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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 500k alternating current transmission line and related facilities in Maricopa and La Paz Counties in Arizona originating at the Harquahala Switchyard west of Phoenix, Arizona and terminating at the Devers Substation in Riverside County, California.	Case No. L-00000A-06-0295-00130 **NOTICE OF FILING**

Sierra Club - Grand Canyon Chapter hereby provides notice that it is filing the Compatibility Determination issued by the United States Fish and Wildlife Service on or about November 28, 2006. The Service's preliminary determination is that the installation and maintenance of the Devers Palo Verde No. 2 transmission line across approximately 24 miles of the Kofa National Wildlife Refuge is not compatible with, or would detract from, the National Wildlife Refuge System mission, refuge purposes, and unit specific goals and management

actions. The determination of incompatibility is subject to a 30-day comment period after which the Service will take final action.

DATED this 11th day of December, 2006.

ARIZONA CENTER FOR LAW IN THE PUBLIC INTEREST

By _____
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ORIGINAL and 25 COPIES of the foregoing filed this 11th day of December, 2006, with:

Docket Control – Utilities Division
Arizona Corporation Commission
1200 W. Washington
Phoenix, AZ 85007

Copies served electronically this 11th day of December, 2006, to:

All Parties of Record

_____

Compatibility Determination

Proposed Use: Public Utility Right-of-Way for Southern California Edison (SCE) to provide for the installation and maintenance of a 500-Kilovolt electric transmission line, Devers Palo Verde #2 (DPV #2) across approximately 24 miles of Kofa National Wildlife Refuge (Refuge), a unit of the National Wildlife Refuge System (System) in Southwestern Arizona. This use is not considered an emergency, nor is it considered a priority use for Kofa NWR or the National Wildlife Refuge System.

Refuge Name: Kofa National Wildlife Refuge

Establishing and Acquisition Authority(ies): 1) Executive Order 8039; January 25, 1939; 2) Public Law 94-223, an amendment to the National Wildlife Refuge System Administration Act of 1966; [16 U.S.C. 668dd (a)(2); 90 STAT. 199]; February 27, 1976; And 3) Public Law 101-628; [104 STAT. 4469]; Arizona Desert Wilderness Act, Title III -Designation of Wilderness Areas to be Administered by the United States Fish and Wildlife Service; November 28, 1990.

Refuge Purpose(s): "...set apart for the conservation and development of natural wildlife resources, and for the protection of public grazing lands and natural forage resources." [Executive Order 8039]

"...consolidating the authorities relating to the various categories of areas that are administered by the Secretary of Interior for the conservation of fish and wildlife, including...game ranges...are hereby designated as the National Wildlife Refuge System...and shall be administered by the Secretary through the United States Fish and Wildlife Service." [National Wildlife Refuge System Administration Act of 1966, as amended]

"...certain lands in the Kofa National Wildlife Refuge, Arizona, which comprise approximately 510,900 acres and certain other public lands comprising 5,300 acres which are hereby added to and incorporated within such refuge (and which shall be managed accordingly)...areas designated under this title shall be administered...in accordance with the Wilderness Act..." [Arizona Desert Wilderness Act of 1990]

National Wildlife Refuge System Mission:

The mission of the 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.

Description of Use:

SCE proposes to construct a new 230-mile, 500-kilovolt (kV) electric transmission line, DPV#2, between Devers Substation in California and Harquahala Generating Substation in Arizona (near Palo Verde Nuclear Power Plant), and to upgrade 48.2 miles of 230-kV transmission lines in California. The route would pass through approximately 24 miles of the Refuge (MP E53.3–MP E77.6), within the Harquahala to the Colorado River segment. The proposed electric transmission line is not within an existing ROW. It would be installed parallel and adjacent to the existing 500-kV electric transmission line (DPV#1) constructed in the early 1980's. Approximately 100 acres would be affected by the project within the 24-mile ROW segment on the Refuge. The project has been certified by the Fish and Wildlife Service (Service), Division of Realty to be outside the Refuge's designated wilderness.

As proposed, there would be a total of 85, 4-legged lattice towers installed on the Refuge during the installation of DPV#2. These towers will be installed within a 130-foot ROW; a distance wide enough to accommodate the new tower structure and to prevent arcing with DPV #1. The towers are approximately 96' wide at the top, 40' wide at the bottom and 150' tall. Each tower would be accessed via extension of existing spur roads. On average spur road extensions would be approximately 14" wide and 130' long. They would be graded initially, but maintained in an unimproved status into the long-term. The foot-print of each tower on the ground would vary, depending upon the location of the tower and the terrain in which it is installed. Construction would require short-term use of heavy equipment such as cranes, drill rigs, dozers, excavators, compressors, generators, and trucks. Helicopters would also be needed to transport construction materials and to string the conductors for the overhead line. Construction would be initiated in 2008 and completed within 2 years.

SCE's stated purposes for the Proposed Project are fourfold (Aspen Environmental Group 2006): 1) Increase California's Transmission Import Capability; 2) Enhance the Competitive Energy Market; 3) Support the Energy Market in the Southwest; and 4) Provide Increased Reliability, Insurance Value, and Operating Flexibility. The project is being proposed on the Refuge because of the existing 500kV electric transmission line (DPV#1) and associated ROW, and to avoid potential impacts to public lands administered by the Bureau of Land Management (BLM) north of the Refuge.

Availability of Resources: The issuance of the ROW for DPV#2 would be at no cost to the U. S. Fish and Wildlife Service (Service). The Service has a reimbursable agreement with SCE to cover all salary costs allocated to the project during the planning and construction phases. However, a considerable amount of time would be allocated by staff in attending meetings and monitoring construction during calendar years 2007–2008, which would take time away from work on other priority projects and activities. Refuge work most affected by the proposed includes wildlife habitat improvement projects; surveys, inventory and monitoring activities; wildlife research projects; and critical administrative duties. It is estimated that the Refuge Manager and Assistant Refuge Manager will spend approximately 40 hours each on the project over the 2-year period. It is estimated that the Refuge's Wildlife Biologist will spend over 800 hours on the project during the same period, with most of her time allocated to monitoring construction. All on-the-ground work to install DPV#2 will be handled by SCE or their contractors at no cost to the Service.

Anticipated Impacts of the Use:

I. The following impacts are summarized from the 2006 Final Administrative Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Refuge segment of DPV #2 (Aspen Environmental Group 2006):

Vegetation and Soils. There are 5 woody species and 8 cacti species that are protected under the Arizona Native Plant Law that would be impacted by the project on the Refuge. No Federal or State listed plant species occur on the Refuge. The Proposed Project would result in the removal of existing vegetation and disturbance of surface soils within the ROW. In addition, permanent loss of habitat would occur where new tower or pole foundations are installed, and where access and spur roads are constructed. Surface disturbance could occur during construction, operation, and maintenance of the Proposed Project especially when vehicles are driven over existing vegetation that has not been intentionally and regularly cleared to maintain utility access roads or firebreaks. Impacts would be related to movement of equipment and project personnel for monthly or annual project maintenance and during line-stringing/cable pulling. The most common type of surface disturbance is associated with rubber-tired or steel-tracked vehicles used to string/pull the line and transport personnel and materials along the project ROW. Potential impacts to plant communities could also be caused by the movement of construction/maintenance vehicles and equipment within the transmission line ROW. Impacts could include soil compaction and crushing of vegetation.

Non-Native Invasive Species. Introduction of non-native plant species would occur primarily during construction, but would also continue to occur during operation and maintenance phases of the Proposed Project. The introduction of non-native or noxious weeds would be related to the use of vehicles, construction equipment, or earthen materials contaminated with non-native plant seed, use of straw bales or mattes that contain seeds of non-native plant species, and enhanced public access to the project corridor during and after construction. Vehicles parking along access roads that contain populations of noxious weeds can also result in the introduction of these species into areas not previously infested.

Wildlife. Impacts to State listed and sensitive wildlife and plant species, such as desert tortoise and desert bighorn sheep, may occur as a result of removal of habitat and direct mortality resulting from construction and operational activities. Species such as the common chuckwalla, banded Gila monster, and desert rosy boa would have a high potential to be impacted by construction activities in this segment. While common chuckwalla has not been recorded in the vicinity of the Proposed Project, an occurrence of banded Gila monster was recorded in the Livingston Hills within three miles of the proposed ROW and the desert rosy boa was recorded in the western Kofa Mountains within five miles of the ROW.

Suitable habitat for western burrowing owl also occurs within this segment. The Proposed Project would cause direct and indirect impacts on this sensitive bird species through permanent and temporary loss of suitable habitat and the disturbance of nesting activities. Project construction could displace or result in the mortality of burrowing owls.

Due to the proximity of desert bighorn sheep lambing areas within the Refuge, impacts to the sheep during breeding and lambing periods would be potentially significant (Class II). Disturbances associated with construction may result in reduced reproductive success or mortality of young desert bighorn sheep as a result of abandonment.

In Arizona each of the Proposed Project segments contains Sonoran desert scrub habitat that has the potential to support desert tortoise. In addition, a juvenile desert tortoise was identified during surveys conducted in the Kofa to Palo Verde Valley segment west of the Dome Rock Mountains. Although Sonoran desert tortoise was not found during surveys of the other Arizona segments and the area has not been designated as critical habitat for this species, the habitat is still considered suitable for desert tortoise. In addition, desert tortoises are known to occasionally travel long distances of up to several miles or more and could move into the project area in any segment.

Recreation. Project construction activities create a number of temporary nuisances that would diminish the recreational value of the Refuge. For example, the noise, dust, and construction traffic generated during construction activities negatively affect a visitor's enjoyment of the recreation area. Recreationists may be less likely to visit this resource during project construction. The location of construction equipment may also temporarily preclude access to some recreation areas. Such a disturbance to recreational activities or a reduction in the visitation to the Refuge due to construction activities would result in potentially significant impacts (Class II).

The existing DPV#1 transmission line has already introduced an industrial component to the land use across the Refuge. While the Proposed Project would not introduce a new industrial use across an undeveloped recreation area, it would intensify the industrial nature of the ROW through the construction and operation of new towers and spur roads across the Refuge. The proposed transmission towers are large structures, approximately 150 feet in height. Given the substantial size of these structures and their industrial appearance, the proposed transmission towers would contrast with the natural landscape of the Refuge. New towers would be constructed across 24 miles of the Refuge, and as such, the Proposed Project would significantly increase the total amount of industrial development within the Refuge, further degrading its landscape and character. Long-term, operational visual impacts would be experienced by travelers and recreationists accessing the Refuge on Pipeline Road and Crystal Hill Road. Overall, development and operation of the project would change the character of the Refuge and would significantly diminish its recreational value. Impacts to the Refuge would be significant and unmitigable (Class I).

Noise. Construction activities occurring within the wildlife refuge would temporarily increase the noise within the Refuge. This would occur at the locations of construction activity and along all transport access routes, which would force all construction traffic to traverse the wildlife refuge. Within about 200 feet of the transmission line corridor, peak noise levels over 88 dBA and average noise levels over 65 dBA could occur during construction. Along access routes, approximately 75 dBA would occur with passing trucks.

Once operational, noise from the overhead transmission line would occur from corona discharge and minor inspection or maintenance activities. Inspection and maintenance along the overhead route would not change substantially when compared to the existing conditions. Audible noise from corona

discharge along a 500 kV line can be well above background ambient noise levels, especially during wet weather.

Air Quality. The project would generate localized pollutant emissions from the construction equipment over the entire construction duration. Minimal vehicular emissions associated with maintenance and repair of the transmission line would occur during operation of the powerline. Dust and equipment exhaust emissions would be caused by all construction activities especially where heavy amounts of travel would occur on unpaved roads and surfaces that would create fugitive dust. Use of construction equipment and emissions from motor vehicles would also adversely affect air quality because construction activities would emit pollutants that could contribute to existing violations of ambient air quality standards. The severity of impacts due to construction emissions depends on the local air quality and the regulatory requirements of each different local air quality management jurisdiction.

Visual Resources. Due to the relatively short duration of project construction (approximately 24 months), project construction impacts would generally constitute adverse, but less than significant (Class III) visual impacts. Within the Refuge, the Proposed Project would result in significant and unmitigable (Class I) visual impacts as the project parallels the existing DPV#1 transmission line. Long-term, operational visual impacts would be experienced by travelers and recreationists accessing the Refuge on Pipeline Road and Crystal Hill Road. For travelers on Crystal Hill Road and the Pipeline Road, the moderate visual quality, high viewer concern, and moderate-to-high viewer exposure lead to a moderate-to-high overall visual sensitivity of the visual setting and viewing characteristics.

Public Health and Safety. There remains a lack of consensus in the scientific community in regard to public health impacts due to Electric/Magnetic Fields (EMF) at the levels expected from electric power facilities. Further, there are no federal or State standards limiting human exposure to EMFs from transmission lines or substation facilities. For those reasons, EMF is not considered in the EIR/EIS as a California Environmental Quality Act/National Environmental Policy Act (CEQA/NEPA) issue and no impact significance is presented.

Cultural and Paleontological Resources. 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 construction impacts are most likely associated with erecting towers, creating tower pads, access road grading, digging of tower footings, and conductor pulling and splicing.

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. If unanticipated sites, features, and/or artifacts were discovered as a result of construction, and those are determined to be NRHP-eligible at the time of discovery, there would be an adverse effect. Adverse effects could be reduced by data-recovery investigations, but, by virtue of the fact that such resources would be discovered after final project design and

engineering, avoidance and protection of such resources would be infeasible. Therefore, if NRHP-eligible resources are impacted during construction, even after data recovery, effects would be adverse (Class I), under the regulations in the National Historic Preservation Act (NHPA).

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, resulting in adverse effects. If unanticipated buried Native American human remains or sacred features were discovered as a result of construction, then there would be a significant and unavoidable impact to the remains (Class I), an adverse effect under the regulations in the NHPA.

Direct and indirect impacts may occur to sites within and in the vicinity of the project area during operation and long-term presence of the Proposed Project. Direct impacts could result from maintenance or repair activities, while increased erosion could result as an indirect project impact. This impact is potentially significant, but can be mitigated to a level that is less than significant (Class II).

The paleontological sensitivity of this segment varies from undetermined to high sensitivity depending on the rock unit encountered. For example, volcanic rocks would have low sensitivity (low possibility of fossil occurrence) and the Pleistocene older alluvium has a high sensitivity. Sensitive areas for paleontological resources are located from Mile Post (MP) E43 to E60, E65.5 to E68, and E71 to E73 and could be impacted by construction. In addition, there is potential to encounter undiscovered paleontological resources within this segment of the Proposed Project. This impact is potentially significant, but can be mitigated to a level that is less than significant (Class II).

Transportation and Traffic.

This segment would require transmission line stringing activity over the Refuge dirt roads in three places, which could require the temporary closure of these roads. However, compliance with required encroachment permits would ensure that potential impacts associated with short-term road closures are less than significant (Class III).

Road closures could disrupt the operations of emergency service providers. However, in the event that an emergency service provider vehicle were to approach a roadway temporarily blocked by overhead construction activities, SCE would be able to accommodate the emergency service provider vehicle by immediately stopping work to allow the passage of the emergency vehicle with minimal delay. Impacts would be less than significant (Class III) and no mitigation would be required.

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

II. The following is provided by the Refuge Manager and other staff regarding the potential impacts of SCE-DPV#2 for the Refuge segment:

Wilderness. Wilderness impacts were not addressed for the Refuge segment in the EIR/EIS because the proposed ROW for DPV#2 is not within designated wilderness. If the total width of the ROW for DPV #2 does not exceed 130-feet as it is currently proposed, there will be no direct impacts to wilderness on the Refuge. If the ROW is expanded beyond 130 feet, there would be direct impacts to wilderness on the Refuge and the compatibility determination for DPV #2 would need to be modified to address impacts to this resource. In this regard, a recommendation was recently filed to widen the ROW beyond 130 feet along the Arizona portion of DPV #2 with the Arizona Power Plant and Transmission Line Siting Committee (Committee). In filing this recommendation the engineering staff of the Arizona Corporation Commission (Commission) believes that a wider ROW would better accommodate a tower collapse should one occur during inclement weather or for other reasons. A final decision on this recommendation is pending in the Committee and should be made by January 2007. Based on the above and pending future action by the Committee, the compatibility determination for DPV #2 does not address direct impacts to wilderness resources.

Non-Native Invasive Species. Powerline ROW's have been identified by the Arizona Invasive Species Advisory Council as a vector for the spread of invasive plants, because high levels of disturbance and habitat modification tend to favor a non-native flora. For example, powerline right-of-ways that run through intact vegetation in nearby southern California have been shown to be points-of-entry for several exotic species (D'Antonio and Haubensak 1998). Numerous infestations of Sahara mustard *(Brassica tournefortii)* and Mediterranean grass *(Schismus arabicus* and *S. barbatus)* have been documented along the SCE ROW in Kofa NWR. Introduction of invasive species occurs not only from construction vehicles during the project but also from increased vehicle traffic on roads upgraded and maintained for the project, as when the pipeline road was widened and upgraded for DPV #1 and subsequently became a major travel route across the refuge. Controlling invasive plant species continues to be a drain on refuge staff and resources long after the completion of DPV #1. An additional commitment would be required by the Refuge to control invasive plant species following the completion of DPV#2 and throughout its operation.

Radio Communications and Telemetry. Based on recent experiences in the field, DPV #1 may be having a negative impact on radio communications, and could also effect radio telemetry equipment when in use near the powerline. Interference and/or disruption to communications could be compounded by the installation of DPV #2; particularly in light of the fact that the Refuge is currently using a fully integrated digital system. Of particular concern is the impact of potential interference to communications along Crystal Hill and Pipeline Roads, which could become a significant safety issue for staff, particularly during the hot summer months. There are several recent examples where staff was unable to communicate with other mobile units in the field or with the base station when in close proximity to DPV #1. If interference increases with the second line, this could also negatively impact ongoing mountain lion research and future studies on the Refuge that may incorporate the use of radio telemetry equipment. Additional field

analysis by qualified radio technicians is needed to substantiate the impacts of the DPV #1 (as well as the potential effects of DPV #2) on radio communications and telemetry equipment.

Bird Strikes. The EIR/EIS provides that bird strikes may occur along certain segments of DPV #2, but not within the Refuge segment. The potential for bird strikes clearly exists for that portion of DPV #1 within the Refuge, and DPV #2 may exacerbate this problem. The bird strike potential is thought to be at its highest during peak migration periods in the spring and fall when neotropical migrants are moving north-south through the Refuge and encounter the east-west ROW corridor. Although no specific information about bird strikes on the Kofa exists, accounts of avian fatality from collisions with powerlines and utility structures are abundant in scientific literature. Fatal impacts from these structures have been documented for nearly 350 species (Manville 1999), representing 15 orders and 35 families and subfamilies in 14 countries worldwide and 26 states, including Arizona and nearby California, in the United States (Hunting 2002). In some cases, the level of fatalities attributable to these collisions has been substantial and has contributed to declines in local and regional populations (Mathiasson 1999, APLIC 1994). Of the 35 avian subfamilies mentioned above, 26 have been documented on the refuge (USDI 1996). Bird surveys conducted from 1986-1991 on the refuge confirmed the presence of many species of migrants (KNWR 1986-1991). Applying the mortality rate of 521 fatal strikes/km measured at Mare Island, California by Hartman et al. (1993), to the 38.62 km linear extent of transmission lines on Kofa NWR, annual fatality could reach as high as 20,121 birds, a significant impact to migratory birds on the Refuge

Transportation. The EIR/EIS also provides that there would be impacts to transportation associated with the construction phase of DPV #2. Although impacts to recreational use and emergency services are covered in the document, the document fails to address the impact to the daily refuge management activities. During the 2-year construction phase of the project, there are likely to be conflicts between refuge use of the Crystal Hill and Pipeline Roads and that of the SCE and its contractors. Alternative routes exist to avoid certain segments, but not for the entire length of the powerline. Consequently, there may be areas of the Refuge that are inaccessible to staff for extended periods, or where staff may be inconvenienced by traveling to certain areas via alternative routes (e.g., high clearance/4-wheel drive roads). In addition, visitors to the refuge often drive on spur or ROW roads even though they are not designated public access roads. This creates an enforcement problem and leads to greater impacts to vegetation and wildlife. Careful planning and coordination could minimize these conflicts.

Wildlife. Studies on bighorn sheep conducted during construction of DPV#1 documented the importance of the New Water Mountains and Livingston Hills to bighorn sheep. The Livingston Hills were used for lambing, and rams frequently moved between the New Water Mountains and the Livingston Hills, a route that is now bisected by DPV#1 (Cochran et al. 1984) and would be further bisected by DPV#2. The authors stated the importance of having as few obstructions (fences, roads, housing) as possible between mountain groups occupied by bighorn (Cochran et al. 1984). The study also found that transmission line construction activities precluded normal ram crossings between the New Water Mountains and the Kofa Mountains/Livingston Hills (Smith et al. 1986). It is impossible to say what the cumulative impacts of 2 powerlines

operating together would be on bighorn sheep movements, but the potential for habitat fragmentation and population isolation exists.

From comments provided by SCE representatives on the Draft EIR/EIS, it appears that they are unwilling to accommodate a reasonable period for sheep lambing on the Refuge. Lambing is one of the most critical life history stages, and one of the most significant bighorn life history parameters sensitive to impact (Smith et al. 1986). Ewes will seldom lamb in an area disturbed by outsiders, and permanent human occupancy near key lambing areas will cause bighorn to move away (Graham 1980). We would recommend that construction not occur during the most active lambing period (October – April). SCE believes that prohibiting construction during this period would essentially preclude construction. There is likely to be opportunities for compromise, but SCE is currently under the assumption that construction would occur on the Refuge at anytime during their 24-month construction window (calendar years 2007 and 2008). If construction occurs during peak lambing periods for desert bighorn sheep (October through April), there could be significant population impacts to this species in the New Water Mountains, Kofa Mountains and Livingston Hills.

The Kofa NWR desert bighorn sheep herd has historically been one of the largest in the state and was a major catalyst for establishing the refuge. The herd is a vital source of genetic diversity, both through emigration to nearby mountain ranges and through transplants throughout the southwest. The triennial sheep surveys conducted on the refuge revealed a decrease from an estimated 815 sheep to 623 sheep from 2000 to 2003. This downward trend appears to be continuing in 2006 with preliminary estimates for the population at 390 animals. While the reasons for this decline on the Refuge are unknown additional disturbance or fragmentation of sheep habitat on the refuge could exacerbate the problem and complicate future management efforts aimed at reversing this trend. As concluded in Graham (1980), actions which significantly increase human activity in key portions of bighorn ranges can do great harm.

The cumulative width of the transmission and ROW corridor for DPV #1 and DPV #2 could be large enough to discourage crossing by smaller animals such as reptiles, including the sensitive rosy boa, common chuckwalla, Gila monster, and desert tortoise. Because the absolute mobility of reptiles is considerably less than that of birds or larger mammals, they have a greater potential to be affected by barriers such as roads (MacNally and Brown 2001). The removal of vegetation necessary for construction and maintenance of DPV #2 could eliminate the necessary ground cover or protection needed by some species to cross the corridor and cause habitat fragmentation. The additional spur roads will increase the probability that these small, slow-moving animals will be hit by vehicles, either during construction or from unauthorized use by visitors after construction. Roads can significantly modify the distributions, movement patterns, and mate-location abilities of snakes (Shine et al. 2004). Although no specific data exits for the refuge, rosy boas appear to be significantly impacted by highways in southern Arizona (Rosen and Lowe 1994).

NWRS Mission and Goals. The significant and unmitigable impacts to recreation, cultural/archaeological resources and visual resources, as well as the potentially significant impacts to desert bighorn sheep and other important biological resources on the Refuge would

prevent the Service from fulfilling the NWRS mission at this large and important refuge. The agency would therefore not be in compliance with the National Wildlife Refuge System Administration Act of 1966 and the National Wildlife Refuge System Improvement Act of 1997.

The proposed use would prevent us from achieving System goals as detailed in Service policy (601 FW 1), including Goal A (conserving wildlife and their habitats/maintaining biological integrity, diversity and environmental health/conservation of representative ecosystems and their processes) and Goal D (wildlife dependent recreation). The biological integrity, diversity and environmental health of the Refuge would be further degraded through destruction of habitat along the ROW for DPV #2. At the landscape level, the destruction of habitat associated with DPV #2 would affect our ability to conserve a representative example of the Arizona Upland habitat type within Sonoran Desert Ecosystem. Wildlife dependent recreation such as hunting and wildlife observation would also be negatively impacted on the Refuge by the proposed use. The recreational experience of these users would be degraded due to factors such as increased traffic during construction and changes in wildlife movement patterns and increased noise through the life of the project. Increased industrialization of the area could also impact these and other recreational uses in the vicinity of DPV #1 and DPV #2, by displacing users to other areas of the Refuge where the landscape is relatively undisturbed.

The project would also be in conflict with the Service's Appropriate Uses policy, which provides that all uses occurring on a refuge must be appropriate uses. In order for a use to be considered appropriate, a proposed use must meet at least one of the following three conditions: 1) the use is a wildlife-dependent use; 2) the use contributes to fulfilling refuge purposes, NWRS mission, or goals and objectives outlined in the management plan for the unit; or 3) The Refuge Manager has reviewed the use within the context of law and policy and determines it is appropriate. A proposed use is exempt from the criteria outlined above, if there is a prior, existing right for the use. DPV#2 fails to meet any of the above criteria for an appropriate use, and SCE does not have a prior, existing right for the use; therefore, the use is considered an inappropriate use on the Refuge.

Refuge Purposes, Goals and Objectives.

Concern over the significant and unmitigable impacts to recreation, and visual resources, as well as potential impacts to the desert bighorn sheep population, leads one to a similar conclusion regarding the Refuge's ability to achieve stated purposes, goals and objectives. The project would be in conflict with the Refuge's purposes as provided in Executive Order 8039, and the National Wildlife Refuge System Administration Act of 1966, as amended. Additionally, the Refuge would not achieve its specific objectives and management actions for wildlife and habitat management, recreation, public access, and protection of archaeological/cultural resources as contained in the 1996 Kofa National Wildlife Refuge and Wilderness and New Water Mountains Wilderness Interagency Management Plan and Environmental Assessment (USDI 1996).

Cumulative and Indirect Secondary Effects. Multiple ROW and associated powerlines may present a visual barrier to desert bighorn sheep, fragmenting the habitat north and south of the

ROW and isolating the populations. SCE believes that ROW are not a concern for management of desert bighorn sheep based on their experience during construction of the DPV#1. We are unaware of data to support this assertion for multiple ROW in similar habitat. Consequently, the cumulative impact of multiple ROW between the Refuge's important desert bighorn sheep habitat and lambing grounds and the travel corridors between the two will continue to be a concern for management of this population into the future. Cumulative impacts may also result from the construction and operation of DPV #2 within other wildlife populations on the Refuge, particularly those that are less mobile such as reptiles. The cumulative width of DPV #1 and DPV #2 could affect the distribution, mating abilities and movements of these animals within and between important habitats on the Refuge. More research is needed to determine the potential cumulative impacts of multiple powerlines on these species.

DPV#2 would result in cumulative impacts to recreation and visual resources. Increased noise associated with the operation of DPV #2 and further industrialization of the area would diminish the Refuge's recreational value. With the addition of DPV #2, visitor use along the route may decline and the quality of the visitor experience for uses such as sight-seeing, camping, hunting and wildlife observation and wildlife photography would be impacted. Finally, the additional structures associated with DPV#2 would further degrade the visual quality of the area as a whole. When the impacts to recreation and visual resources from DPV #2 are considered together the overall impacts would be cumulative, significant and unmitigable (Class I).

The proposed use could also result in cumulative, significant and unmitigable losses to archaeological/cultural resources on the Refuge. More detailed work would be required to assess the extent of the resources with the ROW and potential cumulative impacts associated with the construction and operation of DPV #2.

Mitigation Measures. The EIS includes proposed numerous mitigation measures to reduce or minimize the impacts of the project to the above listed resources and issues of concern. These can be reviewed in detail for each resource/issue in the mitigation section of EIR/EIS (Aspen Environmental 2006). In general, the proponent would be implementing specific techniques or approaches, or modifying the timing and duration of specific events to reduce impacts. For certain resources/issues, the proposed mitigation measures would reduce the impact to a less than significant level or acceptable level (air quality, transportation/traffic, vegetation/soils, and certain wildlife species). 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, archaeological/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.

Public Review and Comment:

Public review of this compatibility determination will be accomplished as follows:

1. Posting a notice at the Refuge Office in Yuma, Arizona;

2. Soliciting public comments through the use of a News Release forwarded to all major newspapers in Arizona and posted on the Refuge's Public Website;
3. Mailing a postcard to interested agencies, groups and individuals regarding the availability of the document; and
4. Providing the document for public viewing at the Yuma County Library District.

Comments will be accepted for 30-days following release of the document to the public.

Determination (check one below):
__X__ Use is Not Compatible
_____ Use is Compatible With Following Stipulations

Stipulations Necessary to Ensure Compatibility:

None

Justification:

The proposed use would have significant and unmitigable impacts to a number of key resources at the Refuge, including recreation, cultural/archaeological resources, and visual resources. These losses are irretrievable in the long-term and would affect the overall character and management of the Refuge. 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. 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.

DPV #2 would prevent the Service from achieving its mission and goals on a large and important Refuge. Of particular significance is Goal A (conserving wildlife and their habitats; maintaining biological integrity, diversity and environmental health/conservation of representative ecosystems and their processes) and Goal D (wildlife dependent recreation), which would not be achieved if the proposed use were implemented. The project would be in conflict with the Refuge's purposes as provided in Executive Order 8039, and the National Wildlife Refuge System Administration Act of 1966, as amended. Finally, the Service would fail to achieve specific objectives and management actions for wildlife and habitat management, recreation, public access, and protection of archaeological/cultural resources, as contained in the 1996 Kofa National Wildlife Refuge and Wilderness and New Water Mountains Wilderness Interagency Management Plan and Environmental Assessment (USDI 1996).

The proposed use would also be in conflict with the Service's Appropriate Uses policy, which provides that all uses occurring on a refuge must be appropriate. It fails to meet any of three criteria for an appropriate use and SCE does not have a prior, existing right for this use; therefore it is considered an inappropriate use for the Refuge.

Mitigation measures developed for the project reduce impacts for certain resources to less than significant or acceptable levels, but overall the unmitigable and potentially significant impacts to other key resources (recreation, cultural/archaeological, visual) outweighs any offsets provided through implementation of these measures.

Based on the above and in consideration of sound professional judgment and experience, knowledge of the Refuge and its resources, application of the best available science, wildlife management principles, and knowledge of managing and administering a Refuge, I believe that granting a ROW for DPV #2 would materially interfere with or detract from the NWRS mission, refuge purposes, and unit specific goals and management actions. Therefore, the proposed use is deemed incompatible and is eliminated from further consideration.

Signature: Refuge Manager _____
(Signature and Date)

Concurrence: Regional Chief _____
(Signature and Date)

Mandatory 10- or 15-year Re-Evaluation Date: None

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