resource agencies and specialists to either develop alternative construction techniques to avoid paleontological resources or develop appropriate APMs. Appropriate mitigation field measures may include actions such as protection-in-place by covering with earthen fill, removal and cataloguing, and/or removal and relocation.
LAND USE AND AGRICULTURAL RESOURCES	
LU-APM-1	SDG&E will provide advance notice to residents, property owners, and tenants within 300 feet of construction activities and will appoint a public affairs officer to address public concerns or questions.
LU-APM-2	Place new transmission structures more than 330 feet from an existing residence to the extent feasible.
LU-APM-3	1. Farmers will be compensated for losses of crops along ROW based upon a professional appraisal. 2. Construction activities in croplands will be scheduled to minimize or avoid planting, growing, and harvesting seasons to the extent feasible.
LU-APM-4	To facilitate access to properties obstructed by construction activities, SDG&E will notify property owners and tenants in advance of construction activities. Provide alternative access if feasible.
LU-APM-5	To remedy encroachment and safety conflicts with irrigation canals and flood management structures during construction, SDG&E will coordinate construction activities with appropriate water management representatives.
LU-APM-6	The limits of construction activities within and outside the ROW will typically be predetermined, with activity restricted to and confined within those limits. The ROW boundary and limits of construction activity inside and outside the ROW will be flagged in environmentally sensitive areas to alert construction personnel that those areas should be minimize or avoided.
LU-APM-7	To the extent feasible, project facilities would be installed along the edges or borders of private property, open space parks, and recreation areas. When it is not feasible to locate project facilities along property borders, SDG&E would consult with affected property owners to identify facility locations that create the least potential impact to property and are mutually acceptable to property owners to the extent feasible. SDG&E would pay just compensation to affected property owners based upon the impact to the property caused by the facility locations identified by SDG&E.
LU-APM-8	SDG&E will continue its current coordination efforts with the Counties of Imperial and San Diego General Plan Updates and the City of San Diego General Plan Updates to include the Proposed Project in their respective General Plans.
LU-APM-9	SDG&E would obtain all necessary and/or appropriate ministerial land use permits.
LU-APM-10	SDG&E will match structure locations with existing transmission facilities where feasible and appropriate.
NOISE AND VIBRATION	

Applicant Proposed Measures

APM No.	Description
NOI-APM-1	Provide notice prior to construction by mail to all sensitive receptors and residences within 300 feet of construction sites, staging areas, and access roads. The announcement shall state specifically where and when construction will occur in the area. Notices shall provide tips on reducing noise intrusion, for example, by closing windows facing the planned construction. SDG&E would identify and provide a public liaison person before and during construction to respond to concerns of neighboring receptors, including residents, about noise construction disturbance. Procedures for reaching the public liaison officer via telephone or in person would be included in the above notices. SDG&E would also establish a toll free telephone number for receiving questions or complaints during construction and develop procedures for responding to callers.
NOI-APM-2	SDG&E will coordinate with ABDSP to minimize potential construction noise impacts at Tamarisk Grove campground during peak times of use.
PUBLIC HEALTH AND SAFETY / HAZARDOUS MATERIALS	
HS-APM-1	All personnel involved in using hazardous materials shall be trained in the proper use and safety procedures for the chemical and provided with the necessary Personal Protection Equipment (PPE). A Hazardous Communication (HAZCOM) Plan with Material Safety Data Sheets on all hazardous materials used for the project shall be developed.
HS-APM-2	Only personnel trained in refueling vehicles would be allowed to perform this operation. All refueling operation shall be in designated areas or preformed by assigned vehicles.
HS-APM-3	All applicable environmental safety plans associated with hazardous materials shall be developed for the project. These plans include but are not necessary limited to Hazardous Material Business (HMB) Plan; HAZCOM Plan; Spill Response Plan; 90-days temporary storage and disposal (TSD) facility permit; and Spill Prevention Control and Countermeasure (SPCC) Plan (only if storage is over 1,350 gallons at one location).
HS-APM-4	SDG&E will develop a site specific blasting plan blasting of tower footing is required. A California licensed Blasting Contractor shall be used for all blasting operation.
HS-APM-5	All Government Code §65962.5 sites or other known contamination sites along the transmission line ROW or such sites that would affect construction work shall be investigated to determine potential impacts to the project.
HS-APM-6	An Unexploded Ordinance (UXO) investigation of known and potential areas used by the military along the ROW shall be undertaken by a trained contractor. If UXO are found, they shall be removed by trained personnel.
HS-APM-7	All personnel involved in excavation and grading or for ROW clearing shall be trained to recognized UXO and/or potential soil, surface water, and groundwater potential contamination sites.
HS-APM-8	SDG&E will assign Environmental Field Representative and/or General Contractor assigned Health & Safety Office to the project.
HS-APM-9	SDG&E will contact airport representative and/or Federal Aviation Administration Authorities regarding work within all existing and proposed transmission line corridors within 2 miles of an airport.
HS-APM-10	All hazardous waste and solid waste shall be stored and disposed of in accordance with federal, State, and local regulations. Whenever feasible, hazardous material minimization methods shall be employed and all hazardous materials recycled.
HS-APM-11	SDG&E will develop project-specific Fire Prevention and Response Plan (FPRP), which will be developed and reviewed by pertinent regulatory authorities. A project Fire Marshal shall be assigned to enforce all provisions of the FPRP as well as performing all other duties related to fire prevention activities for the Proposed Project.
HS-APM-12	A Traffic Control Plan (TCP) shall be developed that addresses all roadway crossings that would be used by the project and could interfere with emergency vehicles.
HS-APM-14	All construction workers shall undergo environmental training regarding potential exposure in accordance with federal, State, or local regulations.
HS-APM-15	If during excavation soil or groundwater contamination is suspected (e.g., unusual soil discoloration or strong odor), the contractor or subcontractor shall immediately stop work and notify the General Contractor's assigned Health & Safety Officer and/or SDG&E's Field Environmental Representative.

Applicant Proposed Measures

APM No.	Description
HS-APM-16	If soil or groundwater contamination is suspected, work near the immediate excavation site shall be terminated, the work area cordoned off, and appropriate health and safety procedures implemented for the location by the General Contractor's assigned Health & Safety Officer and/or SDG&E's Field Environmental Representative. Preliminary samples of the soil, groundwater, or material shall be taken by an OSHA trained individual. These samples shall be sent to a California Certified Laboratory for characterization. Work outside the immediate excavation site may continue as determined by the General Contractor's assigned Health and Safety Officer and/or SDG&E's Field Environmental Representative.
HS-APM-17	If the sample testing determines that contamination is not present, work would be allowed to proceed at the immediate excavation site. However, if contamination is found above regulatory limits, the regulatory agency (e.g., RWQCB or CUPA) responsible for responding to and for providing environmental oversight of the region shall be notified in accordance with State or local regulations.
PUBLIC SERVICES AND UTILITIES	
PSU-APM-1	SDG&E has and will continue to coordinate with all utility providers with facilities located within or adjacent to the Proposed Project to ensure that design does not conflict with other facilities. In the event of a conflict, the project will be aligned vertically and/or horizontally as appropriate to avoid other utilities and provide adequate operational and safety buffering. Alternately, the other existing facilities may be relocated. Long-term operations and maintenance of the project will be negotiated through easement, purchased right-of-way, franchise agreement, or joint use agreement.
PSU-APM-2	Underground Service Alert would be notified a minimum of 48 hours in advance of earth-disturbing activities in order to identify any buried utility lines.
PSU-APM-3	SDG&E will coordinate construction schedules, lane closures, and other activities with installation of the project with emergency and police services to ensure that disruption to response times and access is minimized.
RECREATION RESOURCES	
R-APM-2a	Advance notice of restriction of conflicts with access routes to recreational use areas will be provided.
R-APM-2b	No construction that affects trail use will be conducted in that area on federal holidays.
R-APM-2c	SDG&E will coordinate all construction activities, including temporary trail closures, affecting the parklands and trail systems of San Diego and Imperial Counties with the counties' Parks and Recreation Department and the California State Parks Department (for ABDSP), respectively, before construction begins in these areas.
R-APM-2d	Signs directing vehicles to alternative park access and parking will be posted in the event construction temporarily obstructs parking areas near trailheads.
R-APM-2e	Signs advising recreation users of construction activities and directing them to alternative trails or bikeways will be posted on both sides of all trail intersections or as determined through SDG&E's coordination with the respective jurisdictional agencies.
R-APM-2f	Where helicopters are used for construction, signage advising equestrians of construction timeframes with helicopter use will be posted at all equestrian trail-access points within the vicinity of the flight paths. These signs will be checked and maintained regularly.
R-APM-3a	Construction-related traffic shall be restricted to routes approved by the authorized agencies. New access roads or cross-county vehicle travel will not be permitted on ABDSP or state lands unless prior written approval is given by the authorized ABDSP officer. Authorized roads used by the project shall be rehabilitated when construction activities are complete as coordinated with California State Parks.
TRANSPORTATION AND TRAFFIC	
T-APM-2a	Required permits for temporary lane closures will be obtained from the County of Imperial, County of San Diego, CALTRANS, and California State Parks (if applicable).
T-APM-2b	Detour plans will be submitted to the counties, CALTRANS, and/or California State Parks as part of the permit requirements. Within the ABDSP, a Right-of-Entry permit is required for any construction and maintenance activities that would occur outside of existing easements, including access roads (would not need ROE for access road maintenance if practical rights of ingress and egress are granted in easements). SDG&E will provide California State Parks a request in writing for maintenance or other earth-disturbing activities.

Applicant Proposed Measures

APM No.	Description
T-APM-4a	SDG&E shall coordinate in advance with emergency service providers to avoid restricting movements of emergency vehicles. The counties and cities will then notify respective police, fire, ambulance and paramedic services. SDG&E shall notify counties and cities of the proposed locations, nature, timing, and duration of any construction activities and advised of any access restrictions that could impact their effectiveness.
T-APM-5a	SDG&E will consult with the Imperial County Office of Education, Borrego Springs Unified School District, Warner Unified School District, Julian Union School District, and the Julian Union High School District at least one month prior to construction to coordinate construction activities adjacent to school bus stops. If necessary, school bus stops will be temporarily relocated or buses will be rerouted until construction in the vicinity is complete. SDG&E will also consult with Imperial Valley Transit and the Metropolitan Transit System at least one month prior to construction to reduce potential interruption of transit services.
T-APM-6a	Parking is permissible on Imperial County-maintained roadways when vehicles are within 18 inches of the curb; or if no curb is present, vehicles must not be more than 18 inches away from the right-hand edge of the roadway's boundary. Vehicles must also be parallel to the roadway when parked, unless otherwise indicated. Parking is prohibited where signage indicates no parking. Parking shall comply within the County of Imperial ordinances whenever possible or as indicated in an approved traffic control plan.
T-APM-6b	Parking on San Diego County-maintained roads and highways is not permissible by law unless otherwise noted at specific locations. Parking is prohibited where signage and painted curbs indicates no parking. Where the project crosses major roadways, parking shall be prohibited in the project work area. Parking shall comply within the County of San Diego Department of Public Works Traffic Guidelines, 2001 whenever possible or as indicated in an approved traffic control plan.
T-APM-8a	Required permits for entering railroad right-of-way will be obtained from Union Pacific Railroad, San Diego & Arizona Eastern Railroad and the U.S. Gypsum Mine.
T-APM-9a	Eligible and Officially Designated Scenic Highways are located within Imperial and San Diego Counties. The California Public Utilities Code Section 320 requires that all new or relocated utility facilities within 1,000 feet of an Officially Designated Scenic Highway be undergrounded where feasible. SDG&E will bury all new or relocated utilities where feasible to avoid possible revocation of SR78 as an Officially Designated Scenic Highway within the ABDSP.
T-APM-10a	SDG&E or its construction contractor shall provide at all times the ability to quickly lay a temporary steel plate trench bridge upon request in order to ensure driveway access to businesses and residences, and shall provide continuous access to properties when not actively constructing the underground cable alignment.
HYDROLOGY AND WATER QUALITY	
WQ-APM-1	All construction and maintenance activities shall be conducted in a manner that minimizes disturbance to riparian/ wetland vegetation, drainage channels, and intermittent and perennial stream banks to the extent feasible.
WQ-APM-2	To the extent feasible, structures shall be placed so as to avoid sensitive features such as watercourses, or to allow conductors to clearly span the features, within limits of safety and standard structure design.
WQ-APM-3	Specific sites as identified by authorized agencies (e.g., fragile watersheds) where construction equipment and vehicles are not allowed shall be clearly marked on-site before any construction or surface disturbing activities begin. Construction personnel shall be trained to recognize these markers and understand the equipment movement restrictions involved.

Applicant Proposed Measures

APM No.	Description
WQ-APM-4	1. Adequate distance from stream banks and beds will be maintained during construction activities. 2. Construction activities will use existing bridges to cross major streams and culverts in most dry intermittent streams. 3. Surface water, riparian areas and floodplains will be spanned where feasible. 4. A Storm Water Pollution Prevention Plan (SWPPP) will be prepared and implemented. 5. Storm Water Best Management Practices (BMPs) for construction will be implemented per the requirements of the project's SWPPP. 6. Silt fencing, straw mulch, straw bale check dams would be installed as appropriate to contain sediment within construction work areas and staging areas. Where soils and slopes exhibit high erosion potential, erosion control blankets, matting, and other fabrics and/or other erosion control measures. 7. The potential for increased sediment loading will be minimized by limiting road improvements to those necessary for project construction, operation and maintenance. 8. Upland pull sites will be selected to minimize impacts to surface waters, riparian areas, wetlands and floodplains. 9. Structures will not be placed in streambeds or drainage channels to the extent feasible.
WQ-APM-5	Any stream crossings will be constructed at low flow periods and, if necessary, a site-specific mitigation and restoration plan would be developed.
WQ-APM-6	1. Designated surface water protection areas (source water) will be avoided. 2. There will be no diversions, detention, retention or consumption of surface waters for the project. 3. Prior to construction, interviews would take place with affected landowners regarding location of water supply wells located on their property. 4. SDG&E will negotiate with affected landowner to provide alternative water supplies in the event a supply well or springs dry up directly caused by project activities. Negotiation shall be by either a remedial cash payment to the landowner or by SDG&E contracting for the drilling of a replacement well.
WQ-APM-8	1. In no case will groundwater removed during construction be discharged to surface waters or storm drains without first obtaining any required permits. 2. If dewatering is necessary, the water will be contained and sampled to determine if contaminants requiring special disposal procedures are present. 3. If the water tests sufficiently clean and land application is determined feasible per applicable SWRCB and RWQCB requirements, the water would be directed to relatively flat upland areas for evaporation and infiltration back to the water table, used for dust control, or used as makeup for a construction process (e.g., concrete production). 4. Water determined to be unsuitable for land application or construction use would be disposed of in another appropriate manner, such as treatment and discharge to a sanitary sewer system in accordance with applicable permit requirements or hauled offsite to an approved disposal facility.
WQ-APM-9	Storage of fuels and hazardous materials will be prohibited within 200 feet of groundwater supply wells and within 400 feet of community or municipal wells.
WQ-APM-10	At locations where the project would cross below or pass adjacent to streams with erodible bed or banks, the burial depth shall be extended below the estimated 100-year depth of scour for that stream, or located at a sufficient distance from the bank as to avoid erosion that can reasonably be expected to occur during the life of the project.
WQ-APM-11	Groundwater levels along the underground portion of the project will be tested by drilling pilot borings. The location, distribution, or frequency of such tests shall be determined to give adequate representation of the conditions. Locations where groundwater depth is less than eight feet below ground surface shall be identified prior to excavation activities and avoided, where possible. Avoidance is especially recommended where shallow groundwater flow direction is not parallel to the orientation of the alignment. Where avoidance is not possible, SDG&E shall consider constructing underground facilities in a shallower excavation, depending upon requirements of the underground method or existing underground facilities and other practical concerns. SDG&E shall document results of test drilling in a letter report to the CPUC construction starts and shall propose specific measures to minimize the impact on groundwater.

Applicant Proposed Measures

APM No.	Description
WQ-APM-13	Hazardous materials will not be disposed of onto the ground, the underlying groundwater, or any surface water. Totally enclosed containment will be provided for trash. Petroleum products and other potentially hazardous materials would be removed to a hazardous waste facility permitted or otherwise authorized to treat, store, or dispose of such materials. In the event of a release of hazardous materials to the ground, it will be promptly cleaned up in accordance with applicable regulations.
WQ-APM-14	Secure any required General Permit for Storm Water Discharges Associated with Construction Activity (NPDES permit) authorization from the State Water Resources Control Board and/or the RWQCB to conduct construction-related activities to build the project and establish and implement a SWPPP during construction to minimize hydrologic impacts.
WQ-APM-15	To the extent feasible, where the construction of access roads would disturb sensitive features such as stream-beds, the route of the access road would be adjusted to avoid such impacts. Whenever practicable, construction and maintenance traffic would use existing roads or cross-country access routes (including the ROW) which avoid impacts to the sensitive feature. To minimize ground disturbance, construction traffic routes will be clearly marked with temporary markers such as easily visible flagging. Construction routes, or other means of avoid-ance, must be approved by the appropriate agency or landowner before use. Where it is not feasible for access roads to avoid streambed crossings, such crossings would be built at right angles to the streambeds whenever feasible. Where such crossings cannot be made at right angles, SDG&E would limit roads constructed parallel to streambeds to a maximum length of 500 feet at any one transmission line crossing location. Such parallel roads would be constructed in such a manner that minimizes potential adverse impacts on waters of the U.S. or waters of the state. Streambed crossings or roads constructed parallel to streambeds would require review and approval of necessary permits from the ACOE, CDFG, and SWRCB/RWQCB.
WQ-APM-16	If sensitive water resource features contain riparian areas, habitats of endangered species, streambeds, cultural resources, and wetlands which cannot be avoided, a qualified biological contractor shall conduct site-specific assessments for each affected site. These assessments shall be conducted in accordance with ACOE wetland delineation guidelines, as well as CDFG streambed and lake assessment guidelines, and shall include impact minimization measures to reduce wetland impacts to a less than significant effect (e.g., through creation or restoration of wetlands). Though construction or maintenance vehicle access through shallow creeks or streams is allowed, staging/storage areas for equipment and materials shall be located outside of riparian areas. Construction of new access through streambeds that require filling for access purposes would require a Streambed Alteration Agreement from the CDFG and/or consultation/approval with the ACOE and SWRCB/RWQCB. Where filling is required for new access, the installation of properly sized culverts and the use of geo-textile matting should be considered in the CDFG/ACOE consultation process.
	VISUAL RESOURCES
VR-APM-1	At highway, canyon, and trail crossings, structures shall be placed at the maximum feasible distance from the crossing to reduce visual impacts as long as other significant resources are not negatively affected.
VR-APM-2	SDG&E will use dulled metal finish transmission structures and non-specular conductors in visually sensitive areas including the ABDSP, new ROW in the Central Link and Peñasquitos Junction to Peñasquitos Substation in the Coastal Link.
VR-APM-3	Where the line parallels existing transmission lines, the spacing of structures shall match the existing transmission structures, where feasible, to minimize visual effects.
VR-APM-4	No paint or permanent discoloring agents will be applied to rocks or vegetation to indicate survey or construction activity limits.
VR-APM-5	Transmission line structures will not be installed directly in front of residences or in direct line-of-sight from a residence where possible. SDG&E will consult with affected property owners on structure siting to reduce land use and visual impacts.
VR-APM-6	In scenic view areas as designated by land management agencies, structures would be placed to avoid sensitive features and/or allow conductor to clearly span the features, within limits of standard design where possible.

Source: SDG&E PEA, 8/2006.

(END OF APPENDIX D)

APPENDIX E

CPUC CEQA Findings of Fact

Regarding the Final Environmental Impact Report/Environmental Impact Statement for the Sunrise Powerlink Project
State Clearinghouse No. 2006091071
DOI Control No. DES-07-58

I. Project Background

The California Public Utilities Commission (CPUC) is approving a Certificate of Public Convenience and Necessity (CPCN) for an alternative to the Sunrise Powerlink Project as proposed by San Diego Gas & Electric Company (SDG&E). This alternative is identified in the Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS) as the "Environmentally Superior Southern Route Alternative," including the "Coastal Link System Upgrade Alternative." The CPUC has selected this route from the Imperial Valley to San Diego County because it is the least environmentally damaging alignment and does not cross the Anza Borrego Desert State Park.

I.1 Project Description Summary

On November 2, 2005, San Diego Gas & Electric Company (SDG&E) filed with the Bureau of Land Management (BLM) a Right-of-Way (ROW) Grant application. On December 14, 2005, SDG&E submitted to the CPUC an application (A.06-08-010) for a Certificate of Public Convenience and Necessity (CPCN), and subsequently, on August 4, 2006, submitted an amended application accompanied by its Proponent's Environmental Assessment (PEA) for the Sunrise Powerlink Transmission Line Project.

SDG&E is authorized to construct new electric transmission lines between the existing Imperial Valley substation near El Centro in Imperial County to SDG&E's Peñasquitos Substation near Interstate 805 in coastal San Diego County, and other system modifications to reliably operate the new lines. Collectively, the transmission line and system modifications are known as the Sunrise Powerlink Transmission Project (SRPL or Project). The entire Project will extend approximately 123 miles, and traverse private and public lands (e.g., BLM land and Cleveland National Forest). The Environmentally Superior Southern and the Coastal Link System Upgrades Alternative are displayed in Figure ES-4 (Final Environmentally Superior Northern Route Alternative and Final Environmentally Superior Southern Route Alternative) of the Final EIR/EIS. Mileposts (MPs) are shown on detailed maps in EIR/EIS Appendix 11C and also on maps in Section E as referenced below.

The 500 kV segment of the Project will include the following segments of alternatives or route options addressed in the EIR/EIS, from east to west. Mileposts are shown on detailed maps in EIR/EIS Appendix 11C and also on maps in Section E as referenced below.

- **Interstate 8 Alternative (including SWPL Archaeological Site Revision and Jacumba Breakaway Revision):** The route follows the Interstate 8 Alternative starting at the Imperial Valley Substation and continuing west for 40.0 miles (from MP I8-0 to MP I8-40.0; Final EIR/EIS, Figures E.1.1-2a & E.1.1-2b) including the following route revisions:
  - **SWPL Archaeological Site Revision** (MP I8-11 to MP I8-14.1; Section E.1.7.2 of the Final EIR/EIS and Figure E.1.1-4e).

— **Jacumba SWPL Breakaway Point Revision** (at MP I8-35.2; Section 3.3.1 of the Recirculated Draft EIR/Supplemental Draft EIS and Figure 3-6).

- **BCD Alternative Revision:** The route turns north-northwest for 13 miles, then southwest for 2 miles to meet the BCD South Option Revision (Final EIR/EIS Figures E.2.1-1a & E.2.1-1b, and Recirculated Draft EIR/Supplemental Draft EIS Figure 3-7.) The BCD Alternative Revision then diverges from the BCD Alternative at MP BCD-9. It heads northwest for just over four miles and then turns and heads south-southwest for two miles to where it crosses the original BCD Alternative at approximately MP BCD-13.9. The BCD South Option Revision begins at this MP. The route will be slightly modified as dictated by Mitigation Measure WR-2a (Final EIR/EIS Figure E.2.1-1b), which provides for an additional route revision to be developed by SDG&E in consultation with the U.S. Forest Service. This segment then turns due west at approximately MP BCD-11 until reaching the BCD Alternative Revision at approximately MP BCD-14.2, shortening the route by 0.56 miles and lessening impacts to recreation areas.

- **BCD South Option Revision:** The original BCD South Option continues for approximately 6 miles after the BCD Alternative Revision (approximately following MP BCDS-0 to MP BCDS-5.6) (Final EIR/EIS Figure E.2.1-2). The BCD South Option Revision roughly parallels the BCD South Option's original route for 3.8 miles, crossing the Interstate 8 Alternative approximately 0.4 miles west of the original BCD South Option crossing. From this point, the revised route remains approximately 0.6 miles west of the original BCD South Option and joins the Modified Route D Alternative at MP MRD-3.6. (See Draft EIR/EIS Section E.2.1 and Recirculated Draft EIR/Supplemental Draft EIS Section 3.3.2.1.)

- **Modified Route D Alternative (including Cameron Reroute, PCT Route Option A, and Western Modified Route D Alternative Reroute):** The route follows the Modified Route D Alternative to the Modified Route D Substation for approximately 31 miles (approximately following MP MRD-3.6 to MP MRD-34) (Final EIR/EIS, Figures E.4.1-1b, E.4.1-1c, E.4.1-1d), including the following route revisions:

  — **Cameron Reroute** from approximately MP MRD-8.5 to MP MRD-10.15 (Figure 3-10 and Section 3.3.5 of the Recirculated Draft EIR/Supplemental Draft EIS).

  — **PCT Route Option A** from approximately MP MRD-10.9 to MP MRD-14 (Figures E.4.1-1b, E.4.1-1c and Section E.4 of the Final EIR/EIS).

  — **Western Modified Route D Alternative Revision** from MP MRD-18.5 to the Modified Route D Substation at MP MRD-34 (Figure 3-12 and Section 3.3.7 of the Recirculated Draft EIR/Supplemental Draft EIS).

The 230 kV segment of the Project will exit the Modified Route D Substation to the north, and follow the Modified Route D Alternative until reaching the Interstate 8 Alternative at Alpine Boulevard (MP I8-71.3).

- **Interstate 8 Alternative:** The route reconnects with the Interstate 8 Alternative at MP I8-71.3 and then transitions underground for 8.3 miles along Alpine Boulevard (MP I8-71.3 to I8-79.6) (Draft EIR/EIS, Figure E.1.1-2d).

- **Chocolate Canyon Option Revision:** The route follows the Chocolate Canyon Option including the Chocolate Canyon Option Revision for 3.7 miles (MP CC-0 to CC-3.7) (Draft EIR/EIS, Figure E.1.1-4d).

- **Interstate 8 Alternative (including High Meadow Reroute and Highway 67 Hansen Quarry Reroute):** The Chocolate Canyon Option Revision connects with the Interstate 8 Alternative at MP I8-82.2 and the route travels for 10 miles to meet the Proposed Project route at approximately MP 131. This route segment includes:
  - The **High Meadows Reroute** (MP I8-87.2 to MP I8-89.4; Figure 3-8 of the Final Recirculated Draft EIR/Supplemental Draft EIS, Section 3.3.3); and
  - The **Highway 67 Hansen Quarry Reroute** (MP I8-89.4 to MP I8-92.7; Figure 3-9 of the Final Recirculated Draft EIR/Supplemental Draft EIS, Section 3.3.9).
- **Proposed Project:** The route follows the Proposed Project route from MP 131 to the Sycamore Canyon Substation for 5.3 miles (MP 131 to MP 136.3) (Draft EIR/EIS, Figure B-7). The approved Project includes the "Other System Upgrades" defined in Draft EIR/EIS Section B.2.6 (Reconductoring of the existing 69 kV transmission line between the existing Sycamore Canyon and Elliot Substations, and improvements at the existing San Luis Rey and South Bay Substations).

Coastal Link System Upgrades Alternative Revision: The approved Project incorporates the Coastal Link System Upgrades Alternative Revision, in which the westernmost 15 miles of the Proposed Project will be replaced with upgrades to existing facilities (reconductoring and substation upgrades) (Recirculated Draft EIR/Supplemental Draft EIS, Figure 3-5).

I.2 Route Options Pending Future Federal Decisions

The following Route Options may be incorporated into the Project if evidence is identified during the course of BLM's decision-making process that renders certain segments of the Environmentally Superior Southern Route Alternative infeasible. We authorize construction of these Route Options, contingent upon such evidence. We therefore make findings for both of these Route Options in Section III of this document. The Route Options are identified by mileposts throughout the findings below.

Star Valley Option Revision. If installation of the 230 kV line underground in the eastern end of Alpine Boulevard is found to be infeasible, the entire Star Valley Option Revision (MP SV0 to SV-3) may be included as part of the Project. Further information regarding the feasibility of the Star Valley Option Revision can be found in Section VI.5.4.

PCT Option C/D. PCT Option C/D will move a segment of the Modified Route D Alternative from its original location on BLM land in the Hauser area (adjacent to the SDG&E 69 kV transmission line and just south of the border of the Cleveland National Forest), also known as PCT Option A, further south onto a gifted parcel of BLM land that has been in federal ownership since it was donated to the BLM in 2005. Further information regarding the feasibility of the PCT Option C/D can be found in Section VI.5.4.

I.3 Project Objectives/Purpose and Need

I.3.A SDG&E's Project Objectives

SDG&E's provided the following eight objectives for the Project in its PEA (Section 3.1):

1. Ensure SDG&E's transmission system satisfies minimum California Independent System Operator (CAISO), North American Electric Reliability Corporation (NERC), and Western Electricity Coordinating Council (WECC) reliability criteria throughout the planning horizon of the Long-Term

Resource Plan (LTRP) and beyond, including the requirement that there be no loss of load within the San Diego area under G-1/N-1 contingency conditions.[1] Avoid siting the Project parallel to Southwest Powerlink (SWPL) for long distances especially avoiding areas with fire history or fire potential.

2. Provide a transmission facilities with a voltage level and transfer capability that (a) allows for prudent system expandability to meet both anticipated short-term (2010) and long-term (2015 and beyond) load growth through a total San Diego area import capability of at least 4,200 MW (all lines in service) and 3,500 MW (under G-1/N-1 contingency conditions) and (b) supports regional expansion of the electric grid.
3. Provide transmission capability for Imperial Valley renewable resources for SDG&E customers to assist in meeting or exceeding California's 20% renewable energy source mandate by 2010 and the Governor's proposed goal of 33% by 2020.
4. Reduce the above-market costs associated with maintaining reliability in the San Diego area while mitigating the potential exercise of local market power, particularly the costs associated with inefficient generators such as the South Bay and Encina Power Plants.
5. Improve regional transmission system infrastructure to provide for the delivery of adequate, reliable and reasonably priced energy supplies and implement the transmission elements of state and local energy plans.
6. Obtain electricity generated by diverse fuel sources and decrease the dependence on increasingly scarce and costly natural gas.
7. Avoid, to the extent feasible, the taking and relocation of homes, businesses or industries, in the siting of the transmission line, substation and associated facilities.
8. Minimize the need for new or expanded transmission line ROW in urban or suburban areas of the SDG&E service territory already traversed by multiple high voltage transmission facilities and, to the extent feasible, assist in implementing local land use goals.

I.3.B CPUC and BLM Project Objectives

Having taken into consideration the eight objectives set forth by SDG&E above, the CPUC and BLM identified the following three basic project objectives:

- Basic Project Objective 1: to maintain reliability in the delivery of power to the San Diego region.
- Basic Project Objective 2: to reduce the cost of energy in the region.
- Basic Project Objective 3: to accommodate the delivery of renewable energy to meet State and federal renewable energy goals from geothermal and solar resources in the Imperial Valley and wind and other sources in San Diego County.

II. Environmental Review Process and the EIR/EIS

A joint Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) was published in January 2008 by the CPUC and BLM in compliance with CEQA and NEPA requirements. A Recirculated Draft

[1] This "G-1/N-1" standard requires a defined area system to withstand the simultaneous outage of its largest generating unit (G-1) and largest transmission interconnection (N-1), and be able to withstand the next most critical transmission outage without dropping load.

EIR/Supplemental Draft EIS was published in July of 2008. The Final EIR/EIS on the Project was published in October 2008. The Final EIR/EIS has been prepared for the CPUC in accordance with CEQA and the CEQA Guidelines, as amended. As allowed for in CEQA Guidelines §15084(d)(2), the CPUC retained a consultant to assist with the preparation of the environmental documents. The CPUC, acting as State Lead Agency, has directed, reviewed and edited as necessary all material prepared by the consultant, and such material reflects the CPUC's independent judgment. The key milestones associated with the preparation of the EIR/EIS are summarized below. In addition, an extensive public involvement and agency notification effort was conducted to solicit input on the scope and content of the EIR/EIS and to solicit comment on the results of the environmental analysis presented in the Draft EIR/EIS. In general, the preparation of the EIR/EIS included the following key steps and public notification efforts:

Draft EIR/EIS January 2008

- **Notice of Preparation.** Thirty-day scoping process began with the CPUC's issuance of the Notice of Preparation (NOP) of a joint EIR/EIS on September 15, 2006 and the BLM's publication of the Notice of Intent (NOI) to prepare a joint EIR/EIS and Proposed Land Use Plan Amendment in the Federal Register on August 31, 2006 (Volume 71, Number 169, pages 51848-51849).
- The NOP was filed with the State Clearinghouse on September 15, 2006. The NOP and a separate notice of the eight public scoping meetings was mailed to over 6,600 property owners, regulatory agencies; environmental groups; private organizations; tribal government representatives; and elected officials. Copies of the NOP were available at 26 local libraries and agency offices.
- **Notice of Second Round of Scoping Meetings on Alternatives to the Proposed Project.** A notice announcing the February round of public meetings was mailed to over 12,000 individuals and agency representatives in January 22, 2007. The notice included the EIR/EIS publication schedule and a preliminary list of alternatives to be analyzed in the EIR/EIS.
- All public notices appeared on the CPUC's Project website. Newspaper advertisements appeared in 11 local and regional newspapers between September 15 and 22, 2006 for the October scoping meetings and in eight newspapers between January 20 and February 2, 2007 for the February meetings. As part of outreach to Spanish-speaking populations, newspaper advertisements were published in two Spanish-language newspapers.
- In October 2006 and February 2007, the CPUC and BLM held a total of 15 public meetings to receive comments from the public on the scope of the EIR/EIS, Project alternatives, and mitigation measures.
- **Notice Regarding an Additional EIR/EIS Alternative to the Sunrise Powerlink Project.** On May 16, 2007 the EIR/EIS team mailed a notice describing a new alternative and the rationale for its consideration, as well as a map of the route. The notice reached 12,347 contacts on the Project EIR/EIS mailing list and was available at 26 repositories and on the Internet. A 30-day comment period followed, closing on June 16, 2007 with over 90 comments received from individuals, organizations, agencies, and the Applicant. All comments postmarked during the comment period were published on the Project website.
- **Scoping Report.** In November 2006, the first part of the Scoping Report was published and 284 copies of the Scoping Report were distributed to agencies, parties on the CPUC's Service List, and individuals who requested copies. The notice of availability for the November 2006 Scoping Report was sent to 6,052 recipients. The Scoping Report was also available for review at 26 repositories, on the Internet.
- In April 2007, the second part of the Scoping Report was published and 430 copies of Scoping Report Part Two were distributed to agencies, parties on the CPUC's Service List, and individuals who requested copies.

In addition, a notice of availability of the March 2007 Scoping Report reached 11,853 recipients and was available for review at 26 repositories and on the Internet.

- **Draft EIR/EIS.** The CPUC and BLM issued the Draft EIR/EIS on January 3, 2008. Copies of the full Draft EIR/EIS and Appendices were sent to 181 interested parties and agencies, and document repositories. Approximately 550 copies of the Executive Summary and DVDs with the text of the Draft EIR/EIS were also sent out. Additional copies of the Executive Summary and of the CDs with the text of the Draft EIR/EIS were distributed at the EIR/EIS Informational Workshops in January and February 2008.
- **Notice of Completion.** The Notice of Completion for the Draft EIR/EIS was filed with the State Clearinghouse on January 3, 2008.
- **Notice of Availability of the Draft EIR/EIS.** A Notice of Availability (NOA) of the Draft EIR/EIS was mailed to over 13,550 interested parties, agencies, county and city departments, special districts, property owners, and occupants on or adjacent to SDG&E's Proposed Project route in January 2008.
- **Public Meetings.** Nine Informational Workshops and five Public Participation Hearings were held in January and February 2008. Five hundred and seventy six (576) members of the public, including representatives of organizations and government agencies were documented in attendance at the CPUC Informational Workshops and Public Participation Hearings for the Draft EIR/EIS.
- Two **Public Participation Hearings** were held in May 2008 by the Administrative Law Judge and attended by Commissioners Peevey, Grueneich, Simon, and Bohn.

Recirculated Draft EIR/Supplemental Draft EIS

- **Recirculated Draft EIR/Supplemental Draft EIS.** The CPUC and BLM issued the Recirculated Draft EIR/Supplemental Draft EIS (RDEIR/SDEIS) on July 11, 2008. Copies of the full RDEIR/SDEIS were sent to approximately 150 interested parties and agencies, and document repositories. Approximately 550 copies of the CD with the text of the RDEIR/SDEIS were also distributed. Additional copies of the CD with the text of the RDEIR/SDEIS were distributed at the RDEIR/SDEIS Informational Workshops on August 4, 2008.
- The **Notice of Completion** for the Recirculated Draft EIR/Supplemental Draft EIS was filed with the State Clearinghouse on July 11, 2008.
- A **Notice of Availability** (NOA) of the RDEIR/SDEIS was mailed to over 13,550 interested parties, agencies, county and city departments, special districts, tribal governments, property owners, and occupants on or adjacent to SDG&E's Proposed Project route in July 2008.
- Two informational workshops were held in August 4, 2008. Eighty-two (82) members of the public, including representatives of organizations and government agencies were documented in attendance at the CPUC Informational Workshops on the Recirculated Draft EIR/Supplemental Draft EIS.

Final EIR/EIS October 2008

- **Final EIR/EIS.** The CPUC and BLM issued the Final EIR/EIS on October 14, 2008. Copies of the full Final EIR/EIS were sent to approximately 147 interested parties and agencies, and document repositories.

- A **Notice of Availability** (NOA) of the Final EIR/EIS was mailed to over 13,550 interested parties, agencies, county and city departments, special districts, tribal governments, property owners, and occupants on or adjacent to SDG&E's Proposed Project route in October 2008 (not required by CEQA).

Project Resources

Project e-mail address, telephone hotline, and a Project-specific Internet site were available to provide another avenue for public comment and inquiry. All meetings and document publications were advertised in 11 local and regional newspapers in Imperial and San Diego Counties. All print notifications included information on the email address, telephone hotline, and internet site.

III. Environmental Impacts and Findings

Pursuant to Public Resources Code §21081 and CEQA Guidelines §15091, no public agency shall approve or carry out a project for which an EIR has been certified, which identifies one or more significant effects on the environment that will occur if the project is approved or carried out unless the public agency makes one or more of the following findings with respect to each significant impact:

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

The CPUC has made one or more of these specific written findings regarding each significant impact associated with the Project. Those findings are presented below, along with a presentation of facts in support of the findings. Concurrent with the adoption of these findings, the CPUC adopts the Mitigation Monitoring Program as presented in the Final EIR/EIS (provided as Appendix F).

The EIR/EIS evaluation included a detailed analysis of impacts in 14 environmental disciplines, analyzing the Project and alternatives, including a No Project Alternative. The EIR/EIS discloses the environmental impacts expected to result from the construction and operation of the Project. Where possible, mitigation measures were identified to avoid or minimize significant environmental effects. In addition, SDG&E committed to implementing measures in order to reduce the direct and indirect impacts that will result from Project activities. These measures, referred to as Applicant Proposed Measures (APMs), were identified by SDG&E in its CPCN Application to the CPUC. Table B-19 (Applicant Proposed Measures) in Section B.7 of the EIR/EIS provides a detailed list of the APMs. The analysis in the EIR/EIS assumed the APMs to be part of the Project. The mitigation measures identified in the EIR/EIS are measures proposed by the lead agencies, responsible or trustee agencies or other persons that were not included in the Project but are reasonably expected to reduce adverse impacts if required as conditions of approving the Project, as required by CEQA Guidelines §15126.4(a)(1)(A).

III.1 Environmental Impacts Found to be Less Than Significant

Based on the issue area assessment in the EIR/EIS the CPUC determines that the Project will have no impact or less than significant impacts for several issues as summarized in the table below. The rationale for the conclusion that no significant impact will occur in each of the issue areas in the table is based on the discussion of these impacts in the detailed issue area analyses in Sections D and E of the EIR/EIS and the cumulative impacts discussed in Section G (Cumulative Scenario and Impacts) of the EIR/EIS that were found to have no impact or less than significant impacts.

APPENDIX E

Table D1. Environmental Impacts Found to be Less Than Significant		
Impact Evaluation Category	**Rationale for No Impact or Less than Significant Impacts**	**Reference**
Biological Resources		
Impact B-1: Construction activities would result in temporary and permanent losses of non-sensitive vegetation	The loss of non-native trees and shrubs will be an adverse but less than significant impact (Class III) because they are non-native and they typically do not support special status wildlife species.	EIR/EIS Sections E.1.2, E.2.2, E.4.2, D.2
Impact B-4: Construction activities would create dust that would result in degradation of vegetation	SDG&E's BIO-APM-3 will ensure that, in addition to regular watering to control fugitive dust created during construction activities that interfere with plant photosynthesis, a 15-mile-per-hour speed limit will be observed on dirt access roads. Thus, the Project will not result in a substantial adverse effect on riparian or other sensitive vegetation communities from fugitive dust and impacts will be less than significant.	EIR/EIS, Sections E.1.2, E.2.2, E.4.2, D.2
Impact B-6: Construction activities, including the use of access roads, would result in disturbance to wildlife and result in wildlife mortality (Class III)	SDG&E's BIO-APMs -2, -3, -4, -7, -9, -16, -24, -26, and -29 require personnel training, restrict construction to predetermined limits, prohibit litter, prohibit parking or driving under oak trees, require brush and tree clearance/trimming outside the breeding season, cover construction holes/trenches overnight and inspect them for wildlife prior to filling, slope excavations to provide a wildlife escape route, reduce construction night lighting, and keep vehicle traffic to minimum volume and speed. Project construction will not result in a substantial disturbance to wildlife resulting in mortality and impacts will be less than significant.	EIR/EIS, Sections: E.1.2, E.2.2, E.4.2, D.2
Impact B 7I: Direct or indirect loss of bald eagle or direct loss of habitat (No Impact)	Project is over 4,000 feet away from reported bald eagle sightings. There is a low potential for bald eagles to use areas along the Project for foraging during the winter, and they are not known to nest within or adjacent to the Project. No impacts to bald eagles as a result of the Project are expected.	EIR/EIS Sections:. E.1.2, E.2.2, E.4.2, D.2
Impact B-9: Construction or operational activities would adversely affect linkages or wildlife movement corridors, the movement of fish, and/or native wildlife nursery sites (No Impact or Class III for linkages, wildlife movement corridors, or fish movement).	The Project will not significantly impact or restrict general wildlife movement. BIO-APMs -2, -3, -5, -18, and -29 will minimize or prevent potential adverse effects to linkages or wildlife corridors, the movement of fish, and native wildlife nursery sites. Due to intermittent construction locations, and since impacts to native habitats at each structure location will be small, wildlife may be temporarily prevented from moving around construction equipment in Thing Valley (Class III). Surface water resources include desert washes and other streams, the majority are dry most times and unlikely to support fish populations. The majority of these watercourses will be spanned by transmission lines, and impacts will be reduced with BIO-APM-5 that limits impacts to watercourses through project design. Thus, the Project will not affect fish movement (No Impact).	EIR/EIS Sections: E.1.2, E.2.2, E.4.2, D.2

APPENDIX E

Table D1. Environmental Impacts Found to be Less Than Significant

Impact Evaluation Category	Rationale for No Impact or Less than Significant Impacts	Reference
Impact B-10: Presence of transmission lines may result in electrocution of, and/or collisions by, listed or sensitive bird species (No Impact for electrocution)	Raptors and other large aerial perching birds often perch on tall structures that offer views of potential prey. The majority of raptor electrocutions are caused by lines that are energized at voltage levels less than 69 kV. The Project's voltage levels are 230 kV and 500 kV. BIO-APM-21 requires that structures be constructed to conform to "Suggested Practices for Raptor Protection on Power Lines." Because of its voltage and conformance with BIO-APM-21 the Project will not present electrocution risk to birds.	EIR/EIS Sections: E.1.2, E.2.2, E.4.2, D.2
Impact B-11: Presence of transmission lines would result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers (Class III) (All project components west of MP I8-23).	Common ravens prey on the desert tortoise and the FTHL; no desert tortoise and FTHL habitat occurs west of MP I8-23.The common raven does not prey on any other listed or sensitive wildlife in the vicinity, although the predation may still occur. Thus, impacts will be adverse but less than significant (Class III).	EIR/EIS Sections: E.1.2, E.2.2, E.4.2, D.2
Impact B-12: Maintenance activities would result in disturbance to wildlife and could result in wildlife mortality (Class III for barefoot banded gecko and non-sensitive wildlife)	SDG&E BIO-APMs -3, -4, -6, -7, -9, -10 to -13, and -16 include restricting work to within existing access roads; observing a 15-mile-per hour speed limit on dirt roads; complying with regulations protecting wildlife and its habitat; prohibiting litter; conducting a pre-activity survey prior to brush clearing around Project facilities (if two years since the last clearing); prohibiting harm to, and feeding of, wildlife; and identifying environmentally sensitive tree trimming locations. With implementation of APMs, impacts to non-sensitive wildlife will be less than significant (Class III).. Impacts to barefoot banded gecko from maintenance activities will be less than significant (Class III) because the species is not known to be impacted by noise and is unlikely to occur on a maintained access road, tower pad, or other work area..	EIR/EIS Sections: E.1.2, E.2.2, E.4.2, D.2
Cumulative construction activities would create dust that may result in degradation of vegetation	The likelihood that intensive dust generating activities of adjacent projects will occur concurrently with those of the Project is considered low based on the nature of linear project construction. The potential for Project impacts to combine with other projects and result in a cumulative significant impact is considered low. Therefore, cumulative impacts will be less than significant (Class III).	EIR/EIS Section G
Cumulative construction activities, including the use of access roads, would result in disturbance to non-sensitive/threatened wildlife and could result in wildlife mortality	The combined effect of impacts to non-sensitive/threatened wildlife from the Project and impacts of past and future projects is not considered to be significant because these species are common and wide ranging over the entire Project area and are expected to recover from these losses given the large regional populations. Displaced wildlife will be expected to return to the Project alignment after vegetation is allowed to recover upon construction completion. The Project's contribution to a cumulative impact will be less than significant (Class III).	EIR/EIS Section G

APPENDIX E

Table D1. Environmental Impacts Found to be Less Than Significant		
Impact Evaluation Category	**Rationale for No Impact or Less than Significant Impacts**	**Reference**
Cumulative presence of transmission lines may result in electrocution of, and/or collisions by, listed or sensitive bird species (No Impact [electrocution])	As stated in Section E.1.2, Section E.2.2, Section E.4.2, and Section D.2, the Project will have no impact with regard to bird electrocution and therefore is not cumulatively considerable.	EIR/EIS Section G
Cumulative presence of transmission lines may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers	Common ravens prey on the desert tortoise and the FTHL; no desert tortoise occurs along the Project route. No FTHL habitat occurs west of MP I8-23. The common raven does not prey on any other listed or sensitive wildlife in the vicinity of the Project although the predation may still occur. Therefore, impacts of the Project will not have the potential to combine with impacts of past, present, and reasonably foreseeable projects to result in a cumulative impact (No Impact).	EIR/EIS Section G
Visual Resources		
Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class III for transmission line)	Construction activities along the transmission line route will be transient and of short duration as construction progresses along the route. Affected viewers will be aware of the temporary nature of Project construction impacts, which will decrease their sensitivity to the impact. The resulting visual impacts will be adverse but less than significant.	EIR/EIS Sections: E.1.3, E.2.3, E.4.3, D.3.18.4.
Impact V-56: Increased structure contrast, view blockage, and skylining when viewed from Key Viewpoint 44 at Dunaway OHV Staging Area **(VRM)** (Class III)	Compared to the adjacent SWPL 500 kV steel-lattice transmission line, the Project's structures will be of similar design and height. The number of visible structures will be effectively doubled, and existing and new structures will be paired and conductor spans will generally be matched. The new structures will cause some additional skylining as they cross the flat expanse of the Yuha Desert, resulting in some view blockage of sky and mountains when viewed from the Dunaway OHV Staging Area. The resulting visual contrast will be weak for structural form and weak to moderate for line, and the existing landscape character will not substantially change. The overall level of change will be low. To further minimize the Project's visual impacts, Mitigation Measure V-3a is recommended.	EIR/EIS Section E.1.3
Impact V-57: Increased structure contrast, view blockage, and skylining when viewed from Key Viewpoint 45 on Westbound I-8, Crossing the Yuha Desert **(VRM)** (Class III)	Compared to the adjacent SWPL 500 kV steel-lattice transmission line, the SRPL Project's structures will be of similar design and height. The number of visible structures will be effectively doubled, and existing and new structures will be paired and conductor spans will generally be matched. The new structures will also cause some additional skylining as they cross the flat expanse of the Yuha Desert and span I-8. The new line will also slightly increase the structural complexity and industrial character visible from I-8. The resulting visual contrast will be weak for structural form and weak to moderate for line, and the existing landscape character will not substantially change. The overall level of change will be low. To further minimize the Project's visual impacts, Mitigation Measure V-3a is recommended.	EIR/EIS Section E.1.3

Table D1. Environmental Impacts Found to be Less Than Significant		
Impact Evaluation Category	**Rationale for No Impact or Less than Significant Impacts**	**Reference**
Impact V-59: Increased structure contrast, view blockage, and skylining when viewed from Key Viewpoint 47 on Eastbound I-8, South of Sugarloaf Mountain **(VRM)** (Class III)	Compared to the adjacent SWPL 500 kV steel-lattice transmission line, the Project's structures will be of similar design and height. The number of visible structures will be effectively doubled, existing and new structures will be paired and conductor spans will generally be matched. The new structures will also cause some additional skylining as they cross Sugarloaf Mountain and begin the ascent of In-Ko-Pah Gorge, resulting in some additional view blockage of sky and mountains when viewed from I-8. The resulting visual contrast will be weak-to-moderate for structural form and line, and the existing landscape character would not substantially change. The overall level of change will be low-to-moderate. To further minimize the Project's visual impacts, Mitigation Measure V-3a is recommended.	EIR/EIS Section E.1.3
Impact V-61: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 49 in Jacumba (Class III)	Compared to the adjacent SWPL 500 kV steel-lattice transmission line, the SRPL Project's structures will be of similar design and height. The resulting visual contrast, as seen from the rural community of Jacumba, will be low-to-moderate and the new transmission line will appear subordinate-to-co-dominant compared to the existing landscape features (i.e., existing transmission structures, ridgeline, residential structures). The overall visual change will be low-to-moderate when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate visual sensitivity, the resulting visual impact will be adverse but less than significant. To further minimize the Project's visual impacts, Mitigation Measure V-3a is recommended.	EIR/EIS Section E.1.3
Impact V-67: Increased structure contrast, industrial character, and view blockage when viewed from Key Viewpoint 54 in El Monte County Park (Class III)	This segment of the Project will introduce a 230 kV tubular steel-pole transmission line north of El Monte County Park, at the base of El Cajon Mountain. The steel-pole structures will be noticeable though not prominent additions to the landscape. The new structures and conductors will result in a low-to-moderate degree of visual contrast. These subordinate-to-co-dominant structural features will also cause a low-to-moderate degree of view blockage of the rugged background slopes of El Cajon Mountain. These three equally weighted factors will result in an overall low-to-moderate visual change that in the context of the existing landscape's moderate-to-high visual sensitivity, will result in adverse but less than significant visual impacts. To further minimize the Project's visual impacts, Mitigation Measure V-3a is recommended.	EIR/EIS Section E.1.3
Land Use		
Impact L-1: Construction would temporarily disturb land uses at or near the alignment (Class III for sensitive land uses that are located more than 1,000 feet from the Project)	Construction-related impacts along the Coastal route of the Project will be reduced with APMs LU-1, LU-4, LU-6, LU-7 and LU-10.	EIR/EIS Section D.4.18.4

APPENDIX E

Table D1. Environmental Impacts Found to be Less Than Significant		
Impact Evaluation Category	**Rationale for No Impact or Less than Significant Impacts**	**Reference**
Impact L-2: Presence of a project component would divide an established community or disrupt land uses at or near the alignment.	The Project route will not constitute a physical division to an established community because the route will circumvent land uses and not bisect them, and will not establish a barrier or obstacle between land uses.	EIR/EIS Sections: E.1.4.2; E.4.4.2; E.4.4.4; E.2.4.2
Wilderness and Recreation		
Impact WR-1: Construction activities would temporarily reduce access and visitation to recreation or wilderness areas (No Impact)	The Modified Route D Alternative Substation will be located on private land that will not be near or visible from any wilderness or recreation areas or their primary access routes. Construction of this substation will not impact recreation or wilderness areas.	EIR/EIS Sections: E.1.5, E.2.5, E.4.5; D.5.18.4
Impact WR-2: Presence of a transmission line or substation would permanently change the character of a recreation area, diminishing its recreational value (Class III, No Impact)	Within segments of the route where the Project will be of sufficient distance from recreational resources, the Project will not significantly diminish the recreational value of these resources.	EIR/EIS Sections: E.1.5, E.2.5, E.4.5, D.5.18.4
Impact WR-3: Presence of a transmission line would permanently preclude recreational activities (No Impact)	Within segments of the route where no recreation areas are traversed, Impact WR-3 has been deemed no impact.	EIR/EIS Sections: E.1.5, E.2.5, E.4. D.5.18.4
Impact WR-4: Presence of a transmission line in a designated wilderness or wilderness study area would result in loss of wilderness land (No Impact)	The Project will not traverse the Vallecito Mountain Wilderness Area, Pinyon Ridge Wilderness Area, Grapevine Mountain Wilderness Area, San Felipe Hills WSA, or any other wilderness areas or WSAs. As such, direct impacts to these resources will not occur.	EIR/EIs Sections: E.1.5, E.2.5, E.4.5, D.5.18.4
Agriculture		
Impact AG-1: Construction activities would temporarily interfere with Active Agricultural Operations (Class III for vehicles and equipment)	The Project will incorporate SDG&E 's APMs LU-1, -3, -4, -5, and -6 to ensure that advance notification be provided within 300 feet of construction activities, to compensate farmers for lost crops and schedule construction activities so as to avoid planting, growing, and harvesting seasons, when feasible, to require that property owners and tenants whose land may be obstructed by construction activities be notified in advance and alternative access be provided, if feasible, to ensure that SDG&E coordinates construction with water management representatives to remedy encroachment into and around irrigation canals, and to require that limits of construction be predetermined and within the predetermined limits. With these APMs, construction of the Project will not result in damage or loss of crops, obstruction or access to properties, and conflicts with irrigation canals will be less than significant.	EIR/EIS, Sections: E.1.6, E.2.6, E.4.2, D.6
Impact AG-2: Operation would permanently convert DOC Farmland to non-agricultural use (No Impact for Star Valley Option)	No DOC Farmlands will be converted by the BCD Alternative, BCD South Option and the Star Valley Option.	EIR/EIS, Sections: E.1.6, E.2.6, E.4.6, D.6

Table D1. Environmental Impacts Found to be Less Than Significant

Impact Evaluation Category	Rationale for No Impact or Less than Significant Impacts	Reference
Impact AG-3: Operation would permanently interfere with Active Agricultural Operations (Class III for Star Valley Option)	Operation of the Star Valley Option would remove 0.2 acres of lands under Active Agriculture Operation and would not exceed the 10-acre significance threshold.	EIR/EIS Section E.4.6
Impact AG-4: Operation would permanently convert Williamson Act lands to non-agricultural use (No Impact for Star Valley Option)	Operation of the Star Valley Option will not permanently convert Williamson Act lands.	EIR/EIS Section E.4.6
Cultural and Paleontological Resources		
Impact C-2: Construction of the Project would cause an adverse change to sites known to contain human remains	Impact C-2, considered a Class I impact in the Draft EIR/EIS, was modified in the RDEIR/SDEIS based on new information. The Interstate 8 Alternative that appeared to cross a Native American village site (CA-SDI-6706). The original assessment indicated that construction of the Interstate 8 Alternative would directly impact human remains, a significant and unmitigable impact. Research conducted by the CPUC/BLM after the public distribution of the Draft EIR/EIS demonstrates that site CA-SDI-6706 does not extend south of Interstate 8 and into Alpine Boulevard. If this information is confirmed after Section 106 consultation, the original Interstate 8 Alternative would have no impact on this very important village site.	RDEIR/SDEIS Section 4.1.3
Impact C-2: Cumulative construction activities could cause an adverse change to unknown significant buried prehistoric and historical archaeological sites or buried Native American human remains	Unknown, unrecorded cultural resources may be found at nearly any development site. When discovered, cultural resources are treated in accordance with applicable federal and State laws and regulations as well as the mitigation measures and permit requirements applicable to a project. Should resources be discovered during construction of current and future projects, they will be subject to legal requirements designed to protect them, thereby reducing the effect of impacts. Project impacts, when combined with impacts from past, present and reasonably foreseeable projects, will not be significant and no additional mitigation measures are necessary.	EIR/EIS Sections: G.4.1.5 and G.4.2
Impact PAL-1: Cumulative construction activities could destroy or disturb significant paleontological resources	Should resources be discovered during construction of current and future projects, they will be subject to legal requirements designed to protect them, thereby reducing the effect of impacts. Project impacts, when combined with impacts from past, present and reasonably foreseeable projects, will not be significant.	EIR/EIS Sections: G.4.1.5 and G.4.2
Noise		
Impact N-2: Construction activity would temporarily cause groundborne vibration	A groundborne vibration impact will occur in the immediate vicinity of construction sites. Blasting is not expected to be necessary for the Project. The notification process suggested in NOI-APM-1 will reduce the likelihood of a nuisance or annoyance occurring. With notification, the impacts from construction-related groundborne vibration will be less than significant (Class III).	EIR/EIS Sections: E.1.8, E.2.8, E.4.8, D.8

APPENDIX E

Table D1. Environmental Impacts Found to be Less Than Significant		
Impact Evaluation Category	**Rationale for No Impact or Less than Significant Impacts**	**Reference**
Impact N-3: Permanent noise levels would increase due to corona noise from operation of the transmission lines and noise from other project components	Operational noise will not cause any local ordinance to be violated or any notable change in existing ambient noise levels along the Chocolate Canyon Option and with the Coastal Link Systems Upgrade Alternative Revision because the overhead 230 kV line will cause less than 40 dBA in corona noise (Class III).	EIR/EIS Section E.1., D.8
Impact N-4: Routine inspection and maintenance activities would increase ambient noise levels	Inspection and maintenance noise will not cause any notable change in existing ambient noise levels with the Coastal Link Systems Upgrade Alternative Revision and System Upgrades.	EIR/EIS Section D.8
Transportation and Traffic		
Impact T-2: Construction would temporarily disrupt the operation of emergency service providers	SDG&E has committed to implement T-APM-4a as part of the Project. Implementation of T-APM-4a will reduce the potential for temporary disruptions of emergency service provider operations, emergency providers will be aware of delays, lane closures, and/or roadway closures. Impacts to emergency services will be less than significant.	EIR/EIS Sections: E.1.9, E.2.9, E.4.9, D.9
Impact T-3: Construction would temporarily disrupt bus transit services	SDG&E has committed to T-APM-5 as part of the Project, which requires SDG&E to consult with the transit systems and affected school districts at least one month prior to construction to coordinate construction activities; therefore, impacts to bus transit services will be less than significant.	EIR/EIS Sections: E.1.9, E.2.9, E.4.9, D.9
Impact T-6: Construction activities would cause a temporary disruption to rail traffic or operations	SDG&E will implement T-APM-8a requiring SDG&E to obtain a permit to enter railroad ROWs. By complying with railroad company permit requirements, the impact of the Project on rail traffic operations will be less than significant.	EIR/EIS Sections: E.1.9, E.2.9, E.4.9, D.9
Impact T-7: Construction would result in the short-term elimination of parking spaces	SDG&E will implement T-AMP-6a and 6b, which specifies certain parking requirements and the development of a traffic control plan. As such, impacts to parking spaces will be less than significant.	EIR/EIS Sections: E.1.9, E.2.9, E.4.9, D.9
Impact T-8: Construction would conflict with planned transportation projects	Complying with local permits and agreements will ensure appropriate coordination between SDG&E and the affected agencies so that conflicts will be avoided or minimized. The impacts will be less than significant	EIR/EIS Section: E.1.9, E.2.9, E.4.9, D.9
Impact T-10: Underground construction could restrict access to properties and businesses	SDG&E will implement T-APM-10a, which requires SDG&E or contractors to lay a temporary steel plate over the trench to provide access to properties. Access shall be maintained at all times when underground construction is not occurring. Access issues along the Project will be less than significant.	EIR/EIS Sections: E.1.9, E.2.9, E.4.9, D.9
Public Health and Safety		
Impact P-4: Areas used by the military may contain unexploded ordnance (UXO) and could explode and injure workers during construction	Review of the EDR database search survey indicates that there are no Formerly Used Military Sites along the Project ROW that contain unexploded ordnance that could explode and injure workers during construction.	EIR/EIS Sections: D.10, E.1.10, E.2.10, E.4.10

APPENDIX E

Table D1. Environmental Impacts Found to be Less Than Significant		
Impact Evaluation Category	**Rationale for No Impact or Less than Significant Impacts**	**Reference**
Impact P-5: Soil or groundwater contamination could result from accidental spill or release of hazardous materials during operation and maintenance	Soil or groundwater contamination will result from accidental spill or release of hazardous materials during maintenance of the transmission lines, transition towers, and other associated transmission components for the Project. This results in exposure of the maintenance workers and the public to hazardous materials; and in contamination to soil and/or groundwater. SDG&E will reduce impacts with HS-APMs -1, -3, and -10. While these measures will greatly reduce the likelihood of spills and impacts of spills, they will not completely prevent spills from occurring, resulting in an adverse but less than significant impact.	EIR/EIS Sections: D.10, E.1.10, E.2.10, E.4.10
Impact P-6: Herbicides used for vegetation control around towers and other project facilities could result in adverse health effects to the public or maintenance workers	SDG&E and their contractor's follow a Herbicide Application Protocol to prevent environmental hazards and safety and health concerns. However, considering the generally low toxicity of the herbicides used, their restricted use at Project structures, and the non-routine access of these areas by maintenance workers and the general public the presence of residual herbicide in soil and airborne dust does not pose a significant adverse health risk. This is a less than significant impact.	EIR/EIS Sections: D.10, E.1.10, E.2.10, E.4.10
Air Quality		
Impact AQ-2: Operation, maintenance, and inspections will generate dust and exhaust emissions	Project operation, maintenance, and inspection activities will involve new vehicle trips to patrol new corridor routes that do not follow existing transmission lines. A minor increase in dust and exhaust emissions from mobile sources will occur when compared to existing conditions. Mobile source emissions related to vegetation clearing will also occur, but only occasionally, and will not contribute significant emissions. The incremental emission increase that will be caused by vehicular traffic for inspection and maintenance activities will be less than the operation thresholds. Therefore, direct emissions from vehicular traffic for maintenance activities will cause an adverse but less than significant impact.	EIR/EIS Sections: D.11, E.1.11, E.2.11, E.4.11
Impact AQ-3: Power generated during transmission line operation will cause emissions from power plants	The Project will facilitate transmission of power into San Diego County from power plants that will increase operation outside of the County, and it will reduce the need to generate power in the County. Although some existing fossil fuel-fired power plants could increase operation, this will only occur within previously permitted limits. The air quality effect of power plant operation will be adverse but less than significant.	EIR/EIS Sections: D.11, E.1.11, E.2.11, E.4.11

APPENDIX E

Table D1. Environmental Impacts Found to be Less Than Significant		
Impact Evaluation Category	**Rationale for No Impact or Less than Significant Impacts**	**Reference**
Cumulative operation, maintenance, and inspections will generate dust and exhaust emissions	Minor and occasional increases in dust and exhaust emissions will occur as a result of the Project; however, these emissions will occur at levels that are less than operation significance thresholds. The emissions occurring under cumulative conditions will be forecast, managed, and planned through local air quality rules, regulations, and attainment plans established by the ICAPCD and SDAPCD. Cumulative projects subject to local rules and regulations will be consistent with the applicable air quality management plans. Because operation, maintenance, and inspection impacts of the Project will not exceed thresholds, when combined with impacts from past, present, and reasonably foreseeable projects impacts will be considered less than cumulatively considerable.	EIR/EIS Section G.4.2
Water Resources		
Impact H-2: Construction activity could degrade water quality through spills of potentially harmful materials (BCD South Option and Inland Valley Link MP 131-136.3)	Accidental spills or disposal of harmful materials used during construction could wash into and pollute surface waters or groundwater along the Project route. Surface water contamination through material spills could affect active surface flows, particularly if the spills occur during the winter months. However, the streams crossed are small in size and most are expected to be dry during construction, since construction will be conducted during low-flow periods (WQ-APM-5). WQ-APMs -9, -13, and -14 will ensure proper handling, disposal and clean-up of hazardous material during construction. The required construction SWPPP will address best management practices for spill prevention, containment and clean-up. WQ-APM-1, -2 and -15 situate construction activities away from streams where possible such that spills do not reach flowing water. Because of the dryness of the area, the depth to groundwater, and the APMs, Impact H-2 is less than significant and no mitigation is required.	EIR/EIS Sections: D.12 and E.2.12
Impact H-3: Excavation could degrade groundwater quality in areas of shallow groundwater	Project construction could encounter local groundwater contaminated by material spills or ground disturbance. APMs WQ-APM-8, WQ-APM-9, WQ-APM-13, and WQ-APM-14 address the issue of water quality contamination through material spills. will ensure that dewatering is monitored and disposed of properly to avoid contamination of the remaining natural groundwater. WQ-APM-11 requires the determination of groundwater depth prior to construction, the avoidance of shallow groundwater where possible, and the development of methods for avoiding impacts where shallow groundwater cannot be avoided. Additionally, APMs WQ-APM-1, WQ-APM-2, and WQ-APM-15 situate construction activities away from streams where possible. With these APMs impacts will be less than significant.	EIR/EIS Sections: D.12, E.1.12, E.2.12, E.4.12

Table D1. Environmental Impacts Found to be Less Than Significant

Impact Evaluation Category	Rationale for No Impact or Less than Significant Impacts	Reference
Impact H-4: Groundwater dewatering for project construction could deplete local water supplies (No Impact BCD South Option and Inland Valley Link MP 131-136.3)	There are no groundwater basins along the Inland Valley Link of the Project nor along the BCD South Option, therefore, dewatering for Project construction will not deplete local water supplies.	EIR/EIS Sections: D.12 and E.2.12
Impact H-5: Creation of new impervious areas could cause increased runoff resulting in flooding or increased erosion downstream	Construction of substation, tower foundations and access roads will create impervious areas and compaction of soils. There may be small local increases in runoff from these added impervious surfaces, but total affected area will be very small in comparison to the total watershed. As a consequence, Impact H-5 is less than significant.	EIR/EIS Sections: D.12, E.1.12, E.2.12, E.4.12
Cumulative construction activity could degrade water quality through spills of potentially harmful materials	The Project could degrade surface or groundwater quality through accidental releases of hazardous materials used during construction. WQ-APM-8, -9, -13, and -14 will be implemented to decrease the potential for accidental releases to occur and to clean up potentially harmful materials in the unlikely event of a release. Additionally, WQ-APM-1, -2 and -15 situate construction activities away from streams where possible. Due to the current compromised condition of water quality in the Project area, any action that substantially degrades water quality should be considered significant. However, the dry nature of the surface streams that could be affected by an accidental release of hazardous material spills could easily be cleaned up. Therefore, the Project's contribution to this impact will be less than cumulatively considerable.	EIR/EIS Section G.4.2
Cumulative excavation could degrade ground-water quality in areas of shallow groundwater	Excavation for tower foundations could contaminate groundwater in areas with shallow groundwater if accidental material spills occur. This impact is unlikely to occur primarily because groundwater in most of the groundwater basins crossed by the Project are typically deeper than the expected depth of excavation (excavation will be less than 40 feet in comparison to at least 70 feet depth for groundwater), resulting in little chance for direct contamination. However, this impact could occur within the Campo Valley Groundwater Basin where shallow groundwater may exist. However, WQ-APM-1, -2, -9, -13, -14, and -15, and the construction SWPPP will render impacts less than cumulatively considerable.	EIR/EIS Section G.4.2
Cumulative creation of new impervious areas could cause increased runoff resulting in flooding or increased erosion downstream	Construction of substations, tower foundations and access roads could result in additional runoff through creation of impervious areas and compaction of soils. The volume of new runoff attributable to the Project will be very small in comparison to the total watershed. The amount of new impervious surface created by the Project will be negligible in comparison to the amount of permeable surface throughout the watersheds as well as in comparison to future development. Therefore, even if impacts from past and future projects combined to create a significant impact, the Project's contribution will be less than cumulatively considerable.	EIR/EIS Section G.4.2

APPENDIX E

Table D1. Environmental Impacts Found to be Less Than Significant

Impact Evaluation Category	Rationale for No Impact or Less than Significant Impacts	Reference
Cumulative underground portions of the power line could be subject to damage from stream scour at locations where the line crosses stream channels	This impact describes the effect of the localized environment on the Project structures, rather than the effect of the Project on the natural environment. Therefore, the effect of this impact will not have the potential to combine with similar effects of other projects and is not cumulatively considerable.	EIR/EIS Section G.4.2
Geology, Mineral Resources, and Soils		
Impact G-1: Erosion would be triggered or accelerated due to construction activities	Excavation and grading will loosen soil and trigger or accelerate erosion. GEO-APM-1, -2, -5, and -6 reduce the amount of erosion by limiting construction traffic and grading of existing roads in areas with sensitive soils, planning construction to minimize new ground disturbance, and using Best Management Practices such as sand bags and road bars to control water erosion. In addition, a Stormwater Pollution Prevention Plan that will limit erosion from the construction site will be required in accordance with the Clean Water Act. This will result in a less than significant impact.	EIR/EIS Sections: D.13 and E.1.13
Impact G-4: Project would expose people or structures to potential substantial adverse effects as a result of seismically induced groundshaking and/or ground failure	Moderate groundshaking is expected along portions of the Project's alignment in the event of an earthquake originating from a major fault in the region. Seismically induced groundshaking would potentially damage project structures. SDG&E indicates in the PEA that project structures would be designed to withstand geologically induced stresses, minimizing potential damage to tower structures from groundshaking. This would result in a less than significant impact (Class III).	EIR/EIS Sections: D.13, E.2.13, E.4.13
Socioeconomics, Services, and Utilities		
Impact S-1: Project construction and/or transmission line presence would cause a change in revenue for businesses, tribes, or governments (Class III for business revenue)	The impacts will be short-term construction impacts and no removal of businesses will be required, these impacts will not result in significant revenue impacts.	EIR/EIS Sections: E.1.14, E.2.14, E.4.14, D.14
Impact S-2: Construction would disrupt the existing utility systems or cause a co-location accident	With overhead construction, accidental disruptions will be low in remote areas because few existing utilities are located near the route. PSU-APM-1 and -2 will reduce the likelihood of accidental disruptions. Therefore, potential impacts related to a collocation accident or utility disruption will be less than significant..	EIR/EIS Section: E.2.14 and E.4.14
Impact S-3: Project construction and operation would increase the need for public services and facilities	During construction, water use will be a comparatively small amount of the total water supply for the jurisdictions affected as construction proceeds along the linear extent of the route. Due to the number and capacity of landfills serving the Project area, landfills will have available capacity for materials generated from construction. There will be no increase in need for public services and facilities.	EIR/EIS Section: E.1.14, E.2.14, E.4.14, D.14
Impact S-5: Presence of the Project would decrease property values	The Project will not generate effects that will significantly impact property values.	EIR/EIS Sections: E.1.14, E.2.14, E.4.14, D.14

APPENDIX E

Table D1. Environmental Impacts Found to be Less Than Significant		
Impact Evaluation Category	**Rationale for No Impact or Less than Significant Impacts**	**Reference**
Fire and Fuels Management		
Impact F-3: Presence of the overhead transmission line would reduce the effectiveness of firefighting	The Project will not present a significant conflict to firefighting operations by introduction of overhead lines as defined by the Wildfire Containment Conflict Model due to a combination of the presence of existing transmission lines, the strategic placement of the Project below ridge tops, and steep terrain and abundant fuels that render landscapes indefensible. The locations that will not present a significant conflict are: MP I8-30 to I8-40, BCD-0 to BCD-15.1, BCDS-0 to BCDS-5.6, MRD-3.6 to MRD-11, MRD-13 to MRD-23, MRD-26.5 to MRD-34, SVO-0 to SVO-3, CC-0 to CC-4, I8-82 to I8-93, and MP 133 to 136.5.	EIR/EIS Sections: D.15.4.3; E.1.15; E.2.15

III.2 Significant Environmental Impacts that Have Been Reduced to a Less than Significant Level

The CPUC hereby finds that the following environmental impacts can and will be mitigated to below a level of significance based upon the implementation of the mitigation measures in the EIR/EIS. These findings are based on the discussion of impacts in the detailed issue area analyses in Sections D and E of the EIR/EIS and the cumulative impacts discussed in Section G (Cumulative Scenario and Impacts) of the EIR/EIS. An explanation of the rationale for each finding is presented below.

III.2.1 Biological Resources

The data collection for this analysis included the identification and characterization of biological resources, including vegetation community types, wetland habitats, and special status plant and animal species that are known to occur or have potential to occur in the Project Study Area (PSA). The PSA was defined as the area either directly or indirectly impacted by the SRPL and alternatives.

The PSA width was generally 200 to 300 feet centered on the Project corridor with narrower widths in areas of existing rights-of-way (ROW). Areas outside the PSA, such as substation sites, staging areas, and access roads were also mapped and surveyed. The PSA was wide enough to determine the direct and indirect impacts to vegetation communities and special status species within the corridor because construction monitoring ensures that disturbance outside of these identified areas will not occur.

Prior to conducting fieldwork, records of known occurrences were reviewed to identify special status species that may occur in the PSA. Those records were then compared with lists of federal or State listed threatened, endangered, or other special status species. The National Wetland Inventory (NWI) and California Wildlife Habitat Relationship (CWHR) databases were queried to identify mapped wetlands in the PSA. Details of all survey work and approaches to collecting data are described in the EIR/EIS Section D.2, and General Response GR-16, Adequacy of Biological Surveys.

Some mitigation measures presented below require restoration or mitigation for sensitive vegetation and/or habitat. Mitigation ratios were developed in consultation with the USFWS, BLM, and State Parks, as discussed in General Response GR-14, Biological Resources Impact Calculations/Mitigation Ratios and addressed in Section D.2.5 and Section D.2.11 of the Final EIR/EIS. The amount of acres of sensitive vegetation and/or habitat that are required to be restored or mitigated are presented in Appendix 8P (Consolidated Biology Impact Matrix) of the Final EIR/EIS.

Impact B-2: Construction activities would result in adverse effects to jurisdictional waters and wetlands through vegetation removal, placement of fill, erosion, sedimentation, and degradation of water quality (Class II)

Direct impacts and/or indirect impacts to jurisdictional waters and possibly wetlands (i.e., areas regulated by the U.S. Army Corps of Engineers ("ACOE") and Regional Water Quality Control Board ("RWQCB") and/or California Department of Fish and Game ("CDFG") will occur from construction of the Project. Direct impacts will include removal of wetland/riparian vegetation and/or filling of jurisdictional areas to create stream crossings, especially for access roads. Examples of indirect impacts to jurisdictional resources are streambank erosion and stream sedimentation. Until a final route is selected that includes Project-specific features and final engineering, impacts to jurisdictional waters and wetlands cannot be clearly defined. However, the following vegetation communities identified during vegetation mapping for the Project include: Sonoran wash scrub, mesquite bosque, mule fat scrub, southern willow scrub,

southern cottonwood-willow riparian forest, southern riparian forest, southern coast live oak riparian woodland, and non-vegetated channel.

BIO-APM-1 and -2, -4, -5, -16, and -18 will be implemented to minimize or prevent significant impacts to jurisdictional waters and wetlands: These APMs include avoiding or compensating impacts to jurisdictional waters and wetlands, personnel training, restricting work to within predetermined limits of construction, limiting construction of access roads, avoiding clear-cut tree removals in riparian areas if possible, building streambed crossings at right angles to streambeds, and restricting the length of access roads that parallel streambeds.

Even with implementation of the APMs, this alternative will have a significant impact on regulated jurisdictional areas according to Significance Criterion 3.a (substantial adverse effect on water quality or wetlands as defined by the ACOE and/or CDFG). The impacts will be significant because the APMs are not specific enough or do not provide enough mitigation to adequately compensate for the impacts. In addition to implementing the APMs, Mitigation Measures B-1c and B-2a will be required to mitigate Impact B-2 to a less than significant level and will provide further mitigation by restoring and compensating the impacted areas.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-2. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-2 to a less than significant level.

B-1c **Conduct biological monitoring.** Monitoring shall be provided by a qualified biologist approved by the CPUC, BLM, State Parks (for monitoring in ABDSP), USDA Forest Service (for alternatives that require monitoring on National Forest lands), and the Wildlife Agencies to ensure that all impacts occur within designated limits. Monitoring entails communicating with contractors, taking daily notes, and ensuring that the requirements of the APMs and mitigation measures are being met by being present during construction activities including all initial grubbing and clearing of vegetation. Additionally, a qualified biologist employed by SDG&E shall be present during maintenance involving ROW repair requiring ground disturbance (i.e., grading/repair of access road and work areas and spot repair of areas subject to flooding or scouring). Biological monitoring of these maintenance activities is to prevent impacts to vegetation communities or wildlife habitat not within the permanent project impact footprint or to record and report unauthorized impacts outside the footprint to the CPUC, BLM, State Parks (for monitoring in ABDSP), USDA Forest Service (for alternatives that require monitoring on National Forest lands), and the Wildlife Agencies to ensure the unauthorized impacts are mitigated in accordance with Mitigation Measure B-1a. The qualified biologist shall conduct monitoring for any area subject to disturbance from construction and the maintenance activities listed above (or access roads used during maintenance activities in the case of vernal pools/water-holding basins; see Mitigation Measure B1b). The qualified biologist shall perform periodic inspections of construction once or twice per week, as defined by the Wildlife Agencies, depending on the sensitivity of the resources. The qualified biologist shall send weekly monitoring reports to the CPUC and BLM and shall record any reduction or increase in construction impacts so that mitigation requirements can be revised accordingly. The final impact/mitigation calculations shall be submitted to the CPUC, BLM, State Parks (for monitoring in ABDSP), USDA Forest Service (for alternatives that require monitoring on National Forest lands), and the Wildlife Agencies for review and approval. The qualified biologist shall send annual monitoring reports of

maintenance activities to the CPUC, BLM, State Parks (for monitoring of maintenance activities in ABDSP), and USDA Forest Service (for alternatives that require monitoring of maintenance activities on National Forest lands) that describe the types of maintenance that occurred, at what locations they occurred, and whether or not there were unauthorized impacts that require mitigation. The Applicant, its contractors and subcontractors, and their respective project personnel, shall refer all environmental issues, including wildlife relocation, sick or dead wildlife, hazardous waste, or questions about environmental impacts to the qualified biologist. Experts in wildlife handling (e.g., Project Wildlife) may need to be brought in by the qualified biologist for assistance with wildlife relocations.

The qualified biologist shall have the authority to issue stop work orders if any part of the mitigation measures or APMs are being violated. The qualified biologist shall immediately notify the CPUC, BLM, State Parks (for monitoring in ABDSP), USDA Forest Service (for alternatives that require monitoring on National Forest lands), the Wildlife Agencies, and SDG&E of any significant events, including impacts outside the construction zone or maintenance impacts outside the authorized permanent impact footprints if they are discovered during construction or monitoring of maintenance activities. Reinitiation of work following a stop work order shall only occur when the CPUC, BLM, State Parks (for impacts in ABDSP), USDA Forest Service (for alternatives with impacts on National Forest lands), and the Wildlife Agencies are satisfied that the impacts have been fully documented, that compensation for these impacts shall be made, and that any additional protection measures they deem necessary shall be undertaken.

B-2a **Provide restoration/compensation for affected jurisdictional areas.** Impacts to areas under the jurisdiction of the ACOE, Regional Water Boards, State Water Board, and CDFG shall be avoided to the extent feasible. Where avoidance of jurisdictional areas is not feasible (including for emergency repairs), the Applicant shall provide the necessary mitigation required as part of wetland permitting by creation/restoration/preservation of suitable jurisdictional or equivalent habitat along with adequate buffers to protect the function and values of jurisdictional area mitigation. The location(s) of the mitigation would be determined in consultation with the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation in ABDSP), USDA Forest Service (for alternatives with mitigation on National Forest lands), ACOE, Regional Water Boards, State Water Board, and CDFG as part of the wetland permitting process. It is anticipated that the sites would be in close proximity to the impacts or in the same watershed. A jurisdictional delineation and impact assessment shall be prepared based on the final alignment and final engineering plans when they are complete. Mitigation ratios would range from 1:1 up to 4:1 and would depend on the sensitivity of the jurisdictional habitat and on the requirements of the wetland permitting agencies. The width of wetland buffers would also depend on the sensitivity of the jurisdictional habitat and on the requirements of the wetland permitting agencies. Recommended mitigation ratios for vegetation communities that generally occur in jurisdictional areas are provided in Table D.2-7 for the Proposed Project (see Impacts to Vegetation Communities and Required Mitigation tables in alternatives sections for the alternatives). It is anticipated that at least a 1:1 ratio of the mitigation would include creation of jurisdictional habitat so there would be no net loss of jurisdictional habitat. For example, permanent impacts to emergent wetland would require a 2:1 mitigation ratio. Half (or 1:1) of the mitigation acreage would have to consist of created emergent wetland in an appropriate location to be preserved, and the other half (1:1) would require acquisition and preservation of already-existing emergent wetland (or other wetland community acceptable to the permitting agencies — ACOE, Regional Water Boards, State Water Board, and CDFG). It is also anticipated that a 1:1 ratio would be required for impacts to jurisdictional non-wetland

Waters of the U.S. in the form of wetland enhancement, restoration, or creation as determined in consultation with the permitting agencies. Wetland permits shall be obtained from the ACOE, Regional Water Boards, State Water Board, and CDFG prior to initiating construction in jurisdictional areas.

All limits of construction shall be delineated with orange construction fencing and/or silt fencing. All stakes, flagging, or fencing shall be removed no later than 30 days after construction is complete. If silt fencing is used to delineate the limits of construction or as part of implementation of erosion control BMPs, the silt fencing may be left in place longer than 30 days if erosion control is still necessary. During and after construction, entrances to access roads shall be gated to prevent the unauthorized use of these roads by the general public. Signs prohibiting unauthorized use of the access roads shall be posted on these gates.

Any impacts associated with unauthorized activity (e.g., exceeding approved construction footprints) shall be mitigated at a 5:1 ratio, unless otherwise directed by the ACOE, Regional Water Boards, State Water Board, and CDFG: restoration of the unauthorized impacts shall be credited at a 1:1 ratio; the remaining 4:1 (or 4.5:1 in FTHL MA) shall be acquired off site.

The Applicant shall identify a qualified Habitat Restoration Specialist to be approved by the CPUC, BLM, ACOE, Regional Water Boards, State Water Board, CDFG, State Parks (for restoration in ABDSP), and USDA Forest Service (for alternatives with restoration on National Forest lands). The Habitat Restoration Specialist shall prepare and implement a Wetland Mitigation Plan to be approved in writing by the CPUC, BLM, ACOE, Regional Water Boards, State Water Board, CDFG, State Parks (for ABDSP mitigation), and USDA Forest Service (for alternatives with mitigation on National Forest lands). The Applicant shall work with the above-listed agencies until a plan is approved by all. The mitigation of habitat shall be maintained and monitored for five years after installation, or until established success criteria (specified percent cover of native and non-native species, species diversity, and species composition as compared with an undisturbed reference site) are met, to assess progress and identify potential problems with the mitigation. Maintenance and monitoring in ABDSP shall be for a minimum of five years, even if established success criteria are met before the end of five years. Remedial action (e.g., additional planting, weeding, erosion control, use of container stock, supplemental watering, etc.) shall be taken during the maintenance and monitoring period if necessary to ensure the success of the mitigation. If the mitigation fails to meet the established performance criteria after the five-year maintenance and monitoring period, maintenance and monitoring shall extend beyond the five-year period until the criteria are met or unless otherwise approved by the CPUC, BLM, ACOE, Regional Water Boards, State Water Board, CDFG, State Parks (for ABDSP restoration), and USDA Forest Service (for alternatives with restoration on National Forest lands).

A Habitat Management Plan shall be prepared by a biologist approved by the CPUC, BLM, ACOE, Regional Water Boards, State Water Board, CDFG, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) for all acquired offsite mitigation parcels. The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) prior to the initiation of any activities which may impact jurisdictional areas. The Applicant shall work with the CPUC, BLM, Wildlife Agencies, State Parks, and USDA Forest Service until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired, offsite mitigation parcels. The Habitat Management Plan shall include, but shall not be limited to:

- Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) mitigation parcels approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands)
- Baseline biological data for all mitigation parcels
- Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) to provide in-perpetuity management
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- Designation of responsible parties and their roles (e.g., provision of endowment by the Applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity)
- Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands).

Rationale for Finding. Biological Monitoring, as outlined in Mitigation Measure B-1c, will ensure that all impacts occur within designated limits and that preventive and corrective actions are taken to avoid or limit impacts to biological resources. Preparing and implementing a Habitat Restoration/Compensation Plan, as outlined in Mitigation Measure B-2a, will compensate all Jurisdictional Waters and Wetlands potentially impacted by creating, restoring, or preserving suitable jurisdictional habitat with adequate buffers to protect the function and values of the jurisdictional area. The suitable habitat will be near the impacted area or within the same watershed. Mitigation ratios will range from 1:1 up to 5:1 and will depend on the sensitivity of the jurisdictional habitat and on the requirements of the wetland permitting agencies; this will reduce impacts to Jurisdictional Waters and Wetlands to a less than significant level.

Reference. EIR/EIS Section E.1.2; Section E.2.2; Section E.4.2; Section D.2

Impact B-3: Construction and operation/maintenance activities would result in the introduction of invasive, non-native, or noxious plant species (Class II)

Non-native plants pose a threat to the natural processes of plant community succession, affect fire frequency, affect the biological diversity and species composition of native communities, and can affect a community's value as wildlife habitat. Non-native plant species can spread when seeds (or, rarely, vegetative propagules) are brought in on the soles of shoes or on the tires and undercarriages of vehicles, and deposited in the construction area. They can also be brought in if soil containing non-native plant seed is imported. Furthermore, ground disturbance from construction activities, generally favors the establishment of non-native species because they are more adapted to disturbance than native species. Once established, these non-native species are often able to out-compete the natives and sometimes displace them, especially if there is further disturbance, for example, from fire. The introduction of invasive, non-native, or noxious plant species has the potential to occur throughout the length of the Project.

Implementation of BIO-APM-23 will ensure that the Project will only remove the minimum amount of vegetation necessary for the construction of structures and facilities. This measure will also ensure that

topsoil located in areas containing sensitive habitat with little to no non-native species will be conserved during excavation and reused as cover on temporarily disturbed areas to facilitate re-growth of native vegetation and hinder the establishment of non-native species should non-native seeds be present in the temporarily disturbed areas. Implementation of BIO-APM-25 will ensure that disturbed soils will be revegetated with an appropriate seed mix that does not contain invasive, non-native plant species.

Although the reuse of topsoil can be effective, it may not be appropriate if there are any non-native species present. Furthermore, it is not always possible to obtain seed mixes that are absolutely free of invasive, non-native plant (weed) species. Therefore, even with implementation of the APMs, the Project will have a substantial adverse effect on riparian or other sensitive vegetation communities if weed species are introduced (Significance Criterion 2.b), and the impact will require further mitigation that will include habitat restoration/compensation, a pre-construction weed inventory, and a Weed Control Plan to further reduce the introduction of non-native species. Mitigation Measures B-1a, B-2a, and B-3a will mitigate the significant impact to a less than significant level.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-3. Specifically, the following mitigation measures, as set forth above and below, are feasible and are hereby adopted to mitigate significant effects from Impact B-3 to a less than significant level.

B-1a **Provide restoration/compensation for affected sensitive vegetation communities.** Surface-disturbing components of the Project shall be located in previously disturbed areas or where habitat quality is poor to the extent possible, and disturbance of vegetation and soils shall be minimized. Temporary construction mats may be used to minimize vegetation and soil disturbance only where deemed appropriate by the qualified biologist (see Mitigation Measure B-1c). The construction mats shall not be left on the ground for more than three weeks. Use of construction mats shall be considered a temporary impact to vegetation and shall be mitigated in accordance with this mitigation measure. If avoidance of sensitive vegetation communities is not feasible due, for example, to physical or safety constraints, the Applicant shall restore temporarily impacted areas to pre-construction conditions following construction (or emergency repairs) and shall permanently block off all public access to them, and/or shall purchase/dedicate suitable habitat for preservation to offset permanently impacted areas. Restoration of some vegetation communities in temporarily impacted areas may not be possible if those areas are subject to vegetation management to maintain proper clearance between transmission lines and vegetation. In those instances, the mitigation shall consist of offsite acquisition and preservation of the vegetation community instead. Any area that can be preserved as intact or restored habitat, or if it contains any species (plant or animal) that require project-related compensatory mitigation will qualify as offsite mitigation lands. Restoration involves recontouring the land, replacing the topsoil (if it was collected), planting seed and/or container stock, and maintaining (i.e., weeding, replacement planting, supplemental watering, etc.) and monitoring the restored area for a period five years (or less if the restoration meets all success criteria). Restoration in ABDSP shall be maintained and monitored for a minimum of five years. The success of the restoration is usually based on how the habitat compares with similar, nearby, undisturbed habitat. Any restoration efforts would be subject to a Habitat Restoration Plan approved by the CPUC, BLM, Wildlife Agencies, State Parks (for restoration in ABDSP), and USDA Forest Service (for alternatives with restoration on National Forest lands). Mitigation ratios and mitigation acreages for construction within authorized limits are provided in Table D.2-7 for the Proposed Project (see Impacts to Vegetation Communities and Required Mitigation tables in alternatives sections for the

alternatives). The mitigation ratios also apply to impacts from emergency repairs. In cases where the impacts to sensitive vegetation communities occur on lands already in use as mitigation for other projects, the mitigation ratios shall be doubled, as is standard practice in San Diego County.

All limits of construction shall be delineated with orange construction fencing. SDG&E shall coordinate with the authorized officer for the applicable federal, State, or local land owner/ administrator at least 60 days before construction in order to determine if gates shall be installed on access roads, especially trails that would be dually used as access roads, to prevent unauthorized vehicular access to the ROW. Gate installation shall be required at the discretion of the land management agency. On trails proposed for dual use as access roads, gates shall be wide enough to allow horses, bicycles, and pedestrians to pass through. SDG&E shall document its coordination efforts with the administering agency of the road/trail and provide this documentation to the CPUC, BLM, and all affected jurisdictions 30 days prior to construction. Signs prohibiting unauthorized use of the access roads shall be posted on the installed gates. To control unauthorized use of project access roads by off-road vehicle enthusiasts, SDG&E shall provide funding to land management entities responsible for areas set aside for habitat conservation to provide for off-road vehicle enforcement patrols. The responsible land management entities will formulate what funding is reasonable to control unauthorized use of project access roads.

Any impacts associated with unauthorized activity (e.g., exceeding approved construction footprints) shall be mitigated at a 5:1 ratio (5.5:1 in FTHL MA). Restoration of the unauthorized impacts shall be credited at a 1:1 ratio (i.e., mitigated by in-place habitat restoration); the remaining 4:1 (or 4.5:1 in FTHL MA) shall be acquired off site.

Areas to be restored shall include all areas temporarily impacted by construction, such as tower construction sites, laydown/staging areas, temporary access and spur roads, and existing tower locations where towers are removed. Where onsite restoration is planned, the Applicant shall identify a qualified Habitat Restoration Specialist to be approved by the CPUC, BLM, State Parks (for restoration in ABDSP), USDA Forest Service (for alternatives with restoration on National Forest lands), and the Wildlife Agencies. The Habitat Restoration Specialist shall prepare and implement a Habitat Restoration Plan, for restoring temporarily impacted sensitive vegetation communities, to be approved by the CPUC, Wildlife Agencies, BLM, State Parks (for ABDSP restoration), and USDA Forest Service (for National Forest land restoration). The Applicant shall work with the CPUC, BLM, Wildlife Agencies, and State Parks until a plan is approved by all. This Habitat Restoration Plan must be approved in writing by the above-listed agencies prior to the initiation of any vegetation disturbing activities. Hydroseeding, drill seeding, or an otherwise proven restoration technique shall be utilized on all disturbed surfaces using a locally endemic native seed mix approved by the CPUC, Wildlife Agencies, BLM, State Parks (for ABDSP restoration), and USDA Forest Service (for National Forest land restoration).

The Habitat Restoration Plan shall incorporate Desert Bioregion Revegetation/Restoration Guidance measures for restoration of temporary impacts to desert scrub and dune habitats. These measures generally include alleviating soil compaction, returning the surface to its original contour, pitting or imprinting the surface to allow small areas where seeds and rain water can be captured, planting seedlings that have acquired the necessary root mass to survive without watering, planting seedlings in the spring with herbivory cages, broadcasting locally collected seed immediately prior to the rainy season, and covering the seeds with mulch.

The Habitat Restoration Plan shall also incorporate the measures identified in the May 25, 2006 Memorandum of Understanding among Edison Electric Institute, USDA Forest Service, BLM, USFWS, National Park Service, and the Environmental Protection Agency (Edison Electric Institute, et al., 2006) where applicable. The MOU discusses vegetation management along ROWs for electrical transmission and distribution facilities on federal lands. The major provisions of the MOU include reducing soil erosion and water quality impacts; promoting local ecotypes in revegetation projects; planting native species and protecting rare species; and reducing the introduction of non-native, invasive or noxious plant species to the ROWs. The MOU can be viewed online at http://www.eei.org/industry_issues/environment/land/vegetation_management/EEI_MOU_FINAL_5-25-06.pdf.

The following habitat restoration requirements are not included in the MOU described above. The restoration of habitat shall be maintained and monitored for five years after installation by an experienced, licensed Habitat Restoration Contractor, or until established success criteria identified in the Restoration Plan (specified percent cover of native and non-native species, species diversity, and species composition as compared with an undisturbed reference site) are met. Maintenance and monitoring for restoration in ABDSP shall be for a minimum of five years, even if established success criteria are met before the end of five years. Maintenance and monitoring shall be conducted following a prescribed schedule to assess progress and identify potential problems with the restoration. Remedial action (e.g., additional planting, weeding, erosion control, use of container stock, supplemental watering, etc.) shall be taken by an experienced, licensed Habitat Restoration Contractor during the maintenance and monitoring period if necessary to ensure the success of the restoration. If the restoration fails to meet the established success criteria after the maintenance and monitoring period, maintenance and monitoring shall extend beyond the five-year period until the criteria are met or unless otherwise approved by the CPUC, BLM, State Parks (for ABDSP restoration), USDA Forest Service (for alternatives with restoration on National Forest lands), and the Wildlife Agencies. For areas where habitat restoration cannot meet mitigation requirements, as determined by the Habitat Restoration Specialist in coordination with CPUC, BLM, State Parks (for ABDSP restoration), USDA Forest Service (for alternatives with restoration on National Forest lands), and the Wildlife Agencies, offsite purchase and dedication of habitat shall be provided at the mitigation ratios provided in Table D.2-7 for the Proposed Project (see Impacts to Vegetation Communities and Required Mitigation tables in alternatives sections for the alternatives) or as otherwise required by the Wildlife Agencies, ABDSP, or USDA Forest Service (supersedes the mitigation ratios in BIO-APM-1).

Tree Mitigation. Mitigation for loss of native trees or native tree trimming shall be provided by (1) acquiring and preserving habitat within which the trees occur and/or (2) restoring (i.e., planting) trees on land that would not be subject to vegetation clearing (either in the Applicant's ROW and/or on land acquired and preserved). Any land to be used for this mitigation shall be approved by the CPUC, BLM, State Parks (for ABDSP restoration), USDA Forest Service (for alternatives with restoration on National Forest lands), and the Wildlife Agencies.

For habitat acquisition and preservation, the mitigation ratios shall follow those in Table D.2-7 for the Proposed Project (see Impacts to Vegetation Communities and Required Mitigation tables in alternatives sections for the alternatives). For example, removal of coast live oak trees (that occur in coast live oak woodland) shall require mitigation at a 3:1 ratio based on the permanent impact to the summed acreage of all individual coast live oak trees impacted. Therefore,

if the total acreage of all individual coast live oak trees in coast live oak woodland impacted is 10 acres, then 30 acres of coast live oak woodland shall be acquired and preserved.

For all trimmed native trees, the trees shall be monitored for a period of three years. If a trimmed tree declines or suffers mortality during that period, the tree shall be replaced in-kind (by species) at a 2:1 or 5:1 ratio as recommended by the CDFG (see below). If a tree does not decline or suffer mortality, no mitigation shall be required.

For restoration (planting trees), these guidelines, based on recommendations from the CDFG, shall be followed.

Native trees that are removed shall be replaced in-kind (by species) as follows.

- Trees less than five inches diameter at breast height (DBH) shall be replaced at 3:1
- Trees between five and 12 inches DBH shall be replaced at 5:1
- Trees between 12 and 36 inches shall be replaced at 10:1
- Trees greater than 36 inches shall be replaced at 20:1

Native trees that are trimmed shall be replaced in-kind (by species) as follows.

- Trees less than 12 inches DBH shall be replaced at 2:1
- Trees greater than 12 inches DBH shall be replaced at 5:1

All restoration shall be maintained and monitored for a minimum of 10 years. The restoration shall be directed according to a Habitat Restoration Plan approved by the CPUC, BLM, State Parks (for ABDSP restoration), USDA Forest Service (for National Forest land restoration), and the Wildlife Agencies.

Mitigation Parcels/Habitat Management Plans. Mitigation Parcels/Habitat Management Plans. All offsite mitigation parcels shall be approved by the CPUC, BLM, Wildlife Agencies, State Parks (for impacts to ABDSP), and USDA Forest Service (for alternatives with impacts to National Forest lands) and must be acquired or their acquisition must be assured before the line is energized. To demonstrate that such parcels shall be acquired, SDG&E shall submit a Habitat Acquisition Plan at least 120 days prior to any ground disturbing activities. The Plan shall be submitted to the CPUC, BLM, the Wildlife Agencies, State Parks (for impacts in ABDSP) and USDA Forest Service (for impacts on National Forest Lands) for review and approval, and shall include, but shall not be limited to: legal descriptions and maps of all parcels to be acquired; schedule that includes phasing relative to impacts; timing of conservation easement recording; initiation of habitat management activities relative to acquisition; and assurance mechanisms (e.g., performance bonds to assure adequate funding) for any parcels not actually acquired prior to vegetation disturbing activities.

A Habitat Management Plan shall be prepared by a biologist approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) for all acquired offsite mitigation parcels. The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) prior to the initiation of any vegetation disturbing activities. The Applicant shall work with the CPUC, BLM, Wildlife Agencies, State Parks, and USDA Forest Service until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired, offsite mitigation parcels. The Habitat Management Plan shall include, but shall not be limited to:

- Legal descriptions of all mitigation parcels approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands)
- Baseline biological data for all mitigation parcels
- Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to National Forest lands) to provide in-perpetuity management
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- Designation of responsible parties and their roles (e.g., provision of endowment by the Applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity)
- Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands).

B-2a **Provide restoration/compensation for affected jurisdictional areas.**

B-3a **Prepare and implement a Weed Control Plan.** The Applicant shall prepare and implement a comprehensive, adaptive Weed Control Plan for pre-construction and long-term invasive weed abatement. Where the Applicant owns the ROW property, the Weed Control Plan shall include specific weed abatement methods, practices and treatment timing developed in consultation with the San Diego County Agriculture Commissioner's Office and the California Invasive Plant Council (Cal-IPC), or the tribal government, as appropriate. On the ROW easement lands administered by public agencies (BLM, USDA Forest Service (for alternatives routes within Cleveland National Forest lands), Wildlife Agencies, and State Parks (ABDSP) the Weed Control Plan shall incorporate all appropriate and legal agency-stipulated regulations. The Weed Control Plan shall be submitted to the ROW land-holding governmental agencies for final authorization of weed control methods, practices, and timing prior to implementation of the Weed Control Plan on public lands. ROW easements located on private lands shall include adaptive provisions for the implementation of the Weed Control Plan. Prior to implementation, the Applicant shall work with the landowners to obtain authorization of the weed control treatment that is required. State Parks shall have review and approval authority over the Weed Control Plan for ROW within or adjacent to the boundaries of ABDSP. Developed land shall be excluded from weed control.

The Weed Control Plan shall include the following:

- A pre-construction weed inventory shall be conducted by surveying the entire ROW and areas immediately adjacent to the ROW (where access and permission can be secured) as well as at all ancillary facilities associated with the Project for weed populations that: (1) are considered by the San Diego County Agriculture Commissioner or State Parks (for ROW within or adjacent to ABDSP) as being a priority for control and (2) aid and promote the spread of wildfires (such as cheatgrass [*Bromus tectorum*], Saharan mustard [*Brassica tournefortii*] and medusa head [*Taeniatherum caput-medusae*]). These populations shall be mapped and described according to density and area covered. These plant species shall be treated (where access and permission can be secured) prior to construc-

tion or at a time when treatments would be most effective based on phenology according to control methods and practices for invasive weed populations designed in consultation with the San Diego County Agriculture Commissioner's Office and Cal-IPC, or the tribal government, as appropriate.

- A pre-construction weed inventory shall also be conducted by surveying areas that will be directly impacted by the Project for weed populations that are rated High or Moderate for negative ecological impact in the California Invasive Plant Inventory Database (Cal-IPC, 2006) or are weed species of concern to State Parks (for ROW within or adjacent to ABDSP). These plant species shall be treated prior to construction or at a time when treatments would be most effective based on phenology according to control methods and practices for invasive weed populations designed in consultation with Cal-IPC and State Parks (for treatment in ROW within ABDSP).
- Weed control treatments shall include all legally permitted chemical, manual and mechanical methods applied with the authorization of the San Diego County Agriculture Commissioner and the ROW easement land-holding agencies where appropriate. The application of herbicides shall be in compliance with all state and federal laws and regulations under the prescription of a Pest Control Advisor (PCA) and implemented by a Licensed Qualified Applicator. Where manual and/or mechanical methods are used, disposal of the plant debris will follow the regulations set by the San Diego County Agriculture Commissioner. The timing of the weed control treatment shall be determined for each plant species in consultation with the PCA, the San Diego County Agriculture Commissioner, State Parks (for treatment in ABDSP) and Cal-IPC, or the tribal government, as appropriate, with the goal of controlling populations before they start producing seeds.

  For the lifespan of the Project (i.e., as long as the Project is physically present), long-term measures to control the introduction and spread of noxious weeds in the Project area shall be taken as follows.

  — From the time construction begins until two years after construction is complete, annual surveying for new invasive weed populations and the monitoring of identified and treated populations shall be required in the survey areas described above. After this time, surveying for new invasive weed populations and monitoring of identified and treated populations shall be required at an interval of every two years. However, the treatment of weeds shall occur on a minimum annual basis, unless otherwise approved by the PCA, the San Diego County Agriculture Commissioner, State Parks (for treatment in ABDSP) and Cal-IPC.

  — During project construction and operation/maintenance, all seeds and straw materials shall be certified weed free, and all gravel and fill material shall be certified weed free by the San Diego County Agriculture Commissioner's Office, or the tribal government, as appropriate.

  — During project construction and operation/maintenance, vehicles and all equipment shall be washed (including wheels, undercarriages, and bumpers) at an offsite washing facility (e.g., a car wash or truck wash) immediately before project construction begins and prior to returning to project construction should equipment be used in a different construction area. In addition, tools such as chainsaws, hand clippers, pruners, etc. shall be washed at an offsite washing facility immediately before project construction begins and prior to returning to project construction should tools be used in a different construction area. In addition, vehicles, tools, and equipment shall be

washed at an offsite washing facility should these vehicles, tools, and equipment have been used in an area where invasive plants have been mapped during the pre-construction weed control inventory and as directed by the biological construction monitor, prior to entering a project area free of populations of invasive plants (as determined by the pre-construction weed control inventory). Finally, vehicles, tools, and equipment used for maintenance shall be washed at an offsite washing facility immediately before each maintenance event. All washing shall take place where rinse water is collected and disposed of in either a sanitary sewer or landfill; an effort shall be made to use wash facilities that use recycled water. A written daily log shall be kept for all vehicle/equipment/tool washing that states the date, time, location, type of equipment washed, methods used, and staff present. The log shall include the signature of a responsible staff member. Logs shall be available to the CPUC, BLM, USDA Forest Service (for alternative routes within Cleveland National Forest lands), Wildlife Agencies, State Parks (for weeds in ABDSP), tribal governments (for weeds on tribal lands), and biological monitor for inspection at any time and shall be submitted to the CPUC on a monthly basis during construction and submitted annually to the CPUC during operation/maintenance.

Rationale for Finding. Implementation of the measures outlined in B-1a, B-2a, and B-3a will restore all areas disturbed by Project construction, including temporary disturbance areas around tower construction sites, laydown/staging areas, temporary access and spur roads. Surveying the Project corridor (including access roads) for populations of invasive and noxious weeds prior to the start of construction; and implementing construction control measures to control invasive and noxious weeds will mitigate impacts to the corridor related to invasive and noxious weeds. Restoration of disturbed areas with native vegetation will limit the introduction of non-native species including invasive and noxious weeds. If restoration of some vegetation communities in temporarily impacted areas is not possible because those areas are subject to vegetation management to maintain proper clearance between transmission lines and vegetation, mitigation shall consist of off-site acquisition and preservation of the vegetation community instead. Therefore, impacts to vegetation communities from the introduction of invasive, non-native, or noxious weeds will be reduced a less than significant level.

Reference. EIR/EIS Section E.1.2; Section E.2.2; Section E.4.2; Section D.2

Impact B-7C: Direct or indirect loss of burrowing owl or direct loss of habitat (Class II)

As discussed in Section E.1.2, construction of the Project will impact burrowing owls and/or their habitat between MP I8-0 and MP I8-5.7 in Imperial County. Burrowing owl survival can be adversely affected by human disturbance and foraging habitat loss even when impacts to individual owls and burrows are avoided. Impacts to burrowing owls, their burrows, or their foraging habitat will be significant according to Significance Criterion 1.f (substantial adverse effect on a special-status wildlife species through direct or indirect impacts). These impacts are significant but mitigable to less than significant levels (Class II) with implementation of Mitigation Measures B-1a, B-1c, B-2a, and B-7d, which will not allow disturbance to burrows and surrounding foraging habitat or will passively relocate owls (i.e., encourage owls to move from occupied burrows) to alternate burrows outside the impact zone. It will also replace impacted habitat with suitable habitat, and all mitigation will be managed for burrowing owls in perpetuity.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-7C. Specifically, the following mitigation

measures, as set forth above and below, are feasible and are hereby adopted to mitigate significant effects from Impact B-7C to a less than significant level.

B-1a **Provide restoration/compensation for affected sensitive vegetation communities.**

B-1c **Conduct biological monitoring.**

B-2a **Provide restoration/compensation for affected jurisdictional areas.**

B-7d **Conduct burrowing owl surveys, and implement appropriate avoidance/minimization/ compensation strategies.** A survey shall be conducted within 30 days prior to the initiation of construction by a qualified biologist to determine the presence or absence of the burrowing owl in the construction zone plus 250 feet beyond. In addition, the burrowing owl shall be looked for opportunistically as part of other surveys and monitoring required during project construction. If the burrowing owl is absent, then no mitigation is required.

If the burrowing owl is present, no disturbance shall occur within 50 meters (approximately 160 ft) of occupied burrows from September 1 through January 31 or within 75 meters (approximately 250 ft) of occupied burrows from February 1 through August 31 (CDFG, 1995).

During construction, any pipe or similar construction material that is stored on site for one or more nights shall be inspected for burrowing owls by a qualified biologist before the material is moved, buried, or capped.

Passive relocation of owls shall be implemented prior to construction only at the direction of the CDFG and only if the above-described occupied burrow disturbance absolutely cannot be avoided (e.g., due to physical or safety constraints). Relocation of owls shall only be implemented during the non-breeding season (September 1 through January 31; CDFG, 1995). Passive relocation is defined as encouraging owls to move from occupied burrows to alternate natural or artificial burrows that are beyond 50 meters from the impact zone and that are within or contiguous to a minimum of 6.5 acres of preserved (or acquired and preserved if not already preserved) foraging habitat for each relocated owl (single owl or owl pair). Passive relocation is accomplished by first creating two artificial burrows in contiguous, preserved foraging habitat (if no natural burrows exist) for each occupied burrow that would be impacted; and second, installing one-way doors on occupied burrow entrances so owls can leave the burrow but not re-enter it. Following passive relocation, the area of impact and the preserved foraging habitat with alternate burrows are surveyed daily for one week to confirm owl use of alternate burrows before excavation of burrows in the impact zone. All passive relocation shall be conducted by a biologist approved by the CDFG. If the alternate burrows are not used by the relocated owls, then the Applicant shall work with the CDFG to provide alternate mitigation for burrowing owls. If the alternate burrows are used, no other mitigation shall be required.

If it is not possible to preserve contiguous habitat on which to provide alternate burrows (e.g., on private land), and occupied owl burrows would be directly impacted, then the owls shall be passively relocated without the creation of alternate burrows prior to construction (relocation should only be implemented during the non-breeding season [September 1 through January 31]). The loss of occupied owl habitat shall be mitigated by acquiring and preserving other occupied habitat elsewhere (as explained below) per the Staff Report on Burrowing Owl Mitigation (CDFG, 1995) and the Burrowing Owl Survey Protocol and Mitigation Guidelines (The Burrowing Owl Consortium, 1993), or as otherwise determined in consultation with the CDFG.

Impacted occupied habitat shall be mitigated by 1) acquiring and preserving occupied habitat at a rate of 1.5 times 6.5 acres (or 9.75 acres) per pair or single bird impacted, or 2) acquiring and preserving unoccupied habitat contiguous with currently occupied habitat at a rate of two times 6.5 acres (or 13 acres) per pair or single bird impacted, or 3) acquiring and preserving suitable unoccupied habitat at a rate of three times 6.5 acres (or 19.5 acres) per pair or single bird impacted. All acquired habitat shall be acceptable to the CDFG and shall be protected and managed for the burrowing owl in perpetuity.

The survey required within 30 days prior to the initiation of construction will determine the presence or absence of the burrowing owl in the construction zone plus 250 feet beyond and whether or not the mitigation needs to be revised.

A Habitat Management Plan shall be prepared by a biologist approved by the CPUC, BLM, CDFG, and State Parks (for land in ABDSP) for all acquired burrowing owl habitat. The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, and State Parks (for land in ABDSP) prior to the initiation of any activities which may impact (directly or indirectly) the burrowing owl or its habitat. The Applicant shall work with the CPUC, BLM, Wildlife Agencies, and State Parks until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired burrowing owl habitat. The Habitat Management Plan shall include, but shall not be limited to:

- Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) burrowing owl habitat approved by the CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP)
- Baseline biological data for all acquired burrowing owl habitat
- Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP) to provide in-perpetuity management
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- Designation of responsible parties and their roles (e.g., provision of endowment by the Applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity)
- Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP).

Rationale for Finding. All potential burrowing owl habitat along the Project ROW was surveyed in 2007. It is reasonable to assume that the likelihood of occupied burrows or burrowing owls being found in the areas during pre-construction survey required in Mitigation Measure B-7d is low. The amount and type of mitigation (presently outlined in Mitigation Measure B-7d) will be determined if occupied burrows or burrowing owls are found. With the small number of acres likely required for mitigation (if any), the fact that the mitigation does not have to consist of any particular vegetation type (it just has to be suitable for burrowing owls), and with the mitigation options available per the CDFG (see Mitigation Measure B-7d below), it is expected that appropriate mitigation land will be available to satisfy the mitigation requirement and therefore reduce the impact to the burrowing owl to a less than significant level.

Reference. EIR/EIS Section E.1.2

Impact B-7D: Direct or indirect loss of least Bell's vireo or direct loss of habitat (Class II)

Focused surveys for the least Bell's vireo were conducted at various points along the Project route (MP I8-74.1 (Viejas Creek), I8-77.6 (Alpine Creek), I8-82.2 (San Diego River), I8-89.7 (San Vicente Creek), MP BCDS-3.5 (La Posta Creek), MP MRD-11.5 (Hauser Creek), MRD-20.6 (Cottonwood Creek), and MRD-34.6 (Sweetwater River)). In 2007, the least Bell's vireo was detected at MRD-11.5 and at MRD-20.6. The 2007 survey results were negative at the other survey sites. Focused surveys for the least Bell's vireo were not conducted for the staging area that will be constructed along Willow Road (and the San Diego River), south of MP I8-86.8, and at MP SV-1.5 (Appendix 8J, Figure Ap.8J-17). The least Bell's vireo is assumed to be present at this location because suitable habitat is present.

Construction of the Project will result in impacts to riparian vegetation with the potential to support least Bell's vireo should the species breed near the survey locations listed above. Any direct impact to least Bell's vireo or its occupied habitat will be significant but mitigable to less than significant levels (Class II) with implementation of Mitigation Measures B-1a, B-1c, B-2a, and B-7e. Mitigation Measure B-7e requires a pre-construction survey if construction activities will occur during the least Bell's vireo breeding season. The pre-construction survey will define all the impacts to the least Bell's vireo from Project construction and shall be submitted to the Wildlife Agencies for review and approval prior to construction activities.

Additionally, least Bell's vireo breeding can be affected by excessive construction noise (considered by the USFWS [USFWS, 2007c; American Institute of Physics, 2005] to be 60 dB(A) Leq at the edge of occupied habitat). Such excessive noise will be a significant impact on vireo breeding but is mitigable to less than significant levels (Class II) with implementation of Mitigation Measure B-7e, which requires monitoring for disturbance of nesting activities and taking action to stop the disturbance.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-7D. Specifically, the following mitigation measures, as set forth above and below, are feasible and are hereby adopted to mitigate significant effects from Impact B-7D to a less than significant level.

B-1a **Provide restoration/compensation for affected sensitive vegetation communities.**

B-1c **Conduct biological monitoring.**

B-2a **Provide restoration/compensation for affected jurisdictional areas.**

B-7e **Conduct least Bell's vireo and southwestern willow flycatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.** All grading or brushing taking place within riparian habitats of the least Bell's vireo or southwestern willow flycatcher during construction shall be conducted from September 16 (October 1 in ABDSP) through March 14, which is outside the least Bell's vireo and southwestern willow flycatcher breeding seasons.

When conducting all other construction activities during the breeding season of March 15 through September 15 (September 30 in ABDSP) within 500 feet (USFWS, 2007b) of habitat in which least Bell's vireos and/or southwestern willow flycatchers are known to occur or have potential to occur, a biologist permitted by the USFWS shall survey for least Bell's vireos and southwestern willow flycatchers within 10 calendar days prior to initiating activities in an

area. The results of the survey shall be submitted to the Wildlife Agencies for review and approval prior to initiating any construction activities.

If least Bell's vireos or southwestern willow flycatchers are present, a permitted biologist shall survey for nesting vireos and flycatchers approximately once per week within 500 feet of the construction area (USFWS, 2007b), for the duration of the activity in that area during the breeding season.

If/when an active nest is located, a 300-foot no-construction buffer zone (USFWS, 2007b) shall be established around each nest site; however, there may be a reduction of this buffer zone depending on site-specific conditions or the existing ambient level of activity. The Applicant shall contact Wildlife Agencies to determine the appropriate buffer zone. No construction shall take place within this buffer until the nest is no longer active unless there are physical or safety constraints. If construction must take place within the buffer, a qualified acoustician shall monitor noise as construction approaches the edge of the occupied vireo/flycatcher habitat as directed by the permitted biologist. If the noise meets or exceeds the 60 dB(A) Leq threshold, or if the biologist determines that the activities in general are disturbing the nesting activities, the biologist shall have the authority to halt construction and shall consult with the Wildlife Agencies, State Parks (for activities in ABDSP), and USDA Forest Service (for activities on National Forest lands) to devise methods to reduce the noise and/or disturbance. This may include methods such as, but not limited to, turning off vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nesting birds and the activities, and working in other areas until the young have fledged. The permitted biologist shall monitor the nest daily until either activities are no longer within 300 feet of the nest, or the fledglings become independent of their nest.

Mitigation for the loss of least Bell's vireo- or southwestern willow flycatcher-occupied habitat (or designated critical habitat for the flycatcher) shall be implemented as follows. Permanent impacts to occupied habitat and/or designated critical habitat shall include off-site acquisition and preservation of occupied habitat or designated critical habitat at a 3:1 ratio. Temporary impacts to occupied habitat or designated critical habitat shall include 1:1 on-site restoration and 2:1 off-site acquisition and preservation of occupied habitat and/or designated critical habitat. Impacts to least Bell's vireo or southwestern willow flycatcher critical habitat must be mitigated within the same Critical Habitat Unit where the impacts occurred.

For the Project, the required mitigation for least Bell's vireo occupied habitat is on-site restoration of 13.5 acres and off-site acquisition and preservation of 52.8 acres of least Bell's vireo occupied habitat. For the Project, the required mitigation for southwestern willow flycatcher occupied habitat is on-site restoration of 33.14 acres and off-site acquisition and preservation of 68.41 acres of southwestern willow flycatcher occupied habitat If a USFWS protocol, pre-construction survey, conducted in an area where presence of the vireo or flycatcher was assumed in this analysis (see Appendix 8B) determines that the species is absent, then the mitigation shall be reduced accordingly. Any acquired habitat shall be approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands).

A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands). The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest

Service (for mitigation parcels to be National Forest lands) prior to the initiation of any activities which may impact (directly or indirectly) the least Bell's vireo or southwestern willow flycatcher or its habitat. The Applicant shall work with the CPUC, BLM, Wildlife Agencies, State Parks, and USDA Forest Service until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired vireo or flycatcher habitat. The Habitat Management Plan shall include, but shall not be limited to:

- Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) least Bell's vireo or southwestern willow flycatcher habitat approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands)
- Baseline biological data for all least Bell's vireo or southwestern willow flycatcher habitat
- Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) to provide in-perpetuity management
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- Designation of responsible parties and their roles (e.g., provision of endowment by the Applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity)
- Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands).

Rationale for Finding. The mitigation measures will ensure that a biologist permitted by the USFWS shall survey for least Bell's vireos prior to construction and, if found, shall conduct regular surveys for the duration of the activity in that area during breeding season. On-site restoration or off-site acquisition and preservation of occupied habitat for the loss of least Bell's vireo–occupied habitat will be available to satisfy Mitigation Measure B-7e because of the small number of acres needed and because this type of mitigation for the least Bell's vireo is typically available and regularly provided in San Diego County. Mitigation Measure B-7e also ensures that appropriate steps will be taken to reduce noise impacts to breeding least Bell's vireos. Mitigation Measure B-7e will ensure that the least Bell's vireos will be protected during construction and that compensation for the loss of habitat will be required.

Reference. EIR/EIS Section E.1.2; Section E.2.2; Section E.4.2

Impact B-7E: Direct or indirect loss of southwestern willow flycatcher or direct loss of habitat (Class II)

Focused surveys for the southwestern willow flycatcher were conducted at MP I8-74.1 (Viejas Creek), I8-82.2 (San Diego River), MP BCDS-3.5 (La Posta Creek), MRD-11.5 (Hauser Creek), MRD-20.6 (Cottonwood Creek), and MRD-34.6 (Sweetwater River). Survey results at the sites were negative. Focused surveys for the southwestern willow flycatcher were not conducted for the staging area that will

be constructed along Willow Road (and the San Diego River), south of MP I8-86.8 (Appendix 8J, Figure Ap.8J-17), at MP SV-1.5 (Sweetwater River), and at MP CC-3.4. The southwestern willow flycatcher is assumed to be present at these locations because suitable habitat is present.

Construction of the Project will result in impacts to riparian vegetation with the potential to support southwestern willow flycatcher should the species breed near the survey locations listed above at a later date. Any direct impact to southwestern willow flycatcher or its occupied habitat will be significant but mitigable to less than significant levels (Class II) with implementation of Mitigation Measures B-1a, B-1c, B-2a, and B-7e. Mitigation Measure B-7e requires a pre-construction survey if construction activities will occur during the southwestern willow flycatcher breeding season. The pre-construction survey will define all the impacts to the southwestern willow flycatcher from Project construction.

Additionally, southwestern willow flycatcher breeding can be affected by excessive construction noise (considered by the USFWS [USFWS, 2007c; American Institute of Physics, 2005] to be 60 dB(A) Leq at the edge of occupied habitat). Such excessive noise will be a significant impact on southwestern willow flycatcher breeding but is mitigable to less than significant levels (Class II) with implementation of Mitigation Measure B-7e, which requires monitoring for disturbance of nesting activities and taking action to stop the disturbance.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-7E. Specifically, the following mitigation measures, as set forth above, are feasible and are hereby adopted to mitigate significant effects from Impact B-7E to a less than significant level.

B-1a **Provide restoration/compensation for affected sensitive vegetation communities.**

B-1c **Conduct biological monitoring.**

B-2a **Provide restoration/compensation for affected jurisdictional areas.**

B-7e **Conduct least Bell's vireo and southwestern willow flycatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.**

Rationale for Finding. The mitigation measures will ensure that a biologist permitted by the USFWS shall survey for southwestern willow flycatchers prior to initiating activities in an area and, if found, shall conduct regular surveys for the duration of the activity in that area during breeding season. Mitigation land for the loss of southwestern willow flycatcher-occupied habitat will be available to satisfy Mitigation Measure B-7e because of the small number of acres needed and because this type of mitigation for the southwestern willow flycatcher is typically available and regularly provided in San Diego County. Mitigation Measure B-7e also ensures that appropriate steps will be taken to reduce noise impacts to breeding southwester willow flycatchers. Mitigation Measure B-7e will ensure that the southwestern willow flycatcher will be protected during construction and that compensation for the loss of habitat will be required.

Reference. EIR/EIS Section E.1.2; Section E.2.2; Section E.4.2

Impact B-7K: Direct or indirect loss of arroyo toad or direct loss of habitat (Class II)

Focused surveys (2007) were conducted for the arroyo toad at MP I8-74.1 (Viejas Creek), I8-82.2 (San Diego River), and MP BCDS-3.5 (La Posta Creek). Surveys at the MP I8-74.1, I8-82.2 and MP BCDS-3.5 were conducted by listening for calling arroyo toads from public roads because ROE permission was not granted or because the access was locked (I8-82.2). Auditory only surveys are not conclusive

enough to show arroyo toads are absent from a site; therefore, the species is assumed to be present at MP I8-74.1, I8-82.2 and MP BCDS-3.5 all habitat within 1 km of each of these sites is assumed to be occupied, in accordance with USFWS (1999).

Suitable habitat was present at MP BCD-13.5 (La Posta Creek) (also BCDS-0.0), MRD-14.4 (Potrero Creek), MP CC-3.4 and MP SV-1.5 (Sweetwater River). Arroyo toad is assumed to be present at BCD-13.5, MRD-14.4, MP CC-3.4, MP SV-1.5 and all habitat within 1 km of each of these sites is assumed to be occupied by the species, in accordance with USFWS (1999).Focused surveys in 2007 were conducted for the arroyo toad at MP MRD-20.6 (Cottonwood Creek) and MRD-34.6 (Sweetwater River). Results of the focused arroyo toad surveys were negative along the Modified Route D Alternative.

Impacts to the arroyo toad or its occupied breeding or burrowing habitat from habitat removal or disturbance from construction (e.g., crushing of toads with construction equipment) of the Project route where the arroyo toad is assumed to be present include permanent impacts to riparian breeding habitat, temporary impacts to upland burrowing habitat, and permanent impacts to upland burrowing habitat. The pre-construction survey will define all the impacts to the arroyo toad from Project construction (i.e., if appropriate climatic conditions are present to encounter arroyo toads). Impacts to arroyo toad will be significant but mitigable to less than significant levels (Class II) through implementation of Mitigation Measures B-1a, B-1c, B-2a, and B-7j.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-7K. Specifically, the following mitigation measures, as set forth above and below, are feasible and are hereby adopted to mitigate significant effects from Impact B-7K to a less than significant level.

B-1a **Provide restoration/compensation for affected sensitive vegetation communities.**

B-1c **Conduct biological monitoring.**

B-2a **Provide restoration/compensation for affected jurisdictional areas.**

B-7j **Conduct arroyo toad surveys, and implement appropriate avoidance/minimization/compensation strategies.** A pre-construction, USFWS protocol survey shall be conducted for the toad in the construction zone (by a biologist permitted by the USFWS to handle the toad), where absence of the species has not been proven, to conclusively define the impacts to occupied habitat. In the absence of this survey data, the mitigation acreages required below shall stand. Where the pre-construction survey determines the species is absent, the mitigation shall be reduced accordingly.

The removal of toad riparian breeding habitat shall occur from October through December to minimize potential impacts to breeding adults (including potential sedimentation impacts to toad eggs) and dispersing juveniles.

Where the toad is present (or assumed to be present if no pre-construction survey is conducted), the construction zone shall be fenced with exclusion fencing to prevent toad access to it. The fencing shall be a silt-screen type barrier comprised of a minimum 24-inch high fence with the remainder (minimum 12 inches) anchored firmly against the ground. The fence may be buried if necessary to exclude toad access. The fence locations shall be identified by a USFWS permitted biologist and adjusted as necessary. Exclusion fencing shall be monitored daily by a qualified biologist (see Mitigation Measure B-1c) and maintained in its original condition by construction personnel for the entire length of the construction period in toad habitat.

Pre- and post-exclusion fencing surveys within the construction zone shall be conducted for arroyo toads by a biologist permitted by the USFWS to handle the toad. Prior to construction commencement, a minimum of three surveys shall be conducted by this biologist following installation of the fencing and prior to construction activities. One of these clearance surveys must take place no more than 24 hours prior to activity commencement. These surveys shall be conducted during appropriate climatic conditions and during the appropriate time of day or night to maximize the likelihood of encountering arroyo toads. If conditions are not appropriate for arroyo toad movement during surveys, the biologist may attempt to elicit a response from the toads during nights (i.e., at least one hour after sunset), provided that temperatures are above 50°F, by spraying the Project area with water to simulate a rain event. After the three clearance surveys outlined above have been completed, daily surveys shall be conducted each morning prior to the continuation of construction or maintenance activity. Any toads found shall be relocated to appropriate similar habitat outside project impact areas.

Mitigation for the loss of arroyo toad-occupied habitat shall be implemented as follows. Permanent impacts to occupied, arroyo toad breeding habitat shall include off-site acquisition and preservation of occupied arroyo toad breeding habitat at a 3:1 ratio. Permanent impacts to occupied, upland burrowing habitat shall include off-site acquisition and preservation of occupied, upland burrowing habitat at a 2:1 ratio. Temporary impacts to occupied breeding habitat shall include 1:1 on-site restoration and 2:1 off-site acquisition and preservation of occupied breeding habitat. Temporary impacts to occupied, upland burrowing habitat shall include 1:1 on-site restoration and 1:1 off-site acquisition and preservation of occupied, upland burrowing habitat. For the Proposed Project, the required mitigation for arroyo toad occupied habitat includes 150.69 acres of on-site restoration and 216.18 acres of off-site acquisition and preservation of occupied toad habitat consisting of 0.6 acres of breeding habitat and 215.58 acres of upland burrowing habitat. Any acquired arroyo toad habitat shall be approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands).

A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands). The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands) prior to the initiation of any activities which may impact (directly or indirectly) the arroyo toad or its habitat. The Applicant shall work with the CPUC, BLM, Wildlife Agencies, and USDA Forest Service until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired arroyo toad habitat. The Habitat Management Plan shall include, but shall not be limited to:

- Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) arroyo toad habitat approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands)
- Baseline biological data for all arroyo toad habitat
- Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands) to provide in-perpetuity management
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan

- Designation of responsible parties and their roles (e.g., provision of endowment by the Applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity)
- Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands).

Rationale for Finding. The mitigation measures will ensure that arroyo toads are not harmed because construction zone will be surveyed by a biologist permitted by the USFWS and where the toad is present (or assumed to be present if no pre-construction survey is conducted), toads shall be relocated to suitable habitat outside the construction zone and the construction zone shall be fenced to prevent toads from re-entering the area. Daily surveys shall be conducted each morning prior to the continuation of construction or maintenance activity and any toads found shall be relocated to appropriate similar habitat outside Project impact areas. Additionally, permanent and temporary impacts to occupied, arroyo toad breeding habitat shall include off-site and on-site acquisition and preservation of occupied arroyo toad breeding habitat. Mitigation land for the loss of arroyo toad-occupied habitat will be available because of the small number of acres needed and because this type of mitigation for the arroyo toad is typically available and regularly provided in San Diego County. Mitigation Measure B-7j will ensure that the arroyo toad will be protected during construction and that compensation for the loss of habitat will be required.

Reference. EIR/EIS Section E.1.2; Section E.2.2; Section E.4.2

Impact B-7M: Direct or indirect loss of coastal California gnatcatcher or direct loss of habitat (Class II)

Focused surveys for the coastal California gnatcatcher were conducted along the Project between MPs I8-75.2 and 76.3, between I8-77.4 and 78.0, at I8-85.6, between I8-91.7 and I8-92.5, and between MP MRD-20.6 and MRD-20.7. The coastal California gnatcatcher was not found along the Project route. Potential coastal California gnatcatcher habitat is believed to occur at MPs I8-81.7 and I8-86.8, where ROE permission was not granted, and in the absence of survey data, it is assumed that habitat capable of supporting the species is occupied by the coastal California gnatcatcher. Suitable habitat for the coastal California gnatcatcher is expected to occur between MP CC-0.2 and CC-2.3. No focused surveys for this species were conducted along this option because it was designed after the end gnatcatcher survey period.

Construction of the Project will result in habitat loss for the coastal California gnatcatcher where the species is assumed to be present (MP I8-81.7, I8-86.8, and between MP CC-0.2 and CC-2.3). Any direct impact to the gnatcatcher and its occupied or critical habitat will be significant but mitigable to less than significant levels (Class II) with implementation of Mitigation Measures B-1c (Conduct biological monitoring) and B-7l, which requires removing habitat outside the breeding season, restoring/compensating for any temporary or permanent losses of habitat, and monitoring for disturbance of nesting activities and taking action to stop the disturbance. The pre-construction survey will define all the impacts to the coastal California gnatcatcher from Project construction.

Additionally, gnatcatcher breeding can be affected by excessive construction noise (considered to be 60 dB(A) Leq at the edge of occupied habitat by the USFWS [American Institute of Physics, 2005]). This impact will be significant according to Significance Criterion 4.d (adversely affect wildlife through an increase in noise). Such excessive noise will be a significant impact on gnatcatcher breeding but is miti-

gable to less than significant levels (Class II) with implementation of Mitigation Measure B-7e, which requires monitoring for disturbance of nesting activities and taking action to stop the disturbance.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-7M. Specifically, the following mitigation measures, as set forth above and below, are feasible and are hereby adopted to mitigate significant effects from Impact B-7M to a less than significant level.

B-1a **Provide restoration/compensation for affected sensitive vegetation communities.**

B-1c **Conduct biological monitoring.**

B-2a **Provide restoration/compensation for affected jurisdictional areas.**

B-7l **Conduct coastal California gnatcatcher surveys, and implement appropriate avoidance/ minimization/compensation strategies.** All brushing or grading taking place within occupied habitat of the coastal California gnatcatcher (defined as within 500 feet of any gnatcatcher sightings [USFWS, 2007b]) during construction shall be conducted from September 1 through February 14, which is outside the coastal California gnatcatcher breeding season.

When conducting all other construction activities during the coastal California gnatcatcher breeding season of February 15 through August 30, within habitat in which coastal California gnatcatchers are known to occur or have potential to occur, the following avoidance measures shall apply.

A USFWS permitted biologist shall survey for coastal California gnatcatchers within 10 calendar days prior to initiating activities in an area. The results of the survey shall be submitted to the Wildlife Agencies for review and approval prior to initiating any construction activities. If coastal California gnatcatchers are present, but not nesting, a USFWS permitted biologist shall survey for nesting coastal California gnatcatchers approximately once per week within 500 feet of the construction area for the duration of the activity in that area during the breeding season.

If/when an active nest is located, a 300-foot no-construction buffer (USFWS, 2007b) shall be established around each nest site; however, there may be a reduction of this buffer zone depending on site-specific conditions or the existing ambient level of activity. The Applicant shall contact Wildlife Agencies to determine the appropriate buffer zone. To the extent feasible, no construction shall take place within this buffer until the nest is no longer active. However, if construction must take place within the 300-foot buffer, a qualified acoustician shall monitor noise as construction approaches the edge of the occupied gnatcatcher habitat as directed by the permitted biologist. If the noise meets or exceeds the 60 dB(A) Leq threshold, or if the biologist determines that the activities in general are disturbing the nesting activities, the biologist shall have the authority to halt construction and shall consult with the Wildlife Agencies to devise methods to reduce the noise and/or disturbance in the vicinity. This may include methods such as, but not limited to, turning off vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nesting coastal California gnatcatchers and the activities, and working in other areas until the young have fledged.

Mitigation for the loss of coastal California gnatcatcher-occupied habitat shall be implemented as follows. Permanent impacts to occupied habitat shall include off-site acquisition and preservation of occupied habitat at a 2:1 ratio. Temporary impacts to occupied habitat

shall be mitigated at a 2:1 ratio and shall include 1:1 on-site restoration and 1:1 off-site acquisition and preservation of occupied habitat.

Mitigation for the loss of unoccupied designated critical habitat for the gnatcatcher shall be implemented as follows. Permanent impacts to unoccupied designated critical habitat shall include off-site acquisition and preservation of designated critical habitat at a 2:1 ratio. Temporary impacts to unoccupied designated critical habitat shall include 1:1 on-site restoration. Impacts to coastal California gnatcatcher critical habitat must be mitigated within the same Critical Habitat Unit where the impacts occurred.

For the Proposed Project, the required mitigation for the loss of assumed occupied gnatcatcher habitat includes 52.69 acres of on-site restoration and 103.73 acres of off-site acquisition and preservation of occupied gnatcatcher habitat. Furthermore, the required mitigation for the loss of unoccupied designated critical habitat includes 32.97 acres of on-site restoration and off-site acquisition and preservation of 4.44 acres of designated critical habitat for the gnatcatcher. Any acquired coastal California gnatcatcher habitat shall be approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands).

A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands). The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands) prior to the initiation of any activities which may impact (directly or indirectly) the coastal California gnatcatcher or its habitat. The Applicant shall work with the CPUC, BLM, Wildlife Agencies, and USDA Forest Service until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired coastal California gnatcatcher. The Habitat Management Plan shall include, but shall not be limited to:

- Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) coastal California gnatcatcher habitat approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands)
- Baseline biological data for all coastal California gnatcatcher habitat
- Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands) to provide in-perpetuity management
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- Designation of responsible parties and their roles (e.g., provision of endowment by the Applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity)
- Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands).

Rationale for Finding. Brushing or grading within occupied habitat of the coastal California gnatcatcher will occur outside the coastal California gnatcatcher breeding season. All other construction activities that take place during the coastal California gnatcatcher breeding season, within habitat in which coastal California gnatcatchers are known to occur or have potential to occur, will require surveys within 10 calendar days prior to initiating activities in an area. If/when an active nest is located, a 300-foot no-construction buffer (USFWS, 2007b) shall be established around each nest site. To the extent feasible, no construction shall take place within this buffer until the nest is no longer active. However, if construction must take place within the 300-foot buffer, a qualified acoustician shall monitor noise as construction approaches the edge of the occupied gnatcatcher habitat as directed by the permitted biologist. If the noise meets or exceeds the 60 dB(A) Leq threshold, or if the biologist determines that the activities in general are disturbing the nesting activities, the biologist shall have the authority to halt construction and shall consult with the Wildlife Agencies to devise methods to reduce the noise and/or disturbance in the vicinity. Additionally, permanent and temporary impacts to occupied, coastal California gnatcatcher breeding habitat shall include off-site and on-site acquisition and preservation of coastal California gnatcatcher habitat. Mitigation for the loss of coastal California gnatcatcher habitat will be available to satisfy Mitigation Measure B-7j because of the small number of acres needed and because this type of mitigation for the coastal California gnatcatcher habitat is typically available and regularly provided in San Diego County. Mitigation Measure B-7j will ensure that the coastal California gnatcatcher will be protected during construction and that compensation for the loss of habitat will be required.

Reference. EIR/EIS Section E.1.2; Section E.4.2

Impact B-8: Construction activities would result in a potential loss of nesting birds (violation of the Migratory Bird Treaty Act) (Class II)

The Migratory Bird Treaty Act implements various treaties and conventions between the U.S. and Canada, Japan, Mexico and the former Soviet Union for the protection of migratory birds. Under the Act, taking, killing or possessing migratory birds is unlawful.

The following APMs will be implemented as part of the Project to minimize or prevent potential loss of nesting birds: BIO-APM-2 through 6, -9, -16, -18, and -27. These APMs include personnel training, restricting work to within predetermined limits of construction, building roads at right angles to stream-beds, complying with wildlife/habitat protection regulations, surveying for nests prior to clearing brush, trimming trees outside the nesting season, designing structures and access roads to avoid or minimize impacts, and removing existing raptor nests from structures outside the raptor breeding season. However, these APMs either do not define the breeding season dates or do not include dates that cover the entire breeding season.

Even with the APMs, the Project will violate the Migratory Bird Treaty Act if it resulted in the killing of migratory birds or caused the destruction or abandonment of migratory bird nests and/or eggs (Significance Criterion 1.g). This could occur through the removal of vegetation and/or through vehicle and foot traffic or excessive noise associated with construction. Violation of the Migratory Bird Treaty Act is a significant impact that is mitigable to less than significant levels (Class II) with implementation of Mitigation Measure B-8a. Wherever the mitigation measure set forth is more specific or restrictive than the APMs, the mitigation measure takes precedence.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-8. Specifically, the following mitigation mea-

sures, as set forth above and below, are feasible and are hereby adopted to mitigate significant effects from Impact B-8 to a less than significant level.

B-7e **Conduct least Bell's vireo and southwestern willow flycatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.**

B-7l **Conduct coastal California gnatcatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.**

B-8a **Conduct pre-construction surveys and monitoring for breeding birds.** All vegetation clearing, except tree trimming or removal, shall take place between August 16 and January 14 (i.e., outside of the general avian breeding season of January 15 through August 15). Tree removal or trimming shall take place between September 16 and December 31 (i.e., outside the raptor breeding season of January 1 through September 15).

If project construction (not vegetation clearing or tree trimming/removal) cannot occur completely outside the general avian breeding season, then pre-construction surveys for non-listed bird species' nests shall be conducted by a qualified biologist within 100 feet of the construction zone within 10 calendar days prior to the initiation of construction that would occur between January 15 and August 15. The results of the survey shall be submitted to the Wildlife Agencies for review and approval prior to initiating any construction activities.

If project construction (not vegetation clearing or tree trimming/removal) including the use of helicopters cannot occur completely outside the raptor breeding season, then pre-construction surveys for active raptor nests shall be conducted by a qualified biologist within 500 feet of the construction zone within 10 calendar days prior to the initiation of construction that would occur between January 1 and September 15. The results of the survey shall be submitted to the Wildlife Agencies for review and approval prior to initiating any construction activities.

If no active nests are observed, construction may proceed. If active nests are found, work may proceed provided that construction activity is 1) located at least 500 feet from raptor nests (USFWS, 2007b), 2) located at least 160 to 250 feet from occupied burrowing owl burrows (CDFG, 1995; see Mitigation Measure B-7d), 3) located at least 300 feet from listed bird species nests (see Mitigation Measure B-7e and B-7l), 4) located at least 100 feet from non-listed bird species nests, and 5) noise levels do not exceed 60 dB(A)hourly Leq at the edge of nesting territories (American Institute of Physics, 2005) as determined by a qualified biologist in coordination with a qualified acoustician. There may be a reduction of these buffer zones depending on site-specific conditions or the existing ambient level of activity. The Applicant shall contact Wildlife Agencies to determine the appropriate buffer zone. In the case of raptors (except the burrowing owl), the noise level restriction stated above does not apply (USFWS, 2007b). Otherwise, if the noise meets or exceeds the 60 dB(A) Leq threshold, or if the biologist determines that the construction activities are disturbing nesting activities, the biologist shall have the authority to halt the construction and shall devise methods to reduce the noise and/or disturbance in the vicinity. This may include methods such as, but not limited to, turning off vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nest site and the construction activities, and working in other areas until the young have fledged. If noise levels still exceed 60 dB(A) Leq hourly at the edge of nesting territories and/or a no-construction buffer cannot be maintained, construction shall be deferred in that area until the nestlings have fledged. All active nests shall be monitored on a weekly basis until the nestlings fledge. The qualified biologist shall be responsible for documenting the results of the surveys and the ongoing monitoring and for reporting these results to the CPUC, BLM, Wildlife Agencies, State Parks (for construction in

ABDSP), and USDA Forest Service (for alternatives with construction on National Forest lands).

Rationale for Finding. All vegetation clearing, except tree trimming or removal, shall take place outside of the general avian breeding season of January 15 through August 15. Tree removal or trimming shall take place outside the raptor breeding season of January 1 through September 15. All grading and brush clearing activities in riparian habitat of least Bell's vireo or southwestern willow flycatcher shall take place outside of the nesting season for these species (March 15 through September 15), and outside of nesting season for Coastal California gnatcatchers (February 15 through August 30). If least Bell's vireo, southwestern willow flycatcher or coastal California gnatcatcher are present, a permitted biologist shall conduct regular surveys for the duration of the activity in that area during breeding season If Project construction (not vegetation clearing or tree trimming/removal) cannot occur completely outside these breeding seasons, then pre-construction surveys for bird species' nests shall be conducted by a qualified biologist within 300 feet of the construction zone (500 feet of the construction zone within raptor breeding season, and within 500 feet of gnatcatcher sightings) no more than 10 calendar days prior to the initiation of construction. If active nests are found, work may proceed provided conditions are met that will minimize impacts to nesting birds, as determined by a qualified biologist in coordination with a qualified acoustician. If the noise meets or exceeds the threshold stated above or if the biologist determines that the construction activities are disturbing nesting activities, the biologist shall have the authority to halt the construction and shall devise methods to reduce the noise and/or disturbance in the vicinity. This will ensure that nesting birds will be protected during construction.

Reference. EIR/EIS Section E.1.2; Section E.2.2; Section E.4.2; Section D.2

Impact B-9: Construction or operational activities would adversely affect linkages or wildlife movement corridors, the movement of fish, and/or native wildlife nursery sites (Class II for bat colonies)

The Project will not significantly impact or restrict general wildlife movement; it will implement BIO-APM-2, BIO-APM-3, BIO-APM-5, BIO-APM-18, and BIO-APM-29, as described in the EIR/EIS (Table D.2-5), to minimize or prevent potential adverse effects to linkages or wildlife corridors, the movement of fish, and native wildlife nursery sites. Even with implementation of the APMs, bat nursery colonies will still be significantly impacted by the Project if humans approach an active nursery colony, if entrances to nursery colony sites become blocked, if construction involves blasting or drilling that causes substantial vibration of the earth/rock surrounding an active nursery colony, or if a structure such as a bridge is disturbed by construction. These colonies could be located in rock crevices, caves, or culverts; inside/under bridges; in other man-made structures; and in trees (typically snags or large trees with cavities).

The impacts will be significant because the APMs are not specific enough or do not provide enough mitigation to adequately compensate for the impacts. The measures in the APMs shall still apply except where the mitigation measures are more specific or more restrictive than the APM requirements. In those instances, the mitigation measures take precedence. This impact is significant but mitigable to less than significant levels (Class II) with implementation of Mitigation Measure B-9a which includes surveying for bat colonies; prohibiting approach of, or entrance to, an active nursery colony site; and implementation of methods to minimize potential indirect impacts to a colony site from falling rock or substantial vibration.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-9. Specifically, the following mitigation mea-

sure is feasible and is hereby adopted to mitigate significant effects from Impact B-9 to a less than significant level.

B-9a **Survey for bat nursery colonies.** A CDFG-approved biologist shall conduct a habitat assessment for bat nursery colonies prior to any construction activity. Then, the approved biologist shall conduct a survey for bat nursery colonies or signs of such colonies prior to construction. Direct impacts to a nursery colony site shall not be allowed, and approach of, or entrance to, an active nursery colony site shall be prohibited. Before any blasting or drilling in the vicinity of a nursery colony site, the CDFG-approved biologist shall work with the construction crew to devise and implement methods to minimize potential indirect impacts to the nursery colony site from falling rock or substantial vibration (while a nursery colony is active). The methods shall include an option to halt any construction activity that would cause falling rock, substantial vibration impacts, or any other construction-related impact (including lighting used for night work) to a nursery colony as determined by the approved biologist, until the colony is inactive. Should falling rock block the entrance to a nursery colony site, the contractor shall work with the approved biologist to re-open an entrance to the site.

Rationale for Finding. Conducting field surveys for bat nurseries prior to construction and avoiding direct impacts to a nursery colony site and approach of, or entrance to, an active nursery colony site will reduce impacts to bat nurseries. In addition to the surveys, devising and implementing methods to reopen blocked nursery colony sites and minimize indirect impacts to nursery colony sites will reduce impacts to bat nurseries a less than significant level.

Reference. EIR/EIS Section E.1.2; Section E.2.2; Section E.4.2; Section D.2

Impact B-10: Presence of transmission lines may result in electrocution of, and/or collisions by, listed or sensitive bird species (Class II for collision for non-sensitive species or daytime migration)

Mortality as a result of collision with Project features will be greatest where the movements of migrating birds are the most concentrated. Since most birds migrate at night, and migration corridors have never been studied systematically (their use by birds has been pieced together from anecdotes), there is no way to know how many birds and what species of birds will actually be impacted by collision with Project transmission lines, towers, poles, or static wires. Most of the migration occurs at night when it cannot be seen, and birds that collide with transmission lines and fall to the ground are often taken away by predators/scavengers before morning. Therefore, the Project will directly or indirectly cause mortality of candidate, sensitive, or special status wildlife species, and the killing of migratory birds. This impact will be reduced to less than significant (Class II) with implementation of Mitigation Measure B-10a.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-10. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact B-10 to a less than significant level.

B-10a **Utilize collision-reducing techniques in installation of transmission lines**. The Applicant shall install the transmission lines utilizing Avian Power Line Interaction Committee standards for collision-reducing techniques as outlined in "Mitigating Bird Collisions with Power Lines: The State of the Art in 1994" (APLIC, 1994) as follows. Placement of towers and lines shall not be located above existing towers and lines, topographic features, or tree lines to the maximum extent practicable. Power lines should be clustered in the vertical and horizontal planes, aligned with existing geographic features or tree lines, and located parallel (rather than perpendicular) to prevailing wind patterns to the maximum degree feasible.

Additionally, overhead lines that are located in highly utilized avian flight paths (from MP 50 through MP 88 for the SRPL Proposed Project) shall be marked utilizing fixed mount Firefly Flapper/Diverters, swan flight diverter coils, or other diversion devices, if proven more effective, as to be visible to birds and to reduce avian collision with power lines.

Where such markers are installed, the Applicant shall fund a study to determine the effectiveness of the markers as a collision prevention measure since there are few, if any, studies that show if such markers work, especially on transmission lines (CEC, 2007). The Applicant shall develop a draft study protocol and submit it to the Wildlife Agencies and State Parks, as well as to CPUC and BLM, for review. The Applicant shall continue to work with these agencies until approval of a final study protocol is obtained. If the study shows the markers to be ineffective, the Applicant shall coordinate with the Wildlife Agencies and State Parks (for markers in State Parks lands to develop alternate collision protection measures.

The Applicant shall implement an avian reporting system for documenting bird mortalities to help identify problem areas. The reporting system shall follow the format in Appendix C of "Suggested Practices for Avian Protection On Power Lines: The State of the Art in 2006" (APLIC, 2006) or a similar format. The Applicant shall submit a draft reporting protocol and reporting system to the Wildlife Agencies and State Parks, as well as to CPUC and BLM, for review and approval. The Applicant shall continue to work with these agencies until approval of a final reporting protocol and reporting system is obtained. The Applicant shall develop and implement methods to reduce mortalities in identified problem areas. The methods shall be approved by the Wildlife Agencies, State Parks (for problem areas in State Parks lands) CPUC, and BLM prior to implementation. Bird mortality shall continue to be documented in the problem areas per the avian reporting system to determine the effectiveness of the mortality reduction methods and to determine if new methods need to be developed.

Rationale for Finding. APLIC Standard collision-reducing techniques require the utilization of collision-reducing techniques such as site-sensitive tower/line placement and installation of bird flight diversion devices, a study to determine the effectiveness of such devices, and determine if new methods need to be developed, and implementation of a reporting system to document bird mortality. Mitigation Measure B-10a, which requires use of APLIC Standard collision-reducing techniques, will reduce impacts to listed bird species to a less than significant level.

Reference. EIR/EIS Section E.1.2; Section E.2.2; Section E.4.2; Section D.2

Impact B-11: Presence of transmission lines may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers (Class II for ravens)

The new towers that will result from the Project will result in an increase in potential nesting sites for common ravens in portions where the FTHL occur and a potential increase in predation of FTHL by ravens. The first seven miles of the Project will cross one of the FTHL Managed Areas (MA), which are believed to be the core areas for maintaining self-sustaining populations of FTHLs in perpetuity. The FTHL habitat also occurs outside of the MA, between MP I8-7.0 and MP I8-23.0 (BLM, 2007). This impact will be significant, but, with implementation of Mitigation Measure B-11a impacts will be reduced to a less than significant level.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-11. Specifically, the following mitigation

measure is feasible and is hereby adopted to mitigate significant effects from Impact B-11 to a less than significant level.

B-11a **Prepare and implement a Raven Control Plan.** The Applicant shall prepare and implement a Raven Control Plan where it occurs in FTHL habitat inside and outside FTHL MAs. The raven control plan shall include the use of raven perching/nesting deterrents (such as those manufactured by Prommel Enterprises, Inc. [www.ZENAdesign.com], Mission Environmental [www.missionenviro.co.za], or Kaddas Enterprises, Inc. [www.kaddas.com] and/or shall describe the procedure for obtaining a permit from the USFWS Law Enforcement Division to legally remove ravens. The plan shall identify the purpose of conducting raven control; provide training in how to identify raven nests and how to determine whether a nest belongs to a raven or a raptor species; describe the seasonal limitations on disturbing nesting raptors; and describe procedures for documenting the activities on an annual basis. The Applicant shall obtain approval of this plan from the USFWS prior to the start of construction. The Applicant shall work with the USFWS until approval of a plan is obtained.

Rationale for Finding. By using a Raven Control Plan, which includes the use of raven perching/nesting deterrents, identifying the purpose of conducting raven control, providing training in identifying raven nest and how to determine whether a nest belongs to a raven or a raptor species, as outlined in Mitigation Measure B-11a, impacts to FTHL will be reduced to a less than significant level.

Reference. EIR/EIS Section E.1.2

Impact B-12: Maintenance activities would result in disturbance to wildlife and could result in wildlife mortality (Class II for other special-status wildlife and nesting birds)

The following APMs will be implemented to minimize or prevent disturbance to wildlife and wildlife mortality during Project maintenance: BIO-APM-3, BIO-APM-4, BIO-APM-6, BIO-APM-7, BIO-APM-9, BIO-APM-10 through BIO-APM-13, and BIO-APM-16. These APMs include restricting work to within existing access roads; observing a 15-mile-per hour speed limit on dirt roads; complying with regulations protecting wildlife and its habitat; prohibiting litter; conducting a preactivity survey prior to brush clearing around Project facilities (if it has been two years since the last clearing); prohibiting harm to, and feeding of, wildlife; and identifying environmentally sensitive tree trimming locations. Even with implementation of the APMs, disturbance to wildlife and potential wildlife mortality will be significant because the APMs are not specific enough or do not provide enough mitigation to adequately compensate for the impacts. The measures in the APMs shall still apply except where the mitigation measures are more specific or more restrictive than the APM requirements. In those instances, the mitigation measures take precedence.

Maintenance activities will impact nesting birds (violation of Migratory Bird Treaty Act) if vegetation is cleared during the general avian breeding season (February 15 through September 15) or the raptor breeding season (January 1 through September 15). Maintenance activities will impact the coastal California gnatcatcher, least Bell's vireo, southwestern willow flycatcher, and burrowing owl if the noise threshold (i.e., 60 dB[A] Leq hourly) is met or exceeded at the edge of their nesting territories during their breeding seasons. Maintenance activities will also impact the golden eagle if activities will occur within 4,000 feet of an active golden eagle nest. Maintenance activities will cause disturbance to, and possible mortality of FTHL, arroyo toad, and QCB.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-12. Specifically, the following mitigation mea-

sures, and as set forth above and below, are feasible and are hereby adopted to mitigate significant effects from Impact B-12 to a less than significant level.

B-3a **Prepare and implement a Weed Control Plan.**

B-7b **Implement avoidance/mitigation/compensation according to the Flat-Tailed Horned Lizard Rangewide Management Strategy.** Mitigation for impacts to the FTHL shall follow all applicable measures in the Flat-Tailed Horned Lizard Rangewide Management Strategy (Flat-Tailed Horned Lizard Interagency Coordinating Committee, 2003). This mitigation includes, but is not limited to, locating impacts outside of MAs, delineating work limits, using existing roads, biological monitoring, and worker education.

According to the Flat-Tailed Horned Lizard Rangewide Management Strategy (Flat-Tailed Horned Lizard Interagency Coordinating Committee, 2003), compensation for FTHL habitat impacts could involve purchase of FTHL habitat and/or monetary compensation as determined by the Flat-Tailed Horned Lizard Interagency Coordinating Committee. Impacts shall be mitigated at a 1:1 ratio for habitat outside a MA. Furthermore, mitigation inside a MA shall be at a 3.5:1 ratio for temporary impacts (2.5:1 for disturbed habitat, developed land, or agriculture) and a 5.5:1 ratio for permanent impacts (4.5:1 for disturbed habitat, developed land, or agriculture). For the Proposed Project, the required off-site mitigation for FTHL impacts (if offsite acquisition is the method of compensation) is 1,172.7 acres. Any FTHL habitat acquired shall be approved by the Flat-Tailed Horned Lizard Interagency Coordinating Committee, CPUC, BLM, Wildlife Agencies, and State Parks (for land in ABDSP).

A Habitat Management Plan shall be prepared by a biologist approved by the Flat-Tailed Horned Lizard Interagency Coordinating Committee, CPUC, BLM, Wildlife Agencies, and State Parks (for land in ABDSP) for all acquired FTHL habitat. The Habitat Management Plan must be approved in writing by the Flat-Tailed Horned Lizard Interagency Coordinating Committee, CPUC, BLM, Wildlife Agencies, and State Parks (for land in ABDSP) prior to the initiation of any activities which may impact (directly or indirectly) the FTHL or its habitat. The Applicant shall work with the Flat-Tailed Horned Lizard Interagency Coordinating Committee, CPUC, BLM, Wildlife Agencies, and State Parks until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired FTHL habitat. The Habitat Management Plan shall include, but shall not be limited to:

- Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) FTHL habitat approved by the Flat-Tailed Horned Lizard Interagency Coordinating Committee, CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP)
- Baseline biological data for all acquired FTHL habitat
- Designation of a land management entity approved by the Flat-Tailed Horned Lizard Interagency Coordinating Committee, CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP) to provide in-perpetuity management
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- Designation of responsible parties and their roles (e.g., provision of endowment by the Applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity)

- Management specifications including, but not limited to, regular biological surveys to compare with baseline exotic, non-native species control fence/sign replacement or repair, public education trash removal and annual reports to Flat-Tailed Horned Lizard Interagency Coordinating Committee, CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP).

B-7h **Implement appropriate avoidance/minimization strategies for eagle nests.** No construction or maintenance activities shall occur within 4,000 feet of an eagle nest during the eagle breeding season (December through June).

B-12a **Conduct maintenance activities outside the general avian breeding season.** The Applicant shall educate all maintenance workers about the sensitivity of biological resources associated with the Project and the necessity to avoid unauthorized impacts to them.

In areas not cleared of vegetation in the prior two years, all vegetation clearing, except tree trimming or removal, shall take place between September 16 and February 14 (i.e., outside of the general avian breeding season of February 15 through September 15). Tree trimming or removal shall only take place between September 16 and December 31 (i.e., outside the raptor breeding season of January 1 through September 15).

Other maintenance activities shall occur outside the general avian breeding season where feasible. For other maintenance activities that cannot occur outside the above-listed breeding seasons, a qualified biologist shall work with a qualified acoustician to determine if a maintenance activity would meet or exceed the 60 dB(A) Leq hourly noise threshold where nesting territories of the coastal California gnatcatcher, least Bell's vireo, southwestern willow flycatcher, and burrowing owl occur. If the noise threshold would not be met or exceeded at the edge of their nesting territories, then maintenance may proceed. If the noise threshold would be met or exceeded at the edge of their nesting territories, pre-maintenance surveys for nests of these species shall be conducted by a qualified biologist (USFWS permitted biologist for gnatcatcher, vireo, and flycatcher) within 300 feet of the maintenance area no more than seven days prior to initiation of maintenance that would occur between February 15 and August 30 for the gnatcatcher, March 15 and September 15 for the vireo, April 15 and September 15 for the flycatcher, and February 1 and August 31 for the burrowing owl. If active nests are found, work may proceed provided that methods, determined by the qualified acoustician to be effective, are implemented to reduce noise below the threshold. These methods include, but are not limited to, turning off vehicle engines and other equipment whenever possible and/or installing a protective noise barrier between a nesting territory and maintenance activities. If the qualified acoustician determines that no methods would reduce noise to below the threshold, maintenance shall be deferred until the nestlings have fledged as determined the qualified biologist. Where noise-reducing methods are employed, active nests shall be monitored by the qualified biologist on a weekly basis until maintenance is complete or until the nestlings fledge, whichever comes first. The qualified biologist shall be responsible for documenting the results of the pre-maintenance nest surveys and the nest monitoring and for reporting these results to the CPUC, BLM, Wildlife Agencies, State Parks (for maintenance in ABDSP), and USDA Forest Service (for alternatives with maintenance on National Forest lands).

Animal Burrows/Dens. If any animal burrows or dens are identified during the pre-maintenance surveys for active bird nests, soil in a brush-clearing area shall be sufficiently dry before brush clearing to prevent damage to burrows or dens. At any time of year where maintenance would occur in occupied SKR habitat, all equipment and vehicles shall remain

on existing access roads/staging areas (e.g., they shall not pull off the shoulder) to prevent the crushing of SKR burrows.

B-12b **Conduct maintenance when arroyo toads are least active.** To avoid impacts to arroyo toads during project maintenance (specifically the use and maintenance of access roads within 2 kilometers of occupied toad habitat), use and maintenance of these access roads shall only occur between two hours after sunrise until two hours before sunset.

B-12c **Maintain access roads and clear vegetation in Quino checkerspot butterfly habitat.** If access roads in QCB-occupied or potentially occupied habitat (see Impact B-7J and Mitigation Measure B-7i) are maintained (i.e., regraded) and vegetation around structures is cleared at least once every two years, then no additional mitigation shall be required for this ongoing maintenance. If more than two years pass without regrading or clearing, then the maintenance shall be considered a new impact to QCB habitat and shall be mitigated as prescribed in Mitigation Measure B-7i (i.e., protocol pre-maintenance survey, biological monitoring, and avoidance or mitigation).

Rationale for Finding. By avoiding maintenance during eagle and general avian breeding seasons, and by conducting maintenance when arroyo toads are least active, and maintaining vegetation around structures in QCB habitat, impacts to special status species will be reduced. Mitigation measure B-12a will reduce/avoid noise impacts to nesting coastal California gnatcatchers, least Bell's vireos, southwestern willow flycatchers, and burrowing owls; if maintenance activity noise meets or exceeds the 60 dB(A) Leq threshold, or if the biologist determines that the activities in general are disturbing the nesting activities, the biologist shall have the authority to halt construction and shall consult with the Wildlife Agencies to devise methods to reduce the noise and/or disturbance in the vicinity. In addition to this, by preparing and implementing a Weed Control Plan, and by avoiding/mitigating/compensating to impacts to FTHL habitat, as outlined in Mitigation Measures B-3a, B-7b, B-7h, B-12a, B-12b, and B-12c above maintenance impacts to wildlife will be reduced to a less than significant level.

Reference. EIR/EIS Section E.1.2; Section E.2.2; Section E.4.2; Section D.2

Cumulative Impact B-2: Construction activities would result in adverse effects to jurisdictional waters and wetlands through vegetation removal, placement of fill, erosion, sedimentation, and degradation of water quality (Class II)

Since a formal delineation has not yet been conducted, the precise presence and extent of wetlands at this time is unknown. However, as discussed in Section D.2.5, direct and/or indirect impacts to jurisdictional Waters of the U.S. and possibly wetlands (i.e., areas regulated by the ACOE and RWQCB and/or CDFG) will occur from the Project. A formal delineation for the Project will be conducted for the final route selected that includes sited Project-specific features and final engineering at the time SDG&E applies for permits from the ACOE, RWQCB, and CDFG. Past projects such as roads, bridges, and residential developments within five miles of the Project route occurring near or in jurisdictional waters and wetlands have resulted in similar impacts. Additionally, though formal delineations have not yet been conducted, it is likely that several of the development projects will also be located near enough to jurisdictional waters and wetlands to result in similar impacts. The combined effects of the Project with those of past, present and future projects will be significant but will be reduced to less than significant with implementation of Mitigation Measures B-1c and B-2a.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-2. Specifically, the following miti-

gation measures, as set forth above, are feasible and are hereby adopted to mitigate significant effects from Cumulative Impact B-2 to a less than significant level.

B-1c Conduct biological monitoring.

B-2a Provide restoration/compensation for affected jurisdictional areas.

Rationale for Finding. A qualified biologist will monitor construction and maintenance activities to ensure compliance with applicable APMs and mitigation measures. If jurisdictional waters are indeed impacted by the Project, Mitigation Measures B-1c and B-2a will create new jurisdictional habitat. Mitigation ratios will range from 1:1 up to 5:1. With implementation of such measures, the Project's contribution to a significant cumulative impact to jurisdictional waters will be rendered less than cumulatively considerable and less than significant (Class II) because with mitigation no net loss of jurisdictional waters or wetlands will occur.

Reference. EIR/EIS Section G

Cumulative Impact B-3: Construction and operation/maintenance activities would result in the introduction of invasive, non-native, or noxious plant species (Class II)

The Project construction and operation/maintenance activities will result in ground disturbance which has the potential to result in the introduction of invasive, non-native, and noxious plant species. Invasive, non-native, or noxious plant species exist within the counties affected by the Project, as a result of natural events such as wildfires as well as from past and ongoing residential, commercial and industrial development. Many development projects, particularly residential development projects that will clear dozens to hundreds of acres of native vegetation will result in similar impacts, which when combined with impacts of the Project will be significant.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact B-3. Specifically, the following mitigation measures, as set forth above, are feasible and are hereby adopted to mitigate significant cumulative effects from Impact B-3 to a less than significant level.

B-1a Provide restoration/compensation for affected sensitive vegetation communities.

B-2a Provide restoration/compensation for affected jurisdictional areas.

B-3a Prepare and implement a Weed Control Plan.

Rationale for Finding. Implementation of Mitigation Measures B-1a, B-2a, and B-3a, which include habitat restoration/compensation, a pre-construction weed inventory, and a Weed Control Plan will render the Project's contribution to this significant impact less than cumulatively considerable (Class II) by preventing the introduction of invasive and non-native species as a result of the Project.

Reference. EIR/EIS Section G

Cumulative Impact B-8: Construction Activities would result in a potential loss of nesting birds (Violation of the Migratory Bird Treaty Act) (Class II)

As discussed in Section E.1.2, Project construction activities such as vegetation clearing and tree trimming will have the potential to result in the killing of migratory birds or cause the destruction or abandonment of migratory bird nests and/or eggs. Several development projects particularly large scale

residential developments and solar projects will require clearance of hundreds, and in some cases thousands, of acres of contiguous land area occupied by trees and other vegetation with the potential to house nesting birds, and will result in similar impacts to nesting birds. Furthermore, many parts of the Project area, particularly within San Diego County have undergone intensive urbanization which has resulted in similar impacts to nesting birds. Potential losses of nesting birds associated with the Project, when combined with losses associated with past, present and future projects are considered significant because they will represent substantial adverse effects to nesting birds.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact B-8. Specifically, the following mitigation measure, as set forth above, is feasible and is hereby adopted to mitigate significant cumulative effects from Impact B-8 to a less than significant level.

B-7e **Conduct least Bell's vireo and southwestern willow flycatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.**

B-7l **Conduct coastal California gnatcatcher surveys, and implement appropriate avoidance/ minimization/compensation strategies.**

B-8a **Conduct pre-construction surveys and monitoring for breeding birds.**

Rationale for Finding. Mitigation Measure B-8a include conditions such as requiring vegetation clearing and tree trimming activities to occur outside general avian and raptor breeding seasons, performing pre-construction surveys, construction monitoring, and stopping and deferring work if impacts to nestlings cannot be avoided, that will prevent adverse impacts to nesting birds from occurring as a result of the Project. Mitigation measures B-7e and B-7l will ensure that a biologist permitted by the USFWS shall survey for least Bell's vireos, southwestern willow flycatchers and coastal California gnatcatchers prior to construction and, if found, shall conduct regular surveys for the duration of the activity in that area during breeding season. On-site restoration or off-site acquisition and preservation of occupied habitat for the loss of occupied habitat for least Bell's vireo, southwestern willow flycatcher and coastal California gnatcatcher will be available to satisfy Mitigation Measure B-7e and B-71 because of the small number of acres needed and because this type of mitigation is typically available and regularly provided in San Diego County. Therefore, the Project's contribution to a cumulative impact to nesting birds will be rendered less than cumulatively considerable and less than significant (Class II).

Reference. EIR/EIS Section G

Cumulative Impact B-9: Adverse effects to Linkages or wildlife movement corridors, the movement of fish, and/or native wildlife nursery sites (Class II for bat nursery colonies)

As discussed in Section E.1.2, the Project has the potential to adversely affect bat nursery colonies. Unmitigated, these impacts will have the potential to combine with impacts of other current and future development projects that will be implemented near bat nurseries.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact B-9. Specifically, the following mitigation measure, as set forth above, is feasible and is hereby adopted to mitigate significant cumulative effects from Impact B-9 to a less than significant level.

B-9a **Survey for bat nursery colonies.**

Rationale for Finding. Mitigation Measure B-9a will include methods to avoid impacts to bat nursery colonies during construction through such measures as halting any construction activity that will cause falling rock, substantial vibration impacts, or any other construction-related impact to a nursery colony as determined by an approved biologist, until the colony is inactive. Methods to reduce impacts include reopening blocked entrances to bat nursery colony entrances, Therefore, the Project's contribution to a cumulative impact to bat nursery colonies will be rendered less than cumulatively considerable and therefore less than significant (Class II).

Reference. EIR/EIS Section G

Cumulative Impact B-11: Presence of transmission lines may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers (Class II)

As discussed in Section E.1.2, the Project has the potential to adversely increase predation of FTHL. Unmitigated, these impacts will have the potential to combine with impacts of other current and future development projects that will be implemented near FTHL Management Areas.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact B-11. Specifically, the following mitigation measure, as set forth above, is feasible and is hereby adopted to mitigate significant cumulative effects from Impact B-11 to a less than significant level.

B-11a Prepare and implement a Raven Control Plan.

Rationale for Finding. By using a Raven Control Plan, which includes the use of raven perching/nesting deterrents, identifying the purpose of conducting raven control, providing training in identifying raven nest and how to determine whether a nest belongs to a raven or a raptor species, as outlined in Mitigation Measure B-11a, impacts to FTHL will be reduced to a less than significant level.

Reference. EIR/EIS Section G

III.2.2 Visual Resources

In general, the Visual Resources technical approach was differentiated according to: (1) federal lands administered by the United States Department of Interior Bureau of Land Management (BLM), (2) federal lands administered by the United States Department of Agriculture Forest Service (USFS), and (3) other federal (non-BLM/non-USFS), non-federal public, and private lands (see Table D.3-1). The technical approach for that portion of the Project where lands are subject to administration by the BLM was based on the BLM's Visual Resource Management (VRM) system. This is a system that BLM requires for use on BLM-administered lands (located primarily along the eastern portion of the Proposed Project) but cannot be applied to non-BLM lands because the BLM has no visual resource management authority over non-BLM lands. The technical approach for that portion of the Project where lands are subject to administration by the USFS was based on the Forest Service's Scenery Management System (SMS). This method is required for all lands under the Forest Service's jurisdiction (Forest lands) but cannot be applied to non-Forest lands because the Forest Service has no authority over non-USFS lands. The non-BLM/non-USFS portions of the Proposed Project and Alternatives were analyzed using the Visual Sensitivity–Visual Change system. The results for all three methodologies are summarized and presented as a series of foldout tables at the end of the Visual Resources section in Appendix VR-1.

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for substations, construction and storage yards, and fly yards)

Construction impacts on visual resources will result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the substations, construction and storage yards, and fly yards. Construction impacts on visual resources will result from the temporary alteration of landforms and vegetation along the ROW, as well as the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities will be seen by various viewers in close proximity to the construction sites including rural residents, suburban residents, commercial users, outdoor recreation enthusiasts, and travelers on public roads.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project, which mitigate significant effects on the environment from Impact V-1. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact V-1 to a less than significant level.

V-1a **Reduce visibility of construction activities and equipment.** Substation construction sites and all staging and material and equipment storage areas including storage sites for excavated materials, and helicopter fly yards shall be appropriately located away from areas of high public visibility. If visible from nearby roads, residences, public gathering areas, or recreational areas, facilities, or trails, construction sites and staging areas and fly yards shall be visually screened using temporary screening fencing. Fencing will be of an appropriate design and color for each specific location. Additionally, construction in areas visible from recreation facilities and areas during holidays and periods of heavy recreational use shall be avoided. SDG&E shall submit final construction plans demonstrating compliance with this measure to the BLM and CPUC for review and approval at least 60 days prior to the start of construction. Where the Project crosses lands administered by other public agencies (e.g., Forest Service), construction plans shall also be submitted to those agencies for review and approval within the same 60-day timeframe.

V-1b **Reduce construction night lighting impacts.** SDG&E shall design and install all lighting at construction and storage yards and staging areas and fly yards such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the Project facilities, vicinity, and nighttime sky is minimized. SDG&E shall submit a Construction Lighting Mitigation Plan to the BLM (only if on BLM lands), Forest Service (only if on National Forest lands), and CPUC (for all areas) for review and approval at least 90 days prior to the start of construction or the ordering of any exterior lighting fixtures or components, whichever comes first. SDG&E shall not order any exterior lighting fixtures or components until the Construction Lighting Mitigation Plan is approved by the reviewing agency. The Plan shall include but is not necessarily limited to the following:

- Lighting shall be designed so exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light sources is shielded to prevent light trespass outside the Project boundary
- All lighting shall be of minimum necessary brightness consistent with worker safety
- High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.

Rationale for Finding. Vehicles, heavy equipment, Project components, and workers will be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW cleanup and restoration. Construction impacts at the viewing areas of concern will last two years and the resulting visual impacts will be significant but mitigable. Although APM VR-4 will be helpful in minimizing these effects, implementation of Mitigation Measures V-1a and V-1b will further reduce the impacts to less than significant. Mitigation Measure V-1a will incorporate design features that reduce the visibility of construction activities and equipment, while Mitigation Measure V-1b will require SDG&E to develop and implement a Construction Lighting Mitigation Plan.

Reference. EIR/EIS Section E.1.3; Section E.2.3; Section E.4.3; Section D.3.18.4

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II)

Land scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites and along the ROW can be long-lasting (several years) in arid and semi-arid environments where vegetation recruitment and growth are slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly exposed soils. Vegetation clearance may occur in conjunction with Project construction or during the life of the Project, if vegetation is cleared as part of ongoing ROW maintenance, or if a changed vegetation structure is maintained within the ROW.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-2. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact V-2 to a less than significant level.

V-2a **Reduce in-line views of land scars.** Construct access or spur roads at appropriate angles from the originating, primary travel facilities to minimize extended, in-line views of newly graded terrain. Contour grading should be used where possible to better blend graded surfaces with existing terrain. All proposed new access roads shall be evaluated for their visibility from sensitive viewing locations prior to final design. Prior to final design, SDG&E shall consult with a visual resources specialist representing the CPUC and BLM and a qualified biologist to identify the following:

- Definition of access roads with sensitive viewing areas from which visibility of access roads is a concern.
- Approximate location and length of alternative access road routes if straight line roads are not used. Define habitat affected and steepness of terrain for consideration of habitat and erosion impacts. The biologist and visual resources specialist shall confirm that the overall impacts of the alternate access road are less than that of the original access road design.
- "Drive and crush" access is a feasible measure for avoiding access road scars (i.e., no grading or vegetation removal is required). If this means of access is to be used, SDG&E shall define frequency of driving and vehicle types such that a biologist confirms that vegetation would be likely to recover.
- A table shall be submitted to the CPUC and BLM for review and approval at least 60 days before the start of construction to document towers for which this measure is applied, and the proposed resolution for each access road (i.e., retain straight line roads due to greater

impacts from alternative routes, use "drive and crush" access, or develop alternate access road route).

SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC and BLM, as well as the Forest Service and Anza-Borrego Desert State Park (as appropriate), for review and approval at least 60 days prior to the start of construction.

V-2b **Reduce visual contrast from unnatural vegetation lines.** In those areas where views of land scars are unavoidable, the boundaries of disturbed areas shall be aggressively revegetated to create a less distinct and more natural-appearing line to reduce visual contrast. Furthermore, all graded roads and areas not required for on-going operation, maintenance, or access shall be returned to pre-construction conditions. In those cases where potential public access is opened by construction routes, SDG&E shall create barriers or fences to prevent public access and patrol construction routes to prevent vandalized access and litter clean-up until all vegetation removed returns to its pre-project state. SDG&E shall submit final construction and restoration plans demonstrating compliance with this measure to the BLM and CPUC, as well as Forest Service and Anza-Borrego Desert State Park (as appropriate), for review and approval at least 60 days prior to the start of construction.

V-2c **Reduce color contrast of land scars on non-Forest lands.** For non-USFS-administered land areas where views of land scars from sensitive public viewing locations are unavoidable, disturbed soils shall be treated with Eonite or similar treatments to reduce the visual contrast created by the lighter-colored disturbed soils with the darker vegetated surroundings (Eonite and Permeon are commercially available chemical treatments that "age" or oxidize rock and are used specifically for coloring concrete or rock surfaces to tone down glare and contrast and simulate naturally occurring desert varnish). SDG&E will consult with the Authorized Officer (as determined by the CPUC and BLM as appropriate) on a site-by-site basis for the use of Eonite. SDG&E shall submit final construction and restoration plans demonstrating compliance with this measure to the BLM and CPUC, as well as Anza-Borrego Desert State Park (as appropriate), for review and approval at least 60 days prior to the start of construction.

V-2d **Construction by helicopter.** In those areas where long-term land-scarring and vegetation clearance impacts would be visible to sensitive public viewing locations, or where construction would occur on slopes over 15 percent, SDG&E will consult with the Authorized Officer and appropriate land management agency, on a site-by-site basis regarding the use of helicopter construction techniques and the prohibition of access and spur roads. Agency consultations must be conducted and approvals received at least 120 days prior to the start of construction.

V-2f **Reduce land scarring and vegetation clearance impacts on USFS-administered lands.** Vegetation within the right of way and ground clearing at the foot of each tower and between towers will be limited to the clearing necessary to comply with electrical safety and fire clearance requirements. Mitigation will be incorporated to reduce the total visual impact of all vegetation clearing performed for the power line (USFS Scenery Conservation Plan).

Rationale for Finding. Long-term land scarring and vegetation clearance impacts will constitute significant visual impacts that will be mitigated to levels that are less than significant with effective implementation of Mitigation Measures V-2a, V-2b, and V-2c. These measures include requirements for the construction of access and spur roads, and the development and implementation of construction and restoration plans. Furthermore, Mitigation Measure V-2f shall be implemented for construction on USFS-

administered lands to ensure consistency with the required Scenery Conservation Plan (see Mitigation Measure V-45a in Section III.3). However, if site-specific conditions indicate that the mitigation measures will not be effective in eliminating unnatural demarcations in the vegetation landscape and reducing the resulting visual impact to a level that will be less than significant, then Mitigation Measure V-2d will be required following consultations with the CPUC, USBLM, and USFS as appropriate.

Reference. EIR/EIS Section E.1.3; Section E.2.3; Section E.4.3; Section D.3.18.4

Impact V-85: Increased structure contrast, industrial character, view blockage, and glare from night lighting when viewed from Japatul Road and Bell Bluff Road (VS-VC) (Class II)

The proposed substation will be visible to travelers on Japatul Road though not particularly noticeable. The substation will appear integrated with the connecting transmission line. The connecting transmission line will draw the viewer's eye toward the substation location, which will increase the facility's visibility in the landscape. To the extent that the substation is noticeable under any conditions of visibility, the substation will appear within a rugged, undeveloped ridgeline landscape. Therefore, to the extent that the substation is observed, the components will exhibit structural contrast and industrial character in a natural-appearing landscape lacking similar characteristics.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-85. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact V-85 to a less than significant level.

V-7a **Reduce visual contrast associated with ancillary facilities.** SDG&E shall submit to BLM and CPUC a Surface Treatment Plan describing the application of colors and textures to all new facility structures, buildings, walls, fences, and components comprising all ancillary facilities including substations. The Surface Treatment Plan must reduce glare and minimize visual intrusion and contrast by blending the facilities with the landscape. The Treatment Plan shall be submitted to BLM and CPUC for approval at least 90 days prior to (a) ordering the first structures that are to be color treated during manufacture, or (b) construction of any of the ancillary facility component, whichever comes first. If the BLM or CPUC notifies SDG&E that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, SDG&E shall prepare and submit for review and approval a revised Plan. The Surface Treatment Plan shall include:

- Specification, and 11" x 17" color simulations at life size scale, of the treatment proposed for use on project structures, including structures treated during manufacture
- A list of each major project structure, building, tower and/or pole, and fencing specifying the color(s) and finish 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 Project.

SDG&E shall not specify to the vendors the treatment of any buildings or structures treated during manufacture, or perform the final treatment on any buildings or structures treated onsite, until SDG&E receives notification of approval of the Treatment Plan by the BLM and CPUC.

Within 30 days following the start of commercial operation, SDG&E shall notify the BLM and CPUC that all buildings and structures are ready for inspection.

V-7b **Screen ancillary facilities.** SDG&E shall provide a Screening Plan for screening vegetation, walls, and fences that reduces visibility of ancillary facilities (except Imperial Valley Substation) and helps the facility blend in with the landscape. The use of berms to facilitate project screening may also be incorporated into the Plan. SDG&E shall submit the Plan to the BLM and CPUC for review and approval at least 90 days prior to installing the landscape screening. If the BLM or CPUC notifies SDG&E that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, SDG&E shall prepare and submit for review and approval a revised Plan. The plan shall include but not necessarily be limited to:

- An 11" x 17" color simulation of the proposed landscaping at 5 years
- A plan view to scale depicting the Project and the location of screening elements
- A detailed list of any plants to be used; their size and age at planting; the expected time to maturity, and the expected height at five years and at maturity.

SDG&E shall complete installation of the screening prior to the start of project operation. SDG&E shall notify the BLM and CPUC within seven days after completing installation of the screening, that the screening components are ready for inspection.

V-21a **Reduce night lighting impacts.** SDG&E shall design and install all permanent lighting such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the Project facilities, vicinity, and nighttime sky is minimized. SDG&E shall submit a Lighting Mitigation Plan to the CPUC for review and approval at least 90 days prior to ordering any permanent exterior lighting fixtures or components. SDG&E shall not order any exterior lighting fixtures or components until the Lighting Mitigation Plan is approved by the CPUC. The Plan shall include but is not necessarily limited to the following:

- Lighting shall be designed so exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light sources is shielded to prevent light trespass outside the Project boundary
- All lighting shall be of minimum necessary brightness consistent with worker safety
- High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.

Rationale for Finding. The structural contrast and industrial character of the Modified Route D Substation will constitute significant visual impacts that will be mitigated to levels that are less than significant with implementation of Mitigation Measures V-7a, V-7b, and V-21a. These measures include reducing visual contrast of the substation, screening the substation, and reducing night-lighting.

Reference. EIR/EIS Section E.4.3

Cumulative Impact V-85 : effects from increased structure contrast, industrial character, view blockage, and skylining

Project structures (substations) will be prominently visible from many locations throughout the Project area and will introduce additional industrial character wherever they are viewable. A cumulatively considerable impact will occur if the structure contrast, industrial character, view blockages, and skylining introduced by the transmission line combined with similar effects from past, present and reasonably foreseeable projects within viewing distance of the Project. Projects whose impacts will combine with the impacts from the Project include the existing SWPL Transmission Line, I-8, the Stirling Energy Project, the Imperial Valley Substation Expansion, and residential developments such as Lakeside Downs and Lakeside Ranch.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-85. Specifically, Mitigation Measure V-7a, V-7b, and V-21a, as set forth above, are feasible and are hereby adopted to mitigate significant effects from Impacts V-85. However, even with implementation of this measure, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce the project's incremental contribution to Impacts V-85 to a less than significant level.

V-7a Reduce visual contrast associated with ancillary facilities.

V-7b Screen ancillary facilities.

V-21a Reduce night lighting impacts.

Rationale for Findings. A review of past development along the SRPL Project route as well as the reasonably foreseeable projects identified in the EIR/EIS Table G-3 shows that when combined with the effects of other projects, the Project will contribute to a significant impact. There are no other feasible mitigation measures or alternatives available to reduce the significant cumulative visual impact to a level that will be less than significant.

Reference. EIR/EIS Section G.4; Section G.4.2

III.2.3 Land Use

The land use assessment for the Project analyzed all land uses within 1000 feet of the Project alignment, which will be affected by construction and operation activities, or within one mile if the land use had national, regional, or local importance. The Project traverses federal, state, tribal, and local jurisdictions. Land use management plans adopted by these jurisdictions provided information on the type and density of development and other uses that will or do occur along the Project route. Field data was collected to confirm land uses. In addition, representatives of affected jurisdictions were contacted to gather information regarding the impacts of the Project on local, regional, and sensitive land uses. Sensitive land uses such as residences, educational institutions, and religious and health care facilities were included in the land use discussion. Recreational facilities and land uses, which are also considered sensitive land uses, are addressed in the Wilderness and Recreation section and agricultural land uses are addressed in Agriculture in this Findings document.

Impact L-1: Construction would temporarily disturb land uses at or near the alignment (Class II)

As discussed in the EIR/EIS, the increased construction activity along the entire Project route will temporarily disrupt existing community, educational, religious, residential, commercial, and industrial land uses. The construction of the Project will bring traffic and construction noise from heavy construction equipment on temporary and permanent access roads, moving building materials to the tower sites and returning to construction staging areas. The Project will impact rural residences, open space, agriculture (grazing operations), businesses (gas stations, quarry facilities, public facilities (schools, health facilities) and retail and commercial facilities. The Project will cross Cleveland National Forest and will be located on or near the MCAS Miramar.

Incorporation of APMs LU-1, LU-4, and LU-6 will help to minimize land use impacts. However, even with these measures, additional mitigation is necessary to ensure a reduction in construction disturbance, Mitigation Measure L-1a and L-1c will be implemented to reduce impact to a less than significant level.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project, which mitigate significant effects on the environment from Impact L-1. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact L-1 to a less than significant level.

L-1a **Prepare Construction Notification Plan.** Forty-five days prior to construction, SDG&E shall prepare and submit a Construction Notification Plan to the CPUC and the BLM for approval. The Plan shall identify the procedures SDG&E will use to 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 text of proposed public notices and advertisements. The plan shall address at a minimum the following components:

- **Public notice mailer.** A public notice mailer shall be prepared and mailed no less than 15 days prior to construction. The notice shall identify construction activities that would restrict, block, remove parking, 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, including all helicopter activities. SDG&E shall mail the notice to all residents or property owners within 1,000 feet of the right-of-way, any property owners or tenants that could be impacted by construction activities and specific public agencies with facilities that could be impacted by construction. If construction delays of more than seven days occur, an additional notice shall be prepared and distributed.
- **Newspaper advertisements.** Fifteen days prior to construction, within a route segment, notices shall be placed in local newspapers and bulletins, including Spanish language newspapers and bulletins. The notice shall state when and where construction will occur and provide information on the public liaison person and hotline identified below. If construction is delayed for more than seven days, an additional round of newspaper notices 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, Anza-Borrego Desert State Park offices and campgrounds, Cleveland National Forest Ranger Stations), and other public venues to inform residents and visitors to the purpose and schedule of construction

activities. For public trail closures, SDG&E shall post information on the trail detour at applicable resource management offices and post the notice on the trail within two miles of the 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.** SDG&E 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. SDG&E 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.

L-1c **Coordinate with MCAS Miramar**. At least 90 days before construction, SDG&E shall provide all required project engineering details to MCAS Miramar for review and approval. Information provided shall include access roads to be used, expanded, or added. Information shall also include completed and authorized FAR Part 77 evaluations (Form 7460-1) for all objects exceeding the Outer Horizontal Surface (978 Ft AMSL) at MCAS Miramar. SDG&E shall provide the CPUC and BLM with evidence of its coordination with MCAS Miramar at least 60 days prior to the start of construction.

When any towers are to be removed on MCAS Miramar, all portions of the towers/poles shall be removed. Cutting poles and leaving buried portions is not acceptable on MCAS Miramar lands.

Rationale for Finding. Most construction impacts will be addressed by compliance with visual, noise, traffic, air quality, and other environmental mitigation measures. Notification regarding construction activities and a procedure for responding to construction complaints or questions will further reduce land use impacts along the Project route. Mitigation Measure L-1a (Prepare Construction Notification Plan) is a comprehensive mitigation measure that ensures adequate notification of construction activities and requires a contact person in case residents or landowners have questions or concerns regarding construction activities. The contact person is especially important as a forum for the public and business owners to voice concerns during the construction process. If issues are raised, then the notification and response process allows for construction nuisances to be addressed real time. The measures also require coordination of the construction schedule to reduce disruptions to businesses and public facilities along the route. Further, because of ongoing air and ground operations on Miramar, base officials requested that SDG&E consult with them prior to construction to ensure that there are no conflicts between construction equipment and base operations. Mitigation Measure L-1c, which requires coordination with MCAS Miramar, will ensure that impacts to air and ground operations at Miramar are less than significant.

Reference. EIR/EIS Section E.1.4.2; Section E.2.4.2; Section E.4.4.2, Section D.4

Impact L-2: Presence of a project component would divide an established community or disrupt land uses at or near the alignment (Class II for Pending/Future Development)

Development is occurring rapidly in southern California, and there are new development projects entering local development approval processes continually. To reduce impacts to planned new land uses identified subsequent to Project approval by CPUC and BLM, it may be feasible to make minor adjustments to

alignment location or tower design that will accommodate pending or proposed projects without compromising the transmission line or creating new impacts to adjacent land uses that will be more adverse than the approved alignment. Preparation and implementation of a construction notification plan as required by Mitigation Measure L-1a will serve to notify landowners and tenants of pending construction. However, this notification will not provide sufficient time to investigate mitigation rerouting of the transmission line at specific parcels. Therefore, Mitigation Measure L-2b, which requires a more focused notification of property owners prior to completion of final transmission line design, reduces impacts to proposed projects to a less than significant level.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project, which mitigate significant effects on the environment from Impact L-2. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact L-2 to a less than significant level.

L-2b **Revise project elements to minimize land use conflicts.** At least 90 days prior to completing final transmission line design for the approved route, SDG&E shall notify landowners of parcels through which the alignment would pass regarding the specific location of the ROW, individual towers, staging areas, pull sites, access roads, or other facilities associated with the Project that would occur on the subject property or within 1,000 feet of the property. The notified parties shall be provided at least 30 days in which to identify conflicts with any existing structures or planned development on the subject property and to work with SDG&E to identify potential reroutes of the alignment that would be mutually acceptable to SDG&E and the landowner. Property owners whose land may be divided into potentially uneconomic parcels shall be afforded this same opportunity, even if development plans have not been established. SDG&E shall endeavor to accommodate these reroutes only to the extent that they are reasonable and feasible, do not create a substantial increase in cost, and do not create adverse impacts to resources or to other properties that would be greater in magnitude than impacts that would occur from construction and operation of the alignment as originally planned.

At or before the time property owners are notified and based on SDG&E's own review of the alignment and facilities, SDG&E shall provide CPUC and BLM a written report identifying properties that are suspected of having a land use conflict as described above. This report shall identify and characterize existing buildings within the ROW and residences or occupied structures within or adjacent to the ROW, with which the alignment or other permanent facilities may conflict.

SDG&E shall provide a written report to the CPUC and BLM providing evidence of the notice provided to landowners and copies of any responses to the notice within 30 days of the notice closing date for responses. SDG&E shall also identify in the documentation submitted to CPUC and BLM whether reroutes recommended by the landowner or SDG&E can be accommodated. Where they cannot be accommodated, the reasons shall be provided. SDG&E shall provide information sufficient for the CPUC and BLM to determine that the reroute creates no more adverse impact than the originally planned alignment location. SDG&E shall include environmental information consistent with that required for a Variance (as defined in Section I, Mitigation Monitoring). Where a reroute is proposed, the CPUC and BLM will review and agree to accept or reject individual reroutes. CPUC and BLM also may recommend compromise reroutes for any of the parcels for which responses were provided to SDG&E in a timely fashion.

The following specific modifications shall be developed by SDG&E, following the procedures defined above:

- **Interstate 8 Alternative:** MP I8-87 through I8-89.5, High Meadow Ranch. The initial alignment shall be shifted approximately 200 feet to the west, downslope, in order to minimize visual effects of the towers on the development. See Figure Ap.11C-56 for map of this area.
- **Interstate 8 Alternative:** MP I8-92 to I8-92.7, Private home. The alignment shall be shifted to the east side of Highway 67, to a point just south of the Preserve parking lot, where the alignment would cross Highway 67 to join the Proposed Project route. See Figure Ap.11C-57 for map of this area.
- **Star Valley Option Revision:** SDG&E shall work with affected landowners to refine the route in order to minimize effects on private properties along Star Valley Road.

Rationale for Finding. Mitigation Measure L-2b will reduce impacts of proposed projects by requiring that SDG&E notify landowners 90 days prior to finalization of the transmission line design. This focused notification to property owners will provide time to consider alignment reroutes and allows property owners and SDG&E flexibility in identifying route revisions that are mutually acceptable. The measure also clearly states that the reroute should not cause more impact than the Project route and not create substantial cost increases, which defines the parameters for reasonable and feasible routes. Therefore, Mitigation Measure L-2b will reduce impacts on proposed projects by allowing for flexibility in final transmission line design and future planned land uses.

Reference. EIR/EIS Section E.1.4.2

Cumulative Impact L-1: Project activities could disturb land uses along the Project route

New residential and commercial/industrial developments have been proposed or are under construction within two miles of the Project. Some of these new developments projects will be traversed by the Project (e.g., Ketchum Ranch, approximately MP I8-34). It is likely that construction of some of these projects will overlap with construction of the Project. The construction of multiple projects within the same area will create a significant cumulative construction impact if access to these land uses were precluded during construction activities.

Finding. The CPUC finds that changes or alterations have incorporated into the Project, which mitigate significant cumulative land use effects on the environment from Impact L-1. Specifically, the following mitigation measures, as set forth above, are feasible and are hereby adopted to mitigate significant cumulative effects from Impact L-1 to a less than significant level.

L-1a Prepare Construction Notification Plan

L-1c Coordinate with MCAS Miramar

L-2b Revise project elements to minimize land use conflicts

Rationale for Finding. No definitive construction schedule is currently available for the proposed residential and commercial/industrial projects listed in the EIR/EIS. It is likely that construction of some of these projects will overlap with construction of the Project. The construction of multiple project within the same area will create significant cumulative construction impact to adjacent residential, commercial, public facilities, and other land uses.

Reference. EIR/EIS Section G.3.3

III.2.4 Wilderness and Recreation

The Project is located within or adjacent to recreational resources and wilderness areas under the jurisdiction of the U.S Bureau of Land Management (BLM), National Park Service (NPS), Cleveland National Forest (CNF), San Diego County, City of San Diego, and private land-owners. In order to gather information regarding the effects of the Project on recreation and wilderness areas, representatives from each of the affected jurisdictions were contacted. Data were also collected and verified during multiple site visits between October 2006 and May 2007 to identify recreation areas and wilderness areas along the Project. Recreation and wilderness areas within the ROW of the Project and those areas that may be affected due to visual or noise impacts were included in the impact assessment.

Impact WR-1: Construction activities would temporarily reduce access and visitation to recreation or wilderness areas (Class II)

Construction activities for the Project will directly affect the following recreation areas: Plaster City ORV Open Area, Juan Bautista de Anza National Historic Trail, PCT, El Capitan Reservoir, Trans-County Trail, and Blossom Valley hang gliding and paragliding site. Since the Project directly traverses these recreation areas, all or a portion of the recreation areas will be closed at various times during construction activities for safety reasons. Additionally, the location of construction equipment along roadways will further preclude or constrain access to these recreation areas during construction.

The noise and presence of heavy equipment associated with Project construction may temporarily reduce visitation to recreation areas. Recreationists may cancel or schedule their visits to avoid construction periods thereby resulting in temporarily reduced visitation to portions of the following recreation areas: Dunaway primitive camp and Yuha Desert ACEC, Plaster City ORV Open Area, Juan Bautista de Anza National Historic Trail, Jacumba Wilderness Area, Lark Canyon Campground, Cottonwood Campground, Carrizo Gorge Wilderness Area, In-Ko-Pah Mountains ACEC, Cleveland National Forest, PCT, Hauser Mountain WSA, El Capitan Reservoir, Trans-County Trail, El Monte County Park, Stelzer County Park, Blossom Valley hang gliding and paragliding site, San Vicente Highlands, Boulder Oaks Open Space Preserve, Sycamore Canyon Open Space Preserve, and Mission Trails Regional Park.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact WR-1. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact WR-1 to a less than significant level.

WR-1a **Coordinate construction schedule and activities with the authorized officer for the recreation area.** No less than 60 days prior to construction, SDG&E shall coordinate construction activities and the Project construction schedule with the authorized officer for the recreation areas listed below. SDG&E shall schedule construction activities to avoid heavy recreational use periods in coordination with and at the discretion of the authorized officer. SDG&E shall locate construction equipment to avoid temporary preclusion of recreation areas in accordance with the recommendation of the authorized officer. SDG&E shall document its coordination efforts with the authorized officer and provide this documentation to the CPUC, BLM, and affected park jurisdictions at least 30 days prior to construction.

- BLM Dunaway Camp
- Juan Bautista de Anza National Historic Trail (County of San Diego Regional Trail)
- Trans-County Trail (County of San Diego Regional Trail)
- Pacific Crest National Scenic Trail (County of San Diego Regional Trail)
- California Riding and Hiking Trail (County of San Diego Regional Trail)
- Sycamore Canyon Open Space Preserve
- Mission Trails Regional Park

WR-1b **Provide temporary detours for trail users.** No less than 60 days prior to construction, SDG&E shall coordinate with the authorized officer of the trails listed below to establish temporary detours of the trails to avoid construction area hazards, if the trail is deemed unsafe to use during construction. Should new trail segments be constructed as detours during construction, the temporary new trail segments would be sited to avoid sensitive resources, in coordination with the authorized officer of the trail or recreation area, and would be restored to pre-construction condition by SDG&E when SRPL construction is complete, if required by the authorized officer of the trail or recreation area. SDG&E shall post a public notice of the temporary trail closure and information on the trail detour. SDG&E shall document its coordination efforts with the authorized officer and submit this documentation to the CPUC, BLM, and affected park jurisdictions at least 30 days prior to construction.

- Juan Bautista de Anza National Historic Trail
- Trans-County Trail
- Pacific Crest National Scenic Trail
- California Riding and Hiking Trail
- Mission Trails Regional Park (Fortuna, Rim, and Quarry Loop Trails)

WR-1c **Coordinate with local agencies to identify alternative recreation areas.** SDG&E shall coordinate with the authorized officer for the applicable federal, State, or local parks and recreational facilities listed below at least 60 days before construction in order to identify alternative recreation facilities that may be used by the public during construction. SDG&E shall post a public notice at recreation facilities that are to be closed or where access would be limited during project construction. SDG&E shall document its coordination efforts with the parks and recreation departments and provide this documentation to the CPUC, BLM, and all affected park jurisdictions 30 days prior to construction.

- BLM Dunaway Camp
- Juan Bautista de Anza National Historic Trail
- Trans-County Trail
- Pacific Crest National Scenic Trail
- California Riding and Hiking Trail
- Sycamore Canyon Open Space Preserve
- Mission Trails Regional Park

Rationale for Finding. The temporary closure of facilities and roads for construction activities will preclude use of recreational resources during construction. Mitigation Measure WR-1a, WR-1b, and WR-1c will require coordination of the construction schedule and activities with the authorized officer for the recreation area and will require temporary detours of trails. The mitigation will therefore minimize impacts to recreationists during peak periods and will ensure that trail users are aware of the construction and are routed away from construction area hazards and provided with alternative trails where necessary therefore reducing the impact to less than significant.

Reference. EIR/EIS Section E.1.5; Section E.2.5; Section E.4.5; Section D.5.18.4

Impact WR-3: Presence of a transmission line would permanently preclude recreational activities (Class II)

The Project will intersect the Juan Bautista de Anza National Historic Trail, the PCT, and the Trans-County Trail. If transmission support structures were sited on the trail, recreationists will be precluded from these locations. One of the proposed PCT crossings will be in the vicinity of the Hauser Mountain WSA, which can only be accessed by the PCT. As such, preclusion of access to the PCT will preclude access to the Hauser Mountain WSA, resulting in a permanent impact to these recreational resources.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact WR-3. Specifically, the following mitigation measures are feasible and is hereby adopted to mitigate significant effects from Impact WR-3 to a less than significant level.

WR-3a **Coordinate tower and road locations with the authorized officer for the recreation area.** Where the Proposed Project crosses the recreation areas listed below, SDG&E shall coordinate with the authorized officer for the recreation area to determine specific tower site and spur road locations in order to minimize impacts to recreational resources. If it is not feasible to site structures outside of a park/preserve, compensation shall be required for permanent impacts (i.e., structure footings, access roads not dually used as trails) to park/preserve land at a 1:1 ratio. However, this mitigation measure is superseded by biological resource Mitigation Measure B-1a, which specifies restoration and compensation ratios for affected vegetation. In cases where the impacts to recreational resources occur on lands already in use as mitigation for other projects, the mitigation ratios shall be doubled, as is standard practice in San Diego County.

In consultation with the authorized officer of the trail or recreation area, access roads shall not be located on trails (e.g., PCT, Trans-County Trail) unless the authorized officer determines that the construction of new access roads would result in greater impacts than modifying the trail for use as an access road. If it is not feasible to site transmission structures off of a trail, SDG&E shall provide full funding for relocation of trail segments, including planning and trail construction, at location(s) identified by the authorized officer of the trail or recreation area. Trail segment relocation shall maintain the connectivity of regional and community trails.

This coordination shall occur no less than 60 days prior to the start of construction. SDG&E shall document its coordination with the authorized officer and shall submit this documentation to the CPUC, BLM, and ABDSP, at least 30 days prior to project construction.

- Juan Bautista de Anza National Historic Trail
- Cleveland National Forest
- Trans-County Trail
- Pacific Crest National Scenic Trail
- California Riding and Hiking Trail
- San Vicente Highlands Open Space Preserve

B-1a **Provide restoration/compensation for affected sensitive vegetation communities.**

Rationale for Finding. If transmission support structures were sited on the trail, recreationists will be precluded from these locations. Mitigation Measure WR-3a requires SDG&E to coordinate with the authorized officer for the recreation area to determine specific tower site and spur road locations in order to minimize impacts to recreational resources. If it is not feasible to site transmission structures off of a trail, Mitigation Measure WR-3a requires SDG&E to provide full funding for relocation of trail segments,

including planning and trail construction, at location(s) identified by the authorized officer of the trail or recreation area. Therefore recreationists will not be precluded from recreational resource.

Reference. EIR/EIS Section E.1.5; Section E.2.5; Section E.4.5; Section D.5.18.4

Cumulative Impact WR-1: project activities would temporarily reduce access and visitation to recreation or wilderness areas (Class II)

The Project will affect a number of recreation areas as described in the above discussion for Impact WR-1. Several present and reasonably foreseeable projects identified in Table G-3 of the EIR/EIS, including the Broad Oaks Road Extension, Old Hwy 80 Improvements, the Slope Residential Development, Sky Mesa Ranch Residential Development, and Carroll Residential Development, will also result in temporary impacts to these recreational resources. If construction activities of some or all of these projects occurred concurrently or consecutively with construction of the Project, access to these recreation areas will likely be substantially reduced.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact WR-1. Specifically, the following mitigation measures, as set forth above, are feasible and are hereby adopted to mitigate significant cumulative effects from Impact WR-1 to a less than significant level.

WR-1a **Coordinate construction schedule and activities with the authorized officer for the recreation area.**

WR-1b **Provide temporary detours for trail users.**

WR-1c **Coordinate with local agencies to identify alternative recreation areas.**

Rationale for Finding. Past projects will not contribute to this impact. As such, only current and reasonably foreseeable projects were considered for the Impact WR-1 cumulative analysis. Several projects have been identified that will temporarily reduce access and visitation to recreational resources also affected by the Project, and the simultaneous or consecutive construction of these projects will create a significant cumulative impact. Implementation of Mitigation Measures WR-1a, WR-1b, and WR-1c will reduce the Project's contribution to this impact to less than considerable by providing alternate routes and temporary detours for recreationists.

Reference. EIR/EIS Section G.3.4; Section G.4.1.5; Section G.4.2

Cumulative Impact WR-3: Project activities would permanently preclude recreational activities (Class II)

Placement of Project structures on nature trails will permanently preclude the use of some trails and campgrounds. The Project will also be constructed overhead between the launch and landing pads of the Blossom Valley hang gliding and paragliding site, thereby precluding use of this area. Past projects, including construction of roads and freeways, as well as residential, industrial and commercial development have permanently precluded use of various areas throughout the Project. However, none of the current and reasonably foreseeable projects identified in Table G-3 of the EIR/EIS are expected to permanently preclude use of recreation areas within the Project area.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact WR-3. Specifically, the following

mitigation measure, as set forth above, is feasible and is hereby adopted to mitigate significant cumulative effects from Impact WR-3 to a less than significant level.

WR-3a Coordinate tower and road locations with the authorized officer for the recreation area.

Rationale for Finding. Although it is unknown to what extent past projects have precluded recreational activities, it is conservatively assumed that further restriction of recreational activities from implementation of the Project will combine with past projects to result in a significant impact. However, Mitigation Measure WR-3a will render the Project's contribution to this impact less than considerable by placing structures in locations such that permanent restriction of use will not occur. Although the Project will permanently preclude use of the Blossom Valley hang gliding and paragliding site, there are no other projects that will contribute to a cumulative effect at this site.

Reference. EIR/EIS Section G.3.4; Section G.4.1.5; Section G.4.2

III.2.5 Agriculture

In order to identify resources and lands designated for agriculture, data were obtained from the DOC and applicable local sources. Specifically, these data include mapped locations of DOC Important Farmland as well as Williamson Act contract lands and Agricultural Preserves. In addition, information regarding active agriculture was obtained from aerial photographs, local landowners/operators, and field reconnaissance. For purposes of this analysis, lands within 500 feet of the edge of the ROW for the Proposed Project or alternative were mapped in order to determine the existing agricultural setting for the Proposed Project and alternatives, and to identify the types of Agricultural Resources affected. Finally, data regarding agricultural-related operation, health, and safety issues (e.g., obstruction of and disturbance to agricultural land and operations, interference with aerial spraying applications, exposure of livestock to stray voltage and EMF, and avian perching near vineyards) were obtained from local farm bureaus, published literature, agricultural operators, and previous investigations.

Impact AG-1: Construction activities would temporarily interfere with Active Agricultural Operations (Class II)

Impacts related to the disruption of agricultural operations during construction activities will occur at MP I8-33 through -35, MP I8-38 through -40, MP I8-73.6 through -76, MP I8-78 through -79.6, MP BCD-0 through -8, MP BCD-10 through -12, MP BCDS-0 through -5.4 MP MRD-3.6 through 6, MP MRD-8 through 10, MP MRD-8 through -21, MP MRD-22 through -28, and MP MRD-30 through -36.3, MP SV-0 through SV-1 and SV-2 through SV-3. These impacts will include disruptions relating to the use of farm vehicles and equipment as well as private drainage and irrigation systems (including self-propelled irrigation rigs). During construction, soils will become compacted as a result of vehicles and construction equipment traversing them. Compaction of agricultural soils, left unaddressed, will impact subsequent agricultural operations. This will be a significant impact.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact AG-1. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact AG-1 to a less than significant level.

AG-1a **Avoid interference with agricultural operations.** The Applicant shall coordinate with property owners and tenants to ensure that project construction will be conducted so as to avoid or minimize interference with agricultural operations. Agricultural operations include, but are

not limited to, the use of farm vehicles and equipment, access to property; water delivery, drainage, and irrigation.

AG-1b **Restore compacted soil.** The Applicant shall restore soils compacted or disturbed such as by excavation during construction by conferring with the property owner or tenant to identify and then implement a mutually agreed means to restore such soils. Restoration actions may include, but are not be limited to, disking, plowing, removal of excavated soil, or other suitable restoration methods.

AG-1c **Coordinate with grazing operators.** SDG&E shall coordinate with grazing operators to ensure that agricultural productivity and animal welfare are maintained both during and after construction to the maximum extent feasible. Coordination efforts will address issues including, but not necessarily limited to:

- Interference with access to water (e.g., provide alternate methods for livestock access to water)
- Impairment of cattle movements (e.g., provide alternate routes; reconfigure fencing/gates)
- Removal and replacement of fencing (e.g., during construction install temporary fencing/ barriers, as appropriate, and following construction restore equal or better fencing to that which was removed or damaged)
- Impacts to facilities such as corrals and watering structures, as well as related effects such as ingress/egress, and management activities (e.g., replacement of damaged/removed facilities in kind; provide alternate access)

Rationale for Finding. The mitigation listed above will ensure that Project construction will avoid or minimize interference with agricultural operations and that compacted soils within DOC Farmland be restored to a mutually agreed upon condition. The mitigation will require SDG&E to coordinate with grazing operators to ensure that agricultural productivity and animal welfare are maintained both during and after construction to the maximum extent feasible. Implementation of this mitigation will reduce impacts to active agriculture operations to a less than significant level.

Reference. EIR/EIS Section E.1.6; Section E.2.6; Section E.4.6; Section D.6

Impact AG-3: Operation would permanently interfere with Active Agricultural Operations (Class II for Disruption of Livestock Grazing)

In addition to the permanent loss of land under Active Agricultural Operation, the Project will result in other adverse agricultural impacts in the vicinity of the Project including disrupting livestock grazing operations at MP I8-38 – I8-40, MP I8-73.6 – I8-76, MP I8-78 – I8-79.6, MP BCD-0 – BCD-8, MP BCD-10 – BCD-12, BCDS-0 – BCD-5.4, MP MRD-3 – MRD-6, MRD-8 – MRD-21, MRD-22 – MRD-28, MRD-30 – MRD-36.3, MP SVO-0 – SVO-1, and SVO-2 – SVO-3.

Incorporation of APM LU-7 will ensure that the location of Project facilities are matched to existing facilities (where feasible and appropriate), and incorporation of APM LU-10 will ensure that facilities are installed along the edges of private property (also where feasible and appropriate). If facilities cannot be located along property or field boundaries, APM LU-7 will ensure that SDG&E consult with affected property owners to identify facility locations that will create the least potential for impact. Incorporation of these APMs will minimize impacts to farming operations through avoidance of areas to the greatest extent feasible, but such impacts will not be reduced to a less than significant level. Implementation of

Mitigation Measure AG-1a will ensure that impacts relating to the disruption of Active Agricultural Operations will be mitigated to a less than significant level (Class II).

Activities associated with grazing livestock, such as cattle movement, access to water, feeding, and shipping of livestock, will be permanently impeded by new access roads and towers, as well as associated routine maintenance activities. As such, presence of the Project will disrupt livestock grazing operations, a significant impact. Implementation of Mitigation Measure AG-1c will ensure that impacts to livestock grazing operations will be mitigated to a less than significant level (Class II).

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact AG-3. Specifically, the following mitigation measures, as set forth above, are feasible and are hereby adopted to mitigate significant effects from Impact AG-3 to a less than significant level.

AG-1a Avoid interference with agricultural operations.

AG-1c Coordinate with grazing operators.

Rationale for Finding. The mitigation listed above will ensure that Project construction will avoid or minimize interference with agricultural operations. The mitigation will require SDG&E to coordinate with grazing operators to ensure that agricultural productivity and animal welfare are maintained both during and after construction to the maximum extent feasible. Implementation of this mitigation will reduce impacts to active agriculture operations to a less than significant level.

References. EIR/EIS Section E.1.6; Section E.2.6; Section E.4.6; Section D.6

III.2.6 Cultural and Paleontological Resources

As described in Section D.7.1 of the EIR/EIS, a cultural resource is defined as any object or specific location of past human activity, occupation, or use, identifiable through historical documentation, inventory, or oral evidence. Cultural resources can be separated into three categories: archaeological, building and structural, and traditional resources.

Cultural resource investigations are defined along a gradient according to the intensity of research performed (i.e., BLM Class I Inventory – literature search, BLM Class II Inventory – reconnaissance inventory, BLM Class III Inventory – intensive cultural resource inventory). In preparing this analysis, the EIR/EIS team conducted multiple records searches at various repositories of cultural resources information for the Project route, including a 0.5-mile radius around the Project, the standard coverage for BLM Class I inventories. In consultation with BLM, the EIR/EIS team used a 30 percent BLM Class II survey sample for this analysis.

Impact C-1: Construction of the Project would cause an adverse change to known historic properties (Class II)

As discussed in the EIR/EIS Sections D.7, E.1.7, E.2.7, and E.4.7, many cultural sites that are eligible for listing on the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR) will be directly impacted by the Project. Prehistoric resources along the Project route include village and habitation sites, temporary camps, rockshelters, lithic and ceramic artifact scatters, roasting pits, bedrock milling features, trails, and isolated artifacts. Historical resources within 150 feet of the Project centerline include residential and industrial buildings, artifact scatters, roads, railroads, cairns,

mines, quarries, and isolated artifacts. Undiscovered cultural resources may also be encountered during additional surveys or Project construction.

As projected on the basis of the known distribution and density of resources along the Project route, additional resources, that include isolated resources, may be encountered during additional surveys conducted prior to construction. These resources include prehistoric artifact scatters, temporary camps, bedrock milling stations, habitation sites (possibly including human burials or cremations), or historic roads or refuse pits. Section III.3.6 (Cultural and Paleontological Resources) discusses the significant and unavoidable impacts related to Native American human remains. The SWPL Archaeological Reroute was created to reduce cultural resources impacts to a large and newly-discovered cultural site; however, the impact would remain significant and mitigable (Class II) along this segment.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project, which mitigate significant effects on the environment from Impact C-1. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact C-1 (not including impacts related to Native American human remains) to a less than significant level.

C-1a **Inventory and evaluate cultural resources in Final APE.** Prior to construction and all other surface disturbing activities, the Applicant shall have conducted and submitted for approval by the BLM and CPUC an inventory of cultural resources within the Project's final Areas of Potential Effect.[2] This survey will supplement inventories conducted for the EIS/EIR and shall satisfy Section 106 requirements for inventory of historic properties within all Areas of Potential Effect. The nature and extent of this inventory shall be determined by the BLM and CPUC in consultation with the appropriate State Historic Preservation Officer (SHPO) and other land-managing agencies (e.g., Anza-Borrego Desert State Park, U.S. Forest Service, Bureau of Indian Affairs, etc.) and shall be based upon project engineering specifications and in accordance with the Secretary of the Interior's Standards and Guidelines (Secretary's Standards) (36 CFR 61).

A report documenting results of this inventory shall be filed with appropriate State repositories and local governments. As part of the inventory report, the Applicant shall evaluate the significance of all potentially affected cultural resources on the basis of surface observations Evaluations shall be conducted by professionals meeting the Secretary's Standards and in accordance with those Standards, to provide recommendations with regard to their eligibility for the NRHP, CRHR, or local registers. Preliminary determinations of NRHP eligibility will be made by the BLM, in consultation with the CPUC and other appropriate agencies and local governments, and the SHPO.

As part of the inventory, the Applicant shall conduct field surveys of sufficient nature and extent to identify cultural resources that would be affected by tower pad construction, reconductoring activities, trenching for underground transmission lines, access road installation, and transmission line construction and operation. At a minimum, field surveys shall be conducted along newly proposed access roads, new construction yards, new tower sites, and any other projected areas of potential ground disturbance outside of the previously surveyed potential impact areas. Site-specific field surveys also shall be undertaken at all projected areas of impact within the previously surveyed corridor that coincide with previously recorded

[2] Area of Potential Effect is the horizontal and vertical extent of anticipated impacts that could affect historic properties. This includes direct impacts (physical disturbance from any project activity during or after construction) and indirect impacts, such as noise, vibration, visual intrusion, or erosion.

resource locations. The selected right-of-way and tower locations shall be staked prior to the cultural resource field surveys.

C-1b **Avoid and protect potentially significant resources.** Where feasible, potentially register-eligible resources and register-eligible resources shall be protected from direct project impacts by project redesign; complete avoidance of impacts to such resources shall be the preferred protection strategy. On the basis of preliminary National Register of Historic Places (NRHP) eligibility assessments (Mitigation Measure C-1a) or previous determinations of resource eligibility, the BLM and CPUC, in consultation with the SHPO, may request the relocation of the line, ancillary facilities, or temporary facilities or work areas, if any, where relocation would avoid or reduce damage to cultural resource values.

Where the BLM and CPUC, in consultation with the Applicant decide that potentially NRHP- and/or CRHR-eligible cultural resources cannot be protected from direct impacts by project redesign, or that avoidance is not feasible, the Applicant shall undertake additional studies to evaluate the resources' NRHP- and/or CRHR-eligibility and to recommend further mitigative treatment. The nature and extent of this evaluation shall be determined by the BLM in consultation with the CPUC and the SHPO and shall be based upon final project engineering specifications. Evaluations will be based on surface remains, subsurface testing, archival and ethnographic resources, and in the framework of the historic context and important research questions of the Project area. Results of those evaluation studies and recommendations for mitigation of project effects shall be incorporated into a Historic Properties Treatment Plan consistent with Mitigation Measure C-1c (Develop and implement Historic Properties Treatment Plan).

All potentially NRHP- and/or CRHR-eligible resources (as determined by the BLM and CPUC, in consultation with the SHPO) that will not be affected by direct impacts, but are within 50 feet of direct impact areas, will be designated as Environmentally Sensitive Areas (ESAs) to ensure that construction activities do not encroach on site peripheries. Protective fencing, or other markers (after approval by CPUC/BLM), shall be erected and maintained to protect ESAs from inadvertent trespass for the duration of construction in the vicinity. ESAs shall not be identified specifically as cultural resources. A monitoring program shall be developed as part of a Historic Properties Treatment Plan and implemented by the Applicant to ensure the effectiveness of ESA protection (as detailed in Mitigation Measure C-1e).

C-1c **Develop and implement Historic Properties Treatment Plan.** Upon approval of the inventory report and the National Register of Historic Places (NRHP)-eligibility and CRHR-eligibility evaluations consistent with Mitigation Measures C-1a (Inventory and evaluate cultural resources in Final APE) and C-1b (Avoid and protect potentially significant resources), the Applicant shall prepare and submit for approval a Historic Properties Treatment Plan (HPTP) for register-eligible cultural resources to avoid or mitigate identified potential impacts. Treatment of cultural resources shall follow the procedures established by the Advisory Council on Historic Preservation for compliance with Section 106 of the National Historic Preservation Act and other appropriate State and local regulations, as explicated in Section D.7.8. Avoidance, recordation, and data recovery will be used as mitigation alternatives; avoidance and protection shall be the preferred strategy. The HPTP shall be submitted to the BLM and CPUC for review and approval.

As part of the HPTP, the Applicant shall prepare a research design and a scope of work for evaluation of cultural resources and for data recovery or additional treatment of NRHP- and/or CRHR-eligible sites that cannot be avoided. Data recovery on most resources would consist of sample excavation and/or surface artifact collection, and site documentation. A

possible exception would be a site where burials, cremations, or sacred features are discovered that cannot be avoided (see Mitigation Measure C-2).

The HPTP shall define and map all known NRHP- and/or CRHR-eligible properties in or within 50 feet of all project APEs and shall identify the cultural values that contribute to their NRHP- and/or CRHR-eligibility. The HPTP shall also detail how NRHP- and/or CRHR-eligible properties will be marked and protected as ESAs (in accordance with Mitigation Measure C-1b) during construction.

The HPTP shall also define any additional areas that are considered to be of high-sensitivity for discovery of buried register-eligible cultural resources, including burials, cremations, or sacred features. This sensitivity evaluation shall be conducted by an archaeologist who meets the Secretary's Standards and who takes into account geomorphic setting and surrounding distributions of archaeological deposits. The HPTP shall detail provisions for monitoring construction in these high-sensitivity areas for proper implementation of Mitigation Measures C-1e and C-3a. It shall also detail procedures for halting construction, making appropriate notifications to agencies, officials, and Native Americans, and assessing register-eligibility in the event that unknown cultural resources are discovered during construction. For all unanticipated cultural resource discoveries, the HPTP shall detail the methods, consultation procedures, and timelines for assessing register-eligibility, formulating a mitigation plan, and implementing treatment. Mitigation and treatment plans for unanticipated discoveries shall be approved by the BLM and CPUC, other appropriate agencies and local governments, appropriate Native Americans, and the SHPO prior to implementation.

The HPTP shall also identify all historic built environment resources (structures, roads, dams, etc.) that would be affected indirectly by visual intrusion of the Proposed Project on qualities that contribute to their register eligibility. Although the current analysis has assessed the potential for indirect visual impacts to previously recorded historic built environment resources within 0.5 miles of the Proposed Project and Alternatives, the HPTP shall include an identification effort focused on identifying any such resources that may not have been previously recorded. The scope of this identification effort shall be in accordance with 36 CFR 800, which requires a reasonable effort to identify potentially NRHP-eligible resources that would be adversely affected by indirect project impacts. The HPTP shall also detail the treatment for each affected resource that will minimize those long-term visual impacts (as detailed in Mitigation Measure C-6a).

The HPTP 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. The Applicant shall attempt to gain permission for artifacts from privately held land to be curated with the other project collections. The HPTP shall specify that archaeologists and other discipline specialists conducting the studies meet the Secretary's Standards (per 36 CFR 61).

C-1d **Conduct data recovery to reduce adverse effects.** If NRHP- and/or CRHR-eligible resources, as determined by the BLM and SHPO, cannot be protected from direct impacts of the Proposed Project, data-recovery investigations shall be conducted by the Applicant to reduce adverse effects to the characteristics of each property that contribute to its NRHP- and/or CRHR-eligibility. For sites eligible under Criterion (d), significant data would be recovered through

excavation and analysis. For properties eligible under Criteria (a), (b), or (c), data recovery may include historical documentation, photography, collection of oral histories, architectural or engineering documentation, preparation of a scholarly work, or some form of public awareness or interpretation. Data gathered during the evaluation phase studies and the research design element of the Historic Properties Treatment Plan (HPTP) shall guide plans and data thresholds for data recovery; treatment will be based on the resource's research potential beyond that realized during resource recordation and evaluation studies. If data recovery is necessary, sampling for data-recovery excavations will follow standard statistical sampling methods, but sampling will be confined, as much as possible, to the direct impact area. Data-recovery methods, sample sizes, and procedures shall be detailed in the HPTP consistent with Mitigation Measure C-1c (Develop and implement Historic Properties Treatment Plan) and implemented by the Applicant only after approval by the BLM and CPUC. Following any field investigations required for data recovery, the Applicant shall document the field studies and findings, including an assessment of whether adequate data were recovered to reduce adverse project effects, in a brief field closure report. The field closure report shall be submitted to the BLM and CPUC for their review and approval, as well as to appropriate State repositories, local governments, and other appropriate agencies. Construction work within 100 feet of cultural resources that require data-recovery fieldwork shall not begin until authorized by the BLM or CPUC, as appropriate, to ensure that impacts to known significant archaeological deposits are adequately mitigated.

C-1e **Monitor construction at known ESAs.** The Applicant shall implement full-time archaeological monitoring by a professional archaeologist during ground-disturbing activities at all cultural resource Environmentally Sensitive Areas (ESAs). These locations and their protection boundaries shall be defined and mapped in the HPTP.

Archaeological monitoring shall be conducted by a qualified archaeologist familiar with the types of historical and prehistoric resources that could be encountered within the Project, and under direct supervision of a principal archaeologist. The qualifications of the principal archaeologist and archaeological monitors shall be approved by the BLM and CPUC.

A Native American monitor may be required at culturally sensitive locations specified by the BLM following government-to-government consultation with Native American tribes. The monitoring plan in the HPTP shall indicate the locations where Native American monitors will be required and shall specify the tribal affiliation of the required Native American monitor for each location. The Applicant shall retain and schedule any required Native American monitors.

Compliance with and effectiveness of any cultural resources monitoring required by an HPTP shall be documented by the Applicant in a monthly report to be submitted to the BLM and CPUC for the duration of project construction. In the event that cultural resources are not properly protected by ESAs, all project work in the immediate vicinity shall be diverted to a buffer distance determined by the archaeological monitor until authorization to resume work has been granted by the BLM and CPUC.

The Applicant shall notify the BLM of any damage to cultural resource ESAs. If such damage occurs, the Applicant shall consult with the BLM and CPUC to mitigate damages and to increase effectiveness of ESAs. At the discretion of the BLM and CPUC, such mitigation may include, but not be limited to, modification of protective measures, refinement of monitoring protocols, data-recovery investigations, or payment of compensatory damages in the form of non-destructive cultural resources studies or protection within or outside the license area, at the discretion of the BLM.

C-1f **Train construction personnel.** All construction personnel shall be trained regarding the recognition of possible buried cultural remains and protection of all cultural resources, including prehistoric and historic resources during construction, prior to the initiation of construction or ground-disturbing activities. The Applicant shall complete training for all construction personnel and retain documentation showing when training of personnel was completed. Training shall inform all construction personnel of the procedures to be followed upon the discovery of archaeological materials, including Native American burials. Training shall inform all construction personnel that Environmentally Sensitive Areas (ESAs) must be avoided and that travel and construction activity must be confined to designated roads and areas. All personnel shall be instructed that unauthorized collection or disturbance of artifacts or other cultural materials 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:

- All construction contracts shall require construction personnel to attend training so they are aware of the potential for inadvertently exposing buried archaeological deposits, their responsibility to avoid and protect all cultural resources, and the penalties for collection, vandalism, or inadvertent destruction of cultural resources.
- The Applicant shall provide training for supervisory construction personnel describing the potential for exposing cultural resources, the location of any potential ESA, and procedures and notifications required in the event of discoveries by project personnel or archaeological monitors. Supervisors shall also be briefed on the consequences of intentional or inadvertent damage to cultural resources. Supervisory personnel shall enforce restrictions on collection or disturbance of artifacts or other cultural resources.

C-1g **Avoid and protect Old Highway 80 (P-37-024023).** A portion of the Interstate 8 Alternative would be constructed underground within Alpine Boulevard; from approximately MP 74.3 to MP 80 of this underground segment, Alpine Boulevard is also Old Highway 80. Construction impacts to contributing elements of this resource shall be minimized by avoidance of highway segments that retain integrity, as well as associated historic road signs and monuments located on the shoulder. If avoidance is not possible, affected segments shall be formally evaluated to assess their contribution to the NRHP eligibility of the resource as a whole. Additional protective measures are required to reduce adverse effects include formal documentation (i.e., HABS/HAER), and interpretive signage.

Rationale for Finding. To address impacts to cultural resources, Mitigation Measure C-1a requires SDG&E to conduct an inventory of cultural resources within the Area of Potential Effect in order to satisfy Section 106 requirements. Under Mitigation Measure C-1b, Project redesign will be used to protect register-eligible resources per the discretion of the BLM and CPUC in consultation with the State Historic Preservation Officer (SHPO). Register-eligible resources within 50 feet of direct impact areas will be designated as ESAs to ensure that they are not encroached upon during construction. SDG&E will prepare a Historic Properties Treatment Plan to avoid or mitigate identified impacts to eligible resources, per Mitigation Measure C-1c, and for resources that cannot be protected from direct impacts, Mitigation Measure C-1d requires SDG&E to conduct data-recovery investigations to reduce adverse effects. Mitigation Measures C-1e and C-1f require archaeological monitoring along the route and the training of construction personnel to recognize possible buried cultural remains and protect cultural resources. Impacts to Old

Highway 80 (P-37-024023) will also be minimized through Mitigation Measure C-1g, which requires SDG&E to avoid construction along portions of this resource that retain integrity as a historic route.

Reference. EIR/EIS Section E.1.7; Section E.2.7; Section E.4.7; Section D.7

Impact C-3: Construction of the Project would cause an adverse change to unknown significant buried prehistoric and historical archaeological sites or buried Native American human remains (Class II)

Sites exhibiting a broad range of past human activity have been identified within the Project area. Types of subsurface features that may be encountered along the Project include prehistoric resources such as buried living surfaces, artifact deposits, hearths, burials, and cremations. Historical resources that may be unearthed during Project construction include refuse pits, privies, and structural foundations. Buried archaeological resources may be encountered during vegetation removal at tower and pull site locations, grading of access roads, or excavation associated with tower construction or undergrounding of power lines. Section III.3.6 (Cultural and Paleontological Resources) discusses the significant and unavoidable impacts related to Native American human remains.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact C-3. Specifically, the following mitigation measures, and as set forth above, are feasible and are hereby adopted to mitigate significant effects from Impact C-3 (not including impacts related to Native American human remains) to a less than significant level.

C-1c **Develop and implement Historic Properties Treatment Plan.**

C-1d **Conduct data recovery to reduce adverse effects.**

C-1f **Train construction personnel.**

C-2a **Properly treat human remains.** All locations of known Native American human remains shall be avoided through project design and shall be protected by designation as ESAs. If the approved project route will affect sites known to contain human remains that cannot be avoided in their entirety during construction, the Applicant shall contact the California Native American Heritage Commission (NAHC). The NAHC will identify the Most Likely Descendant (MLD), within 48 hours, who will specify the preferred course of treatment in the event that additional human remains are discovered. The Applicant shall also contact the BLM (lead federal agency for the Proposed Project) and any additional land management agencies if the site is located on public lands administered by a State or federal agency other than the BLM. The Applicant shall follow all State and federal laws, statutes, and regulations that govern the treatment of human remains (see EIR/EIS Section D.7.7). The Applicant shall assist and support the BLM in all required government-to-government consultations with Native Americans and appropriate agencies and commissions, as requested by the BLM. The Applicant shall comply with and implement all required actions and studies that result from such consultations.

If human remains are discovered during construction, all work shall be diverted from the area of the discovery and the BLM authorized officer shall be informed immediately. The Applicant shall follow all State and federal laws, statutes, and regulations that govern the treatment of human remains. The Applicant shall assist and support the BLM in all required government-to-government consultations with Native Americans and appropriate agencies and commissions, as requested by the BLM. The Applicant shall comply with and implement all required actions and studies that result from such consultations, as directed by the BLM.

Although subject to the recommendations of the MLD, it is likely that the human remains would be respectfully removed by the MLD and/or qualified archaeologists and reinterred in an area not subject to impacts from the Proposed Project. The re-interment location may be identified as a nearby locale within SDG&E ROW, or an off-site location may be selected. The Applicant shall assist and support the MLD in identifying, acquiring, and protecting the re-interment location.

C-3a **Monitor construction in areas of high sensitivity for buried resources.** The Applicant shall implement archaeological monitoring by a professional archaeologist during subsurface construction disturbance at all locations identified in the Historic Properties Treatment Plan (HPTP) as highly sensitive for buried prehistoric or historical archaeological sites or Native American human remains. These locations and their protection boundaries shall be defined and mapped in the HPTP. Intermittent monitoring may occur in areas of moderate archaeological sensitivity at the discretion of the BLM and CPUC. Monitoring shall be conducted in accordance with procedures detailed in Mitigation Measure C-1e

Upon discovery of potential buried cultural materials by archaeologists or construction personnel, or damage to an ESA, work in the immediate area of the find shall be diverted and the Applicant's archaeologist notified. Once the find has been inspected and a preliminary assessment made, the Applicant's archaeologist will consult with the BLM or CPUC, as appropriate, to make the necessary plans for evaluation and treatment of the find(s) or mitigation of adverse effects to ESAs, in accordance with the Secretary's Standards, and as specified in the HPTP.

Rationale for Finding. The following describes the mitigation measures that will be implemented to minimize Project impacts on unknown significant buried prehistoric and historical archaeological sites. Mitigation Measure C-1c directs SDG&E to prepare a Historic Properties Treatment Plan for the avoidance or mitigation of impacts to eligible resources. For resources that cannot be protected from direct impacts, Mitigation Measure C-1d requires SDG&E to conduct data-recovery investigations to reduce adverse effects. Per Mitigation Measure C-1f, construction personnel will be trained to recognize possible buried cultural remains and to protect cultural resources. Section III.3.6 (Cultural and Paleontological Resources) discusses implementation of Mitigation Measures C-2a and C-3a in addressing impacts related to Native American human remains.

Reference. EIR/EIS Section E.1.7; Section E.2.7; Section E.4.7; Section D.7

Impact C-4: Construction of the Project would cause an adverse change to Traditional Cultural Properties (Class II)

To date, no Traditional Cultural Properties (TCPs) have been identified that will be directly impacted by the Project. However, Native American consultation has indicated that there are prehistoric rock art sites, springs, and sacred mountains in the vicinity of the Project. Additionally, the Sacred Lands File search conducted for the Project noted that lands sacred to Native Americans are present in the vicinity of the Project, in undisclosed locations.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact C-4. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact C-4 to a less than significant level.

C-4a **Complete consultation with Native American and other Traditional Groups.** The Applicant shall provide assistance to the BLM, as requested by the BLM, to complete required government-to-government consultation with interested Native American tribes and individuals (Executive Memorandum of April 29, 1994 and Section 106 of the National Historic Preservation Act) and other Traditional Groups to assess the impact of the approved project on Traditional Cultural Properties or other resources of Native American concern, such as sacred sites and landscapes, or areas of traditional plant gathering for food, medicine, basket weaving, or ceremonial uses. As directed by the BLM, the Applicant shall undertake required treatments, studies, or other actions that result from such consultation. Written documentation of the completion of all pre-construction actions shall be submitted by the Applicant and approved by the BLM at least 30 days before commencement of construction activities. Actions that are required during or after construction shall be defined, detailed, and scheduled in the Historic Properties Treatment Plan and implemented by the Applicant, consistent with Mitigation Measure C-1c (Develop and implement Historic Properties Treatment Plan).

Rationale for Finding. The BLM, as the Federal Lead Agency under NEPA and Section 106 of the National Historic Preservation Act, has initiated government-to-government consultation with appropriate Native American groups and notification to other public groups regarding Project effects on traditional cultural values. The consultation will determine whether there are TCPs that are affected by the Project. Though impacts to TCPs are often significant and unmitigable, Mitigation Measure C-4a will require SDG&E to assist the BLM with Native American consultations and to undertake required treatments, studies, or other actions that result from such consultation. Mitigation Measure C-4a will reduce Impact C-4 to a less than significant level.

Reference. EIR/EIS Section E.1.7; Section E.2.7; Section E.4.7; Section D.7

Impact C-5: Operation and long-term presence of the Project would cause an adverse change to known historic properties (Class II)

Direct and indirect impacts will occur to historic properties within and in the vicinity of the Project area during operation and long-term presence of the Project. If the known archaeological sites or any of the yet to be discovered archaeological sites are determined register-eligible, they will be subject to long-term and operational impacts from maintenance or repair activities. Increased erosion may result as an indirect Project impact. Section III.3.6 (Cultural and Paleontological Resources) discusses the significant and unavoidable impacts related to human remains.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact C-5. Specifically, the following mitigation measures, and as set forth above, are feasible and are hereby adopted to mitigate significant effects from Impact C-5 (not including impacts related to human remains) to a less than significant level.

C-1b **Avoid and protect potentially significant resources.**

C-1c **Develop and implement Historic Properties Treatment Plan.**

C-2a **Properly treat human remains.**

C-4a **Complete consultation with Native American and other Traditional Groups.**

C-5a **Protect and monitor NRHP- and/or CRHR-eligible properties.** The Applicant shall design and implement a long-term plan to protect National Register of Historic Places (NRHP- and/or CRHR)-eligible sites from direct impacts of project operation and maintenance and

from indirect impacts (such as erosion and access) that could result from the presence of the Project. The plan shall be developed in consultation with the BLM to design measures that will be effective against project maintenance impacts, such as vegetation clearing and road and tower maintenance, and project-related vehicular impacts. The plan shall also include protective measures for NRHP- and/or CRHR-eligible properties within the transmission line corridor that will experience operational and access impacts as a result of the Proposed Project. Measures considered shall include restrictive fencing or gates, permanent access road closures, signage, stabilization of potential erosive areas, site capping, site patrols, and interpretive/educational programs, or other measures that will be effective for protecting NRHP- and/or CRHR-eligible properties. The plan shall be property specific and shall include provisions for monitoring and reporting its effectiveness and for addressing inadequacies or failures that result in damage to NRHP- and/or CRHR-eligible properties. The plan shall be submitted to the BLM, CPUC, and other appropriate land-managing agencies for review and approval at least 30 days prior to project operation.

Monitoring of sites selected during consultation with BLM shall be conducted annually by a professional archaeologist for a period of five years. Monitoring shall include inspection of all site loci and defined surface features, documented by photographs from fixed photo monitoring stations and written observations. A monitoring report shall be submitted to the BLM, CPUC, and other appropriate land-managing agencies within one month following the annual resource monitoring. The report shall indicate any properties that have been affected by erosion or vehicle or maintenance impacts. For properties that have been impacted, the Applicant shall provide recommendations for mitigating impacts and for improving protective measures. After the fifth year of resource monitoring, the BLM, CPUC, or other land-managing agency, as appropriate, will evaluate the effectiveness of the protective measures and the monitoring program. Based on that evaluation, the BLM or CPUC may require that the Applicant revise or refine the protective measures, or alter the monitoring protocol or schedule. If the BLM does not authorize alteration of the monitoring protocol or schedule, those shall remain in effect for the duration of project operation.

If the annual monitoring program identifies adverse effects to National Register of Historic Places (NRHP- and/or CRHR)-eligible properties from operation or long-term presence of the Project, or if, at any time, the Applicant, BLM, CPUC, or other appropriate land-managing agency become aware of such adverse effects, the Applicant shall notify the BLM and CPUC immediately and implement additional protective measures, as directed by the BLM and CPUC. At the discretion of the BLM and CPUC, such measures may include, but not be limited to, refinement of monitoring protocols, data-recovery investigations, or payment of compensatory damages in the form of non-destructive cultural resources studies or protection.

Rationale for Finding. The following describes the mitigation measures that will be implemented to minimize operational and maintenance impacts on historic properties. Under Mitigation Measure C-1b, Project redesign will be used to protect register-eligible resources per the discretion of the BLM and CPUC in consultation with the State Historic Preservation Officer (SHPO). Register-eligible resources within 50 feet of direct impact areas will be designated as ESAs to ensure that they are not encroached upon during construction. Mitigation Measure C-1c directs SDG&E to prepare a Historic Properties Treatment Plan for the avoidance or mitigation of impacts to eligible resources. Per Mitigation Measure C-2a, SDG&E will avoid known Native American human remains through Project design and ESA designation. Mitigation Measure C-4a will require SDG&E to assist the BLM with Native American consultations and to undertake required treatments, studies, or other actions that result from such consulta-

tion. Mitigation Measure C-5a details site protection measures and monitoring procedures that will be implemented by SDG&E.

Reference. EIR/EIS Section E.1.7; Section E.2.7; Section E.4.7; Section D.7

Impact C-6: Long-term presence of the Project would cause an adverse change to known historic architectural (built environment) resources (Class II)

The presence of transmission lines and towers will result in an indirect visual impact to NRHP- and/or CRHR-eligible built environment resources such as buildings, structures, and historic districts located near the Project. Impacted historic architectural resources will include portions of Old Highway 80 and the NRHP-listed Desert View Tower.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project, which mitigate significant effects on the environment from Impact C-6. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact C-6 to a less than significant level.

C-6a **Reduce adverse visual intrusions to historic built environment properties.** All known historic built environment resources located within 0.5 miles of the Proposed Project shall be inventoried and subjected to a visual analysis to assess which resources would be subject to potential indirect visual intrusions resulting from the Project. This inventory will supplement the analysis of built environment resources conducted for the EIS/EIR, and shall meet the requirements of Section 106 to inventory historic properties that could be adversely affected by the Proposed Project. The Applicant shall inventory potentially register-eligible built environment resources within an Area of Potential Indirect Effect established by the BLM and CPUC. A qualified (Secretary of the Interior Standards) professional shall assess the potential for visual intrusions on the qualities that qualify any historic properties within the APE for register eligibility. The results of this inventory shall be included in the HPTP. If any historic properties are identified that would be adversely affected by visual intrusions from the Proposed Project, the HPTP shall also specify mitigation measures that would be implemented to reduce adverse effects, such as screening the visual intrusion with vegetation, moving project towers to less conspicuous locations, if technically feasible, or altering towers to reduce any identified adverse effects. Selection of appropriate and effective treatments shall consider technical feasibility of the measures and potential impacts on other sensitive resources or land uses.

C-6e **Reduce adverse visual intrusions to portions of Old Highway 80.** Visual intrusion by the aboveground portion of this alternative, on portions of Old Highway 80 that retain integrity of setting shall be minimized by a combination of minimizing tower height and screening. In addition, since segments of Old Highway 80 would be crossed by the overhead portion of the alternative, compensatory mitigation including new signage shall be employed. If this alternative is constructed, as part of the Historic Properties Treatment Plan (Mitigation Measure C-1c) SDG&E shall include a protection plan for Old Highway 80 that defines resources to be protected, includes input from visual resources specialists, and evaluates a menu of protection options.

C-6f **Reduce adverse visual intrusions to the Desert View Tower viewshed.** Visual intrusion to the Desert View Tower viewshed, caused by the aboveground portion of this alternative shall be minimized by a combination of minimizing tower height, screening, and painting towers to match the surroundings. Specific measures to minimize visual effects to the Desert View Tower shall be developed in consultation with the owner of this resource. If this alternative is

constructed, SDG&E shall develop a protection plan for the Desert View Tower viewshed that defines resources to be protected, includes input from visual resources specialists, and evaluates a menu of protection options. The report shall be provided to the CPUC and BLM for review and approval at least 60 days before the start of construction.

V-3a **Reduce visual contrast of towers and conductors.** The following design measures shall be applied to all new structure locations, conductors, and re-conductored spans, in order to reduce the degree of visual contrast caused by the new towers and conductors:

- All new conductors and re-conductored spans are to be non-specular in design in order to reduce conductor visibility and visual contrast.
- All proposed new access roads shall be evaluated for their visibility from sensitive viewing locations prior to final design. Sensitive viewing locations have been defined by Cleveland National Forest as campgrounds, trailheads, trails, wilderness areas, backcountry roads, heavily traveled roads, and overlooks. Access roads of concern are those that would be visible as they directly approach existing or proposed towers in a straight line from locations immediately downhill of the structures. Prior to final design, SDG&E shall consult with a visual resources specialist representing the CPUC and BLM and a qualified biologist to identify the following:
  - Definition of towers with sensitive viewing areas from which visibility of access roads is a concern.
  - Approximate location and length of alternative access road routes if straight line roads are not used. Define habitat affected and steepness of terrain for consideration of habitat and erosion impacts. The biologist and visual resources specialist shall confirm that the overall impacts of the alternate access road are less than that of the original access road design.
  - "Drive and crush" access is a feasible measure for avoiding access road scars (i.e., no grading or vegetation removal is required). If this means of access is to be used, SDG&E shall define frequency of driving and vehicle types such that a biologist confirms that vegetation would be likely to recover.
  - A table shall be submitted to the CPUC and BLM for review and approval at least 60 days before the start of construction to document towers for which this measure is applied, and the proposed resolution for each tower (i.e., retain straight line roads due to greater impacts from alternative routes, use "drive and crush" access, or develop alternate access road route).

Rationale for Finding. As historic properties must retain sufficient integrity in addition to meeting at least one of the four NRHP eligibility criteria, visual impacts which degrade the integrity of setting and feeling for any historic property will be considered adverse. The Desert View Tower is listed under Criteria A (association with important events in history) and C (architecture), and the incredible vistas over the desert and other historic resources such as Old Highway 80 from this tower are part of its significance as evaluated through integrity of feeling, setting, and association. Although a small portion of the existing SWPL transmission line is visible from the Desert View Tower, the Project will be constructed closer to this tower, and at a higher elevation, constituting a more substantial visual intrusion. Along Old Highway 80, visual intrusions associated with the construction of transmission towers will compromise the integrity of setting and feeling for those segments of Old Highway 80 that retain these aspects of integrity.

The mitigation measures described above will be implemented to minimize long-term impacts to known historic architectural resources. Per Mitigation Measure C-6a, SDG&E will inventory register-eligible built environment resources within an Area of Potential Indirect Effect established by the BLM and CPUC, and the HPTP will specify mitigation measures that will be implemented to reduce adverse effects. Mitigation Measures C-6e and C-6f will require SDG&E to develop a protection plan for Old Highway 80, Westside Main Canal, and the Desert View Tower viewshed as well as to incorporate Project features such as minimizing tower height, screening, and painting towers to match the surroundings in order to reduce visual intrusions. Visual contrast of towers and conductors will also be reduced through design measures that are specified in Mitigation Measure V-3a.

Reference. EIR/EIS Section E.1.7; Section E.2.7; Section E.4.7; Section D.7.22.4

Impact PAL-1: Construction of the transmission line would destroy or disturb significant paleontological resources (Class II)

The potential to discover paleontological resources during Project construction ranges from zero to high. If identified, paleontologically sensitive areas will be impacted by construction-related ground disturbances such as the building or improvement of access roads, borehole drilling, trenching, excavating, grading, and vegetation removal.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact PAL-1. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact PAL-1 to a less than significant level.

PAL-1a **Inventory and evaluate paleontological resource in the Final APE.** Prior to construction, the Applicant shall conduct and submit to CPUC, BLM, and other involved land managing agencies for approval an inventory of significant paleontological resources within the affected area based on field surveys of areas identified as marginal through high or undetermined paleontological sensitivity potential.

PAL-1b **Develop Paleontological Monitoring and Mitigation Plan.** Following completion and approval of the paleontological resources inventory and prior to construction, the Applicant shall prepare and submit to CPUC, BLM, and other involved land-managing agencies for approval a Paleontological Monitoring Treatment Plan (Plan). The plan shall be designed 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 identify construction impact areas of moderate to high sensitivity for encountering significant resources and the depths at which those resources are likely to be encountered. The Plan shall outline a coordination strategy to ensure that a qualified paleontological monitor will conduct full-time monitoring of all ground disturbance in sediments determined to have a moderate to high sensitivity. Sediments of low, marginal, and undetermined sensitivity shall be monitored on a part-time basis (as determined by the Qualified Paleontologist) Sediments with zero sensitivity will not require paleontological monitoring. The Qualified Monitor shall have a B.A. in Geology or Paleontology, and a minimum of one year of monitoring experience in local sediments. The Plan shall detail the significance criteria to be used to determine which resources will be avoided or recovered for their data potential. 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 land shall be carried out by qualified paleontologists with the appropriate current permits, including, but not limited to a Paleontological Resources Use Permit (for work on public lands administered by BLM) and a Paleontological Collecting Permit (for work on lands administered by California Department of Parks and Recreation). Notices to proceed will be issued by the BLM, CPUC, and other agencies with jurisdiction, following approval of the Paleontological Monitoring and Treatment Plan.

PAL-1c **Monitor construction for paleontology.** Based on the paleontological sensitivity assessment and Paleontological Monitoring and Treatment Plan consistent with Mitigation Measure PAL-1b (Develop Paleontological Monitoring and Treatment Plan), the Applicant shall conduct full-time construction monitoring by the qualified paleontological monitor in areas determined to have moderate to high paleontological sensitivity. Sediments of low, marginal undetermined sensitivity shall be monitored by a qualified paleontological monitor on a part-time basis (as determined by the Qualified Paleontologist). Construction activities shall be diverted when data recovery of significant fossils is warranted, as determined by the Qualified Paleontologist.

PAL-1d **Conduct paleontological data recovery.** If avoidance of significant paleontological resources is not feasible or appropriate based on project design, treatment (including recovery, specimen preparation, data analysis, curation, and reporting) shall be carried out by the Applicant, in accordance to the approved Treatment Plan per Mitigation Measure PAL-1b (Develop Paleontological Monitoring and Treatment Plan).

PAL-1e **Train construction personnel.** Prior to the initiation of construction or ground-disturbing activities, 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) ESAs include areas determined to be paleontologically sensitive as defined on the paleontological sensitivity maps for the Project, and must be avoided and that 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:

- All construction contracts shall include clauses that require construction personnel to attend training so they are aware of the potential for inadvertently exposing subsurface paleontological resources, their responsibility to avoid and protect all such resources, and the penalties for collection, vandalism, or inadvertent destruction of paleontological resources.
- 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 diverted 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, CPUC, and other appropriate land managers and proceed with data recovery in accordance with the approved Treatment Plan consistent with Mitigation Measure PAL-1b (Develop Paleontological Monitoring and Treatment Plan).

Rationale for Finding. Construction of the Project and associated access roads will require excavation, grading, and vegetation removal in paleontologically sensitive geologic units. Without mitigation, the fossils contained in sensitive geologic units, as well as the paleontological data they provide if properly salvaged and documented, will be adversely impacted (destroyed), rendering them permanently unavailable for future scientific research. Mitigation Measures PAL-1a through PAL-1e present requirements for the discovery and treatment of significant paleontological resources that will reduce Project effects to these resources to a level of less than significant. Implementation of Mitigation Measures PAL-1a, PAL-1b, and PAL-1d allow for the inventory, collection and treatment of any surface exposures of significant fossils. Paleontological monitoring will be required along the Project route per Mitigation Measures PAL-1b, PAL-1c, and PAL-1d, while Mitigation Measure PAL-1e requires training of construction personnel in the recognition and protection of paleontological resources.

Reference. EIR/EIS Section E.1.7; Section E.2.7; Section E.4.7; Section D.7

Cumulative Impact C-1: construction activities could cause an adverse change to known historic properties

A number of cultural resources that are NRHP/CRHR-eligible, NRHP/CRHR-eligible and/or NRHP/CRHR-listed are located in areas of direct impact from the Project. Past projects, such as the SWPL Transmission Line, have been constructed within the same corridor as the Project and will affect the same resources directly affected by the Project.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact C-1. Specifically, the following mitigation measures, as set forth above, are feasible and are hereby adopted to mitigate significant cumulative effects from Impact C-1 to a less than significant level.

C-1a **Inventory and evaluate cultural resources in Final APE.**

C-1b **Avoid and protect potentially significant resources.**

C-1c **Develop and implement Historic Properties Treatment Plan.**

C-1d **Conduct data recovery to reduce adverse effects.**

C-1e **Monitor construction at known ESAs.**

C-1f **Train construction personnel.**

Rationale for Finding. Without mitigation, cultural resources that are NRHP/CRHR-eligible, NRHP/CRHR-eligible, and/or NRHP/CRHR-listed will likely be destroyed through Project construction activities in combination with other past, present, and future projects, resulting in a cumulatively significant impact. However, Mitigation Measures C-1a through C-1f will reduce the Project's contribution to this impact to less than considerable through data-recovery excavations that capture important data from the affected resources.

Reference. EIR/EIS Section G.4.1.5; Section G.4.2

Cumulative Impact C-5: operation and maintenance activities could cause an adverse change to known historic properties

Direct impacts to known historic properties will result from Project maintenance or repair activities, while increased erosion will result as an indirect Project impact. Operation of past, present, and reasonably foreseeable projects, including the SWPL Transmission Line, I-8, other adjacent roadways, and the residential development identified in Table G-3 of the EIR/EIS, will have similar impacts to known historic properties.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project, which mitigate significant cumulative effects on the environment from Impact C-5. Specifically, the following mitigation measures, as set forth above, are feasible and are hereby adopted to mitigate significant cumulative impacts from Impact C-5 to a less than significant level.

C-2a Properly treat human remains.

C-4a Complete consultation with Native American and other Traditional Groups.

C-5a Protect and monitor NRHP- and/or CRHR-eligible properties.

Rationale for Finding. When combined with impacts of past, present, and reasonably foreseeable projects, impacts from operation and maintenance of the Project will be cumulatively significant. However, the site protection measures and monitoring procedures for register-eligible properties that will be implemented through Mitigation Measures C-2a, C-4a, and C-5a will render the Project's contribution to this impact to less than considerable.

Reference. EIR/EIS Section G.4.1.5; Section G.4.2

III.2.7 Noise

To gather information regarding the noise effects of the Project, applicable noise regulations were collected for each affected jurisdiction. In addition, field surveys were done to identify noise-sensitive receptors along the Project route. Noise-sensitive land uses are defined as land uses that are susceptible to noise disturbances resulting from either construction or operation of the Project. In general, residential, educational institutions, recreational facilities, and public facilities (e.g., residential areas, schools, religious facilities, health care facilities, and certain recreation areas that involve passive enjoyment) are considered to be noise-sensitive receptors uses for purposes of the EIR/EIS. Sensitive receptors identified in the analysis include those that are located immediately adjacent to the Project route that will be affected by construction and operation activities. For the purposes of the analysis in the EIR/EIS and based on NEPA and CEQA requirements, noise impacts are those that exceed local noise regulations for construction noise or any area where operational noise will increase ambient noise conditions more than 5 dBA to a sensitive receptor (or level specified by the applicable jurisdiction or agency). (See Draft EIR Section 8.4.1 for description of significance criteria.)

Impact N-2: Construction activity would temporarily cause groundborne vibration (Class II)

As discussed in Section D.8.8 (Noise) of the EIR/EIS, Vibration levels from construction equipment, rock drilling, blasting, and activities will be perceptible in the immediate vicinity of the construction sites. Residents or workers inside structures within 50 feet of trucks traveling over uneven surfaces will

experience perceptible vibration. Rock drilling will be the activity to most likely to cause excessive groundborne vibration, and the level of groundborne vibration that will reach sensitive receptors will depend on what equipment is used and the soil conditions surrounding the construction site. Absent advance notification, a nuisance or annoyance will occur with perceptible vibration.

SDG&E will implement NOI-APM-1 to notify all sensitive receptors within 300 feet of work sites. The notification process suggested in NOI-APM-1 will help reduce the likelihood of a nuisance or annoyance occurring. To provide additional notification, Mitigation Measure L-1a will be implemented, and to require restoration of structures damaged from blasting Mitigation Measure N-2a will also be implemented to reduce impacts.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project, which mitigate significant effects on the environment from Impact N-2. Specifically, the following mitigation measures, and as set forth above, are feasible and are hereby adopted to mitigate significant effects from Impact N-1 to a less than significant level.

L-1a **Prepare Construction Notification Plan**

N-2a **Avoid blasting where damage to structures could occur.** Blasting shall be managed with a plan for each site. The plan shall include the blasting methods, surveys of existing structures and other built facilities, and distance calculations to estimate the area of effect of the blasting. Blasting shall not be allowed where damage to vulnerable structures could occur, and a rock anchoring or mini-pile system shall be used if adjacent structures could be damaged as a result of blasting or any construction method used as an alternative to blasting. If any structure is inadvertently adversely affected by construction vibration, the structure shall be restored to conditions equivalent to those prior to blasting. SDG&E shall then fairly compensate the owner of any damaged structure for lost use.

Rationale for Finding. While construction vibration impacts will occur as a result of heavy construction equipment use, this vibration will likely be limited to receptors within the immediate vicinity of the construction sites. By notifying these receptors of the timing and potential for vibration impacts, it will reduce the exposure and allow planning for reducing vibration impacts to these receptors during construction. Implementation of Mitigation Measure N-2a will limit blasting near structures and repair damage to structures that occur as a result of the Project. As construction activities are considered short-term and temporary in nature, by implementing the measures outlined in NOI-APM-1, L-1a, and N-2a, construction vibration impacts will be reduced to a less than significant level (Class II).

Reference. EIR/EIS Section D.8, Section E.4.8

Cumulative Impact N-2: construction could result in a temporary vibration impacts (Class II)

A groundborne vibration impact will occur in the immediate vicinity of construction sites and any areas of blasting. Cumulative construction activities near the Project construction sites may involve blasting, rock drilling, or trucks traveling on uneven surfaces will also generate construction vibration. Absent advance notification, a nuisance or annoyance will occur with perceptible vibration, and cumulative damage to existing nearby vulnerable structures. The notification process suggested in NOI-APM-1 will inform residents of pending vibration-generating activities, but the impact of physical damage to vulnerable structures will be significant.

NOI-APM-1 and Mitigation Measures L-1a and N-2a identified for the Project will remain applicable to cumulative impacts. Section D.8 (Noise) of the EIR/EIS provides a detailed description of the construc-

tion related vibration impacts of the Project. Implementation of Mitigation Measure N-2a will render impacts of the Project to less than significant (Class II) by either disallowing blasting near structures and/or repairing any damage to structures that occur as a result of the Project.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project that mitigate significant cumulative effects from Impact N-2. Specifically, the following mitigation measures, as set forth above, are feasible and are hereby adopted to mitigate cumulative significant effects from Impact N-2 to a less than significant level.

L-1a Prepare Construction Notification Plan

N-2a Avoid blasting where damage to structures could occur.

Rationale for Finding. There is the possibility that a variety of projects will occur at the same time as construction of the Project. Project-related activities near construction sites involve blasting, rock drilling, or trucks traveling on uneven surfaces that will generate construction vibration. Absent advance notification, a nuisance or annoyance will occur with perceptible vibration, and cumulative damage to existing nearby vulnerable structures. The APMs and mitigation measures recommended for the Project will reduce cumulative construction related vibration impacts to less than significant.

Reference. EIR/EIS Section G

III.2.8 Transportation and Traffic

Data for the transportation network were collected and analyzed from the following sources: highway maps; route alignment maps; and other maps from various reports and websites of the affected State and local agencies. Traffic volume data were obtained from agency websites and databases (see Section D.9.9, References, for the complete list of data sources). Lane information was obtained from aerial photographs, local government agencies, public maps, and field reconnaissance.

Impact T-1: Construction would cause temporary road and lane closures that would temporarily disrupt traffic flow (Class II)

As discussed in Section D.9 (Transportation and Traffic) of the EIS/EIR, as well as Sections E.1.9, E.2.9, and E.4.9, construction of the Project will result in roadway closures at locations where the construction activities, especially transmission line stringing, will be located within ROWs of public streets and highways. In addition, delivery of large equipment and materials via truck will also require temporary closures. Temporary closures of this nature will occur for only a few minutes at a time but are significant impacts.

SDG&E has committed to APMs T-APM-2a and T-APM-2b as part of the Project to reduce impacts associated with temporary road closures. T-APM-2a requires permits for temporary lane closures to be obtained from the applicable jurisdictions. T-APM-2b requires detour plans to be submitted to the counties, Caltrans, or other jurisdiction as part of the permit requirements. In addition, an encroachment permit or similar authorization will be required from the applicable jurisdictional agency at locations where the construction activities will occur within or above the public road ROW. Compliance with the APMs described above also will avoid or reduce some impacts, but overall impacts will remain significant. Implementing Mitigation Measure T-1a will restrict the time of day when lane closures will occur.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project, which mitigate significant cumulative effects on the environment from Impact T-1. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact T-1 to a less than significant level.

T-1a **Restrict lane closures.** SDG&E shall restrict all necessary lane closures or obstructions on major roadways associated with overhead or underground construction activities to off-peak periods in congested areas to reduce traffic delays. Lane closures must not occur between 6:00 and 9:30 a.m. and between 3:30 and 6:30 p.m., unless otherwise directed in writing by the responsible public agency issuing an encroachment permit.

Rationale for Finding. Implementation of APMs T-APM-2a and T-APM-2b as well as Mitigation Measure T-1a as part of the Project will ensure that the obstruction of roadways is minimized to the extent practicable and that construction traffic plans are prepared and distributed to local jurisdictions prior to the start of construction. Together these measures will ensure that impacts to traffic and transportation are less than significant.

Reference. EIR/EIS Section D.9; Section E.1.9; Section E.2.9; Section E.4.9

Impact T-4: Construction would temporarily disrupt pedestrian and/or bicycle circulation and safety (Class II)

Pedestrian and bicycle circulation will be affected by transmission line construction activities if pedestrians and bicyclists are unable to pass through the construction zone or if established pedestrian and bike routes are blocked. Construction of the Project will result in roadway closures and impacts to recreational trail facilities at locations where construction activities result in short-term disruption of pedestrian and bicycle routes. Implementation of Mitigation Measures T-4a and WR-1b will ensure that SDG&E will maintain safe pedestrian and bicycle access. The CPUC finds that with implementation of these measures incorporated into the Project, impacts to pedestrian and bicycle circulation and safety will be mitigated to a less than significant level (Class II).

Finding. The CPUC finds that changes or alterations have been incorporated into the Project, which mitigate significant cumulative effects on the environment from Impact T-4. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact T-4 to a less than significant level.

T-4a **Ensure pedestrian and bicycle circulation and safety**. Where construction will result in temporary closures of sidewalks and other pedestrian facilities, SDG&E 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 and signs shall be provided.

WR-1b **Provide temporary detours for trail users.**

Rationale for Finding. Implementation of Mitigation Measures T-4a and WR-1b will ensure that SDG&E maintains safe pedestrian and bicycle access temporary access through or around road and recreational facility trail closures during Project construction, thereby reducing impacts to pedestrian and bicycle facilities to less than significant.

Reference. EIR/EIS Section D.9; Section E.1.9; Section E.2.9; Section E.4.9

Impact T-5: Construction vehicles and equipment would cause physical damage to roads in the Project area (Class II)

The use of heavy trucks and other equipment used during construction will cause physical damage and/or deterioration of the surface on the roadways that provide access to Project construction sites. Repairing any damaged roadways or roadway features as a result of construction activities will mitigate significant traffic impacts related to physical roadway damage to the environment to a less than significant level (Class II).

Finding. The CPUC finds that changes or alterations have been incorporated into the Project, which mitigate significant effects on the environment from Impact T-5. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact T-5 to a less than significant level.

T-5a **Repair damaged roads.** If damage to roads occurs as a result of project construction or construction vehicle traffic, SDG&E shall restore damaged roadways at their own expense under the direction of the affected public agencies to ensure that any impacts are adequately repaired. Roads disturbed by construction activities or construction vehicles shall be properly restored to ensure long-term protection of road surfaces. Said measures shall be incorporated into an access agreement/easement with the applicable governing agency prior to construction. Prior to construction, SDG&E will determine with the governing agency the appropriate method for documenting pre- and post-construction conditions.

Rationale for Finding. Most construction activities will be localized at the point of construction. However, construction vehicle use will damage existing roadways and roadway facilities, including sidewalks. During construction, SDG&E construction staff will be located on-site and will report any damage requiring repair to supervisory staff. In addition, local jurisdictions and public agencies can report any damage caused by construction-related use to SDG&E requiring repair. As construction activities will be short-term and temporary in nature construction impacts related to physical damage to roadways and facilities will be reduced to less than significant with implementation of Mitigation Measure T-5a.

Reference. EIR/EIS Section D.9; Section E.1.9; Section E.2.9; Section E.4.9

Impact T-9: Construction would generate additional traffic on the regional and local roadways (Class II)

Construction of the Project will temporarily increase traffic (project trip generation) on the regional and local roadways through construction worker commute trips, project equipment deliveries, and hauling materials such as support structures and poles, concrete, fill, and excavation spoils. Additional traffic generated by the Project on local and regional roadways will decrease the Level of Service on local and regional roadways. In those instances, impacts to regional and local roadways will be significant. However, the impact will be reduced to less than significant with implementation of Mitigation Measure T-9a.

Implementation of Mitigation Measure T-9a will ensure that SDG&E prepare a Transportation Management Plan to address traffic generated during construction and that this plan is reviewed and approved by

Caltrans and all local jurisdictions prior to the start of construction. The CPUC finds that with implementation of these measures incorporated into the Project, impacts to regional and local roadway existing traffic levels of service will be mitigated to a less than significant level (Class II).

Finding. The CPUC finds that changes or alterations have been incorporated into the Project, which mitigate significant effects on the environment from Impact T-9. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact T-9 to a less than significant level.

T-9a **Prepare Construction Transportation Management Plan.** SDG&E shall prepare a Construction Transportation Management Plan (CTMP) to address traffic and transportation issues related to project construction. The CTMP shall describe alternate traffic routes, timing of worker commutes and material deliveries, the need for lane and road closures, the use of helicopters, plans for construction worker parking and transportation to work sites, methods for keeping roadways clean, and other methods for reducing adverse construction-related traffic impacts on regional and local roadways. The plan must comply with the requirements of the respective county and must be submitted to the respective counties and Caltrans for approval prior to commencing construction activities.

Rationale for Finding. Implementation of Mitigation Measure T-9a will ensure that SDG&E prepare a Transportation Management Plan to address traffic generated during construction and that this plan is reviewed and approved by Caltrans and all local jurisdictions prior to the start of construction. This measure will ensure that impacts to traffic and transportation are less than significant by routing traffic around construction activity, adhering to local traffic management requirements, and managing construction activities in a way that is sensitive to local traffic.

Reference. EIR/EIS Section D.9

Impact T-11LE: Presence of the transmission lines would penetrate airport influence area and/or create a hazard to aircraft (Class II)

Portions of the Project run near the existing SWPL transmission line and/or near the U.S.-Mexico border, specifically from MP I8-0 to MP I8-36 and MP MRD-8 to approximately MP MRD 23. According to SDG&E, two incidents have occurred involving aircraft flying into the existing SWPL transmission line.[3] Both these incidents occurred shortly after the SWPL was built and since then SDG&E has worked to ensure such incidents do not occur again. While it is unlikely that any such incident would occur, transmission lines and towers would potentially present a substantial obstacle to be avoided, and require additional attention from pilots.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project, which mitigate significant effects on the environment from Impact T-11LE. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact T-11LE to a less than significant level.

T-11b **Consult with and inform U.S. Customs and Border Patrol**. The Applicant shall consult with U.S. Customs and Border Patrol to determine where border patrol aircraft operate in the county. Prior to construction, the Applicant shall provide written notification to all border patrol

[3] "Performance Category Upgrade Request." SDG&E, December 19, 2007. http://www.wecc.biz/documents/meetings/PCC/2008/March/Sunrise_Powerlink_Double_Line_Outage_Final_Report.pdf Accessed March 2008.

aircraft working in the county and to the CPUC stating when and where the new transmission lines and towers will be erected. The Applicant shall also provide all border patrol aircraft, the U.S. Customs and Border Patrol, and the CPUC with aerial photos or topographic maps clearly showing the new lines and towers in relation to the U.S.-Mexico border within San Diego and Imperial Counties.

Rationale for Finding. Implementation of mitigation measure T-11b will ensure that SDG&E alerts the border patrol of when and where the new transmission lines and towers will be erected ensuring that border patrol is aware of new objects in flight paths.

Reference. EIR/EIS Section E.1.9; Section E.4.9

Cumulative Impact T-4: disrupt pedestrian and/or bicycle circulation and safety (Class II)

Pedestrian and bicycle circulation will be affected by transmission line construction activities if pedestrians and bicyclists are unable to pass through the construction zone or if established pedestrian and bike routes are blocked. Concurrent construction projects that restrict pedestrian and/or bicycle movement within the immediate vicinity of Project-related construction will result in significant impacts. However, implementation of Mitigation Measures T-4a and WR-1b will ensure that SDG&E maintains safe pedestrian and bicycle access.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact T-4. Specifically, the following mitigation measures, and as set forth above, are feasible and are hereby adopted to mitigate significant cumulative effects from Impact T-4 to a less than significant level.

T-4a **Ensure pedestrian and bicycle circulation and safety**.

WR-1b **Provide temporary detours for trail users.**

Rationale for Finding. Implementation of Mitigation Measures T-4a and WR-1b will ensure that SDG&E maintains safe temporary pedestrian and bicycle access through or around road and recreational facility trail closures during Project construction, thereby providing safe passage for pedestrians and bicyclists, and reducing cumulative contribution to pedestrian and bicycle circulation and safety impacts to a less than significant level.

Reference. EIR/EIS Section G

Cumulative Impact T-5: Construction vehicles and equipment could cumulatively cause physical damage to roads in the Project area (Class II)

Unexpected damage to roads by vehicles and equipment may occur from construction vehicles. Other development projects that require use of heavy equipment on the same roads utilized by Project construction vehicles will result in similar damage to roads. If left unmitigated, road damage caused by the Project, when combined with road damage from past, present, and reasonably foreseeable projects will contribute to significant cumulative impacts. Repairing any damaged roadways or roadway features as a result of construction activities will mitigate significant traffic impacts and reduce cumulative contribution to less than significant.

Finding. The CPUC finds that changes and alterations have been incorporated into the Project that mitigate significant cumulative effects on the environment from Impact T-5. Specifically, the following mitigation

measure, as set forth above, is feasible and is hereby adopted to mitigate significant cumulative effects from Impact T-5 to a less than significant level.

T-5a Repair damaged roads.

Rationale for Finding. Most construction activities will be localized at the point of construction, however, construction vehicle use will damage existing roadways and roadway facilities, including sidewalks. If left unmitigated, road damage caused by the Project, when combined with unprepared road damage from past, present, and reasonably foreseeable projects will combine to be a significant impact. During construction, The implementation the Mitigation Measure T-5a will ensure SDG&E construction staff will be located on-site and will report any damage requiring repair to supervisory staff. In addition, local jurisdictions and public agencies can report any damage caused by construction-related use to SDG&E requiring repair. This will ensure swift and responsive road repair in the event of damage. These activities will reduce the Project cumulative contribution to this impact to a less than significant level.

Reference. EIR/EIS Section G

Cumulative Impact T-9: Construction would cumulatively generate additional traffic on the regional and local roadways (Class II)

Construction of the Project will temporarily increase traffic (through project trip generation) on the regional and local roadways. Past development within the Coastal and Inland Valley Links of the Project has substantially contributed to congestion on area roadways. Current and reasonably foreseeable projects in these areas will also temporarily increase traffic in these areas during construction. There are several current and future residential developments in these areas, including Torrey Highlands, Valley Ridge Estates, Torrey Hills VTM, Peppertree Point, etc. that, when completed, will contribute to congestion in this area. It is reasonable to assume that some of the many residential and commercial developments in these areas will be completed and partially occupied by the time Project construction in this area. Traffic associated with these future residential developments will contribute to congestion on area roadways. Temporary roadway congestion resulting from lane closures associated with construction of the Project will combine with congestion resulting from past, present and future residential and commercial development to result in a cumulative significant impact.

Implementation of Mitigation Measure T-9a will ensure that SDG&E prepare a Transportation Management Plan to address traffic generated during construction and that this plan is reviewed and approved by Caltrans and all local jurisdictions prior to the start of construction. Implementation of these measures will route traffic around construction activity, ensure construction adheres to local traffic management requirements, and manage construction activities in a way that is sensitive to local traffic. Therefore, the Project will have a less than significant cumulative contribution to traffic level of service impacts (Class II).

Finding. The CPUC finds that changes and alterations have been incorporated into the Project that mitigate significant cumulative effects on the environment from Impact T-9. Specifically, the following mitigation measure, as set forth above, is feasible and is hereby adopted to mitigate significant cumulative effects from Impact T-9 to a less than significant level.

T-9a Prepare Construction Transportation Management Plan.

Rationale for Finding. Implementation of Mitigation Measure T-9a will ensure that SDG&E prepare a Transportation Management Plan to address traffic generated during construction and that this plan is reviewed and approved by Caltrans and all local jurisdictions prior to the start of construction. This measure

will ensure that the Project will have a less than significant cumulative contribution to traffic level of service impacts.

Reference. EIR/EIS Section G

III.2.9 Public Health and Safety

The Public Health and Safety section of the EIR/EIS analyzed the effects of the Project for two issues. First, the potential for environmental contamination and hazardous materials as a result of the Project were examined in Impacts P-1 through P-7. To evaluate the effects of environmental contamination and hazardous materials, the CPUC and BLM examined the existing and past land uses traversed by the Project and reviewed environmental databases listing known active hazardous waste sites. Cumulative impacts were found to be the same as the Project impacts and will be reduced to be less than significant through the implementation of mitigation. Second, while not considering electric and magnetic fields in the context of CEQA and NEPA, information about electric and magnetic fields and other electrical field issues is provided in Impacts PS-1 through PS-5. The examination of electric and magnetic fields and other electrical field issues was based on magnetic field computer modeling results for the length of the Project.

Impact P-1: Soil or groundwater contamination could result from accidental spill or release of hazardous materials due to improper handling and or storage of hazardous materials during construction activities (Class II)

Hazardous materials such as vehicle fuels, oils, and other vehicle maintenance fluids will be used and stored in staging yards during construction. Incidents may occur involving release of gasoline, diesel fuel, oil, hydraulic fluid, and lubricants from vehicles or other equipment or the release of solvents, adhesives, or cleaning chemicals from construction activities. Spills and leaks of hazardous materials during construction activities will result in soil contamination. APMs HS-APM-1 (personnel trained in proper use and safety procedures for the chemicals used), HS-APM-2 (personnel trained in refueling of vehicles), HS-APM-3 (preparation of environmental safety plans including spill prevention and response plan), HS-APM-8 (SDG&E's and/or General Contractor environmental/health and safety personnel), and HS-APM-10 (proper storage and disposal of generated waste), will be included as part of the Project in order to reduce the likelihood of spills. However, spills may occur and cause soil contamination.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact P-1. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact P-1 to a less than significant level.

P-1a **Implement Environmental Monitoring Program.** An environmental monitoring program will be implemented by SDG&E or its contractors to ensure that the plans defined in HS-APM-1 (personnel trained in proper use and safety procedures for the chemicals used), HS-APM-2 (personnel trained in refueling of vehicles), HS-APM-3 (preparation of environmental safety plans including spill prevention and response plan), HS-APM-8 (SDG&E's and/or General Contractor environmental/health and safety personnel), and HS-APM-10 (storage and disposal of hazardous and solid waste) are followed throughout the period of construction. SDG&E will designate an Environmental Field Representative, who will be on site to observe, enforce, and document adherence to the plans for all construction activities.

P-1b **Maintain emergency spill supplies and equipment.** Hazardous material spill kits will be maintained on-site by SDG&E or its contractors for response to small spills. This shall include oil-absorbent material, tarps, and storage drums to be used to contain and control any minor

releases. Emergency spill supplies and equipment will be kept adjacent to all areas of work and in staging areas, and will be clearly marked. Detailed information for responding to accidental spills and for handling any resulting hazardous materials will be provided in the Project's Spill Response Plan defined in HS-APM-3.

Rationale for Finding. While SDG&E's Application indicated that they will prepare a Hazardous Substance Control and Emergency Response Plan to reduce impacts to soil contamination, Mitigation Measures P-1a and P-1b formalize the preparation of this plan and specify procedures that will reduce soil contamination. Consequently, if a spill or leak of hazardous materials were to occur, personnel will be able to respond in a manner that will limit soil contamination.

Reference. EIR/EIS Section D.10; Section E.1.10; Section E.2.10; Section E.4.10

Impact P-2: Residual pesticides and/or herbicides could be encountered during grading or excavation on currently or historically farmed land (Class II)

The presence of residual pesticide and herbicide contamination of the soil and/or groundwater in the agricultural areas along the route represents a significant impact due to health hazards associated with exposure of construction workers and the public to contaminated soil. Soil and/or groundwater contamination due to pesticides and/or herbicides may occur at the north end of Jacumba Valley from MP I8-33.9 to I8-34.1 and agricultural lands traversed by the Project. This represents a significant impact due to health hazards to construction workers and the public from exposure to pesticide or herbicide contaminated soil and/or groundwater. SDG&E's APMs HS-APM-15, -16 and -17 will be incorporated into the Project in order to reduce the significance of this impact by stopping work if suspected contamination is identified. Suspected areas of contamination will be cordoned off and appropriate health and safety measures taken, including sampling and testing of suspected material will be conducted. If contamination greater than regulatory limits is found, then the appropriate agency (RWQCB or CUPA) will be notified. However, even with the implementation of APMs, the impact will be significant because pesticide and herbicide contamination is not always readily apparent by visual or olfactory indicators.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact P-2. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact P-2 to a less than significant level.

P-2a **Test for residual pesticides/herbicides on currently or historically farmed land.** In areas where the land has been or is currently being farmed, soil samples shall be collected and tested for herbicides, pesticides, and fumigants to determine the presence and extent of any contamination. The sampling and testing plan shall be prepared in consultation with the County Agricultural Commission, and conducted by an appropriate California licensed professional and sent to a California Certified laboratory. Samples shall be tested at a California Certified Laboratory. A report documenting the areas proposed for sampling, and the process used for sampling, testing shall be submitted to the CPUC and BLM for review and approval at least 60 days before construction. Results of the laboratory testing and recommended resolutions for handling and excavation of material found to exceed regulatory requirements shall be submitted to the CPUC and BLM (if on BLM land) 30 days prior to construction.

Excavated materials containing elevated levels of pesticide or herbicide will require special handling and disposal according to procedures established by the regulatory agencies. Effective dust suppression procedures will be used in construction areas to reduce airborne emissions

of these contaminants and reduce the risk of exposure to workers and the public. Regulatory agencies for the State of California (DTSC or RWQCB) and the appropriate County (San Diego or Imperial) shall be contacted by SDG&E or its contractor to plan handling, treatment, and/or disposal options.

Rationale for Finding. Although SDG&E identified HS-APM-15, -16 and -17 to protect workers if contamination is identified, contamination cannot always be identified by visual or olfactory indicators and thus is insufficient to reduce impacts. The identification of pesticide and herbicide contamination as required in Mitigation Measure P-2a details procedures that will reduce the impacts of pesticides and/or herbicides on workers associated with the Project or the general public in the vicinity of the Project by ensuring that workers are aware of a hazard before it is encountered, and precautionary measures can be implemented. The procedures will ensure the compliance of the Project with the appropriate agencies.

Reference. EIR/EIS Sections D.10; Section E.1.10; Section E.4.10

Impact P-3: Unanticipated preexisting soil and/or groundwater contamination could be encountered during excavation or grading (Class II)

Previously unknown soil contamination associated with industrial contamination (e.g., solvents, hydrocarbons, heavy metals, etc.) may be encountered during grading or excavation, particularly at or near the communities of Jacumba, Pine Valley, Alpine, and Lakeside. Unreported or unidentified leaks or spills at these or other sites may have resulted in unknown soil or groundwater contamination that may have migrated to the alignment, and encountered during grading for access roads and excavation for tower foundations, and trenches and vaults. Although unanticipated contamination along the other portions of the Project is unlikely, unknown contamination may occur along and near area roads due to illegal dumping, which results in contamination where the Project is near or crosses these roads. The potential to encounter unknown environmental contamination is a significant impact. SDG&E's APMs HS-APM-15, -16 and -17 will be incorporated into the Project in order to reduce the significance of this impact by stopping work if suspected contamination is identified. Suspected areas of contamination will be cordoned off and appropriate health and safety measures taken, including sampling and testing of suspected material will be conducted. If contamination greater than regulatory limits is found, then the appropriate agency (RWQCB or CUPA) will be notified. However, these measures do not specify how or who will determine if regulatory limits are exceeded. In addition, if laboratory data are not properly interpreted, contaminated soil or groundwater will be improperly handled and disposed resulting in additional environmental contamination or exposure of workers to contaminated materials. In addition, no requirements for documentation of these incidents are included in the APMs, including reporting to the CPUC and BLM sampling results and actions taken at contaminated sites.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact P-3. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact P-3 to a less than significant level.

P-3a **Appoint individuals with correct training for sampling, data review, and regulatory coordination.** In the event that potential contaminated soil or groundwater is encountered, samples shall be collected by an OSHA-trained individual with a minimum of 40-hours hazardous material site worker training. Laboratory data from suspected contaminated material shall be reviewed by the contractor's Health and Safety Officer and/or SDG&E's Field Environmental Representative and they shall coordinate with the appropriate regulatory

agency (RWQCB or local CUPA agency) if contamination is confirmed to determine the suitable level of worker protection and the necessary handling and/or disposal requirements.

P-3b **Documentation of compliance with measures for encountering unknown contamination.** If during grading or excavation work, the contractor observes visual or olfactory evidence of contamination in the exposed soil a report of the location and the potential contamination, results of laboratory testing, recommended mitigation (if contamination is verified), and actions taken shall be submitted to the CPUC and BLM (if on BLM lands) for each event. This report shall be submitted within 30 days of receipt of laboratory data.

Rationale for Finding. Although SDG&E identified HS-APM-15, -16 and -17 to protect workers if contamination is identified, contamination cannot always be identified by visual or olfactory indicators and thus is insufficient to reduce impacts. As described above for the identification of pesticides and/or herbicides, requiring SDG&E to evaluate exposed soils for evidence of contamination will ensure that measures are implemented to protect the health of workers associated with the Project along with the public in the vicinity of construction activities. The submittal of weekly reports to the CPUC and BLM will also ensure the compliance of activities with local, State, and federal requirements.

Reference. EIR/EIS Section D.10; Section E.1.10; Section E.2.10; Section E.4.10

Impact P-7: Excavation or grading could result in mobilization of existing soil or groundwater contamination from known sites (Class II)

The environmental database review indicates that several sites with current or past known contamination (undergoing site assessment, remediation, or case closed) are listed along the Project. These sites are primarily located where the alignment passes through the communities of Jacumba, Pine Valley, Alpine, and Lakeside. Additionally in San Diego, Shell Service Station #12/Exxon #1039 at 12929 Rancho Peñasquitos Drive are listed as undergoing pollution characterization (EDR, 2006a). It is located approximately 1,600 feet south of the underground portion and about 170 feet west of the overhead portion of the alignment. The presence of these contaminated sites adjacent to the alignment results in a significant contaminated soil and/or groundwater to have migrated to the Project ROW. In that event, the contamination will be encountered during excavation or grading. SDG&E will implement APMs HS-APM-5 and HS-APM-10 to reduce impacts from known contaminated sites. HS-APM-5 requires that SDG&E investigate all California Government Code §65962.5 sites along the Project ROW that impact the Project. Government Code §65962.5 (commonly referred to as the Cortese List) includes DTSC listed hazardous waste facilities and sites, DHS lists of contaminated drinking water wells, sites listed by the SWRCB as having UST leaks and which have had a discharge of hazardous wastes or materials into the water or groundwater, and lists from local regulatory agencies of sites that have had a known migration of hazardous waste/material. HS-APM-10 requires that all hazardous waste be stored and disposed of in accordance with federal, State, and local requirements. Nevertheless, environmental impacts will still be significant if contaminated sites near the Project ROW were not adequately characterized and contamination from these areas has migrated to the soil or groundwater within the Project ROW.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact P-7. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact P-7 to a less than significant level.

P-7a **Evaluate contaminated sites**. SDG&E shall implement the following steps, at locations where excavation or significant ground disturbance will occur; all steps be completed at least 60

days prior to project construction, to prevent mobilization of contaminants and exposure of workers and the public:

- **Step 1.** Investigate the site to determine whether it has a record of hazardous material contamination which would affect construction activities. This investigation should be performed as a Phase I – Environmental Site Assessment (ESA). If contamination is found that could potentially affect the health and safety of workers or the public during construction of the Proposed Project, proceed to Step 2.
- **Step 2.** Perform a characterization study of the site to determine the nature and extent of the contamination present at the location before construction activities proceed within the Project ROW near the suspect site.
- **Step 3.** Determine the need for further investigation and/or remediation of the soil or groundwater conditions at or near the contaminated site, i.e., within areas of ground disturbance for the Proposed Project. (For example, if there would be little or no contact with contaminated materials, industrial cleanup levels would likely be applicable. If site activities would involve human contact with the contaminated materials, such as would be the case with excavation of contaminated materials during project construction, then Step 4 shall be completed. If no human contact is anticipated, then no further mitigation would be required for the location.)
- **Step 4.** If it is determined that disturbance or excavation of soils or groundwater with contamination would accompany construction at the site, undertake a Phase II Environmental Site Investigation (Phase II ESI) involving sampling and further characterization of potentially contaminated areas with the Project ROW or reroute the line away from the contamination area. Should further investigation reveal high levels of hazardous materials, mitigate health and safety risk according San Diego County CUPA or RWQCB regulations or requirements. This would include site-specific Health and Safety Plans, Work Plans, and/or Remediation Plans.

Rationale for Finding. Although SDG&E will implement APMs HS-APM-5 and HS-APM-10 to reduce impacts from known contaminated sites, they do not sufficiently evaluate the potential for the mobilization of contaminants from nearby sites. Implementation of Mitigation Measure 7a details evaluation procedures that, in conjunction with APMs HS-APM-5 and HS-APM-10, will reduce the impacts of contaminant migration resulting from the Project.

Reference. EIR/EIS Section D.10; Section E.1.10; Section E.2.10

Impact PS-1: Transmission line operation causes radio and television interference (Class II)

Although corona can generate high frequency energy that may interfere with broadcast signals or electronic equipment, this is generally not a problem for transmission lines. Gap discharges or arcs can also be a source of high frequency energy that may interfere with broadcast signals or electronic equipment. Corona or gap discharges related to high frequency radio and television interference impacts are dependent upon several factors including the strength of broadcast signals and are anticipated to be very localized if it occurs.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact PS-1. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact PS-1 to a less than significant level.

PS-1a **Limit the conductor surface electric gradient.** As part of the design and construction process for the Proposed Project, the Applicant shall limit the conductor surface electric gradient in accordance with the IEEE Radio Noise Design Guide.

PS-1b **Document and resolve electronic interference complaints.** After energizing the transmission line, SDG&E shall respond to and document all radio/television/equipment interference complaints received and the responsive action taken. These records shall be made available to the CPUC for review upon request. All unresolved disputes shall be referred by SDG&E to the CPUC for resolution.

Rationale for Finding. By limiting the conductor surface electric gradient as proposed in Mitigation Measure PS-1a, SDG&E reduces the overall potential for television and radio interference. By recording and responding to complaints about interference, as proscribed in Mitigation Measure PS-1b, SDG&E can locate and correct individual sources of adverse radio/television interference impacts on the power lines or can shield or correct electronic equipment such as computer monitors can through the use of software.

Reference. EIR/EIS Section D.10; Section E.1.10; Section E.2.10; Section E.4.10

Impact PS-2: Transmission line operation causes induced currents and shock hazards in joint use corridors (Class II)

Induced currents and voltages on conducting objects near the transmission lines represent a significant impact that can be mitigated. These impacts do not pose a threat in the environment if the conducting objects are properly grounded.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact PS-2. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact PS-2 to a less than significant level.

PS-2a **Implement grounding measures.** As part of the siting and construction process for the Proposed Project, SDG&E shall identify objects (such as fences, metal buildings, and 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 SDG&E's standards. The identification of objects shall document the threshold electric field strength and metallic object size at which grounding becomes necessary.

Rationale for Finding. Mitigation Measure PS-2a requires SDG&E to implement procedures to identify and properly ground objects near the Project which will prevent shock hazards to workers and the general public in the vicinity of the Project.

Reference. EIR/EIS Section D.10; Section E.1.10; Section E.2.10; Section E.4.10

Cumulative Impact P-1: Improper handling and/or storage of hazardous materials during construction could cause soil or groundwater contamination (Class II)

The Project may contaminate soil or groundwater through accidental releases of hazardous materials used during construction. Water Quality APMs WQ-APM-8, WQ-APM-9, and WQ-APM-11, as well as APMs HS-APM-1, HS-APM-2, HS-APM-3, HS-APM-8, and HS-APM-10 will be implemented as part of the Project to decrease the potential for accidental releases to occur and to clean up harmful materials in the unlikely event of a release. Impacts to groundwater are unlikely to occur primarily because groundwater

in the Imperial Valley and Ocotillo-Clark basins at the location of the Project is typically deeper than the expected depth of excavation (excavation will be less than 40 feet in comparison to at least 40 feet depth for groundwater), resulting in little chance for direct contamination. However, this impact may occur along the Coastal Link where shallow groundwater may exist. Commercial and mixed use development projects that are located in this area, including Torrey Corner, Torrey Hills YMCA, and Torrey Hills Center will require grading and excavation and will have similar impacts as the Project. Impacts to soil will occur along the entire route. The combined effect of impacts to soil and groundwater from these projects and the Project will result in a cumulative impact.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact P-1. Specifically, the following mitigation measures, and as set forth above, are feasible and are hereby adopted to mitigate significant cumulative effects from Impact P-1 to a less than significant level.

H-1b **Construction in Los Peñasquitos Canyon Preserve to be in the dry season; SWPPP to be reviewed and approved by San Diego County and City of San Diego.** Construction within the Los Peñasquitos Canyon Preserve (the Preserve) shall occur during the summer (dry season) months. Project construction plans and the SWPPP for project construction shall be submitted to the CPUC, the City of San Diego and the County of San Diego for review and approval prior to construction. The SWPPP shall address erosion and sedimentation control, groundwater dewatering procedures, hazardous materials identification, handling, disposal and emergency spill procedures, and any other best management procedures necessary to prevent contaminants from entering the waters of the preserve, including consideration of using directional drilling. Construction activities within the Preserve shall be open to City and County monitors who shall have the authority to ensure compliance with the approved SWPPP.

P-1a **Implement Environmental Monitoring Program.**

P-1b **Maintain emergency spill supplies and equipment.**

Rationale for Finding. While SDG&E's Application indicated that they will prepare a Hazardous Substance Control and Emergency Response Plan to reduce impacts to soil contamination, Mitigation Measures H-1b, P-1a, and P-1b will render impacts of the Project less than cumulatively considerable (Class II) by restricting construction in this area to the dry season, implementing a monitoring program, and maintaining emergency spill supplies onsite, thereby precluding impacts to groundwater and soil from the Project.

Reference. EIR/EIS Section G.3; Section G.4

Cumulative Impact PS-1: Transmission line operation causes radio and television interference (Class II)

Corona or gap discharges related to high frequency radio and television interference impacts are very localized, if they occur at all. Along different portions of the route, the Project will be constructed adjacent to existing transmission lines. In addition, other new transmission line projects, will similarly expand the area affected by interference effects. Therefore, these effects have the potential to be cumulatively considerable. However, in all cases, the individual sources of adverse radio/television interference impacts can be located and corrected by making adjustments to the power lines themselves. The potential magnetic field interference of transmission lines with electronic equipment such as computer monitors can be corrected through the use of software, shielding or changes at the monitor location. Depending on the proximity of residences and businesses to multiple sources of radio and television interference, the incremental effect of radio and television interference from the Project, when combined with the effects of other new transmission lines in the area, will be significant.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact PS-1. Specifically, the following mitigation measures, as set forth above, are feasible and are hereby adopted to mitigate significant effects from Impact PS-1 to a less than significant level.

PS-1a Limit the conductor surface electric gradient.

PS-1b Document and resolve electronic interference complaints.

Rationale for Finding. By limiting the conductor surface electric gradient as proposed in Mitigation Measure PS-1a, SDG&E reduces television and radio interference. By recording and responding to complaints about interference, as proscribed in Mitigation Measure PS-1b, SDG&E can locate and correct individual sources of adverse radio/television interference impacts on the power lines or can shield or correct electronic equipment such as computer monitors can through the use of software.

Reference. EIR/EIS Section G.3; Section G.4

Cumulative Impact PS-2: Transmission line operation causes induced currents and shock hazards in joint use corridors (Class II)

Induced currents and voltages on conducting objects near the transmission lines represent a significant impact, but these impacts do not pose a threat to safety if the conducting objects are properly grounded. Like radio/television interference, the addition of new transmission lines through the region is expanding the area potentially at risk for shock hazards, and other nearby existing and reasonably foreseeable transmission lines like the existing SWPL Transmission Line, contribute to this expansion. The cumulative impact of such projects will be significant, and the Project's contribution to this impact will be cumulatively considerable.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project, which mitigate significant cumulative effects on the environment from Impact PS-2. Specifically, the following mitigation measure, as set forth above, is feasible and is hereby adopted to mitigate significant cumulative effects from Impact P-2 to a less than significant level.

PS-2a Implement grounding measures.

Rationale for Finding. Mitigation Measure PS-2a requires SDG&E to implement procedures to identify and properly ground objects near the Project which will prevent shock hazards to workers and the general public in the vicinity of the Project.

Reference. EIR/EIS Section G.3; Section G.4

III.2.10 Air Quality

No Class II air quality impacts.

III.2.11 Water Resources

Data collection was conducted through a field trip, review of aerial photos and topographic maps, and review of documents listed in the references section of this report, including the Project description, the PEA (SDG&E, 2006), and documents from the United States Geological Survey (USGS), California Department of Water Resources, and the State Water Resources Control Board. Stream crossings were

identified primarily through the use of aerial photographs, supplemented by topographic maps and field site visits. Stream crossing identified include those clearly visible on aerial photographs and topographic maps. These do not necessarily include all minor channels, particularly in the desert links, where channels with multiple braids may have been considered one.

Impact H-1: Construction activity could degrade water quality due to erosion and sedimentation (Class II)

Tables E.1.12-1, E.2-8, and E.4.12-1 list the streams that are at risk of water quality degradation due to construction-induced erosion and sedimentation along the Project route. APMs and the Stormwater Pollution Prevention Plan (SWPPP) are intended to control these impacts; however, contamination from soil disturbance is significant without mitigation along this alternative because of the steep terrain, natural condition of the vegetation, and possible presence of surface waters during the dry season. Sediment produced from access road construction and for tower pads could be substantial, especially within the Cleveland National Forest where the impact of sedimentation would be greatest. With the implementation of Mitigation Measures H-1a, H-1a (CC), H-1k, and H-1l, will reduce these impacts to less than significant (Class II).

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact H-1. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact H-1 to a less than significant level.

H-1a **Prepare Substation Grading and Drainage Plan; construct during the dry season.** Prior to construction of new substations, a grading and drainage plan, with SWPPP for construction and post-construction BMPs (as defined by the RWQCB), shall be prepared and submitted to the CPUC and RWQCB for review and approval. All grading for the substation shall occur either during the dry season months, or a settling pond shall be installed on the construction site with sufficient capacity to contain expected runoff during a rainfall event. In addition, for construction during a rainfall event, construction shall cease when rutting occurs in greater than 10% of the road or when rills more than 10 feet in length develop and lead off the road surface in the work area. Approved drainage control and erosion control BMPs shall be in place prior to the normal onset of winter rains.

H-1a(CC) **Construct during the dry season.** All construction of the Chocolate Canyon Option shall occur during the dry season months. Approved drainage control and erosion control BMPs shall be in place prior to the normal onset of winter rains. Implement the City of San Diego Source Water Protection Guidelines for New Development (2004) that describes procedures for minimizing the adverse water quality effect of new development near water supply reservoirs such as El Capitan. These guidelines specify best management practice procedures to be used by the development, which would include the Chocolate Canyon Option.

H-1k **Comply with Forest Service conditions.** Where the power line crosses Forest Service property, the following conditions, or others defined by the Forest Service, based on consultation, shall be complied with:

- The Forest Service reserves the right, after notice and opportunity for comment, to modify project conditions, if necessary, to respond to any Final Biological Opinion issued for this project by the United States Fish and Wildlife Service, NOAA Fisheries, or any Certification or permit issued for this Project by the State Water Resources Control Board or Army Corps of Engineers.

- Within one year of license issuance, or prior to any ground disturbing activities, the Licensee shall file with the California Public Utilities Commission a plan approved by the Forest Service for hazardous substances storage, spill prevention, and spill cleanup for project facilities on or directly affecting National Forest System Lands. In addition, during planning and prior to any new construction or maintenance not addressed in an existing plan, the Licensee shall notify the Forest Service, and the Forest Service shall make a determination whether a plan approved by the Forest Service for oil and hazardous substances storage and spill prevention and cleanup is needed.
- At a minimum, the plan must require the Licensee to (1) maintain in the Project area, or at an alternative location approved by the Forest Service, a cache of spill cleanup equipment suitable to contain any spill from the Project; (2) to periodically inform the Forest Service of the location of the spill cleanup equipment on National Forest System lands and of the location, type, and quantity of oil and hazardous substances stored in the Project area; (3) to inform the Forest Service immediately of the nature, time, date, location, and action taken for any spill affecting National Forest System lands, and Licensee adjoining property when such spill could reasonably be expected to affect National Forest System lands, and (4) provide annually to the Forest Service a list of Licensee project contacts.
- The Licensee shall confine all vehicles being used for project purposes, including but not limited to administrative and transportation vehicles and construction and inspection equipment, to roads or specifically designed access routes, and approved construction and staging areas, as identified in a Road and Traffic Management Plan developed by the Licensee. The Forest Service reserves the right to close any and all such routes where damage (impacts beyond the expected and approved disturbance) is occurring to the soil or vegetation, or, if requested by Licensee, to require reconstruction/construction by the Licensee to the extent needed to accommodate the Licensee's use. The Forest Service agrees to provide notice to the Licensee and the Public Utilities Commission prior to road closures, except in an emergency, in which case notice will be provided as soon as practicable.
- During planning and before any new construction or non-routine maintenance projects with the potential for causing erosion and/or stream sedimentation on or affecting National Forest System Lands, the Licensee shall file with the Public Utilities Commission an Erosion Control Measures Plan that is approved by the Forest Service. The Plan shall include measures to control erosion, stream sedimentation, dust, and soil mass movement attributable to the Project.

  The plan shall be based on actual-site geological, soil, and groundwater conditions and shall include:

  1. A description of the actual site conditions
  2. Detailed descriptions, design drawings, and specific topographic locations of all control measures
  3. Measures to divert runoff away from disturbed land surfaces
  4. Measures to collect and filter runoff over disturbed land surfaces
  5. Revegetating disturbed areas in accordance with current direction on use of native plants and locality of plant and seed sources
  6. Measures to dissipate energy and prevent erosion

7. A monitoring and maintenance schedule.

Upon Commission approval, the Licensee shall implement the plan.

- The Licensee shall within 6 months after license issuance file with the Public Utilities Commission a Water Resources Management Plan that is approved by the Forest Service, for the purpose of controlling and monitoring the Project-related effects to water resources on National Forest System lands, which are related to the Licensee's activities. The purpose of the plan is to protect groundwater related surface water and other groundwater-dependent resources.
- Within one year of license issuance the Licensee shall file with the Public Utilities Commission a plan approved by the Forest Service for the management of groundwater and the associated surface waters on or affecting National Forest System lands. The purpose of the plan shall be to reduce the potential for groundwater extraction or contamination and related effects to surface water resources.

H-1l **Construction on Forest Service land to be subject to an approved, site-specific SWPPP and Sediment Control Plan.** A site-specific sediment control plan and SWPPP shall be prepared for construction within the National Forest. These plans shall identify and characterize potentially affected water resources and provide site-specific remedies to minimize project-related sedimentation, as well as provide post-construction remediation and monitoring details. The sediment control plan shall include construction in the dry period, as well as construction by helicopter in areas where terrain is steep and the potential consequences of sedimentation severe. These plans shall be submitted to the Forest Service and CPUC for review and approval prior to construction.

Rationale for Finding. Mitigation Measure H-1a will minimize erosion and sedimentation from substation grading by restricting construction to the dry season or by requiring use of a settling pond during the wet season. Mitigation Measure H-1k will minimize erosion and sedimentation on Forest System lands by requiring an Erosion Control Measures Plan, a Water Resources Management Plan, and a Groundwater Management Plan that will set forth site-specific erosion and sediment control measures. Mitigation Measure H-1l will minimize erosion and sedimentation on Forest System lands by requiring a site-specific Sediment Control Plan and Storm Water Pollution Prevention Plan (SWPPP), which will set forth construction and post-construction BMPs to protect water quality. Together these measures will reduce the impacts to water quality from erosion and sedimentation to a less than significant level.

Reference. EIR/EIS Section E.1.12; Section E.2.12; Section E.4.12

Impact H-2: Construction activity could degrade water quality through spills of potentially harmful materials (Class II)

As discussed in Sections E.1.12, E.2.12, and E.4.12, Impact H-2 will apply to the watercourses along the Project route and to the area downstream of the Modified Route D Substation by potentially contaminating streams and downstream water supply reservoirs with diesel fuel, gasoline, lubrication oil, cement slurry, hydraulic fluid, antifreeze, transmission fluid, lubricating grease, and other fluids. APMs WQ-APM-8, WQ-APM-9, WQ-APM-13, and WQ-APM-14 address the issue of water quality contamination through material spills. WQ-APM-8 requires that excavated groundwater, which could be contaminated from construction, not be returned to the natural system without treatment. WQ-APM-9 requires storage of hazardous materials away from groundwater supply wells. WQ-APM-13 requires proper disposal of hazardous materials and trash, as well as prompt clean-up of spills. WQ-APM-14 requires compliance

with State regulations and implementation of a SWPPP which will address materials disposal and clean-up during construction. Additionally, APMs WQ-APM-1, WQ-APM-2 and WQ-APM-15 situate construction activities away from streams where possible. Nevertheless, Impact H-2 will be significant without mitigation as there are dozens of major water crossings along this alternative, including several large perennial or intermittent streams and construction on Forest Service land. With Mitigation Measures H-1a, H-1k, H-1l and H-2d in place for the substation and Forest Service land, impacts will be less than significant (Class II).

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact H-2. Specifically, the following mitigation measures, and as set forth here and above, are feasible and are hereby adopted to mitigate significant effects from Impact H-2 to a less than significant level.

H-1a **Prepare Substation Grading and Drainage Plan; construct during the dry season.**

H-1k **Comply with Forest Service conditions.**

H-1l **Construction on Forest Service land to be subject to an approved, site-specific SWPPP and Sediment Control Plan.**

H-2d **Maintain vehicles and equipment.** All vehicles and equipment, including all hydraulic hoses, shall be maintained in good working order so that they are free of any and all leaks that could escape the vehicle or contact the ground. A vehicle and equipment maintenance log shall be updated and provided to CPUC and BLM once monthly during project construction.

Rationale for Finding. Mitigation Measure H-1a, which requires grading to occur during the dry season to avoid water quality impacts and erosion and sediment control BMPs to be in place prior to the onset of seasonal rains, will also mitigate impacts from material spills. Mitigation Measure H-1k will minimize contamination of surface and groundwater on Forest System lands by requiring hazardous substances storage, spill prevention, and spill cleanup plan that will set forth a Forest-approved protocol for containing spills and by confining vehicles to roads, access routes, and staging areas. The sediment control plan required as a part of Mitigation Measure H-1l will also minimize water contamination on Forest System lands. Mitigation Measure H-2d will ensure that equipment is maintained in good working order to reduce spills and soil/groundwater contamination. Together these measures will reduce the impacts to water quality from hazardous materials spills to a less than significant level.

Reference. EIR/EIS Section E.1.12; Section E.2.12; Section E.4.12

Impact H-4: Groundwater dewatering for project construction could deplete local water supplies (Class II)

As discussed in Sections E.1.12, E.2.12, and E.4.12, dewatering could result in a local and temporary drawdown of groundwater levels, temporarily reducing the yield of nearby water supply wells. In addition, blasting or drilling for tower foundations could reduce flows in wells and springs. Water supply wells are typically deeper than the maximum excavation depth of 40 feet along the Project route, so a temporary drawdown limited to that depth likely will not affect water yield. APM WQ-APM-6 requires identification of these wells and provision of alternate water supplies during the period of depletion. Nonetheless, reduced water flows in wells and springs will be significant should it occur. This impact will be significant (Class II), but it could be mitigated to a less than significant level through implementation of Mitigation Measure H-4b, which will restrict blasting where wells will be affected and will ensure timely drinking water replacement.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact H-4. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact H-4 to a less than significant level.

H-4b **Avoid blasting where damage to groundwater wells or springs could occur.** Blasting shall be managed with a Blasting Plan for each site. The Plan shall include the blasting methods, distance calculations to estimate the area of effect of the blasting, and surveys for wells and springs within the blast influence area. Blasting shall not be allowed where damage to wells or springs could occur, and a rock anchoring or mini-pile system shall be used if these resources could be damaged as a result of blasting or any earthworking method used as an alternative to blasting. Where inadvertent damage to wells within an EPA-designated Sole Source Aquifer occur as a result of earthwork, the Applicant shall compensate the landowner in the form of well repair or replacement, and shall provide the landowner with a water storage tank and sufficient potable water within 48 hours and throughout the interim between damage and repair or replacement. Where inadvertent damage to other wells or springs occurs as a result of earthwork, the Applicant shall compensate the landowner in the form of remedial cash payment, repair, or replacement, as appropriate. The burden of proof of no impact shall rest with the Applicant.

Rationale for Finding. Mitigation Measure H-4b requires well surveys, alternatives to blasting where damages may occur, and immediate provision of alternate drinking water supplies in the event of damage. This measure will reduce the impacts from blasting to a less than significant level.

Reference. EIR/EIS Section E.1.12; Section E.2.12; Section E.4.12

Impact H-5: Creation of new impervious areas could cause increased runoff resulting in flooding or increased erosion downstream (Class II)

As discussed in Section E.4.12, the Modified Route D Substation will have a building pad of approximately 35 acres which will have a higher runoff coefficient than the existing ground, resulting in increased local peak flow rates, volumes and runoff frequency. This impact will be local to the drainageways immediately downstream of the substation, but further downstream, where the relative runoff contribution of the Modified Route D Substation is smaller, the effects will be negligible.

Local increases in runoff could be substantial, resulting in local offsite erosion which will occur in the area immediately downstream of the substation. Because of this, Impact H-5 will be significant without mitigation. Mitigation Measure H-5a, which provides additional methods to reduce runoff and runoff impacts, will reduce this impact to less than significant (Class II).

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact H-5. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact H-5 to a less than significant level.

H-5a **Install substation runoff control.** The pad for new substations shall be constructed with a pervious and/or high-roughness (for example, gravel) surface where possible to ensure maximum percolation of rainfall after construction. Detention/retention basins shall be installed to reduce local increases in runoff, particularly on frequent runoff events (up to 10-year frequency). Downstream drainage discharge points shall be provided with erosion protection and designed such that flow hydraulics exiting the site mimics the natural condition as much

as possible. A drainage design hydrologic and hydraulic analysis shall be provided to the CPUC for review and approval prior to the initiation of construction.

Rationale for Finding. Mitigation Measure H-5a will minimize runoff from the presence of the substation pad to a less than significant level by maximizing percolation of rainfall and requiring detention and/or retention basins to contain runoff.

Reference. EIR/EIS Section E.4.12

Impact H-6: Transmission towers or other aboveground project features located in a floodplain or watercourse could result in flooding, flood diversions, or erosion (Class II)

As discussed in Sections D.12, E.1.12, E.2.12, and E.4.12, watercourses are potentially susceptible to flooding, flood diversions, and erosion, which will occur and result in damage to adjacent property, if towers are placed in or near watercourses. Placement of towers in watercourses is unlikely except in the eastern (desert) portions of the Project. The risk of Impact H-6 for the remainder the Project is low, as most towers will be placed on high ground and the watercourses spanned. The towers at MPs MRD 6.84, 9.42, and 25.95 (Table E.4.12-1) have a slight potential for inducing erosion by being near small watercourses. Impact H-6 will be controlled in large part by APMs WQ-APM-2 and WQ-AMP-10 (Table D.12 6). Nevertheless, Impact H-6 will be significant without mitigation. With Mitigation Measure H-6a in place, Impact H-6 will be less than significant (Class II) as it will protect adjacent properties.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact H-6. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact H-6 to a less than significant level.

H-6a **Scour protection to include avoidance of bank erosion and effects to adjacent property.** A determination of towers requiring scour protection under WQ-APM-10 shall be made during the design phase by a registered professional engineer with expertise in river mechanics. All towers within the Project shall be reviewed by the river mechanics engineer and the foundations of those towers determined to be subject to scour or lateral movement of a stream channel shall be protected by burial beneath the 100-year scour depth, setbacks from the channel bank, or bank protection as determined by the river mechanics engineer. An evaluation shall also be made regarding the potential for the tower and associated structures to induce erosion onto adjacent property. Should the potential for such erosion occur, the tower location shall be moved to avoid this erosion, or erosion protection (such as rip rap) provided for the adjacent property. This evaluation, and associated scour/erosion protection design plans, shall be submitted to the CPUC for review and approval 60 days prior to the initiation of construction of the towers.

Rationale for Finding. Mitigation Measure H-6a will protect adjacent properties by requiring at-risk towers to be identified by a registered professional engineer and site-specific erosion control mitigation to be incorporated as appropriate. This measure will reduce impacts of erosion on adjacent properties to a less than significant level.

Reference. EIR/EIS Section D.12; Section E.1.12; Section E.2.12; Section E.4.12

Impact H-7: Accidental releases of contaminants from project facilities could degrade water quality (Class II)

As discussed in Sections D.12 and D.4.12, oil and other contaminants from new electrical equipment at the existing Imperial Valley, Sycamore Canyon, Peñasquitos, San Luis Rey, and South Bay Substations and the Modified Route D Substation could be released accidentally and contaminate local surface water or groundwater. The Modified Route D Substation site is upland with no identified water resources, including no groundwater, but it is in an area that drains to the Sweetwater River and Loveland Reservoir. A large uncontained spill could eventually reach Loveland Reservoir. APM WQ-APM-13 requires clean-up of spills and proper storage and disposal of contaminants. However, WQ-APM-13 does not adequately address how spills will be contained or minimized, nor does it require advance planning on spill clean-up. This issue will be addressed by the SWPPP for construction (see Impact H-2), but not for project operation. Therefore, Impact H-7 will be significant. Mitigation Measure H-7a requires development of a Hazardous Substance Control and Emergency Response Plan for project operation. With Mitigation Measure H-7a, Impact H-7 will be less than significant (Class II).

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact H-7. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact H-7 to a less than significant level.

H-7a **Develop Hazardous Substance Control and Emergency Response Plan for project operation.** SDG&E shall prepare and implement a Hazardous Substance Control and Emergency Response Plan for project operation, and a copy shall be kept onsite at substations. This plan shall include definition of an emergency response program to ensure quick and safe cleanup of accidental spills, including prescriptions for hazardous-material handling to reduce the potential for a spill during construction. The plan will identify areas where refueling and vehicle-maintenance activities and storage of hazardous materials, if any, will be permitted. These directions and requirements will also be reiterated in the Project SWPPP. SDG&E shall submit this Response Plan to the CPUC and BLM for review and approval at least 60 days before construction.

Rationale for Finding. Mitigation Measure H-7a will minimize impacts to waterbodies through accidental releases of hazardous substances at existing and new substations by requiring a Hazardous Substance Control and Emergency Response Plan for Project operation, which will stipulate emergency response protocols, hazardous material handling prescriptions, and designated refueling, vehicle maintenance, and hazardous materials storage areas. This will reduce impacts to waterbodies to a less than significant level.

Reference. EIR/EIS Section D.12; Section D.4.12

Impact H-8: Underground portions of the power line could be exposed during flow events causing damage to the line or to adjacent property (Class II)

As discussed in Section E.1.12, Impact H-8 applies to the underground crossings listed in Table E.1.12-1 where the Project will go underground from MP I8-74 to I8-78.5. Most of these crossings are in established roadways that should be sufficiently robust to protect against scour, making the risk of Impact H-8 unlikely. Nevertheless, Impact H-8 could be significant without mitigation in the areas that do not cross in established roadways. With Mitigation Measure H-8a in place, Impact H-8 will be less than significant (Class II).

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact H-1. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact H-1 to a less than significant level.

H-8a **Bury power line below 100-year scour depth.** At locations where the buried power line is to be at or adjacent to a stream bed capable of scour, the power line shall be located below the expected depth of scour from a 100-year flood, or otherwise protected from exposure by scour which, for purposes of this mitigations measure, also includes lateral (streambank) erosion and potential scour associated with flows overtopping or bypassing a culvert or bridge crossing. During final design, a registered civil engineer with expertise in hydrology, hydraulics, and river mechanics shall make a determination of where the underground line could be at risk of exposure through scour or erosion from a 100-year event. Plans for burying the line below the 100-year scour depth, or otherwise protecting the line from erosion, shall be submitted to CPUC for review and approval prior to construction.

Rationale for Finding. Mitigation Measure H-8a will minimize the risk of exposure of the underground transmission line to a less than significant level by requiring burying of the line below the 100-year scour depth.

Reference. EIR/EIS Section E.1.12

Cumulative Impact H-6: Transmission towers or other aboveground project features located in a floodplain or watercourse could result in flooding, flood diversions, or erosion (Class II)

As discussed in Section G.4.2, encroachment of the Project structures into a flow path could result in erosion damage to the encroaching structure, diversion of flows and increased flood risk for adjacent property, and/or increased erosion on adjacent property. APMs WQ-APM-1, WQ-APM-2, and WQ-APM-10 will reduce erosion on adjacent properties by minimizing construction in riparian areas and by requiring burial of underground wires below the 100-year scour depth, but not to a less than significant level. Other past, present and reasonably foreseeable projects, such as the existing and proposed transmission lines that have been/will be constructed within the same ROW as the I-8 Alternative will have similar effects. Effects of the I-8 Alternative will combine with those of past and reasonably foreseeable projects to divert flood flows and substantially increase erosion within the ROW and on adjacent properties, resulting in a significant impact. However, implementation of Mitigation Measure H-6a will render the Project's contribution to this impact to less than considerable (Class II) by avoiding bank erosion and effects to adjacent properties.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact H-6. Specifically, the following mitigation measure, set forth above in Section III.2.12, is feasible and is hereby adopted to mitigate significant cumulative effects from Impact H-6 to a less than significant level.

H-6a **Scour protection to include avoidance of bank erosion and effects to adjacent property.**

Rationale for Finding. Mitigation Measure H-6a will protect adjacent properties by requiring at-risk towers to be identified by a registered professional engineer and site-specific erosion control mitigation to be incorporated as appropriate. This measure will reduce the incremental contribution of the Project to erosion on adjacent properties to a less than significant level.

Reference. EIR/EIS Section G.4.2

III.2.12 Geology, Mineral Resources, and Soils

The CPUC and BLM examined the regional topography, geology, seismicity, soils, and mineral resources in the Project area, by collecting baseline geologic information from published and unpublished geologic, seismic, and geotechnical literature. The literature review was supplemented by a field reconnaissance of the routes studied in the EIR/EIS. The literature review and field reconnaissance focused on the identification of specific geologic hazards, mineral resources, and soil conditions.

Impact G-2: Unique geologic features would be damaged due to construction activities (Class II)

Construction activities such as grading and excavation from the Project may damage desert pavement, which is a special concern in the desert areas of the Project route. Desert pavement is a unique geologic/soil feature that takes thousands of years to form and protects the underlying silty and sandy soils from excessive wind and water erosion. Damage to desert pavement as a result of Project construction will result in an extreme acceleration of erosion as well as damage a unique geologic feature resulting in a significant impact. At least one soil association along the eastern end of the Project at MPs I8-0–4.2, I8-7.9–13, I8-16.1–17.6, and I8-18.4-23.5, the Rositas-Orita-Carrizo-Aco (s994), is known to include areas of desert pavement.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project that mitigate significant effects on the environment from Impact G-2. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact G-2 to a less than significant level.

G-2a **Protect desert pavement.** Grading for new access roads or work areas in areas covered by desert pavement shall be avoided or minimized. If avoidance of these areas is not possible, the desert pavement surface shall be protected from damage or disturbance from construction vehicles by use of temporary mats placed on the ground surface. A plan for identification and avoidance or protection of sensitive desert pavement shall be prepared and submitted to the CPUC and BLM for review and approval at least 60 days prior to start of construction. The plan shall define how protective measures will prevent destruction of desert pavement.

Rationale for Finding. The plan required of SDG&E by the CPUC and BLM under Mitigation Measure G-2a will ensure that SDG&E will implement procedures to sufficiently protect desert pavement areas, in addition to the other protections afforded in the APMs and SWPPP.

Reference. EIR/EIS Section D.13; Section E.1.13

Impact G-3: Project would expose people or structures to potential substantial adverse effects as a result of problematic soils (Class II)

Corrosive subsurface soils that have a detrimental effect on concrete and metals may exist in places along the Project route. Expansive soils, such as those found along the Project route, can also cause problems to structures. Corrosive soils result in damage and/or distress of structures, eventually leading to structural failures. Loose sands and other compressible soils will also result in excessive settlement, low foundation-bearing capacity, and limitation of year-round access to Project facilities. Application of standard design and construction practices and implementation of GEO-APM-3 will partially reduce the adverse affects of problematic soils by avoiding placement of structures in areas of high shrink/swell potential, to the extent feasible. However, actual locations of high shrink/swell (expansive) soils and the presence, absence, and location of corrosive soils needs to be determined to fully reduce the potential for adverse affects of problematic soils to less than significant.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project that mitigate significant effects on the environment from Impact G-3. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact G-3 to a less than significant level.

G-3a **Conduct geotechnical studies for soils to assess characteristics and aid in appropriate foundation design.** The design-level geotechnical studies to be performed by the Applicant shall identify the presence, if any, of potentially detrimental soil chemicals, such as chlorides and sulfates. 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 cathodic protection systems. The geotechnical studies shall also identify areas with potentially expansive or collapsible soils and include appropriate design features, including excavation of potentially expansive or collapsible soils during construction and replacement with engineered backfill, ground-treatment processes, and redirection of surface water and drainage away from expansive foundation soils. Studies shall conform to industry standards of care and ASTM standards for field and laboratory testing. Study results and proposed solutions shall be provided to the CPUC and BLM for review and approval at least 60 days before final project design.

Rationale for Finding. SDG&E's application of standard design and construction practices and implementation of GEO-APM-3 will reduce the adverse affects of problematic soils, but Mitigation Measure G-3a formalizes the specific procedures necessary to ensure the protection of the Project structures in a manner sanctioned by the CPUC and BLM.

Reference. EIR/EIS Section D.13; Section E.1.13; Section E.2.13; Section E.4.13

Impact G-4: Project would expose people or structures to potential substantial adverse effects as a result of seismically induced groundshaking and/or ground failure (Class II)

Moderate to strong groundshaking will result in seismically induced ground failures, including liquefaction-related phenomena and slope failures along portions of the Project. In a large earthquake, ground failures may occur where the Project crosses active river washes and streams with seasonally saturated lenses and pockets of loose sand, which liquefy and damage project structures. These areas include active washes and flood plains of Tule Creek and its associated tributaries, and where the Project alignment crosses and is within active washes and flood plains of Cameron Valley and other active creeks and tributaries.

Seismically induced ground failure caused by groundshaking, which includes liquefaction and lateral spreading, will damage project facilities. Expected groundshaking (moderate to strong) is highest along the eastern portion of the alignment, from approximately mileposts I8-0 to I8-23.5. Seismically induced slope failures such landslides and rockfalls will occur along portions of the Project ROW in areas along and near moderate to steep slopes, including the portions of the alignment west of MP I8-22, and portions west of MP BCD-11.5.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project that mitigate significant effects on the environment from Impact G-4. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact G-4 to a less than significant level.

G-4a **Reduce effects of groundshaking.** The design-level geotechnical investigations performed by the Applicant shall include site-specific seismic analyses to evaluate the peak ground accelerations for design of project components. Based on these findings, project structure designs

shall be modified/strengthened, as deemed appropriate by the Project engineer, if the anticipated seismic forces (high calculated peak vertical and horizontal ground accelerations due to severe groundshaking) are found to be greater than anticipated wind load stresses on project structures. Study results and proposed design modifications shall be provided to the CPUC and BLM for review and approval at least 60 days before final project design.

G-4b **Conduct geotechnical investigations for liquefaction.** Because seismically induced liquefaction-related ground failure has the potential to damage or destroy project components, the design-level geotechnical investigations to be performed by the Applicant shall include investigations designed to assess the potential for liquefaction to affect the approved project and all associated facilities, specifically at tower locations in areas with potential liquefaction-related impacts. Where these hazards are found to exist, appropriate engineering design and construction measures shall be incorporated into the Project designs as deemed appropriate by the Project engineer. Design measures that would mitigate liquefaction-related impacts could include construction of pile foundations, ground improvement of liquefiable zones, installation of flexible bus connections, and incorporation of slack in cables to allow ground deformations without damage to structures. Study results and proposed solutions to mitigate liquefaction shall be provided to the CPUC and BLM for review and approval at least 60 days before final project design.

G-6a **Conduct geotechnical surveys for landslides and protect against slope instability.** The design-level geotechnical surveys conducted by the Applicant shall perform slope stability analyses in areas in areas of planned grading and excavation that cross and are immediately adjacent to hills and mountains. 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 in other areas of ground disturbance, such as grading for access and spur roads. The investigations shall include an evaluation of subsurface conditions, identification of potential landslide hazards, and provide information for development of excavation plans and procedures. If the results of the geotechnical survey indicate the presence of unstable slopes at or adjacent to Proposed Project structures, appropriate support and protection measures shall be designed and implemented to maintain the stability of slopes adjacent to newly graded or re-graded access roads, work areas, and project structures during and after construction, and to minimize potential for damage to project facilities. These design measures shall include, but are not limited to, retaining walls, visquene, removal of unstable materials, and avoidance of highly unstable areas. SDG&E shall document compliance with this measure prior to the final project design by submitting a report to the CPUC for review and approval at least 60 days before construction. The report shall document the investigations and detail the specific support and protection measures that will be implemented.

Rationale for Finding. The APMs proposed by SDG&E do not provide sufficient detail to ensure that their measures will adequately reduce the impacts of groundshaking or ground failure on the Project. Requiring SDG&E to submit their geotechnical surveys to the CPUC and BLM will ensure that impacts will be reduced to less than significant.

Reference. EIR/EIS Sections D.13; Section E.1.13; Section E.2.13; Section E.4.13

Impact G-5: Project would expose people or structures to potential substantial adverse effects as result of surface fault rupture at crossings of active faults (Class II)

Project facilities will be subject to hazards of surface fault rupture at crossings of the active Yuha Wells, and Elsinore Faults. In general, GEO-APM-4 requires that project structures be placed in stable areas avoiding fault lines. However, GEO-APM-4 does not specify the methodology used to locate and avoid surface traces of the active faults. Project structures will be damaged or collapse in the event of fault rupture beneath or adjacent to a tower due to inaccurate fault location during project design. Collapse of project structures will result in power outages, damage to nearby roads of structures, and injury or death to people.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact G-5 to a less than significant level. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact G-5 to a less than significant level.

G-5a **Minimize project structures within active fault zones.** Prior to final project design SDG&E shall perform a geologic/geotechnical study to confirm the location of mapped traces of active and potentially active faults crossed by the Project route. For crossings of active faults, the Project design shall be planned so as not to locate towers or other project structures on the traces of active faults and in addition project components shall be placed as far as feasible outside the areas of mapped fault traces. Compliance with this measure shall be documented to the CPUC and BLM in a report submitted for review and approval at least 60 days prior to the start of construction.

Rationale for Finding. SDG&E's application of standard design and construction practices and implementation of GEO-APM-4 will help reduce the adverse affects of fault rupture, but Mitigation Measure G-5a is required to formalize the specific procedures necessary to ensure the protection of the Project structures in a manner sanctioned by the CPUC and BLM.

Reference. EIR/EIS Sections D.13; Section E.1.13

Impact G-6: Project would expose people or structures to potential substantial adverse effects as a result of slope instability created during excavation and/or grading (Class II)

Construction consisting of grading and excavation along the foothills at the edge of the Jacumba, In-Ko-Pah, and Laguna Mountains west of I8-MP 22 and BCD-MP 11.5 and at the easternmost end of the I-8 Project alignment could cause slope instability. Excavation operations associated with tower foundation construction and grading operations for temporary and permanent access roads and work areas could result in slope instability, resulting in landslides, soil creep, or debris flows that undermine foundations, cause distortion and distress to overlying structures, and displace or destroy project components. SDG&E's APMs GEO-APM-4 and -8 partially reduce impacts related to slope instability by avoiding placing structures in unstable areas and removing or stabilizing boulders upslope of structures thus reducing the threat of possible slope failures or rockfalls. However, the Project will still result in significant impacts if unidentified unstable slopes or areas of unstable slopes are disturbed or undercut by construction activities resulting in slope failures. Slope failures will damage the environment, to Project or other nearby structures, and may cause injury or death to workers and/or the public.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project that mitigate significant effects on the environment from Impact G-6. Specifically, mitigation measure G-6a, as set

forth above, is feasible and is hereby adopted to mitigate significant effects from Impact G-6 to less than significant.

G-6a Conduct geotechnical surveys for landslides and protect against slope instability.

Rationale for Finding. SDG&E's application of standard design and construction practices and implementation of GEO-APM-4 and -8 will help reduce the adverse affects of landslides and slope instability. The APMs proposed by SDG&E, however, do not provide sufficient detail to ensure that their measures will adequately reduce the impacts of the Project. Requiring SDG&E to submit their geotechnical surveys and design measures to the CPUC and BLM will ensure that impacts will be reduced to less than significant.

Reference. EIR/EIS Sections D.13; Section E.1.13; Section E.2.13; Section E.4.13

Impact G-7: Project would expose people or structures to potential substantial adverse effects as a result of landslides, earthflows, debris flows, and/or rockfall (Class II)

Slope instability including landslides, earth flows, and debris flows will undermine foundations, cause distortion and distress to overlying structures, and displace or destroy Project components. The areas where landslides will cause damage to Project structures are along moderate to steep slopes west of I8-22 of the I-8 alignment, west of milepost BCD-11.5, where the Project traverses along moderate to steep slopes, and where the alignment crosses slopes underlain by landslide prone Poway Group units. SDG&E's APMs GEO-APM-4 and -8 will partially reduce impacts related to landslide hazards during operations of the Project. However, unidentified unstable slopes or areas of potentially unstable slopes will fail during the lifetime of the Project. Slope failures cause collapse of Project structures resulting in power outages, damage to nearby roads or structures, and injury or death to nearby people

Finding. The CPUC finds that changes or alterations have been incorporated into the Project that mitigate significant effects on the environment from Impact G-7. Specifically, the following mitigation measure, as set forth above, is feasible and is hereby adopted to mitigate significant effects from Impact G-7 to less than significant.

G-6a Conduct geotechnical surveys for landslides and protect against slope instability.

Rationale for Finding. SDG&E's application of standard design and construction practices and implementation of GEO-APM-4 and -8 will help reduce the adverse affects of landslides, earthflows, and debris flows. The APMs proposed by SDG&E, however, do not provide sufficient detail to ensure that their measures will adequately reduce the impacts of the Project. Requiring SDG&E to submit their geotechnical surveys and design measures to the CPUC and BLM will ensure that impacts will be reduced to less than significant.

Reference. EIR/EIS Section D.13; Section E.1.13; Section E.2.13; Section E.4.13

Impact G-9: Construction activities would interfere with access to known mineral resources (Class II)

The Project crosses the edges of two active sand and gravel quarries and one granite/crushed-broken stone quarry. In Imperial County, the Project ROW crosses through the southern portion of the Ocotillo Material Pit near MP I8-19 (as shown in Figure E.1.13-A). The site is owned by Masters Construction and is in active production of sand and gravel. In San Diego County, the Project ROW crosses the northern edges of two adjacent quarries located between mileposts 89.5 and 90.5, the Ennis Pit owned by Hansen Aggregate which is in active production of sand and gravel and the TTT Quarry owned by

Superior Ready Mix, which is an active granite/crushed-broken stone quarry. Construction operations for the Project could interfere with daily ongoing mining operations at the quarry.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project that mitigate significant effects on the environment from Impact G-9. Specifically, the Highway 67 Hansen Quarry Reroute, discussed in the RDEIR/SDEIS section 3.3.4, is feasible and is hereby adopted to mitigate significant effects from Impact G-9. Additionally, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact G-9 to less than significant.

G-9a **Coordinate with quarry operations.** SDG&E shall coordinate with operations and management personnel, and with BLM, to determine status of and plans for active quarries adjacent to or crossed by project alignments. SDG&E shall develop a plan to avoid or minimize interference with mining operations in conjunction with mine/quarry operators prior to construction, and submit it for review and approval to the BLM and CPUC. If mine operators are out of compliance with BLM lease requirements, SDG&E shall coordinate with all parties to resolve the situation and shall demonstrate compliance with this measure prior to the start of construction by submitting the plan to the CPUC and BLM for review at least 60 days prior to the start of construction. If active mining areas require a reroute of the existing SWPL or the Interstate 8 Alternative route, SDG&E shall provide a detailed map documenting proposed new tower and access road location(s), as well as a summary of environmental impacts that would occur (biological and cultural resources surveys must be completed).

Rationale for Finding. The APMs proposed by SDG&E do not address the potential disturbance of mineral extraction activities, and will not reduce impacts in these areas. The Highway 67 Hansen Quarry Reroute would reduce impacts to aggregate mineral resources at an operational quarry along the Interstate 8 Alternative by moving the route to the east of the Hansen Aggregate property to land owned by the City of San Diego. Additionally, by requiring SDG&E to coordinate with the quarries within the Project route and submit its coordination plan with the quarries to the CPUC and BLM, these agencies can ensure that the impacts of SDG&E's construction operations on mining will be minimized.

Reference. EIR/EIS Section D.13; Section E.1.13; RDEIR/SDEIS Section 3.3.4

Cumulative Impact G-2: Unique geologic features would be damaged due to construction activities (Class II).

Construction activities such as grading and excavation will damage desert pavement, a unique geologic feature that takes thousands of years to form and protects the underlying silty and sandy soils from excessive wind and water erosion. Other projects such as the existing SWPL Transmission Line, Imperial Valley Substation Expansion, and the Stirling Energy Solar Power Project will likely result in similar impacts. Damage to desert pavement will result in extreme acceleration of erosion as well as damage a unique geologic feature. This effect of the Project, when combined with the effects of the projects referenced above, will contribute to a significant cumulative impact.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project that mitigate significant cumulative effects on the environment from Impact G-2. Specifically, the following mitigation measure, as set forth above, is feasible and is hereby adopted to mitigate significant cumulative effects from Impact G-2 to less than significant.

G-2a **Protect desert pavement.**

Rationale for Finding. The APMs proposed by SDG&E do not address the potential disturbance of desert pavement areas, and will not reduce impacts in these areas. The plan required of SDG&E by the CPUC and BLM under Mitigation Measure G-2a will ensure that SDG&E will implement procedures to sufficiently protect desert pavement areas, in addition to the other protections afforded in the APMs and SWPPP.

Reference. EIR/EIS Section G.3; Section G.4

Cumulative Impact G-3: Project structures could be damaged by problematic soils exposing people or structures to substantial adverse effects (Class II).

Unidentified expansive and corrosive soils may damage Project structures and facilities resulting in collapse of such structures, which results in power outages, damage to nearby roads or structures, and injury or death to nearby people. Past and future projects located in close proximity to Project structures on the same soil types will be exposed to the same conditions and therefore the same impacts. Collapse of Project structures and adjacent structures will combine to result in a significant impact where such structures are in close proximity to other structures or people, such as the residential and commercial developments located adjacent to the Project route within the community of Alpine and within the Coastal and Inland Valley Links.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project that mitigate significant cumulative effects on the environment from Impact G-3. Specifically, the following mitigation measure, as set forth above, is feasible and is hereby adopted to mitigate significant effects from Impact G-3 to a less than significant level.

G-3a Conduct geotechnical studies for soils to assess characteristics and aid in appropriate foundation design.

Rationale for Finding. SDG&E's application of standard design and construction practices and implementation of GEO-APM-3 will help reduce the adverse affects of problematic soils, but Mitigation Measure G-3a is required to formalize the specific procedures necessary to ensure the protection of the Project structures in a manner sanctioned by the CPUC and BLM.

Reference. EIR/EIS Section G.3; Section G.4

Cumulative Impact G-4: Project structures could be damaged by seismically induced groundshaking and/or ground failure (Class II).

Severe groundshaking or ground failure will result in collapse of Project structures. Collapsed Project structures will cause power outages, damage to nearby roads or structures, and injury or death to nearby people. Past and future projects located in close proximity to Project structures will be exposed to the same conditions and therefore the same impacts. Collapse of Project structures and adjacent structures will combine to result in a significant impact where such structures are in close proximity to other structures or people, such as the residential and commercial developments located adjacent to the Project route within the community of Alpine and within the Coastal and Inland Valley areas of the Project alignment.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project that mitigate significant cumulative effects on the environment from Impact G-4. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant cumulative effects from Impact G-4 to a less than significant level.

G-4a Reduce effects of groundshaking.

G-4b Conduct geotechnical investigations for liquefaction.

G-6a Conduct geotechnical surveys for landslides and protect against slope instability.

Rationale for Finding. The APMs proposed by SDG&E do not provide sufficient detail to ensure that their measures will adequately reduce the impacts of groundshaking or ground failure on the Project. Requiring SDG&E to submit their geotechnical surveys to the CPUC and BLM will ensure that impacts will be limited to the extent authorized by the CPUC and BLM.

Reference. EIR/EIS Sections G.3; Section G.4

Cumulative Impact G-5: Project structures could be damaged by surface fault rupture at crossings of active faults (Class II).

Surface fault rupture at crossings of active faults will result in collapse of Project structures. Collapse of Project structures will result in power outages, damage to nearby roads or structures, and injury or death to nearby people. Past and future projects located in close proximity to Project structures will be exposed to the same conditions and therefore the same impacts. Collapse of Project structures and adjacent structures will combine to result in a significant impact where such structures are in close proximity to other structures or people, such as the residential and commercial developments located adjacent to the Project route within the community of Alpine and within the Coastal and Inland Valley areas of the Project alignment.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project that mitigate significant cumulative effects on the environment from Impact G-5. Specifically, the following mitigation measure, as set forth above, is feasible and is hereby adopted to mitigate significant cumulative effects from Impact G-5 to a less than significant level.

G-5a Minimize project structures within active fault zones.

Rationale for Finding. SDG&E's application of standard design and construction practices and implementation of GEO-APM-4 will reduce the adverse affects of fault rupture, but Mitigation Measure G-5a formalizes the specific procedures necessary to ensure the protection of the Project structures in a manner sanctioned by the CPUC and BLM.

Reference. EIR/EIS Section G.3; Section G.4

Cumulative Impact G-9: Construction activities would interfere with access to known mineral resources (Class II).

The Project crosses the edges of two active sand and gravel quarries and one granite/crushed-broken stone quarry. In Imperial County, the Project ROW crosses through the southern potion of the Ocotillo Material Pit near MP I8-19; however, there are no cumulative projects in this area. In San Diego County, the Project ROW crosses the northern edges of two adjacent quarries located between MP 89.5 and 90.5, the Ennis Pit owned by Hansen Aggregate which is in active production of sand and gravel and the TTT Quarry owned by Superior Ready Mix which is an active granite/crushed-broken stone quarry. Construction operations for the Project will interfere with daily ongoing mining operations at these active quarries and it will be in proximity to five cumulative projects, four of which are residential developments (269 homes total) and one will be the construction of Ennis Industrial Park.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project that mitigate significant cumulative effects on the environment from Impact G-9. Specifically, the Highway 67 Hansen Quarry Reroute, discussed in the RDEIR/SDEIS Section 3.3.4, is feasible and is hereby adopted to mitigate significant effects from Impact G-9. Additionally, the following mitigation measure, as set forth above, is feasible and is hereby adopted to mitigate significant effects from Impact G-9 to less than significant.

G-9a Coordinate with quarry operations.

Rationale for Finding. The APMs proposed by SDG&E do not address the potential disturbance of mineral extraction activities, and will not reduce impacts in these areas. The Highway 67 Hansen Quarry Reroute would reduce impacts to aggregate mineral resources at an operational quarry along the Interstate 8 Alternative by moving the route to the east of the Hansen Aggregate property to land owned by the City of San Diego. Additionally, by requiring SDG&E to coordinate with the quarries within the Project route and submit its coordination plan with the quarries to the CPUC and BLM, these agencies can ensure that the impacts of SDG&E's construction operations on mining will be reduced to less than significant.

Reference. EIR/EIS Section G.3; Section G.4; RDEIR/SDEIS Section 3.3.4

III.2.13 Socioeconomics, Services, and Utilities

The study area includes the cities and counties located along the ROW and in the general surrounding geographic area from which the labor force would be drawn, including Imperial and San Diego Counties, California. In addition to incorporated and unincorporated county land and city land, the ROW also traverses Bureau of Land Management (BLM) land. Socioeconomic data were collected for jurisdictions in the vicinity of the Project that will potentially be affected and will contribute to the construction labor force. Regional and local socioeconomic information, current demographic data for the Year 2000 U.S. Census and the 2005 American Community Survey (based on 2000 Census data) are provided in the analysis. Public services and utility information was collected from planning documents or other published information from the jurisdictions in the study area and SDG&E's Proponent's Environmental Assessment (PEA).

Impact S-1: Project construction and/or transmission line presence would cause a change in revenue for businesses, tribes, or governments (Class II on agricultural lands)

As discussed in Section D.14 (Socioeconomics, Services, and Utilities) of the EIR/EIS, construction of new 500 kV towers in the agricultural areas of Imperial County will require construction equipment to traverse agricultural land. This will temporarily restrict crop production or damage crops if activities occurred during the growing season. The restriction of crop production or damage to crops will decrease revenues for the agricultural landowners whose crops will be affected by Project activities.

SDG&E will implement APMs to reduce the effects of construction on businesses. Specifically, APMs LU-1, LU-3 through LU-7, and LU-10 include measures to: (1) provide advanced notification to individuals within 300 feet of construction activities; (2) minimize/avoid construction in agricultural areas during certain seasons, and/or compensate farmers for project-related losses of crops or other pertinent agricultural resources; (3) provide alternate access for affected individuals; (4) coordinate construction activities with water management representatives; (5) confine construction activities to predetermined limits of construction; and (6) minimize/avoid interference of construction with the operation of agricultural equipment. In addition, SDG&E will implement Mitigation Measure AG-1a to avoid interference with adjacent agricultural uses to the extent feasible.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact S-1. Specifically, the following mitigation measure, as set forth above, is feasible and is hereby adopted to mitigate significant effects from Impact S-1 to a less than significant level.

AG-1a Avoid interference with agricultural operations.

Rationale for Finding. While construction and operation of the Project will result in impacts to agricultural uses, this impact will be limited to impacts during construction activities only. By coordinating with property owners and planning around agricultural operations, Mitigation Measure AG-1a reduces impacts to crop production and damage during construction. As construction activities are considered short-term and temporary in nature, construction impacts to agricultural uses will be reduced to a less than significant level (Class II).

Reference. EIR/EIS Section D.14; Section E.1.14; Section E.2.14; Section E.4.14

Impact S-2: Construction would disrupt the existing utility systems or cause a collocation accident (Class II on agricultural lands)

As discussed in Section D.14 (Socioeconomics, Services, and Utilities) of the EIR/EIS, on off-road agricultural lands, there is the potential to accidentally disrupt underground irrigation pipes and/or drain tile systems during excavation or other ground disturbing construction activities.

While agricultural use tile lines are generally buried 4.5 to 9 feet below the ground surface and will likely not be impacted by Project construction, Mitigation Measure AG-1a specifies that SDG&E must coordinate with property owners and tenants to ensure that Project construction will be conducted so as to avoid interference with agricultural operations. Implementation of Mitigation Measure AG-1a will also reduce impacts to Active Agricultural Operations and disruption to existing agricultural irrigation and/or tiling systems to less than significant levels.

The siting of the Project will increase the potential for a collocation accident or a disruption to the utility system on Alpine Boulevard. Consequently, the Project will have an incremental contribution to utility disruptions, including accidental disruption to underground irrigation pipes and/or drain tile systems during excavation or other ground disturbing construction activities.

Under PSU-APM-1, SDG&E will coordinate with all utility providers with facilities located within or adjacent to the Project to ensure that design does not conflict with other utilities. With implementation of PSU-APM-2, Underground Service Alert will be notified a minimum of 48 hours in advance of earth-disturbing activities in order to identify any buried utility lines. Compliance with the California Government Code 4216-4216.9 and APMs PSU-APM-1 and PSU-APM-2 will reduce the likelihood of accidental disruptions; however, accidental disruptions may occur (especially during underground segments). In addition to the APMs, SDG&E will implement Mitigation Measures AG-1a, S-2a and S-2b.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project that mitigate significant effects on the environment from Impact S-2. Specifically, the following mitigation measures, as set forth above and below, are feasible and are hereby adopted to mitigate significant effects from Impact S-2 to less than significant.

AG-1a Avoid interference with agricultural operations.

S-2a **Notify public of utility service interruption.** Prior to construction in which a utility service interruption is known to be unavoidable, SDG&E shall notify members of the public affected by the planned outage by mail of the impending interruption, and shall post flyers informing the public of the service interruption in neighborhoods affected by the planned outage. Copies of notices and dates of public notification shall be provided to the CPUC and BLM.

S-2b **Protect underground utilities.** Prior to construction of the underground transmission line, SDG&E shall submit to the CPUC and BLM written documentation, including evidence of review by the appropriate jurisdictions, including the following:

- Construction plans designed to protect existing utilities and showing the dimensions and
- location of the finalized alignment
- Records that the Applicant provided the plans to affected jurisdiction for review, revision and final approval
- Evidence that the Project meets all necessary local requirements
- Evidence of compliance with design standards
- Copies of any necessary permits, agreements, or conditions of approval
- Records of any discretionary decisions made by the appropriate agencies.

Rationale for Finding. While construction and operation of the Project will result in impacts to agricultural uses, this impact will be limited to impacts during construction activities only and to adjacent agricultural uses if the Project impacts irrigation facilities during the growing season. By coordinating with property owners and planning around agricultural operations, Mitigation Measure AG-1a reduces impacts to crop production and damage during construction. As construction activities are considered short-term and temporary in nature, by instigating Mitigation Measure AG-1a, construction impacts to agricultural use irrigation systems will be reduced to a less than significant level (Class II).

While construction and operation of the Project will result in impacts to resulting from utility collocation, this impact will be limited to impacts during construction activities and to adjacent utility lines only. By coordinating with property owners and planning around agricultural operations, Mitigation Measure AG-1a reduces impacts to crop production and damage during construction. As construction activities are considered short-term and temporary in nature and with implementation of mitigation measures, the Project's construction impacts to utility system disruptions and collocation impacts will be reduced to a less than significant level.

Reference. EIR/EIS Section D.14; Section E.1.14; Section E.2.14; Section E.4.14

Cumulative Impact S-1: construction would cause a change in revenue for businesses, tribes, or governments (Class II on agricultural lands)

The restriction of crop production or damage to crops will decrease revenues for the agricultural landowners whose crops will be affected by Project activities. The addition of other projects that will affect the agricultural resources of the same landowners also affected by the Project route or to overall agricultural resources in the region will create a significant cumulative farming revenue impact. Many of the other cumulative projects, such as housing and commercial developments, could contribute to loss of farmland and agricultural resources.

Based on the locations of the current and reasonably foreseeable projects and the relatively small number of agricultural lands that will be affected by them and/or the Project, it is unlikely any of those projects will impact the same farmland at the same time as the Project. To ensure this, SDG&E will implement

APMs LU-1, LU-3 through LU-7, and LU-10. These APMs include measures to: (1) provide advanced notification to individuals within 300 feet of construction activities; (2) minimize/avoid construction in agricultural areas during certain seasons, and/or compensate farmers for project-related losses of crops or other pertinent agricultural resources; (3) provide alternate access for affected individuals; (4) coordinate construction activities with water management representatives; (5) confine construction activities to predetermined limits of construction; and (6) minimize/avoid interference of construction with the operation of agricultural equipment. In addition, SDG&E will implement Mitigation Measure AG-1a to avoid interference with adjacent agricultural uses to the extent feasible.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project that mitigate significant cumulative effects on the environment from Impact S-1. Specifically, the following mitigation measure, as set forth above, is feasible and is hereby adopted to mitigate significant cumulative effects from Impact S-1 to a less than significant level.

AG-1a Avoid interference with agricultural operations.

Rationale for Finding. While construction and operation of the Project will result in impacts to agricultural uses, this impact will be limited to impacts during construction activities only. Impacts to adjacent agricultural uses would further be reduced by temporarily restricting crop production or damage crops if activities occurred during the growing season. By coordinating with property owners and planning around agricultural operations, Mitigation Measure AG-1a reduces impacts to crop production and damage during construction. As construction activities from the Project and cumulative development are considered short-term and temporary in nature, by instigating Mitigation Measure AG-1a, the Project's cumulative contribution to construction impacts to agricultural uses will be reduced to a less than significant level (Class II).

Reference. EIR/EIS Section G

III.2.14 Fire and Fuels Management

Damaging wildfires are common in the Project region. Agency and public scoping comments on the Project have reinforced the need for wildfire considerations to be an integral piece of the environmental analysis for the Project. Consequences of wildfires include adverse impacts to communities, firefighters, and natural resources. The Fire and Fuels Management analysis uses wildland fire behavior model simulations, supported by field data, to assist in the evaluation of the Project's impacts on wildfire occurrence and fire suppression activities.

Impact F-1: Construction and/or maintenance activities would significantly increase the probability of a wildfire (Class II)

According to the model results presented in Section E.2.15, a total of 6.5 miles of the border zone in rural areas will have a high to very high probability of wildfire recurrence, a random fire ignition under normal weather conditions will potentially burn areas near the transmission line and nearby communities (putting 0 homes and 9,669 acres at risk in two burn periods), and the potential area burned will be more than six times greater during extreme fire weather conditions (putting 16 homes and 45,509 acres at risk in two burn periods). Wildfire risk is moderate in the Boulevard and La Posta Firesheds based on wildfire history and fuels present; however, many acres and at least 90 homes will be at risk if a project-related fire were ignited during Santa Ana wind conditions.

Construction and maintenance activities will require the use of heavy equipment; and, along with the personnel required to construct the transmission line, this may introduce wildfire ignition of surrounding vegetation, which may escape initial attack containment and become catastrophic fires. This impact will be mitigated to a less than significant level (Class II) in these moderate-risk fire sheds through the implementation of Mitigation Measures F-1a, F-1b, F-1c, F-1d, and F-1e.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact F-1. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact F-1 to a less than significant level.

F-1a **Develop and implement a Construction Fire Prevention Plan**. SDG&E shall develop a multi-agency Construction Fire Prevention Plan for the SRPL and monitor construction activities to ensure implementation and effectiveness of the plan. Plan reviewers shall include: CPUC, CAL FIRE, San Diego and Imperial Counties, BLM, CNF, and City fire agencies. SDG&E shall provide a draft copy of this Plan to each listed agency at least 90 days before the start of any construction activities. Comments on the Plan shall be provided by SDG&E to all other participants, and SDG&E shall resolve each comment in consultation with CAL FIRE. The final Plan shall be approved by CAL FIRE at least 30 days prior to the initiation of construction activities. SDG&E shall fully implement the Plan during all construction and maintenance activities.

All construction work on the SRPL shall follow the Construction Fire Prevention Plan guidelines and commitments, and Plan contents are to be incorporated into the standard construction contracting agreements for the construction of the SRPL. Primary Plan implementation responsibility shall remain with SDG&E.

At a minimum, Plan contents shall include the requirements of Title 14 of the California Code of Regulations, Article 8 #918 "Fire Protection" (Refer to Section D.15.3), all components of the Sempra Utilities Wildland Fire Prevention and Fire Safety Guide (2007) in Appendix 3D, and the elements listed below:

- During the construction phase of the Project, SDG&E shall implement ongoing fire patrols during the fire season as defined each year by local, State, and federal fire agencies. These dates vary from year to year, generally occurring from late spring through dry winter periods.
- Fire Suppression Resource Inventory – In addition to CCR Title 14, 918.1(a), (b), and (c), SDG&E shall update in writing the 24-hour contact information and onsite fire suppression equipment, tools, and personnel list on quarterly basis and provide it to the CPUC, BLM, and to State and federal fire agencies.
- During Red Flag Warning events, as issued daily by the National Weather Service in SRAs and Local Responsibility Areas (LRA), and when the USFS Project Activity Level (PAL) is Very High on CNF (as appropriate), all construction and maintenance activities shall cease. Exception for transmission line testing: A transmission line may be tested, one time only, if the loss of another transmission facility could lead to system instability or cascading outages. Utility and contractor personnel shall be informed of changes to the Red Flag event status and PAL as stipulated by CAL FIRE and CNF.
- All construction crews and inspectors shall be provided with radio and cellular telephone access that is operational along the entire length of the approved route to allow for

immediate reporting of fires. Communication pathways and equipment shall be tested and confirmed operational each day prior to initiating construction activities at each construction site. All fires shall be reported to the fire agencies with jurisdiction in the Project area immediately upon ignition.

- Each crew member shall be trained in fire prevention, initial attack firefighting, and fire reporting. Each member shall carry at all times a laminated card listing pertinent telephone numbers for reporting fires and defining immediate steps to take if a fire starts. Information on contact cards shall be updated and redistributed to all crewmembers as needed, and outdated cards destroyed, prior to the initiation of construction activities on the day the information change goes into effect.
- Each member of the construction crew shall be trained and equipped to extinguish small fires in order to prevent them from growing into more serious threats. Each crew member shall at all times be within 100 yards of a vehicle containing equipment necessary for fire suppression as outlined in the final Construction Fire Plan.

F-1b **Amend and implement Sempra Utilities Wildland Fire Prevention and Fire Safety Guide (2007).** The draft SDG&E Plan and final Sempra Utilities Wildland Fire Prevention and Fire Safety Guide (2007) are presented in Appendix 3D. The Amended Plan shall, at a minimum, include all of the provisions of the Final Plan and the Construction Fire Plan (per Mitigation Measure F-1a). The plan shall be revisited and updated once every five years to incorporate new regulations, practices, technologies, and fire science research. SDG&E shall submit the Plan for review and comment by the following agencies at least 90 days prior to energizing the Proposed Project: CPUC, BLM, U.S. Forest Service, and ABDSP, and shall submit the Plan (with agency comments incorporated) for review and approval by Cal Fire at least 90 days prior to energizing the Proposed Project.

F-1c **Ensure coordination for emergency fire suppression.** SDG&E shall ensure that personnel, construction equipment, and aerial operations do not create obstructions to firefighting equipment or crews. The following provisions shall be defined based on consultation with fire agencies.

Onsite SDG&E and contracted personnel shall coordinate fire suppression activities through the active Fire Incident Commander, and emergency ingress and egress to construction-related access roads shall remain unobstructed at all times.

Construction in the work area shall cease in the event of a fire within 1,000 feet of the work area. The work area includes the transmission right-of-way (ROW), construction laydown areas, pull sites, access roads, parking pads, and any other sites adjacent to the ROW where personnel are active or where equipment is in use or stored. SDG&E shall contact CAL FIRE and CNF dispatch two days prior to helicopter use and shall provide dispatch centers with radio frequencies being used by the aircraft, aircraft identifiers, the number of helicopters that will be used while working on or near SRA and CNF lands at any given time, and the flight pattern of helicopters to be used. Should a wildfire occur within one (1) mile of the work area, upon contact from the CAL FIRE Incident Commander and/or Forest Aviation Officer, helicopters in use by SDG&E shall immediately cease construction activities and not restart aerial operations until authorized by the appropriate fire agency.

F-1d **Remove hazards from the work area**. The Applicant shall clear dead and decaying vegetation from the work area prior to starting construction and/or maintenance work. The work area includes only those areas where personnel are active or where equipment is in use or

stored, and may include portions of the transmission right-of-way (ROW), construction laydown areas, pull sites, access roads, parking pads, and any other sites adjacent to the ROW where personnel are active or where equipment is in use or stored. Cleared dead and decaying vegetation shall either be removed or chipped and spread onsite in piles no higher than six (6) inches.

F-1e **Contribute to defensible space grants fund.** SDG&E shall contribute an annual sum to a fund that shall be distributed as homeowner grants for the creation of defensible space around homes, to promote compliance with PRC 4291, and to facilitate firefighting efforts and reduce structure damage from wildfires potentially ignited by the transmission line. The dollar value of the contribution is set forth in Table D.15-25. Grants from the fund shall be distributed to those homeowners at highest risk of sustaining structure damage from an ignition-related to the transmission line, as demonstrated by the Fire Behavior Trend Model results. Grants may alternatively be used toward retrofitting rooftops with fire-proof materials, fire shutters, double pane windows, cave boxing, removal of attic vents and/or installation of alternatives, automatic or remotely operated water sprinklers and automatic or remotely operated generator-supported water systems, and removal or replacement of wood fencing and decks with fire-resistant materials, at the discretion of the homeowner and under advisement by the agencies. The mechanism for grants distribution shall be determined through agency negotiations and detailed in the Memorandum of Understanding (Mitigation Measure F-3b).

Table D.15-25. Mitigation Measure F-1e Compliance Contributions

Segment Identification	Homes at Risk	Annual Contribution Per Home	Total Annual Contribution for 2008 (USD)
Final Environmentally Superior Southern Route Alternative	1,300	$2,000	$2,600,000

a To be determined through Fire Behavior Trend Modeling Analyses that shall be performed by SDG&E should any of these future routes be constructed.

b No additional homes would be placed at risk should this alternative be selected in addition to the primary route to which this alternative would connect.

Rationale for Finding. Mitigation Measures F-1a and F-1b will reduce the number of Project-related ignitions by requiring personnel training, fire risk management oversight, and open communications with fire agencies. These measures will also reduce impact to communities and natural resources by prohibiting project construction and maintenance activities during extreme fire weather and have the effect of substantially reducing the potential acres burned (from 66,438 acres to approximately 11,705 acres) and the number of homes at risk (from more than 90 to 2). Mitigation Measure F-1c will reduce firefighting response time in the event of an ignition and therefore reduce the impacts to communities and natural resources. Mitigation Measure F-1d will reduce the severity of construction- and maintenance-related ignitions that escape initial containment efforts by minimizing fuel loads within the corridor, which will reduce impact to communities and natural resources in the event of a Project-related ignition. In combination with Mitigation Measure F-1e, which provides funding for homeowners to comply with defensible space requirements and for fireproofing homes, these measures will reduce the risk of homes and natural resources sustaining damage in a Project construction- or maintenance-related fire to a less than significant level.

Reference. EIR/EIS Section E.2.15

Impact F-4: Project activities would introduce non-native plants, which would contribute to an increased ignition potential and rate of fire spread (Class II)

As explained in Sections E.1.15, E.2.15, E.4.15, and D.15, Project activities will introduce and spread non-native, invasive plants. Non-native plants are often spread by human and vehicle vectors in areas of large-scale soil disturbance and importation. These actions along with the opening of the vegetation canopy through the clearing of trees and shrubs involved with the construction and maintenance of the Project will contribute to the introduction and proliferation of non-native, invasive plants. Certain invasive plants, like cheatgrass, medusa head and Saharan mustard, can contribute to changes in wildfire frequency, timing and spread. Cheatgrass and medusa head, for example, dry out earlier in the season than native grasses creating fine fuels that are easily ignited. These fine fuels contribute to wildfires igniting earlier in the year and an increased level of fire recurrence. In addition, non-native grasslands have a "spotting" effect during a wildfire, where embers from these grasslands are blown ahead of the fire line, contributing to an increased rate of fire spread. Invasive annual grasses also influence fire spread by creating a fine fuel continuum between patchy, perennial shrubs allowing wildfires to expand further into otherwise sparsely vegetated wildlands. Saharan mustard creates dense stands of dry vegetation in desert scrub and coastal sage scrub communities which increases the fire fuels in these otherwise low fire risk areas. The introduction and spread of specific invasive plants within the Project ROW will adversely influence fire behavior by increasing fuel load, fire frequency, and fire spread.

The introduction of non-native plants with an increased ignition potential and rate of wildfire spread is considered a significant impact (Class II) that can be mitigated by following the prevention and management protocol outlined in Mitigation Measure B-3a, Prepare and Implement a Weed Control Plan.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact F-4. Specifically, the following mitigation measure, as set forth above, is feasible and is hereby adopted to mitigate significant effects from Impact F-4 to a less than significant level.

B-3a Prepare and implement a Weed Control Plan

Rationale for Finding. The Weed Control Plan in Mitigation B-3a requires pre-construction and long-term weed surveys and implementation of control methods that require consultation and approval of the Agriculture Commissioner and appropriate land-holding public agencies to identify high-priority invasive plants. This measure also requires that proper actions are taken to prevent the introduction of invasive plants through materials and equipment used for the construction and maintenance of the transmission line. This measure will reduce introductions of non-native plants to a negligible level, and therefore fire-related impacts from introduction of non-native plants that increase the ignition potential, the length of the fire season, and the rate of wildfire spread will be reduced to a less than significant level.

Reference. EIR/EIS Section E.1.15; Section E.2.15; Section E.4.15; Section D.15

III.3 Significant Environmental Impacts that Cannot Be Avoided or Reduced to a Less than Significant Level

Based on the issue area assessment in the EIR/EIS, the CPUC has determined that the Project will have significant impacts in the resource areas discussed below, and that these impacts cannot be avoided or reduced despite the incorporation of all feasible mitigation measures. These findings are based on the discussion of impacts in the detailed issue area analyses in Sections D and E of the EIR/EIS and the

cumulative impacts discussed in Section G (Cumulative Scenario and Impacts) of the EIR/EIS. For each significant and unavoidable impact identified below, the CPUC has made a finding(s) pursuant to Public Resources Code §21081. An explanation of the rationale for each finding is also presented below.

III.3.1 Biological Resources

Some mitigation measures presented below require restoration or mitigation for sensitive vegetation and/or habitat. The amount of acres of sensitive vegetation and/or habitat that are required to be restored or mitigated are presented in Appendix 8P (Consolidated Biology Impact Matrix) of the Final EIR/EIS.

Impact B-1: Construction activities would result in temporary and permanent losses of native vegetation (Class I)

Sensitive Vegetation. Construction of the Project will cause both temporary (during construction from vegetation clearing) and permanent (displacement of vegetation with project features such as towers and permanent access roads) impacts to vegetation communities. Construction activities will also result in the alteration of soil conditions, including the loss of native seed banks and changes in topography and drainage, such that the ability of a site to support native vegetation after construction is impaired. Desert ecosystems are especially sensitive to ground disturbance and can take decades to recover, if at all. Table Ap.8P-1 in the EIR/EIS presents the impacts to vegetation communities, mitigation ratios, and mitigation acreages for the Project. The communities listed in Table Ap.8P-1 are described in detail in Section D.2.1.2.2 of the EIR/EIS.

The following APMs, as set forth in Table D.2-5, will be implemented to avoid or minimize impacts to vegetation communities: BIO-APM-1 and 2, BIO-APM-4 through BIO-APM-6, BIO-APM-16, BIO-APM-17, BIO APM-20, BIO-APM-23, and BIO-APM-25. These APMs include avoiding or compensating impacts to sensitive vegetation communities, personnel training, restricting work to within predetermined limits of construction, limiting construction of access roads, minimizing impacts by mowing vegetation or leaving it in place instead of clearing it (where possible), conserving and reusing sensitive habitat topsoil, and revegetating with appropriate seed mixes.

Even with implementation of the APMs, however, impacts to sensitive vegetation communities will be significant. The impacts will be significant because the APMs are not specific enough or do not provide enough mitigation to adequately compensate for the impacts. The measures in the APMs shall still apply except where the mitigation measures are more specific or more restrictive than the APM requirements. In those instances, the mitigation measures take precedence. In addition to the APMs, Mitigation Measure B-1a will minimize disturbance to vegetation communities and provide restoration and compensation for vegetation losses.

Riparian Conservation Areas (RCAs). Construction of the Interstate 8 Alternative, BCD Alternative Revision, BCD South Option Revision, Modified Route D Alternative, and Chocolate Canyon Option would temporarily and permanently impact RCAs. BIO APM-2, BIO APM-4 through 6, BIO APM-16 through 18, BIO APM-20 and BIO APM-23 would be applied to minimize or avoid significant impacts to RCAs. Even with implementation of these APMs the Project will cause substantial adverse effects on riparian habitat identified in RCAs and fail to provide adequate wetland buffers to protect the function and value of existing wetlands if the final Project cannot be designed to avoid RCAs. Therefore impacts will be significant and not mitigable to less than significant levels because Mitigation Measures B-1a and B-1c are required to compensate for impacts to RCAs to the greatest extent possible, however the functions of the RCA (sediment transport, water transport) will potentially still be impaired. In addition,

Mitigation Measure B-11 will minimize disturbance to vegetation communities and provide restoration and compensation for vegetation losses along the BCD South Option Revision.

Vegetation Management (Loss of Trees). SDG&E will remove non-native and native trees to maintain proper clearance between vegetation and the transmission lines along the entire length of the Project. The loss of native trees and shrubs will be a significant impact (Class I). Trimming up to 30 percent of a native tree's crown will diminish the tree's value as wildlife habitat and could cause harm to the tree leading to its decline or death. Therefore, the loss and trimming of a large number of native trees is considered significant impacts that will not be mitigable to less than significant levels (Class I) because adequate mitigation land required by Mitigation Measure B-1a for restoration and/or acquisition may not be available. However, Mitigation Measure B-1a is required to reduce the impacts to the greatest extent possible.

Type Conversion. Periodic fires are part of the natural ecosystem, fires burning too frequently can have significant long-term ecological effects such as degradation of habitat (temporal loss of habitat and non-native plant species invasion) and loss of special status species. Type conversion occurs when multiple disturbances allow the colonization of nonnative plant species into a landscape previously dominated by native vegetation. When multiple disturbances, such as wildfires, occur at an intensity and frequency outside of the natural range of variability of a native ecosystem, these conditions tend to suppress regrowth of native vegetation and favor long-term dominance of non-native, early-successional plants. Fires have become more frequent with growth in the human population, creating a situation in which vegetation communities (and, therefore, habitats for plant and animal species) are changed dramatically and may not recover. This change in vegetation community is called "type conversion" and can occur to any native vegetation community. When burned too frequently, vegetation communities are often taken over by highly flammable, weedy, non-native plant species that burn even more often and provide minimal habitat value for native plant and animal species, especially those of special status. If the Project were to cause a fire, or inhibit fighting of fires, and this leads to type conversion of sensitive vegetation communities, the impact will be significant (Class I). Extensive mitigation for fire risk is presented in Section E.1.15 for the Project. However, not all fires can be prevented. Although future fires may not cause type conversion in all instances, the impact must be considered significant because of the severity of potential habitat loss. This impact is not mitigable to less than significant levels (Class I). Implementation of the vegetation management program (described above) will reduce the fire risk of the Project, although not to a less than significant level. Additionally, implementation of Mitigation Measure B-1k (Re-seed disturbed areas after a transmission line–caused fire) would reduce the risk of type conversion, although not to a less than significant level.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-1. Specifically, Mitigation Measures B-1a, B-1c, B-1k, and B-1l, as set forth below and in Section III.2, are feasible and are hereby adopted to mitigate significant effects from Impact B-1. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact B-1 to a less than significant level

B-1a Provide restoration/compensation for affected sensitive vegetation communities.

B-1c Conduct biological monitoring.

B-1k **Re-seed disturbed areas after a transmission line–caused fire.** Should a fire occur and be determined by the CPUC's Consumer Protection and Safety Division (CPSD) or the California Department of Forestry and Fire Protection (CAL FIRE) to be caused by the Proposed Project or a constructed alternative, the Applicant shall re-seed all natural areas — both public and private — that are burned as a result of the Project-caused fire. Re-seeding shall be required for areas that have been burned due to the minimum 10-year period required for arid chaparral to establish an adequate seed bank and thereby resist vegetation type conversion. A re-seeding plan shall be developed with input from Cal Fire, the U.S. Forest Service, BLM, and CPUC, based on a native seed mix. Seeds shall be raked into the soil to avoid seed predation, and re-seeding shall be carried out once to coincide with the rainy season (October 1 through April 1) to increase the likelihood of germination success. The Applicant shall provide a written report documenting all re-seeding activities to the CPUC. The Applicant shall make a good faith effort to obtain approval to re-seed on private lands as appropriate, and documentation of this good faith effort shall be submitted to the CPUC upon request. Specific re-seeding requirements stipulated in this mitigation measure shall be subject to approval and modification by any public landowning agency.

B-1l **SDG&E shall continue to work with the USDA Forest Service to minimize impacts to the RCA between Structures 184 and 187.** SDG&E shall continue to work with the USDA Forest Service to adjust the siting of project features to minimize impacts to the RCA located between Structures 184 and 187 of the BCD South Option. SDG&E shall continue to coordinate with the USDA Forest Service until the impacts to this RCA are fully resolved to the satisfaction of the USDA Forest Service.

Rationale for Finding. Implementation of the above mitigation measures will avoid whenever possible sensitive vegetation. Where this is not possible, the mitigation will restore and compensate for all areas disturbed by Project construction, including temporary disturbance areas around tower construction sites, laydown/staging areas, temporary access and spur roads, and existing tower locations. Surveying the Project corridor (including access roads) for populations of invasive and noxious weeds prior to the start of construction; and implementing construction control measures to control invasive and noxious weeds will mitigate impacts to the corridor related to invasive and noxious weeds. If restoration of some vegetation communities in temporarily impacted areas is not possible because those areas are subject to vegetation management to maintain proper clearance between transmission lines and vegetation, mitigation shall consist of off-site acquisition and preservation of the vegetation community instead. Therefore, impacts to these lands will be reduced, however, not to a less than significant level because adequate land may not be available to compensate for the impacts. There are no other feasible mitigation measures or alternatives available to reduce the significant biological impact to a level that will be less than significant.

Reference. EIR/EIS Section E.1.2; Section E.2.2; Section E.4.2; Section D.2

Impact B-5: Construction activities would result in direct or indirect loss of listed or sensitive plants or a direct loss of habitat for listed or sensitive plants (Class I)

Listed or sensitive (special status) plant species impacts will result from direct loss of known locations of individuals, or direct loss of potential habitat as a result of temporary or permanent grading or vegetation clearing during construction. Direct loss of known locations of individuals or habitat occurs from temporary or permanent grading or vegetation clearing. Indirect loss of individuals occurs in instances such as sediments transported (e.g., from cleared areas during rain events) that cover adjacent plants or changes in a plant's environment that cause its loss (e.g., adjacent shrubs that provided necessary shade

are removed)Focused plant species surveys were conducted in spring/summer of 2007 only where ROE permission was granted. With the exceptionally dry weather conditions in 2007, the assumption is made that special status plant species are present and impacted by the Project. Since it is not possible to adequately assess the amount of impact to the special status plant species, the impacts are considered significant and not mitigable to less than significant levels.

BIO-APM-1 through 6, BIO-APM 8, BIO-APM-13, BIO-APM-18, and BIO-APM-22 will be implemented to address potential impacts to listed or sensitive plant species or their habitats. These APMs include detailed surveys, avoidance or relocation/restoration or compensation (acquisition and preservation of land), personnel training, restricting work to within predetermined limits of construction, limiting construction of access roads, complying with wildlife/habitat protection regulations, clearly delineating plant population boundaries, notifying the Wildlife Agencies when such plants are to be removed in the work area, prohibiting the collection of plants, designing structures and access roads to avoid or minimize impacts, and salvaging plants where avoidance is not feasible. Even with implementation of the APMs, the impacts will be significant.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-5. Specifically, Mitigation Measures B-1a, B-1c, B-2a, and B-5a set forth below and in Section III.2, are feasible and are hereby adopted to mitigate significant effects from Impact B-5. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact B-5 to a less than significant level

B-1a **Provide restoration/compensation for affected sensitive vegetation communities.**

B-1c **Conduct biological monitoring.**

B-2a **Provide restoration/compensation for affected jurisdictional areas.**

B-5a **Conduct rare plant surveys, and implement appropriate avoidance/minimization/compensation strategies.** A qualified biologist shall survey for special status plants in the spring of a year with adequate rainfall prior to initiating construction activities in a given area. If a survey can not be conducted due to inadequate rainfall, then SDG&E shall consult with the Wildlife Agencies, State Parks (for impacts in ABDSP), and the USFS (for impacts on National Forest lands) to determine if construction may begin in the absence of survey data and what mitigation would be required, or whether construction would not be allowed until such data is collected. A report of special status plants observed shall be prepared and submitted for approval by the CPUC, BLM, State Parks (for activities in ABDSP), USDA Forest Service (for alternatives with activities on National Forest lands), and the Wildlife Agencies prior to activities which may impact the plant resources.

All special status plant populations shall be staked or flagged by a qualified biologist approved by the CPUC, BLM, State Parks (for activities in ABDSP), USDA Forest Service (for alternatives with activities on National Forest lands), and the Wildlife Agencies. All stakes, flagging, or fencing shall be removed no later than 30 days after construction is complete.

Impacts to federal or State listed plant species shall first be avoided where feasible, and, where not feasible, impacts shall be compensated through salvage and relocation (salvage and relocation for plants in ABDSP shall be determined in consultation with, and approval of,

State Parks) via a restoration program and/or offsite acquisition and preservation of habitat containing the plant at a 2:1 ratio. Avoidance may not be feasible due to physical or safety constraints. The CPUC, BLM, State Parks (for activities in ABDSP), USDA Forest Service (for alternatives with activities on National Forest lands), and the Wildlife Agencies shall decide whether the Applicant can restore rare plant populations or shall acquire habitat with rare plant populations off site (locations to be approved by the CPUC, BLM, State Parks [for activities in ABDSP], USDA Forest Service [for alternatives with activities on National Forest lands], and the Wildlife Agencies). A qualified biologist shall prepare a Restoration Plan that shall indicate where restoration would take place. The restoration plan shall also identify the goals of the restoration, responsible parties, methods of restoration implementation, maintenance and monitoring requirements, final success criteria, and contingency measures. The Applicant shall work with the CPUC, BLM, Wildlife Agencies, State Parks, and USDA Forest Service (for alternatives with restoration on National Forest lands) until a plan is approved by all.

Impacts to moderately sensitive plant species (i.e., BLM Sensitive, USDA Forest Service Sensitive, CNPS List 1 and 2 species) shall first be avoided where feasible, and, where not feasible, impacts shall be compensated through reseeding (with locally collected seed stock) or relocation to temporarily disturbed areas (reseeding and relocation of plants in ABDSP shall be determined in consultation with, and approval of, State Parks). Avoidance may not be feasible due to physical or safety constraints. Mitigation Measure B-1a would also provide habitat-based mitigation for these impacts.

Where reseeding or salvage and relocation is required, the Applicant shall identify a qualified Habitat Restoration Specialist to be approved by the CPUC, BLM, State Parks (for restoration in ABDSP), USDA Forest Service (for alternatives with restoration on National Forest lands), and the Wildlife Agencies. The Habitat Restoration Specialist shall prepare and implement a Restoration Plan for reseeding or salvaging and relocating special status plant species to be approved by the CPUC, BLM, State Parks (for restoration in ABDSP), USDA Forest Service (for alternatives with restoration on National Forest lands), and the Wildlife Agencies in writing prior to impacting the plant resources. The Applicant shall work with the above-listed agencies until a plan is approved by all. The reseeding or relocation of plants shall be maintained and monitored for five years after installation, or until established success criteria are met, to assess progress and identify potential problems with the mitigation. The reseeding or relocation of plants in ABDSP shall be maintained and monitored for a minimum of five years, even if established success criteria are met before the end of five years. Remedial action (e.g., additional seeding, weeding, erosion control, use of container stock, supplemental watering, etc.) shall be taken during the maintenance and monitoring period if necessary to ensure the success of the restoration. If the restoration fails to meet the established performance criteria after the five-year maintenance and monitoring period, maintenance and monitoring shall extend beyond the five-year period until the criteria are met or unless otherwise approved by the CPUC, BLM, State Parks (for restoration in ABDSP), USDA Forest Service (for alternatives with restoration on National Forest lands), and the Wildlife Agencies.

A Habitat Management Plan for any required, offsite mitigation shall be prepared by a biologist approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands). The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest

Service (for mitigation parcels to be National Forest lands) prior to the initiation of any activities which may impact special status plant resources. The Applicant shall work with the CPUC, BLM, Wildlife Agencies, State Parks, and USDA Forest Service until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired offsite mitigation parcels. The Habitat Management Plan shall include, but shall not be limited to:

- Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) off-site mitigation parcels approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands)
- Baseline biological data for all mitigation parcels
- Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) to provide in-perpetuity management
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- Designation of responsible parties and their roles (e.g., provision of endowment by the Applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity)
- Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands).

Rationale for Finding. Implementation of the above mitigation measures will avoid whenever possible sensitive vegetation and sensitive plant species. Where this is not possible, the mitigation will restore and compensate for all sensitive vegetation disturbed by Project construction, and will salvage and relocate all sensitive plant species disturbed by Project construction including temporary disturbance areas around tower construction sites, laydown/staging areas, temporary access and spur roads, and existing tower locations. Surveying the Project corridor (including access roads) for populations of invasive and noxious weeds prior to the start of construction; and implementing construction control measures to control invasive and noxious weeds will mitigate impacts to the corridor related to invasive and noxious weeds. Preparing and implementing a Habitat Restoration/Compensation Plan, as outlined in Mitigation Measure B-2a, will compensate all Jurisdictional Waters and Wetlands potentially impacted by creating, restoring, or preserving suitable jurisdictional habitat with adequate buffers to protect the function and values of the jurisdictional area. Therefore, impacts to these lands will be reduced, however, because of the exceptionally dry weather conditions in 2007, many special status plants species may be present that were not visible in the surveys. Since it is not feasible to adequately assess the amount of impact to the special status plant species, the impacts are considered significant and not mitigable to less than significant levels (Class I). There are no other feasible mitigation measures or alternatives available to reduce the significant biological impact to a level that will be less than significant.

Reference. EIR/EIS Section E.1.2; Section E.2.2; Section E.4.2; Section D.2

Impact B-7: Construction activities would result in direct or indirect loss of listed or sensitive wildlife or a direct loss of habitat for listed or sensitive wildlife (Class I for construction impacts to sensitive species)

The Project will impact the following listed or highly sensitive wildlife species: FTHL (Impact B-7A), PBS (Impact B-7B), golden eagle (Impact B-7H), QCB (Impact B-7J), arroyo toad (Impact B-7K), and barefoot banded gecko (Impact B-7O). The Project will impact non-listed, sensitive wildlife species and their habitats.

BIO-APM-2 through 4, BIO-APM-7, BIO-APM-14, BIO-APM-16, BIO-APM-24, BIO-APM-26, BIO-APM-27, and BIO-APM-29 will be implemented to minimize or prevent direct or indirect loss of listed or sensitive wildlife or a direct loss of habitat for listed or sensitive wildlife. These APMs include personnel training, restricting work to within predetermined limits of construction, prohibiting litter, identifying environmentally sensitive tree trimming locations, inspecting trenches/excavations twice daily and removing of trapped animals, covering construction holes/trenches overnight and inspecting them for wildlife prior to filling, sloping excavations to provide a wildlife escape route, removing raptor nests when inactive, reducing construction night lighting, and keeping vehicle traffic to minimum volume and speed. Even with implementation of the APMs, the Project will have a substantial adverse effect on listed and sensitive wildlife species and their habitats. The impacts will be significant because the APMs are not specific enough or do not provide enough mitigation to adequately compensate for the impacts.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-7. Specifically, Mitigation Measures B-1a, B-1c, B-2a, and B-7a, as set forth below and in Section III.2, are feasible and are hereby adopted to mitigate significant effects from Impact B-7. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact B-7 to a less than significant level.

B-1a **Provide restoration/compensation for affected sensitive vegetation communities.**

B-1c **Conduct biological monitoring.**

B-2a **Provide restoration/compensation for affected jurisdictional areas.**

B-7a **Cover all steep-walled trenches or excavations used during construction to prevent the entrapment of wildlife (e.g., reptiles and small mammals)**. BIO-APM-14 shall be modified to ensure that all steep-walled trenches or excavations used during construction shall be covered at all times except when being actively utilized. If the trenches or excavations cannot be covered, exclusion fencing (i.e., silt fencing) shall be installed around the trench or excavation, or it shall be covered to prevent entrapment of wildlife. Open trenches, or other excavations that could entrap wildlife shall be inspected by the qualified biologist (see Mitigation Measure B-1c) a minimum of three times per day and immediately before backfilling. Furthermore, employees and contractors shall look under vehicles and equipment for the presence of wildlife before movement. If wildlife is observed, no vehicles or equipment would be moved until the animal has left voluntarily or is removed by the qualified biologist. Should a dead or injured listed species be found in a trench or excavation or anywhere in the construction zone or along an access road, the qualified biologist shall contact the CPUC, BLM, State Parks (for activities in ABDSP), USDA Forest Service (for alternatives with activities on National Forest lands), and the Wildlife Agencies within 48

hours of the finding. The qualified biologist shall report the species found, the location of the finding, the cause of death (if known), and shall submit a photograph and any other pertinent information.

Rationale for Finding. Implementation of the above mitigation measures will avoid whenever possible sensitive vegetation. Where this is not possible, the mitigation will restore and compensate for all sensitive vegetation disturbed by Project construction, including temporary disturbance areas around tower construction sites, laydown/staging areas, temporary access and spur roads, and existing tower locations. Surveying the Project corridor (including access roads) for populations of invasive and noxious weeds prior to the start of construction; and implementing construction control measures to control invasive and noxious weeds will mitigate impacts to the corridor related to invasive and noxious weeds. Preparing and implementing a Habitat Restoration/Compensation Plan, as outlined in Mitigation Measure B-2a, will compensate all Jurisdictional Waters and Wetlands potentially impacted by creating, restoring, or preserving suitable jurisdictional habitat. Covering all steep-walled trenches or excavations used during construction will prevent the entrapment of wildlife (e.g., reptiles and small mammals). Therefore, impacts to these lands will be reduced. Most of the non-listed special status species' habitats are sensitive vegetation communities (Table E.4.2-3); the mitigation for the loss of the sensitive vegetation communities (Mitigation Measure B-1a) will normally compensate for the potential loss of these sensitive species and their habitats. However, since adequate land required by Mitigation Measure B-1a may not be available, the impacts to sensitive wildlife species are considered significant (Class I). There are no other feasible mitigation measures or alternatives available to reduce the significant biological impact to a level that will be less than significant.

Reference. EIR/EIS Section E.1.2; Section E.2.2; Section E.4.2; Section D.2

Impact B-7A: Direct or indirect loss of flat-tailed horned lizard or direct loss of habitat (Class I)

The first seven miles of the Project will cross one of the FTHL MAs, which are believed to be the core areas for maintaining self-sustaining populations of FTHLs in perpetuity. The FTHL habitat also occurs outside of the MA, between MP I8-7.0 and MP I8-23.0 (BLM, 2007). Focused surveys for this species were not conducted. Although FTHL were not observed during vegetation mapping surveys or rare plant surveys conducted between February and May 2007, the species is assumed to be present throughout FTHL MAs and FTHL habitat outside of the MAs by the BLM.

The Project construction will impact approximately 8.1 acres of FTHL MAs (6.4 acres of temporary impact and 1.7 acres of permanent impact through habitat removal) and will cause harm or harassment, and direct disturbance to FTHLs (mortality and loss of habitat). This alternative will also impact approximately 101.1 acres of FTHL habitat outside of MAs (59.3 acres of temporary impact and 41.8 acres of permanent impact through habitat removal) and will cause harm or harassment, and direct disturbance to FTHLs (mortality and loss of habitat). These impacts are significant and not mitigable to less than significant levels (Class I) because adequate mitigation land may not be available to compensate for the impacts.

Potential indirect impacts of the Proposed Project include increased predation of FTHLs by round-tailed ground squirrels (*Spermophilus tereticaudus*), that are attracted to roads, and increased predation of FTHLs by predatory birds that perch on transmission towers and lines. Mitigation in the form of habitat compensation would be required for impacts from the increased predation as described in Mitigation Measure B-7b per the compensation requirements of the Flat-Tailed Horned Lizard Rangewide Management Strategy (Flat-Tailed Horned Lizard Interagency Coordinating Committee, 2003). However, this

impact is significant and not mitigable to less than significant levels (Class I) because adequate mitigation land required in Mitigation Measure B-7b may not be available to compensate the impact.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-7A. Specifically, Mitigation Measures B-1a, B-1c, B-2a, B-7a, and B-7b, as set forth in Section III.2, are feasible and are hereby adopted to mitigate significant effects from Impact B-7A. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact B-7A to a less than significant level.

B-1a **Provide restoration/compensation for affected sensitive vegetation communities.**

B-1c **Conduct biological monitoring.**

B-2a **Provide restoration/compensation for affected jurisdictional areas.**

B-7a **Cover all steep-walled trenches or excavations used during construction to prevent the entrapment of wildlife (e.g., reptiles and small mammals).**

B-7b **Implement avoidance/mitigation/compensation according to the Flat-Tailed Horned Lizard Rangewide Management Strategy.**

Rationale for Finding. Implementation of the above mitigation measures will avoid whenever possible sensitive vegetation. Where this is not possible, the mitigation will restore and compensate for all sensitive vegetation and for Jurisdictional Waters and Wetlands disturbed by Project construction, including temporary disturbance areas around tower construction sites, laydown/staging areas, temporary access and spur roads, and existing tower locations. Surveying the Project corridor (including access roads) for populations of invasive and noxious weeds prior to the start of construction; and implementing construction control measures to control invasive and noxious weeds will mitigate impacts to the corridor related to invasive and noxious weeds. Covering all steep-walled trenches or excavations used during construction will prevent the entrapment of wildlife such as the FTHL and following the FTHL Rangewide Management Strategy will reduce the impact. The mitigation for the loss of the sensitive vegetation communities and FTHL habitat (Mitigation Measure B-1a and B-7b) will normally compensate for the potential loss of these sensitive species and their habitats. However, since adequate land required by the mitigation may not be available, it is not feasible to mitigate this impact to less than significant levels (Class I). There are no other feasible mitigation measures or alternatives available to reduce the significant biological impact to a level that will be less than significant.

Reference. EIR/EIS Section E.1.2

Impact B-7B: Direct or indirect loss of Peninsular bighorn sheep or direct loss of habitat (Class I)

The Project will impact approximately 68.5 acres of PBS critical habitat (26.6 acres of temporary impact and 41.9 acres of permanent impact through habitat removal) during Project construction. Impacts to critical habitat will occur from tower pads, access roads, and pull sites between MP I8-15.8 to MP I8-17.9, between MP I8-22.8 and MP I8-30.4, MP BCD-3.6 and BCD-3.9, and on an access road between MP BCD-5.9 and BCD-6.5.

As mentioned in Section D.2.11, human and construction activity and project features in PBS habitat will cause bighorn to avoid affected areas and will interfere with the use of resources such as escape terrain; water; mineral licks; rutting, lambing, or feeding areas; the use of traditional movement routes, and/or will cause physiological stress or increased predation, all of which will adversely affect survival and recovery of the species. These impacts are significant.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-7B. Specifically, Mitigation Measures B-1a, B-1c, B-2a, and B-7c, as set forth below and in Section III.2, are feasible and are hereby adopted to mitigate significant effects from Impact B-7B. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact B-7B to a less than significant level.

B-1a **Provide restoration/compensation for affected sensitive vegetation communities.**

B-1c **Conduct biological monitoring.**

B-2a **Provide restoration/compensation for affected jurisdictional areas.**

B-7c **Minimize impacts to Peninsular bighorn sheep and provide compensation for loss of critical habitat.** With regard to timing of activities, construction and maintenance activities (including the use of helicopters) in bighorn sheep critical habitat shall be limited to outside the lambing season and the period of greatest water need, or a minimum ceiling of 1,500 feet for helicopter flights shall be maintained. The lambing season is January 1 through June 30. The period of greatest water need is May through September. Construction and maintenance activities in PBS critical habitat may occur during the lambing season and/or period of greatest water need if prior approval is obtained from the Wildlife Agencies.

To help reconnect PBS subpopulations and at least partially offset impacts to the overall population of PBS caused by the Project, the Applicant shall:

- fund the design and construction of an overpass (for sheep) or tunnel (for vehicles) to facilitate PBS movement across a highway at a location determined by the USFWS (in coordination with State Parks and CDFG). Tunnel or overpass design must be approved by the Wildlife Agencies.
- fund removal of tamarisk and fences for the life of the Project, and install and maintain water sources at locations determined by the USFWS (in coordination with State Parks and CDFG)
- fund a minimum 10-year-long program to monitor the effects of the Project on PBS behavior, movements, and dispersal in the Project corridor (ten years is needed to measure the influence of the Project while factoring in rainfall cycles, vegetative productivity, and drought). This program would be implemented by the Wildlife Agencies and State Parks following construction.

Furthermore, the Applicant shall provide compensation for direct loss of critical habitat at a 5:1 ratio for permanent impacts and at a 3:1 ratio (including a combination of on-site restoration and off-site purchase) for temporary impacts with PBS critical habitat or other habitat acceptable to the Wildlife Agencies, BLM, and State Parks (for critical habitat in ABDSP). Impacts to PBS critical habitat must be mitigated within the same Critical Habitat Unit where

the impacts occurred. For the Project, the required mitigation for PBS impacts includes off-site purchase of 525.71 acres and on-site restoration of 111.81 acres. The determination of impact acreage shall be based on the definition of critical habitat in effect as of the time of publication of the Final EIR/EIS.

A Habitat Management Plan shall be prepared by a biologist approved by the CPUC, BLM, Wildlife Agencies, and State Parks for all acquired PBS habitat. The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, and State Parks (for land in ABDSP) prior to the initiation of any activities which may impact (directly or indirectly) PBS or its habitat. The Applicant shall work with the CPUC, BLM, Wildlife Agencies, and State Parks until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired PBS habitat. The Habitat Management Plan shall include, but shall not be limited to:

- Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) PBS habitat approved by the CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP)
- Baseline biological data for all acquired PBS habitat
- Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP) to provide in-perpetuity management
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- Designation of responsible parties and their roles (e.g., provision of endowment by the Applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity)
- Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP).

Rationale for Finding. Implementation of the above mitigation measures will avoid whenever possible sensitive vegetation. Where this is not possible, the mitigation will restore and compensate for all sensitive vegetation and for Jurisdictional Waters and Wetlands disturbed by Project construction, including temporary disturbance areas around tower construction sites, laydown/staging areas, temporary access and spur roads, and existing tower locations. Surveying the Project corridor (including access roads) for populations of invasive and noxious weeds prior to the start of construction; and implementing construction control measures to control invasive and noxious weeds will mitigate impacts to the corridor related to invasive and noxious weeds. The mitigation will also avoid PBS habitat during lambing season and will mitigate PBS critical habitat with lands suitable to Wildlife Agencies, BLM, and State Parks. This mitigation will reduce the impact. The mitigation for the loss of the sensitive vegetation communities and PBS habitat (Mitigation Measure B-1a and B-7c) will normally compensate for the potential loss of these sensitive species and their habitats. However, since adequate land required by the mitigation may not be available and because of the high sensitivity of the species and evidence that shows that human activities significantly affect it, it is not feasible to mitigate this impact to less than significant levels (Class I). There are no other feasible mitigation measures or alternatives available to reduce the significant biological impact to a level that will be less than significant.

Reference. EIR/EIS Section E.1.2; Section E.2.2

Impact B-7H: Direct or indirect loss of golden eagle or direct loss of habitat (Class I for nests within 4,000 feet)

The golden eagle is very sensitive to human activity, especially in the vicinity of its nest site, and even distant construction activity (or maintenance activity; see Impact B-12) could cause abandonment of a nest, subsequent reproductive failure, and continuing decline of the species. Human activity within 4,000 feet of a nest site is considered significant and not mitigable to less than significant levels (Class I). An exception to this is if the activity within 4,000 feet of the nest site (without direct line-of-sight and activity is below the nest site) occurs where there is already an existing disturbance such as a road or utility corridor. Four golden eagle nest areas will be affected by the Project where the nest area occurs less than 4,000 feet from the Project, in direct line-of-sight. One golden eagle nest will be affected by the Star Valley Option, however this golden eagle nest would also be impacted by the Modified Route D Alternative

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-7H. Specifically, Mitigation Measure B-7h, as set forth in Section III.2, is feasible and is hereby adopted to mitigate significant effects from Impact B-7H. However, even with implementation of this measure, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact B-7H to a less than significant level.

B-7h Implement appropriate avoidance/minimization strategies for eagle nests.

Rationale for Finding. Mitigation laid out above will mitigate the impact because it will forbid construction and maintenance activities within 4,000 feet of an eagle nest during breeding season, thereby minimizing impacts to eagle nests. This will reduce the impact. However, the proximity to the nest area and the Project (less than 4,000 feet), and the direct line-of-sight make it is unfeasible to mitigate the impact to a less than significant level. There are no other feasible mitigation measures or alternatives available to reduce the significant biological impact to a level that will be less than significant.

Reference. EIR/EIS Section E.1.2; Section E.2.2; Section E.2.4

Impact B-7J: Direct or indirect loss of quino checkerspot butterfly or direct loss of habitat (Class I)

The Project will cross approximately 4 miles of QCB critical habitat near Jacumba, between approximately MP I8-34.3 and MP I8-38.3 (Critical Habitat Unit 4, Jacumba Unit). The Project occurs within USFWS protocol Survey Area 1 from MP I8-28 to MP I8-40, and from MP BCD-0 to BCD-2. The Project occurs within USFWS protocol Survey Area 2 from MP I8-73.6 to MP I8-79.6, MP I8-82.3 to I8-92.8, from MP MRD 3.1 to MRD-34, along BCD South, from MP BCD-2 to BCD-15.5 and from MP-131 to MP-136.3. Protocol surveys are required in suitable QCB habitat such as those described above. The Project will impact approximately 74.92 acres of QCB Critical Habitat (55.72 acres of temporary impact and 19.2 acres of permanent impact through habitat removal). Since no protocol surveys were completed for the Project because the butterfly flight season was not preceded by adequate rainfall, all critical habitat is assumed to be occupied by QCB. With the lack of definitive survey data and impacts to QCB critical habitat, the Project will have a significant impact on this species.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-7J. Specifically, Mitigation Measures B-1a, B-1c, B-2a and B-7i, as set forth below and in Section III.2, are feasible and are hereby adopted to mitigate significant effects from Impact B-7J. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact B-7J to a less than significant level

B-1a **Provide restoration/compensation for affected sensitive vegetation communities.**

B-1c **Conduct biological monitoring.**

B-2a **Provide restoration/compensation for affected jurisdictional areas.**

B-7i **Conduct Quino checkerspot butterfly surveys, and implement appropriate avoidance/ minimization/compensation strategies.** A biologist permitted by the USFWS shall determine suitable habitat areas (i.e., non-excluded areas per the 2002 USFWS protocol; USFWS, 2002b) within any designated USFWS QCB survey area (e.g., Survey Area 2) that would be impacted by project construction.

A pre-construction, USFWS protocol presence/absence survey for the adult QCB shall be conducted within all suitable habitat for this species in the construction zone within any designated USFWS QCB survey area. The survey shall be conducted in a year where the QCB is readily observed at USFWS QCB-monitored reference sites to determine what areas are occupied by the QCB (i.e., any suitable habitat within 1 km of a current QCB sighting is considered occupied) and what areas are not occupied. The USFWS permitted biologist shall record the precise locations of QCB larval host plants within the construction zone (and 10 meters beyond) using GPS technology.

If the protocol pre-construction survey is conclusive for determining absence of the QCB, then areas without the butterfly would not require mitigation.

If the protocol pre-construction survey is not conclusive for determining QCB absence (due to limited detectability per the 2002 protocol, for example), or if a survey is not conducted, then all suitable habitat areas would be considered potentially occupied and would require mitigation as follows. If construction occurs outside the larvae and adult activity season (June 1 through October 15) and stays at least 10 meters away from all host plant locations, then no mitigation is required (USFWS, 2007d). If construction occurs between October 16 and May 31 or within 10 meters of host plant locations, or within designated critical habitat, then (1) temporary impacts to the habitat shall be mitigated through on-site restoration of temporarily disturbed areas and off-site acquisition and preservation of an equal sized area of QCB-occupied habitat (a 2:1 mitigation ratio) and (2) permanent impacts shall be mitigated through off-site acquisition and preservation of QCB-occupied habitat (or QCB-designated critical habitat for impacts to designated critical habitat) at a 2:1 ratio (i.e., two acres acquired for each acre lost). Any acquired habitat shall be approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation land to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands). A USFWS permitted biologist shall be present during all construction activities in potentially occupied habitat to monitor and assist the construction crews to ensure impacts occur only as allowed. This same mitigation shall apply where the protocol pre-construction survey was conclusive for determining that the QCB is present and where construction would occur in designated critical habitat. Impacts to QCB

critical habitat must be mitigated within the same Critical Habitat Unit where the impacts occurred.

For the Project, the required mitigation for impacts to designated critical habitat includes 55.7 acres of onsite restoration and 94.12 acres of offsite acquisition and preservation of acres of QCB critical habitat or other habitat acceptable to Wildlife Agencies, BLM, or other applicable agencies. Impacts to QCB critical habitat must be mitigated within the same Critical Habitat Unit where the impacts occurred.

If host plant mapping is not possible during the pre-construction survey (e.g., drought prevents plant germination), then all suitable habitat (i.e., non-excluded habitat per the 2002 protocol) shall be considered occupied by the QCB and mitigated under the assumption that the QCB is present.

A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands). The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) prior to the initiation of any activities which may impact (directly or indirectly) the QCB or its habitat. The Applicant shall work with the CPUC, BLM, Wildlife Agencies, State Parks, and USDA Forest Service until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired QCB habitat. The Habitat Management Plan shall include, but shall not be limited to:

- Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) QCB habitat approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands)
- Baseline biological data for all QCB habitat
- Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) to provide in-perpetuity management
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- Designation of responsible parties and their roles (e.g., provision of endowment by the Applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity)
- Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands).

Rationale for Finding. Implementation of the above mitigation measures will avoid whenever possible sensitive vegetation. Where this is not possible, the mitigation will restore and compensate for all sensitive vegetation and for Jurisdictional Waters and Wetlands disturbed by Project construction, including temporary disturbance areas around tower construction sites, laydown/staging areas, temporary access

and spur roads, and existing tower locations. Surveying the Project corridor (including access roads) for populations of invasive and noxious weeds prior to the start of construction; and implementing construction control measures to control invasive and noxious weeds will mitigate impacts to the corridor related to invasive and noxious weeds. Mitigation will require surveys within all potential QCB habitat, and avoidance, restoration, and preservation of QCB-occupied habitat. This mitigation will lessen the impact. The mitigation for the loss of the sensitive vegetation communities and QCB habitat (Mitigation Measure B-1a and B-7i) will normally compensate for the potential loss of these sensitive species and their habitats. However, since adequate land required by the mitigation may not be available it is not feasible to mitigate this impact to less than significant levels (Class I). There are no other feasible mitigation measures or alternatives available to reduce the significant biological impact to a level that will be less than significant.

Reference. EIR/EIS Section E.1.2; Section E.2.2; Section E.2.4; Section D.2

Impact B-7O: Direct or indirect loss of barefoot banded gecko or direct loss of habitat (Class I)

The barefoot banded gecko is assumed to be present along the Project from approximately MP I8-23 through MP 39 and from approximately MP BCD-0 through MP BCD-8. No surveys were conducted for this species. If surveys were conducted, and the species was not found, the survey result will have to be considered false negative because of the species' highly elusive nature. Any impact to the barefoot banded gecko or its habitat will be significant and not mitigable to less than significant levels (Class I) since the extent of the impacts that will occur is unknown.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-7O. Specifically, Mitigation Measures B-1a, B-1c, and B-2a, as set forth in Section III.2, are feasible and are hereby adopted to mitigate significant effects from Impact B-7O. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact B-7O to a less than significant level

B-1a Provide restoration/compensation for affected sensitive vegetation communities.

B-1c Conduct biological monitoring.

B-2a Provide restoration/compensation for affected jurisdictional areas.

Rationale for Finding. Implementation of the above mitigation measures will avoid whenever possible sensitive vegetation. Where this is not possible, the mitigation will restore and compensate for all sensitive vegetation and for Jurisdictional Waters and Wetlands disturbed by Project construction, including temporary disturbance areas around tower construction sites, laydown/staging areas, temporary access and spur roads, and existing tower locations. Surveying the Project corridor (including access roads) for populations of invasive and noxious weeds prior to the start of construction; and implementing construction control measures to control invasive and noxious weeds will mitigate impacts to the corridor related to invasive and noxious weeds. The mitigation will reduce the impact. However, since the extent of the impact is unknown it is unfeasible to effectively mitigate the impact. There are no other feasible mitigation measures or alternatives available to reduce the significant biological impact to a level that will be less than significant.

Reference. EIR/EIS Section E.1.2; Section E.2.2

Impact B-10: Presence of transmission lines may result in electrocution of, and/or collisions by, listed or sensitive bird species (Class I for collision for listed species)

Mortality as a result of collision with Project features will be greatest where the movements of migrating birds are the most concentrated. Since most birds migrate at night, and migration corridors have never been studied systematically (their use by birds has been pieced together from anecdotes), there is no way to know how many birds and what species of birds will actually be impacted by collision with Project transmission lines, towers, poles, or static wires because much of the migration occurs at night when it cannot be seen, and birds that collide with transmission line features and fall to the ground are often taken away by predators/scavengers before morning. It is assumed that some migrating species could be federal or State listed or of other special status, and their mortality will be a significant impact that is not mitigable to less than significant levels (Class I).

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-10. Specifically, Mitigation Measure B-10a, as set forth in Section III.2, is feasible and is hereby adopted to mitigate significant effects from Impact B-10. However, even with implementation of this measure, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact B-10 to a less than significant level.

B-10a Utilize collision-reducing techniques in installation of transmission lines.

Rationale for Finding. By using APLIC Standard collision-reducing techniques, which requires the utilization of collision-reducing techniques such as site-sensitive tower/line placement and installation of bird flight diversion devices, requires a study to determine the effectiveness of such devices, and determine if new methods need to be developed, and requires implementation of a reporting system to document bird mortality, as outlined in Mitigation Measure B-10a, impacts to bird species will be reduced. However, because it is assumed that some migrating species are federal or State listed or of other special status, it will not be feasible to mitigate their mortality. There are no other feasible mitigation measures or alternatives available to reduce the significant biological impact to a level that will be less than significant.

Reference. EIR/EIS Section E.1.2; Section E.2.2; Section E.4.2; Section D.2

Impact B-12: Maintenance activities would result in disturbance to wildlife and could result in wildlife mortality (Class I for Peninsular bighorn sheep)

BIO-APM-3, BIO-APM-4, BIO-APM-6, BIO-APM-7, BIO-APM-9, BIO-APM-10 through BIO-APM-13, and BIO-APM-16 will be implemented to minimize or prevent disturbance to wildlife and wildlife mortality during project maintenance:. These APMs include restricting work to within existing access roads; observing a 15-mile-per hour speed limit on dirt roads; complying with regulations protecting wildlife and its habitat; prohibiting litter; conducting a preactivity survey prior to brush clearing around Project facilities (if it has been two years since the last clearing); prohibiting harm to, and feeding of, wildlife; and identifying environmentally sensitive tree trimming locations. Even with implementation of the APMs, disturbance to wildlife and potential wildlife mortality will be significant. The APMs are not

specific enough or do not provide enough mitigation to adequately compensate for the impacts. The measures in the APMs shall still apply except where the mitigation measures are more specific or more restrictive than the APM requirements. In those instances, the mitigation measures take precedence.

Impacts to PBS and its critical habitat (see Impact B-7B) from maintenance activities will cause PBS to avoid affected areas and will interfere with the use of resources such as escape terrain; water; mineral licks; rutting, lambing, or feeding areas; the use of traditional movement routes, and/or will cause physiological stress or increased predation. All of these potential effects may adversely affect survival and recovery of the species and are significant and not mitigable to less than significant levels (Class I), although Mitigation Measures B-3a and B-7c are required to minimize the impacts.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-12. Specifically, Mitigation Measures B-3a and B-7c, as set forth above and in Section III.2, are feasible and are hereby adopted to mitigate significant effects from Impact B-12. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact B-12 to a less than significant level

B-3a Prepare and implement a Weed Control Plan.

B-7c Minimize impacts to Peninsular bighorn sheep and provide compensation for loss of critical habitat.

Rationale for Finding. Surveying the Project corridor (including access roads) for populations of invasive and noxious weeds prior to the start of construction; and implementing construction control measures to control invasive and noxious weeds will mitigate impacts to the corridor related to invasive and noxious weeds. The mitigation will also avoid PBS habitat during lambing season and will mitigate PBS critical habitat with lands suitable to Wildlife Agencies, BLM, and State Parks. This mitigation will reduce the impact. The mitigation for the loss of the sensitive vegetation communities and PBS habitat (Mitigation Measure B-3a and B-7c) will normally compensate for the potential loss of these sensitive species and their habitats. However, since adequate land required by the mitigation may not be available and because of the high sensitivity of the species and evidence that shows that human activities significantly affect it, it is not feasible to mitigate this impact to less than significant levels (Class I). There are no other feasible mitigation measures or alternatives available to reduce the significant biological impact to a level that will be less than significant.

Reference. EIR/EIS Section E.1.2; Section E.2.2

Cumulative Impact B-1: Construction and maintenance activities would result in temporary and permanent losses of native vegetation (Class I).

Despite measures to protect and remediate losses, construction of the Project will cause both temporary (during construction from vegetation clearing) and permanent (displacement of vegetation with project features such as towers or permanent access roads) significant impacts to vegetation communities as described in Sections E.1.2, E.2.2, E.4.2, and Section D.2. Many cumulative projects will result in temporary and permanent losses of native vegetation through grading and clearing activities to construct roads, utility infrastructure, and commercial and residential developments, particularly large scale resi-

dential developments and solar projects will require clearance of hundreds, and in some cases thousands, of acres of contiguous land area occupied by both sensitive and non-sensitive species.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact B-1. Specifically, Mitigation Measures B-1a and B-1c, as set forth in Section III.2, are feasible and are hereby adopted to mitigate significant cumulative effects from Impact B-1. However, even with implementation of these measures, significant unavoidable impacts will occur.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact B-1 to a less than significant level

B-1a Provide restoration/compensation for affected sensitive vegetation communities.

B-1c Conduct biological monitoring.

Rationale for Finding. Permanent losses of vegetation associated with the Project combined with losses associated with past, present and future projects are considered significant because they will represent substantial adverse effects to native communities that cannot be fully mitigated. Therefore, impacts of the Project, when combined with impacts from past, present, and reasonable future projects will be considered cumulatively significant (Class I). Mitigation Measures B-1a and B-1c will be implemented to reduce the Project's effects on native vegetation; however, even with mitigation, incremental impacts will persist and when combined with impacts of past projects, and because restoration/compensation for affected vegetation communities may not be available, Impact B-1 will still be considered significant. There are no other feasible mitigation measures or alternatives available to reduce the significant biological impact to a level that will be less than significant.

Reference. EIR/EIS Section G

Cumulative Impact B-5: Construction activities would result in direct or indirect loss of listed or sensitive plants or a direct loss of habitat for listed or sensitive plants (Class I).

Impacts to listed or sensitive plant species will be caused by direct loss of known locations of individuals, or direct loss of potential habitat as a result of temporary or permanent grading or vegetation clearing during Project construction. Plant species that are listed or considered to be sensitive are already considered to be compromised, partly or completely (depending on the species) as a result of past and continued human activity and development throughout the region. As such any activities that will considerably contribute to adverse affects on these plant species will be considered significant.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact B-5. Specifically, Mitigation Measures B-1a, B-1c, B2a, and B5a, as set forth above and in Section III.2, are feasible and are hereby adopted to mitigate significant cumulative effects from Impact B-5. However, even with implementation of these measures, significant unavoidable impacts will occur.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact B-5 to a less than significant level

B-1a Provide restoration/compensation for affected sensitive vegetation communities.

B-1c **Conduct biological monitoring.**

B-2a **Provide restoration/compensation for affected jurisdictional areas.**

B-5a **Conduct rare plant surveys, and implement appropriate avoidance/minimization/compensation strategies.**

Rationale for Finding. When combined with similar impacts of past and future projects, these incremental impacts will create a cumulative impact. The Project's contribution to this impact will be cumulatively considerable and thus significant (Class I). Implementation of Mitigation Measures B 1a, B 1c, B 2a, and B 5a will minimize the Project's contribution to this impact, but not to less than significant levels because compensation for affected sensitive vegetation communities may not be available. No additional mitigation measures are available to reduce the Project's contribution to this impact to less than significant. There are no other feasible mitigation measures or alternatives available to reduce the significant biological impact to a level that will be less than significant.

Reference. EIR/EIS Section G

Cumulative Impact B-7 (B-7A through B-7E, B-7H, B-7K, B-7J, B-7M, and B-7O): Direct or indirect loss of listed or sensitive wildlife or a direct loss of habitat for listed or sensitive wildlife (Class I).

As discussed in Section E.1.2, construction of the Project will result in impacts to listed or sensitive wildlife species. Potentially affected species include: flat-tailed horned lizard, Peninsular bighorn sheep, burrowing owl, least Bell's vireo, southwestern willow flycatcher, golden eagle, quino checkerspot butterfly, arroyo toad, coastal California gnatcatcher, and barefoot banded gecko. Impacts to these species will be caused by direct loss of known locations of individuals, or direct loss of potential habitat as a result of temporary or permanent grading or vegetation clearing during Project construction. With implementation of Mitigation Measures B-1a, B-1c, B-2a, B-7a, B-7b, B-7c, B-7d, B-7e, B-7h, B-7i, B-7j, and B-7l as recommended in Section E.1.2, impacts of the Project to burrowing owls, least Bell's vireo, southwestern willow flycatcher, arroyo toad, and coastal California gnatcatcher will be considered less than significant. However, wildlife species that are listed or considered to be sensitive are already considered to be compromised, partly or completely (depending on the species) as a result of past and continued human activity and development throughout the region. Therefore, a cumulative impact is created as a result of the Project in combination with other past, present and future projects causing related impacts. As such, any activities that will considerably contribute to adverse affects on these wildlife species will be considered significant.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact B-7. Specifically, mitigation measures B-1a, B-1c, B-2a, B-7a to B-7e, B-7h to B-7j, and B-7l, as set forth above and in Section III.2, are feasible and are hereby adopted to mitigate significant cumulative effects from Impact B-7. However, even with implementation of these measures, significant unavoidable impacts will occur.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact B-7 to a less than significant level

B-1a **Provide restoration/compensation for affected sensitive vegetation communities.**

B-1c **Conduct biological monitoring.**

B-2a **Provide restoration/compensation for affected jurisdictional areas.**

B-7a **Cover all steep-walled trenches or excavations used during construction to prevent the entrapment of wildlife (e.g., reptiles and small mammals).**

B-7b **Implement avoidance/mitigation/compensation according to the Flat-Tailed Horned Lizard Rangewide Management Strategy.**

B-7c **Minimize impacts to peninsular bighorn sheep and provide compensation for loss of critical habitat.**

B-7d **Conduct burrowing owl surveys, and implement appropriate avoidance/minimization/compensation strategies.**

B-7e **Conduct least Bell's vireo and southwestern willow flycatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.**

B-7h **Implement appropriate avoidance/minimization strategies for eagle nests.**

B-7i **Conduct quino checkerspot butterfly surveys, and implement appropriate avoidance/minimization/compensation strategies.**

B-7j **Conduct arroyo toad surveys, and implement appropriate avoidance/minimization/compensation strategies.**

B-7l **Conduct coastal California gnatcatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.**

Rationale for Finding. Although localized impacts of the Project to some of the above species will be considered to be less than significant, when combined with similar impacts of past and future projects, these impacts will considerably contribute to a cumulative impact (Class I) for all of the species listed above. Implementation of the mitigation measures recommended in Section E.1.2 will reduce the Project's contribution to this impact, but not to less than significant levels specifically because compensation habitat may not be available. There are no other feasible mitigation measures or alternatives available to reduce the significant biological impact to a level that will be less than significant.

Reference. EIR/EIS Section G

Cumulative Impact B-10: Presence of transmission lines may result in electrocution of, and/or collisions by, listed or sensitive bird species (Class I [collision]).

Project components such as transmission towers and conductors will pose collision risks to birds. Several of the cumulative projects, including all the transmission line projects, electrical generation plants, and substations, will involve construction of structures of sufficient height with which birds to collide as will several other transmission lines that currently exist within San Diego and Imperial Counties. As discussed in Section E.1.2, research shows that large numbers of birds collide with such structures annually.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact B-10. Specifically, Mitigation Measure B-10a, as set forth in Section III.2, is feasible and is hereby adopted to mitigate significant cumulative effects from Impact B-10. However, even with implementation of these measures, significant unavoidable impacts will occur.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact B-10 to a less than significant level

B-10a Utilize collision-reducing techniques in installation of transmission lines.

Rationale for Finding. The Project's contribution to collision impacts will be cumulatively considerable and thus significant (Class I). Implementation of Mitigation Measure B-10a will reduce the Project's contribution to this impact, but not to less than significant levels when combined with past, present, and future projects such as those described above that lead to bird collisions. There are no other feasible mitigation measures or alternatives available to reduce the significant biological impact to a level that will be less than significant.

Reference. EIR/EIS Section G

Cumulative Impact B-12: Maintenance activities would result in disturbance to wildlife and could result in wildlife mortality (Class I for Peninsular bighorn sheep).

As discussed in Section E.1.2, maintenance, including such activities as the use of existing access roads or regular brush clearing around Project features, will result in disturbance to and potential mortality of wildlife (including listed or sensitive wildlife). Impacts to PBS and its critical habitat from maintenance activities could cause PBS to avoid affected areas and could interfere with the use of resources such as escape terrain; water; mineral licks; rutting, lambing, or feeding areas; the use of traditional movement routes, and/or could cause physiological stress or increased predation. All of these potential effects could adversely affect survival and recovery of the species and are significant and not mitigable to less than significant levels (Class I), although Mitigation Measure B-7c is required to minimize the impacts. As discussed above for Impact B-7B, wildlife species that are listed or considered to be sensitive are already considered to be compromised, partly or completely (depending on the species) as a result of past and continued human activity and development throughout the region.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-12. Specifically, Mitigation Measure B-7c, as set forth above, is feasible and is hereby adopted to mitigate significant effects from Cumulative Impact B-12. However, even with implementation of this measure, significant unavoidable impacts will occur.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact B-12 to a less than significant level.

B-7c Minimize impacts to peninsular bighorn sheep and provide compensation for loss of critical habitat.

Rationale for Finding. The loss of sensitive or listed species as a result of the Project in combination with other past and present causing related impacts, such as the SWPL Transmission Line, will create a significant cumulative impact (Class I). Although implementation of Mitigation Measure B-7c will reduce Impact B-12, impacts to Peninsular bighorn sheep the Project's contribution to this impact will remain cumulatively considerable. The mitigation for the loss of the sensitive vegetation communities and PBS habitat (B-7c) will normally compensate for the potential loss of these sensitive species and their habitats. However, since adequate land required by the mitigation may not be available and because of the high sensitivity of the species and evidence that shows that human activities significantly affect it, it is not

feasible to mitigate this impact to less than significant levels (Class I). There are no other feasible mitigation measures or alternatives available to reduce the significant biological impact to a level that will be less than significant.

III.3.2 Visual Resources

Impact V-58: Inconsistency with BLM VRM Class III Management objective due to introduction of structure contrast, industrial character, view blockage and skylining when viewed from Key Viewpoint 46 at the Plaster City West OHV Staging Area (VRM) (Class I)

At the Plaster City West OHV Staging Area, the Project will be located adjacent and to the north of the existing SWPL 500 kV, steel-lattice transmission line. The Project will be a dominant feature (along with the existing SWPL line) in views within the staging area and from the surrounding Plaster City Open Area. Compared to the existing SWPL structures, the Project's transmission structures will be of similar design (complex, geometric forms with vertical to diagonal lines) and height and the conductors will appear as simple curvilinear lines. The number of visible structures will be effectively doubled, existing and new structures will be paired and conductor spans will generally be matched. However, the Project will add substantially to structure prominence, complexity, skylining, and industrial character when viewed from the staging area and surrounding Open Area. The resulting structural visual contrast (for form and line) will be strong. Also, because the new line will pass directly through the staging area, parallel to the existing line, the two lines will effectively "bracket" views within the staging area. The overall level of change will be moderate-to-high.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-58. Specifically, Mitigation Measure V-3a, as set forth in Section III.2.6, is feasible and is hereby adopted to mitigate significant effects from Impact V-58. However, even with implementation of this measure, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact V-58 to a less than significant level.

V-3a Reduce visual contrast of towers and conductors.

Rationale for Findings. The BLM's Interim Visual Resource Management (VRM) Class III objective allows for a moderate or lower degree of visual change that, while it may attract attention, should not dominate the view of the casual observer. The new line with its complex structural forms and vertical to diagonal lines will not repeat the basic elements of the existing natural features in the landscape (simple, flat horizontal landform). Also, the Project structures will be prominent to dominant features in the landscape as the Project passes through the staging area. The resulting moderate-to-high level of change caused by the new line will not meet the VRM Class III objective of a moderate (or lower) degree of visual change. Therefore, the Project will not be consistent with the applicable VRM Class III management objective and the resulting visual impact will be significant. There are no other feasible mitigation measures or alternatives available to reduce the significant visual impact to a level that will be less than significant. However, Mitigation Measure V-3a is recommended to minimize the project's visual impact.

Reference. EIR/EIS Section E.1.3

Impact V-60: Inconsistency with BLM VRM Class II Management objective due to introduction of structure contrast, industrial character, view blockage and skylining when viewed from Key Viewpoint 48 south of Table Mountain ACEC on Old Highway 80 (Airport Mesa) (VRM) (Class I)

The Project will be a prominent feature (along with the existing SWPL line) in views from Old Highway 80 and Airport Mesa. Compared to the existing SWPL structures, the Project's transmission structures will be of similar design (complex, geometric forms with vertical to diagonal lines) and height and the conductors will appear as simple curvilinear lines. However, the number of visible structures will be effectively doubled and the variations in terrain will result in mismatched tower heights and conductor spans. Also, the Project will add substantially to structure prominence, complexity, skylining, and industrial character when viewed from Old Highway 80 and Airport Mesa. The resulting structural visual contrast will be weak to moderate for form and line. The overall level of change will be low-to-moderate.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-60. Specifically, Mitigation Measure V-3a, as set forth in Section III.2.6, is feasible and is hereby adopted to mitigate significant effects from Impact V-60. However, even with implementation of this measure, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact V-60 to a less than significant level.

V-3a Reduce visual contrast of towers and conductors.

Rationale for Findings. The BLM's current VRM Class II objective requires the retention of existing landscape character and that the level of change be low. Management activities may be seen, but should not attract the attention of the casual observer. The new line with its complex structural forms and vertical to diagonal lines will not repeat the basic elements of the existing natural features in the landscape irregular to rolling hills that are rugged, rocky and natural appearing. Also, structures will be prominent features in the landscape as the line passes south of Table Mountain ACEC and adjacent to Old Highway 80. The resulting low-to-moderate level of change caused by the new line will not meet the VRM Class II objective of retention of existing character and a low degree of visual change. Therefore, the Project will not be consistent with the applicable VRM Class II management objective and the resulting visual impact will be significant. There are no other feasible mitigation measures or alternatives available to reduce the significant visual impact to a level that will be less than significant.

Reference. EIR/EIS Section E.1.3

Impact V-66: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 53 on westbound Alpine Road (VS-VC) (Class I)

Starting at Alpine Road, this underground portion of the route will be constructed from the point of the transition structures on Alpine Road, passing beneath I-8 to the north side of I-8, where the line will surface via two transition structures. This location will be prominently visible to both east and westbound traffic.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-66. Specifically, Mitigation Measures V-3a and

V-66a, as set forth below and in Section III.2, are feasible and are hereby adopted to mitigate significant effects from Impact V-66. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact V-66 to a less than significant level.

V-3a **Reduce visual contrast of towers and conductors.**

V-66a **Reduce structural prominence and visual contrast associated with the Interstate 8/Chocolate Canyon transition structures.** In order to reduce the structural prominence and visual contrast associated with the Interstate 8/Chocolate Canyon transition structures, SDG&E shall reconsider the location of the transition structures and attempt to lower their height by either relocating the next tower to shorten the span, or by moving the transition structures further downslope. This measure shall be implemented by SDG&E's submittal of a memo to the CPUC for review and approval that documents its attempts to fine-tune the location of the transition structures, as well as the submittal of final construction plans for review and approval at least 120 days prior to the start of construction.

Rationale for Findings. Mitigation Measures V-3a and V-66a are recommended to reduce the visual impact of the I-8 transition structures. By moving the I-8 transition structures further to the northwest along the south side of Alpine Road, which will span I-8 to a new location slightly to the west of the current span location, the towers will be better backdropped and visual contrast will be reduced. The resulting visual impact will still be significant, but it will be less than the impact resulting from the transition location. There are no other feasible mitigation measures or alternatives available to reduce the significant visual impact to a level that will be less than significant.

Reference. EIR/EIS Section E.1.3

Impact V-68: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 55 on Moreno Boulevard (VS-VC) (Class I)

As the Project passes along a ridge east of the community of Moreno, the tubular steel-pole structures will be prominently visible to nearby residences and equestrians, particularly along the foothills at the base of the ridge. Skylining will exacerbate structure prominence and the facilities will introduce structural complexity and industrial character into the landscape. The resulting visual contrast will be moderate. The subordinate-to-co-dominant structures will also cause a moderate degree of view blockage of the background ridge and sky.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-68. Specifically, Mitigation Measures V-3a and V-68a, as set forth below and in Section III.2.6, are feasible and are hereby adopted to mitigate significant effects from Impact V-68. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact V-68 to a less than significant level.

V-3a **Reduce visual contrast of towers and conductors.**

V-68a **Eliminate skylining of ridgeline towers and conductors.** In order to eliminate the skylining of ridgeline towers and conductors, the ridgeline towers shall be relocated to elevations sufficiently low on the ridge to eliminate structure skylining when viewed from Moreno Boulevard, SR67, and residences on the slopes west of SR67. SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC for review and approval at least 120 days prior to the start of construction.

Rationale for Findings. The Project will result in an overall moderate visual change that in the context of the existing landscape's moderate-to high visual sensitivity, will result in significant visual impacts. Although APMs VR-1 through VR-6 commit SDG&E to several tower design and placement measures to minimize visual impacts, there is no mitigation available to reduce the significant visual impact to a level that will be less than significant in this corridor, aside from selection of an entirely different route and landscape setting. The relatively open terrain and consistent backdrop along this route segment do not offer opportunities to either better screen the structures from view or blend them more effectively with a different background. However, Mitigation Measures V-3a and V-68a are still recommended to reduce the visual impact along this portion of the Project. In particular, Mitigation Measure V-68a will be effective in reducing structure visibility, prominence, and contrast from more distant views (e.g., Moreno Boulevard) by relocating the ridgeline structures to elevations sufficiently low on the ridge to eliminate structure skylining when viewed from Moreno Boulevard, SR67, and residences on the slopes west of SR67. While this will substantially lessen the visual impact on more distant views, it will not significantly reduce the visual impact on closer views from residences at the base of the ridge. There are no other feasible mitigation measures or alternatives available to reduce the significant visual impact to a level that will be less than significant.

Reference. EIR/EIS Section E.1.3

Impact V-73: Increased structure contrast, industrial character, structure prominence and view blockage associated with the Chocolate Canyon Option (VS-VC) (Class I)

The Project will introduce prominent built structures with substantial industrial character into a predominantly natural appearing landscape, which will be visible from I-8, Capitan Reservoir, and a few residences off of Peutz Valley Road to the east.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-73. Specifically, Mitigation Measure V-3a, as set forth in Section III.2.6, is feasible and is hereby adopted to mitigate significant effects from Impact V-73. However, even with implementation of this measure, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact V-73 to a less than significant level.

V-3a **Reduce visual contrast of towers and conductors.**

Rationale for Findings. The lower elevation along this segment of the Project will minimize structure skylining in general and eliminate structure skylining along the ridgeline west of Chocolate Canyon. However, the presence of the transmission structures will still create long-term, operational visual impacts to travelers on I-8, residences off of Peutz Valley Road, and the numerous residences to the west of the

Project route. There are no other feasible mitigation measures or alternatives available to reduce the significant visual impact to a level that will be less than significant.

Reference. EIR/EIS Section E.1.3

Impact V-74: Inconsistency with BLM VRM Class II objective due to introduction of structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 60 on McCain Valley at the Intersection with Sacatone Overlook Road (Class I)

As seen from Key Viewpoint 60, the Project will be constructed within the undeveloped landscape east of McCain Valley Road. The steel-lattice transmission line will be located parallel to, and then cross to the west side of, McCain Valley Road. The structures will be prominent-to-dominant features in the landscape, a characteristic that is substantially exacerbated by the skylining that will occur as a result of the relatively level terrain and the open, unobstructed sightlines to the transmission line from McCain Valley Road. The transmission line will also exhibit considerable structural complexity and industrial character. The resulting structural visual contrast (for form and line) will be moderate-to-strong. The overall level of change will be moderate-to-high.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-74. Specifically, Mitigation Measure V-3a, as set forth in Section III.2.6, is feasible and is hereby adopted to mitigate significant effects from Impact V-74. However, even with implementation of this measure, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact V-74 to a less than significant level.

V-3a Reduce visual contrast of towers and conductors.

Rationale for Findings. The BLM's current VRM Class II objective requires the retention of existing landscape character and that the level of change be low. Management activities may be seen, but should not attract the attention of the casual observer. The moderate-to-high level of change that will occur will not meet the VRM Class II objective of a low degree of visual change (or less). The prominently visible structures will be very noticeable and the complex structural forms and vertical to diagonal lines will not repeat the basic elements of the existing natural features in the landscape (rolling to angular landforms and irregular lines). Therefore, the Project in McCain Valley East will not be consistent with the applicable VRM Class II management objective and the resulting visual impact will be significant. There are no other feasible mitigation measures or alternatives available to reduce the significant visual impact to a level that will be less than significant.

Reference. EIR/EIS Section E.2.3

Impact V-75: Inconsistency with BLM VRM Class II objective due to introduction of structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 61 on at Carrizo Overlook (Class I)

As seen from Key Viewpoint 61 at Carrizo Overlook, the Project will pass through the undeveloped landscape of McCain Valley West. Although the wind turbines on Tecate Divide are slightly noticeable along the distant horizon, there are no structures similar to the Project's complex lattice towers in the

McCain Valley West area. The structures will be prominent features in the landscape, a characteristic that is exacerbated by the skylining that will occur as a result of the relatively level terrain and the open, unobstructed sightlines to the transmission line from Carrizo Overlook. The transmission line will also exhibit considerable industrial character. At this viewing distance, the resulting structural visual contrast (for form and line) will be moderate. The overall level of change will be moderate.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-75. Specifically, Mitigation Measure V-3a, as set forth in Section III.2.6, is feasible and is hereby adopted to mitigate significant effects from Impact V-75. However, even with implementation of this measure, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact V-75 to a less than significant level.

V-3a Reduce visual contrast of towers and conductors.

Rationale for Findings. The BLM's current VRM Class II objective requires the retention of existing landscape character and that the level of change be low. Management activities may be seen, but should not attract the attention of the casual observer. The moderate level of change that will occur will not meet the VRM Class II objective of a low degree of visual change (or less). The prominently visible structures will be noticeable and will attract the attention of the casual observer at the overlook. The complex structural forms and vertical to diagonal lines will not repeat the basic elements of the existing natural features in the landscape (flat landform and horizontal line). Therefore, this segment of the project will not be consistent with the applicable VRM Class II management objective and the resulting visual impact will be significant. There are no other feasible mitigation measures or alternatives available to reduce the significant visual impact to a level that will be less than significant.

Reference. EIR/EIS Section E.2.3

Impact V-76: Inconsistency with BLM VRM Class II objective due to introduction of structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 62 on McCain Valley Road South of Cottonwood Campground (Class I)

As seen from Key Viewpoint 62, approximately 1.5 miles south of Cottonwood Campground, the Project will pass through the undeveloped landscape west of McCain Valley Road, which is referred to as McCain Valley West in the Management Plan. There are no structures similar to the complex lattice towers in the north McCain Valley area. The wind turbines on Tecate Divide are further to the south down the Divide. The transmission line structures will be prominent features in the landscape, a characteristic that is exacerbated by the skylining that will occur as a result of the relatively level terrain and the open, unobstructed sightlines to the transmission line from McCain Valley Road. The transmission line will also exhibit considerable industrial character. The resulting structural visual contrast (for form and line) will be moderate-to-strong. The overall level of change will be moderate-to-high.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-76. Specifically, Mitigation Measure V-3a, as set forth in Section III.2.6, is feasible and is hereby adopted to mitigate significant effects from

Impact V-76. However, even with implementation of this measure, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact V-76 to a less than significant level.

V-3a Reduce visual contrast of towers and conductors.

Rationale for Findings. The BLM's current VRM Class II objective requires the retention of existing landscape character and that the level of change be low. Management activities may be seen, but should not attract the attention of the casual observer. The moderate-to-high level of change that will occur will not meet the VRM Class II objective of a low degree of visual change (or less). The prominently visible structures will be noticeable and will attract the attention of the casual observer on McCain Valley Road. The complex structural forms and vertical to diagonal lines will not repeat the basic elements of the existing natural features in the landscape (flat to rolling landforms and horizontal to curvilinear line). Therefore, the Project in north McCain Valley will not be consistent with the applicable VRM Class II management objective and the resulting visual impact will be significant. There are no other feasible mitigation measures or alternatives available to reduce the significant visual impact to a level that will be less than significant.

Reference. EIR/EIS Section E.2.3

Impact V-82: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 67 on northbound South Buckman Springs Road (Class I)

As seen from Key Viewpoint 67, the Project will be located east of South Buckman Springs Road and east and south of Cameron Truck Trail. The steel lattice structures will be very prominent, industrial additions to a landscape that presently is absent such features. Although the lattice design will help the structures to blend with the background when viewed from a distance, the close proximity of the structures to South Buckman Springs Road, Cameron Truck Trail and nearby residences will negate that blending characteristic and the structures will stand out from the predominantly natural land and vegetative forms, substantially compromising landscape integrity. The resulting visual contrast will be high. The co-dominant-to-dominant project features will cause a moderate-to-high degree of view blockage of the valley floor and surrounding hills and ridges.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-82. Specifically, Mitigation Measure V-3a, as set forth in Section III.2.6, is feasible and is hereby adopted to mitigate significant effects from Impact V-82. However, even with implementation of this measure, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact V-82 to a less than significant level.

V-3a Reduce visual contrast of towers and conductors.

Rationale for Findings. The overall visual change along this Project segment will be moderate-to-high, and in the context of the existing landscape's moderate-to-high visual sensitivity the resulting visual impact will be significant. Although APMs VR-1 through VR-6 commit SDG&E to several tower design and placement measures to minimize visual impacts, there is no mitigation available to reduce the significant visual impact to a level that will be less than significant in this corridor, aside from selection of

an entirely different route and landscape setting. The relatively open terrain, close viewing opportunities, and consistent backdrop along this route segment do not offer opportunities to either better screen the structures from view or blend them more effectively with a different background. Therefore, a localized rerouting of the line will not be effective. There are no other feasible mitigation measures or alternatives available to reduce the significant visual impact to a level that will be less than significant.

Reference. EIR/EIS Section E.4.3

Impact V-83: Inconsistency with USFS Scenic Integrity Objective due to introduction of structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 68 on Lyons Valley Road (SMS) (Class I)

As seen from Key Viewpoint 68, approximately 2.75 miles east of the intersection with Honey Springs Road, the Project will pass in close proximity to Lyons Valley Road. This segment of the Project will introduce prominent built structures with substantial industrial character into a predominantly natural landscape absent similar features. The resulting visual contrast will be substantial. The openness of the terrain and large scale of the structures will allow foreground to distant views of the transmission line (structures and conductors) from Lyons Valley Road and adjacent Forest lands. View blockage of the surrounding slopes and ridges will also occur, as will skylining (extending above the horizon), where the line crosses ridges and crests hills. Skylining will exacerbate structure prominence and the transmission line will substantially reduce the integrity of the existing landscape. The resulting level of change will be high. The high level of change that will result from this segment of the Project will not be consistent with Aesthetic Management Standard S9 of the Cleveland National Forest Land Management Plan requiring activities to meet the applicable SIO.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-83. Specifically, Mitigation Measures V-3a and V-45a, as set forth below and in Section III.2.6, are feasible and are hereby adopted to mitigate significant effects from Impact V-83. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact V-83 to a less than significant level.

V-3a **Reduce visual contrast of towers and conductors.**

V-45a **Prepare and implement Scenery Conservation Plan.** Within one year after license issuance, or prior to any ground disturbing activities, the Licensee shall file with the Commission a Scenery Conservation Plan that is approved by the Forest Service. The purpose of this Scenery Conservation Plan is to identify specific actions that will minimize the project's visible disturbance to the naturally established scenery and to establish final direction to best achieve the spirit and intent of the Scenic Integrity Objectives of the Cleveland National Forest Land and Resource Management Plan. To achieve the greatest consistency with the Scenic Integrity Objectives, the Project shall detail and integrate the following design recommendations into the Scenery Conservation Plan:

- **Power Line and Support Towers.** Transmission lines shall be non-specular (non-reflective) and neutral in coloration. Support towers shall be custom-colored with a flat, non-reflective finish, to visually blend with native vegetation colors to appear as visually

transparent as possible within the natural landscape pattern. Towers shall be designed to minimize their visual prominence and contrast to the natural landscape.

- **Distance Zones.** The Applicant shall consult with the Forest Service on tower design for any approved route on Forest lands and implement tower styles in accordance with agency direction. In general, the USFS requires that support towers within approximately one mile of sensitive primary viewpoints and without a backdrop be a monopole design with a simple, clean and less industrial appearance and support towers viewed beyond one mile from sensitive viewpoints or only at distance be lattice towers.
- **Vegetation Clearing.** Vegetation within the right of way and ground clearing at the foot of each tower and between towers will be limited to the clearing necessary to comply with electrical safety and fire clearance requirements. Mitigation will be incorporated to reduce the total visual impact of all vegetation clearing performed for the power line.
- **Roads.** No new access or spur roads, or improvements (reconstruction/expansion) to existing roads are to be constructed in the following areas: (1) where ground slopes exceed 15%, or (2) on Forest lands subject to a HIGH Scenic Integrity Objective (SIO) where the new access or spur road would be visible from primary travel (paved) roads or the Pacific Crest National Scenic Trail, regardless of ground slope. Existing roads needing reconstruction/expansion on other areas of the forest shall be configured to minimize the creation of cut/fill slopes. Where such slopes are created, they shall be immediately treated to minimize their level of scenery disturbance. These treatments may include construction of structural elements designed to blend with the adjacent natural scenery, or revegetation with native species.
- **Structures.** All structures and structural elements, that may be constructed as part of the Project shall be designed, located, shaped, textured, colored and/or screened as necessary to minimize their visual contrast, blend, and complement the adjacent forest and community architectural character.
- **Evaluation of Effects.** The Licensee may be required to provide photorealistic visual simulations of proposed designs and mitigation measures to demonstrate their effectiveness in achieving Land and Resource Management Plan Scenic Integrity Objectives as viewed from sensitive viewsheds.
- **Off-Site Mitigation.** Where project features create unavoidable and permanent negative scenery effects that are inconsistent with CNF Plan Scenic Integrity Objectives, additional scenery enhancement activities approved by the Forest Service shall be performed in the nearest suitable areas in new viewsheds agreeable to the Forest shall be purchased and assigned to the Forest for its stewardship.

Rationale for Findings. Within Cleveland National Forest, the Project will not repeat the form, line, color, texture, and pattern common to the landscape character so completely and at such scale that it is not evident, as required by the applicable "HIGH" SIO. Indeed, the structures will be quite prominent features in the landscape. Furthermore, the transmission line will not qualify for the exceptions of (1) a minor adjustment (one level reduction with approval) to the SIO, or (2) a temporary drop of more than one SIO not to exceed three years in duration, as required in Aesthetic Management Standard S10. The resulting visual impact will be significant. Although APMs VR-1 through VR-6 commit SDG&E to several tower design and placement measures to minimize visual impacts, there is no mitigation available to reduce the significant visual impact to a level that will be less than significant in this corridor, aside from selection of an entirely different route and landscape setting. The relatively open terrain, close viewing opportunities,

and consistent backdrop along this route segment do not offer opportunities to either better screen the structures from view or blend them more effectively with a different background. Therefore, a localized rerouting of the line will not be effective. However, Mitigation Measures V-3a and V-45a are recommended to minimize the visual impact. While implementation of these measures will not achieve the HIGH SIO, they will enable achievement of the highest scenic integrity possible. There are no other feasible mitigation measures or alternatives available to reduce the significant visual impact to a level that will be less than significant.

Reference. EIR/EIS Section E.4.3

Impact V-84: Inconsistency with USFS Scenic Integrity Objective due to introduction of structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 69 on Japatul Road (SMS) (Class I)

As seen from Key Viewpoint 69, the Project will ascend the rugged ridges north of Japatul Road (and south of I-8) to the substation site near the top of the ridges. This segment of the Project will introduce prominent built structures with substantial industrial character into a predominantly natural landscape absent similar features. The openness of the terrain and large scale of the structures will allow foreground to middleground views of the transmission line and substation from Japatul Road and foreground to middleground views of the transmission line exiting north of the substation from the Ellis Wayside Vista Point (on I-8) and westbound I-8. The 230 kV transmission line will also skyline as it crests the ridge immediately north of the substation before descending the slope to converge on I-8. View blockage of the background slopes will be caused by the transmission line. Overall, the facilities will substantially reduce the integrity of the existing landscape and the resulting level of change will be high, which will not be consistent with Aesthetic Management Standard S9 of the Cleveland National Forest Land Management Plan requiring activities to meet the applicable SIO.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-84. Specifically, Mitigation Measures V-3a and V-45a, as set forth above and in Section III.2.6, are feasible and are hereby adopted to mitigate significant effects from Impact V-84. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact V-84 to a less than significant level.

V-3a Reduce visual contrast of towers and conductors.

V-45a Prepare and Implement Scenery Conservation Plan.

Rationale for Findings. Within Cleveland National Forest, the Project will not repeat the form, line, color, texture, and pattern common to the landscape character so completely and at such scale that it is not evident, as required by the applicable "HIGH" SIO. The structures will be quite prominent features in the landscape, particularly when viewed from Japatul Road and the I-8 Ellis Wayside Vista Point on I-8. Furthermore, the transmission line will not qualify for the exceptions of (1) a minor adjustment (one level reduction with approval) to the SIO, or (2) a temporary drop of more than one SIO not to exceed three years in duration, as required in Aesthetic Management Standard S10. The resulting visual impact will be significant. There are no other feasible mitigation measures or alternatives available to reduce the significant visual impact to a level that will be less than significant. However, Mitigation Measures V-3a

and V-45a are recommended to minimize the visual impact along this segment of the Project. While implementation of these measures will not achieve the HIGH SIO, they will enable achievement of the highest scenic integrity possible.

Reference. EIR/EIS Section E.4.3

Impact V-86: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 70 on Star Valley Road (Class I)

As seen from Key Viewpoint 70, transition structures will be added immediately southwest of the bend in Star Valley Road. The steel pole transition structures and tangent towers will be very prominent, industrial additions to a landscape that presently is absent such features, substantially compromising landscape integrity. The resulting visual contrast will be high. The co-dominant-to-dominant project features will cause a moderate-to-high degree of view blockage of the background hills, ridges, and sky.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-86. Specifically, Mitigation Measure V-3a, as set forth in Section III.2.6, is feasible and is hereby adopted to mitigate significant effects from Impact V-86. However, even with implementation of this measure, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact V-86 to a less than significant level.

V-3a Reduce visual contrast of towers and conductors.

Rationale for Findings. The overall visual change along this segment of the Project will be moderate-to-high and in the context of the existing landscape's moderate-to-high visual sensitivity, the resulting visual impact will be significant. Although APMs VR-1 through VR-6 commit SDG&E to several tower design and placement measures to minimize visual impacts, there is no mitigation available to reduce the significant visual impact to a level that will be less than significant in this corridor, aside from selection of an entirely different route and landscape setting. The relatively open terrain, close viewing opportunities, and consistent backdrop along this route segment do not offer opportunities to either better screen the structures from view or blend them more effectively with a different background. There are no other feasible mitigation measures or alternatives available to reduce the significant visual impact to a level that will be less than significant.

Reference. EIR/EIS Section E.4.3

Impact V-89: Increased structure contrast, industrial character, structure prominence and view blockage when viewed from Key Viewpoint 79 on La Posta Truck Trail (Class I)

As seen from Key Viewpoint 79, the Project will cross north-south through La Posta Valley before turning to the south-southeast to span I-8 and ascending the ridges to the south of I-8. The openness of the terrain will allow extended in-line views of the transmission line from La Posta Truck Trail and nearby residences and will cause several structures to be visible in the same field of view. The transmission line with its lattice-steel structures will introduce structurally complex and prominent features with considerable industrial character into a landscape that is predominantly natural in appearance and absent such industrial character. The new structures and conductors will also result in view blockage of the valley,

surrounding hills and ridges, and sky. The resulting visual contrast will be high. The co-dominant structures will also cause a moderate-to-high degree of view blockage of the background hills, ridgelines, and sky.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-89. Specifically, Mitigation Measure V-3a, as set forth in Section III.2.6, is feasible and is hereby adopted to mitigate significant effects from Impact V-89. However, even with implementation of this measure, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact V-89 to a less than significant level.

V-3a Reduce visual contrast of towers and conductors.

Rationale for Findings. The Project will result in an overall moderate-to-high visual change that in the context of the existing landscape's moderate-to-high overall visual sensitivity will result in significant visual impacts. Although APMs VR-1 through VR-6 commit SDG&E to several tower design and placement measures to lessen the occurrence of visual impacts, there is no mitigation available to reduce the significant visual impact to a level that will be less than significant along this route, aside from selection of an entirely different route and landscape setting. However, Mitigation Measure V-3a is recommended to minimize the visual impact along this portion of the Project. There are no other feasible mitigation measures or alternatives available to reduce the significant visual impact to a level that will be less than significant.

Reference. EIR/EIS Section E.2.3

Impact V-90: Inconsistency with USFS Scenic Integrity Objective due to introduction of structure contrast, industrial character, view blockage, and skylining along the BCD South Option

As the Project passes through portions of Cleveland National Forest, it will introduce substantial structure contrast, industrial character, and view blockage on forest lands that are predominantly natural in appearance and absent similar features. As a result, the transmission line will reduce the integrity of the existing landscape and the level of change that will occur will be moderate-to-high. The moderate-to-high level of change that will result from the Project will not be consistent with Aesthetic Management Standard S9 of the Cleveland National Forest Land Management Plan requiring activities to meet the applicable Scenic Integrity Objectives (SIO).

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-90. Specifically, Mitigation Measure V-3a and V-45a, as set forth above and in Section III.2.6, are feasible and are hereby adopted to mitigate significant effects from Impact V-90. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact V-90 to a less than significant level.

V-3a Reduce visual contrast of towers and conductors.

V-45a Prepare and Implement Scenery Conservation Plan.

Rationale for Findings. Within Cleveland National Forest, the Project will not repeat the form, line, color, texture, and pattern common to the landscape character so completely and at such scale that it is not evident, as required by the applicable "HIGH" SIO. Indeed, the structures will be quite prominent features in the landscape. Furthermore, the transmission line will not qualify for the exceptions of (1) a minor adjustment (one level reduction with approval) to the SIO, or (2) a temporary drop of more than one SIO not to exceed three years in duration, as required in Aesthetic Management Standard S10. The resulting visual impact will be significant. However, Mitigation Measures V-3a and V-45a are recommended to minimize the visual impact along this segment of the Project. While implementation of these measures will not achieve the HIGH SIO, they will enable achievement of the highest scenic integrity possible and they will reduce the visual impact that will be experienced by viewers along this project segment. There are no other feasible mitigation measures or alternatives available to reduce the significant visual impact to a level that will be less than significant.

Reference. EIR/EIS Section E.2.3

Impact V-90: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 90 on the PCT and South Boundary Road (Class I)(specific to the PCT Option C/D)

The lattice structures of the Project will be very prominent, industrial additions to a landscape that presently is absent such features, substantially compromising landscape integrity. Due to the availability of numerous viewing opportunities along the PCT and South Boundary Road, the structures will be silhouetted against the sky and the close proximity to the line in the vicinity of the trail spans will cause the transmission line to appear as a dominant industrial feature in a predominantly natural appearing landscape. The BLM's applicable Visual Resource Management (VRM) Class III objective allows for a moderate or lower degree of visual change that, while it may attract attention, should not dominate the view of the casual observer. The new line with its complex structural forms and vertical to diagonal lines will not repeat the basic elements of the existing natural features in the landscape. Also, the structures will be prominent to dominant features in the landscape as it traverses nearby slopes and ridges and spans the PCT and South Boundary Road. The resulting high level of change caused by the new line will not meet the VRM Class III objective of a moderate (or lower) degree of visual change.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-90 (PCT Option C/D). Specifically, Mitigation Measure V-3a and V-45a, as set forth above and in Section III.2.6, are feasible and are hereby adopted to mitigate significant effects from Impact V-90. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact V-90 to a less than significant level.

V-3a Reduce visual contrast of towers and conductors.

V-45a Prepare and Implement Scenery Conservation Plan.

Rationale for Findings. The Project will not repeat the form, line, color, texture, and pattern common to the landscape character so completely and at such scale that it is not evident, as required by the applicable

VRM Class III objective. Indeed, the structures will be quite prominent features in the landscape resulting in a significant visual impact. However, Mitigation Measures V-3a and V-45a are recommended to minimize the visual impact along this segment of the Project. While implementation of these measures will not achieve a minimal overall level of change, they will enable achievement of the highest scenic integrity possible and they will reduce the visual impact that will be experienced by viewers along this project segment. There are no other feasible mitigation measures or alternatives available to reduce the significant visual impact to a level that will be less than significant.

Reference. EIR/EIS Section E.4.3; Response to Comment Set A0009

Cumulative Impact V-1: effects from short-term visibility of construction activities, equipment, and night lighting

As discussed in Section G.4.2.1 of the Draft EIR/EIS, several projects will be in close proximity to the Project. If construction at these adjacent locations were to occur at the same time as, or consecutively before or after construction of the transmission line, construction activities, equipment and night lighting from these sites will combine with such activities and equipment from the Project site. Given the nature of construction of linear projects such as the transmission line, construction activities will not occur at any one location for an extended period of time. However, construction of the Project as well as the residential development projects identified near the SWPL ROW will lead to the presence of construction equipment near the ROW for several years (at least 2008 through 2012).

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact V-1. Specifically, Mitigation Measures V-1-a and V-1b, as set forth in Section III.2, are feasible and are hereby adopted to mitigate significant cumulative effects from Impact V-1. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce the project's incremental contribution to Impact V-1 to a less than significant level.

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Rationale for Findings. The presence of construction equipment near the ROW for several years due to construction activities associated with the Project as well as from other adjacent projects will result in a significant impact. Therefore, the impacts of the Project when combined with impacts of other past, present, and reasonably foreseeable projects will be significant. There are no other feasible mitigation measures or alternatives available to reduce the significant cumulative visual impact to a level that will be less than significant.

Reference. EIR/EIS Section G.4 Section G.4.2.1

Cumulative Impact V-2: effects from long-term visibility of land scars in arid and semi-arid landscapes

The Project will result in scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites and along the entire ROW. Past projects within the Project area that have resulted in similar impacts include the SWPL Transmission Line and

access roads, residential developments, agricultural fields and access roads, and railroads. Three of the reasonably foreseeable projects identified in the EIR/EIS Table G-3 will result in similar impacts, including the Stirling Energy Power Plant, the Imperial Valley Substation Expansion, and the residential developments planned along the Project.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact V-2. Specifically, Mitigation Measures V-2a, V-2b, and V-2c, as set forth in Section III.2, are feasible and are hereby adopted to mitigate significant cumulative effects from Impact V-2. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce the project's incremental contribution to Impact V-2 to a less than significant level.

V-2a. Reduce in-line views of land scars.

V-2b. Reduce visual contrast from unnatural vegetation lines.

V-2c Reduce color contrast of land scars on non-federal lands.

Rationale for Findings. Project impacts will be minimized through implementation of APMs and mitigation measures. However, when combined with similar impacts of past, present, and reasonably foreseeable projects, these impacts will be significant because land scars are currently and will continue to be visible throughout the Project. There are no other feasible mitigation measures or alternatives available to reduce the significant cumulative visual impact to a level that will be less than significant.

Reference. EIR/EIS Section G.4; Section G.4.2.1

Cumulative Impact V-56, V-57, V-59, V-61, and V-66 through V-68, V-73, V-82, V-86, V-89,and V-90 (PCT Option C/D) : effects from increased structure contrast, industrial character, view blockage, and skylining

Project structures (transmission towers and substations) will be prominently visible from many locations throughout the Project area and will introduce additional industrial character wherever they are viewable. A cumulatively considerable impact will occur if the structure contrast, industrial character, view blockages, and skylining introduced by the transmission line combined with similar effects from past, present and reasonably foreseeable projects within viewing distance of the Project. Projects whose impacts will combine with the impacts from the Project include the existing SWPL Transmission Line, I-8, the Stirling Energy Project, the Imperial Valley Substation Expansion, and residential developments such as Lakeside Downs and Lakeside Ranch.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-56, V-57, V-59, V-61, and V-66 through V-68, V-73, V-82, V-86, V-89, and V-90 (PCT Option C/D). Specifically, Mitigation Measure V-3a, as set forth in Section III.2.6, is feasible and is hereby adopted to mitigate significant effects from Impacts V-56, V-57, V-59, V-61, and V-66 through V-68, V-73, V-82, V-86, V-89, and V-90 (PCT Option C/D). However, even with implementation of this measure, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce the project's incremental contribution to Impacts V-56, V-57, V-59, V-61, and V-66 through V-68, V-73, V-82, V-86, V-89, and V-90 (PCT Option C/D) to a less than significant level.

V-3a Reduce visual contrast of towers and conductors.

Rationale for Findings. A review of past development along the SRPL Project route as well as the reasonably foreseeable projects identified in the EIR/EIS Table G-3 shows that when combined with the effects of other projects, the Project will contribute to a significant impact. There are no other feasible mitigation measures or alternatives available to reduce the significant cumulative visual impact to a level that will be less than significant.

Reference. EIR/EIS Section G.4; Section G.4.2

Cumulative Impact V-58, V-60, and V-74 through V-76: effects from inconsistency with Interim BLM VRM Class II and Interim BLM VRM Class III management objective

Portions of the Project route will be constructed on or within viewing distance of BLM lands near the Plaster City West OHV Staging Area, Table Mountain ACEC, McCain Valley Road, and Carrizo Overlook. Presence of transmission structures will introduce structural contrast and a visual character to these lands. The industrial character of the Project will combine with similar effects from the Stirling Energy Project, I-8, and the SWPL Transmission Line to increase the effect of this industrial character viewable from BLM lands in this area.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact V-58, V-60, and V-74 through V-76. Specifically, Mitigation Measure V-3a, as set forth in Section III.2.6, is feasible and is hereby adopted to mitigate significant cumulative effects from Impact V-58 V-60, and V-74 through V-76. However, even with implementation of this measure, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce the project's incremental contribution to Impact V-58, V-60, and V-74 through V-76 to a less than significant level.

V-3a Reduce visual contrast of towers and conductors.

Rationale for Findings. When Project impacts are combined with similar effects from adjacent projects, the resulting structural visual contrast (for form and line) will range from moderate-to-strong to strong and the overall level of change will be moderate-to-high, resulting in a significant impact. Implementation of Mitigation Measure V-3a will minimize the impact from the Project, but not to a level of less than considerable. There are no other feasible mitigation measures or alternatives available to reduce the significant cumulative visual impact to a level that will be less than significant.

Reference. EIR/EIS Section G.4; Section G.4.2

Cumulative Impact V-83, V-84, and V-90 (BCD South Option): effects from inconsistency with USFS Scenic Integrity Objective

Portions of the Project route will be constructed on or within viewing distance of USFS lands near the Lyons Valley Road, Japatul Road, and through portions of the Cleveland National Forest. Presence of transmission structures will introduce structural contrast and a visual character to these lands. The industrial character of the Project will combine with similar effects from the Stirling Energy Project, I-8, and the SWPL Transmission Line to increase the effect of this industrial character viewable from Forest Service lands in this area.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact V-83, V-84. and V-90 (BCD South Option). Specifically, Mitigation Measure V-3a and V-45a as set forth in Section III.2, is feasible and is hereby adopted to mitigate significant cumulative effects from Impact V-83, V-84, and V-90. However, even with implementation of this measure, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce the project's incremental contribution to Impact V-83, V-84, and V-90 to a less than significant level.

V-3a Reduce visual contrast of towers and conductors.

V-45a Prepare and Implement Scenery Conservation Plan.

Rationale for Findings. When Project impacts are combined with similar effects from adjacent projects, the resulting structural visual contrast (for form and line) will range from moderate-to-strong to strong and the overall level of change will be moderate-to-high, resulting in a significant impact. Implementation of Mitigation Measure V-3a will minimize the impact from the Project, but not to a level of less than considerable. There are no other feasible mitigation measures or alternatives available to reduce the significant cumulative visual impact to a level that will be less than significant.

Reference. EIR/EIS Section G.4; Section G.4.2.1

III.3.3 Land Use

Impact L-2: Presence of a project component would divide an established community or disrupt land uses at or near the alignment (Class I for Pending/Future Development)

Development is occurring rapidly in southern California, and there are new development projects entering local development approval processes continually. To reduce impacts to planned new land uses identified subsequent to Project approval by CPUC and BLM, it may be feasible to make minor adjustments to alignment location or tower design that will accommodate pending or proposed projects without compromising the transmission line or creating new impacts to adjacent land uses that will be more adverse than the approved alignment. Preparation and implementation of a construction notification plan as required by Mitigation Measure L-1a will serve to notify landowners and tenants of pending construction. However, this notification will not provide sufficient time to investigate mitigation rerouting of the transmission line at specific parcels. Therefore, Mitigation Measure L-2b, which requires a more focused notification of property owners prior to completion of final transmission line design. Impacts to

new or planned developments would be significant if the mitigation cannot be effectively implemented and the line were to divide an established community or disrupt land uses.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact L-2. Specifically, Mitigation Measure V-L-2b, as set forth in Section III.2, is feasible and is hereby adopted to mitigate significant effects from Impact L-2. However, even with implementation of this measure, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce the project's incremental contribution to Impact L-2 to a less than significant level.

L-2b Revise project elements to minimize land use conflicts.

Rationale for Finding. Mitigation Measure L-2b will reduce impacts to proposed projects by requiring that SDG&E notify landowners 90 days prior to finalization of the transmission line design. This focused notification to property owners will provide time to consider alignment reroutes and allows property owners and SDG&E flexibility in identifying route revisions that are mutually acceptable. The measure also clearly states that the reroute should not cause more impact than the Project route and not create substantial cost increases, which defines the parameters for reasonable and feasible routes. However, there is the possibility that some potential projects may be unknown at this time or that impacts based on reroutes will cause a significant impact. Because there are unknown factors that may contribute to land use impacts in the future and as a result of future projects, this impacts remains significant and unavoidable. There are no other feasible mitigation measures or alternatives available to reduce the significant land use impact to a level that will be less than significant.

Reference. EIR/EIS Section E.1.4.2

III.3.4 Wilderness and Recreation

Impact WR-2: Presence of a transmission line or substation would permanently change the character of a recreation area, diminishing its recreational value (Class I)

As it deviates from the existing SWPL transmission corridor, the Project will require new ROW through a region that does not presently contain structures of similar scale and character as the 500 kV towers. As such, long-term, visual impacts will be experienced by recreationists throughout most of the length of the Project. Additionally, corona noise from the 500 kV line will be audible up to 500 feet from the edge of the ROW. In areas with elevated ambient noise levels (e.g., ORV parks), corona noise will not be noticeable, but in quiet areas this noise will be disturbing. Affected recreational resources include the PCT, Juan Bautista de Anza National Historic Trail, Hauser Wilderness, Hauser Mountain WSA, and El Capitan Reservoir. In addition, approximately 0.6 miles of the Trans-County Trail will be graded and widened for use as a 20-foot-wide access road.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact WR-2. Specifically, Mitigation Measures V-3a, V-45a, N-3a, WR-2a, WR-2b, and WR-3a, as set forth above, below, and in Section III.2, are feasible

and are hereby adopted to mitigate significant effects from Impact WR-2. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact WR-2 to a less than significant level.

V-3a **Reduce visual contrast of towers and conductors.**

V-45a **Prepare and implement Scenery Conservation Plan.**

WR-2a **Develop a reroute for the BCD Alternative Revision to reduce effects on recreation.** SDG&E shall relocate the overhead 500 kV transmission line along the southern boundary of JAM properties as shown in Figure E.2.1-b to shorten the route and minimize effects on BLM land, Forest land, and private property. This reroute and its ground-disturbing components shall avoid Back Country Non-Motorized land use zones of the Cleveland National Forest, while also minimizing towers and disturbance on private property. SDG&E shall submit a memo to the CPUC for review and approval that documents its attempts to fine-tune the location of the BCD Alternative Revision, as well as the submittal of final construction plans for review and approval at least 120 days prior to the start of construction.

WR-2b **Evaluate and Implement PCT Route Revision.** SDG&E shall consult and coordinate with the U.S. Forest Service, BLM, and the Pacific Crest Trail Association to develop route options for revising the PCT so it would cross the Modified Route D Alternative only once, rather than three times. SDG&E shall prepare and submit a report to the BLM and U.S. Forest Service prior to energizing the new transmission line. The report shall identify feasible PCT relocation options, and, under the direction of the federal agencies, shall evaluate whether its construction and restoration of the old trail segment would create overall greater impacts than those created by three crossings of the PCT that would occur with the Modified Route D Alternative. If directed by the BLM, SDG&E shall be responsible for constructing the new trail segment and restoring the old trail segment in manner acceptable to the BLM and U.S. Forest Service. Trail construction and restoration shall be completed within one year of energizing the transmission line.

N-3a **Respond to complaints of corona noise.** SDG&E shall respond to third-party complaints of corona noise generated by operation of the transmission line by investigating the complaints and by implementing feasible and appropriate measures (such as repair damaged conductors, insulators, or other hardware). As part of SDG&E's repair inspection and maintenance program, the transmission line shall be patrolled, and damaged insulators or other transmission line materials, which could cause excessive noise, shall be repaired or replaced.

WR-3a **Coordinate tower and road locations with the authorized officer for the recreation area.**

B-1a **Provide restoration/compensation for affected sensitive vegetation communities.**

Rationale for Findings. Presence of the transmission structures and corona noise from the 500 kV conductors will diminish the value of the recreational experience along the Project alignment, resulting in significant and unmitigable impacts. The Project route will be located within or adjacent to a variety of recreation areas, some of which are remote and highly sensitive to impact such as wilderness areas, or are considered sensitive recreational resources such as the PCT and Juan Bautista de Anza National Historic Trail. Implementation of Mitigation Measures V-3a, V-45a, and N-3a will reduce visual and noise impacts to affected recreation areas, and Mitigation Measure WR-3a will minimize access-related impacts to the Trans-County Trail. Mitigation Measures WR-2a and WR-2b were added to reduce impacts associated with BDC Alternative on recreation resources and Project impacts on the Pacific Crest Trail. However,

these measures will not reduce the severity of impact to a less than significant level. There are no other feasible mitigation measures or alternatives available to reduce the significant wilderness and recreation impacts to a level that will be less than significant.

Reference. EIR/EIS Section E.1.5; Section E.2.5; Section E.4.5; Section D.5.18.4

Impact WR-3: Presence of a transmission line would permanently preclude recreational activities (Class I)

The Project will be constructed overhead between the launch pad and the landing pad of the Blossom Valley hang gliding and paragliding site. The location of the overhead conductors will present a serious safety risk to glider pilots. As such, recreational pilots will be permanently precluded from this recreational site.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact WR-3. Specifically, Mitigation Measure WR-3a, as set forth in Section III.2, is feasible and is hereby adopted to mitigate significant effects from Impact WR-3. However, even with implementation of this measure, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact WR-3 to a less than significant level.

WR-3a Coordinate tower and road locations with the authorized officer for the recreation area.

Rationale for Findings. Given the safety risk to glider pilots from the location of overhead conductors that will be constructed across the flight path for the Blossom Valley hang gliding and paragliding site, the Project will permanently preclude the existing recreational use of this site. While implementation of Mitigation Measure WR-3a will minimize access-related impacts to recreational resources such as trails, this measure will not reduce the severity of impact at the Blossom Valley site. There is no available mitigation for preclusion of hang gliding and paragliding at the Blossom Valley site. There are no other feasible mitigation measures or alternatives available to reduce the significant impact to a level that will be less than significant.

Reference. EIR/EIS Section E.1.5; Section E.2.5; Section E.4.5; Section D.5.18.4

Cumulative Impact WR-2: project activities would change the character of a recreation area, diminishing its recreational value

Several past projects and one reasonably foreseeable project, including the SWPL Transmission Line, I-8 Freeway, Stirling Energy Plant, the Slope Residential Development, Sky Mesa Ranch Residential Development, and Carroll Residential Development, will place industrial structures and features within viewing distance of recreation areas. When combined with impacts of the Project, these cumulative projects will substantially change the character of these recreation areas.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact WR-2. Specifically, Mitigation Measures V-3a, V-45a, and N-3a, as set forth in Section III.2, are feasible and are hereby adopted to

mitigate significant cumulative effects from Impact WR-2. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce the project's incremental contribution to Impact WR-2 to a less than significant level.

V-3a Reduce visual contrast of towers and conductors.

V-45a Prepare and implement Scenery Conservation Plan.

N-3a Respond to complaints of corona noise.

Rationale for Findings. The Project will be located in the viewing distance of recreation areas whose views have or will be affected by the presence of existing and future industrial structures. The incremental effect of the Project on the character and recreational value of these recreation areas will be significant and unavoidable. Mitigation Measures V-3a, V-45a, and N-3a will be implemented to minimize the Project's contribution to this cumulative impact. There are no other feasible mitigation measures or alternatives available to reduce the significant cumulative wilderness and recreation impacts to a level that will be less than significant.

Reference. EIR/EIS Section G.3.4; Section G.4.1.5; Section G.4.2

III.3.5 Agriculture

Impact AG-2: Operation would permanently convert DOC Farmland to non-agricultural use (Class I)

Impacts to DOC Farmland will occur where the location of Project facilities, such as access roads and towers, will permanently convert the land upon which they are situated to non-agricultural use. The Project will permanently convert DOC Farmland between MP I8-76 – I8-77, I8-78 – I8-79.6, I8-82 – I8-86, I8-86 – I8-92.7, MP MD-6 – MD-8, MD-22 – MD-28, MP CC-0 – CC-3.7, and MP 135 – 136. The Project will convert 39.5 acres of DOC farmland, more than the 10-acre threshold for determining the significance of impacts. Thus, the Project will significantly impact DOC Farmland (Class I).

Findings.

(1) The CPUC finds that no changes or alterations were identified to address DOC Farmland impacts from the Project. Therefore, significant unavoidable impacts related to farmlands will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce Impact AG-2 to a less than significant level.

Rationale for Findings. The conversion of DOC Farmland will be considered significant if more than 10 acres of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Significance, and/or Grazing Land are converted to non-agricultural use as a result of the Project. In the Project area, there are no non-agricultural areas near the route to which the Project could be relocated so as to reduce impacts to agriculture. Development on land to the north of the Project near MP MRD-3.6 – MRD-28 is prohibited by the U.S. Forest Service. Land to the south and east of MP I8-76 – 92.7 is already occupied by agriculture or by development which would preclude converting the land to agriculture. Because the Project as a whole will convert more than 10 acres of DOC Farmland, impacts to DOC Farmland as a result of the Project will be significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

References. EIR/EIS Section E.1.6; Section E.2.6; Section E.4.6; Section D.6

Impact AG-3: Operation would permanently interfere with Active Agricultural Operations (Class I for Disruption of Farming and Aerial Spraying)

The Project will permanently remove 20.5 acres of grazing operations along MP I8-38 – I8-40, MP I8-73.6 – I8-76, MP I8-78 – I8-79.6, MP BCD-0 – BCD-8, MP BCD-10 – BCD-12, BCDS-0 – BCD-5.4, MP MD-3 – MD-6, MD-8 – MD-21, MD-22 – MD-28, MD-30 – MD-36.3, MP SVO-0 – SVO-1, and SVO-2 – SVO-3. The Project will permanently remove more than 10 acres of land under Active Agricultural Operation. Thus, the Project will significantly impact Active Agricultural Operation (Class I), and no feasible mitigation exists to mitigate this impact to a less than significant level.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact AG-3. Specifically, Mitigation Measures AG-1a, AG-1c, and AG-3b, as set forth here and in Section III.2, are feasible and are hereby adopted to mitigate significant effects from Impact AG-3. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact AG-3 to a less than significant level

AG-1a **Avoid interference with agricultural operations.**

AG-1c **Coordinate with grazing operators.**

AG-3b **Consult with and inform aerial applicators.** The Applicant shall consult with landowners and the County Farm Bureaus to determine which aerial applicators operate in the county. The Applicant shall provide written notification to all aerial applicators working in the county and to the CPUC stating when and where the new transmission lines and towers will be erected. The Applicant shall also provide all aerial applicators, the County Farm Bureaus, and the CPUC with aerial photos or topographic maps clearly showing the new lines and towers in relation to agricultural lands.

Rationale for Findings. The conversion of Active Agriculture Operations will be considered significant if more than 10 acres of land under Active Agricultural Operations are converted to non-agricultural use as a result of the Project. Mitigation Measures AG-1a, AG-1c , and AG-3b will lessen the impact by ensuring that Project construction will avoid or minimize interference with agricultural operations. The mitigation will require SDG&E to coordinate with grazing operators to ensure that agricultural productivity and animal welfare are maintained both during and after construction to the maximum extent feasible. However, in the Project area, there are no non-agricultural areas near the route to which the Project could

be relocated so as to reduce impacts to agriculture. Development on land to the north of the Project near MP MD-0 – MD-28 is prohibited by the U.S. Forest Service. Land to the south and east of MP I8-76 – 92.7 is already occupied by agriculture or by development. The Project as a whole will convert more than 10 acres of Active Agriculture Operations, impacts to Active Agricultural Operations as a result of the Project will be significant (Class I). There are no other feasible mitigation measures or alternatives available to reduce the significant impact to a level that will be less than significant.

References. EIR/EIS Section E.1.6; Section E.2.6; Section E.4.6; Section D.6

Impact AG-4: Operation would permanently convert Williamson Act lands to non-agricultural use (Class I)

Operation of the Project will permanently convert 80.7 acres of Williamson Act lands between MP I8-73.6 through I8-76, I8-82 through I8-86, BCD-1 through BCD-7, BCD-12 through BCD-14, MRD-3.6 through MD-8, MD-10 through MD-21, MD-22 through MD-28, and MD-30 through MD-36.3. Impacts due to either the main alternative or the option alternative will be significant because greater than 10 acres of Williamson Act lands will be converted to non-agricultural use overall.

Findings.

(1) The CPUC finds that no changes or alterations were identified to address impacts from the Project. Therefore, significant unavoidable impacts to Williamson Act Lands will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce Impact AG-4 to a less than significant level.

Rationale for Findings. There are no non-agricultural areas near the Project route to which the route could be relocated so as to reduce impacts to Williamson Act lands. The surrounding land is occupied by agriculture, which will generate similar or potentially greater impacts to Active Agricultural Operations. Because the Project will convert more than 10 acres of Williamson Act lands to non-agricultural use and moving the Project elsewhere in the surrounding area will not be feasible for the reasons just discussed. Impacts to Williamson Act lands as a result of the Project will be considered significant (Class I), and no feasible mitigation exists to reduce this impact to a less than significant level.

References. EIR/EIS Section E.1.6; Section E.2.6; Section E.4.6; Section D.6

Cumulative Impact AG-2: Operation would permanently convert DOC Farmland to non-agricultural use (Class I).

Conversion of agricultural lands has been ongoing throughout most areas of the Project for several decades. According to the DOC Division of Land Resource Protection Farmland Mapping and Monitoring Program, in the period from 2002 to 2004, approximately 4,000 acres of DOC farmland in San Diego County was converted to other uses, primarily urbanization. A review of data collected since 1984 shows the conversion of DOC Farmland to non-agricultural uses is an annually consistent trend throughout California, including San Diego County that is likely to continue. The Project will convert nearly 39.5 acres of DOC Farmland to non-agricultural use.

Findings.

(1) The CPUC finds that no changes or alterations were identified to address cumulative DOC Farmland impacts from the Project. Therefore, significant unavoidable cumulative impacts related to farmlands will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce Impact AG-2 to a less than significant level.

Rationale for Findings. The conversion of DOC Farmland will be considered significant if more than 10 acres of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Significance, and/or Grazing Land are converted to non-agricultural use as a result of the Project. In the Project area, there are no non-agricultural areas near the route to which the Project could be relocated so as to reduce impacts to agriculture. Although it is currently unknown whether any of the reasonably foreseeable projects will convert DOC Farmland to non-agricultural uses, given the large number of large residential and public works projects, it is reasonable to assume that some DOC Farmland will be converted. Therefore, when combined with similar impacts from all past, present, and reasonably foreseeable projects will be significant (Class I) and no feasible mitigation measures exist to mitigate this impact to a less than considerable.

Reference. EIR/EIS Section G.4

Cumulative Impact AG-3: Operation would permanently interfere with Active Agricultural Operations (Class I).

Residential, commercial, and industrial developments including roads, electrical transmission lines, and residential neighborhoods have interfered with agricultural operations throughout most areas of the Project for several decades. The Project will permanently interfere (i.e. convert) with at least 20.5 acres of active agricultural operations. As discussed above, the conversion of agricultural land to non-agricultural uses is an annually consistent trend throughout California, including San Diego County that is likely to continue.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact AG-3. Specifically, Mitigation Measures AG-1a and AG-1c, as set forth in Section III.2, are feasible and are hereby adopted to mitigate significant cumulative effects from Impact AG-3. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact AG-3 to a less than significant level

AG-1a Avoid interference with agricultural operations.

AG-1c Coordinate with grazing operators.

Rationale for Findings. The conversion of Active Agriculture Operations will be considered significant if more than 10 acres of Active Agriculture Operations are converted to non-agricultural use as a result of the Project or the Project would interfere with agricultural operations. In the Project area, there are no non-agricultural areas near the route to which the Project could be relocated so as to reduce impacts to agriculture. Although it is currently unknown whether any of the reasonably foreseeable projects will convert Active Agriculture Operations to non-agricultural uses, given the large number of large residential and public works projects, it is reasonable to assume that some Active Agriculture Operations will be converted. Therefore, when combined with similar impacts from all past, present, and reasonably foreseeable projects will be significant (Class I). There are no other feasible mitigation measures or alternatives available to reduce the significant cumulative impact to a level that will be less than significant.

Reference. EIR/EIS Section G.4

Cumulative Impact AG-4: Operation would permanently convert Williamson Act lands to non-agricultural use (Class I).

Residential, commercial, and industrial developments including roads, electrical transmission lines, and residential neighborhoods have interfered with agricultural operations throughout most areas of the Project for several decades. The Project will interfere with at least 80.7 acres of Williamson Act lands. As discussed above, the conversion of agricultural land to non-agricultural uses is an annually consistent trend throughout California, including San Diego County that is likely to continue.

Findings.

(1) The CPUC finds that no changes or alterations were identified to address impacts from the Project. Therefore, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce Impact AG-4 to a less than significant level.

Rationale for Findings. The conversion of Williamson Act lands will be considered significant if more than 10 acres of Williamson Act lands are converted to non-agricultural use as a result of the Project. In the Project area, there are no non-agricultural areas near the route to which the Project could be relocated so as to reduce impacts to agriculture. Although it is currently unknown whether any of the reasonably foreseeable projects will convert Williamson Act lands to non-agricultural uses, given the large number of large residential and public works projects, it is reasonable to assume that some Williamson Act lands will be converted. Therefore, when combined with similar impacts from all past, present, and reasonably foreseeable projects will be significant (Class I) and no feasible mitigation measures exist to mitigate this impact to a less than considerable.

Reference. EIR/EIS Section G.4

III.3.6 Cultural and Paleontological Resources

Impact C-1: Construction of the Project would cause an adverse change to known historic properties (Class 1)

As described in the EIR/EIS Sections D.7, E.1.7, E.2.7, and E.4.7, the Project will be located in the vicinity of Native American reservations. Native American consultation indicated that there are many

cultural resources and landscape features important to local Native Americans in the Project area. Important landscape features include springs, mountains, travel corridors, and viewsheds.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact C-1. Specifically, Measures C-1a through C-1g, as set forth in Section III.2, are feasible and are hereby adopted to mitigate significant effects from Impact C-1. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact C-1 to a less than significant level.

C-1a Inventory and evaluate cultural resources in Final APE.

C-1b Avoid and protect potentially significant resources.

C-1c Develop and implement Historic Properties Treatment Plan.

C-1d Conduct data recovery to reduce adverse effects.

C-1e Monitor construction.

C-1f Train construction personnel.

C-1g Avoid and protect Old Highway 80 (P-37-024023).

Rationale for Findings. Project construction may encounter undiscovered cultural resources or prehistoric archaeological sites that contain human remains. While Mitigation Measures C-1a though C-1g will reduce construction impacts to historic properties, impacts to Native American human remains are considered an adverse effect, even after mitigation, per the regulations of the Advisory Council on Historic Preservation (36 CFR 800). There are no other feasible mitigation measures or alternatives available to reduce the significant cultural resources impact to a level that will be less than significant.

Reference. EIR/EIS Section E.1.7; Section E.2.7; Section E.4.7; Section D.7

Impact C-3: Construction of the Project would cause an adverse change to unknown significant buried prehistoric and historical archaeological sites or buried Native American human remains (Class I)

The Project will be located in the vicinity of Native American reservations, and Native American consultation indicated that there are many cultural resources and landscape features important to local Native Americans in the Project area. During project construction, prehistoric resources that include burials and cremations may be encountered.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact C-3. Specifically, Mitigation Measures C-1c, C-1d, C-1f, C-2a, and C-3a, as set forth in Section III.2, are feasible and are hereby adopted to mitigate significant effects from Impact C-1. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce Impact C-3 to a less than significant level.

C-1c Develop and implement Historic Properties Treatment Plan.

C-1d Conduct data recovery to reduce adverse effects.

C-1f Train construction personnel.

C-2a Properly treat human remains.

C-3a Monitor construction in areas of high sensitivity for buried resources.

Rationale for Findings. Mitigation Measures C-1c, C-1d, and C-1f and Mitigation Measures C-2a and C-3a will be implemented to minimize the effects of Impact C-3. Per Mitigation Measure C-2a, SDG&E will avoid known Native American human remains through project design and ESA designation. Mitigation Measure C-3a requires SDG&E to implement archaeological monitoring during subsurface construction disturbance at all locations identified as highly sensitive for buried prehistoric or historical archaeological sites or Native American human remains. However, impacts to Native American human remains are considered an adverse effect, even after mitigation, per the regulations of the Advisory Council on Historic Preservation (36 CFR 800). There are no other feasible mitigation measures or alternatives available to reduce the significant cultural resources impacts to a level that will be less than significant.

Reference. EIR/EIS Section E.1.7; Section E.2.7; Section E.4.7; Section D.7

Impact C-4: Construction of the Project would cause an adverse change to Traditional Cultural Properties (Class I)

While no Traditional Cultural Properties (TCPs) have been identified that will be directly impacted by the Project, Native American consultation has indicated that there are prehistoric rock art sites, springs, and sacred mountains in the vicinity of the Project. Additionally, the Sacred Lands File search conducted for the Project noted that lands sacred to Native Americans are present in the vicinity of the Project, in undisclosed locations.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact C-4. Specifically, Mitigation Measure C-4a, as set forth in Section III.2, is feasible and is hereby adopted to mitigate significant effects from Impact C-4. However, even with implementation of this measure, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce Impact C-4 to a less than significant level.

C-4a Complete consultation with Native American and other Traditional Groups.

Rationale for Findings. Impacts to TCPs are often significant and unavoidable. In order to minimize the effects of Impact C-4, Mitigation Measure C-4a will require SDG&E to assist the BLM with government-to-government consultation with appropriate Native American groups and to undertake required treatments, studies, or other actions that result from such consultation. However, even with implementation of mitigation, adverse changes to TCPs as a result of project construction may remain significant. There are no other feasible mitigation measures or alternatives available to reduce the significant cultural resources impact to a level that will be less than significant.

Reference. EIR/EIS Section E.1.7; Section E.2.7; Section E.4.7; Section D.7

Impact C-5: Operation and long-term presence of the Project would cause an adverse change to known historic properties (Class I)

The Project will be located in the vicinity of Native American reservations, and Native American consultation indicated that there are many cultural resources and landscape features important to local Native Americans in the Project area. As such, operation and maintenance activities will create direct and indirect impacts to known and/or undiscovered cultural resources or prehistoric archaeological sites that contain human remains.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact C-5. Specifically, Mitigation Measures C-1b, C-1c, C-2a, C-4a, and C-5a, as set forth in Section III.2, are feasible and are hereby adopted to mitigate significant effects from Impact C-5. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce Impact C-5 to a less than significant level.

C-1b **Avoid and protect potentially significant resources.**

C-1c **Develop and implement Historic Properties Treatment Plan.**

C-2a **Properly treat human remains.**

C-4a **Complete consultation with Native American and other Traditional Groups.**

C-5a **Protect and monitor NRHP and/or CRHR-eligible properties.**

Rationale for Findings. Known archaeological sites or archaeological sites that are yet to be discovered will be subjected to long-term and operational impacts from the Project. While Mitigation Measures C-1b, C-1c, C-2a, C-4a, and C-5a will reduce impacts to historic properties, long-term impacts may also occur to prehistoric archaeological sites that contain human remains. Impacts to Native American human remains are considered an adverse effect, even after mitigation, per the regulations of the Advisory Council on Historic Preservation (36 CFR 800). There are no other feasible mitigation measures or alternatives available to reduce the significant cultural resources impact to a level that will be less than significant.

Reference. EIR/EIS Section E.1.7; Section E.2.7; Section E.4.7; Section D.7

Cumulative Impact C-4: construction activities could cause an adverse change to Traditional Cultural Properties

No TCPs have been identified that will be directly impacted by the Project. However, Native American consultation has indicated that there are prehistoric rock art sites, springs, and sacred mountains in the Project vicinity. Additionally, the Sacred Lands File search noted that lands sacred to Native Americans are present in the vicinity of the Project, in undisclosed locations. Several past and reasonably foreseeable projects will result in similar impacts as the Project, which include the SWPL Transmission Line, I-8 Freeway roadways adjacent to the route, and several of the residential development projects identified in Table G-3 of the EIR/EIS.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact C-4. Specifically, Mitigation Measure

C-4a, as set forth in Section III.2, is feasible and is hereby adopted to mitigate significant cumulative effects from Impact C-4. However, even with implementation of this measure, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce the project's incremental contribution to Impact C-4 to a less than significant level.

C-4a Complete consultation with Native American and other Traditional Groups.

Rationale for Findings. Any prehistoric rock art sites and sacred lands affected by the Project's construction activities will be impacted by the construction of reasonably foreseeable projects. Mitigation Measure C-4a will be implemented to minimize Project impacts. However since the extent of impacts and effectiveness of mitigation are still unknown, it is conservatively assumed that the Project's contribution to this impact will be cumulatively significant and unavoidable. There are no other feasible mitigation measures or alternatives available to reduce the significant cumulative cultural resources impact to a level that will be less than significant.

Reference. EIR/EIS Section G.4.1.5; Section G.4.2

Cumulative Impact C-6: long-term project activities could cause an adverse change to known historic architectural (built environment) resources

Known historic architectural resources that will be impacted by the Project's long-term presence include Old Highway 80 and Desert View Tower (CHL 939). Impacts to these resources will be attributed to physical disturbance or alteration as a result of construction activities or diminished visual character of the site(s) due to the presence of industrial structures. Past and reasonably foreseeable projects in this area, such as the SWPL Transmission Line and I-8 Freeway, will result in similar impacts to these cultural resources.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact C-6. Specifically, Mitigation Measures C-6a and V-3a, as set forth in Section III.2, are feasible and are hereby adopted to mitigate significant cumulative effects from Impact C-6. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce the project's incremental contribution to Impact C-6 to a less than significant level.

C-6a Reduce adverse visual intrusions to historic built environment properties.

V-3a Reduce visual contrast of towers and conductors.

Rationale for Findings. Project impacts to known historic architectural resources will be significant when combined with impacts of other past and reasonably foreseeable projects. Mitigation Measures C-6a and V-3a will be implemented to minimize impacts from the Project. However since the extent of impacts and effectiveness of potential mitigation are still unknown, it is conservatively assumed that the Project's contribution to this cumulative impact will remain significant and unavoidable. There are no other feasible mitigation measures or alternatives available to reduce the significant cumulative cultural resources impact to a level that will be less than significant.

Reference. EIR/EIS Section G.4.1.5; Section G.4.2

III.3.7 Noise

Impact N-1: Construction noise would substantially disturb sensitive receptors and violate local rules, standards, and/or ordinances (Class I)

As discussed in Section D.8 (Noise), E.1.8, E.2.8, and E.4.8 of the EIR/EIS, noise generated by both on-site and mobile construction activities along the entire Project route will temporarily disrupt existing sensitive receptors. The construction of the Project will create temporary traffic noise on local roadways and both temporary and permanent access roads from moving building materials to the tower sites and returning to construction staging areas. In addition, construction of the Project will create temporary construction noise from heavy construction equipment use. In addition, helicopter use required for both transportation of materials and tower placement will create temporary construction noise. Additionally, blasting would be needed along the Inland Valley Link between MP 131and 136.3. Any blasting would be subject to a blasting plan, part of SDG&E's construction methods, described in section D.8.4.3 and intense peak noise levels (up to 140 dBA at the blast location or over 90 dBA for receptors within 500 feet) would occur, but this would not cause a violation of the San Diego County 75 dBA limit (discussed in Sections D.8.3.3 and D.8.8), which is based on an average throughout the day. Furthermore, blasting would be very brief in duration (milliseconds), and the noise would dissipate quickly with distance. However, construction noise would temporarily substantially increase ambient noise levels. This noise will impact residences, recreational land uses (parks, wilderness areas), public facilities (schools, memorial parks), and retail and commercial businesses.

SDG&E will implement NOI-APM-1 to notify all sensitive receptors within 300 feet of work sites. Although NOI-APM-1 includes steps to notify the affected community, Impact N-1 will be significant without additional measures. Instead of the notification process suggested in NOI-APM-1, Mitigation Measure L-1a (see Section D.4, Land Use) will be appropriate and more comprehensive. By establishing best management practices for activities likely to violate local noise standards, Mitigation Measure N-1a, in combination with the notification required by Mitigation Measure L-1a, will reduce this impact to the extent feasible, but the substantial noise increase from construction will be significant and unavoidable to sensitive receptors along the Project route and construction sites.

Finding.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact N-1. Specifically, Mitigation Measures N-1a and L-1a, as set forth below and in Section III.2, are feasible and are hereby adopted to mitigate significant effects from Impact N-1. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce Impact N-1 to a less than significant level.

L-1a **Prepare Construction Notification Plan.**

N-1a **Implement Best Management Practices for construction noise.** SDG&E shall comply with local noise rules, standards, and/or ordinances by implementing the following noise-suppression techniques and variance standards set by local authorities. SDG&E shall apply for and obtain a variance for construction activities that must occur outside of the daytime hours allowed by local ordinances or within 200 feet of noise-sensitive receptors. At a minimum, SDG&E shall employ the following noise-suppression techniques to avoid possible violations of local rules, standards, and ordinances:

- Confine construction noise to daytime, weekday hours (e.g., 7:00 a.m. to 7:00 p.m.) or an alternative schedule established by the local jurisdiction or land use manager
- On construction equipment, use noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer
- Install temporary sound walls or acoustic blankets to shield adjacent residences. These 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
- Route construction traffic away from residences and schools, where feasible
- Minimize unnecessary construction vehicle use and idling time. The ability to limit construction vehicle idling time is dependent upon the sequence of construction activities and when and where vehicles are needed or staged. A "common sense" approach to vehicle use shall be applied; if a vehicle is not required for use immediately or continuously for construction activities, its engine shall be shut off. (Note: certain equipment, such as large diesel-powered vehicles, requires extended idling for warm-up and repetitive construction tasks.)

Rationale for Finding. For circumstances where construction activity must occur within 200 feet of sensitive receptors, additional mitigation will be required to avoid a violation of the local standards, but substantial noise increases will continue to occur. By establishing best management practices for activities likely to violate local noise standards, Mitigation Measure N-1a, in combination with the notification required by Mitigation Measure L-1a, will reduce this impact to the extent feasible, but the substantial noise increase from construction will still occur. There are no other feasible mitigation measures or alternatives available to reduce construction noise impacts to a level that will be less than significant.

Reference. EIR/EIS Section D.8; Section E.1.8; Section E.2.8; Section E.4.8; RDEIR/SDEIS Section 3

Impact N-3: Permanent noise levels would increase due to corona noise from operation of the transmission lines and noise from other project components (Class I)

As discussed in Section D.8 (Noise) of the EIR/EIS, Corona discharge associated with high-voltage power transmission is heard near an energized line as a crackling or hissing sound. SDG&E estimates this noise to be about 50 dBA for a 500 kV line during wet weather near the ROW edge and less than 40 dBA near the ROW edge for the overhead 230 kV transmission lines. The Project 500 kV line will cause no more than 45 dBA Leq at the edge of ROW during any daytime or nighttime hour.

Noise impacts will be similar for all areas of the Project where sensitive receptors will be in proximity to the line. The significant and unmitigable corona noise impacts will be caused by operation of the new 500 kV or 230 kV transmission line will substantially elevate the current ambient noise levels within 500 feet of the 500 kV or 230 kV edge of ROW. To minimize the impact of corona noise on sensitive receptors, SDG&E will implement Mitigation Measure N-3a to receive complaints regarding corona noise from sensitive receptors during Project operation. This mitigation will reduce operational corona noise to the extent feasible, but the noise increase from Project operational corona noise will still result in significant unavoidable impacts.

Finding.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact N-3. Specifically, Mitigation Measure N-3a, as set forth in Section III.3.4, is feasible and is hereby adopted to mitigate significant effects from Impact N-3. However, even with implementation of this measure, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact N-3 to a less than significant level.

N-3a Respond to complaints of corona noise.

Rationale for Finding. By allowing sensitive receptors impacted by corona noise to contact SDG&E with complaints, Mitigation Measure N-3a will reduce this impact to the extent feasible. Mitigation Measure N-3a requires SDG&E to respond to third-party complaints of corona noise generated by operation of the transmission line and to implement feasible and appropriate measures (such as repair damaged conductors, insulators, or other hardware), but the substantial noise increase from operational corona noise will still occur. There are no other feasible mitigation measures available to reduce this significant operational noise impact to a level that will be less than significant. Because no mitigation exists to reduce the impact of corona noise on sensitive receptors, this impact will remain significant and unavoidable (Class I). There are no other feasible mitigation measures or alternatives available to reduce the significant noise impact to a level that will be less than significant.

Reference. EIR/EIS Section D.8; Section E.1.8; Section E.2.8; Section E.4.8

Impact N-4: Routine inspection and maintenance activities would increase ambient noise levels (Class I)

As discussed in Section D.8 (Noise), E.1.8, E.2.8, and E.4.8 of the EIR/EIS, helicopter and ground-level inspection and maintenance, including insulator washing, access road repair, and emergency response, will result in temporary periodic increases in noise levels above existing levels at sensitive receptor locations. During this activity, light-duty helicopters will generate noise levels of under 80 dBA at 200 feet, and crew trucks will cause levels of approximately 75 dBA at 50 feet. Insulator washing and access road repair may also involve noise at levels identical to transmission line construction from sources like water trucks or earthmoving equipment. Helicopters and other equipment within 200 feet of sensitive receptors will periodically cause a substantial increase in noise over conditions occurring without the Project. Because the need for emergency response cannot be predicted, mitigation in the form of advance notification or restricting the noise from work to daytime hours will not be practical, resulting in a significant and unavoidable noise impact resulting from Project maintenance activities.

Finding.

(1) The CPUC finds that no changes or alterations were identified to address maintenance noise impacts from the Project. Therefore, significant unavoidable impacts related to maintenance noise will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce Impact N-4 to a less than significant level.

Rationale for Finding. Because no mitigation exists to reduce the impact of maintenance noise on sensitive receptors, this impact will remain significant and unavoidable (Class I). No feasible mitigation measures are available to reduce this impact to less than significant.

Reference. EIR/EIS Section D.8; Section E.1.8; Section E.2.8; Section E.4.8

Cumulative Impact N-1: construction noise impacts could substantially disturb sensitive receptors and violate local rules, standards, and/or ordinances (Class I)

In the areas where Project construction may occur simultaneously with other development, the combined effects of noise generated by the Project and other development will adversely impact noise-sensitive receptors cumulatively. Cumulative project development, including Torrey Corner, Torrey Hills Center, the Sptizbergen Property, and Rancho Cañada Bed and Breakfast, will bring new noise sensitive receptors closer to the Project. (Cumulative projects discussed in EIR/EIS Section G, Table G-1, and Figures G-8, G-9, and G-10.) In addition, cumulative project construction will combine with temporary construction noise impacts of the Project and further impact sensitive receptors in the area. SDG&E will implement Mitigation Measures L-1a and N-1a. However, this cumulative impact will be significant even with implementation of these measures. Therefore, impacts of the Project, when combined with impacts from past, present, and reasonable future projects will be considered cumulatively significant.

Finding.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Cumulative Impact N-1. Specifically, Mitigation Measures L-1a and N-1a, as set forth in Section III.2, are feasible and are hereby adopted to mitigate significant effects from Impact N-1. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce cumulative Impact N-1 to a less than significant level.

L-1a Prepare Construction Notification Plan.

N-1a Implement best management practices for construction noise.

Rationale for Finding. As discussed in EIR/EIS Section G, Mitigation Measures L-1a and N-1a will be implemented to reduce the Project's construction noise impacts to the extent feasible. However even with mitigation, the Project's cumulative contribution to construction noise impacts on sensitive receptors will persist and will still be considered significant and unavoidable. Construction of the cumulative projects will further exacerbate the significant project-related construction impacts. There are no other feasible mitigation measures or alternatives available to reduce the significant cumulative construction noise impact to less than significant.

Reference. EIR/EIS Section G

Cumulative Impact N-3: corona noise impacts could substantially disturb sensitive receptors and violate local rules, standards, and/or ordinances (Class I)

Permanent noise levels along the ROW will increase due to corona noise from operation of the Project. Sensitive receptors located directly adjacent to the Project will be impacted by this noise. Because the operational noise generated by the Project alone will result in an increase to the ambient noise levels at sensitive receptor locations along the lines, additional development as well as cumulative project development, including Torrey Corner, Torrey Hills Center, the Sptizbergen Property, and Rancho Cañada Bed and Breakfast, will bring new noise sources as well as new sensitive receptors closer to the Project. (Cumulative projects discussed in EIR/EIS Section G, Table G-1, and Figures G-8, G-9, and G-10.) Cumulative projects will combine with this impact to further increase ambient noise levels. Therefore, the combined effect of operational corona noise combined with other proposed development projects located within close proximity of the Project will be cumulatively significant

To minimize the impact of corona noise on sensitive receptors, SDG&E will implement Mitigation Measure N-3a to receive complaints regarding corona noise from sensitive receptors during Project operation. This mitigation will reduce operational corona noise to the extent feasible, but the noise increase from Project operational corona noise will still result in significant cumulative unavoidable impacts.

Finding.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Cumulative Impact N-3. Specifically, Mitigation Measure N-3a, as set forth in Section III.3.4, is feasible and is hereby adopted to mitigate significant effects from Cumulative Impact N-3. However, even with implementation of this measure, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce cumulative Impact N-3 to a less than significant level.

N-3a Respond to complaints of corona noise.

Rationale for Finding. There is the possibility that a variety of projects will occur at the same time as construction of the Project. Noise impacts from operation of these projects will result in an increase in ambient noise levels to adjacent land uses that will overlap with operational and maintenance noise of the Project. Construction of the cumulative projects will further exacerbate significant Project-related noise impacts. There are no other feasible mitigation measures or alternatives available to reduce the significant cumulative noise impact to a level that will be less than significant.

Reference. EIR/EIS Section G

Cumulative Impact N-4: maintenance noise impacts could substantially disturb sensitive receptors and violate local rules, standards, and/or ordinances (Class I)

Permanent noise levels along the ROW will increase due to maintenance noise from operation of the Project. Sensitive receptors located directly adjacent to the Project will be impacted by this periodic maintenance noise. Because the maintenance noise generated by the Project alone will result in an increase to the ambient noise levels at sensitive receptor locations along the lines, additional development as well as cumulative project development, including Torrey Corner, Torrey Hills Center, the Sptizbergen Property, and Rancho Cañada Bed and Breakfast, will bring new noise sources as well as new sensitive receptors closer to the Project. (Cumulative projects discussed in EIR/EIS Section G, Table G-1, and

Figures G-8, G-9, and G-10.) Cumulative projects will combine with this impact to further increase ambient noise levels. Therefore, the combined effect of maintenance noise combined with other proposed development projects located within close proximity of the Project will be cumulatively significant

No mitigation measures are available to reduce this impact. Helicopter and ground-level inspection and maintenance, including insulator washing, access road repair, and emergency response, will result in temporary periodic increases in noise levels above existing levels at sensitive receptor locations.

Finding.

(1) The CPUC finds that no changes or alterations were identified to address Cumulative Impact N-4. Therefore, significant unavoidable cumulative impacts related to maintenance noise will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce cumulative maintenance noise impacts to a less than significant level.

Rationale for Finding. There is the possibility that a variety of projects will occur at the same time as construction of the Project. Noise impacts from operation of these projects will result in an increase in ambient noise levels to adjacent land uses that will overlap with maintenance noise of the Project. Construction of the cumulative projects will further exacerbate the significant Project-related noise impacts. As no mitigation is available to reduce this impact, the Project will result in significant cumulative operational noise impacts.

Reference. EIR/EIS Section G

III.3.8 Transportation and Traffic

No Class I transportation and traffic impacts.

III.3.9 Public Health and Safety

No Class I public health and safety impacts.

III.3.10 Air Quality

Impact AQ-1: Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants (Class I)

As explained in Sections D.11, E.1.11, E.2.11, and E.4.11, the Project will generate dust and exhaust emissions from concurrent construction activity with multiple crews operating off-road equipment and on-road mobile sources at separate locations. General construction, structure foundation excavation, structure delivery and setup, wire installation, and fugitive dust from travel along the ROW could each occur simultaneously on any given day of construction.

The ICAPCD and SDAPCD each maintain an emission reduction credit bank or inventory to offset major new sources, and SDG&E could acquire and hold emission reduction credits throughout the construction duration to offset the construction emissions. Banking of credits consistent with ICAPCD Rule 214 and SDAPCD Rules 26 and 27 will ensure that emission reductions are real, enforceable, and quantifiable. Acquiring and holding emission reduction credits will provide assurance that the ozone precursor emissions from construction are offset to a level below the *de minimis* levels. Alternatively, sponsoring or

funding an incentive program consistent with the current Regional Air Quality Strategy (e.g., Carl Moyer Program) could provide emission reductions in a manner consistent with regional plans. With sufficient mitigation, a full conformity determination will not be applicable, and the Project will conform with the SIP.

The air quality impact of building the Project will cause emissions to exceed thresholds, and the construction equipment and emissions from motor vehicles used to mobilize the workforce and materials for construction will result in temporary significant ozone and particulate matter impacts. The APMs listed in Table D.11-10 (Section D.11) will reduce this impact, but dust and exhaust emissions would still exceed the significance thresholds. Mitigation Measures AQ-1a and AQ-1b will further reduce these impacts, but the construction-phase emissions will be significant and unavoidable (Class I).

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact AQ-1. Specifically, Mitigation Measures AQ-1a, AQ-1b, and AQ-1h are feasible and are hereby adopted to mitigate significant effects from Impact AQ-1. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact AQ-1 to a less than significant level in the locations specified above.

AQ-1a **Suppress dust at all work or staging areas and on public roads.** SDG&E shall: (a) pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas if construction activity causes persistent visible emissions of fugitive dust beyond the work area; (b) pre-water sites for 48 hours in advance of clearing; (c) reduce the amount of disturbed area where possible; (d) all dirt stock-pole areas should be sprayed daily as needed; (e) cover loads in haul trucks or maintain at least six inches of free-board when traveling on public roads; (f) pre-moisten, prior to transport, import and export dirt, sand, or loose materials; (g) sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets or wash trucks and equipment before entering public streets; (h) plant vegetative ground cover in disturbed areas as soon as possible following construction; (i) apply chemical soil stabilizers or apply water to form and maintain a crust on inactive construction areas (disturbed lands that are unused for four consecutive days); and (j) prepare and file 30 days in advance of construction with the ICAPCD, SDAPCD, BLM, and CPUC a Dust Control Plan that describes how these measures would be implemented and monitored at all locations of the Project. The Dust Control Plan shall identify nearby sensitive receptors, such as land uses that include children, the elderly, the acutely ill and the chronically ill, and specify the means of minimizing impacts to these populations (for example, by locating equipment and staging areas away from sensitive receptors).

AQ-1b **Use low-emission construction equipment.** SDG&E shall maintain construction equipment per manufacturing specifications and use low-emission equipment described here. All off-road and portable construction diesel engines not registered under the CARB Statewide Portable Equipment Registration Program, which have a rating of 50 horsepower (hp) or more, shall meet, at a minimum, the Tier 2 California Emission Standards for Off-Road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, Sec. 2423(b)(1) unless that engine is not available for a particular item of equipment. In the event a Tier 2 engine is not available for any off-road engine larger than 100 hp, that engine shall be equipped with a Tier 1 engine. If any engine larger than 100 hp does not meet Tier 1 standards, that engine shall be equipped with a catalyzed diesel particulate filter (soot filter),

unless the engine manufacturer indicates that the use of such devices is not practical for that particular engine type. SDG&E shall substitute small electric-powered equipment for diesel- and gasoline-powered construction equipment where feasible.

AQ-1h **Obtain NOx and particulate matter emission offsets.** SDG&E shall obtain and hold for the duration of construction NOx emission reduction credits or fund incentive programs approved by ICAPCD and SDAPCD at sufficient levels to offset the construction emissions of NOx that exceed the ozone nonattainment area federal General Conformity Rule applicability threshold. SDG&E shall secure 99 tons per year of NOx reductions and 276 tons per year of particulate matter reductions in Imperial County, and SDG&E shall secure 212 tons per year of NOx reductions in San Diego County to satisfy this requirement. The emission reduction credits or incentive program shall comply with ICAPCD and SDAPCD rules and regulations, and the credits or reductions shall be obtained by SDG&E prior to commencing construction.

Rationale for Findings. Mitigation Measures AQ-1a and AQ-1b will minimize ozone precursor and particulate matter pollutant emissions but not to levels below the General Conformity *de minimis* thresholds in Imperial County or San Diego County. Implementing Mitigation Measure AQ-1h will require SDG&E to obtain NOx and particulate matter emission offsets or fund incentive programs in sufficient quantities to mitigate ozone and particulate matter impacts. This will ensure consistency with regional air quality plans. However, due to the total emissions during all construction phases exceeding regional emissions thresholds, the substantial levels of emissions will remain significant and unavoidable. There are no other feasible mitigation measures or alternatives available to reduce the significant air quality impact to a level that will be less than significant.

Reference. EIR/EIS Section D.11; Section E.1.11; Section E.2.11; Section E.4.11

Impact AQ-4: Project activities would cause a net increase of greenhouse gas emissions (Class I)

As explained in Sections D.11, E.1.11, E.2.11, and E.4.11, the greenhouse gas (GHG) emissions will occur for the Project as a result of construction activities. Construction GHGs will be above the level of GHGs that occur in the baseline conditions shown in Table D.11-2. The following GHGs will occur: CO_2 emissions from fuel combustion due to equipment and vehicle use; methane (CH_4) and nitrous oxides (N_2O) from fuel combustion. Over the entire construction phase, approximately 0.1 million metric tons of CO_2 Eq. (or about 109,000 tons of CO_2, with some CH_4 and N_2O from all construction equipment and vehicles, see Appendix 10) will occur as a result of all Project-related construction. This will be a substantial increase over the baseline conditions.

Activity necessary to support transmission line operation, maintenance, and inspection activities will cause an increase in greenhouse gas emissions due to vehicle and equipment operation for inspection and maintenance activities. The increase in direct GHG emissions from Project vehicular traffic for maintenance activities will be a significant impact.

An unquantifiable direct air quality impact of transmission system operation will be the potential escape of sulfur hexafluoride (SF_6), a potent greenhouse gas, used in operation of the electrical switchgear equipment and circuit breakers. Sealing and leak detection for SF_6 containment ensures proper insulation of the equipment, which is essential for avoiding failures (overheating, melting, and fires), and the electric utility industry is taking steps to reduce use of SF_6 and identify alternative insulating gases. Despite these efforts, because of the high global warming potential of SF_6 even small quantities of emissions could result in a significant impact. Thus, the impact of increased GHG emissions caused by construction, operation, and maintenance activities will be significant and unavoidable (Class I).

Construction-phase GHG emissions may be minimized by using fuel-efficient construction equipment, conserving fuel, and minimizing individual commuter trips. Applicant Proposed Measures (AQ-APM-4, Encourage carpooling, and AQ-APM-5, Minimize vehicle idling) will reduce GHG emissions somewhat, but not substantially, and not to a level that is less than significant. Mitigation Measures AQ-4a through AQ-4c will further reduce GHG emissions, but not to a level that is less than significant.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project that mitigate significant effects on the environment from Impact AQ-4. Specifically, Mitigation Measures AQ-4a, AQ-4b, and AQ-4c are feasible and are hereby adopted to mitigate significant effects from Impact AQ-4. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact AQ-4 to a less than significant level in the locations specified above.

AQ-4a **Offset construction-phase greenhouse gas emissions with carbon credits.** SDG&E shall create greenhouse gas emission reductions or obtain and hold for the duration of project construction sufficient carbon credits to fully offset construction-phase greenhouse gas emissions. During construction SDG&E shall report to the CPUC quarterly the status of efforts to create reductions or obtain banked credits and the quantity of construction-phase greenhouse gas emissions offset by credits. At a minimum, SDG&E shall create or obtain and hold carbon credits to offset 55,000 tons of carbon dioxide emissions for each of the two years of construction. Carbon Reduction Tons (CRTs) verified according to the rules of the California Climate Action Registry may be retired by SDG&E to satisfy this requirement.

AQ-4b **Offset operation-phase greenhouse gas emissions with carbon credits.** SDG&E shall create greenhouse gas emission reductions or obtain and hold for the life of the Project sufficient carbon credits to fully offset greenhouse gas emissions caused by activity to support transmission line operation, maintenance, and inspection activities. To determine the quantity of carbon credits that must be created or obtained and held each year, SDG&E must develop a complete GHG inventory annually for project-related operational emissions. SDG&E shall follow established methodologies to report and inventory indirect GHG emissions from energy imported and consumed to support operation of the Proposed Project and indirect GHG emissions from transmission and distribution losses associated with the Proposed Project. SDG&E shall report to the CPUC annually the status of efforts to obtain banked credits and the quantity of greenhouse gas emissions offset by credits. Established methodologies for determining project-related emissions include the current California Climate Action Registry (CCAR) General Reporting Protocol, and the Power/Utility Reporting Protocol appendix to the General Reporting Protocol. Carbon Reduction Tons (CRTs) verified according to the rules of the California Climate Action Registry may be retired by SDG&E to satisfy this requirement.

AQ-4c **Avoid sulfur hexafluoride emissions.** SDG&E shall identify sulfur hexafluoride (SF_6) leaks and establish a strategy for replacing leaking equipment to reduce SF_6 leaks. To accomplish this, SDG&E shall develop and maintain a record of SF_6 purchases, an SF_6 leak detection and repair program using laser imaging leak detection and monitoring no less frequently than quarterly, an SF_6 recycling program, and an employee education and training program for avoiding or eliminating SF_6 emissions caused by the Proposed Project. The SF_6 leak detection and repair program shall be provided to the CPUC and BLM 90 days prior to project construction. Prior to construction, SDG&E shall also become a Partner in the U.S. EPA's

SF_6 Emissions Reduction Partnership for Electric Power Systems. SDG&E shall also report SF_6 emissions from the Proposed Project to the California Climate Action Registry according to CCAR methodologies or alternate methodology approved by the California Air Resources Board. To develop a complete GHG inventory, SDG&E shall follow established methodologies to report indirect GHG emissions from energy imported and consumed to support operation of the Proposed Project and indirect GHG emissions from transmission and distribution losses associated with the Proposed Project.

Rationale for Findings. To address construction- and operation/maintenance-related emissions, Mitigation Measures AQ-4a and AQ-4b will require SDG&E to enter a carbon credit trading market and secure credits for the construction GHG emissions. However carbon credit trading markets are not fully formed or regulated, and the relationship of credits to real GHG reductions is not uniformly enforceable. Thus, the impact of increased greenhouse gas emissions during construction, operation, and maintenance will be significant and unavoidable. Mitigation Measure AQ-4c is required to minimize SF_6 escape and reduce the adverse impact that will occur as a result of the long-term use of SF_6 by the Project and for reporting GHG emissions related to the Project. This measure will reduce transmission system SF_6 emissions to the extent feasible, but because the transmission system equipment will cause a net increase in SF_6 emissions, this impact will be significant and unavoidable. There are no other feasible mitigation measures or alternatives available to reduce the significant air quality impact to a level that will be less than significant.

Reference. EIR/EIS Section D.11; Section E.1.11; Section E.2.11; Section E.4.11

Cumulative Impact AQ-1: Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants (Class I)

As discussed in Section G.4.2, construction activities will cause emissions of criteria pollutants, odors, and toxic air contaminants in all areas of the Project. Projects identified in Table G-3 and plans in Table G-2 will cause similar new emissions from increased economic development and population growth, which leads to increased emissions from stationary and mobile sources throughout the Imperial and San Diego County air basins. Some residential development projects such as Lakeside Downs, Lakeside Ranch, Erdmann, McCain Valley Road, and Volli, will also bring new sensitive receptors closer to areas of dust and exhaust emissions caused by Project construction. Impacts of the Project, when combined with impacts from past, present, and reasonably foreseeable projects will be considered cumulatively significant (Class I). Mitigation Measures AQ-1a, AQ-1b, and AQ-1h will reduce emissions to the extent feasible. However even with mitigation, incremental impacts will persist, and when combined with impacts of past projects, will still be considered significant and cumulatively considerable (Class I).

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact AQ-1. Specifically, Mitigation Measures AQ-1a, AQ-1b, and AQ-1c, as set forth above, are feasible and are hereby adopted to mitigate significant effects from Impact AQ-1. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact AQ-1 to a less than significant level in the locations specified above.

AQ-1a Suppress dust at all work or staging areas and on public roads.

AQ-1b Use low-emission construction equipment.

AQ-1h Obtain NOx and particulate matter emission offsets.

Rationale for Findings. Mitigation Measures AQ-1a and AQ-1b will be implemented to reduce the Project's construction dust and exhaust impacts, and Mitigation Measure AQ-1h will offset the overall criteria pollutant impacts. However even with mitigation, incremental impacts will persist, and when combined with impacts of past projects, will still be considered significant and cumulatively considerable. There are no other feasible mitigation measures or alternatives available to reduce the significant cumulative air quality impact to a level that will be less than significant.

Reference. EIR/EIS Section G.4.2

Cumulative Impact AQ-3: Power generated during transmission line operation would cause emissions from power plants (Class I)

As discussed in Section G.4.2, impacts related to power generated during transmission line operation will cumulatively affect air quality inside and outside the region. Projects identified in Table G-3 and plans in Table G-2 will cause new emissions from increased economic development and population growth, which leads to increased emissions from stationary and mobile sources throughout the Imperial and San Diego County air basins. The emissions occurring under the cumulative conditions will be forecast, managed, and planned for through the local air quality rules, regulations, and attainment plans established by the ICAPCD and SDAPCD. The air quality management plans for the ICAPCD and SDAPCD (identified in Section D.11) illustrate how each area will eventually achieve attainment of the federal and California ambient air quality standards. A project may be deemed inconsistent with applicable air quality plans if it will result in stationary sources that will not comply with local rules and regulations or if it will induce population and/or employment growth exceeding the growth estimates included in the attainment plans. Project-related power plant emissions will need to be within existing permitted emission levels that have been previously licensed by local air management agencies, with U.S. EPA oversight, and at these levels, the emissions will be consistent with applicable air quality management plans. As discussed in Section E.1.11, the Project and new renewable energy resources will result in a reduction of emissions from power plants inside the region and increased emissions from power plants outside the region. Because the Project-related power plant emissions will overlap with emissions generated by past, present, and reasonably foreseeable projects, the cumulative impacts of the Project will be cumulatively considerable (Class I).

Findings.

(1) The CPUC finds that no changes or alterations were identified to address cumulative air quality impacts from the Project. Therefore, significant unavoidable impacts related to cumulative air quality will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact AQ-3 to a less than significant level in the locations specified above.

Rationale for Finding. Because no mitigation exists to reduce the impact of Project-related power plant emissions that will overlap with emissions generated by past, present, and reasonably foreseeable projects, this impact will remain significant and unavoidable. No feasible mitigation measures are available to reduce this impact to less than significant.

Reference. EIR/EIS Section G.4.2

Cumulative Impact AQ-4: Project activities would cause a net increase of greenhouse gas emissions (Class I)

As discussed in Section G.4.2, global warming and climate change impacts will occur because the Project will cause an overall net increase of greenhouse gas emissions. Past projects that have also caused increased greenhouse gas emissions include most development within Imperial and San Diego Counties. All of the present and reasonably foreseeable projects identified in Table G-3 will require construction activities that will also result in increased greenhouse gas emissions. When combined with impacts of past, present, and reasonably foreseeable projects, the Project will result in a significant impact (Class I). Even with mitigation, incremental impacts will persist and will be cumulatively considerable.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact AQ-4. Specifically, Mitigation Measures AQ-4a, AQ-4b, AQ-4c, as set forth above, are feasible and are hereby adopted to mitigate significant effects from Impact AQ-1. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact AQ-4 to a less than significant level in the locations specified above.

AQ-4a Offset Construction-phase greenhouse gas emissions with carbon credits.

AQ4b Offset operation-phase greenhouse gas emissions with carbon credits.

AQ4c Avoid Sulfur hexafluoride emissions.

Rationale for Findings. Mitigation Measures AQ-4a and AQ-4b will require SDG&E to enter a carbon credit trading market and secure credits for the construction GHG emissions. However carbon credit trading markets are not fully formed or regulated, and the relationship of credits to real GHG reductions is not uniformly enforceable. Mitigation Measure AQ-4c will reduce transmission system SF_6 emissions to the extent feasible, but the transmission system equipment will cause a net increase in SF_6 emissions. Thus, the project's contribution to increased greenhouse gas emissions will combine with other past, present, and reasonably foreseeable projects to create a cumulatively considerable impact.

Reference. EIR/EIS Section G.4.2; Section E.1.11; Section E.2.11; Section E.4.11

III.3.11 Water Resources (Cumulative)

Cumulative Impact H-1: Construction activity could degrade water quality due to erosion and sedimentation (Class I)

As discussed in Section G.4.2, Project construction activities will include grading and excavation activities that could degrade water quality due to soil erosion and sedimentation during periods of extended rainfall while such activities are ongoing. Surface waters throughout the Project area have experienced varying amounts of sedimentation as a result of erosion from past projects and are likely to experience similar impacts from other nearby development projects that will require substantial grading. However, potential impacts from erosion and sedimentation are regulated by multiple entities including Regional Water Quality Control Boards, the Clean Water Act, U.S. Army Corps of Engineers, California Department of Fish and Game, etc., depending on the size and location of the Project. Construction projects that involve ground disturbance are required to comply with various permits and regulatory requirements that

require implementation of specific measures to prevent soil erosion and sedimentation from entering local waterways. Such measures include stoppage of work and use of physical barriers to prevent sedimentation from flowing off-site during periods of extended rainfall. Although these measures will reduce the impact of individual projects to less than significant levels, it is likely that minor amounts of sedimentation will occur. Over time sediment from multiple projects will be expected to eventually accumulate in downstream water-bodies. Therefore, the Project, when combined with the effects of other past and reasonably foreseeable project, will considerably contribute to a cumulative impact (Class I). Mitigation Measures H-1a and H-1k are available to reduce the Project's contribution to this impact at the Modified Route D Substation and on Forest System lands, but not to a level that is less than significant. No other mitigation measures are available to reduce this cumulative impact.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact H-1. Specifically, Mitigation Measures H-1a, H-1k, and H-1l, as set forth in Section III.2.12, are feasible and are hereby adopted to mitigate significant effects from Impact H-1. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact H-1 to a less than significant level in the locations specified above.

H-1a **Prepare Substation Grading and Drainage Plan; construct during the dry season.**

H-1k **Comply with Forest Service conditions.**

H-1l **Construction on Forest Service land to be subject to an approved, site-specific SWPPP and Sediment Control Plan.**

Rationale for Finding. Mitigation Measure H-1a will minimize erosion and sedimentation from substation grading by restricting construction to the dry season or by requiring use of a settling pond during the wet season. Mitigation Measure H-1k will minimize erosion and sedimentation on Forest System lands by requiring an Erosion Control Measures Plan, a Water Resources Management Plan, and a Groundwater Management Plan that will set forth site-specific erosion and sediment control measures. Mitigation Measure H-1l will minimize erosion and sedimentation on Forest System lands by requiring a site-specific Sediment Control Plan and Storm Water Pollution Prevention Plan (SWPPP), which will set forth construction and post-construction BMPs to protect water quality. Together these measures will reduce project's incremental contribution to erosion and sedimentation, but not to a less-than-significant level. There are no other feasible mitigation measures or alternatives available to reduce the significant cumulative water resource impact to a level that will be less than significant.

Reference. EIR/EIS Section G.4.2

Cumulative Impact H-7: Accidental releases of contaminants from project facilities could degrade water quality (Class I)

As discussed in Section G.4.1, oil and other contaminants from new electrical equipment at Project substations may be released accidentally and contaminate local surface water or groundwater. Although such releases are unlikely since the substations do not normally contain hazardous materials, the substations will present the possibility of releases to occur. Surface and groundwater throughout the Project area has been subject to similar impacts through decades of residential, commercial, utility, and roadway construction. As described in Section D.12, Water Resources, several water receiving waters of streams

within the Project are considered polluted or threatened by such agents as nutrients, salinity and other pollutants originating from industrial point sources, agricultural return flow and out-of-state sources. Due to the currently compromised condition of water quality in the Coastal Link of the Project area, any action that substantially degrades water quality should be considered significant. Past and future projects within this portion of the Project area include residential, office, and mixed-use development. These types of developments do not typically use or require substantial quantities of hazardous materials but do require common hazardous materials such as gasoline, oils, grease, and solvents which can be accidentally released from vehicles, residences, businesses, and non-point sources. Therefore, the incremental impact of a release of contaminants from the Project, when combined with similar impacts of other past, current, and reasonably foreseeable projects will be significant (Class I). Mitigation Measure H-7a, requires development of a Hazardous Substance Control and Emergency Response Plan for project operation. Mitigation Measure H-7a will minimize the project's contribution to this cumulative impact, but not to a level of less than significant (Class I).

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact H-7. Specifically, Mitigation Measure H-7a, as set forth in Section III.2, is feasible and is hereby adopted to mitigate significant effects from Impact H-7. However, even with implementation of this measure, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact H-7 to a less than significant level in the locations specified above.

H-7a Develop Hazardous Substance Control and Emergency Response Plan for project operation.

Rationale for Findings. Mitigation Measure H-7a cannot reduce the risk of hazardous materials spills to zero, and the Project's incremental contribution to contamination of surface and water bodies with hazardous materials will remain cumulatively considerable. There are no other feasible mitigation measures or alternatives available to reduce the significant cumulative water resource impact to a level that will be less than significant.

Reference. EIR/EIS Section G.4.1

III.3.12 Geology, Mineral Resources, and Soils

No Class I geology, mineral resources, and soils impacts.

III.3.13 Socioeconomics, Services, and Utilities

No Class I socioeconomics, services, and utilities impacts.

III.3.14 Fire and Fuels Management

Impact F-1: Construction and/or maintenance activities would significantly increase the probability of a wildfire (Class I)

Construction and maintenance activities (MP I8-30 to I8-40 and I8-82 to I8-93 and MP 131.3 to 136.3) will require the use of heavy equipment and personnel to construct the transmission line, this introduces a source for wildfire ignition of surrounding vegetation, which may escape initial attack containment and become catastrophic fires. According to the model results presented in the EIR/EIS, a total of 23.5 miles

within the border zone have a high to very high probability of wildfire recurrence; a random fire ignition under normal weather conditions will burn areas near the transmission line and nearby communities (putting 494 homes and 43,836 acres at risk in two burn periods), and the potential area burned will be more than four times greater during extreme fire weather conditions (putting 1,713 homes and 195,170 acres at risk in two burn periods).

Construction and maintenance activities create a significant risk of a fire with potentially damaging impacts to communities, firefighter health and safety, and natural resources (Class I). This impact will be partially mitigated through the implementation of Mitigation Measures F-1a, F-1b, F-1c, F-1d, and F-1e. However, the impact will remain significant and unavoidable.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact F-1. Specifically, Mitigation Measures F-1a through F-1e, as set forth in Section III.25, are feasible and are hereby adopted to mitigate significant effects from Impact F-1. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact F-1 to a less than significant level in the locations specified above.

F-1a **Develop and implement a Construction Fire Prevention Plan.**

F-1b **Amend and implement Sempra Utilities Wildland Fire Prevention and Fire Safety Guide (2007)**

F-1c **Ensure coordination for emergency fire suppression.**

F-1d **Remove hazards from the work area.**

F-1e **Contribute to defensible space grants fund.**

Rationale for Finding.

The risk of ignition during normal and extreme weather and the risk of damage to structures can be reduced through implementation of the mitigation outlined above. Despite restricting work during severe weather and other measures that would reduce losses, construction activities can still result in ignitions. Due to the high number of assets at risk even during normal weather conditions Impact F-1 cannot be mitigated to less than significant. There are no other feasible mitigation measures or alternatives available to reduce the significant fire impact to a level that will be less than significant.

Reference. EIR/EIS Section D.15; Section E.1.15, Section E.4.15

Impact F-2: Presence of the overhead transmission line would increase the probability of a wildfire (Class I)

The presence of the overhead transmission line will create an ongoing source of wildfire ignitions for the life of the Project. Line faults may be caused by such unpredictable events as conductor contact by floating debris, gun shots, and helicopter collisions; these events are rare but unavoidable. Any line faults that create sparks or ignite nearby vegetation will result in a large and catastrophic wildfire in the fire-prone landscapes of the Project (MP I8-30 to I8-40 and I8-82 to I8-93 and MP 131.3 to 136.3), putting

1,803 or more households and 216,608 or more acres at risk if transmission line ignitions occur during extreme weather conditions.

For approximately 22 miles, the Project will be collocated with and in close proximity to an existing 69 kV line on wood poles between MP MRD-9 and MRD-31. In Santa Ana wind conditions and in areas with wildland fuels, the Project will create a hazard in combination with these wood poles because high winds may cause the poles to come into contact with the nearby Project conductors. Wood poles have less structural integrity than steel poles, and a pole failure during an extreme Santa Ana wind event may come into contact with the adjacent conductor and start a wildfire with damaging impacts to communities, firefighters, and natural resources. The increased ignition risk associated with the presence of wood poles within 100 feet of the Project (MP 131.5 to 136.3) is significant. Due to the potential for unavoidable ignitions related to the overhead transmission line during extreme fire weather, the presence of the Project will significantly increase the likelihood of a catastrophic wildfire (Class I).

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact F-2. Specifically, the following mitigation measures F-2a, F-2b, F-2c, and F-1e, as set forth below and in Section III.2, are feasible and are hereby adopted to mitigate significant effects from Impact F-2. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact F-2 to a less than significant level.

F-2a **Establish and maintain adequate line clearances.** The Applicant shall establish adequate conductor clearances prior to energizing the Project by removing all vegetation from within 15 radial feet of new and relocated overhead 69 kV, 230 kV, and 500 kV conductors under maximum sag and sway. Only trees and vegetation with a mature height of 15 feet or less shall be permitted within the ROW, except where the transmission line spans a canyon. In addition, tree branches that overhang the ROW within 15 horizontal feet of any conductor shall be trimmed or removed, as appropriate, including those on steep hillsides that may be many vertical feet above the facility. Cleared vegetation shall either be removed or chipped and spread onsite in piles no higher than six (6) inches.

During the life of the Project, the Applicant shall maintain adequate conductor clearances by inspecting the growth of vegetation along the entire length of the overhead transmission line at least once each spring and documenting the survey and results in a report submitted to the CPUC before June 1 of each year. Conductor clearance of 15 radial feet under maximum sag and sway shall be maintained at all times.

Maximum sag and sway shall be computed based on ambient temperatures of no less than 120 degrees Fahrenheit and wind gusts of no less than 100 miles per hour.

F-2b **Install existing conductors on steel poles.** Where construction of the Proposed Project or an alternative would result in the relocation of existing 69 kV transmission lines, these lines shall be relocated onto non-specular steel poles using vertical conductor construction. Also, all existing 69 kV or distribution lines with poles located within 100 feet of the Proposed Project or alternative shall be reconstructed so the existing conductors are on non-specular steel poles using vertical conductor construction to eliminate pole combustion hazard potential, increase wind loading capacity, and reduce mid-line slap ignition potential. Steel poles shall be finished to give the appearance of wood poles. This measure shall not apply to conductors that would be underbuilt on steel poles or lattice towers or installed underground. The vertical conductor construction requirement shall not apply to isolated towers that would be adjacent to existing structures with horizontal conductor construction, and shall apply to sets of four or more sequential towers.

F-2c **Perform climbing inspections.** The Applicant shall perform climbing inspections on 10 percent of project structures annually, such that every project structure has been climbed and inspected at the end of a 10-year period, for the life of the Project. In addition, SDG&E shall keep a detailed inspection log of climbing inspections, and any potential structural weaknesses or imminent component failures shall be acted upon immediately. The inspection log shall be submitted to CPUC for review on an annual basis.

F-1e **Contribute to defensible space grants fund.**

Rationale for Findings. Mitigation Measure F-2a will reduce the risk of vegetation contact with conductors. Mitigation Measure F-2b will increase wind loading capacity on adjacent 69 kV lines and thereby reduce the hazard for pole failure and wildfire ignition. Mitigation Measure F-2c will increase the hardware failure detection rate, thereby decreasing hardware-related ignitions. Mitigation Measure F-1e will reduce damage to homes from Project-related wildfires. However, the unavoidable sources of ignition from the presence of the overhead transmission line will remain, and the creation of defensible space will not guarantee structure protection during severe fire weather. Therefore, the Project's potential to ignite a catastrophic wildfire during severe fire weather will remain significant and unavoidable. There are no other feasible mitigation measures or alternatives available to reduce the significant fire impact to a level that will be less than significant.

Reference. EIR/EIS Section E.1.15; Section E.2.15; Section E.4.15; Section D.15

Impact F-3: Presence of the overhead transmission line would reduce the effectiveness of firefighting (Class I)

Aerial and ground-based firefighting efforts will be compromised by the introduction of an overhead transmission line (MRD-11 to MRD-13, MRD-23 to MRD-26.5 and just before MP 131 to MP 133) and hazards as identified in the Wildfire Containment Conflict Model results. Examples include increasing the risk of transmission line contact by aircraft or water buckets, creating indefensible landscapes, and obstructing historical fire containment boundaries.

The nearby access roads and moderate topography in these locations indicate that the conflicts exist in defensible landscapes where firefighting resources will be able to access and suppress a fire if there were no obstacles present. However, effective wildfire containment in these areas will be obstructed by the presence of the overhead transmission line and the proximity of parallel existing lines. Firefighting suppression tactics, maneuverability and approach distances are greatly restricted by the indefensible island created between collocated and parallel transmission lines. This indefensible landscape is a swath of

land where firefighting is tactically very difficult or simply too dangerous (due to a combination of minimum approach distances and rates of wildfire spread that can reach up to 300 feet per minute).

The outcome of not fighting a wildfire in an otherwise defensible landscape under favorable weather conditions is that it is able to build in size and intensity unchecked by firefighters forced to wait until the fire passes through the area. Delays in containment allow for rapid fire perimeter growth. With the increase in the fire perimeter comes the potential for wind-blown embers to ignite spot fires ahead of the fire front, which further complicates fire suppression activities. Given these conditions, Impact F-3 is significant and unavoidable (Class I).

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact F-3. Specifically, the following Mitigation Measures F-3a and F-3b are feasible and are hereby adopted to mitigate significant effects from Impact F-3. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact F-3 to a less than significant level,

F-3a **Contribute to Powerline Firefighting Mitigation Fund.** The Applicant shall contribute an annual sum to local, State, and federal fire protection districts in the Project vicinity through the mechanism of a new Powerline Firefighting Mitigation Fund, which shall be organized and carried out by SDG&E, and shall be subject to the oversight of the CPUC for the life of the Fund. Funding shall be used toward fire prevention measures and protection equipment and services, as appropriate to each jurisdiction. An increase in funding for fire prevention and suppression services and equipment will increase the probability of a fire being successfully contained, especially during normal weather conditions, and will therefore partially mitigate the significant barrier the transmission line poses to firefighting operations. The annual sum shall be based on an equivalent fuelbreak mitigation (presented as Mitigation Measure F-3a in the Draft EIR/EIS), which is an alternative means of partially mitigating the significant effect that the presence of the transmission line on firefighting operations, but which would be jurisdictionally infeasible. This shall be $1,000 per acre for the first year plus $250 per acre for each subsequent year for the life of the Project (in 2008 United States Dollars), based on the number of miles of Wildfire Containment Conflict listed in Table D.15-26. Should CAL FIRE wish to take over administrative authority for the Powerline Firefighting Mitigation Fund, an administrative transfer shall not be in violation of Mitigation Measure F-3a.

Table D.15-26. Mitigation Measure F-3a Compliance Locations

Segment Identification	Location of Significant Conflict	Length of Significant Conflict (miles)	Area of Significant Conflict (acres)
Final Environmentally Superior Southern Route Alternative	MRD 11-13, MRD 23-26.5, and just before MP 131-133	8	236

F-3b **Prepare and implement a Multi-agency Fire Prevention MOU**. A Memorandum of Understanding (MOU) for the SRPL shall be created and implemented between SDG&E and the CAL FIRE San Diego Unit, Cleveland National Forest, and other agencies as appropriate using

the existing Southwest Powerlink MOU as a template. The MOU shall be adopted prior to project construction. The purpose of this Multi-agency Fire Prevention MOU is to efficiently coordinate all aspects of agency and utility fire prevention plans and practices. The MOU shall integrate the following components of the utility fire plan with existing agency fire plans: fire prevention, firefighter safety, emergency communication, firefighter training of both ground and aerial utility personnel, and others as appropriate. Financial commitments of each participating organization to pre-fire planning, preparedness, and prevention programs shall be stipulated in the MOU. The MOU shall stipulate the mechanism for defensible space grants distribution (Mitigation Measure F-1e). This MOU shall be periodically reviewed and updated at a minimum of once every five years to accommodate changes in regulations and environmental conditions. A community education and outreach program on the fire prevention plans and practices implemented by the MOU shall be adopted.

A key element of the MOU shall be ensuring immediate transmission line de-energizing during fire emergencies and ensuring adequate and immediate communication to fire agencies of line de-energizing. SDG&E shall provide all appropriate local, State, and federal fire dispatching agencies with an on-call contact person (Fire Coordinator) who has the authority to shut down the line in areas affected by a fire. The transmission line shall be de-energized prior to and during fire suppression activities within 1,000 feet of the transmission corridor to maintain firefighter safety, and re-energizing shall require notification of all fire agencies.

Rationale for Finding. Impact F-3 can be partially mitigated by making contributions to local and regional fire protection agencies, which will improve fire prevention and suppression resources in the Project area. Mitigation Measure F-3a, Contribute to Powerline Firefighting Mitigation Fund, is therefore required. Further benefits to firefighting efforts will be achieved, although not to the point of insignificance, through implementation of Mitigation Measure F-3b, Prepare and implement a multi-agency Fire Prevention MOU, which requires coordination of firefighting efforts with fire agencies. There are no other feasible mitigation measures or alternatives available to reduce the significant fire impact to a level that will be less than significant.

Reference. EIR/EIS Section E.4.15; Section D.15

Cumulative Impact F-1: Construction and/or maintenance activities would significantly increase the probability of a wildfire (Class I)

As explained in Section G.4.2, numerous construction activities are currently underway adjacent to wildland areas throughout San Diego County, and numerous others — including residential development and road and infrastructure expansion — are reasonably foreseeable in the near future (Table G-1 in the Draft EIR/EIS). These construction projects increase the level of human influence adjacent to wildlands, thereby increasing human-caused wildfire ignitions. Other phenomena, such as increased travel on wildland-adjacent roadways also contribute to wildfire ignitions that result in widespread damages. Construction of the Project will also increase wildfire ignitions in fuel-laden wildlands, and these can have especially devastating consequences during severe fire weather conditions. Therefore, the Project's incremental contribution to increased probability of human-caused wildfire ignitions across San Diego County will be cumulatively considerable. Mitigation Measures F-1a, Develop and implement a Construction Fire Prevention Plan, F-1b, Amend and implement Sempra Utilities Wildland Fire Prevention and Fire Safety Guide (2007), F-1c, Ensure coordination for emergency fire suppression, F-1d, Remove hazards from the work area, and F-1e, Contribute to defensible space grants fund, will help reduce the severity of project-level impacts from wildfire ignition. However, even a single ignition that escapes containment in the highly fire-prone region of San Diego County will have devastating effects on

communities, firefighter health and safety, and natural resources, and these mitigation measures will not ensure prevention or containment of all ignitions. Therefore, Project impacts, when combined with similar impacts from past, present, and reasonably foreseeable projects will be significant (Class I). No additional mitigation measures are available to reduce the Project's contribution to this impact to less than considerable.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project that mitigate significant cumulative effects on the environment from Impact F-1. Specifically, Mitigation Measures F-1a through F-1e, as set forth in Section III.2, are feasible and are hereby adopted to mitigate significant cumulative effects from Impact F-1. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact F-1 to a less than significant level in the locations specified above.

F-1a **Develop and implement a Construction Fire Prevention Plan**.

F-1b **Amend and implement Sempra Utilities Wildland Fire Prevention and Fire Safety Guide (2007).**

F-1c **Ensure coordination for emergency fire suppression.**

F-1d **Remove hazards from the work area.**

F-1e **Contribute to defensible space grants fund.**

Rationale for Findings. Mitigation Measures F-1a, F-1b, F-1c, F-1d, and F-1e will help reduce the severity of Project-level impacts from wildfire ignition. However, even a single ignition that escapes containment in the highly fire-prone region of San Diego County could have devastating effects on communities, firefighter health and safety, and natural resources, and these mitigation measures will not ensure prevention or containment of all ignitions. Therefore, combined with other past, present, and reasonably foreseeable development projects across San Diego County, the Project's contribution to construction- and maintenance-related ignitions will be cumulatively considerable. There are no other feasible mitigation measures or alternatives available to reduce the significant cumulative fire impact to a level that will less than significant.

Reference. EIR/EIS Section G.4.2

Cumulative Impact F-2: Presence of the overhead transmission line would increase the probability of a wildfire (Class I)

As explained in Section G.4.2, the presence of the overhead transmission line will create an ongoing source of potential wildfire ignitions for the life of the Project. Line faults can be caused by such unpredictable events as conductor contact by floating debris, gun shots, and helicopter collisions; these events are rare but will be unavoidable. Past, present, and reasonably foreseeable projects that have been/will be constructed near fuel-laden wildlands, including many of the residential developments and electrical infrastructure projects identified in the EIR/EIS will also increase the probability of igniting a wildfire that will result in widespread damages. Therefore, the incremental contribution of Project operation and maintenance activities to an increased probability of human-caused wildfire ignitions — resulting in damage to communities, firefighters, and natural resources — across San Diego County will be cumulatively considerable. Mitigation Measures F-2a, F-2b, and F-1e will reduce the probability of igniting a wildfire and reduce the impacts of fires when they occur. However, the potential for wildfire ignition

from unpredictable events will still exist, and even a single ignition that escapes containment in the highly fire-prone region of San Diego County will have devastating effects on communities, firefighter health and safety, and natural resources. These mitigation measures will not ensure prevention or containment of all ignitions. Therefore, Project impacts, when combined with similar impacts from past, present and reasonably foreseeable projects will be significant (Class I).

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project that mitigate significant cumulative effects on the environment from Impact F-2. Specifically, Mitigation Measures F-2a, F-2b and F-1e, as set forth in Section III.2, are feasible and are hereby adopted to mitigate significant effects from Impact F-2. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact F-2 to a less than significant level in the locations specified above.

F-2a Establish and maintain adequate line clearances.

F-2b Install existing conductors on steel poles.

F-1e Contribute to defensible space grants fund.

Rationale for Findings. Mitigation Measure F-2a will reduce the risk of vegetation contact with conductors and thereby reduce project ignitions. Mitigation Measure F-2b will increase wind loading capacity on adjacent 69 kV lines and thereby reduce the hazard for pole failure and wildfire ignition. Mitigation Measure F-1e will reduce damage to homes from Project-related wildfires. However, the unavoidable sources of ignition from the presence of the overhead transmission line will remain, and the creation of defensible space will not guarantee structure protection during severe fire weather. Therefore, the Project's potential to ignite a catastrophic wildfire during severe fire weather will remain significant and unavoidable, and the Project's incremental effect will be cumulatively considerable. There are no other feasible mitigation measures or alternatives available to reduce the significant cumulative fire impact to a level that will be less than significant.

Reference. EIR/EIS Section G.4.2

Cumulative Impact F-3: Presence of the overhead transmission line would reduce the effectiveness of firefighting (Class I)

As explained in Section G.4.2, the addition of the aboveground segments of the Project will reduce the effectiveness of firefighting activities. Where the overhead transmission line will be collocated with an existing transmission line in an expanded ROW, the linear swath of terrain that firefighters must avoid will be expanded. This effect will become increasingly severe as additional Future Transmission System Expansion lines are collocated with existing lines or located within one mile of existing lines (see Section B.2.7 of the EIR/EIS for a description of the Future Transmission System Expansion projects).

Firefighting suppression tactics, maneuverability and approach distances are greatly restricted by the indefensible island created between collocated and parallel transmission lines in otherwise defensible landscapes. This indefensible island is a swath of land where firefighting is tactically very difficult or simply too dangerous (due to a combination of minimum approach distances and rates of wildfire spread that can reach up to 300 feet per minute). Where the Project's overhead ROW will be located within one mile of another transmission line ROW (existing or future) in an otherwise defensible landscape, the space

located between the two transmission lines will be rendered an extremely difficult space in which to fight fires. When the interstitial space between two transmission line ROWs is a wildland area, the indefensible space can fuel wildfires to uncontrollable levels of severity.

Significant conflicts to wildfire containment created by the addition of the Project to landscapes currently occupied by other transmission lines will be created at MP MRD-11 to MRD-13, MRD-23 to MRD-26.5 and MP 131 to MP 133 (see Section D.15.4.3 of the Draft EIR/EIS for methods).

In addition, to the extent that the Interstate 8 Alternative results in larger fires than would otherwise occur without its contribution to interfering with fire suppression activities, this can worsen the problem of vegetation type conversion (discussed in Section D.2) Land-use changes and fire frequency increases have led to vegetation type conversion of native shrubland systems into primarily non-native grasslands in many areas of San Diego County. These non-native grassland systems dry out earlier in the season and are more easily ignited than native shrublands, thus their presence increases the potential for fire occurrence and fire frequency even as they may locally reduce fire intensity by replacing hot, woody fuels with cool, fast-burning fuels.

The Project impacts, when combined with the effects of other past, present and reasonably foreseeable transmission and distribution line projects will be significant (Class I). No additional mitigation measures are available to reduce the Project's contribution to this impact to less than considerable.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact F-3. Specifically, Mitigation Measures F-3a and F-3b, and B-1k, as set forth in Section III.2, are feasible and are hereby adopted to mitigate significant effects from Impact F-3. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact F-3 to a less than significant level in the locations specified above.

F-3a **Contribute to Powerline Firefighting Mitigation Fund.**

F-3b **Prepare and implement a Multi-agency Fire Prevention MOU.**

B-1k **Re-seed disturbed areas after a transmission line–caused fire.**

Rationale for Findings. Transmission line undergrounding could mitigate this cumulative effect to a less than significant level; however, undergrounding is not feasible along the entire length of the Project. Mitigation Measure B-1k (Re-seed disturbed areas after a transmission line–caused fire) would reduce the risk of type conversion, although not to a less than significant level. Mitigation Measures F-3a, Contribute to Powerline Firefighting Mitigation Fund, and F-3b, Prepare and implement a Multi-agency Fire Prevention MOU, will reduce, to the extent feasible, the severity of the conflict. However, the creation of these conflict areas will be significant and unavoidable. Therefore, the Project's incremental effect will be cumulatively considerable. There are no other feasible mitigation measures or alternatives available to reduce the significant cumulative fire impact to a level that will be less than significant.

Reference. EIR/EIS Section G.4.2

Cumulative Impact F-4: Project activities would introduce non-native plants, which would contribute to an increased ignition potential and rate of fire spread (Class I)

As explained in Section G.4.2, mitigation measures targeted at the prevention and management of invasive plants can reduce Project-level impacts on the spread of invasive species into the Project firesheds, which in turn reduces the effect of non-native plant cover on exacerbating wildfire behavior. Similar mitigation measures will be expected to be implemented for many of the reasonably foreseeable projects in the Project firesheds that have the potential to introduce and spread non-native species, such as housing development projects and public works projects, reducing the cumulative impact of invasive plant cover on wildfire behavior to a less than significant level. However, not all activities that result in non-native plant introductions and spread are regulated, nor can they be easily regulated due to their dispersed nature. These activities include such things as human travel on roadways and recreational hiking in wildland areas, both of which can transport non-native plant seeds in soils compacted in tire treads and on the soles of hiking boots.

Because invasive plant introductions to wildland areas is reasonably foreseeable despite best efforts at mitigation, the incremental effects of the Project on non-native species introduction that adversely affect wildfire behavior is considered cumulatively considerable. The cumulative impact is significant (Class I), and no additional mitigation is available to further reduce the level of impact.

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project that mitigate significant effects on the environment from Impact F-4. Specifically, Mitigation Measure B-3a, as set forth in Section III.2, is feasible and is hereby adopted to mitigate significant effects from Impact F-4. However, even with implementation of this measure, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact F-4 to a less than significant level in the locations specified above.

B-3a Prepare and implement a Weed Control Plan.

Rationale for Findings. Mitigation Measure B-3a, Prepare and implement a Weed Control Plan, cannot reduce the risk of non-native species introduction and spread to zero, and the Project's incremental contribution to exotic plant introductions and exacerbation of wildfire conditions will remain cumulatively considerable. There are no other feasible mitigation measures or alternatives available to reduce the significant cumulative fire impact to a level that will be less than significant.

Reference. EIR/EIS Section G.4.2

Cumulative Impact F 5: The presence of the overhead transmission line would alter historic fire regimes (Class I).

As explained in Section G.4.2, population growth and development along the WUIs within the Project firesheds across San Diego County has altered the natural background fire regime (frequency of fire occurrence). A change in frequency of this natural process can have adverse impacts not only on ecosystems and species, but on communities located at the WUI. A change in the fire regime is a landscape-level phenomenon that takes place over a long temporal scale. The presence of the Project will incrementally contribute to this ongoing fire regime change by introducing equipment and personnel to wildland areas and increasing the probability of wildfire ignitions. The incremental effects of the Project,

when combined with the effects of past development and the reasonably foreseeable projects identified in the EIR/EIS that occur along the WUI will be significant (Class I).

Findings.

(1) The CPUC finds that no changes or alterations were identified to address historic fire regime impacts from the Project. Therefore, significant unavoidable impacts related to historic fires will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce cumulative Impact F-5 to a less than significant level in the locations specified above.

Rationale for Findings. Because no mitigation exists to reduce the probability of Project-related ignitions from random events to zero, the Project's incremental contribution to shortening historic fire regimes will remain significant and unavoidable (Class I). No feasible mitigation measures are available to reduce this significant cumulative fire impact to less than significant.

Reference. EIR/EIS Section G.4.2

Cumulative Impact F 6: Project-caused wildfires would adversely affect natural resources (Class I).

As explained in Section G.4.2, although fires are a natural process in the chaparral ecosystems in San Diego County, wildfires can have damaging effects on natural resources including air quality, biological resources, and water quality. These effects will be worse as the frequency of large fires increases.

Air Quality. Smoke from wildfires can elevate levels of particulate matter and ozone in urban and suburban areas to hazardous levels. The effects on air quality from fires will be worse as fire extent and frequency increase, emitting larger quantities of pollutants over shorter periods of time, and increasing the number of days of poor air quality in the air basin. The high concentrations of pollutants will lead to adverse health effects and diminished visibility. The Project will incrementally increase the frequency of fires through ignitions related to construction, operation, and maintenance activities.

Wildfires also release large quantities of carbon dioxide in smoke. The potentially large short-term release of carbon dioxide from wildfires is offset over longer time scales (decades) by the uptake of atmospheric carbon associated with forest or shrubland regrowth. Increased fire frequency postpones carbon sequestration by cutting short vegetation regrowth, resulting in a net increase in atmospheric carbon from fire until shrubland biomass has an opportunity to regrow. Large fires that result from Project ignitions will incrementally increase fire frequency, resulting in a short- or medium-term net increase in atmospheric carbon emissions from fire over the life of the Project.

Biological Resources. Increased fire frequency on the same site tends to favor vegetative type conversion to early successional species such as native and non-native grasses and herbs. Changes in dominant vegetation communities dramatically affect habitats for plant and animal species, and may impact special status species. These potentially significant impacts to biological resources will be more severe as the frequency and extent of fires increase. The Project will incrementally increase fire frequency due to ignitions from project construction, operation, and maintenance resulting in potentially significant impacts to biological resources.

Water Quality. Water quality can be impacted as a result of the occurrence of fire through increased rates of erosion and sedimentation from denuded hillsides, increased water temperature from decreased

vegetative stream shade, increases in chemical pollutants from deposition of ash, and impacts to aquatic biota from deposition of fire retardant. These potentially significant impacts to water quality will be more severe as the extent and frequency of fires increase. The Project will incrementally increase the frequency of fires through ignitions related to construction, operation, and maintenance activities resulting in potentially significant impacts to water quality.

The contribution of the Project to these unavoidable ignitions will be incremental compared with the ignitions of large wildfires that currently occur in San Diego County. Even a very small increase in ignitions could result in catastrophic effects if it were to occur during Santa Ana winds, and therefore the incremental contribution of the Project to air quality, biological resources, and water quality impacts will be cumulatively considerable (Class I).

Findings.

(1) The CPUC finds that changes or alterations have been incorporated into the Project that mitigate significant cumulative effects on the environment from Impact F-6. Specifically, Mitigation Measures F-1a F-1b, F-1c, F-1d, F-2a and F-2b, as set forth in Section III.2, are feasible and are hereby adopted to mitigate significant cumulative effects from Impact F-6. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact F-6 to a less than significant level in the locations specified above.

F-1a **Develop and implement a Construction Fire Prevention Plan**.

F-1b **Amend and implement Sempra Utilities Wildland Fire Prevention and Fire Safety Guide (2007).**

F-1c **Ensure coordination for emergency fire suppression.**

F-1d **Remove hazards from the work area.**

F-2a **Establish and maintain adequate line clearances.**

F-2b **Install existing conductors on steel poles.**

Rationale for Findings. Mitigation Measures F-1a, F-1b, F-1c, F-1d, F-2a, and F-2b will reduce Project-related ignitions to the extent feasible, but the cumulative impacts to air quality, biological resources, and water quality will remain cumulatively considerable. There are no other feasible mitigation measures or alternatives available to reduce the significant cumulative fire impact to a level that will be less than significant.

Reference. EIR/EIS Section G.4.2

IV. Findings Regarding Other CEQA Considerations

IV.1 Growth Inducing Impacts

The growth-inducing potential of a project will be significant if it fosters growth or a concentration of population above what is assumed in local and regional land use plans, or in projections made by regional planning authorities. Significant growth impacts could also occur if a project provides infrastructure or service capacity to accommodate growth levels beyond those permitted by local or regional plans and policies.

Finding/Rationale. As stated in Section F.2.2 the Project is not intended to supply power related to growth for any particular development, either directly or indirectly and will not result in direct growth-inducing impacts from increased employment or from increased housing. The Project will include only 500 kV and 230 kV transmission lines which are not appropriate for residential or other development and must be further reduced in voltage before being available for residential use. Only upon reaching the Peñasquitos Substation will a reduction in voltage occur to such an extent as to be applicable for residential or commercial purposes. However, the Project will facilitate growth indirectly by removing obstacles to population growth through the increased capacity of electric power that it will make available.

Section F.2.2 further states that the Project may encourage the development of renewable projects in the Imperial Valley, Mexico, and eastern San Diego County. Indeed, the CAISO's interconnection queue lists generation facilities that will likely access California's transmission system. There are currently thousands of megawatts of wind and solar facilities in the Imperial Valley, Mexico, and eastern San Diego County listed in the queue, and there is not adequate transmission capacity for these projects to be constructed. The CAISO interconnection queue and the identification of connected actions (see Section B.6) show that other projects will be constructed as a result of the construction of the Sunrise Powerlink and will lead to indirect growth in these regions.

IV.2 Significant Irreversible Changes and Irretrievable Commitments of Resources

Irreversible and irretrievable environmental changes caused by a project include uses of nonrenewable resources during construction and operation, long-term or permanent access to previously inaccessible areas, and irreversible damages that may result from project-related accidents.

Finding/Rationale. The Project will result in the consumption of energy as it relates to the fuel needed for construction-related activities. Fuel will be needed for construction vehicles, construction equipment, construction operations, and helicopter use. Additionally, new material required by the Project construction, some of which will not be recyclable at the end of the Project lifetime, will also be made using energy, which will result in an irretrievable commitment of natural resources. The anticipated equipment, vehicles, and materials required for construction of the Project will be similar to those detailed in Section B.5 (Construction Procedures and Activities). Maintenance, operation, and inspection of the Project will not change appreciably from SDG&E's existing activities in project areas, and thus will not cause a substantial increase in the consumption or use of nonrenewable resources. During the Project's operational phase, the transport of electrical power generated from nonrenewable resources (e.g., natural gas) will continue.

Although the Project will result in the loss of approximately 1,339 acres of vegetation and habitat, 849 acres will be restored to their previous condition after construction. Implementation of the APMs and mitigation measures for biological resources recommended for the Project in the EIR/EIS will ensure that Project-induced loss of vegetation and habitat will be reduced because SDG&E will designate off-site mitigation and on-site restoration to replace any loss of vegetation and/or habitat.

The access required for construction and operation of the Project will utilize already-disturbed corridors using existing ROWs whenever feasible. However, approximately 14-foot-wide straight sections of road and 16 to 20-foot-wide sections at corners will be required to facilitate safe movement of equipment and vehicles. In areas where access roads or spur roads are not available or do not meet the required safety width, access roads will be widened or constructed as needed. All access roads that are no longer needed at the completion of construction of the Project will be permanently closed (BIO-APM-17) to limit new or

improved accessibility into the area. Therefore, new public access to previously inaccessible areas will be negligible.

Construction and operation of the Project will require the use of a limited amount of hazardous materials such as fuel, lubricants and cleaning solvents. During Project construction and operation preexisting soil or groundwater contamination could be encountered. All hazardous materials will be stored, handled, and used in accordance with established SDG&E Best Management Practices (BMPs) and applicable federal, State, and local regulations, including a construction-phase Storm Water Pollution Prevention Plan (SWPPP) and operational-phase Hazmat Business Plan and Storm Water Management Plan. Appropriate implementation of these plans and practices, as well as the mitigation measures recommended in Section D.10 (Public Health and Safety), will reduce the potential for environmental accidents associated with the alternative alignments to less than significant levels.

The CPUC finds that specific economic, legal, social, technological, or other considerations, including those considerations set forth in Sections V (Rejected Mitigation Measures) and VI (Project Alternatives make infeasible additional mitigation measures or project alternatives identified in the Final EIR/EIS.

V. Findings on Rejected Mitigation Measures

Biological Resources

Mitigation Measure B-1a. Multiple suggestions were made regarding mitigation ratios, including lowering the mitigation ratios, increasing the mitigation ratios for some habitats or for certain areas, and compensating edge effects of the introduction of roads and tower platforms in preserves.

Finding. The CPUC finds that specific economic, legal, social, technological, or other considerations make infeasible the mitigation measure or project alternative identified in the Final EIR/EIS.

Rationale. The mitigation ratios were developed in consultation with the USFWS, BLM, and State Parks and are based primarily on the requirements established in regional habitat conservation plans and also on mitigation required for other projects. Some changes suggested to the mitigation ratios have been included where deemed appropriate. Mitigation ratios were conservatively calculated based on an assumption that all impacts will occur in preserve areas (i.e., areas already preserved or targeted for preservation within the various subarea plans) and that all mitigation will also occur in such preserve areas. The assumption that all impacts will occur in preserve areas is conservative since not all impacts would occur there, but the higher ratios (i.e., higher than those that would be used for impacts outside of preserve areas) would be used to help offset the impacts to the preserves that regional conservation plans rely upon. Therefore, the incremental mitigating effect of increased mitigation ratios would be negligible, and it is not necessary to require such mitigation.

Mitigation Measure B-7c. A comment was made to include further overpasses or tunnels to facilitate the movement of Peninsular Bighorn Sheep to Mitigation Measure B-7c.

Finding. The CPUC finds that specific economic, legal, social, technological, or other considerations make infeasible the mitigation measure or project alternative identified in the Final EIR/EIS.

Rationale. Mitigation Measure B-7c was revised to allow funding the design and construction of an overpass or tunnel to facilitate the movement of Peninsular Bighorn Sheep across a highway at a location determined by the USFWS. As such the mitigation measure already addresses the concern that the movement of

Peninsular Bighorn Sheep be accommodated in an area other than across SR78 and is commensurate with the level of the impact. The Project's ability to interfere with the movement of Peninsular bighorn sheep and the mitigation measures identified to reduce impacts are addressed in Impact B-7B (see Section III.3.1 of these Findings).

Mitigation Measure B-7k. A comment was made to include speed bumps on access roads in SKR habitat to Mitigation Measure B-7k.

Finding. The CPUC finds that specific economic, legal, social, technological, or other considerations make infeasible the mitigation measure or project alternative identified in the Final EIR/EIS.

Rationale. There is no SKR habitat within the Project location so mitigation would not be required (refer to Appendix 8 Biological Resources of the Final EIR/EIS). Additionally, Mitigation Measure B-7k already includes a five mile-per-hour speed limit to be observed on all access roads in SKR habitat making speed bumps unnecessary.

Bird electrocution and collision & Mitigation Measure B-10a. The following text was recommended to add to Mitigation Measure B-10a:

> SDG&E would conduct pre- and post-construction monitoring of transmission and distribution lines for the purposes of: 1) detection of high electrocution or collusion risk line segments or poles; 2) assessing the efficacy of installed diverters, perch guards, and other preventative facility measures; and 3) establishing baseline collision and electrocution impact information to inform adaptive management for further reducing impacts and risks. Should areas of high risk be found along a particular transmission segment or tower prior to construction, SDG&E should consider the realignment of the section or relocation of the tower to avoid or minimize the adverse impacts. Should areas of high risk be found along a transmission segment or tower post construction, SDG&E should meet with the Wildlife Agencies to determine next steps in reducing the impact.

Additionally, a request was made to add additional mitigation measures such as undergrounding the Project and/or consolidating or undergrounding existing lower voltage distribution lines using trenchless technology to reduce impacts to sensitive bird species. The comment suggested undergrounding existing distribution lines to offset aboveground segments of the Project at a 1:1 ratio.

Finding. The CPUC finds that specific economic, legal, social, technological, or other considerations make infeasible the mitigation measure or project alternative identified in the Final EIR/EIS.

Rationale. Mitigation for bird electrocution is not required because, as analyzed in Sections E.1.2, E.2.2, and E.4.2 of the EIR/EIS, the Project does not pose an electrocution risk for birds (see Section III.1 of these Findings.) We also agree with the conclusion in Response to Comment B0041-13 in the Final EIR/EIS that neither the 69 kV, 230 kV, or 500 kV transmission lines would present an electrocution risk to birds. The request for additional analysis of potential avian migratory flyways is not necessary because a local expert on bird migration and bird movement, Phil Unitt, was consulted regarding potential areas with high risk of bird collision during the preparation of the Final EIR/EIS. Areas identified as having potential for bird collision were identified in Final EIR/EIS and mitigation was required for transmission lines constructed in those locations. To gather specific information regarding migration patterns as requested by the comment, it would be necessary to study these patterns during spring and fall migration periods (including at night) during different weather conditions and for multiple years since the patterns can vary. The EIR/EIS thoroughly evaluated the likelihood of the project to result in collisions by, listed or sensitive bird species, and took a conservative approach to the analysis of the impact,

concluding that the impact was Class I from collision for listed species (and Class II for non-sensitive species and daytime migration). We find that the analysis of risk to birds in the EIR/EIS is sufficient "in light of … the magnitude of the project at issue, the severity of its likely environmental impacts, and the geographic scope of the project." (See CEQA Guidelines § 15204.) Post construction surveys are considered necessary and technologically feasible and are required by Mitigation Measure B-10a. Undergrounding existing distribution lines to offset aboveground segments is not considered necessary as mitigation for collision has been included for impact B-10 (Presence of transmission lines may result in electrocution of, and/or collisions by, listed or sensitive bird species).

Study and mitigation for wildlife corridors. Additional study and mitigation for wildlife corridors was requested.

Finding. The CPUC finds that specific economic, legal, social, technological, or other considerations make infeasible the mitigation measure or project alternative identified in the Final EIR/EIS.

Rationale. A study of wildlife corridors is not considered necessary for this Project because transmission lines are not expected to prevent wildlife movement along established wildlife corridors, as discussed in Sections E.1.2, E.2.2, E.4.2, and D.2 of the EIR/EIS. (See Section III.1 of these Findings.). Transmission lines are located far above the corridors, and transmission towers are spaced sufficiently apart that wildlife movement will not be significantly impacted. Wildlife movement specific to bird is addressed already in Impact B-10. The Project's ability to interfere with the movement of certain sensitive species, (i.e. Peninsular bighorn sheep, etc.) is addressed individually in Impact B-7 and is considered a significant and unmitigable impact. We find that requiring additional study and mitigation for wildlife corridors would be inconsistent with CEQA's guidance to evaluate environmental effects "in light of what is reasonably feasible" rather than "exhaustive[ly]." (CEQA Guidelines § 15151.) We also note that "CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commentors." (CEQA Guidelines § 15204.)

Firefighting

Mitigation Measure F-3a as presented in the Draft EIR/EIS, noted below, that requires the construction and maintenance of fuel breaks has been replaced with a new measure. The new measure (see Class I Firefighting impacts) will require contribution to a firefighting mitigation fund. The measure below was deleted in the Final EIR/EIS.

F-3a(Draft) **Construct and maintain fuelbreaks**. SDG&E shall construct and maintain fuelbreaks at targeted locations along the transmission line where significant conflicts with fire containment are created. SDG&E shall purchase or secure by other means complete and total vegetation management rights for the life of the Project for the area within ¼ miles of the transmission centerline between project mileposts shown in Table D.15-26.

The fuelbreak design plans shall be submitted to CPUC, BLM, ABDSP, and U.S. Forest Service, as appropriate, for review and approval at least 90 days before the commencement of project construction. Vegetation fuel load in the fuel break shall be reduced to and maintained at a level not to exceed 12 tons/acre as determined by the National Wildfire Coordination Group Stereo Photo Series for Quantifying Natural Fuels for the appropriate vegetation type series. Fuelbreaks shall be constructed prior to transmission line energizing. The following fuelbreak performance criteria are to be met:

- At its most intensive, vegetation reduction shall be carried out to maintain a native grass cover to minimize water quality impacts due to erosion and sedimentation. In addition, vegetation on slopes greater than 45% shall be limited to hand treatment of hazardous trees to avoid causing erosion.
- Herbicidal treatments shall be restricted to ground-based applications. A colorant or dye shall be added to the herbicide mixture to determine location of coverage. A surfactant shall be added to the herbicide mixture to facilitate targeted absorption. Herbicide applications shall be performed by licensed professionals in accordance with each material's label instructions and in compliance with Sempra's "Physical and Climatic Target Area Evaluation Form."
- Dead and decaying vegetation within the Wire Zone (ROW) shall be cut to 18 inches or less in height, and removed or chipped and spread onsite in piles no higher than six (6) inches.
- Trees greater than four (4) inches DBH, except those whose crowns are separated from other tree crowns by at least 150 feet in all directions, shall be removed and treated with herbicidal and fungicidal stump applications; communities of shrubs greater than 1,000 square feet and greater than five (5) feet tall shall be thinned or removed; and, dead and decaying vegetation shall be cut to 18 inches or less in height or removed. All cut vegetation shall be either removed or chipped and spread onsite in piles no higher than six (6) inches.
- SDG&E shall develop and implement a post-fire assessment protocol, which shall include site inspection and vegetation inventory, debris and hazard removal, damage assessment, site monitoring, native species restoration as appropriate, facilities redesign/reconstruction as appropriate, and adaptive modification to fuelbreak maintenance activities as appropriate.

SDG&E shall report all fuelbreak maintenance and post-fire assessments on an annual basis to CAL FIRE or CNF as appropriate.

Should complete vegetation management rights be impossible to secure, SDG&E shall make financial contributions to either CAL FIRE or CNF (as appropriate) for offsite fuelbreak creation. The contributions shall be between $1,000 to $4,000 per acre for initial fuelbreak construction, plus between $250 and $1,000 per acre per year for fuelbreak maintenance. The exact financial contribution shall be determined by CAL FIRE or CNF based on actual costs of compensatory fuelbreak construction and maintenance as observed in the field.

Finding. The CPUC finds that specific economic, legal, social, technological, or other considerations make infeasible the Mitigation Measure F-3a as identified in the Draft EIR/EIS, and instead adopts Mitigation Measure F-3a as identified in the Final EIR/EIS.

Rationale. Mitigation Measure F-3a presented in the Draft EIR/EIS (presented above and denoted F-3a[Draft]) has been found, upon further analysis presented in the Final EIR/EIS, to be infeasible due to SDG&E's lack of jurisdiction over private and public lands outside the right-of-way (see Response to Comment A0009-18 of the Final EIR/EIS). Mitigation Measure F-3a(Draft), Construct and maintain fuelbreaks, has been deleted and replaced with a new Mitigation Measure F-3a, Contribute to Powerline Firefighting Mitigation Fund. Refer to the Class I firefighting impacts for the new mitigation measure in Section III of this report.

Bar automatic re-starts of any tripped power lines in high fire risk areas A suggestion was made to develop a mitigation measure that would bar automatic re-starts of any tripped power lines in high fire risk

areas. This was suggested because, as concluded by CalFire, the automatic re-start of the SDG&E 69 kV line southwest of Santa Ysabel may have been the spark that ignited the Witch Fire.

Finding. The CPUC finds that specific economic, legal, social, technological, or other considerations make infeasible the mitigation measure or project alternative identified in the Final EIR/EIS.

Rationale. The mitigation suggested above is infeasible because it would affect the operation of the regional transmission grid. Transmission system operations are handled at a statewide level by the California Independent System Operator (CAISO), and inconsistent application of operational requirements would interfere with grid operations and reliability. Impact F-2 (Presence of the overhead transmission line would increase the probability of a wildfire) is a significant and unmitigable impact (Class I), and aggressive mitigation measures are recommended to reduce the risk to the greatest extent feasible. This mitigation includes Mitigation Measures F-2a (Establish and maintain adequate line clearances), F-2b (Install existing conductors on steel poles), F-2c (Perform climbing inspections), and F-1e (Contribute to defensible space grants fund). Including additional mitigation to bar automatic re-starts of any tripped power lines in high fire risk areas would likely have only a limited effect on further reducing the impact, and could have disproportionately high consequences in terms of the impacts from outages.

VI. Findings on Project Alternatives

In total, the alternatives screening process culminated in the identification and preliminary screening of over 100 potential alternatives or combinations of alternatives. These alternatives range from minor routing adjustments to SDG&E's proposed 500 kV and 230 kV project routes, to entirely different transmission line routes, to alternate system voltages, and system designs. Renewable resource technologies, distributed generation, and demand-side management were also considered. The alternatives that were eliminated either did not meet project objectives, did not meet legal, regulatory, and technical feasibility criteria, and/or did not avoid or reduce environmental effects of the Project.

For example, four alternative routes that will avoid the Anza-Borrego Desert State Park (collectively called the Southwest Powerlink (SWPL) Alternatives) were developed. All four alternatives will meet Project objectives, and will also be within the SWPL designated utility corridor for the first 35 miles of the route. Because of the shorter length and the avoidance of the ABDSP, a combination of SWPL alternatives was found to be the most environmentally preferred.

VI.1 Alternatives Eliminated from EIR/EIS Consideration After Detailed Screening

Over 100 alternatives were screened for evaluation in the EIR/EIS (see Appendix 1 of the Draft EIR/EIS). 68 of these were eliminated from further analysis after a detailed alternatives screening process (Section 3.1 of Appendix 1 describes screening methodology). Table D2, below, summarizes the rationale for eliminating each of these alternatives from further consideration. The CPUC hereby finds that all of the alternatives eliminated from further consideration in the Draft EIR/EIS are infeasible, will not meet most Project objectives and/or will not reduce or avoid any of the significant effects of the Project, as summarized in Table D2 and detailed in Appendix 1 of the Draft EIR/EIS.

Table D2. Alternatives Eliminated from EIR/EIS Consideration After Detailed Screening

Alternative	Project Objectives, Purpose, and Need	Potential Feasibility	Avoid/Reduce Environmental Effects?	Conclusions
IMPERIAL VALLEY LINK ALTERNATIVES				
SDG&E Desert Western Alternative	Meets all project objectives.	Meets legal feasibility criteria. Not regulatory feasible, because crosses through DOD restricted airspace and/or obstruction-free zone. Not technically feasible to construct a 500 kV line and structures within height requirements	Shorter than the proposed route and reduces biological impacts to the BLM FTHL Management Area, but would traverse bighorn sheep critical habitat and would be closer to designated Wilderness Areas.	Not analyzed due to regulatory and technical feasibility issues with DOD restricted airspace.
Imperial Valley FTHL Alternative	Meets all project objectives.	Meets legal and regulatory feasibility criteria. Reduces segment length with BLM FTHL Management Area. Technical feasibility conflicts with IID planned 230 kV upgrades along Westside Main Canal.	Reduces impacts to BLM FTHL Management Area, but impacts proposed residential development in the area and agricultural resources.	Not analyzed due to greater impacts on land use and agricultural resources and conflicts with IID planned 230 kV upgrades. Replaced with FTHL Eastern Alternative.
SDG&E Imperial Valley FTHL Modification Alternative	Meets all project objectives.	Meets legal and regulatory feasibility criteria. Reduces segment length with BLM FTHL Management Area. Technical feasibility conflicts with IID planned 230 kV upgrades along Westside Main Canal.	Reduces impacts to BLM FTHL Management Area, but greater impacts to agricultural resources.	Not analyzed due to greater impacts on agricultural resources and conflicts with IID planned 230 kV upgrades. Replaced with FTHL Eastern Alternative.
SDG&E Bullfrog Farms Alternative	Meets all project objectives.	Meets legal, regulatory, and technical feasibility criteria.	Avoids main building of Bullfrog Farms, but it impacts its dairy calving operations. The route would also impact a planned development south of Bullfrog Farms.	Not analyzed due to greater impacts to planned development and dairy calving operations. Replaced with SDG&E West Main Canal–Huff Road Modification Alternative.

Table D2. Alternatives Eliminated from EIR/EIS Consideration After Detailed Screening

Alternative	Project Objectives, Purpose, and Need	Potential Feasibility	Avoid/Reduce Environmental Effects?	Conclusions
Huff Road Bullfrog Farms Alternative	Meets all project objectives.	Meets legal, regulatory, and technical feasibility criteria.	Avoids main building of Bullfrog Farms, but it impacts its dairy calving operations. The route would also impact a planned development south of Bullfrog Farms.	Not analyzed due to greater impacts to planned development and dairy calving operations. Replaced with SDG&E West Main Canal–Huff Road Modification Alternative.
New River Alternative	Meets all project objectives.	Meets legal and regulatory criteria. Technical feasibility risk of installing a major transmission line in or directly adjacent to an active riverbed with year-round flow. U.S. Army Corps of Engineers likely would not permit a line running within the New River.	Reduces impacts to agricultural resources, but causes greater erosion and water resource impacts and bisects valley causing great visual resources impacts as well.	Not analyzed due to greater impacts to hydrologic resources, visual impacts, and issues with constructing towers in river or floodplain.
ANZA-BORREGO LINK ALTERNATIVES				
SDG&E ROW Shorter Structure Alternative	Meets all project objectives.	Meets legal, regulatory, and technical feasibility criteria. Would not require the de-designation of State-designated Wilderness.	Use of shorter towers would not eliminate significant visual impacts, because they would be wider and there would be a greater number within the Park. The 100' ROW goes through the Angelina Springs cultural district and the new double-circuit 69 kV lines from Warner to Borrego Substation would create additional new significant impacts in many areas.	Not analyzed due to significant visual impacts, greater cultural impacts, and creation of a new double-circuit 69 kV transmission corridor along S2.
SDG&E Segment A/ Northern Borrego Springs via S22 Alternative	Meets all project objectives.	Meets legal and technical criteria with the de-designation of Wilderness. Requires a de-designation of Wilderness for a new corridor and a State Park Plan Amendment, thus facing potential regulatory infeasibility.	Passes through more populated areas (Borrego Valley) and would be constructed within bighorn sheep habitat adjacent to S22. It would also create a new transmission corridor within 4 State Wilderness areas along Highway S22.	Not analyzed due to regulatory hurdles with crossing Wilderness areas and greater environmental impacts of a new corridor in more populated areas.

Table D2. Alternatives Eliminated from EIR/EIS Consideration After Detailed Screening

Alternative	Project Objectives, Purpose, and Need	Potential Feasibility	Avoid/Reduce Environmental Effects?	Conclusions
SDG&E Segment 1/ Imperial Valley via 92 kV Alternative	Meets all project objectives.	Meets technical and legal criteria, but would not make sense from a construction and engineering perspective. Would not be regulatory feasible, because it would bisect the center of DOD height limitation and/or obstruction-free zone.	Affects more agricultural land and would traverse a much greater distance through BLM Flat-Tailed Horned Lizard Designated Management Areas.	Not analyzed due to regulatory feasibility and engineering concerns, as well as greater agricultural and FTHL impacts.
SDG&E Segment 4/ ABDSP via S2 Alternative	Meets all project objectives.	Meets legal and technical criteria with the de-designation Wilderness. Requires a de-designation of Wilderness for a new corridor and a State Park Plan Amendment, thus facing potential regulatory infeasibility.	Crosses high-value scenic viewshed, greater amounts of bighorn sheep habitat, and a greater length of new transmission corridor within State-designated Wilderness.	Not analyzed due to regulatory hurdles with crossing Wilderness and greater environmental impacts of a new highly visible corridor in bighorn sheep habitat.
SDG&E SR78 West of Anza Alternative	Meets all project objectives.	Meets technical and legal criteria. Passes within FAA obstruction-free area around Ocotillo Wells County Airport raising regulatory feasibility issues.	Highly visible along the main entrance to ABDSP, passes by residential and commercial receptors, and would need to be relocated due to FAA regulations to avoid Ocotillo Wells Airport, which would move the line to a more highly sensitive area.	Not analyzed due to greater visual and land use impacts and would need to be relocated due to FAA regulations.
SDG&E ABDSP North Side of SR78 Alternative	Meets all project objectives.	Meets legal, regulatory, and technical criteria.	Longer route, establishes a new highly visible transmission line corridor along SR78, and would not reduce any significant impacts of the proposed route.	Not analyzed because longer, new corridor, and greater visual impacts.
SDG&E Borrego Valley Alternative	Meets all project objectives.	Meets legal and technical criteria with the de-designation Wilderness. Requires a de-designation of Wilderness for a new corridor and a State Park Plan Amendment, thus facing potential regulatory infeasibility.	Creates new utility corridor within State-designated Wilderness, crosses high value habitat of the Peninsular bighorn sheep population in Tubb Canyon, visual impacts from Montezuma Grade and throughout the Borrego Springs and Ranchita areas, and the introduction of a major industrial facility (500/12 kV substation) in a low density residential community.	Not analyzed due to regulatory hurdles with crossing Wilderness and greater impacts of a new highly visible corridor in bighorn sheep habitat and Borrego Springs and Ranchita areas.

Table D2. Alternatives Eliminated from EIR/EIS Consideration After Detailed Screening

Alternative	Project Objectives, Purpose, and Need	Potential Feasibility	Avoid/Reduce Environmental Effects?	Conclusions
SDG&E Borrego Valley Underground Alternative	Meets most project objectives. Additional 230 kV circuits for future phases could be required underground and overhead in SR78/S2 or underground through Borrego Springs, if feasible.	Meets legal and technical criteria with the de-designation Wilderness. Requires a de-designation of Wilderness for a new corridor and a State Park Plan Amendment, thus facing potential regulatory infeasibility.	Similar significant impacts as the Borrego Valley overhead route discussed above.	Not analyzed due to similar significant impacts as the Borrego Valley overhead route discussed above.
SDG&E SR78 Julian Alternative	Meets all project objectives.	Requires a de-designation of Wilderness for a new corridor and a State Park Plan Amendment, thus facing potential regulatory infeasibility. Meets legal criteria with the de-designation of Wilderness. Difficult construction along Banner Grade, but technically feasible.	Creates a new transmission line corridor through Grapevine Mountain Wilderness Area, and would pass by Julian High School, residences, and through the center of the town of Julian.	Not analyzed due to regulatory hurdles with crossing Wilderness, difficult construction on Banner Grade, and greater impacts of a new highly visible corridor through Julian.
SDG&E Overhead ABDSP SR78 to S2 Central Alternative	Meets all project objectives.	Requires a de-designation of Wilderness for a new corridor and a State Park Plan Amendment, thus facing potential regulatory infeasibility. Meets technical and legal criteria with the de-designation of Wilderness.	Establishes a new transmission line corridor through designated Wilderness, and causes visual impacts along heavily traveled SR78 and S2 through the scenic and currently undeveloped San Felipe Valley	Not analyzed due to regulatory hurdles with crossing Wilderness, and greater impacts of a new highly visible corridor along SR78 and S2.
Overhead 230 kV ABDSP Alternative	Meets all project objectives, but future 230 kV expansion would require additional disturbance within ABDSP.	Meets legal, regulatory, and technical feasibility criteria. Would also require a de-designation of Wilderness Area and a State Park Plan Amendment.	Impacts of the proposed route would not be noticeably reduced, and because future 230 kV expansion would require additional disturbance within ABDSP. Towers would be shorter so span lengths would also be shorter, which would result in a greater number of towers and would negate ground-disturbance advantages of the smaller 230 kV-tower footprints	Not analyzed because impacts of the proposed route would not be noticeably reduced, and because future 230 kV expansion would require additional disturbance within ABDSP.
HVDC Light Underground Alternative	Meets most project objectives. Cost would diminish the economic performance of the line and reduce the likelihood of achieving the economic objectives to reduce energy costs in the San Diego region.	Meets legal, regulatory, and technical feasibility criteria, but higher costs of this alternative make it infeasible using CEQA guidelines	Converter stations would require additional land disturbance creating greater land use and visual resources impacts. There would be less flexibility for interconnections with other existing or proposed AC lines in the CAISO system, which could lead to construction of additional AC facilities.	Not analyzed due to economic infeasibility and impacts of converter stations and connection to the AC grid.

Table D2. Alternatives Eliminated from EIR/EIS Consideration After Detailed Screening

Alternative	Project Objectives, Purpose, and Need	Potential Feasibility	Avoid/Reduce Environmental Effects?	Conclusions
CENTRAL LINK ALTERNATIVES				
SDG&E Central East Substation to SR79 Alternative	Meets all project objectives.	Meets legal, regulatory, and technical feasibility criteria.	Does not reduce impacts of the Proposed Project and Vista Irrigation District, the landowner, prefers the proposed route because of its limited visibility and it avoids disturbance to existing land uses.	Not analyzed because it does not reduce impacts of the Proposed Project and VID, the landowner, prefers proposed route.
SDG&E Warner S2 to SR79 Alternative	Meets all project objectives.	Meets legal, regulatory, and technical feasibility criteria.	Much greater visual impacts than proposed route in the valley area.	Not analyzed due to much greater visual impacts than proposed route.
SDG&E San Dieguito Park Alternative	Meets all project objectives.	Meets legal, regulatory, and technical feasibility criteria. Would cross two parcels of the Santa Ysabel Reservation, which could create legal feasibility issues.	Creates a new corridor on pristine County Park land that is highly visible to recreationists and crosses Santa Ysabel Open Space Preserve.	Not analyzed due to greater biological and recreation impacts and legal feasibility issues on Santa Ysabel Reservation.
Volcan Mountain Alternative	Meets all project objectives.	Meets legal, regulatory, and technical feasibility criteria.	Transfers impacts from ABDSP to an equally sensitive area, creates a new corridor across Volcan Mountain and Santa Ysabel Open Space Preserves, areas rich in biological and cultural resources and important watershed areas. Creates visual impacts from SR78 and SR79, from the preserves which have many hiking trails, and from around Julian.	Not analyzed because transfers impacts from ABDSP to an equally sensitive area, and because it creates a new corridor across two preserves.
INLAND VALLEY LINK ALTERNATIVES				
SDG&E Segment 10/Inland Valley SR78 Alternative	Meets all project objectives.	Meets legal, regulatory, and technical feasibility criteria.	Establishes a new transmission line corridor along SR78, which is heavily traveled and a main route into Ramona, longer route, and passes a greater number of residences, through agricultural land, and through designated critical habitat.	Not analyzed due to creation of a new transmission corridor, longer route, and greater land use and biological resources impacts.
SDG&E Creelman Alternative	Meets all project objectives.	Meets legal, regulatory, and technical feasibility criteria.	Transfers impacts without reducing any impacts of the Proposed Project due to its longer length, greater ground disturbance, and location in more sensitive habitat.	Not analyzed due to longer length, greater ground disturbance, and location in more sensitive habitat.

Table D2. Alternatives Eliminated from EIR/EIS Consideration After Detailed Screening

Alternative	Project Objectives, Purpose, and Need	Potential Feasibility	Avoid/Reduce Environmental Effects?	Conclusions
West of San Vicente Road Underground Alternative	Meets all project objectives.	Meets legal, regulatory, and technical feasibility criteria. Would be technically challenging to install underground line on steep slopes.	Requires underground construction through the Barnett Ranch Open Space Preserve, resulting in much greater ground disturbance and effects to important biological resources. Also eliminated due to topography and construction/erosion impacts of installing underground line on steep slopes.	Not analyzed due to greater disturbance, effects to biological resources, and topography and construction/ erosion impacts of installing underground line on steep slopes.
COASTAL LINK ALTERNATIVES				
SDG&E Northwest Corner Alternative	Meets all project objectives.	Meets technical and legal criteria. Could be regulatory infeasible due to opposition by the San Diego County, CDFG & USFWS because inconsistent with County MHCP/MHPA.	Greater biological impacts to vernal pools.	Not analyzed due to regulatory feasibility conflicts with existing vernal pool complex and other biological resources impacts.
SDG&E Mannix-Dormouse Road Alternative	Meets all project objectives.	Meets technical and legal criteria. Traverses designated Critical Habitat and thus requires coordination with USFWS & CDFG, which could delay project timeline but it would likely be regulatory feasible.	Greater impacts to designated critical habitat and special status species, and conflicts with existing residential land uses.	Not analyzed due to impacts to vernal pools and conflicts with existing residential land uses.
SDG&E Segment 12 Poway Substation to Peñasquitos Substation Alternative	Meets all project objectives.	Meets technical, legal, and regulatory criteria. Requires acquisition of new ROW, which could lengthen the Project timeline.	Creates new ROW/transmission corridor in undeveloped areas, would create greater visual impacts with an all-overhead line, land use impact in Poway, and would not offer any real environmental benefits or advantages.	Not analyzed due to acquisition of new ROW in undeveloped areas and greater land use incompatibilities particularly in developed areas of Poway.
SDG&E Segment 13 Scripps Ranch Alternative	Meets all project objectives.	Meets technical feasibility criteria. Not regulatory or legally feasible due to MCAS Miramar statement that alternatives on the base could not be permitted in order to preserve its National Defense Mission capabilities without degradation	Increases residential land use conflicts and visual impacts, shifts environmental impacts to different area.	Not analyzed due to residential land use conflicts, visual impacts, regulatory and legal infeasibility on MCAS Miramar.

Table D2. Alternatives Eliminated from EIR/EIS Consideration After Detailed Screening

Alternative	Project Objectives, Purpose, and Need	Potential Feasibility	Avoid/Reduce Environmental Effects?	Conclusions
SDG&E Segment 14 Poway Alternative	Meets all project objectives.	Meets technical, legal, and regulatory feasibility criteria.	Creates new ROW on undisturbed lands with sensitive biological resources, critical habitat and special status species, impacts County of San Diego's Blue Sky Canyon Ecological Preserve, and it does not appear to offer any environmental benefits.	Not analyzed due to increased impacts to biological resources and natural resources within Preserve lands.
SDG&E Segment 15 Warren Canyon Alternative	Meets all project objectives.	Meets technical, legal, and regulatory feasibility criteria.	Increased biological resources impacts due to the presence of critical habitat in the general vicinity of the alignment and it could impact County of San Diego and local open space and parks. Because the route would shift impacts and does not appear to offer any clear environmental benefit relative to the Proposed Project.	Not analyzed due to potential effects on the County of San Diego and local open space and parks, and potential for increased biological resources impacts.
SDG&E Segment 16 North of Peñasquitos Alternative	Meets all project objectives.	Meets technical, legal, and regulatory feasibility criteria. Challenging construction in places due to steep topography.	Creates greater land use impacts in populated areas and would be substantially longer resulting in increased ground disturbance and thus overall greater impacts to all issues areas.	Not analyzed because would not substantially reduce impacts and would be much longer in populated areas.
Pomerado Road to Miramar Area North– Combination Underground/ Overhead Alternative	Meets all project objectives.	Meets legal and regulatory feasibility criteria. May be technical feasibility issues with existing sand and gravel quarry.	Would impact and could disrupt an existing sand and gravel quarry operating in Carroll Canyon	Not analyzed because of conflicts with an existing sand and gravel quarry operating in Carroll Canyon.
MCAS Miramar– All Underground and Underground/ Overhead Alternative	Meets all project objectives.	Meets technical feasibility criteria. Not regulatory or legally feasible due to MCAS Miramar statement that alternatives on the base could not be permitted in order to preserve its National Defense Mission capabilities without degradation	Meets environmental criteria. Could result in land use incompatibilities and impacts on biological resources and traffic (especially during underground construction) with construction on MCAS Miramar.	Not analyzed due to regulatory infeasibility of siting alternative transmission line on MCAS Miramar.

Table D2. Alternatives Eliminated from EIR/EIS Consideration After Detailed Screening

Alternative	Project Objectives, Purpose, and Need	Potential Feasibility	Avoid/Reduce Environmental Effects?	Conclusions
MCAS Miramar–Combination Underground/ Overhead Alternative	Meets all project objectives.	Meets technical feasibility criteria. Not regulatory or legally feasible due to MCAS Miramar statement that alternatives on the base could not be permitted in order to preserve its National Defense Mission capabilities without degradation	Meets environmental criteria. Could result in land use incompatibilities and impacts on biological resources and traffic (especially during underground construction) with construction on MCAS Miramar.	Not analyzed due to regulatory infeasibility of siting alternative transmission line on MCAS Miramar.
Rancho Peñasquitos Boulevard Bike Path Alternative	Meets all project objectives.	Meets technical and legal criteria. However the portion of this alternative within SR56 ROW would not be regulatory feasible to permit due to Caltrans regulations.	Meets environmental criteria by moving line farther from residences.	Not analyzed because once the city transfers the land to Caltrans, Caltrans does not allow longitudinal encroachments within its restricted highways.
Carmel Valley Road Alternative	Meets all project objectives.	Meets technical, legal, and regulatory feasibility criteria.	Longer than the Proposed Project segment and would merely transfer potential environmental impacts from one community to another without any net benefit.	Not analyzed due to longer length and would just shift impacts to another residential area.
State Route 56 Alternative	Meets all project objectives.	Meets technical and legal criteria. Not regulatory feasible to permit/ construct within SR56 ROW due to Caltrans regulations.	Meets environmental criteria but would have greater traffic impacts on heavily traveled SR56.	Not analyzed because not regulatory feasible due to Caltrans regulations.
MP 146.5 to Peñasquitos Substation Underground and Consolidation Alternative	Meets all project objectives.	Meets regulatory and technical feasibility criteria. Not legally feasible because it would require burial of existing transmission lines not affected by the Project.	Causes additional ground disturbance with undergrounding and consolidation of existing lines to biological and cultural resources, soil, and water quality. Steep topography of existing ROW would result in substantial erosion.	Not analyzed because legally infeasible with burial of existing transmission lines not affected by the Project.
Scripps-Poway Parkway to State Route 56 Alternative	Meets all project objectives.	Meets technical and legal criteria. Not regulatory feasible to permit/ construct within SR56 ROW due to Caltrans regulations.	Meets environmental criteria but would have greater traffic impacts on heavily traveled SR56.	Not analyzed because not regulatory feasible due to Caltrans regulations.

Table D2. Alternatives Eliminated from EIR/EIS Consideration After Detailed Screening

Alternative	Project Objectives, Purpose, and Need	Potential Feasibility	Avoid/Reduce Environmental Effects?	Conclusions
Scripps-Poway Parkway – Pomerado Road Underground Alternative	Meets all project objectives.	Meets technical, legal, and regulatory feasibility criteria.	Requires new ROW close to an existing ROW, causes greater short-term traffic impacts and increases visual impacts from the additional transition structures adjacent to residences. Provides questionable aesthetic benefit because existing lines would remain in place, partially offsetting perceived visual benefit from burial of new line.	Not analyzed because greater environmental impacts.
SUBSTATION ALTERNATIVES TO CENTRAL EAST SUBSTATION				
SDG&E Central South Substation Alternative	Meets all project objectives.	Meets technical, legal, and regulatory feasibility criteria.	Requires 20-mile-longer 500 kV line with taller towers that would be required through the Santa Ysabel Valley.	Not analyzed due to the 20-mile-longer 500 kV line that would be required through the Santa Ysabel Valley.
Mataguay Substation Alternative	Meets all project objectives.	Meets technical, legal, and regulatory feasibility criteria.	Creates unmitigable impacts to Stephens' kangaroo rat, visual and recreation impacts to Boy Scout camp and Highway S2. VID, the landowner, prefers the Top of the World site, which has been retained.	Not analyzed due to greater visual, recreation, and biological resources impacts.
SDG&E Warner West Substation Alternative	Meets all project objectives.	Meets technical, legal, and regulatory feasibility criteria.	Longer route, crosses numerous private parcels, high density of historical and archaeological sites, and agricultural and residential land-use constraints.	Not analyzed due to longer length and greater environmental impacts.
Warner Substation Alternative	Meets all project objectives.	Meets technical, legal, and regulatory feasibility criteria.	Located on VID preserve land in flat open space and so would be highly visible to travelers on SR79 and for a far distance across the valley. Longer route with increased ground disturbance.	Not analyzed due to greater environmental impacts and higher visibility.
SOUTHWEST POWERLINK ALTERNATIVES				
West of Forest Alternative	Meets most project objectives. Would not fully meet SDG&E's reliability objective due to collocation with SWPL for 52 miles.	Meets technical, legal, and regulatory feasibility criteria. Would require a Forest Plan Amendment.	Meets environmental criteria. Avoids ABDSP and 28 miles shorter, but would cross through more private land and rugged open space.	Not analyzed due to moderate wildfire risk that could result in double line outage. The 12-mile segment north of I-8 has been retained as part of I-8 Alternative.

Table D2. Alternatives Eliminated from EIR/EIS Consideration After Detailed Screening

Alternative	Project Objectives, Purpose, and Need	Potential Feasibility	Avoid/Reduce Environmental Effects?	Conclusions
SDG&E Route B Alternative	Meets most project objectives. Would meet SDG&E's reliability objective due to collocation with SWPL for only 39 miles in lower fire risk area.	Meets legal criteria. Would require a Forest Plan Amendment and State Park Plan Amendment, which could present regulatory feasibility issues. Likely technical infeasibility of constructing a 500 kV line through central historic Julian,	Passes by area of high scenic value (Highway S1 is a National Scenic Byway), residences around Julian, and through a portion ABDSP.	Not analyzed due to impacts along S1, residences around Julian, likely infeasibility of constructing a 500 kV line through central Julian, and it would pass through ABDSP.
SDG&E Route Segment C Alternative	Meets most project objectives. Would not fully meet SDG&E's reliability objective due to collocation with SWPL for 60 miles.	Meets technical, legal, and regulatory feasibility criteria. Would require a Forest Plan Amendment.	Avoids ABDSP, but passes adjacent to many residential receptors in Campo, Pine Valley, and Descanso.	Not analyzed due to large number of residences along the corridor.
SDG&E Route Segment BC Alternative	Meets most project objectives. Would meet SDG&E's reliability objective due to collocation with SWPL for only 35 or 39 miles in lower fire risk area.	Meets technical and regulatory feasibility criteria. Would require a Forest Plan Amendment. Legal feasibility hinges on approval by Campo Indian Tribe for an easement on the Reservation.	Passes through areas with residential development, around Old Highway 80, such as the communities of Boulevard, Manzanita, Live Oak Springs, and would be within the Campo Indian Reservation, in the vicinity of the Golden Acorn Casino, for about 1.5 miles.	Not analyzed due to large number of residences along the corridor.
West of Forest – Otay Segment Alternative	Meets most project objectives. Would not meet SDG&E's reliability objective due to collocation with SWPL 73 miles within "Very High Fire Risk" areas.	Meets technical, legal, and regulatory feasibility criteria.	Pass through more residential areas along the SWPL (in the vicinity of Highway 94 and Campo Reservation), sensitive biological resources near Otay Mesa, and through an area of high fire risk.	Not analyzed due to impacts to residential areas and require a longer collocation of 500 kV lines within Very High Fire Risk" areas, reducing the reliability value of the new line.
FULL PROJECT ROUTE AND SYSTEM ALTERNATIVES				
Mexico Light 230 kV Alternative	Objectives not fully met, because an incremental increase of ~140 MW provides only a short-term solution to SDG&E's need for additional import capacity. Is considered as part of No Project/No Action Alternative or in combination with other alternatives.	Meets technical feasibility criteria. Legal and regulatory feasibility is uncertain due to the need to implement procedures and reach operating agreements with the CFE.	Meets environmental criteria. Defers need for the Proposed Project and thus defers all impacts.	Could provide a short-term solution to SDG&E's need for additional import capacity, but would not fully meet project objectives. It is considered as a component of the No Project/No Action Alternative (see Section C.8).

Table D2. Alternatives Eliminated from EIR/EIS Consideration After Detailed Screening

Alternative	Project Objectives, Purpose, and Need	Potential Feasibility	Avoid/Reduce Environmental Effects?	Conclusions
Path 44 Upgrade Alternative	Objectives not fully met, because an incremental increase of ~300 MW provides only a short-term solution to SDG&E's need for additional import capacity. Is considered as part of No Project/No Action Alternative or in combination with other alternatives.	Meets legal and technical feasibility criteria. Requires transmission upgrades in SCE territory, which could delay project timeline.	Meets environmental criteria. Defers need for the Proposed Project and thus defers all impacts.	Could provide a short-term solution to SDG&E's need for additional import capacity, but would not fully meet project objectives. It is considered as a component of the No Project/Action Alternative (see Section C.8).
SDG&E Southwest Powerlink (SWPL) No. 2 Alternatives	Would not meet reliability objective due to collocation with SWPL. Would not meet objective to reduce energy costs because of congestion problems around the Miguel Substation and north of Miguel, which would require prohibitively costly upgrades to resolve.	Meets legal and regulatory criteria. Technical feasibility issues because would be extremely challenging and expensive to construct additional lines out of the Miguel Substation due to the need to re-design the existing lines within this heavily used and constrained corridor.	If feasible, these new lines would create potentially significant impacts on the many developed areas adjacent to the Miguel-Mission transmission corridor.	Not analyzed because would not meet project objective due to reliability concerns and would be challenging to construct.
Convert SWPL to DC Alternative	Would provide transmission capability for renewable energy. Would escalate project and congestion costs to a point where second objective (reduce congestion costs) would not likely be achieved. Would also not enhance system reliability.	Assuming space exists around the Miguel Substation to accommodate the converter station and the transmission upgrades, this alternative would be technically, legally, and regulatory feasible.	DC converter stations would cause short- and long-term impacts at Imperial Valley and Miguel Substations, including new visual and possibly biological and cultural impacts adjacent to the two substations. Also, it would require construction of more or upgraded transmission lines north of Miguel Substation through densely populated areas.	Not analyzed because would not meet two major project objectives due to reliability concerns with a loss of an expanded SWPL and would result in the exacerbation of congestion problems and costs around Miguel Substation.
Upgrade Series Capacitors along SWPL	Provides capability for only a marginal increase in capacity on existing SWPL. Utilizes an existing circuit, so there would be no increase to system reliability or import capability under G-1/N-1 conditions. Additional capacity would be delivered to Miguel Substation thereby exacerbating existing congestion problems.	Meets technical, legal, and regulatory feasibility criteria.	Most major impacts of the Proposed Project would be avoided because no new transmission facilities would be built in ABDSP or in the vicinity of Santa Ysabel, Ramona, or Sycamore Canyon. However, would cause construction-phase impacts of installing series capacitors along SWPL. Would likely require construction-phase and permanent impacts of more transmission lines north of Miguel Substation through densely populated areas where corridors are already at capacity.	Not analyzed because would not meet two major project objectives due to reliability concerns with a loss of an expanded SWPL and congestion problems and costs around Miguel Substation. Would not improve SDG&E's import capability during N-1 conditions.

Table D2. Alternatives Eliminated from EIR/EIS Consideration After Detailed Screening

Alternative	Project Objectives, Purpose, and Need	Potential Feasibility	Avoid/Reduce Environmental Effects?	Conclusions
SDG&E 230 kV CFE Alternative	Technical studies would be needed to determine whether it could achieve the objective of maintaining reliability.	Although technically feasible, the CFE 230 kV system is already interconnected with SDG&E's & under CFE control. Involves uncertain timing and potentially insurmountable regulatory and legal feasibility issues. CFE is not subject to the FERC, so there would be no overriding authority to direct the outcome of negotiations.	Meets environmental criteria. Eliminates all impacts of the Proposed Project replacing it with construction of a shorter 230 kV lines.	Not analyzed due to uncertainty of the timing and outcome of the required regulatory and legal negotiations. CFE is not subject to the FERC so there would be no overriding authority to direct the outcome.
Serrano/Valley-Central 500 kV Alternative	Meets all project objectives.	Meets technical, legal, and regulatory feasibility criteria. Would require a Forest Plan Amendment.	It would create a new corridor through highly sensitive areas of the CNF, resulting in substantial ground disturbance and visual impacts.	Not analyzed due to environmental impacts as severe as those of the Proposed Project
Valley-Rainbow 500 kV Alternatives [Includes Devers-Pala, Devers-Ramona, Coachella-Ramona-Miguel, Devers-Miguel via Northern San Diego County, and Devers-Miguel via Imperial County]	Meets all project objectives.	Meets technical criteria. Legal feasibility hinges on approval by Pechanga Tribe to cross reservation lands. Regulatory feasibility issues with permitting a crossing of Roadless Area, national monuments, Wilderness Study Area, and ABDSP.	Creates potential land use impacts to national monuments, Roadless Areas on national forest lands, Indian reservations, the Beauty Mountain Wilderness Study Area, and ABDSP. Also creates land use impact in the vicinity of Temecula.	Not analyzed because no corridors are available that would reduce impacts in comparison to those of the Proposed Project.

Table D2. Alternatives Eliminated from EIR/EIS Consideration After Detailed Screening

Alternative	Project Objectives, Purpose, and Need	Potential Feasibility	Avoid/Reduce Environmental Effects?	Conclusions
V-R Serrano-Talega Alternative	Would not provide direct access to renewable generation in Imperial Valley. Meets most project objectives.	Meets legal and regulatory criteria. The feasibility of using this route is highly questionable because surrounding urban development constrains the corridor with little or no space for addition of new 500 kV towers at reasonable cost.	Passes through highly developed urban area.	Not analyzed due to technical feasibility issues and land use impacts of urban area.
Valley-Central 500 kV Alternative	Would not provide direct access to renewable generation in Imperial Valley. Meets most project objectives.	Meets technical and legal criteria. Regulatory feasibility is uncertain.	Due to potential land use impacts to the Southwest Riverside County Multi-Species Reserve and communities of Winchester, Hemet, and Temecula.	Not analyzed due to significant land use impacts.
SDG&E 500 kV Full Loop or Full Loop North Alternatives	Meets all project objectives.	Meets technical, legal, and regulatory criteria. However, substantial regulatory hurdles would need to be overcome to permit the route.	Additional length would add to the impacts of the Proposed Project due to the additional construction and ROW required.	Not analyzed due to the additional construction and ROW required.
Northern Service Territory Upgrades Alternatives [Includes SONGS Light and SONGS Heavy 230 kV Alternatives]	Would not provide direct access to renewable generation in Imperial Valley. Meets most project objectives.	The feasibility of using the Serrano-Talega route is highly questionable because surrounding urban development constrains the ROW. The existing Serrano-Talega corridor has little or no space for addition of new 500 kV towers at reasonable cost.	Passes through highly developed urban area.	Not analyzed due to technical feasibility issues and land use impacts of urban area.
SDG&E Imperial Valley-Central 230 kV ("Four 230 kV Circuits") Alternative	Meets all project objectives.	Meets technical, legal, and regulatory criteria.	Requires additional towers so impacts would be more severe than those of the Proposed Project, and would outweigh the environmental advantages of placing portions of the Imperial Valley-Central segment underground.	Not analyzed due to greater environmental impacts from additional towers.

Table D2. Alternatives Eliminated from EIR/EIS Consideration After Detailed Screening

Alternative	Project Objectives, Purpose, and Need	Potential Feasibility	Avoid/Reduce Environmental Effects?	Conclusions
HTLS Composite Conductor Alternative	Meets project objectives, except those relating to economics.	Meets legal and regulatory criteria. To date there are no examples of 500 kV HTLS conductor in use or being installed so technical feasibility is uncertain. The higher costs of this alternative make it prohibitive.	Provides slightly greater span lengths and a marginal reduction in the number of towers required. The same ROW width would be required.	Not analyzed due to technical uncertainties and higher costs.
All Underground 230 kV or 500 kV Alternative	Meets project objectives, except those relating to economics.	Meets legal and regulatory criteria. Placing 500 kV lines underground is generally not technically feasible except for very short segments. Would involve higher construction and operating costs.	Undergrounding all of the multiple 230 kV circuits would involve much greater ground-disturbing impacts.	Not analyzed due to much greater ground disturbance impacts and technical feasibility concerns associated with undergrounding long segments of 500 kV line.
Green Path Coordinated Projects Alternative	Would not meet any of the objectives. Green Path Projects are being developed to export power from the IID service area to points on the periphery of its service area including San Diego and LADWP system. Could provide increased access to Imperial Valley renewable resources if it were combined with an interconnection from SDG&E's territory to SCE or IID, such as the LEAPS Project or the Proposed Project.	Meets technical, legal, and regulatory feasibility criteria. IID/ Citizens and LADWP are actively pursuing without CPUC involvement. Substantial regulatory hurdles would need to be overcome to permit the route; it would pass through protected BLM lands and near residential communities.	No new transmission facilities would be built in ABDSP or in the vicinity of Santa Ysabel, Ramona, or Sycamore Canyon, and Proposed Project would be avoided. However, new transmission facilities would be constructed in the Imperial Valley, Riverside County, and San Bernardino County. This would introduce construction-phase impacts and the permanent effects of new infrastructure to these areas.	Not analyzed because no facilities would be provided to expand the deliverability of this power to load centers in San Diego County. Only in combination with an interconnection from SDG&E territory to SCE or IID might this alternative marginally achieve any of the three basic objectives.

Table D2. Alternatives Eliminated from EIR/EIS Consideration After Detailed Screening

Alternative	Project Objectives, Purpose, and Need	Potential Feasibility	Avoid/Reduce Environmental Effects?	Conclusions
NON-WIRES ALTERNATIVES				
Non-Renewable Distributed Generation (DG) Alternative	Improves in-area reliability, because provides a valuable local resource. However, would not alone achieve the reliability goals set for SRPL. Assumed to meet the "reduced energy cost" criterion. While some DG may be renewable, DG does not directly promote renewable energy or directly contribute to SDG&E meeting its renewable portfolio standard obligations.	DG would be a feasible only for partially meeting load growth. DG is limited relative to the need for in-area generation to meet local area reliability tests. Since SDREO administrates the SGIP, SDG&E has limited ability to increase DG through programmatic means.	Environmental impacts of the Proposed Project would not occur under the Non-Renewable Distributed Generation Alternative. Potential new impacts would depend on type of DG that would be used. Conventional fossil-fueled DG facilities would create air quality and noise impacts in the vicinity of each generating facility.	Not analyzed because DG deployment could not provide sufficient in-area generation alone to satisfy the reliability objective. However, it would be feasible to develop ~ 35 MW of additional, reliable DG, this alternative could be part of other non-wires alternatives.
Energy Efficiency Alternative	Contributes to maintaining or improving reliability. Would be cost-effective relative to SDG&E purchasing or developing supply-side resources to meet the displaced load. However, cannot directly promote renewable energy or directly contribute to SDG&E meeting its renewable portfolio standard obligations, and therefore it fails to meet the renewable energy objective.	Achieving incremental savings beyond the baseline level is speculative at best. Therefore, energy efficiency alone is not a technically feasible alternative to the Proposed Project to meet load growth.	Meets environmental criteria. Would reduce energy consumption, and therefore reduce the need for power generation and new transmission lines. All effects of the Proposed Project would be avoided.	Not analyzed because additional energy efficiency beyond the baseline condition is speculative and it could not provide the capacity that would be deliverable by SRPL. Fails to meet the renewable energy objective.
Demand Response (DR) Alternative	Would not meet reliability objective because CAISO policy does not include DR in local reliability assessments. By curtailing utility purchasing during the highest-cost hours, DR would meet the objective of reducing energy costs. Would not contribute to promoting renewable energy.	The level of reductions associated with DR and deployment of AMI involve speculation. The residential class represents half of projected demand reductions from AMI deployment, but performance is highly dependent upon program participation. There are potential concerns regarding the feasibility of DR.	Meets environmental criteria. This alternative would reduce peak demand, and therefore reduce the need for power generation and new transmission lines. All effects of the Proposed Project would be avoided.	Not analyzed because speculative and could not replace the capacity associated with SRPL. Fails to meet the renewable energy objective. However, could be used as part of any feasible alternative that meets the project objectives.

Table D2. Alternatives Eliminated from EIR/EIS Consideration After Detailed Screening

Alternative	Project Objectives, Purpose, and Need	Potential Feasibility	Avoid/Reduce Environmental Effects?	Conclusions
All Solar Alternative	Would contribute to local reliability but would not satisfy the CAISO G-1/N-1 reliability objective through 2020. Would not reduce energy costs before 2017. Meets the renewable energy objective.	Unknown level of incentives would be required to drive unprecedented rapid deployment necessary to meet reliability objective.	Meets environmental criteria. This alternative would provide sufficient generation capacity to defer the need for the Proposed Project and for centralized power generation. All effects of the Proposed Project would be avoided.	Not analyzed because development is infeasible within the short timeframe. The New In-Area Renewable Generation Alternative (Section 4.10.2), however, would partially implement this with other renewable generation components.

VI.2 Alternatives Proposed in Comments on the Draft EIR/EIS

SDG&E's "Enhanced Northern Route." In SDG&E's fourth comment letter on the Draft EIR/EIS (April 11, 2008), it requested that the following alternatives, defined and analyzed in the Draft EIR/EIS, replace the equivalent segments of the Proposed Project route (i.e., between the same mileposts). This new combination of routing alternatives is now SDG&E's preferred route in the north, and is illustrated on Figure 5-2. The components are as follows:

- FTHL Eastern Alternative (between MP-3 and MP-9), to minimize effects on flat-tailed horned lizard critical habitat.
- West Main Canal–Huff Road Modification Alternative (between MP-11 and MP-16), to avoid direct effects on dairy operations.
- Overhead 500 kV ABDSP Within 100-foot ROW Alternative (between MP-62 and MP-84), to avoid direct effects on State-designated Wilderness lands.
- CNF Existing 69 kV Route Alternative (at MP-12), to avoid creation of a new transmission corridor on private land.
- Oak Hollow Road Underground Alternative (at about MP-17) to minimize effects on private land just east of Mount Gower Preserve.

SDG&E's "Enhanced Northern Route" will also incorporate several of the reroutes that SDG&E submitted with its comment letter on the Draft EIR/EIS as components of its "Enhanced Northern Route:"

- N6 Private Land Revision (between MP-20 and MP-21; not addressed in this document because it does not create new impacts)
- Around Narrows Substation (at MP-70; not addressed in this document because it does not create new impacts)
- Overhead 500 kV ABDSP within Existing 100-Foot ROW Alternative Revision (to eliminate direct impacts on wilderness between MP-62 and MP-84; not addressed in this document because it does not create new impacts)
- Northern Grapevine Canyon Reroute (between MP-83.5 and 88; addressed in Section 3.1.2)
- Central East Substation ingress/egress (at MP-91).

Finding/Rationale. The CPUC finds that SDG&E's "Enhanced Northern Route" is less desirable than the adopted Project and rejects this alternative because it would result in greater environmental impacts because it requires construction of an overhead 500 kV transmission line through Anza-Borrego Desert State Park with direct effects on important cultural resources in Grapevine Canyon. Many of the impacts created by this alternative are significant and unmitigable, and are especially severe in terms of visual, biological, recreation and wilderness, and cultural resources.

Reference. RDEIR/SDEIS Section 5.3.1

UCAN's Modified Southern Route Alternative. The Utility Consumers' Action Network (UCAN) submitted a comment letter on the Draft EIR/EIS that describes two variations of the Environmentally Superior Southern Route Alternative. UCAN proposed a new combination of routing alternatives along the southern route. The components include:

- Interstate 8 Alternative for the first 40 miles west from the Imperial Valley Substation.

- BCD Alternative for its entirety, replacing the Interstate Alternative from MP I8-40 to I8-58 (19 miles)
- Interstate 8 Alternative west for 13 miles from MP I8-58 to I8-71
- Modified Route D route south for 2 miles from Modified Route D MP MD-36 to MD-34, with the Modified Route D Substation
- Star Valley Option for 3 miles
- Interstate 8 Alternative from MP I8-74 to Sycamore Canyon Substation
- Coastal Link System Upgrades Alternative to avoid any further new transmission line construction west of Sycamore Canyon Substation.

Finding/Rationale. The CPUC hereby finds that this alternative is infeasible and rejects this alternative for the following reasons; the UCAN alternative segments would both pass nearly entirely through National Forest land in areas that the Forest Service has determined are inconsistent with its Land Use Plan. The Forest Service's comment letter on the Draft EIR/EIS (April 11, 2008) stated that the Interstate 8 Alternative in this segment will not be eligible for consideration of a Special Use Permit.

Reference. RDEIR/SDEIS Section 5.3.3

UCAN's Jacumba to Sycamore Canyon. UCAN's comment letter suggested the following route: a Southern Route alternative that would create the option of phasing construction, with the Jacumba-Sycamore Canyon section built first if increased Mexican generation precedes increased IV renewable generation, as the ISO queue suggests will be the case. This route is essentially a shorter version of the Interstate 8 Alternative identified in the Draft EIR/EIS. It would be the same as the UCAN Modified Southern Route, but it would exclude the 35 miles of new 500 kV line between the new Jacumba Substation and the Imperial Valley Substation.

Finding/Rationale. The CPUC hereby finds that this alternative is infeasible and rejects this alternative for the following reasons; wind generation is intermittent, so wind alone cannot provide improved system reliability; solar power generates more reliably during the afternoon when load is at its peak. Therefore, this variation would not go far enough maintain reliability in the delivery of power to San Diego County (Basic Project Objective No. 1). This alternative would allow interconnection of wind generation in San Diego County and Mexico, but no solar or geothermal development is pending in the southeastern area of the County. Because the alternative would not accommodate or encourage development of geothermal or solar resources in the Imperial Valley, it will not fully meet Basic Project Objective No. 3.

Reference. RDEIR/SDEIS Section 5.3.3

VI.3 No Project Alternative

Under the No Project/No Action Alternative, construction and operation of SRPL would not occur. The objectives of the Project would remain unfulfilled under the No Project/No Action Alternative. This means that additional action by SDG&E or the CPUC would be needed to ensure that SDG&E's transmission system satisfies grid reliability criteria or provide transmission facilities to achieve an import capability of 4,200 MW (all lines in service) and 3,500 MW (non-simultaneous).

The identification of a definite No Project Alternative development scenario is not possible, because specific certain consequences cannot be identified without undue speculation. However, absence of the Project would likely lead SDG&E or other developers to pursue other predictable actions to achieve the objectives of the Project or similar competitive objectives. The events or actions that are reasonably expected to occur in the foreseeable future under the No Project/No Action Alternative would include the following:

- The existing transmission grid and power generating facilities would continue to operate until other major generation or transmission projects could be developed.
- Continued growth in electricity consumption and peak demand within the SDG&E service territory is expected. To serve this growth, additional electricity would need to be generated within San Diego County or imported by existing or modified facilities.
- Certain demand-side or supply-side actions would be expected to occur beyond the levels currently planned by SDG&E. ***Demand-side actions*** include ongoing energy conservation (energy efficiency) or load management (demand response); see Section C.6.2.1. ***Supply-side actions*** include development of new generation, including conventional, renewable, and distributed generation, or other major transmission projects; see Sections C.6.2.2 and C.6.2.3.

Identifying other major transmission facilities or new generation that would be triggered by the No Project/No Action Alternative requires some speculation because successful development of other projects depends on a number of uncontrollable factors (e.g., energy costs, competitive third-party proposals and agreements, and market power). The full menu of potential projects/components that could occur in the absence of the Project is shown Table D3. Not all of these projects would be required to replace the Project. Some of the components of the No Project/No Action Alternative are described in more detail in sections of the EIR/EIS, as stated in the last column of the table.

Table D3. Summary of the No Project/No Action Alternative

Projects	Sponsors	Status	Described in EIR/EIS
Demand-Side Actions – Section C.6.2.1			
Increased solar photovoltaic and distributed generation (DG) deployment	Various	Ongoing	As described in New In-Area Renewable Generation Alternative (Section C.4.10.1)
Supply-Side Actions, Generation – Section C.6.2.2			
New conventional generation	LS Power, ENPEX, NRG, SDG&E, others	Under CEC and CAISO review	As described in the New In-Area All-Source Generation Alternative(Section C.4.10.2): • One new combined cycle power plant • Four new peaker power plants
New renewable generation	None known	Conceptual	As described in the New In-Area Renewable Generation Alternative(Section C.4.10.1): • Wind generation in the Crestwood area • Solar thermal generation in the Borrego Springs area • Biomass/biogas projects in San Diego and Fallbrook
Supply-Side Actions, Transmission – Section C.6.2.3			
Talega-Escondido/Valley Serrano 500 kV Transmission Interconnect	Nevada Hydro Company and Elsinore Valley Municipal Water District	Under CPUC, CAISO and FERC review	LEAPS Project Transmission-Only Alternative (Section C.4.9.2)
Path 44 Upgrades	None known	Conceptual	No Project/No Action only
Mexico Light	None known	Conceptual	No Project/No Action only

Finding/Rationale. The CPUC hereby finds that this alternative is infeasible and rejects this alternative because it will not provide the benefits of the Project, enumerated in Statement of Overriding Considerations set forth in the CPUC's adopted Decision on this project.

VI.4 SDG&E's Proposed Project

SDG&E proposed a new 91 miles, 500 kilovolt (kV) electric transmission line from Imperial Valley Substation (in Imperial County, near the City of El Centro) to a new Central East Substation (in central San Diego County, southwest of the intersection of County Highways S22 and S2) and a new 59 miles 230 kV electric transmission line that includes both overhead and underground segments from the new Central East Substation to SDG&E's existing Peñasquitos Substation (in the City of San Diego).

Finding/Rationale. The CPUC finds that the SDG&E's project (called Proposed Project in the EIR/EIS) is less desirable than the adopted Project and rejects this alternative as infeasible because it will result in greater environmental impacts due to its direct effects on State-Designated Wilderness (Permanent de-designation of Wilderness through the ABDSP and approximately 28 miles of Class I visual impacts in ABDSP and Grapevine Canyon west of the Park's boundary (near rural residences)). The greater length and ground disturbance will result in increased impacts in the areas of biological resources, geology, mineral resources, and soils, air quality, public health and safety, transportation and traffic, and socioeconomics, public services and utilities. SDG&E's project will also impact eight archaeological sites known to contain Native American human remains, more than in the adopted Project. Specific economic, legal, social, technological, and other considerations, including those considerations set forth in the D Sections of the EIR/EIS, make this alternative less desirable than the adopted Project. This rationale is explained in more detail in the CPUC's adopted Decision on this project, to which these findings attached.

Reference. EIR/EIS Section D; Section H

VI.5 Northern Route Alternatives

The following alternatives were analyzed in detail in the D Sections of the EIR/EIS as segment alternatives to the SDG&E's project:

- FTHL Eastern Alternative
- West of Dunaway Alternative
- West Main Canal–Huff Road Modification Alternative
- Partial Underground 230 kV ABDSP SR78 to S2 Alternative
- Overhead 500 kV ABDSP within Existing ROW Alternative
- Santa Ysabel Existing ROW Alternative
- Santa Ysabel Partial Underground Alternative
- Santa Ysabel SR79 All Underground Alternative
- Mesa Grande Alternative
- CNF Existing 69 kV Route Alternative
- Oak Hollow Road Underground Alternative
- San Vicente Road Transition Alternative
- Chuck Wagon Road Alternative
- Pomerado Road to Miramar Area North Alternative
- Los Peñasquitos Canyon Preserve–Mercy Road Alternative
- Black Mountain to Park Village Road Underground Alternative
- Coastal Link System Upgrade Alternative (as distinguished from the Coastal Link System Upgrade Alternative Revision, which is incorporated as part of the approved project)
- Top of the World Substation Alternative

Finding/Rationale. The CPUC finds that the Northern Route Alternatives are less desirable than the adopted Project and rejects these alternatives as infeasible because they will result in greater environmental impacts. All the Northern Route Alternatives will cause direct effects on State-Designated Wilderness (and potentially include permanent de-designation of Wilderness through the ABDSP and approximately 28 miles of Class I visual impacts in ABDSP and Grapevine Canyon west of the Park's boundary (near rural residences)). The greater length and ground disturbance of the Northern Route Alternatives as segments of the SSDG&E project will result in increased impacts in the areas of biological resources, geology, mineral resources, and soils, air quality, public health and safety, transportation and traffic, and socioeconomics, public services and utilities. Specific economic, legal, social, technological, and other considerations, including those considerations set forth in the D Sections of the EIR/EIS, make these alternatives, as part of the SDG&E project, less desirable than the adopted Project.

Reference. EIR/EIS Section H

VI.6, Southern Route Alternative Segments

VI.6.1 Interstate 8 Alternative MP I8-11 through I8-14.1

Between MP I8-11 and I8-14.1, the Interstate 8 (I-8) Alternative will be replaced by the SWPL Archaeological Site (Plaster City) Reroute, as shown in Figure E.1.1-4e of the Final EIR/EIS.

Finding/Rationale. The CPUC hereby finds that the I-8 Alternative between MP I8-11 and I8-14.1 is environmentally inferior to the SWPL Archaeological Site (Plaster City) Reroute and rejects this portion of the alternative as infeasible for the following reason:

- Between MP I8-11 and I8-14.1, I-8 Alternative would cross a large archaeological site near Plaster City in Imperial County, discovered after circulation of the Draft EIR/EIS. The SWPL Archaeological Site Reroute avoids this site and will reduce cultural resources impacts, (Impact C-1: Construction of the Project would cause an adverse change to known historic properties), although, the impact would remain significant and mitigable (Class II) along this segment. (See Discussion of Impact C-1 in Section III.2.6 above.) Impacts in all other resource areas would be the same as for the original Interstate 8 Alternative between MP I8-11 and I8-14.1.

Reference. EIR/EIS, Section E.1

VI.6.2 Interstate 8 Alternative MP I8-35.2 through I8-35.3

Between MP I8-35.2 and I8-35.3, the Interstate 8 Alternative will be replaced by the Jacumba SWPL Breakaway Point Reroute, as shown in Figure 3-6 of the RDEIR/SDEIS.

Finding/Rationale. The CPUC hereby finds that the I-8 Alternative between MP I8-35.2 and I8-35.3 is environmentally inferior to the Jacumba SWPL Breakaway Point Reroute and rejects this portion of the alternative as infeasible for the following reason:

- Between MP I8-35.2 and I8-35.3, the Interstate 8 Alternative would require a large angle structure. The Jacumba SWPL Breakaway Point Reroute would avoid the need for this structure by spanning directly between two smaller angle structures without impacting additional parcels. Specifically, at MP 35.2 the reroute would diverge from the alternative and head northwest for 1,700 feet. This would shorten the route by cutting across a "V" in the I-8 Alternative's original alignment.

Reference. EIR/EIS, Section E.1

VI.6.3 Interstate 8 Alternative MP I8-39.5 through I8-73.6

The Interstate- 8 (I-8) Alternative MP I8-39.5 through I8-73.6 would be located along the Interstate 8 freeway. The I-8 Alternative would enter the Campo Indian Reservation at MP I8-43.8, which occupies 15,336 acres both north and south of the I-8 and would enter the La Posta Reservation at MP I8-48.9. Just west of the La Posta Reservation, the line would enter the Cleveland National Forest. In this area, the route would pass immediately adjacent to and northeast of the Pine Creek Wilderness Area. The route would then cross to the north side of I-8 at a point just east of Pine Valley. The route would continue northwest, and into the I-8 Alternative Substation at MP I8-65, then continuing west for approximately 6 miles then transition underground at MP I8-72.

Finding/Rationale. The CPUC hereby finds that this alternative is infeasible and rejects this alternative for the following reasons:

- Between MP I8-39.5 to I8-51, the I-8 Alternative has been replaced by the BCD Alternative and the BCD Alternative Revision with the BCD South Option Revision. In the Comment Set A0006 on the Draft EIR/EIS, the Campo Kumeyaay Nation stated that it opposes the I-8 Alternative through the Campo Reservation because of its "adverse direct financial impact on present and proposed tourism based businesses near the freeway." As a sovereign nation, the Campo has the authority to prohibit the transmission line across its land, and neither SDG&E nor the CPUC or BLM have the power to condemn the easements that will be necessary to cross this land. Given the Campo Kumeyaay Nation's stated opposition to this route, it is no longer considered a potentially feasible alternative. The BCD Alternative will also avoid La Posta Reservation lands. Additionally, the BCD Alternative Revision and the BCD South Option Revision will minimize impacts to Forest Service lands in the Cleveland National Forest (CNF) and adjacent properties. With the BCD Alternative Revision, the route no longer crosses a Back Country Non-Motorized (BCNM) land use zone in the CNF. A mitigation reroute, defined as Mitigation Measure WR-2a, will result in further revision of the route to minimize effects on private land, while still being consistent with Forest Service land use zones. While we recognize that the BCD Alternative and the BCD Alternative Revision with the BCD South Option Revision will have greater environmental impacts in a number of resources areas (as described in Section H.4.2 of the EIR/EIS), we agree with the conclusion in the Final EIR/EIS that these routes are environmentally superior overall to the I-8 Alternative between MP I8-39.5 to I8-51.
- Between MP I8-51 to I8-73.6, the I-8 Alternative has been replaced by the BCD South Option Revision and the Modified Route D (MRD) Alternative. The MRD Alternative would avoid the more restrictive Forest land use zone designations (Back Country and Back Country Non-Motorized Land Use Zones), which are inconsistent with the presence of a transmission line. Additionally, the Modified Route D Alternative is located farther from the I-8 Freeway, so it is preferred from a fire and fuels management perspective over the Interstate 8 Alternative. The I-8 corridor has a high rate of ignitions and steep terrain, and presence of a transmission line near the freeway would create a significant obstacle to firefighting in a critical tactical firefighting area and during the important initial stage of a fire.
- Within the boundaries of the Modified Route D Alternative, we find that a number of route revisions are environmentally superior to the portions of the Modified Route D Alternative that they replace. Specifically, the Cameron Reroute, which would reduce impacts to private properties and to avoid a CNF Back Country Non-Motorized land use zone and the Western Modified Route D Alternative Revisions, which would minimize impacts to CNF land and adjacent properties.

Reference. REIR/REIS, Section 3; EIR/EIS, Section H

VI.6.4 Pacific Coast Trail (PCT) Options and Star Valley Option Revision

Star Valley Option Revision. The Star Valley Option Revision is a slight variation on the Star Valley Option, which is a 3.2-mile option that would replace the last 1.5 miles of the Modified Route D Alternative, exiting the Modified Route D Alternative Substation to the west-northwest rather than to the north. This option would be an overhead double-circuit 230 kV transmission line, heading west and northwest for 2.2 miles, then north for approximately 0.3 miles to meet Star Valley Road, 0.7 miles east of I-8 Exit 33 for Willows Road. On the southwest side of the bend in Star Valley Road, the route would transition underground and continue north to Alpine Boulevard, joining the Interstate 8 Alternative at MP I8-73.6. The revision to this option reduces the visual impacts of the overhead portion of the route and diverges further from residences on Star Valley Road.

The original purpose of the Star Valley Option and Star Valley Option Revision was avoidance of a cultural site previously identified as being within Alpine Boulevard. However, further research into the site descriptions and boundaries of the cultural site shows that the site does not extend south of Interstate 8, and is therefore highly unlikely to be affected by the Interstate 8 underground segment through Alpine Boulevard. (See Response to Comment Set F0008 (Viejas Tribe) in the Final EIR/EIS.) Therefore, the Final EIR/EIS concluded that the original Modified Route D Alternative, with the 230 kV transmission line continuing north from the Modified Route D Substation, then transitioning to underground at the east end of Alpine Boulevard, is environmentally superior to the Star Valley Option Revision, which would have significant visual impacts.

Finding/Rationale. The CPUC hereby finds that the Star Valley Option Revision is environmentally inferior to the Modified Route D Alternative, with the 230 kV transmission line continuing north from the Modified Route D Substation, then transitioning to underground at the east end of Alpine Boulevard. Accordingly, we approve and authorize SDG&E to construct the Modified Route D Alternative, with the 230 kV transmission line continuing north from the Modified Route D Substation, then transitioning to underground at the east end of Alpine Boulevard. We also find that ongoing consultation between BLM and the Viejas Band of Kumeyaay Indians, pursuant to Section 106 of the National Historic Preservation Act, may result in the accumulation of evidence substantial enough to support a finding that the Modified Route D Alternative, with the 230 kV transmission line continuing north from the Modified Route D Substation, then transitioning to underground at the east end of Alpine Boulevard, is infeasible for specific economic, legal, social, technological, or other considerations, consistent with Public Resources Code §21081 and CEQA Guidelines §15091. If such evidence is present, the Star Valley Option Revision (MP SV0 to SV-3) may be included as part of the Project.

Reference. EIR/EIS Section E.4; Section H

PCT Options "A" and "C/D." PCT Option A is route of the original Modified Route D alternative and follows SDG&E's existing 69 kV transmission line. The route would be located on BLM land just south of the CNF boundary between MP MRD-11.7 and MP MRD-14. The route would follow the existing 69 kV transmission corridor, and would maximize use of existing access roads. Both the 69 kV and 500 kV lines would cross the PCT three times within a space of about 0.25 mile. Because the line parallels the existing 69 kV transmission line, it would minimize the need for new access roads.

The EIR/EIS also evaluated a PCT Option C/D. PCT Option C/D would replace a segment of the Modified Route D Alternative from its original location on BLM land in the Hauser area (adjacent to the SDG&E 69 kV transmission line and just south of the border of the Cleveland National Forest) further south onto a gifted parcel of BLM land that has been in federal ownership since it was donated to the BLM in 2005. The lands were donated to the BLM for wildlife habitat conservation and to support habitat

linkages between Baja, Mexico and southern California. BLM accepted these lands under a donation agreement. The agreement specifically states that "BLM shall not construct roads, structures, and other improvements on the properties, except to the extent minimally necessary and consistent with the restoration and protection of the natural resources." PCT Reroute Option C/D would create a new transmission line right-of-way and feasible the towers would be constructed by helicopter (thus minimizing the need for access roads to the extent feasible). With this reroute, PCT users would cross under the 69 kV line, then cross below the 500 kV line only once farther to the southwest. This option would begin at MP MRD-11.0 and would travel southwest for approximately 1.7 miles before turning west-northwest for approximately 1.7 miles and rejoining the Modified Route D Alternative at MP MRD-14.

Finding/Rationale. The CPUC hereby finds that PCT Option A is environmentally superior to PCT Option C/D. Accordingly, we approve and authorize SDG&E to construct PCT Option A. We also find that ongoing consultations between the U.S. Forest Service and BLM may result in the accumulation of evidence substantial enough to support a finding that the PCT Option A is infeasible for specific economic, legal, social, technological, or other considerations, consistent with Public Resources Code §21081 and CEQA Guidelines §15091. If such evidence is present, PCT Option C/D may be included as part of the Project.

Reference. EIR/EIS Section E.4; Section H

VI.6.5 Interstate 8 Alternative MP I8-79.6 through I8-82.2

At MP I8-79.6, the I-8 Alternative would diverge from Interstate 8 heading north for one mile, passing through private land and San Diego County land for 0.1 miles. At MP I8-80.7, the route would turn northwest and pass within one mile of El Capitan Reservoir. At MP I8-82, it would cross roads identified by the CNF as "Forest Route 15S32" and then "Forest Route 13S10," passing through one mile of Cleveland National Forest, 0.3 miles of City of San Diego land, and one mile of BLM land.

Finding/Rationale. The CPUC finds that between MP I8-79.6 and I8-82.2, the I-8 Alternative is less desirable than the adopted Project because this segment of the I-8 Alternative will result in greater environmental impacts than the Chocolate Canyon Option with a modified crossing of Interstate 8 to reduce visual impacts ("Chocolate Canyon Option Revision"). Specifically, adoption of MP I8-79.6 through I8-82.2 would result in greater impacts to sensitive land uses, greater impacts to visual resources, and will require additional access roads thereby increasing ground disturbance and its associated impacts.

Reference. EIR/EIS Section E.1; Section H

VI.6.6 Interstate 8 Alternative MP I8-87.1 through I8-89.3

Between MP I8-87.1 and I8-89.3, the Interstate 8 Alternative will be replaced by the High Meadow Reroute, as shown in Figure 3-8 of the RDEIR/SDEIS.

Finding/Rationale. The CPUC hereby finds that the I-8 Alternative between MP I8-87.1 and I8-89.3 is environmentally inferior to the High Meadow Reroute and rejects this portion of the alternative as infeasible for the following reason:

- Between MP I8-87.1 and I8-89.3, the High Meadow Reroute is environmentally superior to the Interstate 8 Alternative because it is consistent with the intent of Mitigation Measure V-68a in that it would move ten (10) transmission structures to slightly lower elevations on hillsides (east of SR67 and south of Moreno Avenue), which would reduce structure skylining and prominence and lessen the overall visual impact of this portion of the Interstate 8 Alternative. Additionally, the High Meadow

Reroute would move the new 230 kV transmission line farther from High Meadows Ranch Subdivision, which would reduce impacts to land uses at or near the alignment. We acknowledge that the High Meadow Reroute would result in slightly greater impacts to sensitive vegetation communities because it requires one additional tower. However, the significance level for sensitive vegetation impacts remains the same (Class I), and this reroute would have no effect on the biological analysis already conducted for the Interstate 8 Alternative. We find that despite this biological impact, the Interstate 8 Alternative is environmentally inferior overall between MP I8-87.1 and I8-89.

Reference. EIR/EIS Section E.1; REIR/RDEIS Section 3.3.3

VI.6.7 Interstate 8 Alternative MP I8-89.3 through I8-92.7

Between MP I8-89.3 and I8-92.7, the Interstate 8 Alternative will be replaced by the Highway 67 Hansen Quarry Reroute, as shown in Figure 3-9 of the RDEIR/SDEIS.

Finding/Rationale. The CPUC hereby finds that the I-8 Alternative between MP I8-89.3 and I8-92.7 is environmentally inferior to the Highway 67 Hansen Quarry Reroute and rejects this portion of the alternative as infeasible for the following reason:

- Between MP I8-89.3 and I8-92.7, the Highway 67 Hansen Quarry Reroute is environmentally superior to the Interstate 8 Alternative because it would to minimize impacts to aggregate mineral resources at an operational quarry along the Interstate 8 Alternative. It would also have would have fewer impacts to sensitive vegetation and would also achieve a slight reduction in structure prominence and skylining by moving four (4) transmission structures to slightly lower elevations on a hillside east of the quarry operation and SR67. Although the reroute would result in a net increase over the I-8 Alternative between MP I8-89.3 and I8-92.7 of two cultural sites located in its corridor, we find that the Highway 67 Hansen Quarry Reroute is environmentally superior overall.

Reference. EIR/EIS, Section E.1; REIR/RDEIS, Section 3.3.4

VI.7 Pine Valley I-8 Non-motorized Avoidance Revision

SDG&E proposed the Pine Valley I-8 Non-motorized Avoidance Revision in comments on the Draft EIR/EIS. The proposed revision would revise the I-8 Alternative between Buckman Springs and Descanso. The revised route segment would remain entirely within the Forest Service's compatible land use zones, would eliminate the Interstate 8 Substation (using instead the Modified Route D Substation), and would cross the I-8 Freeway to the south at a point further east of the Viejas Reservation. The Pine Valley I-8 Non-motorized Avoidance Revision would require use of the BCD Alternative between Mileposts BCD-13 to BCD-19.

Finding/Rationale. The CPUC hereby finds that the I-8 Alternative between MP I8-89.3 and I8-92.7 is environmentally inferior to the Highway 67 Hansen Quarry Reroute and rejects this portion of the alternative as infeasible for the following reason:

- The Pine Valley I-8 Non-motorized Avoidance Revision would require the use of the BCD Alternative between Mileposts BCD-13 to BCD-19 and would traverse the more restrictive Forest land use zone designations (Back Country and Back Country Non-Motorized Land Use Zones) and be incompatible with the Scenic Integrity Objectives of the Cleveland National Forest. For these reasons, the BCD Alternative Revision which follows the original BCD Alternative until MP BCD-9, and then heads northwest then south was found to be environmentally superior to the original BCD Alternative.

Reference. EIR/EIS Section H; RDEIR/SDEIS Section 3.3.2

VI.8 Route D Alternative

The Route D Alternative, originally developed by SDG&E as a route that would avoid ABDSP, would be a 17.3-mile 500 kV alternative that would diverge from Interstate Alternative at MP I8-70.3 and would join the original SDG&E project at MP 113.5 at the Central South Substation site. An additional 17.5 miles of the original SDG&E project's 230 kV segment (from MP 113.5 to MP 131) would also be required in order to reach the point where the I-8 Alternative would connect to the original SDG&E project. Therefore, the Route D Alternative would require a total of 34.8 miles of new transmission line to replace 22.5 miles of the I-8 Alternative.

The Route D Alternative would require use of the Central South Substation Alternative in order to convert from 500 kV to 230 kV. This substation would be located on private land at the north end of the Route D transmission line segment and along the original SDG&E project's 230 kV segment.

Finding/Rationale. The CPUC finds that the Route D Alternative is less desirable than the adopted Project and rejects this alternative as infeasible because it would result in greater environmental impacts than the approved Project. Because of its greater length and remote location, the Route D Alternative would have greater impacts to sensitive vegetation communities, jurisdictional habitats, arroyo toads, and golden eagles and would result in substantially greater ground disturbance and associated impacts. The Route D Alternative would also result in a much longer route through Back Country Non Motorized zone within the CNF and would pass through a Designated Roadless Area. Major utility corridors and roads are not suitable within the BCNM land use zone and significant permitting delays could occur to address these inconsistencies within CNF.

Reference. EIR/EIS Section E.3; Section H

VI.9 Lenac Proposal

The Lenac Proposal was suggested in comments on the Draft EIR/EIS to reduce land use impacts to a private resident. The Lenac Proposal would diverge from the Modified Route D Alternative at approximately MP MRD-4 and head southwest for approximately 0.6 miles, then due south for approximately 0.8 miles, and then southwest again until rejoining the Modified Route D Alternative at approximately MP MRD-7. The Lenac Proposal would be located approximately 0.4 miles east of the Modified Route D Alternative.

Finding/Rationale. The CPUC finds that the Lenac Proposal is not a feasible alternative because it is incompatible with the La Posta Mountain Warfare Training Facility. As stated in the Department of Defense response to Data Request 2 dated June 11, 2008 "the Lenac option primarily lies on the east side of the ridge line [of the La Posta Mountain Warfare Training Facility (MWTFP)]. As previously indicated in our meetings and letters, location of an alignment on the east side of the ridge is incompatible with MWTFP."

Reference. EIR/EIS Comment Set A0017

VI.10 LEAPS Transmission-Only Alternative

The LEAPS Transmission-Only Alternative would include:

- 31.8 miles of new single-circuit 500 kV transmission line forming the Talega-Escondido to Serrano-Valley 500 kV Interconnect line (TE/VS Interconnect or Lake-Pendleton 500 kV Transmission Line).
- New 500 kV switching station (Lake Substation) to interconnect with SCE's existing Serrano-Valley 500 kV line.
- New 500/230 kV substation (Pendleton Substation) within Camp Pendleton including two phaseshifting transformers.
- New second Talega-Escondido 230 kV line.
- Modification of SDG&E's existing Talega-Escondido 69 kV transmission circuit (between the existing Pala and Lilac Substations) on new wood and steel poles adjacent to the existing 230 kV poles within the existing Talega-Escondido ROW.

Finding/Rationale. The CPUC hereby rejects this alternative and finds that it is infeasible for specific economic, social, technological, legal and/or other considerations, set forth in the CPUC's adopted Decision on this project.

Reference. EIR/EIS Section E.7 and Section H

VI.11 LEAPS Generation and Transmission Alternative

The LEAPS Generation and Transmission Alternative would include:

- A lined upper reservoir (Decker Canyon reservoir) with a usable storage volume of 5,500 acre-feet, a 240-foot-high main dam, and a perimeter dike up to 50 feet high, with a surface area of about 80 acres at a normal maximum water surface elevation of 2,830 feet mean sea level (msl). The Decker Canyon reservoir dam and dike would have a crest elevation of 2,860 feet msl and a combined fill volume of about 3 million cubic yards.
- Two parallel high-pressure water conduits each consisting of a 9,190-foot-long concrete-lined channel and tunnel transitioning to a 250-foot-long, 12-foot-diameter steel penstock.
- An underground powerhouse (Santa Rosa Powerhouse) with two reversible pump-turbine units capable of generating 500 MW. When pumping water from Lake Elsinore to the new upper reservoir, the facility would consume approximately 600 MW.
- Use of the existing Lake Elsinore as a lower reservoir, with a surface area of 3,319 acres and a storage capacity of 54,504 acre-feet at a normal pool elevation of 1,245 feet msl.
- Two 1,950-foot-long, 20-foot-wide, and 20-foot-high concrete-lined tailrace tunnels.
- A new 40-acre surface switchyard/substation (Midpoint Substation) above the proposed Santa Rosa Powerhouse for the LEAPS generators interconnecting with the Lake-Pendleton line via a 1.2-mile underground 500 kV line (Midpoint Interconnection).
- A 1.2-mile underground transmission line to interconnect the Santa Rosa Powerhouse/Midpoint Substation with the LEAPS Transmission-Only Alternative, described in Section E.7.1.1, above.
- Project facilities identical to the LEAPS Transmission-Only Project, described above.

Finding/Rationale. The CPUC finds that the LEAPS Generation and Transmission Alternative is less desirable than the adopted Project and rejects this alternative as infeasible because it would result in greater environmental impacts. The LEAPS Generation and Transmission Alternative would result in

residential and/or business displacement from powerhouse facilities, and would create significant and unmitigable impacts to wilderness and recreation from loss of public access to more than 100 acres of U.S. Forest Service land. Additionally, it would require off-peak power to pump water to the reservoir indirectly resulting in power plant emissions and would create significant impacts to the San Juan Creek and to Lake Elsinore in the event of a dam failure.

Reference. EIR/EIS Section E.7; Section H

VI.12 New In-Area Renewable Generation Alternative

The New In-Area Renewable Generation Alternative will include 1,000 MW of wind, solar thermal, solar photovoltaics, and biomass/biogas in San Diego County.

Finding/Rationale. The CPUC hereby rejects this alternative and finds that it is infeasible for specific economic, social, technological, legal and/or other considerations, set forth in the CPUC's adopted Decision on this project.

Reference. EIR/EIS Section E.5; Section H

VI.13 New In-Area All-Source Generation Alternative

The New In-Area All-Source Generation Alternative will include one baseload and four peaking gas-fired power plants (700 MW) plus San Diego County renewable generation (300 MW of wind, solar photovoltaics, and biomass/biogas).

Finding/Rationale. The CPUC hereby rejects this alternative and finds that it is infeasible for specific economic, social, technological, legal and/or other considerations, set forth in the CPUC's adopted Decision on this project

Reference. EIR/EIS Section E.6; Section H

VII. Responses to Comments on the Draft EIR/EIS and Revisions to the Final EIR/EIS

Volumes 1, 2, 3, and 4 of the Final EIR/EIS includes the comments received on the Draft EIR/EIS and the Recirculated Draft EIR/Supplemental Draft EIS and responses to those comments. The focus of the responses to comments is on the disposition of significant environmental issues as raised in the comments, as specified by CEQA Guidelines §15088(b).

Finding/Rationale. With the exception of the new information that triggered recirculation of certain portions of the Draft EIR/EIS in the Recirculated Draft EIR/Supplemental Draft EIS, responses to comments made on the Draft EIR/EIS and Recirculated Draft EIR/Supplemental Draft EIS and revisions made to those documents in the Final EIR/EIS merely clarify and amplify the analysis presented in the document and do not trigger the need to recirculate per CEQA Guidelines §15088.5(b).

VIII. Custodian of Records

The documents and other materials that constitute the record of proceedings on which the Project findings are based are located at the California Public Utilities Commission, 505 Van Ness Avenue, San Francisco, CA 94102. The custodian for these documents is the Energy Division, CEQA Unit. This information is provided in compliance with Public Resources Code §21081.6(a)(2) and CEQA Guidelines §15091(e).

IX. Adoption of the Mitigation, Monitoring, Compliance, and Reporting Program for CEQA Mitigation Measures

Section 21081.6 of the Public Resources Code requires this Commission to adopt a monitoring or reporting program regarding the changes in the Project and mitigation measures imposed to lessen or avoid significant effects on the environment. The Mitigation, Monitoring, Compliance, and Reporting Program (MMCRP) is adopted because it fulfills the CEQA mitigation monitoring requirements:

- The Mitigation Monitoring and Reporting Program is designed to ensure compliance with the changes in the Project and mitigation measures imposed on the Project during Project implementation.
- Measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures.

The MMCRP tables are presented at the end of each issue area section in the Final EIR/EIS (Sections D.2 through D.15). These tables, along with the full text of the applicable mitigation measures themselves, form the Sunrise Powerlink Project MMCRP. The MMCRP is hereby adopted by the CPUC. The CPUC will prepare the Mitigation Monitoring Implementation Plan prior to the start of Project-related activities in order to implement the adopted MMCRP.

X. Revisions to the Final EIR/EIS

Subsequent to publication of the Final EIR/EIS, the need for some minor text revisions was identified. Those changes are presented in this section, and by their presentation in this section they are hereby incorporated into the Sunrise Powerlink Project Final EIR/EIS. Text changes from the Final EIR/EIS are shown in ~~strikeout~~ and <u>underline</u> to illustrate deletions and additions, respectively. Text from the Final EIR/EIS is indented. These revisions merely clarify and amplify the analysis presented in the document, or make minor clerical revisions, and do not trigger the need to recirculate per CEQA Guidelines §15088.5(b).

Biological Resources

Mitigation Measure B-7i has been hereby revised for Impact B-7J in Section E.1.2 of the Final EIR/EIS and from Response to Comment A0024-4 as follows:

Mitigation Measures for Impact B-7J: Direct or indirect loss of quino checkerspot butterfly or direct loss of habitat

B-1a **Provide restoration/compensation for affected sensitive vegetation communities.**

B-1c **Conduct biological monitoring.**

B-2a **Provide restoration/compensation for affected jurisdictional areas.**

B-7i **Conduct quino checkerspot butterfly surveys and implement appropriate avoidance/ minimization/compensation strategies.** For the I-8 Alternative, the required mitigation for impacts to designated critical habitat includes 6.9 acres of onsite restoration and 20.3 acres of offsite acquisition and preservation of acres of QCB critical habitat or other habitat acceptable to Wildlife Agencies, BLM, or other applicable agencies. Impacts to QCB critical habitat must be mitigated within the same Critical Habitat Unit where the impacts occurred. ~~Furthermore, should the Proposed Rule issued on January 17, 2008 by the USFWS to revise the area of designated critical habitat for the Quino be adopted by USFWS prior to construction, the impacts to critical habitat shall be recalculated by a qualified biologist (see Mitigation Measure B-1c), and the required number of acres of compensation/restoration land required by this mitigation measure shall be revised based on the ratios set forth in Mitigation Measure B-7i. The recalculations and revisions to the required mitigation shall be submitted to the CPUC, BLM, and the Wildlife Agencies for review and approval prior to the commencement of construction in critical habitat.~~ All other QCB mitigation described in Mitigation Measure B-7i for the Proposed Project (Section D.2.11) is also required for the I-8 Alternative.

Mitigation Measures B-7e and B-7l are added to mitigate Impact B-8 in Section E.1.2 of the Final EIR/EIS. The text changes are as follows:

Impact B-8: Construction activities would result in a potential loss of nesting birds (violation of the Migratory Bird Treaty Act; Class II)

Even with the APMs, the Proposed Project and alternatives would violate the Migratory Bird Treaty Act if it resulted in the killing of migratory birds or caused the destruction or abandonment of migratory bird nests and/or eggs (Significance Criterion 1.g). This could occur through the removal of vegetation and/or through vehicle and foot traffic or excessive noise associated with construction. Violation of the Migratory Bird Treaty Act is a significant impact that is mitigable to less than significant levels (Class II) with implementation of Mitigation Measures B-7e, B-7l and B-8a. Wherever the mitigation measure set forth is more specific or restrictive than the APMs, the mitigation measure takes precedence.

Mitigation Measure for Impact B-8: Construction activities would result in a potential loss of nesting birds (violation of the Migratory Bird Treaty Act; Class II)

B-7e **Conduct least Bell's vireo and southwestern willow flycatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.**

B-7l **Conduct coastal California gnatcatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.**

B-8a **Conduct pre-construction surveys and monitoring for breeding birds.**

The last paragraph of the analysis for Impact B-7C (Direct or indirect loss of burrowing owl or direct loss of habitat) in Section E.1.2 is hereby revised as follows:

Impact B-7C: Direct or indirect loss of burrowing owl or direct loss of habitat (Class II)

All of the potential burrowing owl habitat was surveyed in 2007. It is reasonable to assume that the likelihood of occupied burrows or burrowing owls being found in the areas during pre-construction survey required in Mitigation Measure B-7d is low. The amount and type of mitigation (presently outlined in Mitigation Measure B-7d) will be determined if occupied burrows or burrowing owls are

found. ~~The mitigation presently outlined in Mitigation Measure B-7d would need to be revised if occupied burrows or burrowing owls are found.~~ With the small number of acres likely required for mitigation (if any), the fact that the mitigation does not have to consist of any particular vegetation type (it just has to be suitable for burrowing owls), and with the mitigation options available per the CDFG (see Mitigation Measure B-7d below), it is expected that appropriate mitigation land would be available to satisfy the mitigation requirement.

Visual Resources

Mitigation Measure V-1c is hereby deleted from Section E.4.3.2 as it has been included as VR-APM-4 as follows:

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

~~**V-1c Prohibit construction marking of natural features.**~~

Cultural Resources

The analysis for Impact C-2 in Section E.1.7.2 of the Final EIR/EIS was superseded by the analysis in Section 4.1.3 of the Recirculated Draft EIR/Supplemental Draft EIS. Therefore the discussion in Section E.1.7.2 is hereby deleted from Section E.1.7.2 as shown:

~~***Impact C-2: Construction of the project would cause an adverse change to sites known to contain Native American human remains (Class I)***~~

~~One archaeological site known to contain human remains (CA-SDI-6706) would be adversely affected by construction of the Interstate 8 Alternative (see Table Ap.9B-85 in Appendix 9B). It is also possible that additional prehistoric archaeological sites identified during pre-construction surveys or discovered during the course of construction could contain human remains. Any adverse effect to human remains is considered significant (Class I). CR-APM-3 outlines procedures for the treatment of unanticipated discoveries during construction; however, this APM is superseded by Mitigation Measures C-1b, C-1c, C-1d, C-1e, C-1f, and C-2a. Impacts to human remains would be partially mitigated by implementing Mitigation Measure C-2a; however, the impacts would still be considered significant (Class I). Impacts to Native American human remains are considered an adverse effect, even after mitigation (36 CFR 800).~~

Wilderness and Recreation

The sentence that reads "A mitigation reroute, defined in Mitigation Measure WR-2a ~~WR-2b~~ recommends a further revision of the route to minimize effects on private land, while still remaining on acceptable Forest land use zones." in the second paragraph of Section H.4.2.1 (Summary of Impacts) in the Final EIR/EIS is hereby revised to read "WR-2a" as shown.

The text included in Figure E.2.1-1b BCD Alternative (MPs BCD-10 to 20.6) in Section E.1.5 of the Final EIR/EIS is hereby revised to state: Mitigation Measure ~~WR-2b~~ WR-2a Reroute.

APPENDIX E

Public Health and Safety

The impact heading for Impact P-7 in Section E.1.10 that reads "Impact P-7: Excavation or grading could result in mobilization of existing soil or groundwater contamination from known sites (Class III)" is hereby revised to read "Impact P-7: Excavation or grading could result in mobilization of existing soil or groundwater contamination from known sites (Class II~~I~~)" as shown.

Fire and Fuels Management

Table D.15-26 from Mitigation Measure F-3a (Contribute to Powerline Firefighting Mitigation Fund.) is hereby changed as follows:

Table D.15-26. Mitigation Measure F-3a Compliance Locations

Segment Identification	Location of Significant Conflict	Length of Significant Conflict (miles)	Area of Significant Conflict (acres)
Final Environmentally Superior Northern Route Alternative	MP 104-105.5, MP 110-112.5, MP 114-115.5, MP 126-128.5, MP 130.5-131.5, MP 131.5-133	11.5	418
Final Environmentally Superior Southern Route Alternative	MRD 11~~10.5~~-13, MRD 23 – 26.5~~15-16.5~~, and just before MP 131 ~~131.5~~-133	~~6.5~~ 8	236
SDG&E's "Enhanced" Northern Route Alternative	MP 85-86.5, MP 90-91, MP 104-105.5, MP 110-112.5, MP 114-115.5, MP 126-128.5, MP 130.5-131.5, and MP 131.5-133	14.5	527
LEAPS Transmission-Only Alternative	LEAPS 2-4	2	73
LEAPS Generation and Transmission Alternative	LEAPS 2-4	2	73

Cumulative Impacts

The following changes have been made to Draft EIR/EIS Section G, Cumulative Impacts.

Biological Resources. The sentence in Cumulative Impact B-2 in Section G.3.1 that reads "The combined effects of the Proposed Project with those of past, present and future projects would be significant ~~if~~ because they would have adverse effects to jurisdictional waters and wetlands" is hereby revised to delete the word "if."

Cumulative Impact B-7 in Section G.3.1 is hereby revised to include the listed species barefoot banded gecko as follows:

> **Impact B-7 (B-7A through B-7O~~B-7N~~): Direct or indirect loss of listed or sensitive wildlife or a direct loss of habitat for listed or sensitive wildlife (Class I).** As discussed in Section D.2.11, construction of the Proposed Project would result in impacts to listed or sensitive wildlife species. Potentially affected species include: the flat-tailed horned lizard, Peninsular bighorn sheep, burrowing owl, least Bell's vireo, southwestern willow flycatcher, desert pupfish, desert

tortoise, golden eagle, bald eagle, quino checkerspot butterfly, arroyo toad, Stephens' kangaroo rat, coastal California gnatcatcher, ~~and~~ San Diego fairy shrimp (and/or Riverside fairy shrimp), and barefoot banded gecko.

Mitigation Measures B-7e and B-7l are hereby included for Cumulative Impact B-8 in Section G.3.1 of the Final EIR/EIS as follows:

> …However, as discussed in Section D.2.12, Mitigation Measures B-7e, B-7l, and B-8a that includes conditions such as requiring vegetation clearing and tree trimming activities to occur outside general avian and raptor breeding seasons, performing pre-construction surveys, construction monitoring, and stopping and deferring work if impacts to nestlings cannot be avoided, that would prevent adverse impacts to nesting birds from occurring as a result of the Proposed Project.

The analysis of Cumulative Impacts for Impact B-11 is hereby added to Section G.4.2.1 of the Final EIR/EIS as follows:

> **Impact B-11: Presence of transmission lines may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers (Class II).** The new towers from the I-8 Alternative would result in an increase in potential nesting and perching sites for common ravens in the desert region (MP I8-0 through MP I8-23) where flat-tailed horned lizard occur. An increase in common ravens as a result of providing additional towers for nesting would impact the FTHL (see Impact B-7A) through increased predation. As detailed in Section E.1.2, implementation of Mitigation Measures B-11a would include the use of raven perching/nesting deterrents and nest removal. Therefore, the Interstate 8 Alternative's contribution to a cumulative impact to nesting birds would be rendered less than cumulatively considerable and therefore is less than significant (Class II).

Visual Resources. As stated in Section G.4.2, the analysis for cumulative visual impacts for the Interstate 8 Route Options, the BCD Alternative and BCD South Option, the Route D Alternative, Modified Route D Alternative, and the Star Valley Option is substantially similar or identical to the cumulative impacts for the Interstate 8 Alternative. This includes the cumulative visual impacts caused by structure contrast, industrial character, view blockages, and skylining or inconsistency with management objects. For clarification, the locations of the cumulative visual impacts are hereby included in Section G.4.2 for each Southern Route Alternative, as follows:

G.4.2.1 Interstate 8 Alternative

There are five route options to the Interstate 8 Alternative: Campo North Option, Buckman Springs Underground Option, West Buckman Springs Option, South Buckman Springs Option, and Chocolate Canyon Option. All five of these short options would be in close proximity to the alternative route and were developed to avoid or reduce project impacts to a particular resource and/or location. These alternatives traverse the same or similar land uses as the portion of the Interstate 8 Alternative route they are proposed to replace, would require the same types of construction activities to build, and would result in the same or similar impacts and operational capacity as the Proposed Project and Interstate 8 Alternative. They would therefore result in substantially similar or identical cumulative impacts as the Interstate 8 Alternative discussed below, and they are not discussed individually. However, for clarification purposes, the locations at which the cumulatively considerable visual impacts caused by structure contrast, industrial

character, view blockages, and skylining or inconsistency with management objects introduced by the I-8 Alternative Route Options would be: Impact V-69 (KVP 56), Impact V-70 (KVP-57), Impact V-71 (KVP 58), Impact V-72 (KVP 59), Impact V-87 (South Buckman Springs Road), Impact V-88 (South Buckman Springs Option), Impact V-73 (Chocolate Canyon Option).

G.4.2.2 BCD Alternative and BCD South Option

…The geographic extent of the cumulative analysis and existing cumulative conditions for each issue area for the BCD Alternative would be the same as those identified for the I-8 Alternative in Section G.4.2.1, with the following exceptions:

- The Dart and Volli Residential Developments would not be within close enough proximity to this route to be affected by it.
- The Campo, La Posta, and Manzanita Reservations would not be traversed by this route.
- The Active Agricultural Operations land between MP I8-51 and MP I8-52 would not be affected.
- Permanent conversion of 88.6 acres of Williamson Act lands.
- Pacific Wind (Iberdrola) wind project within the McCain Valley would be within close enough proximity to the BCD Alternative to be affected by it.

The specific locations at which the cumulatively considerable visual impacts caused by structure contrast, industrial character, view blockages, and skylining or inconsistency with management objects introduced by the BCD Alternative and BCD South Option would be: Impact V-74 (KVP 60), Impact V-75 (KVP 61), Impact V-76 (KVP 62), Impact V-77 (KVP 63), Impact V-89 (KVP 79), Impact V-90 (BCD South Option).

G.4.2.3 Route D Alternative

…The geographic extent of the cumulative analysis and existing cumulative conditions for each issue area for the Route D Alternative would be the same as those identified for the I-8 Alternative in Section G.4.2.1, with the following exceptions:

- The residential developments near the communities of Alpine and Lakeside would not be within close enough proximity to this route to be affected by it
- Most of the Active Agricultural lands and DOC farmland affected by the I-8 Alternative would be avoided
- No DOC Farmlands would be traversed by or adjacent to this alternative
- The Route D Alternative would traverse or be adjacent to Active Agricultural Operations and Williamson Act lands between MP 6 and 17.3.

The specific locations at which the cumulatively considerable visual impacts caused by structure contrast, industrial character, view blockages, and skylining or inconsistency with management objects introduced by the Route D Alternative would be: Impact V-78 (KVP 64).

G.4.2.4 Modified Route D Alternative and Star Valley Option

The geographic extent of the cumulative analysis and existing cumulative conditions for each issue area for the Modified Route D Alternative would be the same as those identified for the I-8 Alternative in Section G.4.2.1, with the following exceptions:

- 38.1 acres of DOC Farmland would be temporarily converted to non-agricultural use
- Permanent conversion of 7.6 acres of DOC Farmlands
- This alternative would traverse or be adjacent to 58.4 acres of Williamson Act lands.

The specific locations at which the cumulatively considerable visual impacts caused by structure contrast, industrial character, view blockages, and skylining or inconsistency with management objects introduced by the Modified Route D Alternative and Star Valley Option would be: Impact V-82 (KVP 67), Impact V-83 (KVP 68), Impact V-84 (KVP-69), Impact V-86 (KVP 70), Impact V-90 (PCT and South Boundary Road). Impact V-85 (Japatul Road and Bell Bluff Road) would cause a less than significant cumulative visual impact caused by structure contrast, industrial character, view blockages, and skylining.

Comparison of Alternatives

The last paragraph in Section H.4.5 Conclusion: Environmentally Superior Southern Route Alternative is changed as follows:

Like the Proposed Project, the Environmentally Superior Southern Alternative would include reconductoring of the existing 69 kV transmission line between the existing Sycamore Canyon and Elliot Substations, and upgrades to the San Luis Rey and South Bay Substations.

(END OF APPENDIX E)

APPENDIX F

********** SERVICE LIST **********
Last Updated on 27-OCT-2008 by: JVG
A0608010 LIST
A0512014

********** PARTIES **********

Linda A. Carson
Executive Director
ANZA-BORREGO FOUNDATION
PO BOX 2001
BORREGO SPRINGS CA 92004
(760) 767-0446
For: ANZA-BORREGO FOUNDATION

Diana Linsday
ANZA-BORREGO FOUNDATION & INSTITUTE
PO BOX 2001
BORREGO SPRINGS CA 92004
(760) 767-0446
dlindsay@sunbeltpub.com
For: Anza-Borrego Foundation & Institute

Jacqueline Ayer
2010 WEST AVENUE K, NO. 701
LANCASTER CA 93536
(949) 645-7193
AirSpecial@aol.com
For: Jacqueline Ayer

Shawn D. Hagerty
City Of Attorney
BEST BEST & KRIEGER LLP
655 W. BROADWAY, 15TH FLOOR
SAN DIEGO CA 92101-3301
(619) 525-1300
shawn.hagerty@bbklaw.com
For: The City of Santee

Connie Bull
24572 RUTHERFORD ROAD
RAMONA CA 92065
conniebull@cox.net

Kathryn J. Tobias
Attorney At Law
CA DEPT. OF PARKS AND RECREATION
1416 9TH STREET, 14TH FLOOR
SACRAMENTO CA 95814
(916) 651-8772
ktobias@parks.ca.gov
For: CA Department of Parks and Recreation

Sara Feldman
CA STATE PARKS FOUNDATION
714 W. OLYMPIC BLVD., SUITE 717
LOS ANGELES CA 90015
(213) 748-7458
sara@calparks.org
For: CA State Parks Foundation

David Lloyd
Attorney At Law
CABRILLO POWER I, LLC
4600 CARLSBAD BLVD.
CARLSBAD CA 92008
(760) 268-4069
david.lloyd@nrgenergy.com
For: Cabrillo Power I, LLC

Michael L. Wells
CALIFORNIA DEPARTMENTOF PARKS&RECREATION
200 PALM CANYON DRIVE
BORREGO SPRINGS CA 92004
(760) 767-4037
mwells@parks.ca.gov

Bradly S. Torgan
Attorney At Law
CALIFORNIA DEPT. OF PARKS & RECREATION
1416 NINTH STREET, ROOM 1404-06
SACRAMENTO CA 95814
(916) 653-9905
btorgan@parks.ca.gov
For: California Dept. of Parks & Recreation

Karen Norene Mills
Attorney At Law
CALIFORNIA FARM BUREAU FEDERATION
2300 RIVER PLAZA DRIVE
SACRAMENTO CA 95833
(916) 561-5655
kmills@cfbf.com
For: California Farm Bureau Federation

Judith B. Sanders
Attorney At Law
CALIFORNIA INDEPENDENT SYSTEM OPERATOR
151 BLUE RAVINE ROAD
FOLSOM CA 95630
(916) 608-7143
jsanders@caiso.com
For: California Independent System Operator

APPENDIX F

********** SERVICE LIST **********
Last Updated on 27-OCT-2008 by: JVG
A0608010 LIST
A0512014

David Hogan
CENTER FOR BIOLOGICAL DIVERSITY
PO BOX 7745
SAN DIEGO CA 92167
(760) 809-9244
dhogan@biologicaldiversity.org

Michael P. Calabrese
Attorney At Law
CITY ATTORNEY, CITY OF SAN DIEGO
1200 THIRD AVENUE, SUITE 1100
SAN DIEGO CA 92101
(619) 533-5872
mcalabrese@sandiego.gov
For: City of San Diego

Frederick M. Ortlieb
Office Of City Attorney
CITY OF SAN DIEGO
1200 THIRD AVENUE, SUITE 1200
SAN DIEGO CA 92101
(619) 236-6318
fortlieb@sandiego.gov
For: City of San Diego

Mary Aldern
CAROLYN MORROW, JOE RAUH
COMMUNITY ALLIANCE FOR SENSIBLE ENERGY
PO BOX 321
WARNER SPRINGS CA 92086
(760) 782-9036
hikermomma1@yahoo.com

Denis Trafecanty
COMMUNITY OF SANTA YSABEL & RELATED COMM
PO BOX 305
SANTA YSABEL CA 92070
(760) 703-1149
denis@vitalityweb.com
For: Self

David Kates
DAVID MARK AND COMPANY
3510 UNOCAL PLACE, SUITE 200
SANTA ROSA CA 95403-5571
(707) 570-1866
dkates@sonic.net
For: The Nevada Hydro Company

Jeffrey P. Gray
Attorney At Law
DAVIS WRIGHT TREMAINE, LLP
505 MONTGOMERY STREET, SUITE 800
SAN FRANCISCO CA 94111-6533
(415) 276-6500
jeffgray@dwt.com
For: California Independent System Operator Corp.

William F. Dietrich
Attorney At Law
DIETRICH LAW
2977 YGNACIO VALLEY ROAD, NO. 613
WALNUT CREEK CA 94598-3535
(415) 297-2356
dietrichlaw2@earthlink.net
For: California State Parks Foundation and Anza-Borrego Foundation

---

Donald C. Liddell
Attorney At Law
DOUGLASS & LIDDELL
2928 2ND AVENUE
SAN DIEGO CA 92103
(619) 993-9096
liddell@energyattorney.com
For: Stirling Energy Systems

Jeffery D. Harris
Attorney At Law
ELLISON, SCHNEIDER & HARRIS LLP
2015 H STREET
SACRAMENTO CA 95811-3109
(916) 447-2166
jdh@eslawfirm.com

Norman J. Furuta
Attorney At Law
FEDERAL EXECUTIVE AGENCIES
1455 MARKET ST., SUITE 1744
SAN FRANCISCO CA 94103-1399
(415) 503-6994
norman.furuta@navy.mil
For: DEPARTMENT OF THE NAVY

Travis Foss
Legal Division
RM. 5028
505 VAN NESS AVE

APPENDIX F

********** SERVICE LIST **********
Last Updated on 27-OCT-2008 by: JVG
A0608010 LIST
A0512014

San Francisco CA 94102 3298
(415) 703-1998
ttf@cpuc.ca.gov
For: Consumer Protection and Safety Division

Vidhya Prabhakaran
GOODIN MACBRIDE SQUERI DAY & LAMPREY LLP
505 SANSOME STREET, SUITE 900
SAN FRANCISCO CA 94111
(415) 392-7900
vprabhakaran@goodinmacbride.com
For: LS Power; South Bay Replacement Project, LLC

Brian T. Cragg
Attorney At Law
GOODIN MACBRIDE SQUERI RITCHIE & DAY
505 SANSOME STREET, SUITE 900
SAN FRANCISCO CA 94111
(415) 392-7900
bcragg@goodinmacbride.com
For: LS Power; South Bay Replacement Project, LLC

Kevin Lynch
IBERDROLA RENEWABLES INC
1125 NW COUCH ST., SUITE 700
PORTLAND OR 97209

Stephen Keene
Attorney At Law
IMPERIAL IRRIGATION DISTRICT
333 EAST BARIONI BLVD., PO BOX 937
IMPERIAL CA 92251
(760) 339-9550
sjkeene@iid.com
For: Imperial Irrigation District

Heidi Farkash
JOHN & HEIDI FARKASH TRUST
PO BOX 576
RANCHO SANTA FE CA 92067
(858) 756-3594
jhfark@pacbell.net
For: Farkash Ranch in Santa Ysabel

Richard W. Raushenbush
Attorney At Law
LATHAM & WATKINS LLP
505 MONTGOMERY STREET, SUITE 2000
SAN FRANCISCO CA 94111
(415) 395-8237

Carrie Downey
LAW OFFICES OF CARRIE ANNE DOWNEY
1313 YNEZ PLACE
CORONADO CA 92118
(619) 522-2040
cadowney@san.rr.com
For: Imperial Irrigation District

John W. Leslie, Esq.
Attorney At Law
LUCE, FORWARD, HAMILTON & SCRIPPS, LLP
11988 EL CAMINO REAL, SUITE 200
SAN DIEGO CA 92130
(858) 720-6352
jleslie@luce.com
For: Coral Power, LLC and Energia Azteca/Energia de Baja California (La Rosita)

S. Nancy Whang
DAVID L. HUARD, RANDALL W. KEEN
Attorney At Law
MANATT, PHELPS & PHILLIPS, LLP
11355 WEST OLYMPIC BLVD.
LOS ANGELES CA 90064
(310) 312-4377
nwhang@manatt.com
For: The City of Santee

Scot Martin
PO BOX 1549
BORREGO SPRINGS CA 92004
(760) 767-1045
scotmartin478@msn.com

Joetta Mihalovich
11705 ALDERCREST POINT
SAN DIEGO CA 92131

Arthur Fine
DOUGLAS W. BORDEWIECK
MITCHELL SILBERBERG & KNUPP LLP
11377 W. OLYMPIC BLVD.
LOS ANGELES CA 90064-1683
(310) 312-2000
sptp@msk.com
For: David H. Batchelder

APPENDIX F

********** SERVICE LIST **********
Last Updated on 27-OCT-2008 by: JVG
A0608010 LIST
A0512014

richard.raushenbush@lw.com
For: San Diego Gas & Electric

Diane J. Conklin
Spokesperson
MUSSEY GRADE ROAD ALLIANCE
PO BOX 683
RAMONA CA 92065
(760) 787-0794
dj0conklin@earthlink.net
For: MUSSEY GRADE ROAD ALLIANCE

Don Wood Sr.
PACIFIC ENERGY POLICY CENTER
4539 LEE AVENUE
LA MESA CA 91941
(619) 463-9035
dwood8@cox.net

Michael Page
17449 OAK HOLLOW ROAD
RAMONA CA 92065-6758
(760) 788-9319
oakhollowranch@wildblue.net
For: Starlight Mountain Estates Owners

Bill Powers
POWERS ENGINEERING
4452 PARK BLVD., SUITE 209
SAN DIEGO CA 92116
(619) 295-2072
bpowers@powersengineering.com
For: Powers Engineering

Marion Peleo
Legal Division
RM. 4107
505 VAN NESS AVE
San Francisco CA 94102 3298
(415) 703-2130
map@cpuc.ca.gov
For: Division of Ratepayer Advocates

Elizabeth Edwards
RAMONA VALLEY VINEYARD ASSOCIATION
26502 HIGHWAY 78
RAMONA CA 92065
(760) 789-8673
edwrdsgrfx@aol.com
For: Ramona Valley Vineyard Assoc.

Harvey Payne
RANCHO PENASQUITOS CONCERNED CITIZENS
13223 - 1 BLACK MOUNTAIN ROAD, 264
SAN DIEGO CA 92129
(619) 794-4307
hpayne3@gmail.com
For: RANCHO PENASQUITOS CONCERNED CITIZENS

Rory Cox
AARON QUINTANAR/BILL POWERS
RATEPAYERS FOR AFFORDABLE CLEAN ENERGY
311 CALIFORNIA STREET, SUITE 650
SAN FRANCISCO CA 94104
(415) 399-8850 X 302
rcox@pacificenvironment.org
For: C/O Pacific Enviroment

Keith Ritchey
Powerlink Issues Manager
8744 CREEKWOOD LANE
SAN DIEGO CA 92129
(858) 484-4429
kritchey@san.rr.com
For: West Chase Homeowner's Association

Billy Blattner
Manager Regulatory Relations
SAN DIEGO GAS & ELECTRIC COMPANY
601 VAN NESS AVENUE, SUITE 2060
SAN FRANCISCO CA 94102
(415) 202-9986
wblattner@semprautilities.com
For: San Diego Gas & Electric Company

E. Gregory Barnes
W. SMITH
Attorney At Law
SAN DIEGO GAS & ELECTRIC COMPANY
101 ASH STREET, HQ 13D
SAN DIEGO CA 92101
(619) 699-5019
gbarnes@sempra.com
For: San Diego Gas & Electric

APPENDIX F

********** SERVICE LIST **********
Last Updated on 27-OCT-2008 by: JVG
A0608010 LIST
A0512014

Kevin O'Beirne
SAN DIEGO GAS & ELECTRIC COMPANY
8330 CENTURY PARK COURT, CP32D
SAN DIEGO CA 92123
(858) 654-1765
ko'beirne@semprautilities.com
For: San Diego Gas & Electric

Patricia C. Schnier
BARBARA E. SCHNIER, ESQ.
14575 FLATHEAD RD.
APPLE VALLEY CA 92307
(760) 240-7668
barbschnier@yahoo.com
For: Self

Osa L. Wolff
Attorney At Law
SHUTE, MIHALY & WEINBERGER, LLC
396 HAYES STREET
SAN FRANCISCO CA 94102
(415) 552-7272
wolff@smwlaw.com
For: Cities of Temecula, Murrieta & Hemet

Thomas A. Burhenn
SOUTHERN CALIFORNIA EDISON
2244 WALNUT GROVE AVENUE
ROSEMEAD CA 91770
(626) 302-9652
thomas.burhenn@sce.com
For: Southern California Edison

Nicholas Sher
Legal Division
RM. 4007
505 VAN NESS AVE
San Francisco CA 94102 3298
(415) 703-4232
nms@cpuc.ca.gov

Michel Peter Florio
Attorney At Law
THE UTILITY REFORM NETWORK
711 VAN NESS AVENUE, SUITE 350
SAN FRANCISCO CA 94102
(415) 929-8876 X302

James F. Walsh
SAN DIEGO GAS & ELECTRIC COMPANY
101 ASH STREET
SAN DIEGO CA 92101
(619) 699-5022
jwalsh@sempra.com
For: San Diego Gas & Electric Company

Michael Shames
Attn: Michael Shames
UCAN
3100 FIFTH AVENUE, SUITE B
SAN DIEGO CA 92103
(619) 696-6966
mshames@ucan.org
For: UTILITY CONSUMERS' ACTION NETWORK

Pam Whalen
24444 RUTHERFORD ROAD
RAMONA CA 92065
(760) 440-0202
pwhalen2@cox.net

Arnold B. Podgorsky
WRIGHT & TALISMAN, P.C.
1200 G STREET, N.W., SUITE 600
WASHINGTON DC 20005
(202) 393-1200
Podgorsky@wrightlaw.com
For: The Nevada Hydro Company

Michael J. Thompson
Attorney At Law
WRIGHT & TALISMAN, PC
1200 G STREET, N.W., STE 600
WASHINGTON DC 20005
(202) 393-1200
thompson@wrightlaw.com
For: The Nevada Hydro Company

********** **STATE EMPLOYEE** **********

Susan Lee
ASPEN ENVIRONMENTAL GROUP
235 MONTGOMERY STREET, SUITE 935
SAN FRANCISCO CA 94104
(415) 955-4775 X 203
slee@aspeneg.com

APPENDIX F

********** SERVICE LIST **********
Last Updated on 27-OCT-2008 by: JVG
A0608010 LIST
A0512014

mflorio@turn.org
For: TURN

Billie C. Blanchard
Energy Division
AREA 4-A
505 VAN NESS AVE
San Francisco CA 94102 3298
(415) 703-2068
bcb@cpuc.ca.gov

Traci Bone
Legal Division
RM. 5206
505 VAN NESS AVE
San Francisco CA 94102 3298
(415) 703-2048
tbo@cpuc.ca.gov

Clare Laufenberg
CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET, MS 46
SACRAMENTO CA 95814
(916) 654-4859
Claufenb@energy.state.ca.us

Judy Grau
CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET MS-46
SACRAMENTO CA 95814-5512
(916) 653-1610
jgrau@energy.state.ca.us

Marc Pryor
CALIFORNIA ENERGY COMMISSION
1516 9TH ST, MS 20
SACRAMENTO CA 95814
(916) 653-0159
mpryor@energy.state.ca.us

Paul C. Richins Jr.
CALIFORNIA ENERGY COMMISSION
1516 9TH STREET
SACRAMENTO CA 95814
(916) 654-4074
prichins@energy.state.ca.us
For: CALIFORNIA ENERGY COMMISSION

Tom Murphy
Vp., Sacramento Operations
ASPEN ENVIRONMENTAL GROUP
8801 FOLSOM BLVD., SUITE 290
SACRAMENTO CA 95826
(916) 379-0350
tmurphy@aspeneg.com

Laurence Chaset
Legal Division
RM. 5131
505 VAN NESS AVE
San Francisco CA 94102 3298
(415) 355-5595
lau@cpuc.ca.gov

Matthew Deal
Executive Division
RM. 5215
505 VAN NESS AVE
San Francisco CA 94102 3298
(415) 703-2576
mjd@cpuc.ca.gov

Janet A. Econome
Administrative Law Judge Division
RM. 5116
505 VAN NESS AVE
San Francisco CA 94102 3298
(415) 703-1494
jjj@cpuc.ca.gov

Robert Elliott
Energy Division
AREA 4-A
505 VAN NESS AVE
San Francisco CA 94102 3298
(415) 703-2527
rae@cpuc.ca.gov

Thomas Flynn
Energy Division
770 L STREET, SUITE 1050
Sacramento CA 95814
(916) 324-8689
trf@cpuc.ca.gov

Julie Halligan
Consumer Protection & Safety Division
RM. 2203
505 VAN NESS AVE
San Francisco CA 94102 3298
(415) 703-1587
jmh@cpuc.ca.gov

APPENDIX F

********** SERVICE LIST **********
Last Updated on 27-OCT-2008 by: JVG
A0608010 LIST
A0512014

Scott Cauchois
Division of Ratepayer Advocates
RM. 4103
505 VAN NESS AVE
San Francisco CA 94102 3298
(415) 703-1525
wsc@cpuc.ca.gov
For: DRA

Jeanette Lo
Consumer Protection & Safety Division
RM. 2253
505 VAN NESS AVE
San Francisco CA 94102 3298
(415) 703-1825
jlo@cpuc.ca.gov

Scott Logan
Division of Ratepayer Advocates
RM. 4209
505 VAN NESS AVE
San Francisco CA 94102 3298
(415) 703-1418
sjl@cpuc.ca.gov
For: DRA

Helen M. Mickiewicz
Legal Division
RM. 5123
505 VAN NESS AVE
San Francisco CA 94102 3298
(415) 703-1319
hmm@cpuc.ca.gov

David Ng
Executive Division
RM. 5207
505 VAN NESS AVE
San Francisco CA 94102 3298
(415) 703-1791
dhn@cpuc.ca.gov

Marcus Nixon
Consumer Service & Information Division
RM. 500
320 WEST 4TH STREET SUITE 500
Los Angeles CA 90013
(213) 576-7057
mrx@cpuc.ca.gov

Terrie D. Prosper
Executive Division
RM. 5301
505 VAN NESS AVE

Gregory Heiden
Legal Division
RM. 5039
505 VAN NESS AVE
San Francisco CA 94102 3298
(415) 355-5539
gxh@cpuc.ca.gov

Jean Vieth
Administrative Law Judge Division
RM. 5010
505 VAN NESS AVE
San Francisco CA 94102 3298
(415) 703-2194
xjv@cpuc.ca.gov

Steven A. Weissman
Administrative Law Judge Division
RM. 5107
505 VAN NESS AVE
San Francisco CA 94102 3298
(415) 703-2195
saw@cpuc.ca.gov

Keith D White
Energy Division
AREA 4-A
505 VAN NESS AVE
San Francisco CA 94102 3298
(415) 355-5473
kwh@cpuc.ca.gov

Linda J. Woods
Consumer Protection & Safety Division
AREA 2-A
505 VAN NESS AVE
San Francisco CA 94102 3298
(415) 703-1177
ljw@cpuc.ca.gov

********* **INFORMATION ONLY** **********

Jaleh (Sharon) Firooz, P.E.
ADVANCED ENERGY SOLUTIONS
17114 TALLOW TREE LANE
SAN DIEGO CA 92127
(858) 229-0023
jfirooz@iesnet.com

Brewster Birdsall
ASPEN ENVIRONMENTAL GROUP
235 MONTGOMERY STREET, SUITE 935
SAN FRANCISCO CA 94104

APPENDIX F

********** SERVICE LIST **********
Last Updated on 27-OCT-2008 by: JVG
A0608010 LIST
A0512014

San Francisco CA 94102 3298
(415) 703-2160
tdp@cpuc.ca.gov

Donald R. Smith
Division of Ratepayer Advocates
RM. 4209
505 VAN NESS AVE
San Francisco CA 94102 3298
(415) 703-1562
dsh@cpuc.ca.gov

Bob & Margaret Barelmann
6510 FRANCISCAN ROAD
CARLSBAD CA 92011
(760) 497-7777

Jim Bell
4862 VOLTAIRE ST.
SAN DIEGO CA 92107
(619) 758-9020
jimbellelsi@cox.net

Pat/Albert Bianez
1223 ARMSTRONG CIRCLE
ESCONDIDO CA 92027
patricia_fallon@sbcglobal.net

Eileen Bird
12430 DORMOUSE ROAD
SAN DIEGO CA 92129
(858) 538-9595
sanrocky@aol.com

Donna Tisdale
BOULEVARD SPONSOR GROUP
PO BOX 1272
BOULEVARD CA 91905
(619) 766-4170
donnatisdale@hughes.net

David Branchcomb
BRANCHCOMB ASSOCIATES, LLC
9360 OAKTREE LANE
ORANGEVILLE CA 95662
(916) 988-5676
david@branchcomb.com

Phillip &Eliane Breedlove
1804 CEDAR STREET
RAMONA CA 92065
(858) 618-5087
wolfmates@cox.net

(415) 955-4775
bbirdsall@aspeneg.com

Philippe Auclair
11 RUSSELL COURT
WALNUT CREEK CA 94598
(925) 588-9109
phil@auclairconsulting.com

Thomas Zale
BUREAU OF LAND MANAGEMENT
1661 SO. 4TH STREET
EL CENTRO CA 92243
(760) 337-4420
Thomas_Zale@blm.gov

Kelli Mcdowell
CA DEPT. OF PARKS AND RECREATION
1416 NINTH STREET, ROOM 1404-06
SACRAMENTO CA 95814
KMCDO@parks.ca.gov

G. Alan Comnes
CABRILLO POWER I LLC
3934 SE ASH STREET
PORTLAND OR 97214
(503) 239-6913
alan.comnes@nrgenergy.com

Robin Harrington
CAL. DEPT OF FORESTRY AND FIRE PROTECTIO
PO BOX 944246
SACRAMENTO CA 94244-2460
(916) 653-0922
robin.harrington@fire.ca.gov

John Sthura
CALIFORNIA BOTANICAL HABITAT
PO BOX 1032
HEMET CA 92546
(641) 715-3900
c@californiabotanicalhabitat.com
For: California Botanical Habitat

Irene Stillings
Executive Director
CALIFORNIA CENTER FOR SUSTAINABLE ENERGY
8520 TECH WAY, SUITE 110
SAN DIEGO CA 92123
Irene.stillings@energycenter.org

APPENDIX F

********** SERVICE LIST **********
Last Updated on 27-OCT-2008 by: JVG
A0608010 LIST
A0512014

John&Phyllis Bremer
PO BOX 510
SANTA YSABEL CA 92070
gecko_greens@juno.com

Lynda Kastoll
Realty Specialist
BUREAU OF LAND MANAGEMENT
EL CENTRO FIELD OFFICE
1661 SOUTH 4TH STREET
EL CENTRO CA 92243

Sephra A. Ninow
Policy Analyst
CALIFORNIA CENTER FOR SUSTAINABLE ENERGY
8690 BALBOA AVENUE, SUITE 100
SAN DIEGO CA 92123
(858) 244-1186
sephra.ninow@energycenter.org

J.A. Savage
CALIFORNIA ENERGY CIRCUIT
3006 SHEFFIELD AVE
OAKLAND CA 94602
(510) 534-9109
editorial@californiaenergycircuit.net

James W. Reede Jr. Ed.D
CALIFORNIA ENERGY COMMISSION
1516 - 9TH STREET
SACRAMENTO CA 95814
(916) 653-1245
jreede@energy.state.ca.us
For: CALIFORNIA ENERGY COMMISSION

CALIFORNIA ENERGY MARKETS
425 DIVISADERO ST.
SAN FRANCISCO CA 94117
(415) 963-4439
cem@newsdata.com

Nancy J. Saracino
Attorney
CALIFORNIA INDEP. SYSTEM OPERATOR CORP.
151 BLUE RAVINE ROAD
FOLSOM CA 95630
(916) 351-4400
For: CALIFORNIA INDEP. SYSTEM OPERATOR CORP.

Legal & Regulatory Department
CALIFORNIA ISO
151 BLUE RAVINE ROAD

Jennifer Porter
Policy Analyst
CALIFORNIA CENTER FOR SUSTAINABLE ENERGY
8690 BALBOA AVENUE, SUITE 100
SAN DIEGO CA 92123
(858) 244-1177
jennifer.porter@energycenter.org

Justin Augustine
CENTER FOR BIOLOGICAL DIVERSITY
351 CALIFORNIA STREET, SUITE 600
SAN FRANCISCO CA 94104
(415) 436-9682
jaugustine@biologicaldiversity.org
For: Center for Biological Diversity

Steven Siegel
Staff Attorney
CENTER FOR BIOLOGICAL DIVERSITY
3421 PARK PLACE
EVANSTON IL 60201
(847) 491-1437
ssiegel@biologicaldiversity.org
For: Center for Biological Diversity

Tom Blair
Energy Administrator
CITY OF SAN DIEGO
9601 RIDGEHAVEN COURT, SUITE 120
SAN DIEGO CA 92123-1636
(858) 492-6001
tblair@sandiego.gov

Dahvia Locke
Enironmental Resource Manager
COUNTY OF SAN DIEGO
5201 RUFFIN ROAD, SUITE B
SAN DIEGO CA 92123-1666
(858) 694-3075
Dahvia.Lynch@sdcounty.ca.gov

Sabrina Ozturk
Mscp Division
COUNTY OF SAN DIEGO
5201 RUFFIN ROAD, SUITE B
SAN DIEGO CA 92123
(858) 694-3004
sabrina.ozturk@sdcounty.ca.gov

APPENDIX F

********** SERVICE LIST **********
Last Updated on 27-OCT-2008 by: JVG
A0608010 LIST
A0512014

FOLSOM CA 95630
e-recipient@caiso.com
For: CALIFORNIA ISO

Monica Argandona
Desert Program Director
CALIFORNIA WILDERNESS COALITION
167 NORTH THIRD AVENUE, STE M
UPLAND CA 91786
(909) 946-1855
margandona@calwild.org

Cassandra Sweet
DOW JONES NEWSWIRES
201 CALIFORNIA ST., 13TH FLOOR
SAN FRANCISCO CA 94111
(415) 439-6468
Cassandra.sweet@dowjones.com

Glenn E. Drown
PO BOX 330
SANTA YSABEL CA 92070
(760) 765-3381
gedrown@mindspring.com

Audra Hartmann
DYNEGY, INC.
980 NINTH STREET, SUITE 2130
SACRAMENTO CA 95814
(916) 441-6242
Audra.Hartmann@Dynegy.com

Joseph Paul
Senior Corporate Counsel
DYNEGY, INC.
4140 DUBLIN BLVD., STE. 100
DUBLIN CA 94568
(925) 829-1804 X-105
joe.paul@dynegy.com

E. Craig Smay
E. CRAIG SMAY PC
174 EAST SOUTH TEMPLE
SALT LAKE CITY UT 84111
(801) 539-8515
For: William and Shannon Davis

Andrew B. Brown
Attorney At Law
ELLISON SCHNEIDER & HARRIS, LLP
2015 H STREET

George Courser
3142 COURSER AVENUE
SAN DIEGO CA 92117
(858) 273-2426
gcourser@hotmail.com

David W. Carey
DAVID CAREY & ASSOCIATES, INC.
PO BOX 2481
JULIAN CA 92036
(760) 765-3266
dandbcarey@julianweb.com

Dan Perkins
ENERGYSMARTHOMES.NET
983 PHILLIPS ST.
VISTA CA 92083
(760) 639-0945
dan@energysmarthomes.net

Rebecca Pearl
Policy Advocate, Clean Bay Campaign
ENVIRONMENTAL HEALTH COALITION
401 MILE OF CARS WAY, STE. 310
NATIONAL CITY CA 91950
(619) 474-0220
rebeccap@environmentalhealth.org
For: ENVIRONMENTAL HEALTH COALITION

Epic Intern
EPIC/USD SCHOOL OF LAW
5998 ALCALA PARK
SAN DIEGO CA 92110
(619) 260-4806
usdepic@gmail.com

Steve/Carolyn Esposito
37784 MONTEZUMA VALLEY ROAD
RANCHITA CA 92066
(760) 782-9011
cesposit@sdcoe.k12.ca.us

Julie L. Fieber
FOLGER LEVIN & KAHN LLP
275 BATTERY STREET, 23RD FLOOR
SAN FRANCISCO CA 94111
(415) 365-7823
jfieber@flk.com

Diane I. Fellman
Director, Regulatory Affairs
FPL ENERGY PROJECT MANAGEMENT, INC.

APPENDIX F

********** SERVICE LIST **********
Last Updated on 27-OCT-2008 by: JVG
A0608010 LIST
A0512014

SACRAMENTO CA 95811
(916) 447-2166
abb@eslawfirm.com

Kelly Fuller
ENERGY AND NATURE
PO BOX 6732
MINNEAPOLIS MN 55406
kelly@kellyfuller.net

Bonnie Gendron
4812 GLENSIDE ROAD
SANTA YSABEL CA 92070
(760) 765-2132
bgendron@nethere.com

Richard Lauckhart
GLOBAL ENERGY
2379 GATEWAY OAKS DRIVE, SUITE 200
SACRAMENTO CA 95833
(916) 609-7769
rlauckhart@globalenergy.com

Carolyn Morrow
GOLIGHTLY FARMS
36255 GRAPEVINE CANYON ROAD
RANCHITA CA 92066
(619) 977-9961
Csmmarket@aol.com

Laurel Granquist
PO BOX 2486
JULIAN CA 92036
celloinpines@sbcglobal.net

Kim Kiener
504 CATALINA BLVD
SAN DIEGO CA 92106
(619) 990-6627
kmkiener@cox.net

Glenda Kimmerly
PO BOX 305
SANTA YSABEL CA 92070
kimmerlys@yahoo.com

Brian Kramer
PO BOX 516
JULIAN CA 92036-0516
(760) 765-3177
colobiker@gmail.com

Henry Martinez
LADWP
234 VAN NESS AVENUE
SAN FRANCISCO CA 94102
(415) 703-6000
Diane.Fellman@fpl.com

Darrell Freeman
1304 ANTRIM DR.
ROSEVILLE CA 95747
ddfreeman@yahoo.com

Patricia Guerrero
Attorney At Law
LATHAM & WATKINS
600 WEST BROADWAY, SUITE 1800
SAN DIEGO CA 92101-3375
patricia.guerrero@lw.com
For: San Diego Gas and Electric Company

Julie B. Greenisen
LATHAM & WATKINS LLP
SUITE 1000
555 ELEVENTH STREET, NW
WASHINGTON DC 20004-1304
(202) 637-2142
julie.greenisen@lw.com

Michael J. Gergen
LATHAM & WATKINS LLP
SUITE 1000
555 ELEVENTH STREET, NW
WASHINGTON DC 20004-1304
(202) 637-2200
michael.gergen@lw.com

Elizabeth Klein
LATHAM & WATKINS, LLP
555 11TH STREET NW, STE. 1000
WASHINGTON DC 20004
(202) 637-2200
elizabeth.klein@lw.com

Janice Schneider
LATHAM & WATKINS, LLP
555 11TH STREET NW, STE 1000
WASHINGTON DC 20004
(202) 637-2200
janice.schneider@lw.com

Jason M. Ohta
LATHAM &WATKINS LLP
600 WEST BROADWAY, SUITE 1800
SAN DIEGO CA 92101-3375
(415) 391-0600

APPENDIX F

********** SERVICE LIST **********
Last Updated on 27-OCT-2008 by: JVG
A0608010 LIST
A0512014

111 N. HOPE ST., ROOM 921
LOS ANGELES CA 90012
(213) 367-4435
Henry.Martinez@ladwp.com

Gregory T. Lambron
LAMBRON LAKESIDE RANCH, LLC
PO BOX 15453
SAN DIEGO CA 92175-5453
(619) 583-1226

Randy S. Howard
LOS ANGELES DEPT. OF WATER AND POWER
111 NORTH HOPE STREET, ROOM 921
LOS ANGELES CA 90012
(213) 367-0381
randy.howard@ladwp.com

Joseph W. Mitchell, Ph. D.
M-BAR TECHNOLOGIES AND CONSULTING
19412 KIMBALL VALLEY RD
RAMONA CA 92065
(760) 703-7521
jwmitchell@mbartek.com

Joseph W. Mitchell, Phd
M-BAR TECHNOLOGIES AND CONSULTING
19412 KIMBALL VALLEY RD.
RAMONA CA 92065
(760) 703-7521
jwmitchell@mbartek.com
For: M-BAR TECHNOLOGIES AND CONSULTING

Randall W. Keen
Attorney At Law
MANATT PHELPS & PHILLIPS, LLP
11355 WEST OLYMPIC BLVD.
LOS ANGELES CA 90064
(310) 312-4361
rkeen@manatt.com
For: City of Santee

David L. Huard
Attorney At Law
MANATT, PHELPS & PHILLIPS, LLP
ONE EMBARCADERO CENTER, 30TH FL.
SAN FRANCISCO CA 94111
(415) 291-7410
dhuard@manatt.com
For: City of Santee

---

jason.ohta@lw.com
For: San Diego Gas and Electric Company

Lara Lopez
16828 OPEN VIEW RD
RAMONA CA 92065
soliviasmom@gmail.com

MRW & ASSOCIATES, INC.
1814 FRANKLIN STREET, SUITE 720
OAKLAND CA 94612
(510) 834-1999
mrw@mrwassoc.com

Louis Nastro
PO BOX 942896
SACRAMENTO CA 92860-0001
(916) 653-0524
Lnastro@parks.ca.gov

James B. Woodruff
Vice President Regulatory And Govt Affai
NEXTLIGHT RENEWABLE POWER, LLC
101 CALIFORNIA STREET, STE 2450
SAN FRANCISCO CA 94111
(626) 404-6860
jwoodruff@nextlightrp.com

Dave Downey
NORTH COUNTY TIMES
207 E. PENNSYLVANIA AVENUE
ESCONDIDO CA 92025
(760) 740-5442
ddowney@nctimes.com

Deanna Spehn
Policy Director
OFFICE OF SENATOR CHRISTINE KEHOE
39TH STATE SENATE DISTRICT
2445 5TH AVENUE, SUITE 200
SAN DIEGO CA 92101
(619) 645-3133
deanna.spehn@sen.ca.gov

Peter Schultz
OLD JULIAN CO.
PO BOX 2269
RAMONA CA 92065
(760) 789-0987
oldjulianco@integrity.com

APPENDIX F

********** SERVICE LIST **********
Last Updated on 27-OCT-2008 by: JVG
A0608010 LIST
A0512014

David Marcus
PO BOX 1287
BERKELEY CA 94701
(510) 528-0728
dmarcus2@sbcglobal.net

K. Renee Martin
PO BOX 1276
POWAY CA 92074
(760) 789-0802
Reneeandbear@aol.com

David T. Kraska
Attorney At Law
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 7442, 77 BEALE ST, B30A
SAN FRANCISCO CA 94105
(415) 973-7503
dtk5@pge.com

Jason Yan
PACIFIC GAS AND ELECTRIC COMPANY
77 BEALE STREET, MAIL CODE B13L
SAN FRANCISCO CA 94105
jay2@pge.com

Katarzyna M. Smolen
PACIFIC GAS AND ELECTRIC COMPANY
77 BEALE STREET, MC B9A
SAN FRANCISCO CA 94105
(415) 973-4784
kmsn@pge.com

Michael S. Porter
PACIFIC GAS AND ELECTRIC COMPANY
77 BEALE ST., MAIL CODE 13L RM 1318
SAN FRANCISCO CA 94105
(415) 973-6625
mspe@pge.com

Scott Kardel
PALOMAR OBSERVATORY
PO BOX 200
PALOMAR MOUNTAIN CA 92060
(760) 742-2111
WSK@astro.caltech.edu

Nancy Parinello
PO BOX 516
JULIAN CA 92036-0516
(760) 765-3177
nparinello@gmail.com

John Raifsnider

Case Coordination
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 770000; MC B9A
SAN FRANCISCO CA 94177
(415) 973-4744
regrelcpuccases@pge.com

Joseph Rauh
RANCHITA REALTY
37554 MONTEZUMA VALLEY RD
RANCHITA CA 92066
(760) 782-3632
joe@ranchitarealty.com
For: RANCHITA REALTY

Aaron Quintanar
RATE PAYERS FOR AFFORDABLE CLEAN ENERGY
311 CALIFORNIA STREET, STE 650
SAN FRANCISCO CA 94104
(415) 399-8850 X302
rcox@pacificenvironment.org

Paul Ridgway
3027 LAKEVIEW DR.
PO BOX 1435
JULIAN CA 92036-1435
cpuc@92036.com

Stephen Rogers
1340 OPAL STREET
SAN DIEGO CA 92109
srogers647@aol.com

Susan Freedman
Senior Regional Energy Planner
SAN DIEGO ASSOCIATION OF GOVERNMENTS
401 B STREET, SUITE 800
SAN DIEGO CA 92101
(619) 699-7387
sfr@sandag.org

Central Files
SAN DIEGO GAS & ELECTRIC
CP31-E
8330 CENTURY PARK COURT
SAN DIEGO CA 92123
(858) 654-1148
centralfiles@semprautilities.com

APPENDIX F

********** SERVICE LIST **********
Last Updated on 27-OCT-2008 by: JVG
A0608010 LIST
A0512014

PO BOX 121
JULIAN CA 92036-0121
(760) 765-2722
skyword@sbcglobal.net

Carolyn A. Dorroh
RAMONA COMMUNITY PLANNING GROUP
17235 VOORHES LANE
RAMONA CA 92065
(760) 789-4429
carolyn.dorroh@cubic.com

J. Harry Jones
SAN DIEGO UNION TRIBUNE
800 WEST VALLEY PARKWAY, SUITE 114
ESCONDIDO CA 92025
(760) 737-7553
jharry.jones@uniontrib.com

Kimbelry Schulz
10303 CANINITO ARALIA NO 96
SAN DIEGO CA 92131

Kellie Smith
SENATE ENERGY/UTILITIES & COMMUNICATION
STATE CAPITOL, ROOM 4038
SACRAMENTO CA 95814
(916) 651-4107
kellie.smith@sen.ca.gov

Paul G. Scheuerman
SHEUERMAN CONSULTING
3915 RAWHIDE RD.
ROCKLIN CA 95677
(916) 630-7073
PGS@IEEE.org

Sheridan Pauker
SHUTE,MIHALY & WEINBERGER LLP
396 HAYES STREET
SAN FRANCISCO CA 94102
(415) 552-7272
wolff@smwlaw.com
For: Cities of Temecula, Hemet and Murrieta

Micah Mitrosky
SIERRA CLUB
3820 RAY STREET
SAN DIEGO CA 92104-3623
(619) 299-1797
mmitrosky@sierraclubsandiego.org

Matthew Jumper
SAN DIEGO INTERFAITH HOUSING FOUNDATION
7956 LESTER AVE
LEMON GROVE CA 91945
mjumper@sdihf.org
For: SAN DIEGO INTERFAITH HOUSING FOUNDATION

Bruce Foster
Senior Vice President
SOUTHERN CALIFORNIA EDISON COMPANY
601 VAN NESS AVENUE, STE. 2040
SAN FRANCISCO CA 94102
(415) 775-1856
bruce.foster@sce.com

Case Administration
SOUTHERN CALIFORNIA EDISON COMPANY
LAW DEPARTMENT, ROOM 370
2244 WALNUT GROVE AVENUE
ROSEMEAD CA 91770
(626) 302-6838
Case.Admin@sce.com

Clay E. Faber
SOUTHERN CALIFORNIA GAS COMPANY
555 WEST FIFTH STREET, GT-14D6
LOS ANGELES CA 90013
(213) 244-5129
cfaber@semprautilities.com
For: San Diego Gas & Electric Company

Wally Besuden
President
SPANGLER PEAK RANCH, INC
PO BOX 1959
ESCONDIDO CA 92033
(702) 429-7525

Bruce V. Biegelow
Staff Writer
THE SAN DIEGO UNION TRIBUNE
PO BOX 120191S
SAN DIEGO CA 92112-0191
(619) 293-1314
bruce.bigelow@uniontrib.com

APPENDIX F

********** SERVICE LIST **********
Last Updated on 27-OCT-2008 by: JVG
A0608010 LIST
A0512014

Katharine Wolfrom
SIERRA CLUB OF SAN DIEGO
3802 RAY STREET
SAN DIEGO CA 92104
(650) 387-5540
sierraclubintern@yahoo.com

Darell Holmes
Transmission Manager
SOUTHERN CALIFORNIA EDISON
2244 WALNIT GROVE AVE, 238M, QUADB, G01
ROSEMEAD CA 91770
(626) 302-6498
darell.holmes@sce.com

J. Sthura
UNDERGROUND POWER ASSOCIATION
PO BOX 1032
HEMET CA 92546
up@undergroundpower.us
For: UNDERGROUND POWER ASSOCIATION

Martha Baker
VOLCAN MOUNTAIN PRESERVE FOUNDATION
PO BOX 1625
JULIAN CA 92036
(760) 765-2300
vmp@sbcglobal.net

David Voss
502 SPRINGFIELD AVENUE
OCEANSIDE CA 92057
(760) 630-1070
dwvoss@cox.net

Lon W. House
WATER & ENERGY CONSULTING
4901 FLYING C RD.
CAMERON PARK CA 95682
(530) 676-8956
lonwhouse@waterandenergyconsulting.com

Ron Webb
PO BOX 375
SANTA YSABEL CA 92070
webron7@yahoo.com

Daniel Suurkask
WILD ROSE ENERGY SOLUTIONS, INC.
430 8170 50TH STREET
EDMONTON AB T6B 1E6
CANADA
daniel@wildroseenergy.com

Paul C. Lacourciere
THELEN REID BROWN RAYSMAN & STEINER
101 SECOND STREET, SUITE 1800
SAN FRANCISCO CA 94105
(415) 369-7601
placourciere@thelenreid.com
For: The Nevada Hydro Company

William Tulloch
28223 HIGHWAY 78
RAMONA CA 92065
(760) 789-3854

Kevin Woodruff
WOODRUFF EXPERT SERVICES, INC.
1100 K STREET, SUITE 204
SACRAMENTO CA 95814
(916) 442-4877
kdw@woodruff-expert-services.com

Henry Zaininger
ZAININGER ENGINEERING COMPANY, INC.
1718 NURSERY WAY
PLEASANTON CA 94588
hzaininger@aol.com

Ziad Alaywan
ZGLOBAL INC. ENGINEERING AND ENERGY
193 BLUE RAVINE RD, STE 120
FOLSOM CA 95630
(916) 985-4259
ziad@zglobal.biz
For: ZGLOBAL INC. ENGINEERING AND ENERGY

APPENDIX F

********** SERVICE LIST **********
Last Updated on 27-OCT-2008 by: JVG
A0608010 LIST
A0512014

Suzanne Wilson
PO BOX 798
IDYLLWILD CA 92549
(951) 492-9836
swilson@pcta.org

W. Kent Palmerton
WK PALMERTON ASSOCIATES, LLC
2106 HOMEWOOD WAY, SUITE 100
CARMICHAEL CA 95608
kent@wkpalmerton.com

(END OF APPENDIX F)