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BEFORE THE ARIZONA POWER PLANT AND TRANSMISSION LINE SITING COMMITTEE

IN THE MATTER OF THE APPLICATION OF SOUTHERN CALIFORNIA EDISON COMPANY AND ITS ASSIGNEES IN CONFORMANCE WITH THE REQUIREMENTS OF ARIZONA REVISED STATUTES SECTIONS 40-360.03 AND 40-360.06 FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AUTHORIZING CONSTRUCTION OF A 500kV ALTERNATING CURRENT TRANSMISSION LINE AND RELATED FACILITIES IN MARICOPA AND LA PAZ COUNTIES IN ARIZONA ORIGINATING AT THE HARQUAHALA GENERATING STATION SWITCHYARD IN WESTERN MARICOPA COUNTY AND TERMINATING AT THE DEVERS SUBSTATION IN RIVERSIDE COUNTY, CALIFORNIA	Docket No. L-00000A-06-0295-00130 Case No. 130

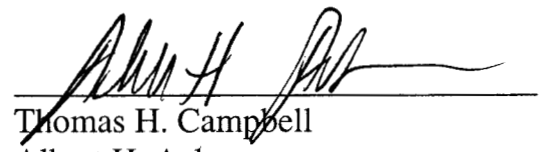
NOTICE OF FILING SCE AND CPUC COMMENT LETTERS TO THE KOFA COMPATIBILITY DETERMINATION AND ARIZONA REPUBLIC EDITORIAL

Southern California Edison Company ("SCE") hereby files its comments dated December 22, 2006, regarding the Draft Compatibility Determination for the Devers-Palo Verde No. 2 Transmission Line Project, submitted to the KOFA National Wildlife Refuge (Exhibit 1); the California Public Utilities Commission comment letter dated December 22, 2006, (Exhibit 2); and an *Arizona Republic* editorial regarding the Draft

Compatibility Determination dated December 24, 2006 (Exhibit 3).

RESPECTFULLY SUBMITTED this 19th day of January, 2007.

LEWIS AND ROCA LLP



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Laurie A. Woodall, Chairman
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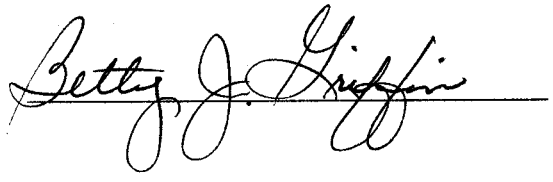

EXHIBIT 1

SOUTHERN CALIFORNIA EDISON
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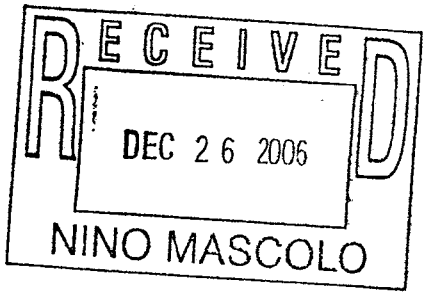
December 22, 2006

VIA UNITED PARCEL SERVICE



Mr. Paul Cornes
Refuge Manager
Kofa National Wildlife Refuge
356 W. 1st Street
Yuma, CA 85364

Subject: Comments Regarding the Draft Compatibility Determination for the Devers-Palo Verde No. 2 Transmission Line Project

Dear Mr. Cornes:

Southern California Edison Company (SCE) has reviewed the Draft Compatibility Determination (CD) prepared by the United States Fish and Wildlife Service, Kofa National Wildlife Refuge, for the SCE Devers-Palo Verde No. 2 (DPV2) Transmission Line Project (Project). The U.S. Fish and Wildlife Service (Service) issued a Notice for Public Review seeking comments on the Draft CD. This letter constitutes the SCE comments.

EXECUTIVE SUMMARY

The Draft CD concludes that the proposed DPV2 use of the Kofa NWR is "not compatible" with the NWR System mission and the purposes of the Kofa NWR. This Draft CD determination is founded on an improper application of the legal requirements for making a CD and upon certain incorrect information and analysis. When these errors are corrected, the Kofa NWR should find the proposed DPV2 Project "compatible".

Importantly, the Kofa NWR did not need to issue a new CD for the DPV2 Project because the existing 1989 CD for the Project was still valid and the Draft CD provided no compelling reason for revising or making a new CD. Any new CD must comply with the legal requirements for issuing a CD, as set forth in both the National Wildlife Refuge System Administration Act, as amended, and the Service's implementing regulations. Here, the basis for the Draft CD "not compatible" finding is that the Project would (i) potentially cause significant adverse impacts to wildlife and archaeological/cultural resources, and (ii) cause significant and unmitigable impacts to visual and recreation resources. However, neither the NWR System mission nor the purpose of the Kofa NWR mentions archaeological, cultural, visual, or recreation resource protection. The mission and purpose are limited to determining if the DPV2 Project will materially interfere with or detract from the conservation and management of wildlife resources. Therefore, the Draft CD must only evaluate the proposed impacts to wildlife resources. The Draft CD cannot consider other resource issues, such as visual, recreation, and cultural resources, when issuing the CD. SCE

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understands that the Service may evaluate the potential for other resources impacts when the Service acts upon the SCE right-of-way application (after the Service first concludes that the DPV2 Project is compatible).

Clearly, the DPV2 Project will not materially interfere with or detract from the conservation and management of bighorn sheep, birds, and reptiles within the Kofa NWR. No significant impacts to wildlife have been identified due to the construction and operation of the existing DPV1 transmission line, natural gas pipeline, and the dirt Pipeline Road. Studies conducted in consultation with the Kofa NWR have specifically shown that the DPV1 transmission line does not harm bighorn sheep movements or lambing within the Kofa NWR. The construction of DPV2 will use the existing Pipeline Road and tower access roads such that only 3.4 acres of additional land will be permanently disturbed. None of the impacted land is considered sensitive habitat for bighorn sheep lambing or foraging. Similarly, the small amount of land to be disturbed will not impact movements of sensitive reptiles, which were not even found in the Project area. Also, DPV1 has not been shown to cause significant mortality due to bird collisions. In fact, the likelihood of bird collisions is extremely low due to the flight patterns associated with both resident and migratory birds that may be found within the Kofa NWR. Consequently, this minor land disturbance will not materially interfere with wildlife within the Kofa NWR. Importantly, the alternative routes outside the Kofa NWR would each result in substantially greater amounts of undisturbed land, leading to increased impacts to wildlife, visual, recreation, and cultural resources.

Moreover, the Bureau of Land Management and the California Public Utilities Commission prepared a Final Environmental Impact Report/Environmental Impact Statement that sets forth a large number of mitigation measures to help ensure that the Project will not create significant impacts to wildlife (and other resources). To the extent the Kofa NWR believes it necessary, these mitigation measures may be included as stipulations within a final CD to ensure wildlife conservation. One mitigation measure, proposed by the Service itself, would have SCE compensate the Service for impacts by purchasing private property in-holdings within the Kofa NWR.

A critical error in the Draft CD analysis of impacts to wildlife, visual, recreation, and cultural resources is the failure to consider the appropriate environmental baseline, which includes the existing natural gas pipeline, its appurtenant structures (generator buildings, engine house, valve stations, and signage), the existing DPV1 transmission line, and the existing Pipeline Road. This existing infrastructure establishes a key part of the environmental setting against which potential incremental impacts from the proposed DPV2 Project must be measured. Contrary to the findings in the 1989 CD, the Draft CD does not account for these pre-existing structures or their impacts on the environment. That failure leads to an inaccurate conclusion that wildlife, visual, recreation, and cultural resources would experience significant adverse impacts. Rather, the final CD should use an analysis like that in the December 2002 CD issued for the Schultz-Hanford Area Transmission Line Project within the Columbia National Wildlife Refuge. There, the Service recognized that the incremental impacts caused by a second transmission line to be built adjacent to an existing transmission line would create only minor impacts.

Based upon the lack of significant impacts, and given the mitigation measures that would be imposed on the Project, no material interference with the conservation of wildlife on the Kofa NWR will occur. Therefore, the Service has the authority to find the DPV2 Project is "compatible" with the Kofa NWR.

I. BACKGROUND

a. The SCE DPV2 Project.

SCE is proposing to construct the 230-mile, 500 kilovolt (kV) DPV2 transmission line between the Devers Substation in California (near Palm Springs) to the "Palo-Verde Hub" area in Arizona (near Phoenix). DPV2 would traverse approximately 24 miles of the Kofa NWR and run parallel and adjacent to SCE's existing 500 kV transmission line (DPV1), which was constructed in the early 1980s, an El Paso natural gas pipeline, and the Pipeline Road, which was built when the natural gas pipeline was installed. In February 2005, the California Independent System Operator (ISO) found that the DPV2 Project was a "necessary and cost effective addition to the ISO Controlled Grid" and directed SCE to "proceed with permitting and construction" of the Project.[1] SCE is seeking regulatory approvals from a number of governmental agencies, including the California Public Utilities Commission (CPUC), the Bureau of Land Management (BLM), and the Arizona Corporation Commission. The CPUC and BLM prepared a Final Environmental Impact Report/Environmental Impact Statement (FEIR/EIS) in October 2006. The FEIR/EIS concluded that the DPV2 Project, with the route through the Kofa NWR, was the Environmentally Superior/Preferred Alternative. (FEIR/EIS p. ES-1).[2]

The purposes of DPV2 include increasing California's capability to import power from outside the area, enhancing the competitive wholesale electricity market in the Southwest, and improving transmission grid reliability. The DPV2 Project would also help address and resolve concerns identified by the Department of Energy (DOE) in their August 2006 "National Electric Transmission Congestion Study." This report, which was prepared pursuant to Section 1221(a) of the Energy Policy Act of 2005, identified Southern California as one of two "Critical Congestion Areas" in the United States. There, DOE identified the need for increased power flows between Arizona and California to reduce congestion in Southern California. The construction of DPV2 would significantly increase power flows between Arizona and California and address the congestion concerns expressed by DOE.

On March 1, 1989, the Kofa NWR issued to SCE a final CD that concluded that the DPV2 Project would be compatible with the Kofa NWR. On October 29, 2005, SCE submitted its application for a right-of-way grant to the USFWS for the construction of the DPV2 through the Kofa. Based on meetings held with Kofa NWR staff that preceded the filing of the October 2005 right-of-way application, SCE expected that the Kofa NWR would rely upon the existing 1989 CD

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[1] The ISO is a not-for-profit, public-benefit corporation charged with operating the majority of California's high-voltage wholesale power grid. The ISO decision is at http://www.caiso.com/docs/09003a6080/34/e4/09003a608034e440.pdf.

[2] SCE found a few errors in the FEIR/EIS and submitted comments to the BLM on December 4, 2006 requesting that these errors be corrected. These errors would not change the FEIR/EIS conclusion regarding the environmentally preferred route.

as the basis for issuing the right-of-way grant. Instead, the Kofa NWR issued the Draft CD, which SCE received on November 28, 2006.

b. The Kofa NWR.

The Kofa NWR refuge was established as a game refuge by Executive Order No. 8039 on January 25, 1939. The National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. §668dd) (1966 Act) consolidated the administration of the Kofa NWR, and other similar refuges, under the jurisdiction of the Service. The National Wildlife Refuge System Improvement Act of 1997 (1997 Act) made certain amendments that direct how the Service issues a CD and manages wildlife refuges. As the 1966 Act has been amended a number of times, these comments will refer generally to the National Wildlife Refuge System Administration Act of 1966, and all its subsequent amendments, as "the Act."

II. THE REGULATORY BASIS FOR MAKING A COMPATIBILITY DETERMINATION

a. The 1989 CD Is Valid.

The March 1, 1989 CD is still valid; as such, a new CD should not have been prepared without a showing of a compelling reason. The 1997 Act provided that "Compatibility Determinations in existence on October 9, 1997 shall remain in effect until and unless modified." (16 U.S.C. §668dd(d)(3)(A)(iv)). The statute provides for reevaluation of the CD "if conditions under which the use is permitted change significantly or if there is significant new information regarding the effects of the use." (16 U.S.C. §668dd(d)(3)(B)). While the proposed use evaluated under the 1989 CD (e.g., the DPV2 Project) was not constructed, no significant change has occurred in the currently proposed DPV2 Project nor does the Draft CD cite to any new information regarding effects that are likely to occur from the DPV2 Project that were not already considered in the development of the 1989 CD. Moreover, the Draft CD does not explain why the 1989 CD conclusion that the Project is compatible should now be reversed.

Given that the Act grandfathers the 1989 CD and the Service has not shown any compelling reason for reevaluating the 1989 CD, the Draft CD should not have been issued and certainly should not have concluded that the DPV2 Project is not compatible. Since 1989, nothing in the Act has substantively changed the criteria for the Service to issue a CD. With regard to issuing CDs, the 1997 Act (i) provided direction for handling wildlife-dependent recreation, (ii) confirmed that the Service may not issue a permit for the use of a NWR without a CD, and (iii) required the Service to establish a procedure to issue CDs. (16 U.S.C. §668dd(a)(3) and (d)(3))[3]. The same is true of the Service regulations that further defined the procedure for issuing a CD. (50 CFR §26.41, 65 Fed. Reg. 62,458 (October 18, 2000)). The Service regulations certainly provide the authority to issue a CD for the DPV2 Project, if the Project is compatible with the NWR System mission and Kofa NWR purpose. (50 CFR §29.21-8).

[3] Among other administrative requirements, the 1997 Act also defined the NWR System mission, directed the Service to manage the NWR System to fulfill that mission, and directed the Service to prepare a comprehensive conservation plan for each refuge.

b. The Draft CD Does Not Comply With Statutory Requirements.

Assuming that the Service has the authority to prepare a new CD, the issuance of the CD must comply with the Act's requirements. The Act provides that the Secretary of the Department of the Interior is authorized to:

> permit the use of, or grant easements in, over, across, upon, through, or under any areas within the System for purposes such as but not necessarily limited to, powerlines, ... and roads, including the construction, operation, and maintenance thereof, whenever he determines that such uses are compatible with the purposes for which these areas are established. (16 U.S.C. §668dd(d)(1)(B)).

The Act defines "compatible use" to mean:

> a wildlife-dependent recreational use or any other use of a refuge that, in the sound professional judgment of the Director, *will not materially interfere with or detract from* the fulfillment of the mission of the System or the purposes of the refuge. *emphasis added* (16 U.S.C. §668ee(1)).

According to the Act, the Service clearly has the authority to issue a permit for the DPV2 Project if the Service finds that the Project will be compatible, that is, it will not materially interfere with the Service's fulfillment of the NWR System mission or the purposes of the Kofa NWR. The Act provides that the NWR System mission is to:

> Administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats .... (16 U.S.C. §668dd(a)(2)).

The purpose of the Kofa NWR is found in the 1939 Executive Order that established the Kofa.[4] The 1939 Executive Order provides that the lands of the Kofa are "reserved and set apart for the conservation and development of natural wildlife resources, and for the protection and improvements of public grazing lands and natural forage resources..." Thus, when issuing a CD for DPV2, the Service must determine if the Project will materially interfere with the conservation and management of wildlife resources within the Kofa NWR. (50 C.F.R. §26.41(a)(10) and §29.21).[5]

The Draft CD analysis supporting the "not compatible" finding goes well beyond the authorized scope for evaluating whether DPV2 will materially interfere with the conservation and management of wildlife resources within the Kofa NWR. Instead of limiting its inquiry to that required by the Act, the Draft CD conducts an abbreviated environmental analysis of many potential impacts. Part of the Draft CD merely excerpts a few paragraphs describing various resource

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[4] The term "purpose of the refuge" is defined to "mean the purposes specified in or derived from the law, proclamation, executive order, ... establishing ..." the refuge. (16 U.S.C. §668ee(10)).

[5] "Conservation" means to sustain a healthy population of fish, wildlife, and plants. Where appropriate, this could be extended to restoring and enhancing these populations. (50 C.F.R. §25.12).

impacts from the Final Administrative EIR/EIS.[6] While the Draft CD cites to numerous potential resource impacts, the Draft CD also acknowledges that SCE would be implementing mitigation measures that reduce impacts to (i) less than a significant level, or (ii) an acceptable level. The Draft CD states that only a few resources/issues would have significant impacts and would "prevent the Service from achieving its mandates under law and policy". (Draft CD at p. 11). The Draft CD claims that these significant impacts arise from impacts to recreation, archaeological/cultural, and visual resources. (Draft CD at p. 11).

Yet, neither the NWR System mission nor the Kofa NWR purposes include any commitments to recreation, archaeological/cultural, and visual resources. The mission and the refuge's purposes are limited to the conservation and maintenance of wildlife resources on the Kofa NWR. Thus, the Draft CD cannot consider the impacts, if any,[7] to other resources when making a compatibility determination. The final CD must be revised to strike any reference to potential impacts to resources other than wildlife conservation and management.

The Draft CD cites to Service Policy 601 FW 1, which is intended to reiterate the mission of the NWR System, and claims that DPV2 would prevent the Service from achieving Goals A and D of the policy. Goal A is related to conserving wildlife and their habitat. Goal D is related to wildlife-dependent recreation. As explained above, the Act establishing the NWR System does not provide that wildlife-dependent recreation (hunting, observation, photography, fishing, and environmental education and interpretation) is part of the mission. Therefore, Goal D is irrelevant to a compatibility determination. Moreover, as explained below, DPV2 would not materially interfere with such recreation on the Kofa NWR.

The only potential significant impacts to wildlife resources (Goal A) that is raised by the Draft CD are the claimed potential impacts to bighorn sheep, migratory birds, and reptiles. The potential impacts to these resources will be discussed below. SCE acknowledges that these potential impacts to wildlife may form the basis for a compatibility determination. But, the other factors, such as recreation, visual, and archaeological/cultural resources, have no role in a CD.

c. The Appropriate Use Policy is Irrelevant to the DPV2 Compatibility Determination.

The Draft CD incorrectly claims that DPV2 would be in conflict with the Service's Appropriate Uses Policy. In reaching that conclusion, the Draft CD misapplies the Appropriate Use Policy (603 FWS 1). The Draft CD states that all uses occurring on a refuge must be appropriate uses, and then goes on to provide that the use must meet certain conditions. However, the Federal Register Notice advising the public about the availability of the Appropriate Use Policy explicitly states that the policy **does not** apply to Rights-of-Way determinations:

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[6] The Draft CD admits that its citations to the FEIR/EIS are actually from the Final Administrative EIR/EIS. (Draft CD at p. 3) The FEIR/EIS was finalized in October 2006, in time for the Service to incorporate those citations into the Draft CD. The Draft CD reliance upon the Administrative document results in errors because the FEIR/EIS is different in many respects.

[7] As explained below, the DPV2 Project will not cause significant, unmitigable impacts to recreation, archeological/cultural, or visual resources.

> *Issue 12: Rights-of-Way* ... Rights-of-way will continue to be handled through the compatibility and right-of-way permit processes, not this [Appropriate Use] policy. We did not make any changes to the final policy based on this comment. (71 Fed. Reg. 36408 (June 26, 2006)).

Thus, the Service must remove any reference to the Appropriate Use Policy in the final CD as that policy is not relevant to a compatibility determination.

Even if the Appropriate Uses Policy were applicable, which is not the situation, the DPV2 Project would not conflict with the policy. The Appropriate Uses Policy states that the management goals that the NWR System expects to achieve are, in essence: a) conserving diverse wildlife, b) maintaining habitats for wildlife, c) conserving ecosystems, and d) providing opportunities to participate in wildlife-dependent recreation (hunting, fishing, wildlife observation and photography, and environmental education and interpretation). The DPV2 Project in no way precludes the achievements of these goals due to the limited impacts associated with the Project, as explained later in these comments. Moreover, the Act and the Service's implementing regulations specifically provide that right-of-way uses for power lines may be permitted when the use is compatible. (16 U.S.C. §668dd(d)(1)(B); 29 C.F.R. §29.21-8). The Appropriate Use Policy cannot now limit the rights provided by the statute and regulations.

In preparing the CD regulations, the Service addressed an issue similar to that in the Appropriate Use Policy – should the Service prohibit "commercial uses of the refuges unless they can be demonstrated to contribute to the achievement of the National Wildlife Refuge System mission and the refuge purposes, and that they are compatible." This position was rejected as going beyond both what the Act "mandates and the general scope of the policy and regulations establishing the process we will use to determine compatibility of uses." (65 Fed. Reg. 62471-72 (10/18/2000)). Therefore, the Appropriate Use Policy, even if it were applicable, does not preclude the issuance of a right-of-way grant for the Project.

d. DPV2 is Consistent with the Kofa NWR & Wilderness and New Water Mountains Wilderness Interagency Management Plan and Environmental Assessment (Management Plan).

i. The Management Plan does not apply to the DPV2 Project.

In 1996, the Kofa NWR, the BLM, and the Arizona Department of Fish and Game issued the Management Plan, which is designed to provide long-term management direction for the Kofa NWR and the New Water Mountains Wilderness. The Management Plan contains land under the administrative jurisdiction of both the Kofa NWR and the BLM. This takes advantage of the ecological commonality of the two adjacent areas.

The management strategy for the Management Plan is "issue driven". That is, the Management Plan creates objectives that are designed to address particular issues identified by the agencies through the process of developing the plan, which included public input. (Management Plan at p. 29). Part III of the plan sets forth the issues to be addressed. The issues are defined as "problems or opportunities arising from agency directives, resource conflicts, and expectations" that should be addressed. Issues are broken into two categories: (i) those issues that are addressed by

the management activities in the plan, and (ii) those issues that are solved by policy. (Management Plan at p. 25).

Importantly, the issuance and use of rights-of-ways within the planning area are identified as potential issues that are resolved through existing policy. Management Plan Issue #8 provides that: "Guidance for the management of utility easements in nonwilderness portions of the Kofa NWR can be found in 50 CFR 29.21. No additional guidance is needed." (Management Plan at p. 26). Essentially, the Management Plan notes that rights-of-way may create issues of concern on the Kofa NWR. More importantly, the Management Plan then states that it will not attempt to develop objectives or guidelines that provide management direction to the Kofa NWR as to how to manage rights-of-way. The Management Plan recognizes that the existing Service regulations and the Act already provide sufficient regulation over the issuance of rights-of-way. Thus, the Management Plan specifically does not apply to the issuance of a right-of-way, or a compatibility determination, for the DPV2 Project. Consequently, as the Management Plan does not provide direction regarding rights-of-way, the DPV2 Project cannot conflict with the Management Plan.

ii. DPV2 is consistent with the Management Plan.

Even if the Kofa NWR Management Plan were applicable to the preparation of the compatibility determination for DPV2, the Project would be consistent with the plan. The Management Plan lists four objectives, none of which are in conflict with the DPV2 Project. The first objective, Preservation of Wilderness Values, is inapplicable to the Project, as the utility corridor is outside the Wilderness Area and the FEIR/EIS confirms that the Project will not impact the adjacent wilderness areas. (See FEIR/EIS at p. D.5-3; Management Plan at pp. 20-21). The Management Plan lists three other objectives (Wildlife and Habitat Management; Recreation, Legal Access and Information; and Mineral Management) that in turn propose various management actions designed to implement the objectives. Importantly, the Service rulemaking establishing the compatibility regulations concluded that evaluation of how the proposed use would impact specific management objectives should only be considered when those management objectives "clearly support the refuge's ability to fulfill its purposes." (65 Fed. Reg. 62473 (10/18/2000)). As the Kofa NWR purpose is for the conservation and management of natural wildlife resources, the three management objectives related to Wilderness Values, Recreation, Legal Access and Information, and Mineral Management, are inapplicable to a CD determination. Even if these three management objectives were to be evaluated, the DPV2 Project would not materially interfere with these objectives because the Project's potential impacts are minor, if they exist at all.

The only potential management objective to be evaluated is Wildlife and Habitat Management. This objective lists six steps to enhance the flora and fauna within the Kofa NWR:

- Managing fire to maintain the areas natural values.
- Preventing the introduction of new exotic pathogens into the area that could adversely impact wildlife.
- Managing wilderness portions of the planning area using the minimum tools needed for maintaining an optimal bighorn sheep population while providing for maximum viable species diversity.

- Providing for allowable resource uses within an ecologically compatible and sustainable framework while minimizing impacts to wilderness values.
- Identifying sensitive wildlife areas and minimizing user conflicts.
- Eliminating potential impacts to wildlife habitat from probable mining activity on nonfederal lands within the planning area.

The Management Plan then lists 11 Management Actions that it will implement:

1. Fire management.
2. The capture and transplanting of bighorn sheep.
3. Helicopter use for sheep capture.
4. Management of waters used by wildlife.
5. Evaluation of options to bury water systems for wildlife use.
6. Management of Nugget water tank.
7. Administration of flight operations for wildlife management purposes.
8. Collection of scientific data.
9. Closure of sensitive habitat areas during certain periods.
10. Management of abandoned mine sites.
11. Purchase of private in-holdings within the refuge.

The Draft CD did not specifically identify any one of the above management actions or enhancement steps as a concern. However, based upon the Draft CD text, the only management item at issue is minimizing user conflicts with sensitive wildlife areas (step five) due to the potential impact of DPV2 construction on bighorn sheep lambing areas that are more than one mile from the closest construction zone.[8] As discussed below, SCE will not undertake construction during the lambing period to the extent that these lambing areas would be disturbed. Otherwise, the Project would not impact the Kofa NWR's ability to manage fire, eliminate impacts from mining operations, managing wilderness areas to maintain bighorn sheep and species diversity, etc. Thus, the Project is consistent with the Kofa NWR Management Plan objectives. The FEIR/EIS also came to this conclusion. (FEIR/EIS at p. D.2-167).

[8] Construction of Project towers and spur roads will occur only for a limited time in any one location as Project construction proceeds from one tower site to another. Construction will not occur throughout the entire Kofa NWR at the same time.

e. Congress Expressed an Intent to Allow DPV2 Within the Kofa NWR.

The Arizona Desert Wilderness Act of 1990, Section 301(a)(3), established a Wilderness Area of over 500,000 acres, which covers the majority of the Kofa NWR. (H.R. 2570, Public Law 101-628, 104 Stat. 4478). The Wilderness Area excludes the proposed DPV2 utility corridor. In fact, Congress amended H.R. 2570 in two instructive ways. First, the acreage designated for wilderness was reduced by 100 acres, the approximate width of the DPV2 right-of-way, from 511,000 acres to 510,900 acres (amendment 7). Second, the map depicting the Wilderness Area was revised to reflect the reduction of the 100 acres. The staff memo explaining the amendments to the wilderness bill, prepared by Mr. David Brooks, counsel of the Senate Committee on Energy and Natural Resources, states that:

> Amendment 8 is a conforming amendment updating the map reference for the Kofa Wilderness to correct the acreage modification made by amendment 7 and also to clarify that a power corridor operated by Southern California Edison located adjacent to the public lands included in the Kofa Wilderness is excluded from the wilderness boundary. (See Attachment 1).

These revisions to the Arizona Desert Wilderness Act of 1990 intentionally excluded the DPV2 right-of-way from the Kofa Wilderness.[9] Congress would not have recognized the utility corridor and ensured that the corridor was wide enough to accommodate the DPV2 transmission line if Congress had believed that the DPV2 transmission line was not compatible with the Kofa NWR.

f. Executive Orders Require the Consideration of Impacts to Energy Distribution.

On May 18, 2001, the President issued Executive Order No. 13211 to address some of the Country's energy problems. The Executive Order provides direction to federal agencies when they take steps that constitute "significant energy actions". A "significant energy action" is defined as one that "is likely to have a significant adverse effect on the supply, distribution, or use of energy." The DPV2 Project is critical to SCE's ability to provide reliable electric service to our customers, as described in the FEIR/EIS Executive Summary at page ES-2. According to the Executive Order, the Service must prepare a Statement of Energy Effects that includes a detailed description of any adverse effects on energy distribution if the Service issues a final CD with a "not compatible" finding.

Similarly, Executive Order No. 13212, also issued on May 18, 2001, provides that agencies "shall take appropriate actions, to the extent consistent with applicable law, to expedite projects that will increase the production, *transmission*, or conservation of energy." (Section 2 of the Executive Order, emphasis added). Thus, as the DPV2 Project is compatible with the Kofa NWR, the Service should issue a right-of-way for the Project to facilitate increasing the transmission of energy to southern California.

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[9] The DPV1 right-of-way was already excluded from the legislation; the amendment was not related to DPV1.

III. A BROAD-BASED RESOURCE ANALYSIS IS INAPPROPRIATE FOR A COMPATIBILITY DETERMINATION

As explained above, a CD is only to evaluate the NWR System mission and the Kofa NWR purposes. Nevertheless, the Draft CD discusses a number of resources in a fashion similar to that raised in a National Environmental Policy Act (NEPA) environmental review document. As explained above, that broad level of analysis is inappropriate to make a CD. Instead, this type of analysis would be appropriate when the Service is considering whether to issue a right-of-way grant for DPV2 across the Kofa, which would occur after, or at the same time as, the CD finding of compatibility is issued. The Service should use the FEIR/EIS prepared by the CPUC and BLM to comply with the Service's NEPA obligations associated with issuing the right-of-way grant to SCE. The FEIR/EIS considered all of the potential environmental impacts associated with the construction and operation of DPV2 within the Kofa NWR. As discussed in Section VIII.a., the FEIR/EIS evaluated a reasonable range of alterative routes and determined that the other routes would have greater adverse environmental impacts compared to the Kofa NWR route.

a. The Project Impacts Must be Accurately Characterized.

Should the Service wish to keep the discussion of these other resources in the CD, then an accurate environmental analysis must be conducted.[10] The Draft CD selectively quotes from the Administrative FEIR/EIS regarding the following issues: vegetation and soils, non-native invasive species, wildlife, recreation, noise, air quality, visual resources, public health and safety, cultural and palentological resources, and transportation and traffic. For some reason, the Draft CD does not use the FEIR/EIS issued in October 2006 as the basis for its discussion. While SCE never received a copy of the Administrative FEIR/EIS, the October 2006 FEIR/EIS is clearly different from the Administrative FEIR/EIS in a number of respects, based upon the Draft CD's citations to the Administrative FEIR/EIS. Some of these differences in the two documents have led to inaccurate conclusions in the Draft CD.

Importantly, the Draft CD acknowledges that mitigation measures will reduce or minimize Project impacts to an acceptable level. (Draft CD at p. 11) Only in a few instances does the Draft CD claim that impacts are not sufficiently mitigated for the affected resources on the Kofa NWR:

> In other cases, the proposed mitigation measures are not adequate for the affected resources and where impacts could be significant (desert bighorn sheep movements and reproduction). Finally there are a number of resources/issues where the impacts are significant and unmitigable (recreation, archeological/cultural, visual). These resource impacts cause the greatest concern for the future management of the Refuge and prevent the Service from achieving its mandates under law and policy. (Draft CD at p. 11)

In the "Justification" paragraph of the Draft CD, the Service elaborates on the basis for concluding the Project is not compatible:

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[10] Also attached is a letter from SCE to the BLM advising the BLM of certain errors and faulty analysis in the FEIR/EIS that pertain to potential impacts to visual and recreation resources in the Kofa NWR.

> There is also the potential for significant negative impacts to other important biological resources, but information is currently lacking to make this determination with any certainty for two adjoining powerlines. The biological resources that fall into this category include migratory birds, desert bighorn sheep, reptiles[sic]. Taken together with DPV#1, the negative impacts to these resources may be cumulative and could have greater implications on their management than is currently known. (Draft CD at p. 12).

Based upon these alleged potential impacts, the Draft CD concludes that the Project would not achieve the Kofa NWR administrative and management objectives, including those in the NWR System mission, Kofa NWR purpose, and the Management Plan. Section IV of the SCE comments will focus on those resource issues that drive this Draft CD conclusion. SCE is commenting only upon the potential resources impacts that were claimed by the Draft CD as justification for the "not compatible" finding, even though all resources impacts, except wildlife conservation and management, should not be considered in forming a compatibility determination.

b. The Project Impacts Must be Based Upon the Existing Environmental Baseline.

The DPV2 utility corridor has been substantially modified by the presence of a natural-gas pipeline and its appurtenances (i.e., generator buildings, engine house, valve stations, and signs) since the 1950s and also by the construction, operation, and maintenance of the existing DPV1 transmission line since the 1980s. The dirt Pipeline Road that traverses the Kofa NWR was used for the construction of the existing utility facilities and serves as the primary vehicular access to the northern portion of the Kofa NWR for maintenance of those facilities, along with recreation use and traffic crossing the Kofa NWR for non-recreation purposes. The dirt road is also used routinely by vehicles for refuge management. The Pipeline Road would be the primary access route for construction and maintenance of the DPV2 Project. This existing infrastructure constitutes the environmental baseline and is a key to evaluating the potential Project impacts.

Both NEPA and the California Environmental Quality Act (CEQA) provide for the use of the existing baseline as the foundation for evaluating a project's environmental impacts. NEPA requires that federal agencies describe the "affected environment" against which the proposed action must be evaluated. (40 C.F.R. §1502.15) That includes the existing conditions in the project area.[11] (*Conservation Law Foundation v. FERC*, 216 F.3d 41, 45-46 (D.C. Cir 2000); *American Rivers v. FERC*, 201 F.3d 1186, 1195-99 (9th Cir. 1999)) CEQA has the same requirement to use the existing conditions as the baseline from which to evaluate a project's environmental impacts. (see Title 14 California Code of Regulations §15125; *Fairview Neighbors v. County of Ventura*, 70 Cal. App. 4th 238, 243 (1999)). The existing DPV1 transmission line, including its operation and maintenance activities, the existing dirt Pipeline Road, and the existing natural gas pipeline are all

[11] "To effectively evaluate the significance of impacts, it is important to establish a baseline against which to compare the impacts of a proposed action. Usually the baseline consists of the pre-project environmental conditions. The significance of impacts is determined by comparing the impacts of the proposed action and alternatives to this baseline. For example, when determining traffic impacts, the baseline would be the existing level of traffic on a particular roadway before implementing the proposed action (e.g., 1,000 vehicles per hour)." Bass, Herson, Bogdan, *The NEPA Book, A step-by-step guide on how to comply with the National Environmental Policy Act (2000 Solano Press Books).*

within the proposed Project's utility corridor and constitute the baseline against which Project's impacts must be measured. While the Draft CD clearly recognizes the presence of the DPV1 transmission line, the Draft CD does not consistently consider the existing environmental setting associated with the DPV1 transmission line. Instead, the claimed visual and recreational resource impacts ignore the DPV1 transmission line when asserting that DPV2 will cause significant impacts.

For example, using the proper environmental baseline is critical when comparing the potential alternative routes to the Kofa NWR route. The four alternative routes would each require a new access road for construction and maintenance, which would result in greater environmental impacts than the proposed route through the Kofa NWR because this preferred route would use the existing dirt Pipeline Road. Thus, the amount of additional ground disturbance resulting from new construction would be substantially greater than the amount of total ground disturbance that would result from construction of the proposed DPV2 route along the utility corridor through the Kofa NWR. (FEIR/EIS, pp. C-22 through C-28).[12] Similarly, the visual impacts attributed to the alternative routes discussed in Section VIII.a would be potentially significant because these areas have no existing infrastructure like the existing DPV1 transmission line along the preferred route through the Kofa NWR.

Here, the Draft CD fails to take into consideration the existing infrastructure within the Kofa NWR when determining the Project's visual and recreational impacts. If the existing infrastructure's environmental impacts had been evaluated, the document would have concluded that the addition of the DPV2 transmission line adjacent to the existing DPV1 transmission line and natural gas line appurtenances, and the Pipeline Road would cause less than significant visual and recreational impacts. Briefly, if the presence of a transmission line in the Kofa NWR is sufficient to cause a significant adverse environmental affect, then the existing DPV1 transmission line has already created that impact and it becomes part of the affected environment. The addition of a second transmission line adjacent to the current transmission line certainly would not create significant additional impacts as the environmental setting must reflect the existing transmission line's impact.

In fact, the Columbia National Wildlife Refuge issued a CD in December 2002 finding that a transmission line across that refuge was "compatible" because the transmission line would be constructed adjacent to an existing transmission line within the refuge. Similar to our situation here, the Columbia National Wildlife Refuge noted that the additional right-of-way would (i) exclude the construction of new buildings, (ii) the existing roads and adjacent corridor would be used for access, (iii) the new towers would be lined up with existing towers, and (iv) the new construction would be limited to mostly the footprints of the new towers. There, the Service determined that the route through the refuge was "the least environment-damaging route among six considered. It is adjacent to another power line which uses the same access roads and rights-of-way."[13] (Schultz-Hanford

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[12] Using the Pipeline Road for construction access, the DPV2 project would result in less than 4 acres of permanent ground disturbance within the Kofa NWR compared to between 88 and 99 acres for the three shortest alternatives to the Kofa NWR route, and 129 additional acres of permanent disturbance for the North of Blythe route. (Ap. 1-39, Table Ap. 1-3a, Ap. 1-47).

[13] The Columbia NWR CD adopted a few mitigation measures, which are similar to those in the DPV2 FEIR/EIS, that the Service concluded were necessary to ensure compatibility.

Area Transmission Line Project CD, Columbia National Wildlife Refuge, December 2002, Attachment 2).

IV. DPV2 WOULD NOT MATERIALLY INTERFERE WITH WILDLIFE IN THE KOFA NWR

The Draft CD reached its decision of "not compatible" based, in part, on potential impacts to wildlife. However, the Draft CD admits that "information is currently lacking to make this [significant impact] determination with any certainty for two adjoining powerlines. . . . . Taken together with DPV#1, the negative impacts to these resources *may be* cumulative and *could have* greater implications on their management than is currently known." (*emphasis added.* Draft CD at p. 12). The Draft CD does not allege that significant impact to these wildlife resources is occurring due to the presence of DPV1, nor does the Draft CD claim that the construction of the DPV1 line caused significant adverse impacts to the conservation of wildlife on the Kofa NWR. The Draft CD merely expresses concern that the installation of a second powerline would somehow create significant cumulative impacts to wildlife resources when no significant impacts occur today. For example, the Draft CD claims that the removal of vegetation may eliminate necessary ground cover or protection and cause habitat fragmentation for the rosy boa, common chuckwalla, Gila monster, and desert tortoise.

However, the Draft CD cites to no hard evidence explaining why such impacts would be likely to occur. The FEIR/EIS did not conclude that these species would be significantly impacted. In fact, the Draft CD concedes that the common chuckwalla, Gila monster, rosy boa, and desert tortoise have not even been found in the proposed construction area within the Kofa NWR. If these wildlife resources are not going to be directly impacted, and only a minor amount of habitat (3.4 acres) would be disturbed, the DPV2 Project would not materially interfere with the conservation and protection of these wildlife resources. SCE urges the Service to follow the requirements for preparing a final CD, as set forth in the Service's regulations, and issue a CD concluding that DPV2 is compatible with the purposes of the Kofa NWR.

a. Bighorn Sheep in the Kofa NWR Would Not be Significantly Impacted.

The Draft CD states that the potential exists for significant adverse impacts to bighorn sheep, especially when the impact is taken together with DPV1 impacts. (Draft CD at p. 12) However, DPV1 construction activity did not interfere with ram movements or lambing between the New Water Mountains and the Kofa Mountains/Livingston Hills complex. SCE acknowledges that during construction in a particular area, a ram moving from the Kofa Mountains across relatively flat terrain toward the New Water Mountains would either return to the Kofa Mountains or go around the construction area upon encountering construction crews at the base of the New Waters Mountains. A reverse scenario is also possible.[14] But, the Draft CD fails to mention that the

[14] DPV2 construction will not create a substantial interference with bighorn sheep as construction activities will not occur throughout the Kofa NWR at the same time. Construction of DPV2 will consist of several sequential construction activities: spur road construction, foundation excavation, foundation construction, tower assembly, tower erection, conductor stringing and tensioning, hardware installation, and cleanup. Each operation may include one or more crews performing similar work at different tower sites. Each operation will be focused on a relatively small number of tower sites at any one time, and will generally progress in one direction (east to west or west to east). At an individual tower

monthly rate of ram crossings was higher after DPV1 construction than it was before or during construction (Smith et al. 1986). The presence of DPV1 did not deter ram crossings at all, thus negating habitat fragmentation concerns with respect to movements between the two major mountain ranges. Certainly, a sustained, healthy population of bighorn sheep exists despite the presence of DPV1. In fact, the 1996 Management Plan states that bighorn sheep populations were stable since 1985. The Management Plan goes on to note that not only are permits issued for hunting bighorn sheep within the planning area, but bighorn sheep are transplanted off the planning area to other locations in the Southwest. (Management Plan at p. 11).[15]

Also noteworthy are the statistically significant results for sheep crossings of Copper Bottom Pass in the Dome Rock Mountains during and after transmission line construction. In that location the crossing rates were significantly higher both during and after construction than they were in the several years before construction. Smith et al. (1986) also noted that the radio-collared sheep in the Dome Rock Mountains spent more time *in* the construction zone during construction than they did before or after construction. Construction crew members frequently reported seeing individual sheep (sheep collars were distinctly colored) watching them from nearby hills or ridges. The Dome Rock sheep were undeterred by construction, probably because of readily available escape terrain on all sides. As with the Kofa-New Water Mountains situation, the presence of the transmission line had no effect in preventing sheep from moving freely across Copper Bottom Pass. Several days after the line was energized the first time, biologists watched a lamb and ewe foraging under the power line at the base of a tower.

Lambing is a critical element in the life of the desert bighorn sheep and potential impacts to lambing should be considered. When ready to give birth, bighorn ewes usually move to higher, rugged terrain to have their lambs. The term "lambing area" and the drawing of "lambing area polygons" on the FEIR/EIS maps implies that these are the areas that all the ewes go to for lambing. This is not a totally accurate picture. Rather, ewes move to the higher parts of whatever mountain mass that contains their home range. For example, in the EIS for DPV1, the BLM identified lambing areas in the western New Water Mountains and in the southern and central Plomosa Mountains. These were displayed by polygons on maps. By the end of the second year of their study of desert bighorn in the same mountains, Witham et al. (1980) had identified seven additional areas where ewes gave birth to lambs, including the Livingston Hills. Importantly, none of the previously identified or the newly identified lambing areas is within one mile of the proposed DPV2 corridor, nor does the corridor traverse any habitat that is similar to the type of habitat desert bighorn ewes select for parturition. Moreover, none of the data collected by Witham and Smith et al. between 1977 and 1984 suggested that ewes changed their home ranges or made any unusual movements in response to construction and operation of DPV1. No lambs were abandoned, no "lambing areas" vacated, and no lambs or ewes were denied access to water or any other life necessity.

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location, each of the sequential construction activities must be completed before the next operation can begin. The entire construction period through the Kofa NWR is expected to last 4 to 5 months.

[15] A November 17, 2006 press release from the Service indicated that bighorn sheep populations have decreased since 2003, likely in response to a severe drought, the presence of mountain lions, and potentially other factors. The existing DPV1 was not listed as one of the potential confounding factors. The Service translocated 30 sheep in 2005 to the San Andres NWR in New Mexico.

The temporal nature of lambing is an important aspect of the sheep's life cycle. While breeding and lambing can occur in almost any month of the year, the vast majority of lambing (in excess of 90 percent) occurs from January through April. Clearly, the most active lambing period in western Arizona is not October – April, which the Draft CD claims is the "most active lambing period". (Draft CD, p. 9) Witham et al. documented, in their study conducted between November 1977 and January 1984, that nearly all lambs were born in the January-April period (between 48 and 60 in each year). Only occasional, single births were documented in any other month (i.e., not more than one lamb per month and none in October or November).

The Draft CD cites Graham (1980), who claims that actions that significantly increase human activity in key portions of bighorn sheep ranges can result in great harm. SCE acknowledges that desert bighorn sheep have disappeared from many mountain ranges in southern Arizona and disappearances seem to have been coincident with increasing human populations. For example, bighorn sheep disappeared from the Tucson Mountains in the last century as the range became home to more and more humans. In the last decade, a herd of bighorns in the Santa Catalina Mountains north of Tucson essentially disappeared after at least a decade of decline. This herd, which occupied the Pusch Ridge Wilderness Area of the Santa Catalinas, apparently succumbed to near constant contact with hikers (and their pet dogs).

The construction and operation of DPV2 would not result in impacts to bighorn sheep on the Kofa NWR similar to those described above. Sheep-human interactions associated with the transmission line would be infrequent and widely-spaced over the course of construction and would be minimal during Project operation and maintenance during any given year. There is no large human population center near the Kofa NWR, and visitors to the refuge are small enough in number that any individual sheep is likely to be disturbed by humans very infrequently, as opposed to the almost daily as was the situation on Pusch Ridge. Current population declines on the Kofa NWR are almost certainly related to the extreme drought conditions that have persisted over southern Arizona over most of the past decade. There have been no significant increases in any anthropogenic factors that could account for the decline and no claim that DPV1 has caused any decrease.[16]

The Draft CD expresses the opinion that habitat fragmentation caused by the DPV2 Project would impact wildlife and that habitat destruction would affect the ability of the Kofa NWR to conserve a representative example of Arizona Upland habitat. However, the FEIR/EIS reached a different conclusion. The FEIR/EIS found that wildlife in construction areas would be only temporarily impacted and the wildlife would need to stay away from construction areas for a limited period. The species would be able to use adjacent habitat. The FEIR/EIS concluded that impacts to wildlife movement and biological resources due to construction would be less than significant.

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[16] Graham, H. 1980. The impact of modern man. Pages 288-309 in: The desert bighorn: its life history, ecology, and management. G. Monson and L. Sumner, eds. University of Arizona Press, Tucscon, AZ.
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.
Witham, J. H., E. L. Smith, and W.S. Gaud. 1980. Studies of Desert Bighorn Sheep (*Ovis canadensis mexicana*) in western Arizona. Report on findings – Year II. Report to Southern California Edison Co. and Arizona Public Service Co. 168 pp.

(FEIR/EIS at pp. D.2-146, 154, and 167). The Arizona Game and Fish Department likewise concluded that it "does not anticipate that the proposed route will result in significant adverse impacts to wildlife and wildlife habitats". (See June 2, 2006 letter from William Knowles to Fred Salzmann of SCE, Attachment 3.)

DPV2 would involve installation of approximately 85 towers on the Kofa NWR, and each tower pad would replace 0.01 acres of native desert habitat, or a total of approximately 0.85 acres. Spur road extensions would be needed for approximately 60 towers, and each spur road would be approximately 130-feet long and 14-feet wide, which would add about 2.5 acres of permanent ground disturbance for the entire project crossing the Kofa NWR. The native habitat area thus committed to the DPV2 Project would be a total of about 3.4 acres, which is a very small fraction (less than 0.00001 percent) of the Arizona Upland and Lower Colorado River Valley Subdivisions within the Kofa NWR, which encompasses 665,400 acres of Sonoran Desert. Conversely, the impacts of habitat fragmentation on wildlife, including bighorn sheep, would be much greater along any of the other routes north of the Kofa NWR as new access and stub roads would have to be created.

b. Birds in the Kofa NWR Would Not be Significantly Impacted.

The Draft CD extrapolates the estimated number of birds that would potentially be killed on the Kofa NWR as a result of collisions with the proposed DPV2 transmission line. (Draft CD at p. 8). This calculation is highly misleading, inaccurate, and not based upon any evidence related to actual bird mortality associated with the DPV1 transmission line. The Draft CD estimate that 20,121 birds would be killed on the refuge is based on a study of bird collision mortality on Mare Island in San Pablo Bay, located northeast of San Francisco, California. In the Mare Island study, the power line traversed hay meadows and a pond. Birds would fly from a resting site at the pond on one side of the transmission line to forage in the hay field on the other side of the line. This increases the number of flights well beyond migratory activity and presents a unique situation that is likely to attract substantial numbers of birds and lead to multiple collisions with the transmission lines.

The birds most frequently killed were ducks and shorebirds (i.e., Ruddy Ducks, sandpipers, plovers). Sandpipers frequently travel in dense flocks and both Ruddy Ducks and plovers also travel in flocks making individuals somewhat more prone to colliding with small diameter distribution lines. These types of birds are attracted to water bodies, and the transmission lines were closely linked to the areas where these birds like to rest, feed, and breed. Other birds killed included Red-winged Blackbirds and meadowlarks, both common to abundant in hay fields and Red-winged Blackbirds also travel in flocks during the non-breeding season. In contrast, no habitat features are found within the Kofa NWR that would attract large flocks of birds, nor are there physical land or water features north and south of the transmission line right-of-way that would cause large numbers of birds to be frequently traveling back and forth across the corridor. Moreover, the Mare Island study power line was a 115kV transmission line; the DPV2 Project would have larger, bundled conductors (similar to DPV1) that are easily visible to flying birds.[17]

[17] Albert Manville II, Ph.D. with the Service has concluded that "Very little of the power grid, however, is currently being examined so these estimates [of bird mortality based upon extrapolation from other studies] are not particularly meaningful." Manville, A.M. II, 2005. Bird strikes and electrocutions at power lines, communication towers, and wind turbines: state of the art and state of the science – next steps toward mitigation. Bird Conservation Implementation in

Furthermore, unlike the Mare Island area, the Kofa NWR is not known as a major migratory corridor for birds. The level of avian use along the transmission line is expected to be commensurate with other similar habitat types in the Arizona or California deserts. Most birds within the Kofa NWR are likely residents of the local habitat and are small passerine birds that spend most of their time close to the ground foraging and nesting. Therefore, they do not possess a high collision potential. The main bird species that would fly at the heights of the conductors are raptors and corvids (principally ravens). The eyesight on these birds is generally very keen (up to 10 times greater than humans) and they are excellent and agile flyers. For these reasons, the potential for bird mortality along the transmission line is expected to be very low or non-existent.

The Draft CD states the bird collision hazard is likely to be at its highest in spring and fall when north south migrants cross the refuge and encounter the existing DPV1 line, and states that the DPV2 would exacerbate the problem. In fact, most neotropical (and other) migrants that traverse the Kofa in spring and fall are songbirds, most of which migrate at night. However, night migrating birds travel at altitudes between 500 and 6000 feet above the ground and more than 75 percent of songbirds travel between 500 and 2000 feet (Deinlein 2006). All of the DPV2 transmission line structures, conductors, and static lines within the Kofa NWR would be less than 200 feet above the ground. Thus, migrating birds traveling across the transmission line corridor are highly unlikely to be flying low enough to collide with conductors, towers, or static lines.

The Draft CD correctly states that there is a body of scientific literature documenting that many birds of different kinds die from collisions with power lines and utility structures. However, evidence of conflicts between birds, whether migratory or not, and 500kV lines is very sparse and limited (California Energy Commission 1995). Power lines, in general, account for far less avian mortality than windows, airport celiometers, TV and radio towers, and automobiles. Klem (1991) estimates that 97 million birds are killed by colliding with windows, 57 million with automobiles, and 1.2 million with tall structures (presumably including transmission lines and towers). Erickson et al. (2001) cites very similar mortality numbers, but he also indicates that power lines specifically are responsible for less than 0.0001 percent of bird kills annually across the nation.[18]

To address the potential impacts of birds with the DPV2 transmission line, the FEIR/EIS requires that SCE install the transmission line using Avian Power Line Interaction Committee (APLIC) standards for collision-reducing techniques as outlined in "Mitigating Bird Collisions with

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the Americas: Proceedings 3rd International Partners in Flight Conference 2002. U.S.D.A. Forest Service General Technical Report PSW-GTR-191, Pacific Southwest Research Station, Albany, CA: 1051-1064.

[18] California Energy Commission. 1995. Avian collision and electrocution: an annotated Bibliography. California Energy Commission Publication No. P700-95-0001.
Deinlein, M. 2006. Neotropical migratory bird basics. Smithsonian National Zoological Park, Migratory Bird Center Fact Sheet. Accessed 4 December 2006.
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Erickson, W.P., G.D. Johnson, Strickland, M.D., D.P. Young, Jr., K.J. Semka, and R.E. Good. 2001. Avian collisions with wind turbines: a summary of existing studies and comparisons of avian collision mortality in the United States. Report to the National Wind Coordinating Committee.
Klem, D.J., Jr. 1991. Glass and bird kills: an overview and suggesting planning and design methods of preventing a fatal hazard. Wildlife Conservation in Urban Environments. National Institute for Urban Wildlife, Columbia MD

Power Lines: The State of the Art in 1994" (APLIC 1996). (FEIR/EIS Mitigation Measure B-15a on p. D.2-170).[19]

c. Reptiles in the Kofa NWR Would Not be Significantly Impacted.

The Draft CD asserts the cumulative width of the DPV2 right-of-way would discourage crossing by small animals such as rosy boas, common chuckwalla, and desert tortoise, and that the rosy boa has been significantly impacted by highways in southern Arizona. First, while the cumulative width of the actual right-of-way would increase, construction and maintenance for DPV2 would be done using the existing dirt Pipeline Road; the width of the right-of-way would not be cleared. About 3.4 acres of vegetation would be removed on spur roads and at tower sites. But, the areas between tower sites would generally not be permanently disturbed or significantly affected in most locations. And, aside from structure foundations, the Project would not pave any locations. Finally, the study by Rosen and Lowe (1994) cited by the Draft CD (Draft CD, p. 9) was conducted along the paved State Highway 85 between Why and Lukeville, a roadway that carries a much higher volume of traffic at higher speeds than would ever occur on the dirt Pipeline Road for construction or maintenance of DPV2. Therefore, a substantially higher incremental impact to reptiles crossing the utility corridor likely would not result from the DPV2 project, and habitat fragmentation would not occur.[20]

Repeated surveys of the DPV2 route over the years, particularly the last set of surveys conducted for the Project EIR/EIS have found scant evidence of desert tortoise. There should be little or no concern for desert tortoise within the Kofa NWR because they generally are not found in the area where the DPV2 transmission line is proposed. Moreover, since the construction of the DPV1 transmission line was built, the Management Plan concluded that desert tortoise populations were healthy. If desert tortoise populations were sustained after the construction of DPV1, the disturbance of another 3.4 acres of land for DPV2 will similarly allow for a sustainable and healthy population of desert tortoise in the Kofa NWR.

V. VISUAL, RECREATION, AND CULTURAL RESOURCES IN THE KOFA NWR WOULD NOT BE SIGNIFICANTLY IMPACTED

a. Visual Resources.

i. Visual Resource Baseline

The Draft CD cites to the Administrative FEIR/EIS for the proposition that DPV2 would cause significant and unmitigable visual impacts. (Draft CD at p. 5)[21] As the Draft CD relies upon the FEIR/EIS to support its visual impact conclusion, these comments will explain why the FEIR/EIS analysis is incorrect regarding this finding.[22] The FEIR/EIS describes the existing environmental setting in the Kofa NWR. However, the actual description of visual impacts that

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[19] SCE staff, along with Service staff, have been extremely active in APLIC for well over 20 years. SCE staff support the use of the APLIC guidance documents.

[20] Rosen, P.C., and C.H. Lowe. 1994. Highway mortality of snakes in the Sonoran desert of southern Arizona. Biological Conservation 68:143-148.

[21] The Draft CD also claims that the Project will cause significant cumulative visual impacts. (Draft CD at p. 11). Cumulative impacts will be addressed in Section VIII.b.

[22] On December 4, 2006, SCE sent a letter to BLM pointing out this error in the FEIR/EIS.

could occur within the Kofa NWR is not accurate in either the FEIR/EIS or the Draft CD. The FEIR/EIS applied the "VS-VC" method for evaluating visual impacts in the Kofa NWR, using only one viewpoint within the Kofa NWR as a basis for determination of impacts. The result of that inappropriate analysis was reported as a "Class I" impact (i.e., significant and unmitigable) in the FEIR/EIS.

The results of visual resource analyses can differ depending on various factors, including the experience and orientation of the analyst, but any method that is used should be based on a comprehensive visual resource inventory and analysis that is applied consistently for the entire project. The FEIR/EIS responses to SCE comments E-5-5 and E-5-6 on this issue (underlining added) support the use of a consistent approach to evaluate visual impacts.

> E5-5 Impact significance is defined (in the context of significance criteria) on pages D.3-54 and D.3-55 as noted in previous comments. Further, determination of impact significance under the VS-VC method is clearly discussed on page D.3-55 along with the use of Table D.3-7:
>
> Under the **Visual Sensitivity–Visual Change methodology**, the degree of impact significance is generally arrived at as a function of overall visual sensitivity and visual change. Table D.3-7 illustrates the general interrelationship between visual sensitivity and visual change and is used primarily as a consistency check between individual KVP [Key View Point] evaluations. Actual parameter determinations (e.g., visual contrast, project dominance, and view blockage) are primarily based on analyst experience and site-specific circumstances. (FEIR/EIS v.3, p.262).
>
> E5-6 Although NEPA does not specifically require a determination of impact significance, it does require a full analysis of impacts. This EIR/EIS analyzes all impacts in a consistent manner whether the impacts occur on federal land or state land, and in California or Arizona. (FEIR/EIS v. 3, p. E-263).

But, in the response to comment E.5-11, the FEIR/EIS acknowledged that two different methods were used to evaluate the visual impacts. The response states that different methods must be used on BLM land versus non-BLM land (i.e., Kofa NWR):

> E5-11 First, it should be made clear again that the BLM method must be used on BLM-administered lands but cannot be used on non-BLM lands since there can be no VRM classifications assigned to those non-BLM lands. While there are differences between the two methods, the foundations of VS-VC approach are consistent with those of the BLM's VRM system in that both methodologies evaluate project-induced change against a given landscape's ability to accommodate change. A principal difference is that the ability to accommodate change (or overall visual sensitivity of the landscape under the VS-VC method) is manifested in the concluding management objectives (VRM Classifications) under the BLM system. (FEIR/EIS v. 3, p. E-265)

However, the two different approaches result in different findings. This is especially noticeable on the Kofa NWR. To narrow the differences between the two methods and provide a consistent approach to visual resource analysis for the DPV2 project, SCE developed a method based on the BLM's VRM system that accounts for the landscape character (scenic quality), viewer sensitivities, and the level of contrast associated with the introduction of new facilities. SCE applied this method consistently throughout the DPV2 study corridor in Arizona. The Kofa NWR provides a good example of the substantial differences that arise from using two different method of evaluating visual impacts. Additional simulations were prepared for purposes of this SCE analysis from five viewpoints located within the Kofa NWR, including the viewpoint from Crystal Hill Road that was used for the visual simulation within the Kofa NWR contained in the FEIR/EIS.

This SCE approach is valid and more appropriate than the method used in the FEIR/EIS because the proposed DPV2 transmission line would be constructed within a rural setting within the Kofa NWR that is similar to the landscape and setting on BLM lands located along the contiguous utility corridor to the east and west of the Kofa NWR. Furthermore, because the Kofa NWR does not have a visual resource management system (i.e., its primary objective is wildlife management, not visual resources), using the BLM Visual Resource Management (VRM) visual contrast assessment method is an appropriate and consistent means for evaluating visual impacts within the Kofa NWR and the adjacent BLM lands. The FEIR/EIS used the "VS-VC method", which contradicts the statement made above in the response to comment E.5-5 that all analyses were evaluated in a consistent manner. As noted in the response to comment E.5-11, the BLM VRM classification method is more appropriate because it explicitly considers the landscape's ability to accommodate change with respect to the construction of the DPV2 line and the resulting changes in existing vegetation, landform, and structures. That factor is important when considering the presence of DPV1, the Pipeline Road, above-ground ancillary pipeline facilities (generator buildings, an engine house, valve stations, and pipeline signage), and the existing spur roads, which would be used for construction of DPV2, in the existing Kofa NWR landscape.

Adding a second transmission line, with similar attributes to DPV1, that causes minimal construction disturbance, will not affect the landscape setting or viewers as much as adding a new transmission line to a previously undeveloped area. For example, on September 15, 2006, the BLM issued a Final EIR/EIS for the Desert Southwest Transmission Project (DSWTP), a 118 mile 500 kV transmission line that would, in large part, either parallel the SCE DPV1 transmission line or become a joint project with DPV2. BLM used its VRM system to evaluate the visual impacts of constructing the DSWTP power line parallel to the existing transmission line, and concluded that the resulting impacts were class III or IV (not significant). The DSWTP FEIR/EIS issued by BLM consistently used the VRM system to measure visual impacts at various key observation points (KOP), including within areas not managed by BLM. The DSWTP FEIR/EIS also consistently concludes that, due to the presence of an existing transmission line and towers, the resultant visual contrast is either weak, or weak to moderate:

> The addition of new lines and towers would be within the existing footprint and corridor of the others. The land at KOP 3 is not managed by the BLM and is, therefore, not subject to the BLM VRM system. However, visual contrast was included in this analysis to comply with CEQA regulations. ...

> The addition of a new transmission line and associated towers adjacent to the existing lines would create a weak to moderate contrast in this viewshed.
> ...
>
> Given the presence of existing transmission lines and associated towers that dominate the landscape at this KOP, the addition of new lines to the viewshed would create a weak contrast to the existing environment because it is within the visual character of the area. (DSWTP FEIR/EIS p.3.6-19, 3.6-28).

Additionally, Mitigation Measure V-3a (see FEIR/EIS p. D.3-53) further ensures that the Project would not add significant incremental impact. The measure requires that the DPV2 Project transmission line be built with similar design specifications to the existing DPV1 transmission line. The FEIR/EIS requires, to the extent feasible, that:

- all new structures be designed to match the DPV1 structure types,
- all new structures be paired with existing DPV1 structures,
- all new structures match the heights of existing DPV1 structures, and
- all new conductor spans match the existing DPV1 conductor spans.

Although VRM classifications have not been assigned to non-BLM land, such as the Kofa NWR, the same approach used to analyze impacts using the VRM system should be used because impact determination in the same area, if based on a sound methodology, must be the same irrespective of jurisdictional boundaries. This is certainly the case when the federal lands managed by two bureaus within the Department of the Interior are adjacent to one another and share similar landscape characteristics.

The visual resource analysis for impacts to the Kofa NWR using the BLM VRM approach, prepared for SCE by EPG Inc., an environmental consulting firm with expertise in this area, was presented by Randall Palmer in testimony before the Arizona Power Plant and Transmission Line Siting Committee during the hearings for the DPV2 project (Case No. 130). A copy of the slide presentation from Mr. Palmer's testimony is on the CD enclosed as Attachment 4, along with the excerpt of the reporter's transcript of the proceedings held on August 21, 2006. These documents support the conclusion that visual impacts resulting from the proposed DPV2 Project on the Kofa NWR would not result in significant impacts. This conclusion is based on the same analysis criteria used to evaluate visual resource impacts that could occur on BLM land in the FEIR/EIS: viewer sensitivity, scenic quality, contrast, and impacts to sensitive viewers. A summary of the analysis of visual impacts on the Kofa NWR using these criteria follows:

> **Viewer Sensitivity** - The Kofa National Wildlife Refuge and Wilderness and New Water Mountains Wilderness Interagency Management Plan and Environmental Assessment (1996), estimated approximately 50,000 users per year on the Kofa NWR and 500 users per year for the New Water Mountains Wilderness Area. Only between 6,000 – 7,000 of these users annually access the northern Pipeline Road route. SCE considered the recreational users in the Kofa NWR, Kofa Wilderness Area, and New Water Mountains Wilderness Area to be of high sensitivity, even though

the FEIR/EIS (p. D.3-2) could define it as medium sensitivity based upon the number of actual users.

Scenic Quality - While portions of the Kofa NWR are more scenic than others, the terrain and vegetation crossed by the proposed Project are considered class C and B, and the setting has been significantly modified by the presence of the existing natural gas pipeline, the pipeline road, associated pipeline facilities and signs, and the existing DPV1 500kV transmission line. Introduction of the Project's new 500kV line adjacent to the existing line, in this modified corridor, would result in less than significant impacts to the overall scenic quality of this area of the Kofa NWR.

Project Contrast – Landform, vegetation, and structure contrast were analyzed. Overall Project contrast would be weak (i.e., the element contrast can be seen but does not attract attention to the project or dominate the view) to moderate (i.e., the element contrast begins to attract attention and begins to dominate the characteristic landscape) due to (i) the already modified conditions associated with the proposed DPV2 corridor, which includes the existing DPV1 transmission line, the pipeline (and ancillary facilities, and signage), and associated access, and (ii) the conforming location of the new towers. To reduce Project contrast, the proposed DPV2 line will be designed similar to the existing DPV1 500kV line, and it is anticipated that only limited grading and vegetation removal will be required. Mitigation measures specified include matching existing tower types, spans, and heights to the extent feasible; selective tower placement; use of dulled steel structures and non-specular conductors, and use of existing access and spur roads.

Impacts to Sensitive Viewers - The proposed Project would be seen from the Kofa NWR and wilderness areas from locations ranging from the immediate foreground along the existing road (0 - 1/2 mile) to the middleground and beyond (dispersed recreation use). These views are within the context of the existing Pipeline Road, spur roads, and transmission line where the landscape has been previously disturbed (modified) and contrast levels are weak to moderate. Based on this assessment, impacts to sensitive viewers on the Kofa NWR would be less than significant.

Thus, using the BLM's more appropriate VRM methodology for analyzing visual impacts results in the conclusion that visual impacts from the proposed DPV2 Project on the Kofa NWR would be less than significant.

The FEIR/EIS application of the VS-VC method for evaluating impacts within the Kofa NWR appears to be overly general and subjective. The visual resource analysis for the Kofa NWR, in FEIR/EIS Section 3.2.2., is based on only one viewpoint and that viewpoint is not typical for all conditions on the Kofa NWR. In Table D.3-9, the FEIR/EIS claims that the Kofa NWR has Class 1

"significant, unmitigable" impacts. Yet, in evaluating the impacts based on overall visual sensitivity and visual change as indicated in Table D.3-7, the impacts should at most have been characterized as "adverse and potentially significant" (Class II). Based on the methodology presented in the FEIR/EIS, for a visual impact to be considered significant, as noted on page D.3-45, two conditions generally needed to exist (1) the existing landscape is of reasonably high quality and is relatively valued by viewers; and (2) the perceived incompatibility of one or more proposed project elements or characteristics tend toward the high extreme, leading to a substantial reduction in visual quality. By using VC-VS system and not fully acknowledging the following factors, an artificially higher and inaccurate level of impact has been determined:

- The existing landscape has been highly modified along the entire corridor throughout this area, including the presence of the existing DPV1 transmission line, the gas pipeline and ancillary facilities and signage, and the existing access roads (e.g., Item 1 above). This environmental baseline must be considered and, due to the existing facilities, the existing landscape could not be considered of high quality.

- The mitigation proposed for the Project (e.g., matching tower types, spans, and heights to the extent feasible, selective tower placement, use of dulled steel structures and non specular conductors, and the use of existing access and spur roads) will limit the amount of disturbance and visual change. This results in weak/moderate levels of contrast for new facilities against the existing background due to minimal modifications to existing vegetation and landforms (use of existing access and spur roads), as well as the use of similar towers and spacing (structure contrast). Due to the weak/moderate contrast, the proposed Project elements (towers, etc.) are not incompatible with the characteristics of the existing corridor, nor do they lead to a substantial reduction in visual quality in an area that has already been significantly modified (e.g., Item 2 above).

With the mitigation required by the FEIR/EIS, the impact would not have been greater than a Class II impact, and had the FEIR/EIS used a more appropriate approach that fully acknowledges the modified character of the corridor, and weak/moderate levels of contrast, a Class III impact may have been the appropriate designation.

b. Recreation Resources.

As with the visual impacts, the Draft CD relies upon the FEIR/EIS analysis of alleged recreation impacts. (Draft CD at p.4). The recreation impacts described in the FEIR/EIS for the Kofa NWR are inaccurate for three main reasons. First, the FEIR/EIS relies upon the faulty visual resource impacts analysis discussed above to conclude that given the claimed "significant" visual resource impacts, there would also be significant recreation impacts. In other words, the FEIR/EIS reasoned that recreation users would have an adverse recreation experience due to the visual impacts caused by the presence of the Project. As explained above, the Project would not have significant visual impacts. Similarly, the recreation resources in the Kofa NWR would not be significantly impacted by the addition of the Project's transmission line within an existing utility corridor that is dominated by the DPV1 transmission line and the Pipeline Road. The FEIR/EIS explains that the DPV2 Project transmission line would be designed to blend into the existing utility corridor to the extent possible, as described by Mitigation Measure V-3a above. With only low to

moderate visual impacts, the recreation user would not experience a significant impact to a recreational experience along the existing utility corridor.

Second, the FEIR/EIS requires additional mitigation measures to address potential recreation impacts, including the coordination with the U.S. Fish and Wildlife Service of the location of towers and spur roads to avoid impacts to recreation. (Mitigation Measure WR-3a, FEIR/EIS p. D.5-22). The Draft CD does not acknowledge this mitigation.

Finally, no recreation sites are located in the utility corridor and none would be affected by the Project. Access to nearby hiking trails and Wilderness Areas would not be limited by Project construction and operation, including the use of spur roads. Therefore, the Project would not cause significant adverse impacts to recreation in the Kofa NWR.

c. **Archaeological and Cultural Resources.**

The Draft CD sites to text in the FEIR/EIS that the Project may cause a significant impact if some hypothetical and as yet undiscovered cultural resources or Native American remains are impacted during construction. (Draft CD at p. 6). The FEIR/EIS concludes that no known National Register of Historic Places (NRHP) eligible cultural/historical sites of significance are within the Kofa NWR Area of Potential Affect (APE) for the Project and therefore 'no further management of this site would be recommended.' (FEIR/EIS, p. D-7-18). Nothing was discovered during DPV1 construction that was not already identified during the archaeological surveys.[23] The DPV2 utility corridor has been subject to archaeological surveys at least three times since 1978, most recently in 2004. During that time, only two archaeological sites (AZ S:5:15 and AZ S:5:18) have been recorded within the Kofa NWR segment APE. Both sites were recorded in 1982 by Carrico and Quillen for the DPV1 environmental assessment, and both were determined not to be eligible for the NRHP. Archaeologists working on the DPV2 Project could not locate the surface lithic scatter designated as AZ S:5:15, and reported that the single rock ring and pair of rock clusters designated AZ S:5:18 is located outside the DPV2 APE (Dobschuetz et al. 2004:30). A reasonable reading of these data leads to the conclusion that the Kofa APE has little archaeological sensitivity. Therefore, the suggestion in the Draft CD that as-yet-undiscovered NRHP-eligible cultural resources, including buried human remains, could suffer Project effects has no foundation. Based on the experience of constructing DPV1 and subsequent archaeological assessments, it is very unlikely that any archaeological resources are present in the proposed DPV2 construction area.

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[23] See, Bean, Lowell J., Henry F. Dobyns, M. Kay Martin, Richard W. Stoffle, Sylvia B. Vane, and David R. M. White 1978, Persistence and Power: A Study of Native American Peoples in the Sonoran Desert and the Palo Verde-Devers High Voltage Transmission Line. Cultural Systems Research, Inc., Menlo Park, CA.
Berry, Claudia, 1978, Final Report for Archaeological Survey of Alternative Transmission Line Corridors between Palo Verde Nuclear Generating Station and the Colorado River. Museum of Northern Arizona, Flagstaff.
Carrico, Richard L., and Dennis K. Quillen, 1982, Cultural Resource Inventory and National Register Assessment of the Southern California Edison Palo Verde to Devers Transmission Line Corridor (Arizona Portion). WESTEC Services, San Diego.
Swartz, Deborah, and Kurt Dongoske, 1987 Cultural Resource Assessment of Construction Locations and Towers Along the Devers-Palo Verde No. 2 Transmission Line, Western Arizona. IAR Technical Report No. 87-71, Institute for American Research, Arizona.
Dobschuetz, Chris, Glennda G. Luhnow, Scott Wilcox, Elizabeth Alter, and Glenn P. Darrington, 2004, A Cultural Resource survey of Tower Locations and Associated Spur Roads for the Devers-Palo Verde No. 2, Maricopa and La Paz Counties, Arizona. Environmental Planning Group, Phoenix, Arizona.

The Draft CD admits that there are no NHRP eligible cultural sites within the Kofa NWR:

> *Although no known eligible cultural (resource) sites are located within the Areas of Potential Effect* (APEs) for this segment, there are four known sites ... within the general corridor for this segment. (*emphasis added.* Draft CD at p. 5).

However, the Draft CD goes on to state:

> Although no known eligible cultural sites are located within the Areas of Potential Effect (APEs) for this segment, there are four known sites (AZ R:7:66, AZ R:7:61, AZ R:8:42, and AZ R:8:49) recommended as National Register of Historic Places (NRHP)-eligible that are located within the general corridor for this segment. Impacts to those or other newly discovered NRHP-eligible cultural resources could result from construction activities that require earth-disturbing effects. ... The potential to discover unanticipated cultural resources during construction exists throughout the Refuge segment of the Proposed Project and could reveal additional adverse effects to these resources. ... The potential to discover unknown buried Native American human remains or sacred features, in the form of primary inhumations, cremations, ceremonial bundles, or mourning ceremony features during construction could exist.

The four archaeological sites referenced in the Draft CD are located within a one-mile wide study area corridor within the Kofa NWR. As acknowledged in the Draft CD, however, none of these resources are located within the APE and none were deemed eligible for inclusion in the NHRP. Thus, contrary to the assertion in the Draft CD, no impacts to those resources would result from the Project. Given the surveys and past history, finding cultural resources during DPV2 Project construction is unlikely. Therefore, the claim of a potential significant impact is highly speculative. Such an unsupported potential impact should not be used to preclude the Project from going forward.[24]

Additionally, the BLM has corresponded with Native American tribes indicating an interest in the Kofa NWR segment, primarily the Yavapai. By way of this consultation, no Native American places of specific religious or cultural value were identified within the Kofa NWR. Therefore, no evidence exists to support a conclusion that archaeological or cultural resources would be materially affected by construction of DPV2 through the Kofa NWR.

VI. MITIGATION MEASURES WERE NOT PROPERLY CONSIDERED IN DETERMINING COMPATIBILITY

The FEIR/EIS proposes a number of mitigation measures for addressing actual or potential environmental impacts associated with the DPV2 Project. Many of these mitigation measures were proposed by SCE and incorporated into the document by the CPUC and BLM. The Draft CD acknowledges that the mitigation measures are designed to reduce impacts to less than a significant

[24] The FEIR/EIS recognized the unlikelihood of such impacts and chose to propose the Kofa NWR as the environmentally preferred route.

level except for recreation, visual, archaeological/cultural resources, and certain wildlife resources. (Draft CD at p. 11). Rather than repeat all the FEIR/EIS mitigation measures, these SCE comments will reference or summarize some of those measures that would address the concerns expressed in the Draft CD for wildlife, visual, recreation, and archaeological/cultural resources. The FEIR/EIS should be consulted for a full description of all mitigation measures. If the Draft CD had properly considered these mitigation measures, the Draft CD would have concluded that the Project was compatible.

a. Biological Impacts Would be Mitigated.

The FEIR/EIS lists the large number of SCE proposed mitigation measures that would address potential impacts to biological resources. (FEIR/EIS Section D.2.5.2, beginning at p. D.2-95) Other mitigation measures have been added to ensure that the impacts to biological resources are not significant within the Kofa NWR. (FEIR/EIS, Table D.2-8, p. D.2-106). These mitigation measures require SCE to prepare and implement a Habitat Restoration/Compensation Plan and to coordinate with the Kofa NWR the exact placement of each tower to minimize habitat disturbance. (Measures B-1a and B-1b, p. D.2-111). This Habitat Restoration/Compensation Plan would ensure that all lost habitat within the Kofa NWR is either restored or compensated for within the Kofa NWR. (See also APM B-19, FEIR/EIS p. D.2-97). SCE is willing to purchase in-holdings within the Kofa NWR, as suggested by the Kofa NWR to address recreation impacts (FEIR/EIS, p. D.5-22, Mitigation Measure WR-2a), to address the loss of habitat for biological resources. This will ensure that the Project does not result in any net loss in habitat quality or quantity.

The FEIR/EIS requires that where the proposed route crosses the Kofa NWR, SCE shall coordinate with Service personnel to determine specific tower site and spur road locations to minimize habitat disturbance and/or the loss of valuable habitat. (Measure B-1b. p. B-211). SCE must demonstrate compliance with this measure prior to construction. In addition to the mitigation measures designed to protect all biological resources, specific measures for particular animals were also proposed and required.

i. Reptiles Specific Measures.

SCE will also conduct pre-construction surveys for reptiles in areas of suitable habitat for the common chuckwalla, banded Gila monster, and rosy boa. (Measure B-9d, p. D.2-138). This would occur even though common chuckwalla has not been recorded in the Project vicinity and the closest banded Gila monster and rosy boa were recorded three and five miles from the Project area, respectively. (FEIR/EIS, p. D.2-139).

ii. Desert Tortoise Specific Measures.

SCE proposed mitigation measures would address a variety of potential impacts to desert tortoise and their habitat. (See Table D.2-6, APM Nos. B-27 through B-32). For instance, SCE proposed Measure B-35 requires that a qualified biologist be present for construction in upland areas where desert tortoises might occur if those areas cannot be avoided. Other FEIR/EIS imposed mitigation will further eliminate impacts to desert tortoise. For example, measure B-7b requires that SCE survey the transmission corridor for desert tortoise burrows and pallets 14 days prior to construction. The measure also dictates how and when SCE may move desert tortoise within the

Project construction area. Measure B-7c would require that SCE purchase replacement habitat for lost desert tortoise habitat. This measure states that the land would be associated with BLM managed lands. SCE is willing to purchase in-holdings with the Kofa NWR to similarly address lost desert tortoise habitat within the Kofa NWR, in a manner like that required by SCE to address recreation impacts on the Kofa NWR (discussed below).

iii. Bighorn Sheep Specific Measures.

The Draft CD claims that SCE may not agree to conduct construction within the Kofa NWR outside the bighorn sheep lambing period. (Draft CD at p. 9). This statement is inaccurate. In fact, in SCE's October 31, 2005 application to the Kofa NWR requesting a right of way grant across the Kofa NWR for DPV2, SCE stated that "Construction activities would be scheduled in conformance with seasonal limitations to minimize potential impacts to bighorn sheep, specifically during the lambing season." SCE has no concerns with performing construction outside the January 1st through April 30th lambing period identified in the FEIR/EIS (Mitigation Measure B-9f, D.2-146; Table D.2-14, p. D.2-279).[25] This condition is similar to condition B-11 in the BLM 1989 Right-of-Way grant to SCE for DPV2, which restricts construction between January and March in areas that may result in disturbance to bighorn sheep lambing. Such a condition would be satisfactory to SCE for use on the Kofa NWR for construction in areas that may disturb lambing. The Draft CD recommends that construction not occur from October through April. However, as explained above, nearly all lambs were born in the January-April period (between 48 and 60 in each year). Only occasional, single births were documented in any other month (i.e., not more than one lamb per month and none in October or November). Thus, ending construction as early as October appears unnecessary.

Additionally, the FEIR/EIS requires surveys of sensitive wildlife in any area subject to Project disturbance prior to construction of the Project transmission lines. (Mitigation measure B-9a at FEIR/EIS p. D.2-137, and measure B-9f at D.2-146). A biological monitor is also required in areas subject to Project disturbance. (Mitigation Measure B-9b, p. D-2-137). If bighorn sheep are found, SCE must consult with the Service to identify appropriate avoidance measures. (FEIR/EIS at p. D2-146, measure B-9f).

b. Archaeological/Cultural Resource Impacts Would be Mitigated.

Despite no NHRP eligible archaeological or cultural sites being within the DPV2 APE, SCE proposed a number of mitigation measures to address potential cultural resource impacts. (FEIR/EIS p. D.7-35). Furthermore, the FEIR/EIS imposes additional requirements upon SCE to address the potential that cultural resources might be discovered during Project construction. (D.7-50 through D.7-54). For example, SCE must conduct an inventory and evaluate all cultural resources with the APE prior to construction or any subsurface disturbance. (Measure C-1a, Table D.7-34, p. D.7-128). If the final CD is going to consider cultural impacts, it must also evaluate the mitigation required by the FEIR/EIS, including SCE's proposed mitigation measures.

[25] Mitigation measure B-11 identifies a shorter lambing period of January 1st through March 31st.

c. Visual Resource Impacts Would be Mitigated.

SCE proposed many measures to mitigate potential visual resource impacts. (See FEIR/EIS Section 3.5.3 beginning on p. D.3-45). Additionally, the FEIR/EIS requires a number of additional mitigation measures to address potential visual impacts on the Kofa NWR. (See FEIR/EIS section D.3.6.2 beginning on p. D.3-57). For example, measure V-3a requires "all new and replacement structures are to as closely as possible match the design of the existing structures with which they will be seen." The new structures must also be paired as closely as possible with existing structures, and match the height of the DPV1 structures to the extent possible. (FEIR/EIS, p. D3-125). As explained above, these mitigation measures, given the existing modified nature of the utility corridor through which DPV2 will be located, would reduce the potential visual impacts to less than a significant nature. If the final CD is going to consider visual resource impacts, it must also evaluate the mitigation required by the FEIR/EIS, including SCE's proposed mitigation measures.

d. Recreation Impacts Would be Mitigated.

As with the above two subsections, SCE proposed mitigation measures to address potential impacts to recreation resources. (FEIR/EIS, p. D.5-13). The FEIR/EIS imposed additional mitigation measures upon SCE to address potential impacts to recreation. Mitigation measures specific to the Kofa NWR are addressed beginning on page D.5-21. The FEIR/EIS specifically added a mitigation measure proposed by the Kofa NWR to address the potential loss of recreation areas. (FEIR/EIS, p. D.5-22, Mitigation Measure WR-2a). This measure would include working with the Service to place tower and spur roads in locations that would reduce potential recreation impacts, preparing a construction notification plan, and coordinating with the Service to improve impacted areas, potentially through the purchase of in-holdings within the refuge and the rehabilitation of abandoned mine sites and old roads. Given the presence of the existing utility corridor, including DPV1, the addition of DPV2 would not result in a significant impact to recreation resources on the Kofa NWR. However, to the extent that recreational resources are significantly impacted, the purchase of in-holdings within the Kofa NWR may be an appropriate mitigation measure.

VII. THE DRAFT CD IDENTIFIED LESS THAN SIGNIFICANT IMPACTS THAT CAN BE ADDRESSED IN A RIGHT OF WAY STIPULATION

The Draft CD identified a few potential impacts that would cause less than significant impacts to the Kofa NWR. Nevertheless, the Kofa NWR staff would still like these issues addressed to their satisfaction. The Draft CD believes that the Project could (i) cause the introduction of non-native invasive species into the area, (ii) potentially impact Kofa NWR staff radio communications and telemetry when the communication equipment is used near the power line, and (iii) potentially impact transportation during Project construction. SCE believes that the FEIR/EIS mitigation measures dealing with transportation and biological resources will fully address the potential introduction of non-native invasive species and potential transportation impacts due to construction. However, SCE is also committed to working with the Kofa NWR to address these potential impacts.

a. Transportation.

Construction activities will be concentrated at each new tower site (i.e. foundation construction, tower assembly and erection, and conductor stringing activities). As the DPV2 route generally parallels the existing dirt access road, these activities will take place on the transmission line right-of-way, off the main dirt access road, and will not significantly interfere with traffic on the main dirt access road. SCE recognizes that there may be occasional periods when traffic may be impeded for brief periods to allow for equipment offloading, material deliveries, etc. SCE is willing to coordinate these periods with the Kofa NWR and take other appropriate steps to minimize such impacts.

b. Communication.

SCE understands the need for effective and reliable communication within the Kofa NWR. The DPV2 transmission line may have an effect on two-way radios (digital and analog). The extent of the impact depends on the power output of the portable and mobile radios, the frequency, natural barriers, and the distance to the radio repeater used by Kofa NWR personnel. Other influencing factors include the condition of the equipment and the quality of the cable connectors and antennas. SCE staff is currently working with Kofa NWR staff to better understand the potential scope of any communication problem. Potential solutions may include the installation of a radio repeater, upgrading existing portable radios, or replacing the existing Kofa NWR radios with more powerful equipment.

c. Noxious Weeds.

SCE proposes to implement standard best management practices to reduce the potential introduction of non-native invasive species. (FEIR/EIS, Table D.2-6, p. D.2-96). The FEIR/EIS will require that SCE conduct an inventory of the noxious and invasive weeds, and implement control measures for invasive and noxious weeds. These measures, including washing all construction equipment and vehicles entering into the Project area, unless otherwise directed, would protect the Kofa NWR from the introduction or spread of invasive species. (Mitigation Measures B2a and B2b, FEIR/EIS at p. D.2-112 through 113). The measure also requires the submittal of a Noxious Weed Control Plan 60 days prior to beginning construction within the Kofa NWR. SCE is willing to work with the Kofa NWR to implement other appropriate measures to protect the Kofa NWR from the introduction of non-native invasive species caused by the Project.

VIII. IF A NEPA ANALYSIS WERE USED, THEN THE SERVICE SHOULD HAVE CONSIDERED IMPACTS TO OTHER ALTERNATIVE ROUTES AND PROPERLY EVALUATED CUMULATIVE IMPACTS

a. Alternative Routes Would Cause a Greater Environmental Impact.

As explained above, the Draft CD evaluates impacts to visual, recreation, and archaeological/cultural and other resources that are outside the scope of a compatibility determination. If the Service is going to conduct a broader environmental analysis, then the Service should also compare the impacts of routing the DPV2 Project through the Kofa NWR compared to other alternative routes outside the Kofa NWR. The FEIR/EIS evaluated many potential alternative

routes, including four alternative routes that would have gone north of the Kofa NWR.[26] However, each of these other routes would have gone through bighorn sheep and desert tortoise habitat. Each alternative route would have required the construction of a new access road along the alternative power line route and the construction of new spur roads. This construction would create significantly greater impacts to wildlife and other resources than the minor incremental impacts caused by the Kofa NWR route. The FEIR/EIS, in Appendix 1, Tables 1-3a and 1-3b, summarizes the much greater permanent ground disturbing impacts due to the other alternatives. (FEIR/EIS, pp. Ap.1-39 and 40).

Additionally, the North of Blythe alternative would require that the Project cross the Colorado River Indian Tribe (CRIT) reservation. In 1977, when planning the DPV1 Project, and again in 1988, the CRIT informed SCE that it would not approve a transmission line route through the CRIT reservation. Another route that the FEIR/EIS did not extensively consider was a route that would parallel the Interstate 10 Freeway. However, the Arizona Department of Transportation would have to issue approval for this route. The FEIR/EIS found that the Arizona Department of Transportation would not authorize an overhead transmission line within the freeway corridor.[27] Thus, after evaluating these four alternative routes, the FEIR/EIS concluded that the Kofa NWR was the environmentally preferred route.[28] The Service should reach the same conclusion in the final CD.

b. Cumulative Impacts.

The Draft CD claims that "DPV2 would result in cumulative impacts to recreation and visual resources." (Drat CD at p. 11). It also states that there could be a cumulative significant impact to cultural and biological resources. (Draft CD at p. 12). These findings are incorrect, as the Draft CD analysis did not follow the appropriate process for determining cumulative impacts, even though the process was accurately explained on FEIR/EIS p. F-1 as the "impact on the environment *which results from the incremental impact* of the action when added to other past, present and reasonably foreseeable future actions . . ." (*emphasis added,* citing 40 CFR §1508.7). Essentially, the Draft CD makes the same error in its cumulative impact conclusions as was made in its conclusion that visual and recreational resources would be significantly impacted.

The cumulative impact analysis must evaluate only the **incremental** impact from building the DPV2 power line on the existing visual and recreational resources. The analysis must consider the existing environmental baseline which includes the prior impacts from the construction and

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[26] The four alternatives were: (i) North of Kofa NWR, (ii) North of Kofa and south of I-10, (iii) North of Kofa and north of I-10, and (iv) North of Blythe. These alternatives are discussed in both Section C of the FEIR/EIS (pp. C-22 through 32) and Appendix 1 (pp. Ap.1-35 through 52), and are shown on figures Ap.1-2a and Ap.1-3.

[27] The FEIR/EIS explained that installing an underground 500 kV power line was not technically or economically feasible and would result in significant environmental impacts. (FEIR/EIS, pp. C-23, C-44). Additionally, the recent legislative revision of the CRIT reservation boundaries makes the use of the I-10 freeway corridor unlikely as the reservation now spans the I-10 corridor. SCE understands that the U.S. Department of Energy is considering designating the I-10 freeway as a utility corridor pursuant to Section 368 of the Energy Policy Act of 2005. However, this is not likely to occur for at least another two years. Moreover, the designation of the corridor does not authorize the use of the CRIT reservation or change the Arizona Department of Transportation requirements. Importantly, designation of such a corridor within two years would not meet SCE's need to have the DPV2 Project completed in 2009 to meet critical energy requirements in southern California, as directed by the California ISO.

[28] As required under NEPA, the FEIR/EIS also evaluated a number of other "non-transmission" alternatives.

operation of the gas pipeline, the various above-ground ancillary pipeline structures (generator buildings, engine house, valve stations, and signage), the Pipeline Road, and the DPV1 transmission line. Instead, the Draft CD asserts that because the existing development created a significant impact on the environment, then any incremental impact must also be significant. That analysis is 180 degrees wrong. Assuming that the Draft CD is correct in its description that past development created significant impacts, then the **incremental** impact to visual and recreational resources from DPV2 would be minor because the resources are already impacted and the new power line would not add appreciably to any adverse impacts that are not already present in the Kofa NWR.[29] That is the exact conclusion reached by the Service in the Compatibility Determination for the Schultz-Hanford Area Transmission Line Project within the Columbia National Wildlife Refuge.

The Draft CD admits that its conclusion with regard to both biological and cultural cumulative impacts is speculative. The Draft CD questions whether the additional right-of-way width would create an obstruction to wildlife. (Draft CD at p. 11) Yet, mere speculation without any supporting evidence is insufficient to find a cumulative impact. Conversely, the bighorn sheep studies cited by SCE show that the DPV1 transmission line construction has not caused any significant impacts. As the DPV2 Project will only permanently disturb an additional 3.4 acres of land, none of which is lambing or critical habitat for wildlife, it follows that the addition of DPV2 will not cause a significant cumulative impact.

Likewise, no cultural resources were impacted by the construction of DPV1 and all the studies indicate that no cultural resources likely would be impacted due to DPV2 construction. Therefore, the cumulative impact section can only lead to a conclusion that no cumulative impacts to cultural resources will occur. In fact, the FEIR/EIS acknowledged this conclusion in its discussion regarding biological impacts on pages F-22 and F-25 and cultural resources on page F-37. Thus, the Draft CD must be changed to accurately characterize any cumulative impacts from DPV2 as negligible.

IX. CONCLUSION

As shown above, the DPV2 Project is compatible with the purposes of the Kofa NWR and the NWR System mission – to conserve and manage wildlife resources. The FEIR/EIS adopted the SCE proposed mitigation measures and imposed a number of additional mitigation requirements upon the Project that ensure the Project will avoid resource impacts to the extent feasible and will ensure no net loss of habitat quantity and quality on the Kofa NWR. With these mitigation measures, the lack of any adverse impacts associated with the existing DPV1 transmission line, and the Draft CD's admission that "information is currently lacking to make" a significant impact determination with regard to both wildlife and cultural resource impacts, the construction and maintenance of DPV2 would not degrade the ecological integrity of the Kofa NWR. All of the data support a finding that the DPV2 Project will not materially interfere or detract from the NWR System mission and the Kofa NWR purposes. Therefore, the Service should issue a CD that finds the DPV2 Project is compatible.

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[29] The Council on Environmental Quality issued a June 24, 2005 Guidance Document on the Consideration of Past Actions on Cumulative Effects Analysis that explains this issue. http://ceq.eh.doe.gov/nepa/regs/Guidance_on_CE.pdf. See also the Guidance Regarding Cumulative Effects issued by CEQ in January 1997.

SCE appreciates that opportunity to provide these comments to the Draft CD. Should you have any questions about our comments or wish to discuss these issues in detail, please call me at (626) 302-4459. SCE Project representatives and our technical experts are available to meet with you and your staff at your convenience.

Very truly yours,

Nino J. Mascolo

cc: Mr. Dale Hall, Director USFWS
Dr. Benjamin Tuggle, Regional Director USFWS
Mr. Christopher Pease, Regional Chief USFWS
Mr. Todd Jones, USFWS
Ms. Jeannie Wagner-Greven, USFWS
Mr. Justin Tade, Esq, USFWS
Mr. John Kalish, BLM
Ms. Billie Blanchard, CPUC
Ms. Traci Bone, CPUC
Mr. Marco Ahumada, SCE
Mr. Les Starck, SCE
Mr. Tom Burhenn, SCE

NJM:njm:#1322293

Enclosure(s)

ATTACHMENT 1

Arizona Wilderness Act of 1990, Amendments' Legislative Intent; Brooks Memo

REVISED DECONC I AND MCCAIN AMENDMENTS TO H.R. 2570

AS REPORTED BY THE COMMITTEE ON ENERGY AND NATURAL RESOURCES
(CALENDAR NO. 677)

ARIZONA DESERT WILDERNESS ACT OF 1990

OCTOBER 18, 1990

1. On page 27, line 5, strike "Wilderness." through the end of the paragraph on line 13, and insert in lieu thereof, "Wilderness;".

2. On page 30, line 23, strike "Cochise County," and insert in lieu thereof, "Cochise, Greenlee, and Graham Counties,".

3. On page 35, lines 17 through 22, strike subsection (k) in its entirety and insert in lieu thereof:

"(k) BLACK ROCK WASH ROAD ACCESS.--(1) Section 101(a)(23) of the Arizona Wilderness Act of 1984 (98 Stat. 1487) is amended by striking "the governmental agency having jurisdictional authority may authorize limited access to the area, for private and administrative purposes, from U.S. Route 70 along Black Rock Wash to the vicinity of Black Rock;".

(2)(A) In order to permit adequate public and private access to Federal, State, and private lands on the east side of the Santa Teresa Mountains, the Secretary, acting through the Bureau of Indian Affairs, shall administer that portion of Black Rock Wash Road located within the boundaries of the San Carlos Apache Reservation so as to allow reasonable use of the road for private and administrative purposes and may permit limited public use of such road for the purpose of access to the public lands outside of the reservation boundary.

(B) The Secretary, acting through the Bureau of Indian Affairs, is authorized, subject to the provisions of the Act of June 18, 1934, Chapter 576, Section 16 (25 U.S.C. 476; 48 Stat. 987), to enter into cooperative agreements with the Bureau of Land Management, the Forest Service, and Graham County, Arizona, for signing, fencing, and maintenance of the portion of Black Rock Wash Road referred to in paragraph (A). The entering into of cooperative agreements as authorized by this subsection shall not be construed in any way as a determination of the ownership of such portion of Black Rock Wash Road.".

(3) There are authorized to be appropriated such sums as may be necessary to carry out this subsection.

4. On page 35, after line 22, insert the following new subsection (l):

"(l) ALAMO DAM.--Nothing in this title shall be construed to affect the operation for flood control purposes of the Alamo Dam located on the Bill Williams River."

5. On page 39, after line 9, insert the following new paragraph (5):

"(5) Nothing in this title shall be construed to impair or conflict with the implementation of the authorization contained in section 304(f) of Public Law 90-537, approved September 30, 1968.".

6. On page 43, line 1, strike subsection (l) in its entirety and insert in lieu thereof the following:

"(l) ENFORCEMENT.--Any person who violates any regulation

promulgated by the Secretary to implement the provisions of this title shall be subject to a fine in accordance with applicable provisions of the Sentencing Reform Act of 1984, or imprisonment of not more than 1 year, or both such fine and imprisonment."

7. On page 44, line 7, strike "511,000 acres" and insert in lieu thereof, "510,900 acres".

8. On page 44, line 12, strike "March 13, 1990" and insert in lieu thereof, "August 1, 1990".

9. On page 45, line 19, strike paragraph (1) in its entirety and insert in lieu thereof the following:

"(1)(A) With respect to each wilderness area designated by this title, and subject to the limitations set forth in, subparagraph (B), Congress hereby reserves a quantity of water sufficient to fulfill the purposes of this title. The priority date of such reserved rights shall be the date of enactment of this Act.

"(B) With respect to the Havasu and Imperial wilderness areas designated by subsections (a)(1) and (a)(2) of this title, no rights to water of the Colorado River are reserved, either expressly, impliedly, or otherwise."

10. On page 46, line 18, strike subsection (e) in its entirety and insert in lieu thereof the following:

"(e) NO EFFECT ON COLORADO RIVER DAMS.—Nothing in this title shall be construed to affect the operation of Federally owned dams located on the Colorado River in the Lower Basin.".

11. On page 48, after line 10, insert the following new section 302:

"SEC. 302. NO EFFECT ON UPPER BASIN.

"Nothing in titles I, II, or III of this Act shall amend, construe, supersede, or preempt any State law, Federal law, interstate compact, or international treaty pertaining to the Colorado River (including its tributaries) in the Upper Basin, including, but not limited to, the appropriation, use, development, storage, regulation, allocation, conservation, exportation, or quality of those waters.".

12. At the end of the bill, add the following new title IV:

"TITLE IV—TECHNICAL AMENDMENT TO TITLE V OF THE ARIZONA - IDAHO CONSERVATION ACT OF 1988

Sec. 401. Title V of the Arizona - Idaho Conservation Act of 1988 (Public Law 100-696; 102 Stat. 4571) is amended as follows:

(a) Section 501 is amended by inserting after the parenthetical phrase and before the words "which the Secretary deems necessary" the words "or other appropriate lands as selected by the State of Arizona under section 28 of the Act of June 20, 1910 (30 Stat. 557, as amended by the Act of June 5, 1935, 49 Stat. 1477)".

(b) Section 502(b) is amended by adding the following new sentence at the end thereof: "With the consent of the State of Arizona and to the extent that the lands referred to in subsection (a) of this section are acquired by eminent domain, the Secretary may use as compensation the lands described in sections 501, and 507(a)(1) and (a)(2) of this Act, and such other lands as the

Secretary determines necessary to constitute the fair market value of the State of Arizona lands acquired by eminent domain.".

(c) Section 507(b) is redesignated as section 507(c), and the following new subsection (b) is added as follows:

"(b) CONVEYANCE TO THE STATE OF ARIZONA.—The Federal lands described in section 506(a) of this Act may be conveyed to the State of Arizona by the Secretary to the extent such conveyance is necessary to establish fair market value compensation for State lands described in section 502(a) acquired by eminent domain pursuant to section 502(b).".

EXPLANATION OF THE AMENDMENTS

1. This amendment strikes language pertaining to the management of the Black Rock Wash Road on the San Carlos Apache Reservation in eastern Arizona. Language identical to the sentence deleted is included in section 101(k) pursuant to amendment 3.

2. This technical amendment simply corrects the description of the counties within which the Peloncillo Mountains Wilderness is located.

3. This amendment consolidates language pertaining to the management of the Black Rock Wash Road. Paragraph (1) deletes management authority for the road contained in the Arizona Wilderness Act of 1984. Paragraph (2)(A) sets forth new authority, directing the Bureau of Indian Affairs to administer the road so as to allow reasonable use of the road for private and administrative purposes and to permit limited public use of the road. Paragraph (2)(B) authorizes the BIA to enter cooperative agreement with other Federal agencies and Graham County, Arizona to sign, fence, and maintain the road.

4. This amendment clarifies that the operation of the Alamo Dam on the Bill Williams River for flood control purposes is not to be affected by the designation of wilderness areas along the river.

5. This amendment clarifies that the designation of the Gila Box Riparian National Conservation Area shall not impair or conflict with the State of New Mexico's allocation to water from the Gila River pursuant to the Colorado River Basin Project Act of 1968.

6. Amendment 6 modifies the law enforcement authority for the conservation area to parallel similar authority contained in Public Law 100-696, establishing the San Pedro Riparian Conservation Area.

7. Amendment 7 is a technical amendment to correct the acreage for the Kofa Wilderness.

8. Amendment 8 is a conforming amendment updating the map reference for the Kofa Wilderness to correct the acreage modification made by amendment 7 and also to clarify that a power corridor operated by Southern California Edison located adjacent to public lands included in the Kofa Wilderness is excluded from the wilderness boundary.

9. This amendment clarifies that no water is either expressly or impliedly reserved from the Colorado River for the Havasu and Imperial wilderness areas. This amendment does not modify water rights already granted from the river for both the Havasu and Imperial National Wildlife Refuges.

10. Amendment 10 clarifies that the designation of the Havasu and Imperial wilderness areas shall not affect the operation of Federally owned dams located on the Colorado River in the Lower Basin.

11. Amendment 12 adds a new section 302 to title III to clarify that

ATTACHMENT 2

Schultz-Hanford Area Transmission Line Compatibility Determination; Columbia National Wildlife Refuge

Compatibility Detemination

Use: Schultz-Hanford Area Transmission Line Project ana associated minor modification of existing right-of-way
Refuge Name: Columbia National Wildlife Refuge (NWR)
County: Adams, Washington; Grant, Washington

Establishing and Acquisition Authorities:
Public Land Order 243, September 6, 1944
Migratory Bird Conservation Act, as amended [16 USC 715- 715r]
Migratory Bird Hunting and Conservation Stamp Act of 1934 [16 USC 718- 718h; 48 Stat. 451]
Fish and Wildlife Act of 1956, as amended [16 USC 742a- 742j; 70 Stat. 1119])

Refuge Purpose(s):
For withdrawn lands -"... as a refuge and breeding ground for migratory birds and other wildlife ..." Public Land Order 243, dated Sept. 6,1944.

"...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds." 16 U.S.C. § 715d (Migratory Bird Conservation Act)

National Wildlife Refuge System Mission:
The mission of the National Wildlife Refuge System is "...to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans" (National Wildlife Refuge System Administration Act of 1966, as amended [16 U.S.C. 668dd-668ee]).

Description of Use(s):
The proposed Bonneville Power Administration (BPA) project would add 150' width to an existing 100' wide and half mile long right-of-way (ROW) and construct a new transmission line in Central Washington to increase transmission system capacity north of Hanford. Construction would include placement of two flat 500-kilovolt single-circuit steel towers on U.S. Fish and Wildlife Service (USFWS) land, adjacent to towers on an existing parallel line (also on USFWS land.) The additional ROW would exclude the construction or placement of any buildings, and is considered a minor expansion because the existing roads and juxtaposed corridor will be used for access, and new towers will be lined up with existing towers. Sandy and rocky substrates in the ROW should restrict impacts mostly to the "footprints" of the two towers.

A description of the entire project under consideration for this determination can be found in the following document and is incorporated by reference: *Schultz-Hanford Area Transmission Line Project, Final Environmental Impact Statement, DOE/EIS-0325, January 2003* (FEIS). This Compatibility Determination is an appendix to the FEIS.

Construction and ROW for the power line would occur on the west side of an isolated parcel of

USPWS land near the confluence of Crab Creek and the Columbia River near Schwana in Grant County, Washington. The location is in Section 2, T15N, R23E (see maps attached.)

Construction is projected for 2004. Annual maintenance visits would likely occur during the spring when noxious weed control might be needed.

The construction portion of this project would include the use of ground vehicles and equipment to erect power line footings and legs. Helicopters would be used to move and place towers that were pre-constructed off-site. An existing operation and maintenance road would be improved to allow vehicle access.

This power line location was selected as the least environment-damaging route among six considered. It is adjacent to another power line which uses the same access roads and right-of-way. Bonneville Power Administration is responsible for providing uninterrupted power to meet demand across the region, and this line would eliminate a bottleneck and increase reliability during high demand periods.

Availability of Resources:
Compensation was received from BP A for the entire planning process to help determine compatibility. Annual inspection and treatment of invasive species in the right-of-way is addressed as a stipulation necessary to ensure compatibility.

Weed control would utilize a refuge truck and A TV spray equipment, using one or two staff days and herbicide. Monitoring would be accomplished during these annual visits. BP A funds would be transferred to the USPWS, Columbia NWR for these weed-related compliance activities, including preparation of a Pesticide Use Proposal required by USPWS if herbicides are needed. Ultimately, after native plant species are re-established, minimal refuge resources would be required and could be completed within existing operating budgets.

Anticipated Impacts of the Use(s):
Cumulative and long-term impacts would be negligible due to measures adopted as stipulations necessary to ensure compatibility. Short-term and long-term impacts are listed below. BP A has completed cultural resources review, and tower sites and access roads are located outside cultural resource boundaries (4.10.3 FEIS.) A description of the entire project under consideration can be found in the FEIS.

- Short-term soil disturbance would occur during construction phase from use of vehicles and equipment where the towers will be installed.
- There would be noise associated with construction, including equipment and helicopter used to place tower on legs and to stretch conductor, that is short-term.
- Vegetation removal at tower sites, and trampling or crushing during construction phase next to tower sites and along spur access roads, would be a short-term impact.
- .Addition of towers and horizontally-oriented parallel conductor lines, high tension ground line, and fiber optic cable that add a potential bird-strike hazard would be a permanent, long-term impact.

Public Review and Comment:
The public review and comment period began September 26, 2002 and ended October 10, 2002. The following methods were used to solicit public review and comment:

1. Posted notice at Columbia NWR headquarters, Royal City PO, and Othello PO.
2. Public notice on September 26, 2002 in the following newspapers: Columbia Basin Herald, Othello Outlook, Royal Review.

There were no comments from the public.

Following the above public comment period, Columbia NWR adopted the BPA's FEIS. The FEIS documents public comments received by BP A and responses they provided. BP A's Record of Decision will be issued no sooner than 30 days following publication notice in the Federal Register for the FEIS. Our Record of Decision will be issued after the BPA's Record of Decision has been signed.

Determination: (check one below)

___ Use is Not Compatible

_X_ Use is Compatible With Following Stipulations

Stipulations Necessary to Ensure Compatibility:
In accordance with 603 FW 2.11 (D) for minor modifications of existing rights-of-way, and to avoid resource impacts and ensure no net loss of habitat quantity and quality, BP A will implement the following: 1) Stipulations listed below, and referenced in Chapters 5.5.1.4 and 5.20.4 and Appendix L of the FEIS dated January 2003, will be reflected unchanged in the BPA Record of Decision and will be reflected in our Record of Decision; 2) road access is closed (if necessary with construction of new gate and fence) to prevent unauthorized vehicle trespass to proposed and existing right-of-way; 3) helicopter installation of towers is used to avoid the need for heavy and wide-tracked ground equipment on sensitive soils and vegetation; 4) tower design is changed from delta to flat configuration, which places all transmission wires lower and on a single horizontal plane; 5) bird diverters are added to the overhead ground-wires and fiber optic cable to help deter bird strikes; 6) road width is reduced to approximately 101 which will protect native vegetation and reduce the area requiring annual weed control; 7) noxious weed control is included as a requirement of the right-of-way expansion and includes the existing right-of-way, which we will monitor; 8) vehicle inspection and weed removal will occur for all BP A employees, contractors, and their agents before entering refuge lands; 9) re-vegetation of construction site will occur using adapted native plant species; 10) a pre-construction meeting will occur between the BPA project inspector and contractor(s) and the Fish and Wildlife Service to ensure that these requirements are understood.

This Compatibility Determination will become effective on the date the U.S. Fish and Wildlife Service's Record of Decision is signed and made available to, the affected public.

Justification:
Changes following review of the Draft EIS eliminated incompatible portions of the original project, and are documented in letters appended to this Determination of Compatibility from BPA Project Manager Lou Driessen to CNWR Project Leader Bob Flores on 7/18/02 and 8/27/2002. These include stipulations 3-6 above. Although there will be minor short-term impacts, the measures implemented to ensure compatibility that include re-vegetation with native species, noxious weed control and access restrictions, should actually improve habitat quality above the current condition. This proposal supports the Refuge purposes, National Wildlife Refuge System mission, and mandate to ensure biological integrity, diversity, and environmental health.

Mandatory Re-Evaluation Date: (provide month and year for "allowed" uses only)

_____ Mandatory 15-year Re-Evaluation Date (for priority public uses)

December 2012 Mandatory 10-year Re-Evaluation Date (for all uses other than priority public uses)

NEPA Compliance for Refuge Use Decision: (check one below)

___ Categorical Exclusion without Environmental Action Statement

___ Categorical Exclusion and Environmental Action Statement

___ Environmental Assessment and Finding of No Significant Impact

_X_ Environmental Impact Statement and Record of Decision

References Cited:

Schultz-Hanford Area Transmission Line Project, Draft Environmental Impact Statement, DOE/EIS-0325, February 2002.

Schultz-Hanford Area Transmission Line Project, Final Environmental Impact Statement, DOE/EIS-0325, January 2003.

Letter of 7/18/02 from Lou Driessen, BP A Project Manager, to Bob Flores, Columbia NWR Project Leader (attached).

Letter of 8/27/02 from Lou Driessen, BPA Project Manager, to Bob Flores,) Columbia NWR Project Leader (attached).

Memo to USFWS Regional Director Anne Badgley from Columbia NWR Project Leader Robert Flores: NEP A compliance for Schultz-Hanford Area Transmission Line Project- Adoption of Final Environmental Impact Statement, December 2002.

Refuge Determination:

Prepared by: Randy Hill (Signature) 12/19/02 (Date)

Refuge Manager/ Project Leader Approval: (Signature) 12/19/02 (Date)

Concurrence:

Acting Refuge Supervisor: (Signature) 12/23/02 (Date)

Regional Chief, National Wildlife Refuge System: Acting (Signature) 122302 (Date)

ATTACHMENT 3
Arizona Game and Fish Department Letter to Fred Salzmann of SCE

THE STATE OF ARIZONA
GAME AND FISH DEPARTMENT
2221 WEST GREENWAY ROAD
PHOENIX, AZ 85023-4399
(602) 942-3000 • AZGFD.GOV
Yuma Office, 9140 E 28th Street, Yuma, AZ 85365-3596 (928) 342-0091

June 2, 2006

Fred Salzmann
Project Manager
DPV2 Project Office
1321 State College Blvd.
Fullerton CA 92831

Re: Application for Certificate of Compatibility for Devers Palo Verde No. 2 Transmission Line Project

Dear Mr. Salzmann:

The Arizona Game and Fish Department (Department) has reviewed the above-referenced Application for Certificate of Compatibility for the Devers-Palo Verde No. 2 Transmission Line Project (DPV2). The following comments are provided for your consideration.

The Department understands that the Southern California Edison (SCE) proposes to construct a 500 kV electrical transmission line from the Harquahala Generating Station Switchyard to the Devers Substation. The proposed route exits the Switchyard, parallels the existing Harquahala-Hassayampa 500 kV line to the existing Palo Verde Devers Transmission Right of Way (ROW). The route continues within the existing ROW and adjacent to the existing Palo Verde-Devers Transmission Line No. 1 to the California border.

The Department notes that proposed route is within an existing ROW and Bureau of Land Management utility corridor, is adjacent to the existing Palo Verde-Devers Transmission Line No. 1 and that existing access roads will be used to maximum extent possible. We further note that the application includes best management practices and mitigation to minimize potential impacts to biological resources. For these reasons the Department does not anticipate that the proposed route will result in significant adverse impacts to wildlife and wildlife habitats.

Thank you for the opportunity to provide comments on this application. The Department appreciates the opportunity to participate in this process and would appreciate an opportunity to review the draft EIR/EIS when it becomes available. If you have any questions, please contact me at 928-341-4047.

Sincerely,

William C. Knowles
Habitat Specialist
Region IV, Yuma

Attachment

cc: Russell Engel, Habitat Program Manager, Region IV
Rebecca Davidson, Proj. Eval. Prog. Supervisor, Habitat Branch

AGFD 05/25/06 (A)

ATTACHMENT 4

Randy Palmer Testimony Before The Arizona Power Plant And Transmission Line Siting Committee During The Hearings For The DPV2 Project (Case No. 130)

Southern California Edison Volume III

L-00000A-06-0295-00130 8/21/2006

Page 475 to Page 701

CONDENSED TRANSCRIPT AND CONCORDANCE
PREPARED BY:

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BEFORE THE ARIZONA POWER PLANT AND TRANSMISSION

LINE SITING COMMITTEE

IN THE MATTER OF THE APPLICATION OF SOUTHERN CALIFORNIA EDISON COMPANY AND ITS ASSIGNEES IN CONFORMANCE WITH THE REQUIREMENTS OF ARIZONA REVISED STATUTES SECTIONS 40-360.03 AND 40-360.06 FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AUTHORIZING CONSTRUCTION OF A 500kV ALTERNATING CURRENT TRANSMISSION LINE AND RELATED FACILITIES IN MARICOPA AND LA PAZ COUNTIES IN ARIZONA ORIGINATING AT THE HARQUAHALA GENERATING STATION SWITCHYARD IN WESTERN MARICOPA COUNTY AND TERMINATING AT THE DEVERS SUBSTATION IN RIVERSIDE COUNTY, CALIFORNIA.	DOCKET NO. L-00000A-06-0295-00130 Case No. 130

At: Phoenix, Arizona

Date: August 21, 2006

Filed:

REPORTER'S TRANSCRIPT OF PROCEEDINGS

VOLUME III
(Pages 475 through 701)

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By: MICHELE E. BALMER, RPR
Certified Court Reporter
Certificate No. 50489

INDEX TO EXAMINATIONS

INDEX TO EXHIBITS

BE IT REMEMBERED that the above-entitled and numbered matter came on regularly to be heard before the Power Plant and Transmission Line Siting Committee, at the Embassy Suites Hotel, 1515 North 44th Street, Phoenix, Arizona, commencing at 9:40 a.m. on the 21st day of August, 2006.

BEFORE: LAURIE A. WOODALL, Committee Chairman
DAVID L. EBERHART, Arizona Corporation Commission
EDWARD RANGER, Department of Environmental Quality
JIM ARWOOD, Department of Commerce
JOY RICH, Appointed Member
WAYNE SMITH, Appointed Member
MICHAEL WHALEN, Appointed Member
MARGARET TRUJILLO, Appointed Member
MICHAEL PALMER, Appointed Member
JEFF McGUIRE, Appointed Member

APPEARANCES:
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and

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For the Central Arizona Water Conservation District:

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and I've looked AT the ones that you have taken, but given the high profile nature of the two areas, I personally have an inclination to want to tour it. But I'll chat with our fellow Committee Members after you have concluded your presentation. They may determine that there's no need for it.

Mr. Acken.

MR. ACKEN: Thank you, Chairman Woodall.

RANDALL PALMER,

called as a witness on behalf of the Applicant, having been previously duly sworn by the Certified Court Reporter to speak the whole truth and nothing but the truth, was examined and testified as follows:

DIRECT EXAMINATION

Q. (BY MR. ACKEN) Mr. Palmer --

A. Before you get started, I'm wondering if this mike is working. Can anybody tell? It shows that it's on. My thought here was if I needed to go up to a slide and explain something that it might be helpful.

All right. Sorry about that.

Q. Mr. Palmer, would you please state your name for the record.

A. Yes. My name Randall Dean Palmer. For purposes of discussion, however, I like to be addressed as Randy.

Q. Randy, will you address Chairman Woodall's question as to the last time that you were along the route in the Kofa at Copper Bottom Pass?

A. Actually, I was out there just a couple of days ago and looking in the area of Copper Bottom Pass in particular regarding questions that were coming up on the double-circuit structure. So I was there last weekend.

Q. Would you provide the Committee with an overview of your educational and work background?

A. Certainly. My background and education, I have two degrees. I have an advanced degree as a master of landscape architecture in landscape architecture from Harvard University, and I have a bachelor of science in what is an outdoor recreation degree with a focus on landscape architecture.

My experience, interestingly enough, with regards to the topic that I'm talking about today dates far back, actually, to a point in time when I was back in undergraduate school where I worked with a professor who at the time was involved in a number of different visual studies that involved the energy industry and

transmission planning and so on.

So, quite frankly, as early as 1977, '78, while I was in school, I happened to be fortunate enough to be in an environment where I was exposed to visual resource assessment. And so at quite an early time within the context of my career, I had the opportunity to get involved in these types of projects.

Having done that earlier in my career, when I went to school back East and having that interest, I served as a teaching or research assistant while at Harvard for course work specifically in visual resource assessment. So, again, it was something which as a landscape architect I have had a lot of interest in.

As I moved forward in my career since graduating from the master's program, I have served as an instructor at both Colorado State University and Colorado University where I taught a variety of courses ranging from site planning and design, a lot of work that often times bordered on resource types of evaluations, multidisciplinary kinds of approaches to planning.

In 1984, I actually began working with a company called Dames & Moore. And, interestingly enough, that experience started with doing visual simulations for a project that involved the Camelback

corridor. There was a proposal for some development at that point in time for a high-rise in that area, and Dames & Moore was doing visual resource assessment studies for that project as well as simulations.

Having joined the firm in 1984, I guess it's kind of where I landed for my career. I worked there up until 1999. My experience at Dames & Moore was initiated -- I guess, rather, started with me working specifically as what you would call a visual and a land use resource specialist. So my job was to conduct studies that were oriented around land use investigations and visual resource investigations, primarily with respect to energy-related projects.

I think as some members of the committee know, in 1999, a group of us from Dames & Moore formed a company called the Environmental Planning Group. As a part of Environmental Planning Group, I'm a partner. I'm a principal. I serve as a project manager. And at the same time on certain studies, I will be engaged as an overseer on the visual element or the land use recreational element of a project.

With respect to specific project-related experience, I guess I feel as though I've been very fortunate in having had the opportunity to work on a lot of different projects. On the slide that you see here,

I have managed and/or coordinated over 20 energy-related studies. These have included EISs, EAs, conditional use permits, environmental reports, PEAs, CECs, and also evaluations on projects regarding NEPA adequacy, determinations of NEPA adequacy.

And, again, the focus of this work by and large has been transmission lines, but also I have done work specifically with generation facilities, substations, and so forth.

In addition to that, and as a part of my experience growing professionally, while not necessarily coordinating studies, of which I often will interact and interface with resource specialists as noted here, I have also served a visual resource, slash, land use specialist on an additional 15 energy-related projects as shown.

I've also had the opportunity to work specifically on some very large projects. As noted here, I've been involved in seven 500 kV transmission lines. I have worked throughout the West. I have extensive experience in Arizona, California, and a majority of the western United States, primarily Rocky Mountain area south, with my most recent experience being really focused in the Desert Southwest.

For some Members of the Committee, I think they

know me through past work that I have done. I have testified before this Committee on four occasions. One was on the Navajo transmission project, which is a 500 kV transmission line that runs from the Four Corners area over to Mead marketplace area. Another project which involved the Gila River Power Plant in which I served as, I guess, a specialist in that case looking at restoration and kind of visually related aspects of the project.

I also served as a coordinator for the Toltec project working on the transmission aspect of that in conjunction with Mr. Siegel. And that had both a 345 and a 500 kV component to it.

And then, finally, I also served as a coordinator, slash, manager with respect to the San Tan Power Plant.

So I have had the opportunity to be in front of the Committee, have always enjoyed it, so I have some experience in that regard.

Finally, I also have had the pleasure of having the opportunity to work with just about all of the federal land management agencies throughout the Western United States. I would say that the predominance of the work that I've done, however, has been with the BLM. I have also worked with the Forest Service, National Park

Service, Bureau of Indian Affairs, Bureau of Reclamation, and so on.

Through that experience, I have gained a lot of familiarity with the visual resource management systems that are applied on those federal lands. And, in particular, here we're talking about, I think, the Bureau of Land Management but also the Forest Service.

Finally, I have had the opportunity over time to also work in some fairly high visibility or highly sensitive areas regarding resources, things like the Kofa. I have done work up in Alaska in association with Kenai National Wildlife Refuge. Years ago we also did work up in Canada and have spent time looking at facilities in Banff National Park. Worked on a lot of projects that have involved wilderness areas or areas of critical environmental concern and so on.

Q. What has been your role in this project?

A. My role in this project -- actually, I'll jump down to kind of the second bullet -- was really to serve as what we call a principal investigator for the visual resource studies for the PEA and CEC application.

In that role, and this is really an important thing I think to bring out, I work with a team of individuals who are responsible for preparing the visual studies.

One of the things about our company is that I think we probably have -- well, I believe that we have more depth in this field than probably any other firm that I know of. The number of landscape architects that have been doing this type of work is fairly impressive.

We have a large group of people that we work with on any study like this such that while I may be leading the study, I have a number of different people who are involved in this project who we draw from. That goes all the way from the development of what the assessment methodology is going to be through the preparation of the documentation for the results of the studies.

Q. Would you provide an outline of your testimony here today?

A. Yes. I would be glad to. The scope of my testimony, I have four bullets lined out. And, in part, understanding Chairman Woodall's request regarding how we approached our studies on the Kofa as well as how that might compare with other studies that have been done, we've structured my presentation here today to try and get at some of that as much as we can.

So what I will be doing here is going through, number one, a discussion on the visual studies approach and the reasoning for that approach, as well as what the

components are to those studies.

The second thing after that that we would like to do, I think, is to then focus a little bit on the Kofa National Wildlife Refuge, because there have been a number of questions with regards to the Kofa.

And what I will be doing there is taking you through the inventory that was conducted, then the overview of the conditions. And I think, Chairman Woodall, those are the example photographs that we've prepared.

And then, finally, get down and talk a little bit about what the impacts are and talk about those in context with recreational users.

Then, finally, and this will probably be a little bit more of an informative discussion, informal discussion, we'll talk a little bit about the comparison with our studies as opposed to other studies that have been prepared, realizing that we may not fully understand all of the nuances of how those studies were conducted. And then, finally, we'll end up with a summary with regards to the presentation.

Q. What visual study methodology did you use to assess the impact of the proposal?

A. The approach that EPG used for this project was based on the Bureau of Land Management's process. That

process is basically described in two separate handbooks, one that sort of gets at inventory and the other more so at analysis.

And the reason that we chose this type of an approach, number one, was that within the overall project study area, the BLM is by far the major land controlling agency within the study area.

Secondly, the predominance of the landscape settings crossed by the 500 kV line, especially in Arizona, are natural. And the BLM system is a system that responds very well to those kind of conditions.

The other thing is that in doing our visual studies -- and you may have noticed in the application that we talk about things like visual image types versus scenic quality. The point of it is if we're in a natural setting, we want to use one consistent approach that treats the landscape as a whole. In other words, you may cross jurisdictional boundaries from BLM to state land to other landscapes; however, in many cases that setting is not -- or that demarcation of jurisdictional difference is not demarked on the land.

In other words, I can step on one side, for instance, of the Kofa, and I'll look at the landscape there. And I turn to the other side, and it's all part of a continuum. And that's a very important point

within the context of why we chose one central approach for this area.

Finally, we felt that it would be very important to maintain consistency with past visual resource study methods that have been used on projects that have been approved by this Committee.

The approach that you see here, if I was to give an example, tiers off of work that was done by the Navajo transmission project that later may have been refined somewhat for TS-5, so on and so forth.

So we tend to try to build off of approaches that we know have worked in the past and ones that have involved projects that, at the end of the day, have been approved.

Q. What factors were included in your assessment?

A. In any visual resource assessment, you really break it down into two components. The first is what we call a visual inventory. And the visual study, in almost any study that we've ever done, will always look at two specific things.

One is the quality of the landscape that is being crossed, or what is referred to by BLM as scenic quality, and then the second is sensitive viewers. So you're looking at the characteristics of the landscape, the quality of that landscape, and you're addressing

that. And at the same time, you're going to be evaluating who are the sensitive viewers that are in the landscape. And in this case, when you get to the impact assessment, understanding what the effects of the proposed transmission line would be to both the viewers and the landscape.

So with respect to the visual inventory, what I would like to do now is talk a little bit about our assessment of scenic quality.

CHMN. WOODALL: Let's go off the record for a minute.

(A brief discussion was held off the record.)

CHMN. WOODALL: Back on the record.

Proceed, Mr. Palmer.

THE WITNESS: What I would like to do now is talk about the visual inventory. And please bear with me. I'm going to try to move through this pretty quickly, but at the same time understand that some of these concepts may be a little foreign.

So the visual inventory, as I mentioned, consists of both looking at scenic quality and looking at sensitive viewers as defined by the BLM. Scenic quality is a measure of the visual appeal of an area of land.

And, basically, the premise of this is that all

public lands have some form of scenic value. But when evaluating scenic quality, it's acknowledged that the greater variety that you have in a landscape, the more scenic it is.

So when doing a scenic quality assessment -- and for this project what we did is we looked at the seven factors that you see listed on this slide -- you evaluate -- again, we're looking at variety, so you look at the variety of the land form. You look at the variety of the vegetation.

Water is usually, in this country, certainly a presence/absence kind of a thing.

Color refers to either color in the landscape or what could be deemed as some color that may occur in more of a kind of ephemeral sort of a way.

Adjacent scenery, what is it that you're seeing within an area that's kind of around you. Scarcity, and then, finally, cultural modifications.

And so each one of these seven factors were looked at with respect to the quality of the landscape in the area, and these are the standard seven factors that you would use for the BLM.

Back to the ranking of scenic quality, which is characterized as either Class A, Class B, or Class C scenery. And the easiest way to define that is Class A

are going to be those landscapes where you have variety, a greater variety in those elements that we previously described. And under most circumstances, those are going to be areas that have not been modified.

So you can bring up the map.

Pardon us for a minute.

Can you go to the next slide?

Again, focusing on the Kofa, given that it's been an area of interest, what you see here is the boundary of the refuge. This is the proposed transmission line in this area, and we'll walk you through.

This is summarized on this slide as -- it's widely acknowledged that there are some areas out here that are -- I would call them Class A landscapes in terms of the variety that they have.

However, in the context of the corridor that we're talking about that was evaluated for the visual resource studies -- and this is kind of a standard area of consideration -- what we found is that basically most of the landscape in that area was Class C. And those are going to be these areas which are the lower line plains in this area that are shown in tan. And then the foothills of what are either the New Water Mountains or the Kofa Mountains that sit down in here, these would be

considered to be Class B.

For those of you who are familiar with the area, if you move over into the Dome Rock Mountains within our corridor, you would begin to pick up that greater variety in terms of what we would call Class A landscape.

So the other thing that's really important here to note is that while we have Class A or Class B and Class C landscapes as recognized by the BLM system, or any system we've worked with -- and I think you'll see this -- while you have natural landscapes in the area, in this specific area there has been -- I would call it a fairly substantial modification based on the presence of the 500 kV line in conjunction with the pipeline and the ancillary facilities that accompany it. So we've got Class B and Class C landscape in what is a modified setting.

Moving forward to visual sensitivity -- and you can take this one off. You can go to the next one.

Visual sensitivity, as mentioned on this slide, reflects the degree of concern for scenic quality and the change in views from sensitive viewer locations within the project area. This is by definition through the BLM. When you look at the factors to interpret the level of sensitivity, the things that you will be

looking at are the types of users, the amount of use, public interest, adjacent land use and special areas.

At the same time, once you have identified what the sensitivity of the viewer is, then, in order to understand the effects to those viewers, you have to understand the relationship of the project to the viewer in terms of distance and things like viewing conditions.

CHMN. WOODALL: Excuse me, Mr. Palmer. I understand all of the factors other than public interest. Could you explain what is meant by public interest?

THE WITNESS: Yeah. Public interest would be if you have a landscape that is of particular interest to the public above and beyond, that would be one thing that you might factor in. You could have some landscapes, for instance, that while they may not have a lot of use or they may not be a special area, they may have a specific interest to the local community.

We've worked on other projects, both planning and -- well, what I would call kind of traditional planning and master planning where you can get local communities who may have an area that they have a particular interest in that unbeknownst -- to the casual observer is not there. So we try to factor those kinds of things into our interpretation of sensitivity.

CHMN. WOODALL: Thank you.

THE WITNESS: So on the next slide.

Through our investigations and based on the criteria that I just presented, we determined viewer sensitivity on the Kofa National Wildlife Refuge to be high. We also determined that the sensitivity to viewers from the wilderness areas associated with this area would also be high.

One of the things, however, that is kind of interesting about this area if you go into it is that the use in this area, at least in a formally designated perspective, is somewhat limited. And I'll explain that.

This is a handout of a little flyer that you get when you enter the Kofa. This is the pipeline road that you see up through here. And you can see that a vast majority of the Kofa National Wildlife Refuge is located to the south.

From what we can tell, the majority of the use of this area is along the pipeline road. And the two formal areas of use that we were able to determine, one is right here in a place called the Kofa Cabin, and we'll be showing you pictures of those. Another is on the western end of the project area, and this is called the Crystal Hill area where they have some dispersed

camping.

Aside from that -- and you do have wilderness to the north. What you see is that from this area you've got a number of these roads which are in various different conditions that go down to primarily water features or tanks. And it is at those tanks that one would assume you would have the majority of wildlife.

So the sensitive viewer locations, as you see here, again, were primarily from what we would call -- were primarily associated with pipeline road or from dispersed recreation areas as we did not find evidence of a lot of formal areas along the refuge. Although I would come back and say at both entries to the Kofa you do have some interpretation facilities and so on.

Q. And this Kofa handout, that can be found as Slide 14 of Tab 2 to Applicant's A-8.

A. Can you go to the next one on that.

Okay. We have now identified who the sensitive viewers are. Remember how we talked a little bit about how they perceived things in the landscape? That's the second piece to the puzzle here with sensitivity.

And, basically, what you're trying to do is to determine with the introduction of the transmission line into this setting, how is it going to affect the viewers? And probably the most commanding set of

criteria that you use are these right here, and that deals with distance zones. And distance zones are typically broken into three different areas, that being zero to a half a mile, which is considered the foreground. And you'll notice when you've done a lot of these studies that it is within that area that you really begin to discern the detail of things.

Within the half mile to three miles, we call that out as being middle-ground area. And by definition, this is where objects are typically viewed in relationship to patterns. In other words, you're not picking up the detail as you get into the middle ground. You're seeing things more as patterns.

And then, finally, background views, which is beyond three miles, are often viewed as horizon lines. The BLM uses this type of an approach to capture different distance zones.

Through the work that we've done over the years, there have been investigations regarding the perception of different distances and different thresholds. A group by the name of Jones & Jones did some of those studies. And for 500 kV lines, we try to use that information to come up with, as best as we can, a scientific measure for where things go between these different distance zones.

The other thing, and you'll see it in the slides that we're going to be going through, is at the same time that we're trying to keep count of distances, we're also looking at what viewing conditions are like. And in this area you're going to find the full gamut. There are going to be those where you're going to have views that are open. You'll have other views that may be partially screened by different elements. And one of the more important, perhaps, aspects is where from a viewer's perspective their view to the transmission line may be either skylined or backdropped.

So those were the considerations that we took into the inventory. We looked at the scenic quality, and we looked at the viewers and their sensitivity.

MEMBER ARWOOD: Madam Chairman, I have a question.

CHMN. WOODALL: Mr. Arwood.

MEMBER ARWOOD: Mr. Palmer, realizing that the majority of the land is BLM controlled, which is the reason for using the BLM visual study approach, I was curious. Is there a visual study approach for refuge land?

THE WITNESS: No. Not to our knowledge, no.

MEMBER ARWOOD: No.

THE WITNESS: Okay. What I would like to do

now is, if you can bear with me, we've got a number of slides that prior to discussing the results of our impact assessment, we thought it would be very helpful for the Committee to just take a look at the landscape as we've seen it. And we can feel free to talk about anything and everything as we kind of take our little journey.

Q. (BY MR. ACKEN) Before we go through that, just a couple of foundation questions.

The photographs, have hard copies of these been provided?

A. Yes, they have.

Q. And where can they be found?

A. They can be found in -- there's a separate kind of fly sheet. What I would recommend you do that might be helpful is if you pull out this view location map, which is number 17 from your binder, and then turn behind the black divider sheet. And that way, what you'll be able to do is you'll be able to follow along in addition to having it on the screen with respect to where we're at on the refuge.

CHMN. WOODALL: Excuse me, Mr. Acken.

Mr. Palmer, how did you come up with these particular points? Are you getting to that?

THE WITNESS. Yeah. I will get to that.

CHMN. WOODALL: The reason I ask is we had a member of the public -- I believe his name was Mr. Miesner -- and he had recommended a viewpoint about every mile randomly selected. Is that what you did?

THE WITNESS: Well, we certainly have stuff that may be within the context of every mile, but I think what I attempted to do, or what we attempted to do, was to look at a series of different photographs that showed different kinds of conditions.

And, you know, if asked, I think we could probably talk about: Is this the same kind of condition a mile up the road? Plus, you'll see in a lot of these photographs that the distances are such that you're able to capture a pretty good understanding of a bigger area than where you're actually standing.

CHMN. WOODALL: Thank you, Mr. Acken.

Q. (BY MR. ACKEN) Who took the photographs?

A. The photographs were taken -- I think the predominance, if not all of these, by myself and Mr. Mark Schwartz who was the gentleman that was leading the technical side of these studies.

Q. And when were the photographs taken?

A. The photographs were taken, I think, probably at the end of June and up through the last couple months.

Q. Thank you. Please proceed.

A. Okay. What we're going to do is we will be starting on I-10. Go ahead to the -- right up in this area. This is where Interstate 10 and the Vicksburg Road lead down into the refuge, and then we're going to be taking the pipeline corridor over to Highway 95. Each one of these viewpoints has been labeled with a location, which is, I would say, fairly accurate in terms of its location based on using GPS to get ourselves centered to where we were at.

But we felt that this was important in that in terms of a viewer experience, as you're heading off of the interstate, if you're to come into the Kofa on the eastern side along Vicksburg Road, this isn't that interchange. It's at this point in time that you're approximately eight miles away from the project, plus or minus. So you're not seeing it at this point in time.

The project setting, we're in an area that's called the Ranegras Plain. These would be the New Water Mountains here. In the background what you see are the Little Horn Mountains.

Next.

Number two, we took this in part to show the condition of the road as you're coming in on this side of the refuge. Interestingly enough, here's the signage

that is talking about the upcoming hearings.

Along this dirt road you have a small distribution line that leads you pretty much up to the entry into the Kofa here.

Next.

This is the entry of the Kofa from the east along Vicksburg Road. It's at this point in time that that distribution line actually moves off to the east. At this location -- next -- you have got entry signage. Next. You have a small ramada. Next. And then you have information regarding the rules that regulate the Kofa.

At this point in time, you're probably anywhere -- depending upon the actual angle to the line, you're somewhere between two-and-a-half to three miles away from the transmission line.

CHMN. WOODALL: Excuse me, Mr. Palmer. Are there two Viewpoint 3's, entry looking south?

THE WITNESS: Chairman Woodall, at this one, yes. This would be -- can you go back one?

This little ramada is just to the west side of the road at the entry. So if I were to walk over onto the road -- next -- this would be the view that I have. So this series of Viewpoint 3 slides basically kind of characterizes the entry to the Kofa.

CHMN. WOODALL: Maybe I'm wrong, but my Viewpoint 3 looking south has some pieces of what look like corrugated metal.

THE WITNESS: Okay. Go back another one.

CHMN. WOODALL: So there is two. Okay. Thank you.

THE WITNESS: What I have done, Chairman, is I have stepped -- we have stopped up in this area. So now it's kind of this -- this is the bigger area of the entry to the Kofa.

CHMN. WOODALL: Thank you very much.

THE WITNESS: Okay. And maybe just to digress for a minute, if you were to come back -- okay. We're saying we're a sensitive viewer here. But if you were to come back and digress and look at the scenic quality of this area, what you're seeing is this is what we would characterize as Class C landscape. Not a lot of variety in this area. It's a big plain. It's dominated by creosote. You've got some variation in vegetation, but not very many. Certainly, the land form, there's little variety, if any.

Next.

We took this picture to demonstrate kind of this one-half mile threshold that we talked about regarding the foreground. At this point in time we're

approximately one-half mile south -- or north of the power line. Right here. We're looking to the south.

And this feature that you see here, I believe, is called Coyote Peak. You see the transmission lines structure here. One of the interesting things about the choice in use of the lattice structure that you see in this environment is that -- and we'll talk a little bit later about this regarding contrast. While difficult to see, there's actually a tower right here.

Next.

You can see how in this kind of a landscape -- and that's why backdropping is important. When not skylined, lattice towers in this environment will tend to disappear.

Next.

So this is a crossing. This is the Vicksburg Road heading south. And what we're going to do is come down here, and then we're going to move along the pipeline corridor.

Next.

This is Viewpoint 7. We're looking due west now on the pipeline corridor. And what you see, kind of just to get you positioned, these are the foothills of the New Water Mountains and the extreme northern kind of foothills of the Kofa Mountains. This area that you see

in here on either side, which is non-vegetated, we have assumed is probably more than likely the disturbance that's been associated with the pipeline itself, which for a vast majority of the transmission line corridor parallels the pipeline road.

Q. (BY MR. ACKEN) Mr. Palmer, just to clarify the record, this is -- the bottom of that slide says Viewpoint 5; is that correct?

A. Yes.

Q. Thank you.

A. And we're looking west.

What I'm going to do next -- and we won't spend a lot of time with this, but just to give you an idea of the relationship of the road to the tower sites.

If I were to turn to my right -- next -- this is a tower that directly flanks me to the right, typical of an access road that would be used for that project and also used for the proposed project.

If we go to the next structure down, one of the things that's been interesting in the time that we've spent out there is that you notice that in a lot of cases the desert has reclaimed quite nicely in conjunction, and you'll see this with the tower locations.

This was the tower that you were seeing down

the road.

Next.

And this is a picture of looking out from underneath that structure to the west. These slides were meant to demonstrate, you know, at least in this setting, typically what you would find in association with those structures.

Next.

We had talked a little bit earlier about the use areas in association with the pipeline road. Well, right now at the junction of this trail here, which leads down into a couple of areas, one of them is called Red Rock Dam, Craven Well, and the Cholla Tank. And so for us this was an important place to be able to characterize what you're looking at.

And this is a view to the west. Again, you're seeing kind of the foothills of the Kofa Mountains in the background.

Next.

This view is taken again to the west. And you're looking at kind of the edge of the New Waters foothills there. This illustrates along the pipeline road, and I think I would be fairly safe in saying that the pipeline company has demarcated the location of the pipeline on about a mile basis. So one of the things

that you see out there in conjunction with the pipeline are signage-related things to that, which, again, is something which you look at in terms of modification to the setting.

The other thing, and we'll zoom in on it, is that there are several locations along the pipeline where you have either valves or engine houses. So this is meant to demonstrate what that can look like in conjunction with other modifications to the setting.

Next.

This is in an area, and I had mentioned a little bit earlier, where you do have overnight use. We're here right now at location number 8. The Kofa Cabin, which sits right here, is approximately one mile from the road.

Next.

This is a view back to the east from that turnoff.

Next.

This is the Kofa Cabin. It's a small structure. They have cots in there. We'll talk later when we've been out there recently. We can give you an idea of at least when we denoted the number of users that were there. We made note of that.

But if you -- well, let's just stop for a

second. If you were to look at this landscape setting that we're in here, this would be typical of a Class C landscape.

Next.

And then this is actually the view to the power line from this location. And I think what is important to note here is remember how we talked about you may have a sensitive viewer, but the effect to that viewer is based on distance and viewing conditions.

At this location, the transmission line is out in this area. It's difficult to see the structure right in here. That's one. Then you have a structure in this area. And then, finally, there's a structure right out in here. And this would be at a distance of, I would say, between one -- probably right around a mile, plus or minus, that you're looking at.

Next.

Continuing west from the Kofa Cabin, this is Area 10. Again, you can begin to see that one of the things that's real interesting that you'll notice is when you get away from off access with the towers, what you don't see is a lot of disturbance in terms of vegetation removal, at least in these particular views.

Next.

The other thing that we noticed is that in

certain areas it seems as though -- and we saw this the last time we were out there where they're painting different facilities, these valves and whatnot, that there is some restoration work that's ongoing.

Next.

This is near an angle point. Again, you have some valves and whatnot associated with the preparation of the pipeline.

Next.

CHMN. WOODALL: Excuse me, Mr. Palmer. The proposed line would be -- looking at this photograph --

THE WITNESS: It would be in here.

CHMN. WOODALL: To the left of the existing structures?

THE WITNESS: Yes. Absolutely.

Q. (BY MR. ACKEN) And that was Viewpoint 11?

A. Yes.

CHMN. WOODALL: Thank you.

THE WITNESS: Yes. This area in here, which is Viewpoint 12, is kind of interesting. This is at a point where we're starting to break out of what we would call that lower variety landscape into a landscape that's gaining some greater variety. Obviously, with changes in terrain, you begin to get a little bit better diversity in vegetation and whatnot. So this would be

typical of a Class B landscape.

This is looking down into an area called New Waters Pass. But you can see, here is the road; again, the pipeline area that's been disturbed; and then the transmission line.

Next.

One of the things that we wanted to do at least in terms of looking at what can be the effects to dispersed recreation at this location, which is location 13, what we did is we left the road and we walked to the north up into this area to get into what would be the edge of the wilderness area.

What you're going to see here is a pan going from the southeast to the southwest that basically looks here and kind of looks to the south.

What you can see here is you have a structure here. It's very difficult to pick out, and then you have one right here. You can see where that's cresting a little bit that hill. Then here you can see the conductors in this case.

Next.

And this was the structure where we left the road, went up, parked, and then took a structure immediately to the south of us in here. And, again, I'm going to guess this to be somewhere 500, 600 to 1,000

feet.

Then, looking further to the right, this is the next facility. You can see the disturbance associated with the pipeline. This area back in here, which is the real backbone of the Kofa, this would be an area where -- and we certainly have photographs of it, where you have what we would call A-Class scenery. Very prestigious for the region.

Next.

This is continuing forward here to another area where you have what they call an engine house and a view back up to the line.

Next.

This is a view which was taken in order to show both typical views to the west, which you're seeing here, and then typical views back to the southeast. Parked the car, stepped out, and took the picture to the transmission line running to the west. Now, in this area the proposed line would be to the south.

Next.

Same thing here. So I just pivoted at that viewpoint.

Next.

And taking this picture, the intention was to really begin to show -- because you're almost in this

case looking towards the western edge of the Kofa, and it gives you a pretty good understanding of the setting in this area. The transmission line is running actually right off to my right.

And if you zoom in here, what you can see is here are the structures. And you can also get a sense of, in this case, being able to get a little bit of an idea of what the access to those structures looks like and so on. This is going to be transitioning kind of from that B to what is a C landscape.

The other thing I would point out is in the distance, and you're going to -- we'll be traveling here in a minute. This is a small residence that is out in this area. You also have a telecommunications facility that you see from this view.

Next.

This is a different view coming down the hill in that area -- next -- which shows the absorption. And then this was meant to illustrate, once you begin to get down lower in elevation, how when you have structures skylined you begin to pick them up as opposed to having it backdropped.

This area, quite frankly, has been substantially disturbed as you can see from the presence of the pipeline in this area.

Next.

And this is a view looking back from where we came. To give you an idea in terms of distances, that tower that we're looking at up on that horizon is probably between 3,000 to 3,500 foot away.

Next.

This is just proceeding with some typical views going down the road. This feature that you see here that's beginning to come up is an area that's called the Livingston Hills.

Next.

And, again, just views that show transitioning down.

We also had the opportunity in this next slide that we put in, we were out there one day to try to get a sense of how seasonally things might change under different atmospheric conditions. And this is a case where you're looking at the Kofa range in the background, and what you see here is a structure. This structure is -- we had it at about 700 foot, 700 to 750 foot off the road. And if I turn to the right, this is what I see.

You can see that in a lot of ways, under these kind of conditions with cloudiness, two things happen. One is you really lose where things are backdropped, any

kind of detail, but you probably pick up a little bit more in terms of the silhouette on the horizon.

Next.

This is at Viewpoint 22 right down here. And this is an area that, again, has a two-track or a small road that leads off to the south. It goes to a place called Scotts Well, which is a tank, which is about a mile and a half away. And then it goes further down to a place called Jasper Springs. It also serves as an entry into the residence that I mentioned. This next slide will show that.

It's a private inholding in this area. This is the residence. We did not go down all the way to the house because of the no trespassing signs. But if I turned around, this would be a view that you would have not quite at the residence, but to the power line.

And I think you can see here that you have a structure here, a structure here. Let me see. Yeah. And then there's one more structure up in this area.

Next.

Now we're just proceeding down the pipeline road. This is the Livingston Hills here. This is a pan. You can see the transmission line moving across here. We have a structure here. We have a structure here.

Next.

And then continuing across that structure, and, then, I believe, one more. That's right over in here.

Next.

This is in the area of Crystal Hill, and what you're looking at is this area right in here. And in this area, they have got some dispersed -- what I call kind of informal camp sites. And then there's a trail that leads from this area to the north.

Q. (BY MR. ACKEN) Is this shown as Viewpoint 25 and 26?

A. Yes.

Q. Thank you.

A. 25 is going to be a view taken from a point along that trail. I took this to kind of show the conditions of what that hiking trail was like.

If you go up to where actually Viewpoint 26 is like, this is a real nice panorama that shows once you get above the facilities what you might expect and what we call a superior position looking down. And this is actually stretching to a point where you're off the Kofa with the Dome Rock Mountains here.

This little drainage is actually called French Creek, but you can see you've got the structures here, here, here. You have a structure here.

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Next.

CHMN. WOODALL: This is still Viewpoint 25; correct, Mr. Palmer?

THE WITNESS: Correct. Yes, it is.

And then, again, where, you know, they're seen, obviously, more so when you're above that immediate horizon line, but once you get back in front of the Livingston Hills -- next -- you begin to lose them.

And in this area, I'm just going to point this out. It's very hard to see actually. There's a structure right in here, and there's a structure right kind of down in the saddle area.

CHMN. WOODALL: Excuse me, Mr. Palmer. I would propose that you conclude your remarks with respect to Viewpoint 5, and then that we take a break for the court reporter.

THE WITNESS: Okay. Very good.

What I would like to point out here, because the next slide that you see after the break will be a view that's typical of this area where the camp sites are at. You can see them kind of here, how you have a web of roads in this area.

But then, anyway, as you continue on across the base of the Livingston Hills, this is probably the easiest one to pick out. You've got one right there,

and then, finally, you have one here, and then also you have one here.

Next. Next.

And then that is heading farther to the east. The pipeline road continues this direction. So we can take a break and resume after this one.

CHMN. WOODALL: Everyone look at your watch. We'll take a break for 10 minutes. Thank you.

(A recess was taken from 11:30 a.m. to 11:50 a.m.)

CHMN. WOODALL: We'll go back on the record at this time.

I've just had an off the record discussion with counsel for APS and SRP, Ms. Raffaelli and Ms. Ramaley, regarding the administrative subpoena. And I have directed them to work with Mr. Layton to see if you can modify the verbiage on the form of administrative subpoena to add the areas of inquiry that you previously mentioned, as well as modify the section that I talked about with respect to the independence of the witnesses.

And I'm hopeful that counsel can come up with acceptable language, which you will then submit an original for me, Mr. Layton, which I will sign. And then I'm expecting that you will actually have the subpoenas issued. Is that something that you can do?

MR. LAYTON: Yes, Chairman Woodall.

CHMN. WOODALL: So when will you get that administrative subpoena to me? Probably by the end of this week? How about next Monday? How does that work?

MR. LAYTON: Yeah. That's fine. We should be able to do that.

CHMN. WOODALL: Thank you very much.

All right. Mr. Acken.

MR. ACKEN: Thank you, Chairman Woodall.

When we left off before the break, Mr. Palmer was finishing his discussion of the photographs of Viewpoint 25.

So with that, I'll turn it back over to Mr. Palmer to describe the rest of these photographs.

THE WITNESS: Thank you. Just to hold on this one for a moment, as I had mentioned before, what we had done was to climb the hillside to give an overview of kind of this valley area that you're looking at.

Again, just to take a step back, we're talking about, in general, Class C landscape with some Class B landscape in conjunction. And the next views that you're going to see are from down in this area where I mentioned you have this relatively informal camping area.

Next.

This is a view directly south towards the Livingston Hills. This kind of shows what those padded areas look like. And if you look immediately to the south, you have a structure here. You can see the conductors, actually, but if you move, then, to looking more towards the west or to the right, once you drop away from that backdrop, then you're able to see the structures in this area, although they're relatively benign.

I think we figured that you're looking at these structures in a range of anywhere from a half a mile out to a mile in this regard where they're visible. This would be a place where remember we talked about viewing conditions. You have a variety of things that are happening in here that, as opposed to the pipeline, which provide screening and partial screening to the facilities.

Next.

Now we're traveling out almost leaving the Kofa. This is on the pipeline road looking back towards the area. The campground area would have been over in here. A structure here, a structure there, and then you can see them proceeding to the east.

Next.

MEMBER ARWOOD: Madam Chairman, I have a

question.

CHMN. WOODALL: Mr. Arwood.

MEMBER ARWOOD: On those picture where we see the pipeline road, do the existing structures, are they all on one side of the road?

THE WITNESS: No. They change from one side to the other. Offhand, I couldn't tell you exactly how many crossings. They're not many. They predominantly parallel one side, then the other. Yeah. They are most often in one of those situations.

MEMBER ARWOOD: And predominantly the new structures would be --

THE WITNESS: To the south.

MEMBER ARWOOD: -- closer to the road predominantly?

THE WITNESS: To the south. In the area in here where you have the transmission line to the north, I would say they're going to be closer. And once you break into this area right, actually, in here, I think probably -- in fact, if we went back to Viewpoint 11, yeah. No. We don't need to go back, but from this point on, I'm trying to think. Yeah. I believe the rest of the way there to the south.

This is the eastern entrance to the Kofa. This is a view looking back towards the Livingston Hills.

And, again, the structures that you see up against the backdrop mountainside are very difficult to pick out. However, probably the closest one that you have is right here. There's another one over in here. You also have one in here where it begins to daylight away from the mountain.

If I turn immediately to the south, this is what you see in that area. That structure, I believe, is probably something on the order of 7- to 800 feet away.

Next.

And then, again, you're just panning across. You're back out on the plain now.

One more.

This is at the road. We're now off the Kofa. This is the one area where you cross under it in this area. This would be heading towards 95. You have got kind of the New Water Mountains, and then beginning to touch a little bit on the Plosmosa Mountains.

Next.

And then this is the entrance off of the U.S. 95. This would be looking to the west towards -- if you were to follow this all the way over Copper Bottom Pass.

Next.

You have a 115 kV line crossing in this area that you pass under.

Next.

And then as you pan in towards the Kofa -- next -- this is the entry road that you just came out.

That concludes the photographs that we have taken. What I would like to do now is given that I think we all have a pretty good sense of the conditions out there, is to talk a little bit about the assessment that we used in order to determine impacts.

Can you move on? Okay.

I'm going to get caught up in just a second. Pardon me.

Okay. Visual impact. And this is standard, again, for us. Basically, we define visual impacts based on what we call visual contrast, and that being the effect of the introduction of the project onto either the scenic quality or the visual -- or the sensitive viewers.

Visual contrast -- and, again, this is through the BLM -- is a measure of the degree of perceived change that would occur in the landscape, and in this case due to the construction and operation of the proposed transmission line.

In evaluating contrast, the BLM breaks it into

three separate considerations. One has to deal with land form, one deals with vegetation, and the other deals with structure.

Next on the right. Now you can take that one off for the time being.

When you take this transmission project and you break it into the elements that would affect contrast based on the protocol in the BLM land form, contrast would be associated with the construction of roads and tower pad sites. That's how you modify land forms if you're building a transmission line.

Vegetation contrast would involve the removal of vegetation, what they call vegetative manipulation. And that, again, would be associated with road construction, tower pad sites, and in very limited areas from what we understand, if at all, conductor clearance. I think you have seen the desert out there. We don't have a lot of high-growing vegetation.

Then, finally, structure contrast. And the intention here is to get an understanding of how the proposed structure will contrast with other built forms in the landscape. So what we're looking at here is either the existing transmission line or the gas pipeline.

So we're now introducing the project into the

setting to determine what the contrast of that is, and that's how we determine impact.

Next.

CHMN. WOODALL: Mr. Palmer, back on the impacts or the contrasts, are those considered to have equal weight always, or would it vary depending upon the landscape?

THE WITNESS: I would say that it can vary somewhat on the landscape. You're going to be a little bit more sensitive to areas where the vegetation manipulation may be more heavily. But by and large, we try to look at all of them.

I think that what we find is that -- and we'll talk about this -- is the structure contrast is the area where the -- depending upon the viewer orientation, you may have a variation in terms of, in this case, a higher or lower level of contrast. And I'll explain that.

CHMN. WOODALL: Are you talking about in terms of weighting them like -- depending on, in a particular case, structure contrast might be a much more important factor than in another?

THE WITNESS: It could be more important, yes, absolutely, in terms of what the impact could be. Yes.

CHMN. WOODALL: And would you -- first of all, do you do some sort of calculation or computation of

weighting these factors or assign a number to them?

THE WITNESS: No. We didn't do like a real sophisticated numbering type of a system with the calculations. We have tried that in the past, and I think at the end of the day -- and you'll see the process that we go through. It's based on experience and, I think, looking at it and then making assignments based on definitions that I will share with you.

Next.

Next on that slide.

One of the things that we have to take into consideration when we're looking at the evaluation of impacts that's really important has to deal with mitigation. We've been in front of the Committee many times where we talk about how mitigation can be utilized to reduce visual impact, and in this case it's no different than any other project.

What you're looking to do is to match the project up as much as you can with what is out there, because in so doing you're limiting the disturbance and you're also reducing the contrast. So things like matching the structure types, the spans and tower types to the extent feasible, and in certain locations having the ability for selective tower placement. Let's say the agency thinks that in a certain area they would like

to selectively move a tower. You can do that within the tolerance of the engineering if that's something that you want to do.

Obviously, the use of dulled steel structures and nonspecular conductors, you have seen the pictures. That's a very, very important type of mitigation. And then, finally, the use of the existing access.

Go to the next on the right and next on the left.

So, Chairman Woodall, you asked the question about how do you determine these levels. What we would like to do now is just walk through a summary, an overall summary of contrast, based on our evaluation given the project with these different elements.

With respect to land form contrast, it's been identified that no new, additional major access is going to be required. I think we've seen the condition of the pipeline road. And that in most cases, given the landscape that's out there, especially in the flat areas, we wouldn't anticipate a lot of modifications to the terrain.

So the grading and modifications to the land form in the area in general are anticipated to be limited, and, again, they would be associated primarily with access to the proposed new tower pad sites.

If you were to look at the design the way that it's intended at this point, you use the existing roads, and then you go around the towers when they are on the far side of the road in order to construct the next tower.

So given those sets of assumptions, if you begin to look at what the contrast levels could be, I think -- and if you look -- again, if you look at the photographs that we've taken, we're thinking that you're probably in this -- actually kind of between what would be a weak to moderate where the contrast can be seen, but it doesn't take attention to the point of actually dominating.

Next on the right.

Vegetation is quite similar. Given the existing access, vegetation clearing, and primarily in areas of desert shrub, the creosote, is going to be, as we understand it now, primarily limited to spur road construction. So, again, you're going to have places where you're going to see it and it may attract attention, but it's not going to dominate the characteristic landscape overall.

CHMN. WOODALL: Mr. Arwood.

MEMBER ARWOOD: I have a question of Mr. Palmer.

The existing spur roads, are you saying that you need to build new spur roads to the new tower pads, or would they use existing spur roads?

THE WITNESS: They would use the existing spur roads if -- let me put it to you this way. If the transmission line is to the --

MEMBER ARWOOD: The roadside.

THE WITNESS: Yeah. Okay. It's to the right side, and I'm going to be on the left side. You probably use the road that goes up to that other tower pad site to put that road in. If you were to the other side, they will use the extent of that road up to a point where they would then go around and place the other facility.

Obviously, these things are terrain dependent and it will vary somewhat. I think that at the end of the day you look at how much road do you actually need to get to that pad site, and you would limit that to that traditionally.

MEMBER ARWOOD: Thank you.

THE WITNESS: Next on the structure.

This one is an interesting one in that given the proposal that's in front of us, first of all, we're paralleling the existing line. The new structures are going to match in terms of what is called the form,

line, color, and texture, the elements that you look at in the existing towers. The spans and tower heights would match the existing line to the extent feasible.

In this case, the overall contrast we would say would be weak. That could climb up to something that would be considered a little bit more moderate based on a viewing condition. And so these are the three elements that we're looking at in conjunction now when we're doing impact assessment.

Go to the next slide.

If I were to characterize overall now looking kind of from one end to the other of the Kofa, I think we have determined that you are probably going to be in a weak to a moderate to weak condition where the element contrast will be seen but does not attract attention or dominate the view beyond the condition that's out there given that we have an existing line.

The proposed 500 line will be designed similar to the existing line and match existing tower spans, and it's anticipated to require limited grading and vegetation removal.

Next on the right. And you can turn this one off.

So we went through and we talked about the scenic quality and we've talked about contrast. This

type of a method that we were presenting here in terms of levels of impact is based on other studies that we've done that's very consistent with those in terms of what we have found the impacts to be on scenic quality.

The reason that you do scenic quality impacts is that you want to be able to try to characterize the effect that a project may have on the environment independent of viewers. This gets back to the notion that all landscapes have a quality that regardless of whether or not they're seen, there's value to it.

So these are the conditions that we're looking at in terms of contrast. These are the scenic quality rating units from our perspective in our analysis. That's going to put us into this kind of arena in terms of impacts from moderate to low to low.

Next.

This pretty well summarizes what I just described. I think, without a question, if you look within the region, there's some areas that have some real high scenic quality.

But based on the criteria that's applied using the BLM system in terms of A-, B-, and C-class scenery, what you find is that independent of a jurisdictional boundary, that these are landscapes that we would call common to -- not common. I refrain from that. They

have little variety as you saw through some of the pictures, up to some where you have more variety, but certainly not what we would call A-class scenery. Some of it is higher B-class scenery, but there's other areas on the Kofa, if you were to go there, for those of you that have been that I think would understand that.

So the introduction of the 500 kV line adjacent to the existing line -- and this is really important -- in the modified setting would, from our perspective, result in less than significant impacts.

Next.

CHMN. WOODALL: Mr. Wayne Smith.

MEMBER SMITH: Mr. Palmer, if this was the primary routing, the first routing, would your evaluations be much different than they are now with a parallel routing?

THE WITNESS: You know, we've talked about that, Mr. Smith, and I would say, yes, they would. The fact of the matter is -- well, first of all, having the pipeline corridor there would be to an advantage in terms of siting. No doubt. But as opposed to having an existing facility out there, that just makes it that much better.

Having not conducted an analysis independent of that, I could tell you, though, I think with some manner

of certainty, that you would have higher impact if it was in an area where you did not have that existing 500 kV transmission line and the access that's been built into it.

MEMBER SMITH: Would you say that the original line was put in the proper place as far as your evaluations go?

THE WITNESS: You know, quite frankly, I think in a lot of ways it's a good location in that you have a pipeline corridor. When the original line was developed, I believe that the definition of some of the wilderness areas and things may have been a little bit different.

But purely from the perspective of having access into this area, I can tell you this. This would be an alternative that you would look at real hard in terms of siting.

MEMBER SMITH: Thank you.

THE WITNESS: Impact to sensitive viewers. And, Chairman Woodall, we may digress a little bit here to answer some questions that you had regarding recreation.

We definitely acknowledge the fact and believe in the fact that in this area you have high sensitive viewers. I preface that by saying that while you have

high sensitive viewers in a way with the presence of the existing line, it would be my professional opinion that that's been conditioned somewhat. In other words, you have sensitive viewers on the Kofa. But if you've been in the Kofa in this area over time, it's an area that you understand has been modified. It's just something to take into consideration.

In terms of a request regarding information, Mickey and I got in and we tried to get a handle on the amount and volume of use in the area. And the numbers that you see here are indicative of that.

And, Mickey, you can jump in if I overstate something or understate something, but the interagency management plan and the environmental assessment in 1996 had estimated approximately 500,000 users per year on the Kofa, and 500 users per year for the New Waters Mountains Wilderness Area. And I believe the recent numbers are close to that; correct? Okay.

CHMN. WOODALL: I think maybe you misspoke. I think you meant 50,000.

THE WITNESS: 50,000. Pardon me.

CHMN. WOODALL: I was thinking that's a lot of bird watchers.

THE WITNESS: Yeah. What we were able to glean from the information that we got most recently from Fish

& Wildlife was that approximately 6,000 cars entered on the eastern side of the corridor. Visitors. Okay. And 7,000 on the western. We were not able to obtain information regarding the specifics of why they chose that and what their preferences were for the activities that they were using. It's a count that simply represents that. Whether or not 6,000 came in one side and went out the other, we don't know. But it gives you a relative understanding, I think, of the volume when compared to the rest of the Kofa.

CHMN. WOODALL: Mr. Palmer, it says annual visitor estimates are approximately 6,000.

Are you assuming that there's one visitor per vehicle or more than that, Mr. Siegel?

WITNESS SIEGEL: The information was given to us by the Deputy Refuge Manager, Susanna Henry. And they have not -- you know, this was in response to the interest in the trend data on recreation use, what sort of trends have occurred over time.

As it turns out, the Kofa doesn't publish any of that information, but they do have -- they do collect some information on recreation use. They use it for their internal management plan and work.

So, first of all, on the 50,000 users per year -- and, again, that's estimates that are based on

these vehicle counts -- they actually don't have estimates or any survey of actual persons using the refuge. But they count vehicles at six locations around the boundaries of the Kofa National Wildlife Refuge.

MR. ACKEN: Dave, it might be helpful to put up that slide. Thank you.

WITNESS SIEGEL: And they have, in terms of trends, 50,000 seems to be fairly consistent. There have been years where it's been as low as around 45,000, and some years in the upper 50,000's. The most recent year, I think in 2005, was just slightly more than 50,000, but I don't have the exact number. It seems to be around that.

Now, the visitor -- to answer your question, about the estimates. So there's an estimate based on vehicle count. There's six -- actually, the 5,977 vehicles tripped the counter at the Vicksburg Road entrance during the calendar year 2005. And there were 6,988 counted vehicles on the western end, which is Crystal Hill Road. We were just looking at those photos of those two points.

Now, I said vehicles. Once again, I have to correct myself. Those are estimates based on the number of vehicles. There's a ratio applied, and I don't know what that ratio is. But if there were three persons per

vehicle, there were 2,000 vehicles. So the estimate would be 6,000 visitors based on the vehicle count.

So there were -- you know, they do not -- I haven't been able to find the formula that's used to create those estimates, but you would say roughly, you know, maybe it's 2- or 3,000 vehicles that generates 6,000 to 7,000 visitors.

CHMN. WOODALL: I'm somewhat confused because in the second bulletpoint you say they estimated 50,000 users per year, and then the next bullet point says annual visitor estimate on vehicle counts are 6,000.

Surely we don't think that there are like eight people in a vehicle. So can you explain the difference between users and --

WITNESS SIEGEL: I'm sorry it is confusing. 50,000 is for the entire refuge. And there are six entry points where vehicles are counted surrounding the refuge all the way from north to south.

The 6,000 and 7,000 refer only to those two points on the northern end of, basically, the pipeline road that goes through the very northern part of the refuge.

CHMN. WOODALL: Thank you. That helps me a lot.

WITNESS SIEGEL: I hope so. Thank you.

CHMN. WOODALL: Mr. Arwood.

MEMBER ARWOOD: Actually, that was my question.

Q. (BY MR. ACKEN) Mr. Palmer, just to clarify the estimates of 6,000 on the east and 7,000 on the west, it's quite possible that those have some double counting?

WITNESS SIEGEL: And I think we would all agree that we don't know the method of counting. They could be vehicles coming in and out. Those are not all visitors either. There's maintenance vehicles. There's other -- anything that goes up and back over a traffic counter trips it and registers a count.

MR. ACKEN: Thank you.

WITNESS PALMER: The last bullet that you see here actually indicates information that we gathered when we were out in the field in June when we stopped at the Kofa Cabin. We went inside the cabin, and at least at that point in time they had like a logbook that illustrated the number of people who had utilized that facility, or at least signed in.

Next on the right.

So similar to what we did for scenic quality, what we do in order to determine the impacts is again to look at contrast. Now, in this case, we're factoring in the viewer. And as I said earlier, our biggest criteria

that we use in conjunction with that is the distance to the project. It goes without saying that from the pipeline road you have many or most conditions where at some point in time or another you're probably in this range. Although, one of the interesting things about the dynamic of traveling on that road, and I think you can see it through the photographs that were taken, is that as you move farther away, the contrast obviously is reduced.

One of the things that we consider when we're looking at an area where, say, for instance, you're viewing the transmission line and the contrast in this area is weak, if it's weak based on the fact that we're not seeing manipulation changes in vegetation, we're not seeing any new access from a view, yet when we introduce the transmission line the structure is the same, we sometimes will take the liberty to elevate an impact based on a specific condition.

And so the range of impact that we would anticipate, given different viewing conditions at these different distances from sensitive viewers, is what you see here.

Next.

And that led us to this particular conclusion with respect to the visual study. That the project

would be seen from the Kofa and wilderness areas from locations ranging from the immediate foreground along the existing pipeline transmission line access road to the middle ground and beyond. And that's going to be primarily your dispersed recreational users, assuming that you have someone in the wilderness area who is viewing more than likely down into the corridor.

I think it's important to note, and I think you saw through the slides, that the views, while you may look one direction and have a view that you could say is independent of the actual facilities, by virtue of the viewer experience along that road these views are going to be within the context of the existing transmission line. And, therefore, when you're seeing that landscape from my perspective, it's in a setting that's been modified.

And so that in and of itself with the other elements leads to a reduction in overall contrast, and it's going to keep those impacts in a range of what we would call generally low to moderate.

Now, having said that, one of the things that we do in any visual study -- why don't you go to the right -- is we prepare visual simulations that we use to try to evaluate different conditions. And this is also typical of what the BLM would expect in terms of looking

from key viewpoints.

Q. (BY MR. ACKEN) Mr. Palmer, the slides shown on the right, where can that be found?

A. The slide on the right can be found in and amongst or at the end of the photographs that we had, I believe. The last part of that tab.

Q. End of Tab 2 of Applicant's Exhibit A-8.

A. Okay. Can you go back to the -- go back. Right. Okay.

So this would be typical of an evaluation performed using this as a viewpoint. This is an area along the pipeline road. The view location is shown on this map. And, actually, if you would like to turn back to the maps that we have provided that we used on the photographic tour, you might just want to pull that out to get a sense of where we're at. It's the viewpoint location map, and it's going to be Page 17.

What we did is kind of spread these simulation points around in kind of different conditions. But if you were to use the chart that we have over here in the way of contrast and looking at this view -- again, understanding that the views are dynamic here -- what you would say is that by virtue of the way that the project has been constructed in this view, you don't see changes in land form. You don't see changes, really,

modifications in vegetation, and you have got structure matching.

However, our contention would be that in an area like this, when you begin to get facilities skylined, that's where you're running into something that is viewer driven, and you're going to take that into consideration when looking at elevating this to a somewhat higher impact to moderate.

It's not absolutely scientific, let's say, but it's a process that one goes through in terms of looking at -- well, I take that back.

It is in a way scientific in that what you're trying to do is take into account the different kind of viewing conditions that are along an area that is very dynamic in terms of -- as you have seen from the photographs and you'll see in the next simulation.

This is the view from the Kofa Cabin. And it's difficult, at best, although you would see the structures in this area, but they're very, very small, the additional structures. And that's a function of viewing this from a greater distance.

And so in this kind of a situation where you're out to a mile, you're going to have an impact level that's going to be running lower, and it's going to be based -- really, the factor here is the distance

combined with the fact that it is absorbed in the landscape.

Next.

This is a view looking towards the Livingston Hills. One of the reasons we chose this is you've got a modification in this area that is something that you need to take into consideration. This is one of the valves in here.

But, again, if you look at this, we're probably talking about -- certainly, this first set of towers is going to be in the foreground area. You're not seeing a lot of modification in terms of vegetation and land form. You are going to have some skylining, so you're going to be kind of in this zone in terms of impact.

Q. (BY MR. ACKEN) Are those valves associated with the pipeline?

A. Yes, they are.

Q. Thank you.

A. Next.

We'll come back to this particular view, because, I think at the end of day when we talk about the comparison with other studies that were done, this is reflective of the simulation that was used to make the determination in the EIS/EIR, as far as we can tell, regarding the significance of impacts.

From this particular view, you're looking at structures here that are about 1,000 feet away. You've got -- this is the existing structure. This is the existing structure. There's another structure here. There's another structure here.

Again, through our evaluation in looking at contrast levels and looking in this range, which is certainly the first structure is going to be within that first distance zone, we're looking at something that's going to range in this area. And, quite frankly, the only thing I think that probably kicks that up to a moderate is in areas where it's skylined as opposed to backdropped, where in here it becomes, you know, somewhat indiscernible.

The last view that we have in terms of the simulation, this is the view looking into the Kofa from the entry. And you have a whole series of structures that are crossing through here. However, the distance in particular that you're looking at is going to make those impacts relatively low.

Now, having said that, if you turn to the side -- yes -- you would see those structures and they would be in closer, but you're still -- based on the evaluation model that was used, this is pretty much where you're going to be running in that area depending

upon how far away.

When dealing with a roadway, it's different than a static position because of the variables that you have in terms of the proximity of the line to you. Obviously, the closer the line, the higher the potential for impact. The worst possible situation you're going to have is when they're in close and you're looking at them, but by virtue of the -- they're in close and they may be closer than the existing structure, but I think the premise of our studies is that you have something out there that even in that situation you already have a view that's being dominated by an existing facility that's in close.

Next. Go to the next one on the right.

So, actually, let's go to the next one. We already went through that. Next on the right.

Chairman Woodall, the other question that was posed with respect to our findings was to maybe chat a little bit or talk a little bit about some of the other studies that were done, understanding that the results were somewhat different.

What you see on the right is a listing of the studies, as we understand it, that have been performed in this area. The first, the supplemental EIS that was done in 1987, followed by the work that we have recently

conducted in 2005 and are submitted in the PEA in 2005 and in the CEC application in 2006, and then the recently submitted draft environmental impact report and environmental impact assessment.

And in reviewing what was Page 132 of the supplemental EIS, I guess, although we could talk about a lot of the elements that it describes, I think in essence the variation that we have between that document and the call-on significance was that in that evaluation it was determined that the visual contrast that impacts would be characterized as high because of the change in visual contrasts and dominance which would occur.

So our contrast evaluation led us to the results that you saw here today. I could not find in that document anything that was, let's say, quantitative to understand how they arrived at that conclusion.

With respect to the draft EIR/EIS --

CHMN. WOODALL: Excuse me. Mr. Palmer, the first study that you referred to, the 1987 study, was that done by Dames & Moore?

THE WITNESS: No. It was not done by Dames & Moore. It was done by a group called Westco.

CHMN. WOODALL: Thank you.

Q. (BY MR. ACKEN) Mr. Palmer, are you familiar with the methodology that was used in that 1987 study?

A. What I know is that they in the document said that they used the BLM system.

Q. Okay.

A. With regards to the more recently compiled EIR/EIS, I think there's two things. As we went through it -- and it's a voluminous document, but two things struck us that kind of separated out our approach versus theirs.

Number one, they used the BLM system on BLM lands. Then when they got to the Kofa, as they did on other, let's say, privately owned lands that would be crossed, they used what is called the visual sensitivity visual change system. Now, by and large, those elements are somewhat the same, but no doubt there's a difference in the approach that was utilized there.

Our decision to use the BLM conceptually -- well, to use the BLM in areas that represented natural settings, again, was to maintain consistency regardless of whether we were on the BLM or whether we were on the Kofa. Because in some ways, to us, boundary lines are not necessarily indicative of different conditions in terms of landscape. That was number one.

The second thing that we gleaned from evaluating their document was that through the use of the VSVC system, the study area for visual analysis was

defined by numerous viewpoints from which the proposed project would be seen.

Through all of the documentation that we saw, the characterization of significant impacts across the entirety of the Kofa was based on an evaluation of this specific visual simulation for which we just went through and explained our rationale for impact versus theirs. In that assessment, they use certain other criteria, things like view blockage as one of the indicators in terms of impact level. And so the criteria that they used were different than ours.

And so the other thing that I think of note was that in looking at that evaluation, you can come to a conclusion on potential significance; however, at the end of the day, like with a lot of visual studies, the determination of significance is based on the evaluator's perception.

CHMN. WOODALL: Mr. Palmer, the study that was done, the analysis that was done in the draft EIR/EIS by Aspen and BLM, you said they used the BLM study methodology through the BLM lands, and then they used this second methodology on private lands --

THE WITNESS: Yes.

CHMN. WOODALL: -- through the Kofa?

THE WITNESS: And through the Kofa.

CHMN. WOODALL: This second methodology, is it something that is set forth in regulation or statute in California, or does the California Council of Environmental Quality require the use of this analysis? Do you know?

THE WITNESS: No. Not to my knowledge. In fact, I would say that in our visual study work we have never come across this type of an approach before.

CHMN. WOODALL: So we really don't know why they used this particular methodology?

THE WITNESS: Well, one can always make conjectures. I think that if you look at the criteria that the state of California has, they talk about things like view impairment and sensitive light sources and things like that.

View blockage, in particular for us, was kind of an interesting concept because, trust me, we look at things that deal with view blockage, but we talk about that primarily from the viewer's perspective in terms of whether something is screened or not.

I think transmission lines by their sheer nature, and especially lattice structures, are designed such to eliminate that, which I think is evidenced through what we've seen here today in terms of how they look when they are especially backdropped by something.

So that the nomenclature that was used is different. It's not something that we've seen in any recognized system, but that nonetheless was what was utilized.

Q. (BY MR. ACKEN) As a follow-up to Chairman Woodall's question, who developed the methodology that was used in the draft EIR/EIS?

A. Who developed that?

Q. Uh-huh.

A. Aspen did, and I believe a gentleman by the name of Michael Clayton.

Q. Okay. So this was Aspen's own methodology developed for use in this project?

A. Near as we can tell.

Q. Thank you.

A. So having said that, if you can go to the next slide. I guess I would like to summarize.

And this may be overly simplistic, but I think from the standpoint of visual resources, and I think the standpoint from our perspective in having done a lot of these different projects, I guess I jump to the second bullet, which is that the location of the facilities combined with the project design and mitigation effectively reduce impacts to visual resources on the Kofa refuge. And I think a lot of that has to deal with

the fact that you're in a setting that has been highly modified by the presence of the existing transmission line as well as the pipeline.

So we have sensitive viewers, yes, but we have a corridor that's been modified, and from the standpoint of development of a new transmission line is a place where placing a new transmission line, and all things considered, is a good location.

Q. Do you have any additional comments for the Committee concerning the visual impacts in the Kofa?

A. I don't know. Maybe it gets back to what Mr. Smith was talking about. When we do visual studies and when we get involved in doing visual studies, if you were to take this back to kind of the feasibility side, Mr. Smith, where you're looking at alternatives to try and site a power line, the kinds of criteria that you would look for in terms of location of the facility would be things like -- first of all, you would say, well, do we have any existing transmission lines out in the landscape? And if you find those existing lines or corridors, you like that.

If you find a 500 kV corridor, in this case it's something that you would look at really hard in terms of siting because you have that place. If you couple that with the fact that you have got wonderful

existing access and a setting that has been somewhat modified, you're going to look at that real hard.

So, you know, we're talking about impact assessment right now. But when you think about it philosophically and you look at putting corridors into the landscape, these are the kind of places that you look to place them.

MR. ACKEN: Thank you.

Chairman Woodall, it's approximately 12:30. Would you like us to continue or did you want to take a lunch break at this point?

CHMN. WOODALL: I think this would be a good time to take a lunch break. Let's do an hour. So we'll be back at 1:35.

(A recess was taken from 12:35 p.m. to 1:45 p.m.)

CHMN. WOODALL: We'll go back on the record at this time.

Mr. Acken, had you concluded with your examination of Mr. Palmer?

MR. ACKEN: With respect to the issues associated with Kofa, yes.

What we would like to do now is have both Mr. Siegel and Mr. Palmer available. I have a couple of more follow-up questions, and then they would be

EXHIBIT 2

PUBLIC UTILITIES COMMISSION
STATE OF CALIFORNIA
505 VAN NESS AVENUE
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DIAN M. GRUENEICH
COMMISSIONER

TEL: (415) 703-2444
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VIA OVERNIGHT MAIL
AND FACSIMILE

Friday, December 22, 2006

J. Paul Cornes, Refuge Manager
Kofa National Wildlife Refuge
356 W. 1st Street
Yuma, AZ 85364

Re: Draft Compatibility Determination By Kofa for the Proposed Southern California Edison Devers-Palo Verde No. 2 500 kV Transmission Line

Dear Mr. Cornes:

I am the Assigned Commissioner on the Devers-Palo Verde No. 2 (DPV 2) transmission project that is currently being considered for approval by the California Public Utilities Commission (CPUC) (Application 05-04-015). The CPUC is the primary public utility transmission siting and permitting agency in California, and I am the Assigned Commissioner on every major transmission siting case currently before the CPUC. I fully anticipate that the Commission will vote to approve the DPV 2 project at our January 25, 2007 business meeting.

I am writing to express my deep concern regarding the November 2006 draft compatibility determination (Draft CD) prepared by the Kofa National Wildlife Refuge (Kofa) staff. Notwithstanding the fact that DPV 2 would parallel the path of an existing 500 kV transmission line through the Kofa (DPV 1), the Draft CD concludes that the proposed DPV 2 project is incompatible with the purposes and mission of the Kofa and is therefore "eliminated from further consideration." CD at 13. These proposed determinations concern and puzzle me for several reasons.

The Route Through The Kofa Has Been Determined To Be The Environmentally Preferred Route. As you are probably aware, the CPUC and the United States Bureau of Land Management (BLM) are co-lead agencies and prepared a joint environmental impact document with regard to the DPV 2 project (EIR/EIS). The U.S. Fish and Wildlife Service (U.S. Fish & Wildlife) provided comments on the draft EIR/EIS and

also reviewed the administrative draft of the Final EIR/EIS. The Final EIS/EIR reviewed a route for the DPV 2 project that goes through the Kofa and found that the route through the Kofa was the environmentally preferred route when compared against three other routes designed to avoid the Kofa. All of the alternatives reviewed in the Final EIR/EIS would have more impact on the wildlife than the proposed alignment of DPV 2 through the Kofa, which would run directly next to the existing DPV 1 transmission line.[1]

DPV 2 Is a Critical Addition To California and Regional Transmission Infrastructure. DPV 2 is the first of several transmission lines that the CPUC will be permitting in the next few years in order to address nearly two decades of underinvestment in California's transmission infrastructure. While California survived the July 2006 heat storms, the transmission system was strained, and we may not be so fortunate next time. New infrastructure is needed both to address growing demand in new areas of the state, and to bolster the aging infrastructure we currently rely upon. In summary, California's transmission situation is critical and DPV 2 will go a long way to address that situation. DPV 2 will strengthen electrical ties between California and Arizona, relieve congestion on existing lines, provide benefits to both California and Arizona electricity consumers, and expand California's and Arizona's abilities to access other sources of energy. Pursuant to the Energy Policy Act of 2005 (EPAct), the Department of Energy released a study in August, 2006 that identified Southern California as one of only two "Critical Congestion Areas" in the United States (DOE Study). DPV 2 will address that concern.

Kofa Only Recently Indicated That There Was A Problem With Siting DPV 2 In The Same Corridor As DPV 1. It is my understanding that Southern California Edison Company (SCE) has been in contact with Kofa staff since 2003 regarding the proposed DPV 2 project and that Kofa staff never indicated any concern with siting DPV 2 parallel to the existing DPV 1 until the last half of this year. In order words, during the past 2 ½ years, Kofa staff never raised any objections. Certainly, given the fact that Regional Director of U.S. Fish & Wildlife granted a Certificate of Right-of-Way Compatibility for DPV 2 in 1989, SCE had no reason to believe that a similar determination would not be made in 2006. It is my understanding that SCE did not learn until the last 2 months that Kofa staff might claim that a change in law could arguably render DPV 2 incompatible with the purposes of the Kofa. This evident change in position, at the end of the environmental review process, and within months of CPUC approval of the line, is distressing.

Alternative Routes Around Kofa Are Not Environmentally Preferred And Will Unnecessarily Delay The Construction Of DPV 2. Transmission projects require many years of planning, including permit acquisition and environmental review time. Forcing SCE to pursue alternative routes around Kofa will unreasonably delay the construction of DPV 2 by a year, or more, and result in more, not less, environmental damage. Urgently

[1] I understand that BLM staff will file comments addressing the numerous errors in the Draft CD related to the conclusions of the Final EIR/EIS, and so I will not belabor those points here.

needed measures to reduce transmission congestion, such as DPV 2 , should not be delayed.

In conclusion, California cannot wait any additional time to begin construction so that this line can be brought into service. As demonstrated by the DOE Study, this is a matter of Federal interest. I believe that you have the authority, based upon the lack of significant impacts associated with this environmentally preferred route, to find that DPV 2, similar to DPV 1, is compatible with the purpose of the Kofa - the conservation and management of wildlife. Consequently, I respectfully request that you exercise this authority and modify the Draft CD to find DPV 2 compatible with the purpose of the Kofa, and that you then timely issue a right of way permit in reliance on the existing EIR/EIS.

I thank you, in advance, for your attention to this matter.

Sincerely,

Dian M. Grueneich
Commissioner

cc: **Via U.S. Mail:**
Dr. Benjamin Tuggle, Director of Southwest Region, US Fish & Wildlife Service
Todd Jones, US Fish & Wildlife Service
Jeannie Wagner-Greven, Manager of Refuges, US Fish & Wildlife Service
Lindsey Smythe, Kofa Biologist
Kevin Kolevar, Director of Electric Delivery and Energy Reliability, U.S. Department of Energy
Brian Prusnek, Deputy Cabinet Secretary, Office of Governor Schwarzenegger
Yakout Mansour, CEO, California Independent System Operator Corporation
Ron Litzinger, Senior Vice President, Southern California Edison
Les Starck, Director of Federal Regulatory and Legislative Affairs, Southern California Edison
Administrative Law Judge Charlotte TerKeurst
Billie Blanchard, CPUC CEQA Analyst

Via e-mail:
Service List for A.05-04-015

EXHIBIT 3

azcentral.com

Power lines poor partner for Kofa bighorn sheep

Dec. 24, 2006 12:00 AM

Stark mountains rise abruptly out of the desert flats at the Kofa National Wildlife Refuge. The beautiful, forbidding landscape is a haven for one of Arizona's most striking animals, the desert bighorn sheep.

The importance of maintaining this pristine desert area was obvious even in the early decades of Arizona's statehood, when population pressures had barely begun to squeeze wildlife. The refuge, near Quartzite and about 10 miles south of Interstate 10, was officially established in 1939.

Now a California utility wants to build a transmission line across 24 miles of Kofa. The proposal calls for 85 towers, each 150 feet tall.

It's part of a project, labeled Devers-Palo Verde No. 2, to transport power from the Harquahala generating plant, near Palo Verde in Arizona, to the California market.

Southern California Edison already has one 500-kilovolt line through the refuge, constructed a quarter-century ago. This would follow the same right-of-way, and the company contends that it would add little to the existing impact.

But Arizona is a far different place from the days when the original line was approved. The threats to our wildlife have grown, and we're more aware of the impacts of development.

Those are among the reasons that a large part of Kofa, more than three-quarters of its 665,400 acres, was designated as wilderness in 1990.

The U.S. Fish and Wildlife Service, which administers Kofa, has issued a draft decision on whether building another transmission line is compatible with the wildlife refuge.

The conclusion: No.

And there are strong reasons behind it.

The original transmission line introduced an industrial use, permanent and irreversible, into what is supposed to be a natural landscape. The proposed project would basically double the impact, further degrading the character of the refuge.

The cumulative effect on wildlife is unclear, but the potential is worrisome. Migratory birds, which use Kofa as a corridor, are vulnerable to hitting transmission lines, and one study indicates that as many as 20,000 a year could die from the addition of a line. The construction of spur roads to access the towers could cause problems for reptiles like desert tortoises and Gila monsters.

Kofa's bighorn sheep herd has been declining for unknown reasons, dropping from 815 in 2000 to an estimated 390 this year. Any additional disturbance or fragmentation of their habitat could compound the problem.

Southern California Edison representatives say the company will take steps to offset the impact of the power line, including avoiding construction during the lambing season.

They point out that an environmental impact statement for the project identified the Kofa route as the preferred alternative. Other possible routes in Arizona would destroy larger areas of desert habitat in areas administered by the Bureau of Land Management.

That leads to a more basic question: Should this line be built in Arizona at all?

The state line-siting committee and the Arizona Corporation Commission will make that decision in 2007.

Among the points they'll consider is whether the extra demand from California would drive up electricity prices for Arizona consumers, and whether our own population needs the generating capacity at Harquahala.

The immediate issue, though, is Kofa. The U.S. Fish and Wildlife Service is taking comments on its draft decision through Friday.

The mission of America's system of refuges is to conserve wildlife and plant resources for the benefit of present and future generations. Transmission lines aren't part of the definition.

To read the draft compatibility determination, go to www.fws.gov/southwest/refuges/arizona/kofa.html. Comments may be sent by e-mail to Debbie_Pike@fws.gov or by fax to (928) 783-8611.