

United States Department of the Interior

FISH AND WILDLIFE SERVICE

In Reply Refer To: R2/ES-EC CL 8-18 P.O. Box 1306 Albuquerque, New Mexico 87103 http://ifw2es.fws.gov

AUG 1 8 2006

Billie Blanchard, CPUC Project Manager California Public Utilities Commission 505 Van Ness Avenue San Francisco, California 94102

Dear Ms. Blanchard:

The U.S. Fish and Wildlife Service (Service) would like to thank you for the opportunity to review the draft Environmental Impact Report/Environmental Impact Statement (EIS) for the proposed Devers-Palo Verde No. 2 (DVP) Transmission Line Project. You will find our comments on the document below. We look forward to working with you to resolve these issues in the future.

A18-1

#### **General Comments**

Based on the economic information provided, the benefit of the proposed project is questionable in light
of its significant impacts. In several places the economic benefit of DVP2 is stated to be "\$1.1 billion
over the life of the project" (Page A-16 is one example), but nowhere in the EIS is the life of the project
specified. A time period of 49 years is mentioned in the Southern California Edison's (SCE) Cost
Effectiveness Report (2004). An operational lifespan of only 49 years should be weighed carefully
against the many permanent Class I impacts that will occur if the project is implemented. Several other
statements raise concerns about the need for the project and its purported economic benefits:

"...uncertainty surrounding the SCE customer base, which could be diminished by direct access and municipalization trends..." (Page C-54).

"No new generation or major transmission facilities would be required if the DVP2 project is not constructed" (Page C-63).

"...DVP2 is primarily driven by SCE's desire to reduce energy costs to California customers, not by a need for improved reliability" (Page C-61).

"...constructing DVP2 was found to have a net negative impact of around \$16 to \$20 million per year to Arizona..." (SCE 2004:41).

The economic analysis was conducted under the assumption that the benefits of accessing Palo Verde generation in the southwest area will continue beyond 2012 (SCE 2004). Given the exponential growth of the Phoenix area, this assumption is questionable. The Cost Effectiveness Report also states that uncertainty beyond 2012 is so large that forecasting future generation patterns is too imprecise to be useful. This brings the \$1.1 billion figure into question.

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Given that the project is almost purely economic in benefits, is not required for reliability of the power grid, has numerous Class I impacts, and will produce an economic benefit to consumers of only 61 cents per MWh (Page A-15), the No Action Alternative appears preferable to the proposed project.

2. The Underground Alternative should be reexamined fully. This alternative meets all project objectives and might not be cost prohibitive over short distances. This alternative should be seriously considered for sensitive areas such as the Kofa National Wildlife Refuge (Kofa NWR); in fact, if this is a feasible alternative for the Kofa NWR, then placing the DPV1 project underground at the same time and removing the current DPV1 towers should also be considered. While there is significant potential for severe environmental impacts in the short term, these could be avoided or minimized with careful planning, and long-term impacts to recreation and wilderness values could be significantly less than under the proposed project. There are no known active faults crossing the Kofa NWR segment of the project, and the project is in an area of low seismic hazard. There are few areas of steep slope along the utility right-of-way (ROW) and the existing access roads should allow for underground placement with little additional disturbance. Placing the DPV2 (and possibly DPV1) underground from the Series Capacitor east of the Kofa NWR boundary to approximately Milepost 80 should be seriously considered and examined in this draft EIS.

The proponent should also explore an alternative that is within the I-10 ROW east of Quartzsite and north of Kofa NWR. A combination of Sub-Alternate Route Nos. 1 and 4 could form an alternative that would result in minimal impact to natural resources and avoid a second power line on Kofa NWR. There would be impact to visual resources, but this impact would be less significant than on Kofa NWR or on a previously undisturbed route.

The proponent fails to differentiate between the impacts of what a person expects to see driving down l-10 east of Quartzsite at 85 mph, versus a person attempting to obtain a high quality wilderness experience on Kofa NWR. There is a tremendous difference in scale between the two experiences.

3. We are concerned about the presentation and analysis provided for special status species, particularly those listed under the Endangered Species Act. In Section D.2 and Appendix 7, there are lists of special status species and discussions of potential effects to these plant and animal species. However, the organization of the Section and Appendix do not provide a clear summary of the potential for effects or a discussion of those effects for the listed species. In addition, the Section and Appendix do not recognize that some federally listed species, particularly the Yuma clapper rail (*Rallus longiriostris yumanensis*), southwestern willow flycatcher (*Empidonax traillii extimus*), and the candidate yellow-billed cuckoo (*Coccyzus americanus*) are also found on the Arizona side of the Colorado River. These species are also listed under the Arizona Wildlife of Special Concern. The draft EIS also cites an Arizona Endangered Species Act, but there is no such legislation.

We suggest that the federally listed species be separated from the others of special concern and evaluated in one place in Section D.2 and Appendix 7. With the current organization, it is very difficult to assess the potential effects and proposed mitigation for these species. We understand that a separate section 7 consultation will be needed for this project; however, the discussion of the effects to listed species in the draft EIS should be clearly provided.

4. The draft EIS also does not adequately address the issues of crossing the Colorado River and the construction methods that would be needed to span the river. This information is important to assessing effects to aquatic and riparian bird species in the area. Also of concern is the additional effect to migratory birds from the placement of the new transmission line across the river. While the

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new line would mirror the old in terms of location of towers, the width of the affected area would increase. Information on bird strike hazards from the existing line should be provided, as well as mitigation to reduce the effects of the additional lines. This is not fully discussed in the draft EIS in either Section B or D.2.	A18-5 cont
Comments by Section	
Executive Summary	A10 /
5. Page ES-2. Although the Service issued a Compatibility Determination in 1989 for the portion of DPV2 that crosses Kofa NWR, the ROW Permit was never issued. Since the passage of the National Wildlife Refuge System Administration Act of 1966, the Service has processed its permits for all proposed uses on national wildlife refuges and this process has been closely tied to the compatibility process. The BLM ROW issued for DPV2 only applies to affected BLM lands, not to Kofa NWR.	A18-6
<ol> <li>Page ES-70 (Table ES-1). The Class I impact WR-2 also applies to Kofa NWR (Page D.5-27). There is no mitigation proposed to address WR-2; measures such as habitat improvements elsewhere on the refuge should be discussed with refuge staff before project commencement.</li> </ol>	A18-7
<ol> <li>Page ES-73 (Table ES-2). Mitigation Measure B-16a (raven control plan) requires approval from the Service.</li> </ol>	A18-8
Section A - Introduction	
8. Page A-2. A ROW Permit is required to cross the Kofa NWR. See comment number 5.	A18-9
9. Page A-16. What is the life of the project? See comment number 1.	A18-10
10. Page A-17. The non-quantifiable benefits of DVP2 come with non-quantifiable costs. What about impacts of new generation? New generation development and subsequent growth that may be encouraged by DVP2 would bring significant additional environmental impacts. If non-quantifiable benefits are considered, non-quantifiable costs should be, as well.	A18-11
11. Page A-18. A ROW Permit is required to cross the Kofa NWR. See comment number 5.	A10 10
Section B - Description of Proposed Project	A18-12
<ol> <li>Page B-13. A ROW Permit is required to cross the Kofa NWR. See comment number 5. The Compatibility Determination will need to be updated or reissued.</li> </ol>	
13. Page B-46. The existing utility spur roads on Kofa NWR were left as unbladed 2-tracks until spring of 2006, when the roads were bladed. Blading the roads causes vegetation loss, soil erosion, fugitive dust/air quality problems, and encourages trespassing by refuge visitors. A 2-track road is sufficient for almost all vehicles, and the spur roads should be left in that state or allowed to return to it after construction, if blading is deemed absolutely necessary. Refuge staff should be consulted before blading of new or existing spur roads occurs.	A18-13
14. Page B-69. Applicant Proposed Measures (APM) B-20—Permits for Take of Common Raven Nests, would be issued by the Service's Division of Migratory Birds, not Law Enforcement. Any raven control	A18-14

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on Kofa NWR must also be approved by refuge staff. Only one raven nest has been seen on the existing DPV1 power line within Kofa NWR. Raven control to protect desert tortoise habitat is not necessary on Kofa NWR.

#### Section C – Alternatives

- 15. Page C-51. The Underground Alternative should be fully analyzed for Kofa NWR. See comment number 2.
- 16. Page C-54. If the SCE customer base might diminish, why is the DPV2 project necessary? The ramifications of the Sun Valley Project should be addressed here. A new power plant constructed in California by SCE's parent company could address California's power. See comment number 1.
- 17. Page C-56. Wind power deserved more attention in this EIS as an alternative. According to the wind power figures provided, a single 1.5 MW turbine could generate 2,100 MWh annually, almost twice the anticipated import capacity of DVP2. If the average capacity of a wind turbine is 750 kW (half of 1.5 MW) then theoretically only two turbines would be needed to generate the capacity desired for DPV2. Although wind turbines also have serious environmental impacts, it seems that at only 60 acres per turbine (120 acres total, of which only 6 acres would actually be occupied), wind power would be a far more environmentally friendly option than DPV2 at 1,052 acres of new area occupied (Tables B-1 and B-2).
- 18. Page C-61.
  - a) Section C.6.1.1. states that during the early years of DVP2 a surplus of generating capacity will be available in Arizona. SCE analyzed the benefits of excess generation from 2009 to 2012 in its Cost Effectiveness Report (2004). What will happen during the later years of DVP2? Given the exponential growth of the Phoenix area, how long will the surplus generating capacity in Arizona be available? It seems that the economic benefits of DVP2 would be sharply reduced if cheaper power from Arizona is no longer available for import into California. These issues should be addressed in depth. See comment number 1.
  - b) Because "DVP2 is driven primarily by SCE's desire to reduce energy costs to California consumers, not by a need for improved reliability," we question the need for the project in light of the significant environmental impacts, especially if the "economic benefits would come mainly from lower energy costs based on the ability to access lower-cost energy supplies...particularly in Arizona," and the availability of this surplus Arizona generating capacity appears to be short-lived. See comment number 1.
  - c) Decreased generation at older, less efficient California plants is touted as a benefit of DVP2. However, if there will also be decreased generation at newer, more efficient plants in California as a result of DVP2 (Page C-62), this implies that there is still room for either further reductions in generation at older plants in California or reduction in generation in Arizona, which could offset the anticipated 200 ton increase in NO<sub>x</sub> emissions in Arizona.
- 19. Page C-63. If no new generation or major transmission facilities would be required to meet California's energy needs if DVP2 is not constructed, is the project really necessary? See comment number 1.

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5 Billie Blanchard Section D.2 - Biological Resources 20. Page D.2-16. Bullfrogs (Rana catesbiana) are an introduced species in the Colorado River and are A18-20 partially responsible for the decline of native Colorado River frogs, such as Rana yavapaiensis, the Lowland Leopard Frog. Bullfrogs are probably not the best amphibian species with which to categorize the Colorado River. A18-21 21. Page D.2-54. Buckhorn cholla is now considered to be Cylindropuntia acanthocarpa. 22. Page D.2-55. It should be clarified that although the Kofa NWR is located within and directly adjacent to the boundaries of the New Water Mountains Wilderness Area, the SCE ROW (and thus, the Kofa A18-22 NWR segment of the proposed project) lies entirely outside of the wilderness area because the ROW predated the wilderness designation. However, because the ROW is immediately adjacent to wilderness area, the proposed project will still cause impacts to wilderness character and values. 23. Page D.2-94, Although bald and golden eagles, and their nests and eggs, are protected under the Migratory Bird Treaty Act (as migratory birds), these species are not specifically mentioned under this A18-23 law as is suggested under the paragraph in Section D.2.4 referring to the Act. It is the Bald Eagle Protection Act of 1940 that specifically protects bald and golden eagles. 24. Page D.2-100. APMs B-5 and B-11 should be applied to Kofa NWR, as well, for protection of A18-24 biological resources. 25. Page D.2-101. APM B-20-Common Ravens. See comment number 14. A18-25 26. Page D.2-102. a) SCE must provide measures to enforce APM B-29, such as coordinating with local law A18-26 enforcement agencies to monitor traffic speed along routes, or provide temporary speed bumps on access roads. Past experience shows that contractors frequently ignore posted speed limits on Kofa NWR. b) APM B-30 should apply in Kofa NWR. Spur road blading should only be done if essential. See A18-27 comment number 13. 27. Pages D.2-104 and 105. Table D.2-7 must be updated to reflect that Impacts B-11 and B-12 are, in fact, Class III impacts on Kofa NWR. Important sheep movement corridors occur between the Livingston A18-28 Hills and western New Water Mountains, and also between the northeast Kofa Mountains and the eastern New Water Mountains (Cochran et al. 1984). During construction of the first DPV1 line, transmission line construction activities precluded normal ram crossings between the New Water Mountains and the Kofa Mountains/ Livingston Hills, although subsequent operation of the line did not appear to affect sheep crossings of the corridor (Smith et al. 1986). 28, Page D.2-110. Table D.2.8 should be updated to reflect that Impacts B-11 and B-12 are Class III on A18-29 Kofa NWR and that Mitigation Measures B-9a and B-9b will be implemented on Kofa NWR for sensitive reptile species. 29. Page D.2-117. Mitigation Measure B-2b for noxious weeds should contain a provision that SCE will pay A18-30 for treating invasive plant species that appear along the ROW after construction within a certain time

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	period. Invasive species may be introduced inadvertently, despite preventative measures described, and may not appear until rainfall occurs, perhaps many months after construction is completed.	A18-30 cont		
30.	Page D.2-157. Section D.2.6.1.10 should include a brief discussion of impacts to bighorn sheep movement corridors on Kofa NWR. Impacts B-11 and B-12 are Class III on Kofa NWR for bighorn sheep (see comment number 27). The assumption of No Impacts to movement corridors on Kofa NWR is erroneous.	A18-31		
31.	Page D.2-170. It cannot be said that the proposed project will not conflict with the management policies of Kofa NWR until the official Compatibility Determination is made. This determination will lead to a decision by the Refuge Manager/Regional Chief of the NWR System on whether or not the use is compatible with refuge purposes, and whether or not a permit should be issued to that proponent for the proposed project. The original 1989 Compatibility Determination signed by former Regional Director, Mike Spear, expired in 2004. A new compatibility determination has not been issued for the project.	A18-32		
32.	Page D.2-174. Raven Control Plan. See comment number 14.	A18-33		
33.	Page D.2-272. Table D.2-14 should be updated to reflect that Mitigation Measures B-2a and B-2b will also be implemented on Kofa NWR, not BLM land only.	A10-33		
34.	Page D.2-280. Mitigation Measure B-16a. See comment number 14.			
Sec	tion D.3 - Visual Resources			
35.	Page 3-57. APM B-5 (removal of construction debris) should apply to all construction areas, including those within Kofa NWR.	A18-34		
Sec	tion D.4 - Land Use	_		
36.	Page D.4-14. A ROW permit was never issued by the Service in 1989 for the DPV2 Project. The 1989 Compatibility Determination will either be reissued or a new Compatibility Determination will be made. See comment number 5.	A18-35		
37.	Page D.4-25. The Proposed Project cannot be considered compatible with the Kofa NWR Comprehensive Management Plan until the Compatibility Determination is made.	A18-36		
38.	Page D.4-27. Table D.4-13. In about 2002, the existing maintenance or access roads leading from the El Paso Natural Gas Pipeline Road to each individual tower on the existing DPV1 power line were bladed in order to access the power line with a boom truck to wash accumulated dust off of the insulators. Since the time DPV1 was constructed in the early 1980s, native desert vegetation had returned and recovered within these old access routes. In 2006, the same access roads were upgraded from 2-tracks by blading without consulting refuge staff. For APM L-2, the refuge would like specific information on how existing and new tower maintenance roads will be maintained to reduce dust, erosion, and vegetation destruction. While it is understood that the access and spur roads must be maintained for project maintenance, 2-track roads provide adequate access for almost all vehicles and blading, especially on upland terraces, is not necessary. See comment number 13.	A18-37		
39	Page D.4-28. Table D.4-14. The proposed project impact L-2 should be a Class I impact across Kofa NWR, not Class II. A second powerline would violate both significant land use criteria on Page D.4-26 and permanently damage the wilderness viewshed and recreation values. There is no way to mitigate this effect to less than significant.	A18-38		

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40. Page D.4-33. Contrary to what is stated under Section 4.6.2, there would be long-term land use impact from the proposed project on Kofa NWR, given the significant recreational use the area incurs. Impact L-1 would certainly occur from construction dust, noise, roadblocks, and vegetation destruction; Impact L-2 would indirectly affect wilderness and recreational users by generating noise and disrupting the viewshed. These issues are addressed in depth in Sections D.2, D.3, D.5, D.8, and D.11, but should be least mentioned here, as well.	A18-39			
Section D.5 - Wilderness and Recreation				
41. Page D.5-6. Change "Sawtooth Mountains" to "Sawtooth Mountain" and "La Cholla Mountains" to "I Cholla Mountain" in the Copper Bottom Pass section.	L <sup>a</sup> A18-40			
42. Page D.5-16. The text from Public Law 88-577, Section 4[d], cited on Page D.5-16, applies only to national forests. Wilderness within other Federal lands, such as national wildlife refuges, is not covere by this particular stipulation.	d A18-41			
43. Page D.5-17. The legislative history of Kofa NWR is incorrect. Kofa NWR was established by Public Law 94-223 in 1976, changing the status from a Game Range (established in 1939) to a NWR. The Arizona-Idaho Conservation Act of 1988 applies to the withdrawal of Kofa NWR lands from mineral leasing. Also applicable is the Arizona Desert Wilderness Act of 1990 (Public Law 101-628, 104 Stat 4472 and 4478), which established portions of the Kofa and New Water Mountains as designated wilderness.	A18-42			
44. Page D.5-19. In regard to APMs B-3 and L-1, it should be strongly emphasized that no vehicular traffi may occur off of existing or new access/spur roads or outside the ROW on Kofa NWR. Because off- highway vehicle (OHV) use policies differ throughout the various segments of the proposed project, SC must ensure that all workers clearly understand that off-road travel is prohibited on Kofa NWR.	A18-43			
45. Page D.5-21 and D.5-22, Table D.5-3. Policies regarding OHV use on the Kofa NWR differ from thos on BLM land. There should be no off-road vehicular travel or travel outside the existing ROW. See comment number 44.	<sup>е</sup> А18-44			
46. Page D.5-27. Although construction would occur outside of designated wilderness on Kofa NWR, the proposed project runs directly along the boundary on the New Water Mountains Wilderness. Therefore contrary to the first paragraph in Section D.5.6.2, there would still be indirect visual impacts to the wilderness areas on Kofa NWR. The highest recreational use of the Kofa NWR occurs in October through March. If construction were timed to avoid these months, impacts to refuge visitors would be minimized.	e, A18-45			
47. Pages D.5-27 and 28. Providing mitigation funds to Kofa NWR or a cooperator for (1) acquiring priva land in-holdings within the refuge boundaries from willing sellers, (2) constructing bat-accessible steel gates on abandoned mines that are important bat habitat, and (3) rehabilitating abandoned mine sites an old roads on Kofa NWR may be mitigation measures for Impact WR-2. The proposed construction of DPV2 would remain a Class I impact because of its detriment to the refuge and New Water Mountains Wilderness. This mitigation would help make up for the loss of habitat caused by the construction of the DPV2, although it would not reduce the industrial development of the proposed project across the refuge It must be clearly stated that any mitigation proposed would have no bearing on the compatibility determination completed by the Refuge Manager.	A18-46			

8 **Billie Blanchard** Section D.7 - Cultural and Paleontological Resources 48. Page D.7-50. Kofa NWR requests copies of any cultural or paleontological inventories conducted in the A18-47 Areas of Potential Effects (APE). Section D.8 - Noise 49. Page D.8-28. Impact N-2 is considered a Class I impact on Page D.8-22 and should be considered a Class I impact on Kofa NWR. Even though the Environmental Protection Agency (EPA) standard of 55 A18-48 Day-Night Average Sound Level (Ldn) has not been specifically adopted for Kofa NWR, it is logical to use that standard to assess impacts given the recreational and wilderness uses of the refuge. The existing DPV1 line exceeds this noise level already and is the most notable noise source in the area. Because DPV2 would increase this noise level further, corona noise impacts should be considered Class 1 within the refuge. This distracting sound may discourage visitors to the refuge or to other public lands from camping or picnicking or spending time in the vicinity of the power lines outside of their vehicles. Section D.9 - Transportation and Traffic 50. Page D.9-10. There is no APM to address traffic congestion along the Crystal Hill Road during times of A18-49 heavy visitor use. The Crystal Hill Road receives heavy visitor use during the winter months. SCE must provide adequate signage at refuge entrances and traffic coordinating personnel, if necessary. 51. Page D.9-16. Because of the remote nature of the refuge, it is possible that a helicopter rescue operation A18-50 could occur during construction of the proposed project. SCE must devise a plan to ensure that conflicts would not occur between rescue helicopters and helicopters being used in construction of the powerline. 52. The utility ROW road from the west refuge boundary (Highway 95) to approximately milepost 79.5 A18-51 (where the utility road joins the Crystal Hill Road) is not a designated public access road. Past experience has shown that construction traffic on the ROW road creates enforcement problems when refuge visitors see construction traffic on the ROW road and think it is open for public use. SCE must provide adequate signage at both ends of this road segment and work with refuge law enforcement (in conjunction with measures requested in comment number 26) to reduce inadvertent visitor use of the ROW road. Section D.10 - Public Health and Safety 53. Page D.10-13. SCE must submit a copy of Hazardous Substance Control and Emergency Response Plan A18-52 to Kofa NWR, in addition to BLM, for review. 54. Page D.10-25. Exposure to electric fields should be addressed on Kofa NWR because of the rural A18-53 characteristics of the refuge-there are few trees and no walls on the refuge to shield visitors from electric fields, and significant recreation is done on foot, outside of vehicles, which could expose visitors and staff to electric fields. There are several popular campsites within a few hundred feet of the existing DPV1 power line. The final EIS should address whether or not any individuals should camp overnight in these sites either at this time, or after the proposed construction of DPV2 takes place. 55. Page D.10-32. Kofa NWR uses two-way radios for routine and emergency communications and radio transmitters for radio tracking of animals during studies. SCE must provide data showing that the A18-54 proposed project will not cause interference to radio use from electric or magnetic fields. Radio tracking frequencies generally range between 140 and 160 MHz; Kofa radio communications occur on 165 MHz (receiving) and 172 MHz (transmitting).

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56. Page D.10-41. Figure D.10-5 does not adequately represent the Magnetic Field Profiles for Kofa NWR (Area 17). The towers on Kofa NWR are different than those in Copper Bottom Pass; Figure D.10-7 for Area 15 fits the project profile better and this should be noted in the figure legends because the profiles are so different.	A18-55			
57. Page D.10-55. New metal fencing was erected along the utility ROW in 2006 by El Paso Natural Gas. SCE and El Paso must coordinate to ensure that these new fences are grounded.	A18-56			
<ol> <li>Page D.10-56. Mitigation Measure PS-1b is especially important on Kofa NWR, which is dependent on radio for communications and research. SCE must resolve any radio interference issues to the refuge's satisfaction.</li> </ol>	A18-57			
Section D.11- Air Quality				
59. Page D.11-40. Any chemical soil binders used on Kofa NWR must be nontoxic and biodegradable. SCE will submit labels and Material Safety Data Sheets (MSDS) for all soil binders for approval by Kofa NWR before any use of soil binders occurs.	A18-58			
60. See comment number 13. Keeping spur roads as 2-tracks and blading only if essential would reduce fugitive dust and improve air quality.				
Section D.12 - Hydrology and Water Resources				
61. Page D.12-10. In regard to APM W-7, see comment number 13. Keeping spur roads as 2-tracks would reduce water runoff and associated erosion.	A18-59			
62. Page D.12-28. SCE must submit a copy of Hazardous Substance Control and Emergency Response Plan Spill Prevention, Control, and Countermeasures Plan, and Storm Water Pollution Prevention Plan to Kofa NWR, in addition to BLM, for review.	A18-60			
Section D.13 - Geology, Mineral Resources, and Soils				
63. Page D.13-69. In regard to Mitigation Measure G-1a, SCE must submit a copy of the plan for identification, avoidance, and protection of sensitive desert pavement to Kofa NWR, in addition to BLM, for review.	A18-61			
Section E - Comparison of Alternatives				
64. Page E-15. The Environmentally Superior Alternative (ESA) cannot be found superior to the No Project Alternative based on the information in Section E.3. New generation facilities would be more efficient and be built to stricter environmental standards and might eventually replace older, less efficient power plants in California, thus, reducing net air emissions. New supply-side actions would also have environmental impacts, but with new technologies being developed it is possible these impacts could be less than the ESA (refer to comment number 17 as an example). The ESA also encourages energy overconsumption in California and discourages energy conservation. While Section E.3 is an attempt to quantify uncertain variables, the analysis is not complete enough to deem the ESA superior to the No Project Alternative.	A18-62			

10 **Billie Blanchard** Section F - Cumulative Scenario and Impacts 65. Page F.2. Based on the defined project list approach (Page F.1), cumulative impacts would result from A18-63 the addition of DPV2 to DPV1. Although no new projects are anticipated in La Paz County, the cumulative impacts of DPV2 added to DPV1 must be analyzed for Kofa NWR. 66. Page F.34. Based on the significance criteria for visual resources, the cumulative impacts of DPV2 and DPV1 on visual access to scenic resources must be analyzed. 67. Page F.36. Based on the significance criteria for land use, the cumulative impacts of DPV2 and DPV1 must be analyzed because of the close proximity of DPV1 and DPV2, and because designated wilderness A18-64 is located within 1 mile of the ROW on Kofa NWR. 68. Page F.43. Based on the significance criteria for wilderness and recreation, the cumulative impacts of DPV1 and DPV2 must be considered on Kofa NWR. See comment number 67 and Page F.45: "As significant impacts have already occurred to the character and recreational value of the recreation areas located long the DPV1 line, operation of the proposed project, alone or in conjunction with other Proposed Projects, would contribute to a significant, cumulative effect to established recreation areas (Class I)." Section G - Other CEQA and NEPA Requirements 69. Pages G-33 and 34. The significant and unavoidable Class I impact to visual, wilderness, and recreation A18-65 resources on Kofa NWR remains a primary objection to the proposed project. See comment number 1. Section H - Mitigation Monitoring and Reporting 70. Page H-4. Although BLM is the lead agency for the proposed project on Federal lands, the Service retains authority to halt any construction, operation, or maintenance activity on Kofa NWR refuge lands A18-66 if the activity has deviated from the approved project or mitigation. 71. Page H-5. SCE shall provide Kofa NWR, in addition to BLM, copies of project quarterly reports. A18-67 If you should have any questions regarding these comments, please contact the Field Supervisor or Lesley Fitzpatrick, Arizona Ecological Services Field Office, at 602-242-0210, for issues regarding endangered species, migratory birds, and habitat conservation; and the Refuge Manager, Kofa National Wildlife Refuge, at 928-783-7861, for issues regarding Kofa National Wildlife Refuge. Sincerely.

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cc: Field Supervisor, Arizona Ecological Services Field Office, Phoenix, AZ Refuge Manager, Kofa National Wildlife Refuge, Yuma, AZ Field Office Manager, Bureau of Land Management, North Palm Springs, CA NEPA Coordinator, Region 2, Albuquerque, NM

#### References

- Cochran, M.H., W.S. Gaud, and E.L. Smith. 1984. Studies of desert bighorn sheep (Ovis canadensis mexicana) on the Kofa National Wildlife Refuge. Final Report. E. Linwood Smith and Associates, Tucson, AZ. Submitted to Southern California Edison Co. and Arizona Public Service Co. 48pp.
- Smith, E.L., Gaud, W.S., Miller, G.D., and M.H. Cochran. 1986. Studies of desert bighorn sheep (Ovis canadensis mexicana) in western Arizona: Impacts of the Palo Verde to Devers 500kV
   Transmission Line. Final Report-Volume II. E. Linwood Smith and Associates, Tucson, AZ. Submitted to Southern California Edison Co. and Arizona Public Service Co. 51pp.
- Southern California Edison Company. 2004. Devers-Palo Verde No.2 Cost-Effectiveness Report. Submitted to the California Independent System Operator (CAISO) April 7, 2004. Updated March 17, 2005. 48pp including update.

United States Department of the Interior FISH AND WILDLIFE SERVICE P.O. Box 1306 In Reply Refer To: Albuquerque, New Mexico 87103 R2/NWRS-SUPV CL10-9 OCT 1 2 2006 Ms. Billie Blanchard Project Manager, California Public Utilities Commission 505 Van Ness Ave. San Francisco, California 94102 Dear Ms. Blanchard: The U.S. Fish and Wildlife Service would like to thank you for the opportunity to review the Administrative Final--Environmental Impact Report/Environmental Impact Statement (EIR/EIS) regarding the proposed Southern California Edison Devers electric transmission line. Aspen Environmental, contractor for development of this EIR/EIS, addressed many of our concerns outlined in our comments on the draft EIR/EIS dated August 18, 2006. However, there are still three areas in which we continue to have concern and believe these are not adequately addressed. We believe the Purpose and Need discussion may have significant omissions. In the Alternatives section none of the alternatives that avoided Kofa National Wildlife Refuge (Refuge) were given full analysis and we believe many of the reasons given for doing so are insufficiently supported. We are also concerned that cumulative impacts may be inadequately addressed. Enclosed are our comments organized by the above categories. There are also minor corrections that we have noted under other comments. We appreciate the opportunity to comment on the Final EIS. We would like to explore alternatives or mitigation measures with Southern California Edison that could be more environmentally acceptable. If you have any questions, or need any additional information, please contact Refuge Manager Paul Cornes at 928-783-7861. Sincerely Enclosure cc: Refuge Manager, Kofa NWR

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U.S. Fish and Wildlife Service Comments on the Administrative Final--Environmental Impact Report/Environmental Impact Statement (EIR/EIS), Proposed Devers-Valley #2 Transmission Line

#### Purpose and Need/No Project Alternative/Environmentally Superior Alternative

Addressing purpose and need becomes essential to choosing alternatives, especially regarding such a large project with so many significant, unavoidable impacts. This becomes apparent in discussion of the No Project Alternative and selection of the Environmentally Superior Alternative. The rationale for choosing the 'Environmentally Superior Alternative' over the No Project Alternative states that the environmental impacts of the No Project Alternative would primarily result from operation of gas-fired turbine generators and new transmission lines, and that these impacts would be similar to those of the Proposed Project. However, this assertion is refuted in other places in the document:

"Development of other major transmission facilities or new generation triggered by the No Project Alternative would be unpredictable because this varies depending on a number of uncontrollable factors..." (Page E-15).

"No new generation or major transmission facilities would be required if the DPV2 project is not constructed" (Page C-64).

We recognize it is difficult to predict what impacts might be triggered in the future by the No Project Alternative. However, this leads again to the point that the 'Environmentally Superior Alternative' cannot be definitively shown to be environmentally superior to the No Project Alternative, especially when purpose and need for the project are considered in relation to the significant number of immitigable Class I impacts to sensitive areas such as Kofa National Wildlife Refuge (NWR).

#### Alternatives

We note that additional information on various alternatives was provided in the EIR/EIS. However, none of the alternatives that avoided Kofa NWR were given full analysis and many of the reasons given for doing so are insufficiently supported. We are concerned that there is no alternative in the EIR/EIS that will avoid the significant environmental impacts associated with the Devers-Valley No.2 segment of the project. Specifically, the following three alternatives should have been addressed in more detail throughout the document:

1. Underground Alternative: The EIS states that if a short underground segment were considered to avoid a specific high impact area, underground technologies may not be cost prohibitive to construct and would meet all project objectives. It also mentions that a 25-mile underground 500kV line has been in service in Japan since 2000. It is true that a 3-foot continuous trench for 24 miles across the Kofa NWR would have significant initial environmental impacts, but these could be minimized by trenching in already disturbed areas of the right-of-way, an approach used successfully for underground gas pipelines that traverse the

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refuge. Once the underground work is completed and the area rehabilitated, there would be few impacts to biological, visual, and wilderness resources. A18-70 cont. Currently, there is not enough information to justify discarding this alternative; therefore, this alternative deserves more thorough analysis to be legitimately compared to other alternatives. At a minimum, the proponent should address total area impacted, projected costs, reliability, hazards maintenance requirements, associated infrastructure, and maps or diagrams indicating possible placement of underground segment. Consideration should also be given to the concurrent placement of DPV# 1 underground through Kofa NWR. 2. Wind Power Alternative: Of all the alternative generation options discussed, wind power was the most feasible alternative and should have received a more thorough analysis in the document. A18-71 The position against wind power, that impacts from the Proposed Project to transmit power from an existing power source would be less than the impacts from building transmission lines from a 'new' alternative energy source, is in need of revision . It does not recognize that the 'new' alternative energy source already exists (San Gorgonio Pass and Tehachahpi Wind Resource Areas are discussed in detail in the EIS), that energy development in these areas is expanding, and that new transmission lines will be required anyway. Creating more wind generation capacity and developing the associated transmission capacity required would distribute the development burden more equitably, in that the California power consumers who would benefit from the project would also bear the environmental and economic costs, as opposed to the Proposed Project, where the majority of costs would be borne by Arizona consumers who would receive little direct benefit from the project. Therefore, the Wind Power Alternative deserves more thorough analysis to be legitimately compared to other alternatives. The proponent should address potential development and transmission plans, impacted acres, and estimated costs. 3. I-10 Right-of-Way Alternative: This alternative has been proposed by Kofa NWR and the A18-72 Sierra Club. In the EIS it is assumed to be the same as SCE's North of Kofa NWR-South of I-10 Alternative, but this is incorrect. The I-10 ROW alternative would be a combination of Subalternate Routes 1 and 4 and would parallel Interstate 10 within the ROW for a greater distance than the North of Kofa/South of I-10 Alternative. In doing so, the I-10 ROW Alternative would place the Proposed Project in the already impacted I-10 ROW, would not significantly add to the length of the transmission line, and avoid the pristine areas that would be impacted by the North of Kofa/South of I-10 Alternative. This alternative should be examined fully from the beginning of the process. Cumulative Impacts A18-73 We noted that some of the impacts described as "cumulative" in the document are more appropriately considered as direct project impacts. There are two scenarios where what was termed as "cumulative impacts" are inadequately addressed for Kofa NWR. Biological Impacts: Cumulative impacts are considered significant if the Proposed Project contributes considerably to existing or identified interference with the movement of native resident or migratory wildlife species or with established native resident or migratory wildlife corridors. During construction of the first DPV1 lines, transmission line construction activities

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precluded normal ram crossing between the New Water Mountains and the Kofa Mountains/Livingston Hills, although subsequent operation of the line did not appear to affect sheep crossing of the corridor (Smith et al. 1986). It might be reasonable to assume that the impacts of DPV2 alone on bighorn sheep would be similar, but it is difficult to judge what the cumulative impacts of DPV1 and DVP2 together will be on sheep or other animal movements without further study. Thus it cannot be said that there will be *no* cumulative impacts to biological resources in Arizona; it would be more precise to state there *may* be impacts to biological resources in Arizona, with some discussion of potential impacts to bighorn sheep.

Visual Impacts: In the EIS, the only adverse "cumulative impacts" addressed are those temporary impacts due to construction. Construction impacts would be more accurately described as "direct" impacts. The permanent visual impacts from the presence of a second powerline and expanded maintenance roads in a recreational area next to designated wilderness are completely disregarded. Kofa NWR is specifically managed for wilderness values, and although DPV1 is not in wilderness *per se*, it certainly impacts the wilderness viewshed. The argument that DPV1 has already introduced an industrial structure into the area does not account for the fact that despite design measures to minimize visual impacts, two powerlines still have a much greater visual impact than one. This is an unavoidable cumulative impact to an area where the pristine character should be retained as much as possible.

Other Comments	A18-75
1. p. D.2-57. The underlined text is incorrect. No existing, designated utility corridor exists on Kofa NWR for DPV #2, although it is true that the proposed ROW is not within (but is immediately adjacent to) a designated wilderness area.	A10-73
2. pp. D.2-177, 218, 271, 285. There are several instances where the EIS still states that a permit must be obtained from USFWS Division of Law Enforcement for raven control. It is USFWS Division of Migratory Birds that issues these permits. Please correct this in any reference to raven control.	A18-76
3. p. D.2-161. Although Table D.2-7 was updated, under Section D.2.6.10 there is still no mention of construction impacts to bighorn sheep on the Kofa NWR documented by Smith et al. (1986).	A18-77
4. p. D.5-5. Kofa NWR does have recreational facilities in the form of primitive campgrounds. The Crystal Hill primitive campground is located next to the Proposed Project.	A18-78
5. p. D.5-68. Under "Location" in Impact WR-3, "Kofa Area of Critical Environmental Concern" should be changed to "Kofa NWR"	A18-79
6. pp. D.9-16, 17. Impacts T-13 and T-14 and their associated mitigation measures T-13a and T-14a are under the wrong section. They should be moved from Section D.9.6.3 to Section D.9.6.2. These impacts and mitigation apply to the Kofa NWR segment, not the Kofa to Colorado River segment. These measures should also be added to Table D.9-13.	A18-80

Other Comments

A18-74

7. p. D.10-57. We are still concerned about radio interference from corona or gap discharges; this has not been adequately addressed. Kofa NWR is dependent on its radios for law enforcement and emergency communications, and power lines cause static in telemetry receivers that makes it difficult, if not impossible, to track radio collared animals near them. The proposed mitigation measures are insufficient to ensure that urgent radio issues would be resolved quickly; we request that SCE coordinate with the refuge and take whatever design, planning, or shielding measures would be necessary to prevent radio interference, in addition to Mitigation Measures PS-1a and PS-1b.

#### References

- Smith, E.L., Gaud, W.S., Miller, G.D., and M.H. Cochran. 1986. Studies of desert bighorn sheep (*Ovis canadensis mexicana*) in western Arizona: Impacts of the Palo Verde to Devers 500kV Transmission Line. Final Report-Volume II. E. Linwood Smith and Associates, Tucson, AZ. Submitted to Southern California Edison Co. and Arizona Public Service Co. 51pp.
- Southern California Edison Company. 2004. Devers-Palo Verde No.2 Cost-Effectiveness Report. Submitted to the California Independent System Operator (CAISO) April 7, 2004. Updated March 17, 2005. 48pp including update.

A18-81

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## Responses to Comment Set A18 U.S. Department of the Interior, Fish and Wildlife Service

- A18-1 The preference of the USFWS for the No Project/No Action Alternative over the Proposed Project is noted. The California Independent System Operator (CAISO) independent Economic Evaluation (February 2005) of DPV2 assumes that the economic life is 50 years, which is a typical life expectancy of a transmission line. The BLM Right-of-Way Grant is typically issued for 50 years, so this is one indication of the life of a project; however, there are many examples of transmission lines that are still operational more than 50 years after they were constructed. Please refer to Response GR-3 for a discussion of project need. The CPUC Administrative Law Judge is evaluating project need through economic modeling during the Phase 1 General Proceeding (I.05-06-041), and the Arizona Corporation Commission in a separate proceeding is also addressing project need. See also Response B3-4.
- A18-2 An underground alternative is described in detail in EIR/EIS Appendix 1, Section 4.4.3. Please refer to Response B8-8 regarding the feasibility and impacts of an underground transmission line alternative. Undergrounding the 500 kV transmission line approximately 28 miles from the Series Capacitor east of the Kofa NWR boundary (Milepost 52) through Kofa NWR to Milepost 80 would have much greater construction and operational environmental impacts than the Proposed Project, due to the requirements for continuous trenching and installation of numerous buried vaults. As a result, this alternative was not analyzed in detail in the EIR/EIS.
- A18-3 Several possible alternative routes passing north of the Kofa NWR are evaluated in the Alternatives Screening Report (Appendix 1) of the EIR/EIS. One of these routes, "SCE Subalternate Route 1" would follow the south side of Interstate-10. While it is true that this route would eliminate the new visual impacts in Kofa that would result from installation of the second transmission line, an I-10 alternative would introduce a new utility line with industrial character into a landscape presently lacking such facilities. As a result, views of the Plomosa Mountains and New Waters Mountains from Interstate 10 (I-10) would experience an adverse visual change, though it is true that views of the route would be of relatively shorter view durations due to the high rate of vehicular speed on I-10. However, the long-duration views of residents and recreationists using the La Posa Recreation Site and Long-term Visitor Area would also be adversely affected from substantially closer viewing distances. Therefore, siting the new line adjacent to the existing DPV1 line would avoid the proliferation of transmission line facilities across the landscape and the visual impacts on I-10 and the La Posa Recreation Site and Long-term Visitor Area as well.

However, visual impacts were not the primary reason for elimination of the north of Kofa alternatives. The major reasons were the impacts to biological and cultural resources that would result from the extensive new disturbance of ground resulting from construction of new access roads, towers, and staging areas. These factors are documented in detail in General Response GR-1.

A18-4 Please refer to Response B6-8 regarding the discussion of project impacts and mitigation. Table D.2-11 (Sensitive Wildlife with High Potential to Occur) identifies that Yuma clapper rail, southwestern willow flycatcher, and yellow-billed cuckoo have the potential to occur in both the Arizona and California sections of the project. In addition, Section D.2.6.1.6 (Threatened or Endangered Species) provides specific language identifying the potential for these species in both Arizona and California (See Birds, Kofa National Wildlife Refuge to Colorado River and Colorado River to Midpoint Sub-Station).

Regarding the EIR/EIS' reference to an "Arizona Endangered Species Act," EIR/EIS authors are aware that there is no such law and have not found reference to it in the EIR/EIS. Section D.2.4 addresses laws and regulations, and does not include reference to this act under the sub-heading for Arizona.

- A18-5 The EIR/EIS utilizes bird strike information and cites several references (APLIC, 1994, APLIC 1996, and Avery et al., 1978) regarding the potential for bird strikes in the EIR/EIS. However, detailed accounts of bird strikes at the Colorado River were not available. The EIR/EIS does indicate that impacts to bird species may occur from the proposed power lines. Mitigation measures identified in this EIR/EIS including B-15a (Utilize collision-reducing techniques in installation of transmission lines) and APMs would be utilized to reduce potential impacts to birds from transmission line collisions.
- A18-6 Please refer to Responses A18-35 and A18-9. Executive Summary Section ES.1 on page ES-2 has been clarified as follows:

In 1989, the U.S. Fish and Wildlife Service issued a Certificate of Right-of-Way Compatibility for the portion of the DPV2 route that crosses the Kofa National Wildlife Refuge in Arizona, but a Right-of-Way Permit was never issued.

A18-7 Section D.5.6.2 states that Impact WR-2 (Operation would change the character of a recreation or wilderness area, diminishing its recreational value) in Kofa NWR would be significant and unmitigable (Class I) for the Proposed Project.

See Response A18-46 for a discussion of consultation with refuge staff prior to project commencement.

- A18-8 Mitigation Measure B-16a (Prepare and implement a raven control plan) specifically identifies that SCE would have to gain approval from the USFWS to implement the plan.
- A18-9 Please refer to Response A18-35. Table A-4 in Section A.3.5 (Permits Required for the DPV2 Project) of the Draft EIR/EIS states that the U.S. Fish and Wildlife Service would have the following jurisdiction and permitting authority for the following: Certificate of Environmental Compatibility for the Kofa NWR; Right-of-Way Grant (crossing Kofa NWR and Coachella Valley NWR); Consultation for Section 7 of the Endangered Species Act; and Habitat Conservation Plans (Riverside County). Regardless, Section A.1.1 on page A-2 of the Draft EIR/EIS has been clarified as follows:

In 1989, the U.S. Fish and Wildlife Service issued a Certificate of Right-of-Way Compatibility for the portion of the DPV2 route that crosses the Kofa National Wildlife Refuge in Arizona, but a Right-of-Way Permit was never issued.

- A18-10 Please refer to Response A18-1.
- A18-11 Section G.2 discusses growth-inducing effects of the Proposed Project, including growth related to the provision of additional electric power. As discussed in Response A18-1, the economic analysis of the project is occurring in a separate proceeding and is not within the

scope of CEQA or NEPA. It is highly speculative to assume that new generation would occur as a result of DPV2 especially because DPV2 has been found to be needed independent of any new generation. The Arizona Corporation Commission is responsible for power plant review and permitting within Arizona, which is independent of DPV2. The economics of building new generation outside of California is discussed in Section C.5.5.1 (under New Conventional Generation Alternative) of the EIR/EIS. Non-quantifiable environmental costs and benefits related to the Proposed Project have been analyzed in this EIR/EIS for 13 different issue areas in Sections D.2 through D.14.

A18-12 Please refer to Responses A18-9 and A18-35. Section A.3 on page A-18 of the Draft EIR/EIS has been modified as follows:

Also, the USFWS issued a Certificate of Right-of-Way Compatibility (CRC) in 1989 for the portion of the proposed Devers-Harquahala 500 kV transmission line that crosses the Kofa NWR in Arizona, but a Right-of-Way Permit was never issued.

In addition, Section B.2.2.1 on page B-13 of the Draft EIR/EIS has been modified as follows:

The USFWS has indicated that they will re-evaluate the project and update <u>or reissue</u> the 1989 CRC <u>and will need to issue a Right-of-Way Permit</u>.

- A18-13 The EIR/EIS preparers agree that clearing roadways and grading spur roads increases the potential for impacts to vegetation and wildlife, and the EIR/EIS addresses this activity in the biological resources, air quality, hydrology and water quality, and geologic resources impact assessments in Sections D.2, D.11, D.12, D.13, respectively. Ground disturbance also has the potential to increase fugitive dust and result in off-site sediment transport. The EIR/EIS also provides specific mitigation addressing these issues and provides a mechanism to reduce impacts to less than significant levels. Further, within the Kofa NWR, Mitigation Measure B-1b (Coordinate tower placement with USFWS/BLM) requires SCE to coordinate with the refuge to reduce impacts from tower placement.
- A18-14 Comment noted. Please see Response A18-8.
- A18-15 Please refer to Response A18-2.
- A18-16 Please refer to Response A18-1. See also Response B8-4 regarding the New Conventional Generation Alternative. In addition, Distributed Generation is analyzed in Section 4.5.4 in Appendix 1 of the Draft EIR/EIS. As mentioned in the footnote at the bottom of page C-54, the Sun Valley Project is currently proposed by Edison Mission Energy, a subsidiary of Edison International (the parent company of SCE as well), and it is considered as a complement, not as a replacement to DPV2. According to the Technical Appendices (Appendix D, Resources) for the CAISO February 2005 Economic Evaluation of PVD2, the 500 MW Sun Valley generation project is not included in the 2008 or 2013 scenario. CAISO does not normally consider generation in their studies unless it is under construction, and Sun Valley has yet not received its Preliminary Staff Assessment or approval by the California Energy Commission. In addition, the nearby 800 MW Inland Empire Energy Center, which broke ground September 2005, is also not included in the economic modeling.

A18-17 Renewable Generation Resources Alternatives, including wind technology, are evaluated in Section 4.5.2 of Appendix 1, Section C.5.5.2, and Executive Summary Section 2.3.4 and were eliminated from full consideration during the alternatives screening process. Not only was wind technology evaluated as an alternative on a general basis, but both the Tehachapi and the San Gorgonio Pass areas were specifically addressed in the alternatives discussion.

Use of renewable generation technologies would avoid the specific impacts associated with the construction and operation of the proposed DPV2 project, but *new transmission would still be required from the renewable generation locations*, creating impacts similar to those of the Proposed Project, which is proposed to transmit power from an already existing generation source.

In addition to the reliability and feasibility issues discussed in Appendix 1 and Section C, use of renewable resources would be inconsistent with the objectives of the proposed DPV2, which are focused on creating the ability for DPV2 to increase California's transmission import capability from the Southwest and enhance and support the competitive energy market in the Southwest.

- A18-18 Please refer to Response A18-1 and General Response GR-3 regarding project need. The CPUC Administrative Law Judge is evaluating project need through economic modeling during the Phase 1 General Proceeding (I.05-06-041). The Arizona Corporation Commission in a separate proceeding will also be addressing project need. See also Response B3-4.
- A18-19 Please see Response B3-14 for information on the "increase" of NOx emissions in Arizona, which would be offset by reduced operation of many power plants elsewhere. The power plant emissions reported in the EIR/EIS would occur at existing facilities that are presently permitted to generate power and send it wherever transmission accesses demand. The comment suggests that further reductions in generation at older plants in California may be realized, but this would be accomplished by either developing more new power plants in California or additional transmission infrastructure to import power, options that could involve a vast range of environmental impacts. Please see Response B18-1 regarding the purpose and need of the project.
- A18-20 Specific information describing sensitive amphibian species that may occur along the Colorado River are described in Section D.2.2.4 (Palo Verde Valley/Fishes and Amphibians). This section describes the potential for the presence of Colorado River toad and Couch's spadefoot toad.
- A18-21 This species name of the buckhorn cholla has been updated in EIR/EIS Section D.2.2.2 as shown below.

#### D.2.2.2 Kofa National Wildlife Refuge

#### Plant Communities and Sensitive Habitats

The portion of the Proposed Project within the boundaries of the Kofa NWR contains species typical of upland and xeroriparian areas of Palo verde-Cactus-Mixed Scrub series of the Arizona Upland subdivision of the Sonoran Desert scrub biotic community. The dominant plant species observed in proposed ground-disturbing areas within the Kofa NWR segment of the Proposed Project during field reconnaissance include Creosote bush, foothill palo verde, saguaro (*Carnegia gigantea*), desert ironwood, catclaw acacia, buckhorn cholla (*Cylindropuntia acanthocarpa*), and mesquite. Additional detail concerning these plant communities can be found in Section D.2.1.1.1.

A18-22 The characterization of the project area and its proximity to wilderness areas has been modified in Section D.2.2.2 of the EIR/EIS as follows.

Special Habitat Management Areas Overview

The Kofa NWR segment of the Proposed Project is located within and directly adjacent to the boundaries of the New Water Wilderness Area as designated and managed by the Kofa NWR and the BLM. <u>However, the proposed ROW is not a part of the Wilderness Area.</u> The Proposed Project would traverse approximately 20 miles within the boundaries of the Kofa NWR, which is also within and directly adjacent to the boundaries of the New Water Mountains Wilderness Area. Additional detail on these can be found in Section D.2.1.1.4.

A18-23 Section D.2.4 (Applicable Regulations, Plans, and Standards, Migratory Bird Treaty Act) of the EIR/EIS has been modified to accurately reflect the status of gold eagles and bald eagles. The Draft EIR/EIS did include a section describing the Bald Eagle Protection Act of 1940, specifically referencing both bald and golden eagles.

#### Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 711) is a treaty signed by the United States, Canada, Mexico, and Japan that makes it unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, or kill migratory birds. The law applies to the removal of nests (such as swallow nests on bridges) occupied by migratory birds during the breeding season. The Act <u>makes it</u> unlawful to take, pursue, molest, or disturb species <u>including bald (American) and golden eagles</u>, their nests, or their eggs anywhere in the United States.

- A18-24 Applicant Proposed Measures would apply to all areas of the ROW including the Kofa NWR. In addition, specific coordination with the Kofa is required in Mitigation Measure B-1b (Coordinate tower placement with USFWS/BLM), which would require SCE to coordinate with the Refuge to reduce impacts from tower placement. In addition, Applicant Proposed Mitigation Measure A-5 limits vehicle speeds to 15 mph on unpaved surfaces and Mitigation Measure B-29 limits off road speeds to 25 mph in tortoise areas.
- A18-25 Please see Response A18-8.
- A18-26 If the project is approved and all required permits are granted, approval documents will state which Applicant Proposed Measures and mitigation measures are adopted as conditions of approval. Adopted APMs, mitigation measures, and permit conditions identified would be monitored for compliance by a representative of the CPUC and BLM (including within the Kofa NWR, if monitoring by these personnel is approved by Kofa management for NWR lands). All non-compliance activity would be reported to CPUC/BLM and any affected agencies. Repeated non-compliance can result in work stoppage and violations of State or federal law would be reported to law enforcement agencies.

A18-27 Please see Response A18-13.

A18-28 Table D.2-7 (Impacts Identified-Biological Resources) of the EIR/EIS has been modified to reflect this comment.

Table D.2-7. Impacts Identified – Biological Resources			
Impact No.	Description	Impact Significance	
Proposed	d Project		
B-11	Construction activities would result in adverse effects to the movement of fish, wildlife movement corridors, or native wildlife nursery sites	No Impact, Class II, <u>III</u>	

A18-29 Table D.2-8 (Summary of Impacts by Segment) of the EIR/EIS has been modified to reflect this comment.

Proposed Project		gation sures <sup>1</sup>	_						
Segment	B-10	B-11	B-12	B-13	B-14	B-15	B-16	B-17	-
Kofa National Wildlife Refuge	Class II	<u>Class</u> <u>III</u>	<u>Class</u> <u>III</u>	Class III	Class III	Class II	Class II	Class III	B-1a, B-1b, B-2a, B-2b, B-5a, B-6a, B-7b, B-7c, <mark>B-9a, B-9b</mark> B-9c, B-9d, B-9f, B-15a, B-16a

- A18-30 Mitigation Measure B-2a (Conduct invasive and noxious weed inventory) contains a provision for post-construction monitoring and eradication of noxious weeds. This plan will have to be submitted to the BLM, CPUC, ADGF, CDFG, and USFWS prior to construction of the project.
- A18-31 Please see Responses A18-13 and A18-28.
- A18-32 Section D.2.6.1.11 (Plans, Policies, and Ordinances) of the EIR/EIS has been modified to reflect this comment.

**Kofa NWR**. Construction activities may adversely affect biological resources within the Kofa NWR, which would may conflict with the Refuge's management policies and plans. Impacts in crossing of the Kofa NWR would be minimized through utilization of existing utility access (gas and transmission) roads during the construction and operational phases of the project (APM L-1). All vehicular traffic would be limited to approved access or spur roads. This APM would minimize disturbances to habitat, but direct impacts to species would still occur. Wildlife utilizing the habitats adjacent to the Proposed Project during construction activities would be temporary and limited to the duration of the activities, thus species would be able to utilize the adjacent habitats following the activities. Impacts to some species would be more adverse than others, but overall impacts related to conflict with biological resources policies within the Kofa NWR would be considered less than significant (Class III). Based on the evaluation of impacts identified in this EIR/EIS, tThe Proposed Project may not conflict with management policies of the Kofa NWR. However, the determination of compatibility will be made by the USFWS in its Compatibility Determination for the Proposed Project.

- A18-33 Please see Response A18-8 regarding Ravens. Please see Response A10-4 regarding exotic plants.
- A18-33 Please see Response A18-8.
- A18-34 Please refer to Response E2-55 regarding Applicant Proposed Measures (APMs). APM B-5, which refers to Copper Bottom Pass specifically, is proposed by SCE as part of the Proposed Project and cannot be changed by the EIR/EIS team. However, the purpose of the EIR/EIS's mitigation measures is to create specific protective measures, which supersede APMs and are generally more stringent, detailed, specific, and enforceable. Mitigation measures are presented at the end of each issues area section (see Sections D.2 through D.14), and they address the requirements listed in APM B-5 and the measures apply to the entire project, including Kofa NWR. For instance, implementation of proposed Mitigation Measure B-9c includes implementing a Worker Environmental Awareness Program (see Section D.2, Biological Resources) and Mitigation Measure AQ-1a would require SCE to develop and implement a Fugitive Dust Emission Control Plan (see Section D.11, Air Quality).
- A18-35 We acknowledge that a ROW permit would be required from the USFWS for the portion of the Proposed Project across the Kofa National Wildlife Refuge (NWR) in compliance with 50 CFR 29.21, and as described in Section D.4.2.2.
- A18-36 The EIR/EIS team acknowledges that despite the initial plan and policy consistency evaluation that was conducted in Appendix 2 and within each issue area section, a compatibility determination must be made by the USFWS regarding the Kofa National Wildlife Refuge Comprehensive Management Plan. Section D.4.4 has been modified to reflect this.

Based on the evaluation of federal land use plans, no conflicts were identified-the Proposed Project is consistent with applicable land use plans and policies as described in Appendix  $2.5^{-5}$ 

- <sup>5</sup> Although Section D.4.4 and Appendix 2 include an evaluation of the Proposed Project's consistency with applicable plans and policies, a determination of the compatibility of the project with these documents may also be made by each federal, state, and local agency.
- A18-37 As discussed in Section D.4.5.2, APMs were identified by SCE in its CPCN Application to the CPUC. No additional information was provided by SCE regarding the implementation of these APMs. If it was determined in each issue area section that an APM did not fully mitigate the impact for which it was provided, additional mitigation measures were recommended. The following mitigation measures were proposed in Section D.5.6.2 to require SCE to coordinate construction activities with the authorized officer of the Kofa NWR: Mitigation Measures WR-1a (Coordinate construction schedule and activities with the authorized officer for the recreation area) and WR-3a (Coordinate tower and road locations with the authorized officer for the recreation area).
- A18-38 In order to fully evaluate the effects of the Proposed Project on recreational resources, a separate section was introduced in this EIR/EIS to analyze recreational impacts (see Section D.5). As described in the introduction to Section D.4, the Land Use section defers to the analysis within the Wilderness and Recreation section where appropriate. Section D.4.6.2 explains that Impacts L-1 and L-2 do not apply to recreational resources such as the Kofa NWR, and that the evaluation of construction and operational impacts to the Kofa NWR is

fully discussed in Section D.5. See Section D.5.6.2, Impacts WR-1, WR-2, and WR-3, for a description of anticipated impacts to Kofa NWR that would occur during construction and operation of the project.

- A18-39 See Response A18-38.
- A18-40 Section D.5.2.3, page D.5-6, has been edited to reflect this comment.
  - **Copper Bottom Pass.** Copper Bottom Pass is located adjacent to Copper Bottom Mine, and is surrounded by the Cunningham Mountains to the southwest, Sawtooth Mountains to the northwest, and La Cholla Mountains to the northeast. Located on BLM land, this pass is popular with backcountry recreationists.
- A18-41 Section D.5.4, page D.5-16, has been edited to reflect this comment.

However, the Act includes a special provision for the establishment of transmission lines within across a WA that is located within a national forest. Section 4(d) provides the following text regarding these transmission lines:

A18-42 Section D.5.4, page D.5-17, has been edited as follows to reflect this comment.

Following the passage of the Act, the Kofa NWR was established in 1976 through the Arizona Idaho Conservation Act of 1988 (Public Law 94-223-100-696; 102 Stat 4571), which changed the status of this recreational resource from a game range (established in 1939) to a national wildlife refuge (USFWS, 2006). In addition, the Arizona Desert Wilderness Act of 1990 (Public Law 101-628, 104 Stat 4472 and 4478) established portions of the Kofa and New Water Mountains as designated WAs (USFWS, 2006). Management of the Kofa NWR continues to be subject to the National Wildlife Refuge System Administration Act of 1966 and its subsequent amendments.

- A18-43 As stated in Response A18-37, if it was determined in each issue area section that an APM did not fully mitigate the impact for which it was provided, additional mitigation measures were recommended. The following mitigation measures were proposed in Section D.5.6.2 to require SCE to coordinate the construction and use of roads with the authorized officer of the Kofa NWR: Mitigation Measures WR-1a (Coordinate construction schedule and activities with the authorized officer for the recreation area) and WR-3a (Coordinate tower and road locations with the authorized officer for the recreation area).
- A18-44 Specific policies regarding OHV use were not identified within the Kofa National Wildlife Refuge & Wilderness and New Water Mountains Wilderness Interagency Management Plan and Environmental Assessment, and as such are not specifically mentioned in the discussion on page D.5-21. See Response A18-43 regarding mitigation measures applicable to the construction and use of roads across Kofa NWR.
- A18-45 Section D.5.6.2 describes the effects of the Proposed Project on the use of recreation and wilderness areas (WAs). As proposed, the project would not affect the use of recreational resources within the New Water Mountains WA. However, specific impacts pertaining to the existing visual character of a site (e.g., visual contrast, view blockages, skylining) are analyzed in Section D.3 (Visual Resources) of the EIR/EIS As described in Section D.3.6.2, visual impacts to travelers and recreationists along Pipeline Road and Crystal Hill Road would be significant and unavoidable.

Mitigation has been proposed in Section D.5.6.2 to avoid heavy recreational use periods within recreation areas (e.g., October through March). Mitigation Measure WR-1a (Coordinate construction schedule and activities with the authorized officer for the recreation area) would require SCE to coordinate the project's construction schedule across the Kofa NWR with the refuge's authorized officer.

A18-46 Section D.5.6.2, Impact WR-2 has been revised, and Mitigation Measure WR-2a (Coordinate with USFWS to improve impacted areas within Kofa National Wildlife Refuge) has been added to reflect your comment.

In response to an agency comment from the USFWS (USFWS, 2006), Mitigation Measure WR-2a (Coordinate with USFWS to improve impacted areas within Kofa National Wildlife Refuge) has been proposed to minimize the loss of a recreational resource associated with the project. However, despite implementation of Mitigation Measure WR-2a, impacts to the recreational value of the Kofa NWR would remain significant.

#### <u>Mitigation Measure for Impact WR-2: Operation would change the character</u> <u>of a recreation or wilderness area, diminishing its recreational value</u>

WR-2a Coordinate with USFWS to improve impacted areas within Kofa National Wildlife Refuge. SCE shall coordinate with the USFWS to improve impacted areas within the Kofa National Wildlife Refuge (NWR). The implementation of improvements would be conducted at the discretion of the authorized officer for the Kofa NWR, and may include the acquisition of private land in-holdings from willing sellers within the refuge boundaries, and the rehabilitation of abandoned mine sites and old roads within the refuge. SCE shall document its coordination with the authorized officer of the Kofa NWR, and must demonstrate that negotiations and subsequent improvements have been conducted to the satisfaction of the USFWS. Documentation shall be submitted to the CPUC and the BLM at least 30 days prior to operation of the project.

No mitigation measures have been identified that would reduce the industrial development of the Proposed Project across the Kofa NWR.

Regarding potential impacts to bats, construction of the Proposed Project is not expected to result in adverse impacts to bats. There are no roosting or hibernacula sites expected to occur along the proposed ROW in the Kofa NWR. While potential impacts to roosting bats could occur in other sections of the ROW (i.e., Midpoint Substation to Cactus City Rest Area segment) which cross sections of steep rocky slopes, Mitigation Measure B-9h (Conduct preconstruction surveys for roosting bats) would avoid impacts to these species. Therefore, the placement of bat-accessible steel gates on abandoned mines in the Kofa NWR is not recommended at this time.

- A18-47 Class III cultural resources inventories have been completed for the proposed Areas of Potential Effect through Kofa. The BLM will provide copies of all relevant portions of the survey reports to the NWR, along with copies of all paleontological inventory and monitoring reports.
- A18-48 The Draft EIR/EIS (Section D.8.6.2) identifies the existing corona noise levels in the Kofa NWR above U.S. EPA target of 55 Ldn, and that the Proposed Project would aggravate this condition. The Significance Criteria (Section D.8.5.1) for noise impacts depends on

"... applicable noise restrictions or standards imposed by regulatory agencies" or whether "... the Proposed Project would result in a substantial permanent increase in ambient noise levels (more than five dBA)..." Although the impact is considered to be adverse, an noticeable increase (more than 3 dB) would not occur, and no applicable noise restrictions or standards would be exceeded. New information provided by SCE in its comments on the Draft EIR/EIS (see Comment Set E3) shows that the area of impact would be somewhat smaller than was shown in the Draft EIR/EIS. Please also see Response B3-2 for more information on treatment of Kofa NWR as a noise-sensitive receptor.

- A18-49 Mitigation Measure WR-1a (Coordinate construction schedule and activities with the authorized officer for the recreation area) in Section D.5 would apply to Kofa NWR and includes coordinating the schedule with the authorized officer, scheduling construction to avoid heavy recreational use periods, and locating construction equipment to avoid temporary preclusion of recreational activities. Mitigation Measure L-1a (Prepare Construction Notification Plan) in Section D.4 includes public notice of construction activities. Any road closures required for the Proposed Project (Impact T-1 in Section D.9) would require compliance with encroachment permits and thus impacts would be less than significant (Class III). Therefore, with the implementation of mitigation measures and compliance with encroachment permits would reduce impacts to less than significant levels in Kofa NWR and along Crystal Hill Road.
- A18-50 A new impact, Impact T-13 (Helicopter use during construction could conflict with rescue helicopter use within the Kofa National Wildlife Refuge) has been added to Section D.9.6.2 (Transportation impacts within the Kofa NWR) and to Table D.9-18 (Mitigation Monitoring Program – Transportation & Traffic). A mitigation measure has been added, requiring that SCE coordinate helicopter operations with NWR staff to ensure that no conflicts occur with rescue operations.

Impact T-13: Helicopter use during construction could conflict with rescue helicopter use within the Kofa National Wildlife Refuge (Class III)

Because of the remote nature of the Kofa NWR, helicopters are sometimes used for rescue operations. This situation is not expected to occur frequently, and the impact is expected to be less than significant (Class III). However, in order to ensure that these rescue flights do not conflict with SCE's construction helicopter operations, Mitigation Measure T-13a is recommended.

#### <u>Mitigation Measure for Impact T-13: Helicopter use during construction could</u> <u>conflict with rescue helicopter use within the Kofa National Wildlife Refuge</u>

**T-13a** Coordinate helicopter operations with Kofa NWR personnel. SCE shall develop a plan defining coordination with Kofa NWR personnel to ensure that no conflicts occur between construction helicopter operations and NWR rescue helicopter operations. The plan shall be submitted to the Kofa NWR at least 60 days before the start of construction for review and approval. A18-51 A new impact, Impact T-14 (Construction use of roads could result in increased public use of unauthorized roads with the Kofa National Wildlife Refuge), has been added to Section D.9.6.2 (Transportation impacts within the Kofa NWR) and to Table D.9-18 (Mitigation Monitoring Program – Transportation & Traffic). The following mitigation measure (T-14a, Consult with Kofa NWR personnel) has been added, requiring that SCE coordinate with NWR staff to develop appropriate preventive measures to ensure that use of unauthorized roads does not occur.

Impact T-14: Construction use of roads could result in increased public use of unauthorized roads with the Kofa National Wildlife Refuge (Class III)

The utility road at the west Refuge boundary (Highway 95) to approximately Milepost 79.5 (where the utility road joins Crystal Hill Road) is not a public access road. The public may see construction vehicles using this road and think that it is available for public use. Public use of this road would result in an adverse, but less than significant impact (Class III). However, in order to prevent public use of this road, Mitigation Measure T-14a is recommended.

- **T-14a Consult with Kofa NWR personnel.** SCE shall provide adequate signage at both ends of the utility road segment and work with Kofa NWR law enforcement personnel to prohibit public use of the road. SCE shall consult with Kofa NWR law enforcement personnel at least 60 days prior to the start of construction to develop appropriate measures to prevent inadvertent use of this road segment.
- A18-52 Mitigation Measure P-1a in Section D.10.6.1 (page D.10-13) and Table D.10-10 have been modified as follows:
  - P-1a Develop Hazardous Substance Control and Emergency Response Plan. A Hazardous Substance Control and Emergency Response Plan shall be prepared for the project, and a copy shall be kept on site (or in vehicles) during construction and maintenance of the project. SCE shall document compliance by submitting the plan to the CPUC, BLM, and USFWS, as appropriate, for review and approval at least 60 days before the start of construction.
- A18-53 Potential concerns about electric fields are described on Draft EIR/EIS page D.10-26: "At reasonably close distances, electric fields of sufficient strength in the vicinity of power lines can cause the same phenomena as the static electricity experienced on a dry winter day, or with clothing just removed from a clothes dryer, and may result in electric discharges when touching long metal fences, pipelines, or large vehicles. An acknowledged potential impact to public health from electric transmission lines is the hazard of electric shock: electric shocks from transmission lines are generally the result of accidental or unintentional contact by the public with the energized wires."

Section D.10.12.1 describes the National Electrical Safety Code requirements for minimizing induced currents and shock hazards. This section also describes SCE's process for responding to public concerns about nuisance shocks, and the potential for installation of additional grounding for metal objects, if required. Mitigation Measure P-2a (Implement grounding measures) specifies that SCE shall identify objects with potential for induced voltages, and implement grounding if required.

- A18-54 In Section D.10.12.2, Impact PS-1 (Radio and Television Interference) addresses the potential for the transmission line to cause radio interference. Mitigation Measures PS-1a (Limit conductor surface electric gradient) and PS-1b (Document and resolve electronic interference complaints) are proposed to ensure that SCE would respond to radio interference problems.
- A18-55 The comment is correct that Figure D.10-7 best represents the magnetic field profile for the Kofa NWR. A note has been added to Table D10-7 indicating this fact.
- A18-56 Please see Response A18-53.
- A18-57 Please see Response A18-54.
- A18-58 Mitigation Measure AQ-1a (Develop and Implement a Fugitive Dust Emission Control Plan) would require the soil binders to be non-toxic and would be subject to approval by USFWS. Mitigation Measure AQ-1a and the list of responsible agencies for this measure have been revised to clarify the role of USFWS in implementing the dust control plan. Please see Response A18-13 for information on the feasibility of retaining unbladed roads.
- A18-59 Please refer to Response A18-13.
- A18-60 Please response to A18-52 for revisions to Mitigation Measure P-1a to include USFWS as a cooperating agency and recipient of a copy of the Hazardous Substance Control and Emergency Response Plan (see also Section D.12.11, Table D.12-8 of the Final EIR/EIS). Mitigation Measures P-1b and P-4a in Section D.10 (the mitigation measure are also referenced in Section D.12, Hydrology and Water Quality, and Table D.12-8 of the Final EIR/EIS) and Table D.10-10 have also been modified as follows to include USFWS as a recipient of the required documentation:
  - P-1b Conduct environmental training and monitoring program. An environmental training program shall be established to communicate environmental concerns and appropriate work practices, including spill prevention, emergency response measures, and proper Best Management Practice (BMP) implementation, to all field personnel prior to the start of construction. The training program shall emphasize site-specific physical conditions to improve hazard prevention (e.g., identification of potentially hazardous substances) and shall include a review of all site-specific plans, including but not limited to, the project's Storm Water Pollution Prevention Plan and the Hazardous Substances Control and Emergency Response Plan. SCE shall document compliance by (a) submitting to the CPUC or BLM or USFWS, as appropriate, for review and approval an outline of the proposed Environmental Training and Monitoring Program, and (b) maintaining for monitor review a list of names of all construction personnel who have completed the training program.
  - P-4a Prepare Spill Prevention, Countermeasure, and Control Plans. To minimize, avoid, and/or clean up unforeseen spill of hazardous materials during operation of the proposed facilities, SCE shall update or prepare, if necessary, the Spill Prevention, Countermeasure, and Control plan for each substation, series capacitors, and the switch-yard. SCE shall document compliance by providing a copy of the Spill Prevention, Control, and Countermeasures plans to the CPUC or BLM or USFWS, as appropriate, for review and approval at least 60 days before the start of operation.

- A18-61 Mitigation Measure G-1a in Section D.13.6.1 (page D.13-38) and in Table D.13-19 has been modified as follows to include the USFWS as a reviewer of the plan:
  - **G-1a Protect desert pavement**. Grading for new access roads or work areas in areas covered by desert pavement shall be avoided if possible. 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 on the surface, or by other suitable means. A plan for identification and avoidance or protection of sensitive desert pavement shall be prepared and submitted to the CPUC-and, BLM, and USFWS for review and approval at least 60 days prior to start of construction.
- A18-62 Please refer to Response B3-5 for a discussion of the No Project/Action scenario. In addition, the No Project/No Action Alternative is presented in Section C.6, as required under both CEQA and NEPA, and is analyzed by each issue area section. This alternative is also presented in Executive Summary Section ES.4 and is compared to the Environmentally Superior/ Preferred Alternative in Section E.3 and Executive Summary Section ES.5.

Section C.6.1.2 (Power Supply Issues Affecting the No Project Alternative) acknowledges that the No Project/Action Alternative would reduce generation from older and less efficient power plants in California. However, because the No Project/No Action Alternative would likely require construction of transmission lines with impacts similar to those described for the Proposed Project, as well as impacts of generation sources, it was found not to be superior to the Proposed Project (Environmentally Superior/Preferred Alternative). See also Response B8-4 regarding the New Conventional Generation Alternative.

- A18-63 Please refer to Response B8-23. The analysis of the impacts of the proposed DPV2 transmission line first considered the state of the existing environment, which contains the DPV1 line. While the DPV1 line was not specifically listed in the cumulative projects discussion, it was in fact considered in analysis, because its presence clearly affects the existing environment. Therefore, the cumulative impacts to visual resources discussed in Section F.3 include the DPV1 line.
- A18-64 Please refer to Response A18-63. The cumulative impacts to land use and wilderness and recreation resources (discussed in Section F.3) include the DPV1 line.
- A18-65 The commenter's objection to the Proposed Project based on significant (Class I) land use, wilderness and recreation, and visual impacts has been noted. See Response A18-7.
- A18-66 The following sentence has been added to Section H.4 on page H-4 to clarify the USFWS authority within Kofa NWR:

The CPUC-and, BLM, and the USFWS (within Kofa NWR and Coachella NWR lands) have the authority to halt any construction, operation, or maintenance activity associated with the Devers-Palo Verde No. 2 Transmission Line Project if the activity is determined to be a deviation from the approved project or adopted mitigation measures.

A18-67 Section H.7.3 (General Reporting Procedures) on page H-5 has been modified to include the USFWS as a recipient of project quarterly reports:

The Applicant shall provide the CPUC-and, BLM, and the USFWS with written quarterly reports of the project, which shall include progress of construction, resulting impacts, mitigation implemented, and all other noteworthy elements of the project.

- A18-68 Please refer to Response A18-69 for a discussion of Purpose and Need, Responses A18-70, A18-71, and A18-72 for a discussion of alternatives suggested by the commenter, and A18-73 and A18-74 for a discussion of the cumulative scenario analysis for visual and biological resources.
- A18-69 The commenter's preference for the No Project/Action Alternative has been noted. Please refer to General Response GR-3 for a discussion of project need.

The quotations referenced by the commenter from pages E-15 and C-64 of the Draft EIR/EIS are correct, though they are incomplete when taken out of the context of the surrounding discussion. Construction of new generation and transmission facilities would be unpredictable, because this project is considered by SCE and the California Independent System Operator to be needed because of its economic benefits (i.e., providing access to lower cost generation), new facilities would not be immediately required to support electric system reliability. However, as required by CEQA and NEPA, EIR/EIS Section C.6 (No Project/No Action Alternative) discusses what would be reasonably expected to occur in the foreseeable future if the project were not approved. A reasonable assumption, without undue speculation, of the events or actions that would be reasonably expected to occur in the foreseeable future without DPV2 was developed in Section C.6 and then compared to the Environmentally Superior/Preferred Alternative in Section E.3. As a result, the construction and long-term operational impacts of alternative transmission lines and generators were definitively found to have greater environmental impacts than the Environmentally Superior/Preferred Alternative as is stated in the EIR/EIS.

The events or actions that are reasonably expected to occur in the foreseeable future without DPV2 include the following:

- The existing transmission grid and power generating facilities would continue to operate without being reduced until other major generation or transmission projects could be developed.
- Continued growth in electricity consumption and peak demand within California is expected. To serve this growth, additional electricity would need to be internally generated or imported into California by existing facilities. Net air emissions reductions caused by reducing generation from older and less efficient power plants in California and increasing generation from higher-efficiency power plants outside of California would not occur.
- A continuation of baseline demand-side or supply-side actions may be expected to occur. Demand-side actions include additional energy conservation or load management. Supply-side actions can include accelerated development of generation, such as conventional, renewable, and distributed generation, or other major transmission projects. These are described in more detail below because they could lead to new adverse environmental effects. Development of other major transmission facilities or new generation triggered by the No Project Alternative would be unpredictable because this varies depending on a number of uncontrollable factors (e.g., energy cost, need, market forces).

The text on Draft EIR/EIS page C-64 in Section C.6.2.2 (Continuation of Supply-Side Actions) states that "no new generation or transmission facilities would be required if the DPV2 project is not constructed;" however, the paragraph continues, saying that "the No Project Alternative could, however, accelerate development of alternate facilities. The specific configuration of alternate facilities would vary depending on a number of uncontrol-lable factors (e.g., energy cost, need, market forces)." These facilities could include unchanged or increased dependence on existing generation in California, accelerated development of other major transmission projects or upgrades, and/or accelerated development of new generation in California or elsewhere. CEQA and NEPA require an assessment of impacts of the No Project/No Action Scenario, and this assessment is presented in each environmental issue area discussion in Section D of the EIR/EIS.

In addition, the text on Draft EIR/EIS page E-15 in Section E.3 (No Project Alternative vs. the Environmentally Superior Alternative) says that "development of other major transmission facilities or new generation triggered by the No Project Alternative would be unpredictable." The next paragraph goes on to state that "the environmental impacts of the No Project Alternative would primarily result from operation of gas-fired turbine generators and new transmission lines. These long-term operational impacts include substantial air emissions and ongoing noise near the generators, as well as visual impacts of the new transmission lines and generators depending on their locations. Therefore, because the No Project Alternative could also require construction of transmission lines with impacts similar to those described for the Proposed Project, as well as impacts of generation sources, the No Project Alternative is not found to be superior to the Environmentally Superior Alternative..."

A18-70 Installation of the 500 kV transmission line underground would reduce the visual impacts of the new transmission line. However, there are other significant impacts associated with construction and operation of an underground transmission lines that must be considered, as well as technical challenges that must be overcome before implementing such a system. First, the feasibility of such a line is questionable: a 500 kV underground system exceeding 20 miles in length exists only one place in the world, and this Japanese installation is in an urban area where the line is completely encased in a concrete vault.

For a 500 kV underground installation, various aboveground facilities would be needed in addition to the underground components. Visible aboveground components associated with a 500 kV underground transmission line include a transition station at each end of the underground segment, approximately 80 feet high and with a footprint of approximately 2 to 3 acres, at each end of the underground segment to transfer the 500-kV transmission lines from overhead to underground and vice versa. These transition stations are similar to a small electrical substation and would be highly visible facilities that would create visual contrasts with natural landscapes in the project area.

In addition, the ground disturbance required for installation of an underground transmission line of this voltage would be extensive. The comment references a 3-foot wide trench: this may be adequate for a 115 kV underground line, but a 500 kV line would require clearance of approximately an 85-foot wide path through the entire Refuge (described in more detail below).

The underground transmission line would also need to be served by an all-weather access road, and access hatches for underground vaults would be needed every 1,200 to 1,800 feet for each of three parallel sets of buried transmission cable.

Technical issues associated with installing a 500 kV transmission line underground include: (1) selection of appropriate and feasible 500 kV technology; (2) installation considerations, which may effect the reliability of the system (e.g., seismic conditions and slopes), and the area of impact; and (3) maintenance requirements.

**Feasibility.** As discussed in detail in Section 4.4.3 of Appendix 1 of the EIR/EIS, there are four underground technologies for 500 kV transmission that are commercially available; however, of the four underground cable technologies, the solid dielectric ("XLPE") technology is considered the preferred technology for underground construction. XLPE underground transmission cable has been available for system voltages up to 138 kV since the early 1970s; however, until recently there was a lack of widespread acceptance at higher voltages in this country because of reliability problems with these "first generation" systems. XLPE systems have recently begun to have installations with long enough service life to increase utility confidence in their reliability. Currently, the number of 220 kV solid dielectric cable installations in the United States is increasing with approximately 50 circuit miles in service.

The first long-distance 500 kV XLPE lines were installed in Tokyo, Japan, in 2000. As only one 500 kV XLPE system has been installed in the world, and was specially installed in a cable tunnel (and ducts), XLPE technology has scant operating history that can serve as a basis for demonstrating reliability at this voltage. However, XLPE cable has been successfully installed and operated for long lengths at lower voltages and has been shown to be technically feasible for a 500 kV installation since the fundamental technology is the same.

**Installation Considerations.** Underground transmission lines are more at risk for damage from earthquakes and landslides than overhead lines. A seismic event would expose the buried cable to potential fault rupture, local ground cracking, and groundshaking, which could damage the underground cable and render it inoperable. As such, serious reliability concerns exist for underground installations near an active fault zone.

In addition to earthquakes and landslides, burying cables within a slope for any significant distance is of concern as there is a risk of movement of the cable down slope due to either gravity or contraction and expansion effects. While there are no definitive limitations on maximum gradients for installations within slopes and the terrain within Kofa NWR is relatively flat, cable grappling or retention systems would need to be considered if the cable slope is in excess of five percent for distances greater than 500 feet. Significant cable slopes with cable retention systems are rarely used due to the potential for the attachments to introduce physical, electrical, and thermal stress points that can result in cable failures. As such, system reliability becomes an issue when dealing with sloped terrain.

Another consideration for underground cables is the area of impact required for installation. The primary infrastructure components for underground transmission lines are substantially different than for overhead lines and include:

- XLPE cables and duct banks
- splicing vaults
- thermal fill to cover the buried facilities
- transition stations (described above).

A 500 kV XLPE transmission line typically consists of three independent cables per phase. For an underground segment, each phase (each phase consists of three cables for a total of 9 cables) would be individually buried in a duct bank. A set of three splicing vaults, one for each set of cables, would be buried every 1,200 to 1,800 feet. Each underground splicing vault would measure approximately 10 feet by 10 feet by 35 feet. Up to eight feet of thermal fill may be required over the top of all buried facilities and infrastructure (duct banks and splicing vaults). During construction an approximately 85-foot wide area would be disturbed to install the three duct banks and associated splicing vaults. Not only would underground construction have greater biological impacts, but would also greatly increase traffic impacts associated with truck trips to remove debris and import materials, such as concrete for the duct banks and thermal backfill, and increase the overall length of construction (and other associated impacts, such as noise).

**Maintenance.** Maintenance of underground transmission lines is more difficult than overhead lines because when a problem occurs underground it can be very difficult to identify the exact location of the problem. When the problem is located, the segment (length between two splicing vaults) of cable on which the problem occurred must be removed and replaced. This process involves additional excavation and construction. In addition to the environmental implications, this process would cause circuit restoration to take substantially longer than with overhead transmission lines. Furthermore, underground lines have been found to have a shorter overall lifespan than overhead lines due to the degradation of the insulation surrounding the cables. Replacement activities, assuming an empty parallel duct is not provided, would include removal and replacement of the cable system, which would have substantial environmental consequences.

**Cost Considerations.** As a result of the considerable construction activities associated with underground construction of transmission lines, the associated costs are substantially greater than the cost of installing overhead transmission lines (approximately 6 to 10 times more expensive). The cost of undergrounding the transmission line for long distances could be cost-prohibitive. Furthermore, these costs would be passed on to SCE customers as approved by the Federal Energy Regulatory Commission (112 FERC 16,014, Docket No. EL05-80-000).

The following text has been added to EIR/EIS Section 4.4.3 in Appendix 1 for further discussion of environmental and technical disadvantages related to 500 kV underground transmission line:

#### Environmental and Technical Disadvantages by Technology

In addition, the disadvantages of each of the four underground technologies are discussed individually below.

**HPFF Underground Transmission System.** The primary disadvantages of this underground transmission system are:

- Larger volume of dielectric fluid in the cable pipe increases potential for a larger release to the environment compared to other cable types (especially near water bodies).
- Pressurizing or pumping plant is required to maintain dielectric fluid pressure under all load conditions. These plants would require secondary sources of power at the distribution voltage level.

- Cable system requires significantly more maintenance than solid dielectric cables due to the routine maintenance associated with the fluid pressurization plants and the pipe cathodic protection equipment.
- Cable system requires at least one day to restore service if there is a total loss of dielectric fluid pressure (SCE PEA, p. 3-49).
- Current carrying capacity of the cable system is lower than other cable systems with the same conductor size due to the close proximity of the conductors and magnetic losses in the steel pipe.
- Relatively high charging current and dielectric losses. For long lines, facilities may be required to compensate for the capacitive charging current.
- Availability of skilled cable splicers for this technology is becoming a problem.
- Multiple cables and duct banks would be necessary for the required power transfer capability.

SCFF Underground Transmission System. The primary disadvantages for this cable type are:

- Historically higher maintenance than HPFF or solid dielectric cable systems.
- More complex to design and operate compared to solid dielectric cable systems.
- Concerns about dielectric fluid leaks.
- Relatively high charging current and dielectric losses.
- Higher magnetic fields than HPFF cable systems.
- Availability of skilled cable splicers for this technology is becoming a problem.
- Multiple cables and duct banks would be necessary for the required power transfer capability.

**XLPE Underground Transmission System.** The primary disadvantages of extruded dielectric cables are:

- Does not have the proven long-term reliability record similar to HPFF or SCFF cable systems for system voltages of 345 kV and above.
- Requires extremely good manufacturing process quality control.
- Special skills and proprietary equipment associated with the cable supplier may be required for cable splicing.
- Multiple cables and duct banks would be necessary for the required power transfer capability.

<u>CGTL Underground Transmission System</u>. The primary disadvantages of compressedgas insulated transmission systems are:

- Relatively high cost.
- Environmental concerns about releases of SF6 gas to the environment.
- A relatively high amount of field assembly work is required.
- Less flexibility in avoiding other underground obstacles.
- Larger right-of-way required compared to other underground cable systems.
- System reliability is sensitive to contaminants introduced during field assembly.

**Conclusion.** In light of the intensive ground disturbance, maintenance, and reliability concerns related to underground construction discussed above, as well as the additional cost, underground construction of a 500 kV transmission line, except under specific conditions and for short distances, is generally not used in practice. It is not considered to be feasible in the Kofa National Wildlife Refuge.

- A18-71 A wind power alternative is discussed in Section 4.5.2 (Renewable Generation Resources) in Appendix 1 and in Section C.5.5.2 of the EIR/EIS. As is stated in the EIR/EIS, the available land for new wind turbines in the San Gorgonio Pass is nearing capacity and thus the potential for new wind generation in that location is low. In the Tehachapi area, there is not now adequate transmission capacity to deliver potential future wind energy, but SCE is currently evaluating development of an extensive transmission system in that area. In addition to the reliability and feasibility issues discussed in Appendix 1, Section 4.5.2, use of wind power would be inconsistent with the objectives of the proposed DPV2, which are focused on creating the ability for DPV2 to increase California's transmission import capability from the Southwest and enhance and support the competitive energy market in the Southwest. Therefore, wind energy was eliminated from detailed consideration in this EIR/EIS. See also Response A18-17.
- A18-72 An Interstate 10 alternative similar to a combination of Subalternate Routes 1 and 4 was evaluated as the SCE North of Kofa NWR–North of I-10 Alternative in EIR/EIS Appendix 1, Section 4.2.5. This section of the Alternatives Screening Report, along with General Response GR-1 above, presents detailed discussion of the reasons that a transmission line route north of the Kofa NWR would have greater impacts than use of the existing ROW through Kofa.

The EIR/EIS did not specifically consider an alternative that would parallel I-10 within the highway right-of-way, because the Arizona Department of Transportation (ADOT) would have to issue an encroachment permit for this use. Any alternative that would occupy an ADOT Highway ROW would be subject to the "Arizona Encroachments in Highway Rights of Way" (Rule No. R-17-3-702) as well as additional provisions required to obtain ADOT approval for a lease of a longitudinal corridor. However, according to the ADOT Guide For Accommodating Utilities On Highway Rights-Of-Way (1998),<sup>1</sup> "New longitudinal electric lines will *not* be permitted to be installed within the control of access<sup>2</sup> lines in any location other than within ADOT established utility corridors except in special cases." The Arizona Department of Transportation defines "special cases" very narrowly. Only an underground lease would be considered within the "control of access" area, and this has been done only in one case (in an urban area). An overhead line would not be allowed).<sup>3</sup> See Response A18-70 for a discussion about the environmental and feasibility issues associated with undergrounding the DPV2 line. Text has been modified to include this information in Section C.5.2.1 and Section 4.2.4 in Appendix 1.

<sup>&</sup>lt;sup>1</sup> Arizona Department of Transportation, Utility and Railroad Engineering Section. 1998. Online at http://www.azdot. gov/Highways/utilities/pdf/guide a.pdf. June 12.

<sup>&</sup>lt;sup>2</sup> "Control of Access" refers to locations where owners or occupants of abutting lands and other persons have no legal right of access

<sup>&</sup>lt;sup>3</sup> Personal Communication between John McNary (Arizona Department of Transportation) and Susan Lee (Aspen Environmental Group) on October 20, 2006.

By distancing the line from the Interstate 10 ROW then the route would traverse less disturbed habitat and impacts would be similar to those evaluated and eliminated from consideration in Sections 4.2.4, 4.2.5, and 4.2.6 of Appendix 1 (see also General Response GR-1).

A18-73 Please refer to Response B8-23. The analysis of the impacts of the proposed DPV2 transmission line first considered the state of the existing environment, which contains the DPV1 line. While the DPV1 line was not specifically listed in the cumulative projects discussion of the Draft EIR/EIS, it was in fact considered in analysis, because its presence affects the existing environment. Section F.2.1, Cumulative Projects, has been modified to add discussion of the DPV1 project. In addition, the Analysis section in Section F.3.1 (Biological Resources) has been modified as follows to include a discussion of wildlife movement related to the cumulative effect of both the DPV1 and DPV2 lines:

In the Arizona portion of the Proposed Project, after applying the significance criteria to the projects in the cumulative scenario, no significant cumulative impacts are found with regard to biology. Though it is difficult to judge the cumulative effects of DPV1 and DPV2 together on bighorn sheep or other animal movements without further study, cumulative impacts to biological resources could occur. During construction of DPV1, transmission line construction activities precluded normal ram crossing between the New Water Mountains and the Kofa Mountains/Livingston Hills, however, subsequent operation of the line did not appear to affect the sheep crossing of the corridor.<sup>1</sup> Mitigation measures implemented as part of the Proposed Project are designed to reduce any impacts to biological resources and wildlife movement to less than significant levels and it is assumed that the operational impacts of the line both individually and cumulatively would be less than significant as well, similar to the findings by Smith et al. (1986). Therefore, the cumulative scenario does not contribute considerably to any existing or identified impacts on habitats, species, protected wetlands, species migration or migration corridors, or use of wildlife nursery sites.

<sup>1</sup> Smith, E. L., Gaud, W. S., Miller, G. D., and M. H. Cochran. 1986. Studies of desert bighorn sheep (*Ovis canadensis mexicana*) in western Arizona: Impacts of the Palo Verde to Devers 500 kV Transmission Line. Final Report-Volume II. E. Linwood Smith and Associates, Tucson, AZ. Submitted to Southern California Edison Co. and Arizona Public Service Co. 51pp.

A18-74 Please refer to Response B8-23. The analysis of the impacts of the proposed DPV2 transmission line first considered the state of the existing environment, which contains the DPV1 line. While the DPV1 line was not specifically listed in the cumulative projects discussion, it was in fact considered in analysis, because its presence affects the existing environment. Section F.2.1, Cumulative Projects, has been modified to add discussion of the DPV1 project. Because the installation of the DPV2 transmission line within the Kofa NWR was found to be a significant impact in itself, a significant cumulative impact would also occur. This had been stated in the Draft EIR/EIS in Section F.3.2, but specific reference was not made to Kofa. The Analysis section in Section F.3.2 (Visual Resources) has been modified as follows to include a discussion of the specific cumulative effect of both the DPV1 and DPV2 500 kV lines through Kofa NWR:

Within Kofa National Wildlife Refuge, the DPV2 line would result in a considerable cumulative visual impact when viewed in the context of the existing DPV1 line. The DPV1 line on its own contributes substantial view blockage or visual impairment,

industrial character and visual contrast, which in turn diminish the visual quality of the Kofa landscape in the vicinity of the route. When placed adjacent to DPV1, the visual effects of the DPV2 line (increased visual contrast, structural prominence and, view blockage) would substantially exacerbate the existing adverse visual impacts of the existing DPV1 line, resulting in a considerable cumulative visual impact.

A18-75 The text modification in Section D.2.2.2 and in Response A18-22 has been modified to delete the reference to a designated utility corridor. The sentence now reads:

The Kofa NWR segment of the Proposed Project is located within and directly adjacent to the boundaries of the New Water Wilderness Area as designated and managed by the Kofa NWR and the BLM. <u>However, the proposed ROW is not a part of the Wilderness Area.</u>

- A18-76 References related to raven control permits and the "USFWS's Law Enforcement Division" have been changed to the "USFWS's Division of Migratory Birds" throughout Section D.2 of the EIR/EIS, including in all impact discussions related to Impact B-16 (Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers), in APM B-20 (see Table D.2-6), in Table D.2-14 (Mitigation Monitoring Program Biological Resources), and as is shown in Mitigation Measure B-16a:
  - **B-16a Prepare and implement a raven control plan.** SCE shall prepare a common raven control plan that identifies the purpose of conducting raven control, provides training in how to identify raven nests and how to determine whether a nest belongs to a raven or a different raptor species, describes the seasonal limitations on disturbing nesting raptors species (excluding ravens), describes the procedure for obtaining a permit from the USFWS's Law Enforcement Division of Migratory Birds, and describes procedures for documenting the activities on an annual basis. SCE shall gain approval of the plan from the USFWS's Law Enforcement Division of Migratory Birds. SCE shall provide this raven control plan to all transmission line companies that conduct operations within the ROW.
- A18-77 Construction impacts to bighorn sheep within the Kofa NWR are addressed in Section D.2.6.1.8 (State or Federal Species of Special Concern Wildlife) under "Mammals" for Impact B-9 (Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife), which was found to be potentially significant impact. Implementation of Mitigation Measure B-9f (Perform construction outside of breeding and lambing period) would ensure that construction would not occur during the period of the year when bighorn sheep are lambing (from January 1 to April 30) and if pre-construction surveys find sheep then SCE must consult with USFWS to identify appropriate avoidance measures. In addition, as is stated in Section D.2 (Biological Resources), the Proposed Project would comply with AGFD and BLM management policies for the bighorn sheep. Therefore, the CPUC and BLM agree with the findings in Smith et al. (1986) that construction of DPV2 through Kofa NWR would have the potential to impact bighorn sheep.

Impact B-11 (Construction activities would result in adverse effects to the movement of fish, wildlife movement corridors, or native wildlife nursery sites) in Section D.2.6.1.10 (Wildlife Corridors and Nursery Sites) has been modified to include the following discussion related to bighorn sheep. Table D.2-14 in Section D.2.10 has also been modified to include Mitigation Measure B-9f as part of Impact B-11.

Construction of the Proposed Project may also result in the temporary disturbance to breeding bighorn sheep, particularly in the Kofa NWR. Vehicle movement, equipment staging, and construction activities have the potential to temporarily disrupt breeding behavior in this species (Smith et al., 1986). Impacts to wildlife movement or nursery sites would be reduced to less than significant levels through implementation of Mitigation Measure B-9f (Perform construction outside of breeding and lambing period).

*Mitigation Measures for Impact B-11: Construction activities would result in adverse effects to the movement of fish, wildlife movement corridors, or native wildlife nursery sites* 

**B-9f** Perform construction outside of breeding and lambing period.

In addition, the following citation has been added to Section D.2.11 (References) in the EIR/EIS:

Smith, E. L., Gaud, W. S., Miller, G. D., and M. H. Cochran. 1986. Studies of desert bighorn sheep (*Ovis canadensis mexicana*) in western Arizona: Impacts of the Palo Verde to Devers 500 kV Transmission Line. Final Report-Volume II. E. Linwood Smith and Associates, Tucson, AZ. Submitted to Southern California Edison Co. and Arizona Public Service Co. 51pp.

A18-78 Section D.5.2.2 (Kofa National Wildlife Refuge) of the EIR/EIS has been modified as follows:

The Kofa NWR segment is characterized by open space with Crystal Hill primitive campground located adjacent to the proposed route, and no additional recreational facilities are located within this segment.

A18-79 The text in Table D.5-6 in Section D.5.11 of the EIR/EIS has been modified as follows:

Table D.5-6. Mitigation Monitoring Program – Wilderness and Recreation

IMPACT WR-3	Operation would permanently preclude recreational activities. (Class II)
Location	At construction sites that occur within the following recreation areas: Kofa Area of <u>Critical Environmental Concern National Wildlife Refuge</u> , Santa Rosa and San Jacinto Mountains National Monument, San Bernardino National Forest, Pacific Crest National Scenic Trail, Chuckwalla Valley Dune Thicket Area of Critical Environmental Concern, Alligator Rock Area of Critical Environmental Concern, Coachella Valley Preserve and Coachella Valley Fringe-Toed Lizard Area of Critical Environmental Concern, Potrero Area of Critical Environmental Concern , San Jacinto Wilderness Area, Norton Younglove Reserve.

A18-80 Impacts T-13 (Helicopter use during construction could conflict with rescue helicopter use within the Kofa National Wildlife Refuge) and T-14 (Construction use of roads could result in increased public use of unauthorized roads with the Kofa National Wildlife Refuge) have been moved to Section D.9.6.2 and Responses A18-50 and A18-51 have been modified above.

A18-81 Impact PS-1 (Radio and Television Interference) in Section D.10.12.2 has been modified to include Mitigation Measure PS-1c (Coordinate with Kofa NWR to prevent radio interference) as follows:

Mitigation Measure PS-1c is also recommended within the Kofa National Wildlife Refuge to prevent radio interference from corona or gap discharges that could interfere with law enforcement and emergency communications, as well as with tracking radio collared animals near the transmission lines.

#### Mitigation Measures for Impact PS-1

**PS-1c** Coordinate with Kofa NWR to prevent radio interference. Prior to construction, SCE shall coordinate with Kofa National Wildlife Refuge to determine any additional design, planning, or shielding measures that are necessary to prevent radio interference within the Refuge.

Table D.10-10 in Section D.10.13 has been revised as follows to incorporate Mitigation Measure PS-1c:

Table D.10-9 <u>10</u> . Mitigation Monitoring Program – Public Health and Safety			
IMPACT PS-1	Radio and Television Interference (Class II)		
MITIGATION MEASURE	PS-1c: Coordinate with Kofa NWR to prevent radio interference. Prior to construction, SCE shall coordinate with Kofa National Wildlife Refuge to determine any additional design, planning, or shielding measures that are necessary to prevent radio interference within the Refuge.		
Location	Within Kofa National Wildlife Refuge.		
<u>Monitoring / Reporting</u> <u>Action</u>	Review documentation of any additional design, planning, or shielding measures requested by Kofa NWR; verify that measures are installed.		
Effectiveness Criteria	All radio interference concerns are resolved to prevent radio interference within Kofa NWR.		
Responsible Agency	USFWS, BLM		
<u>Timing</u>	Prior to construction.		

A18-82 The references for Smith (1986) regarding bighorn sheep studies (see Responses A18-73 and A18-77) and Southern California Edison (2004) regarding DPV2 cost effectiveness have been noted. Please refer to General Response GR-3 for a discussion of project need.