United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
Carlsbad Fish and Wildlife Office
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

In Reply Refer To:
FWS-LA-10B0117-10F0215-R006

JUN 20 2014

Mr. Thomas Contreras
U.S. Forest Service
Angeles National Forest
701 North Santa Anita Avenue
Arcadia, California 91006-2725

Subject: Reinitiation of Formal Section 7 Consultation for the Tehachapi Renewable Transmission Project, San Bernardino County, California

Dear Mr. Contreras:

This responds to your request dated and received May 15, 2014, regarding reinitiation of formal section 7 consultation for the Tehachapi Renewable Transmission Project (TRTP), in accordance with section 7 of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*). This reinitiation of formal consultation was requested to address potential project impacts to the federally endangered least Bell's vireo (*Vireo bellii pusillus*) from proposed project changes in the Chino Hills portion of the overall project.

The least Bell's vireo is known to nest along portions of Segment 8 and directly adjacent to Segment 7 of TRTP. Specifically, least Bell's vireos have been confirmed nesting at Whittier Narrows, Santa Fe Flood Control Basin, and Tonner Canyon in Chino Hills. As documented in the introduction section of the July 31, 2010, biological opinion (2010 biological opinion) issued for the TRTP, we concurred with your not likely to adversely affect determination for least Bell's vireo in the vicinity of each of these three specific project sites. The proposed project changes addressed by this reinitiation of formal consultation do not affect least Bell's vireo or their habitat in the Whittier Narrows or Santa Fe Flood Control Basin portions of the overall project area.

Thus, this reinitiation of formal consultation amends the 2010 biological opinion by addressing only the new impacts to least Bell's vireo in the Chino Hills area of the TRTP. As such, this amendment to the 2010 biological opinion does not replace or modify any of the analysis, conclusions, exempted take, reasonable and prudent measures, or terms and conditions included in the 2010 biological opinion to address the federally endangered arroyo toad (*Anaxyrus californicus*) or the federally threatened desert tortoise (*Gopherus agassizii*) and California red-legged frog (*Rana draytonii*).

CONSULTATION HISTORY

On July 31, 2010, we issued a non-jeopardy biological opinion for the TRTP project that addressed impacts to the arroyo toad, desert tortoise, and California red-legged frog. We also concurred with your assessment or otherwise determined that the project was not likely to adversely affect the federally endangered southwestern willow flycatcher (*Empidonax traillii extimus*), least Bell's vireo, and California condor (*Gymnogyps californianus*); the federally threatened coastal California gnatcatcher (*Polioptila californica californica*) and its designated critical habitat; the federally threatened Santa Ana sucker (*Catostomus santaanae*) and its proposed and designated critical habitat; and proposed critical habitat for the arroyo toad.

The 2010 biological opinion has been amended five times since issuance to address minor changes in the project. None of the previous amendments were anticipated to result in adverse effects to federally listed species beyond those initially analyzed.

In your May 15, 2014, request, you indicated that a not likely to adversely affect determination was no longer appropriate for the least Bell's vireo due to project changes involving undergrounding a 3.7-mile portion of power line in the Chino Hills area (the Chino Hills Underground) that would result in new temporary and permanent loss of least Bell's vireo occupied habitat.

On June 18, 2014, we received an email amending the proposed action to indicate that removal of least Bell's vireo habitat would occur outside the breeding season for this species.

BIOLOGICAL OPINION

DESCRIPTION OF THE PROPOSED ACTION

Chino Hills Underground involves construction of a new 500 kV underground transmission line along a portion of Segment 8 of TRTP. The western portion of Chino Hills Underground begins at Structure M60-T1X, and a new double-circuit 500 kV lattice steel tower then continues 325 feet to the proposed Segment 8 Western Transition Station. At this station, the transmission line will change from an overhead to an underground configuration. The transmission line will continue underground in a northeasterly direction for about 3.7 miles. Along the underground route, vaults will be constructed to allow cable to be installed in underground duct banks, which will be created via trenching and backfilling. In select locations, horizontal directional drilling will be used to install cable beneath select features along the 3.7-mile underground route. This horizontal directional drilling may take up to 1 year and may be conducted up to 24 hours per day using night-lighting. The transmission line will change back from an underground to overhead configuration at the Eastern Transition Station.

Proposed Activities in Least Bell's Vireo Occupied Habitat

Duct Bank Installation

Chino Hills Underground includes installation of about 17,250 feet of polyvinyl chloride ducts. Duct bank installation will entail trench excavation, duct installation, encasement with high-strength concrete, backfill with fluidized thermal fill, and capping with soil. Depth from grade to top of duct banks will be at least 4 feet and may vary along the route based on site-specific conditions. Excavated soil will be hauled off site for disposal. Trench sites will be restored using excavators, water trucks, dozers, and other compaction equipment. Pre-project contours will be reestablished to original conditions and compacted in lifts, with use of water for compaction. Compaction tests will be performed to confirm sites are adequately stabilized per engineering specifications.

Stormwater Management Facilities

Rip-rap will be installed in least Bell's vireo occupied habitat to prevent erosion and downstream sedimentation along cut/fill slopes and at termination of concrete v-ditches (velocity dissipaters) and where erosion within existing drainage channels could cut down the underground duct bank and compromise integrity and safety of the structure. Permanent material placed in drainage features includes concrete, native fill material, and/or rip-rap.

Temporary Water Diversion

If water is present during construction, a temporary water diversion will be used to direct flows around the active construction area. Sandbags will be placed on the uphill stream side of the work area to direct water into 2-inch or 4-inch poly pipe. The size of pipe will be determined based on amount of flow present and/or expected during construction. Water will be diverted to a location downstream of the construction area onto level ground and/or energy dissipation devices to prevent turbidity and erosion. If necessary, perforated pipe will be used to prevent erosion at the outfall of the diversion.

Operations and Maintenance

A permanent operations and maintenance footprint extending 13.25 feet on each side of the underground duct bank center line and within least Bell's vireo occupied habitat will allow for inspection, maintenance, and minor repairs to the underground circuit. Specifically, operations and maintenance will consist of:

- Line patrols that include inspections of the alignment, vaults, transition stations, access road conditions, and installation of any exclusionary fencing around the trench or transition stations. Patrols would occur via foot and vehicle.

- Weed abatement, removal of woody vegetation, and any repairs to existing facilities occurring within the permanent disturbance area. Weed abatement and maintenance will be scheduled to take place no more than twice a year and occur within operations and maintenance footprint areas. Shallow root vegetation, such as grasses and herbaceous vegetation, will be allowed to grow. Woody vegetation (e.g., mule fat, willow trees) will be removed to avoid having root systems encroach on and into the underground duct bank. Vegetation management typically occurs once after rainy season is complete and then again in the fall. For Chino Hills Underground, weed abatement would consist of mowing or trimming grasses and weeds and brushing or removal of shrubs and trees. Herbicides may also be used. Additionally, removal of trash and debris and clearing out of any engineered drainage features, such as the rip-rap pads and v-ditches, would be conducted.

- Repairs to or replacements of duct bank, vaults, or transitions stations, including hardware; repairs to any exclusionary fencing around trench or transition stations; or removal and reinstallation of underground cable.

Selected Relevant Conservation Measures from the July 31, 2010, Biological Opinion

Temporary impacts will be restored, and permanent impacts to riparian habitat will be offset at a 3:1 ratio. Permanent impacts will be offset by restoration of least Bell's vireo habitat at south Aliso Creek or within the Beserra property. South Aliso Creek is located within the approximately 4,500-acre Aliso and Woods Canyons Wilderness Park in Laguna Niguel, Orange County. The Beserra property is located within the Santa Clara River floodplain southeast of the City of Fillmore and the Sespe Creek confluence, Ventura County. Restoration activities will be initiated by March 2018. A letter of credit has been issued to the California Department of Fish and Wildlife in the amount of $16,632,632.20 to ensure that restoration and mitigation activities associated with TRTP occur.

Restoration plans for habitat affecting federally listed species will be reviewed and approved by the U.S. Fish and Wildlife Service (Service).

No surfactants will be used in formulation of any herbicide used, and a benign marker dye will be used to detect area of application. Herbicide use will be conducted between mid-September and January 31 in least Bell's vireo occupied habitat to avoid breeding season.

Construction activities will not occur within a 500 foot buffer of a least Bell's vireo territory or nest during breeding season, or noise levels will be restricted to below 60 dBA to prevent disturbance. Removal of least Bell's vireo habitat will occur outside of the least Bell's vireo breeding season.

Night-lighting associated with horizontal directional drilling will be directed away from least Bell's vireo occupied habitat.

A Worker Environmental Awareness Program (WEAP) will be prepared, and all construction crews and contractors will be required to participate in WEAP training prior to starting work. WEAP training will include a review of special-status species and other sensitive resources that could exist in the project area, locations of sensitive biological resources, their legal status and protections, and measures to be implemented for avoidance of these sensitive resources. A record of all personnel trained will be maintained.

Action Area

According to 50 CFR § 402.02 pursuant to section 7 of the Act, the "action area" means all areas to be affected directly or indirectly by the Federal action. Subsequent analyses of the environmental baseline, effects of the action, and cumulative effects are based upon the action area. The action area for the TRTP is not changed; however, this amendment to the 2010 biological opinion considers only the portion of the action area within the 3.7 miles of Chino Hills Underground subject to ground disturbance and the area extending 500 feet from project activities that will be subject to construction noise and light. Distance at which noise and light becomes biologically insignificant depends on weather, terrain, and other features. Because we cannot define a precise distance at which noise from the proposed action become biologically insignificant, we have used our best professional judgment to define the action area with respect to effects of noise and light as being the project footprint plus 500 feet beyond the footprint.

STATUS OF THE SPECIES

With an estimated 2,968 least Bell's vireo territories as of 2006, the number of least Bell's vireo territories has increased 10-fold since listing in 1986, when only 291 territories were known. Existing territories occur in San Diego, Riverside, Orange, San Bernardino, Los Angeles, Ventura, Santa Barbara, Inyo, Kern, Monterey, San Benito, and Stanislaus counties. An estimated 898 territories occur in Riverside County, while an estimated 87 territories occur in San Bernardino County (Service 2006). The status of least Bell's vireo was described in detail in the 5-year review for this species (http://ecos.fws.gov/docs/five_year_review/doc781.pdf) (Service 2006). The 5-year review recommended downlisting of the species to threatened status based on a reduction of threats and growth of the population 10-fold since listing. Please refer to this document for information on the status of the least Bell's vireo rangewide and for detailed information on the life history requirements, threats, and conservation needs of the species. A draft recovery plan for least Bell's vireo was issued in 1998 (Service 1998).

ENVIRONMENTAL BASELINE

Regulations implementing the Act (50 CFR § 402.02) define the environmental baseline as the past and present impacts of all Federal, State, or private actions and other human activities in the action area. Also included in the environmental baseline are the anticipated impacts of all proposed Federal projects in the action area that have undergone

section 7 consultation and the impacts of State and private actions that are contemporaneous with the consultation in progress.

The portion of the action area for the Chino Hills Underground includes 2.07 acres of least Bell's vireo occupied habitat, which appears to be isolated from other suitable habitat (Figure 1). This habitat patch likely represents one of a number of habitat fragments in the region that support a small number of least Bell's vireo in southwestern San Bernardino County. The action area appears to support between one and two territories. The recent history is as follows:

- 2009-one territory and two fledglings
- 2010-least Bell's vireos observed, but breeding status not confirmed
- 2011-two territories with one pair successfully fledging two young
- 2012-single male observed
- 2013-two territories with one pair successfully fledging two young

EFFECTS OF THE ACTION

Effects of the action refer to the direct and indirect effects of an action on the species, together with the effects of other activities that are interrelated and interdependent with that action, which will be added to the environmental baseline. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration. Indirect effects are those that are caused by the proposed action, are later in time, and still reasonably certain to occur.

Direct Effects

Construction activities have the potential to knock down nests and destroy eggs and nestlings. However, removal of least Bell's vireo habitat will occur outside of the least Bell's vireo breeding season, no construction activities will occur within 500 feet of a least Bell's vireo territory or nest during breeding season, and noise levels will be restricted to below 60 dBA to prevent disturbance to nesting vireos. Thus, construction activities are not anticipated to result in nest abandonment, destruction of nests or eggs, or death or injury of nestlings.

Habitat Loss. The Chino Hills Underground portion of TRTP will result in removal of 0.72 of 2.07 acres of occupied habitat locally available (Figure 1). This includes removal of 0.19 acre of habitat permanently and 0.53 acre of habitat temporarily. Thus, the habitat available for least Bell's vireo foraging and breeding activities in the first few years following project construction will be reduced to only 1.35 acres, although the temporarily impacted area will eventually be restored. This area has supported up to two vireo pairs in past years, and least Bell's vireos may return to the same breeding sites after seasonal migration (Service 1998).

Based on survey information from 2009-2013, when two territories occur in the 2.07-acre area of occupied habitat, only one pair successfully fledges young. This suggests that the area may already be too small to effectively support two pairs of least Bell's vireo and allow for reproduction of both pairs. Thus, with even a relatively small permanent impact, we expect that continued effective use of the area by two pairs of least Bell's vireos will be precluded. It is likely that any returning least Bell's vireos will attempt to adjust their territories, but based on the amount of initial habitat loss, we believe one pair may be subjected to displacement from the area, a greater chance of predation, and/or being unable to locate suitable habitat. Thus, the initial loss of 0.72 acre of habitat, including the permanent loss of 0.19 acre of occupied habitat, would likely result in loss of one vireo territory in the action area.

The remaining habitat will include 1.35 acres, which we expect will be sufficient to support successful reproduction of one vireo pair. The eventual restoration of habitat to nearly baseline conditions (i.e., back to 1.85 acres) should help sustain at least one vireo territory over the long term.

Impacts to one territory of the estimated 2,968 territories rangewide represents a small impact to the species overall and will occur within a small, isolated habitat patch that is one of a number of similar habitat patches in the region. This impact should not appreciably reduce the reproduction, numbers, or distribution of least Bell's vireo.

Despite the anticipated impacts, the project will result in a slight net increase in the amount of habitat available to least Bell's vireo across its range due to restoration of temporarily affected areas and restoration to offset permanent impacts at a 3:1 ratio. The 0.19 acre of occupied habitat permanently removed will be offset by restoration of 0.57 acre of similar habitat. The offsite restoration will occur in either Orange County or Ventura County, so it will not benefit the individual least Bell's vireos affected by the project. However, both potential restoration sites are adjacent to existing least Bell's vireo populations and will provide additional breeding, feeding, and sheltering habitat for these populations.

Night Lighting. The Angeles National Forest has identified the need to perform 24-hours per day work at horizontal directional drilling locations for the Chino Hills Underground, which results in the need to use night-lighting. Artificial lights may attract birds that forage on associated insects (Longcore and Rich 2004) and may cause birds to initiate singing earlier in the day (Miller 2006). Artificial lights may also attract predators (Longcore and Rich 2004). However, the specific impact or benefit of night-lighting on least Bell's vireos is unclear, if any impacts or benefits exist. Regardless, the potential for project-related night-lighting to disrupt vireo breeding is discountable (i.e., extremely unlikely to occur) because the nearest occupied habitat from where night-lighting will occur is about 500 feet away and visually screened by urban areas. In addition, light will be directed away from occupied habitat.

Noise and Human-Induced Disturbance

Noise can impact the ability of birds to communicate to attract mates or avoid predation (Reindt 2003). Anthropogenic disturbance can also result in short term changes in behavior and heart rate of birds, as displayed in white-eyed vireos (*Vireo griseus*) (Bisson et al. 2009). However, Bisson et al. (2009) did not detect an overall increase in energy expenditures with 1 or 4 hour disturbances, and white-eyed vireos continued parenting activities. Likewise, in another study, corticosterone stress levels were not different between white-eyed vireos in habitat near disturbance when compared to control sites, although nest success was lower (Pekins 2006). If noise and disturbance levels are high enough, they have the potential to reduce or eliminate reproduction in nearby habitat. For example, least Bell's vireo pair attempting to nest less than 40 feet from a construction site along the Santa Ana River abandoned an active nest (M. Aimar, pers comm, 2014), presumably due to construction noise and/or disturbance.

Least Bell's vireos in the vicinity of the proposed project are likely acclimated to some human activity. However, the proposed project will introduce more noise, activity, and dust due to construction activities. Regardless, construction activities will occur outside the breeding season for least Bell's vireo or with a 500-foot buffer or noise restriction to keep noise levels below 60 dBA. Thus, the potential for noise and other human-induced disturbance from construction activities to affect least Bell's vireo is discountable.

Indirect Effects

Some maintenance and restoration activities may also disturb least Bell's vireos, but these activities will be much less disruptive than construction activities. Biological monitors may also disturb least Bell's vireos as part of their monitoring efforts. The frequency and level of disturbance created by maintenance, restoration, and biological monitors is not anticipated to affect the ability of any least Bell's vireos to survive and reproduce due to the short-term, intermittent, and low magnitude nature of these activities. Thus, this type of disturbance is considered insignificant.

Effect on Recovery

The proposed changes to the TRTP will not affect recovery of the least Bell's vireo because the number of individuals represents a fraction of the total and regional populations and permanent habitat removal will be offset at a 3:1 ratio. The proposed restoration will help maintain or increase least Bell's vireo populations in Orange County or Ventura County while having a minor impact on the population in the Chino Hills area.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, tribal, local, or private actions that are reasonably certain to occur in the action area considered in this biological opinion.

Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

We are unaware of any non-Federal actions affecting listed species that are reasonably certain to occur in the action area considered by this amendment to the 2010 biological opinion.

CONCLUSION

After reviewing the current status of least Bell's vireo, environmental baseline for the action area, effects of the proposed action, and cumulative effects, it is our biological opinion that the proposed action is not likely to jeopardize the continued existence of this species. Our conclusions are based on the following reasons:

1. Only 0.19 acre of least Bell's vireo habitat will be permanently removed, which is a small fraction of the suitable habitat available to this species rangewide. Restoration of onsite temporary impacts and off-setting permanent impacts with offsite restoration at a 3:1 ratio will result in a slight net gain of potential breeding and foraging habitat for least Bell's vireo across its range.

2. Impacts will occur to only one of the estimated 2,968 least Bell's vireo territories rangewide.

AMOUNT OR EXTENT OF TAKE

Incidental take of up to one pair of least Bell's vireos is expected in the form of harm due to the permanent removal of 0.19 acre of habitat and the temporary removal of 0.53 acre of habitat. The amount or extent of incidental take will be exceeded if more than 0.19 acre of habitat is permanently removed, more than 0.53 acre of habitat is temporarily removed, or if more than one pair of least Bell's vireos is impacted. Harm to the least Bell's vireo pair will occur due to displacement from breeding and foraging habitat and the loss of reproductive opportunities. No take in the form of direct injury or mortality is anticipated.

EFFECT OF THE TAKE

In the accompanying biological opinion, we determined that this level of anticipated take is not likely to result in jeopardy to the species.

REASONABLE AND PRUDENT MEASURES

Conservation measures are being implemented as part of the proposed action to minimize incidental take of least Bell's vireos. In addition to these conservation measures, the

following reasonable and prudent measure[1] is necessary to monitor and report the effects of the incidental take:

7. The Forest Service or Southern California Edison will monitor and report on compliance with established take exemptions for least Bell's vireos associated with the proposed action.

TERMS AND CONDITIONS

To be exempt from the prohibitions of section 9 of the Act, the Forest Service or Southern California Edison must comply with terms and conditions, which implement the reasonable and prudent measure described above and outline reporting and monitoring requirements. Terms and conditions are non-discretionary.

The following terms and conditions implement reasonable and prudent measure 7:

7.1 The Forest Service or Southern California Edison will notify the Carlsbad Fish and Wildlife Office when vegetation removal (up to 0.72 acre) in the project footprint is complete and will document the amount of permanent and temporary least Bell's vireo habitat removed. This notification will be provided within 5 business days of completion of this action.

7.2 The Forest Service or Southern California Edison will also conduct least Bell's vireo surveys to Service protocol in the breeding season after clearance of habitat to document the number of least Bell's vireos returning to the site. The survey report will be provided to the Service within 60 days of the end of the breeding season.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information. We have no additional conservation recommendations associated with the amended proposed action.

[1] Reasonable and prudent measures 1-6 address other listed species in the 2010 biological opinion. The numbering of the reasonable and prudent measure for vireo represents a continuation of the measures provided in the 2010 biological opinion.

If you have any questions regarding this consultation, please contact Jesse Bennett at 760-431-9440, extension 305.

Sincerely,

Karen A. Goebel

Karen A. Goebel
Assistant Field Supervisor

LITERATURE CITED

Bisson, I., L. K. Butler, T. J. Hayden, L. M. Romero, and M. C. Wikelski. 2009. No energetic cost of anthropogenic disturbance in a songbird. Proceedings of the Royal Society Biological Sciences. 276:961-969.

Longcore, T. and C. Rich. 2004. Ecological light pollution. Frontiers in Ecology and the Environment. 2(4):191-198.

Miller, M. 2006. Apparent effects of light pollution on singing behavior of American robins. Condor. 108(1):130-139.

Pekins, C. E. 2006. Armored military training and endangered species restrictions at Fort Hood, Texas. Federal Facilities Environmental Journal. 17(1):37-50

Reindt, F. E. 2003. The impact of roads on birds: does song frequency play a role in determining susceptibility to noise pollution? Journal for Ornithology. 144:295-306.

Service (U.S. Fish and Wildlife Service). 1998. Draft recovery plan for the least Bell's vireo. U.S. Fish and Wildlife Service, Portland, Oregon. 139 pp.

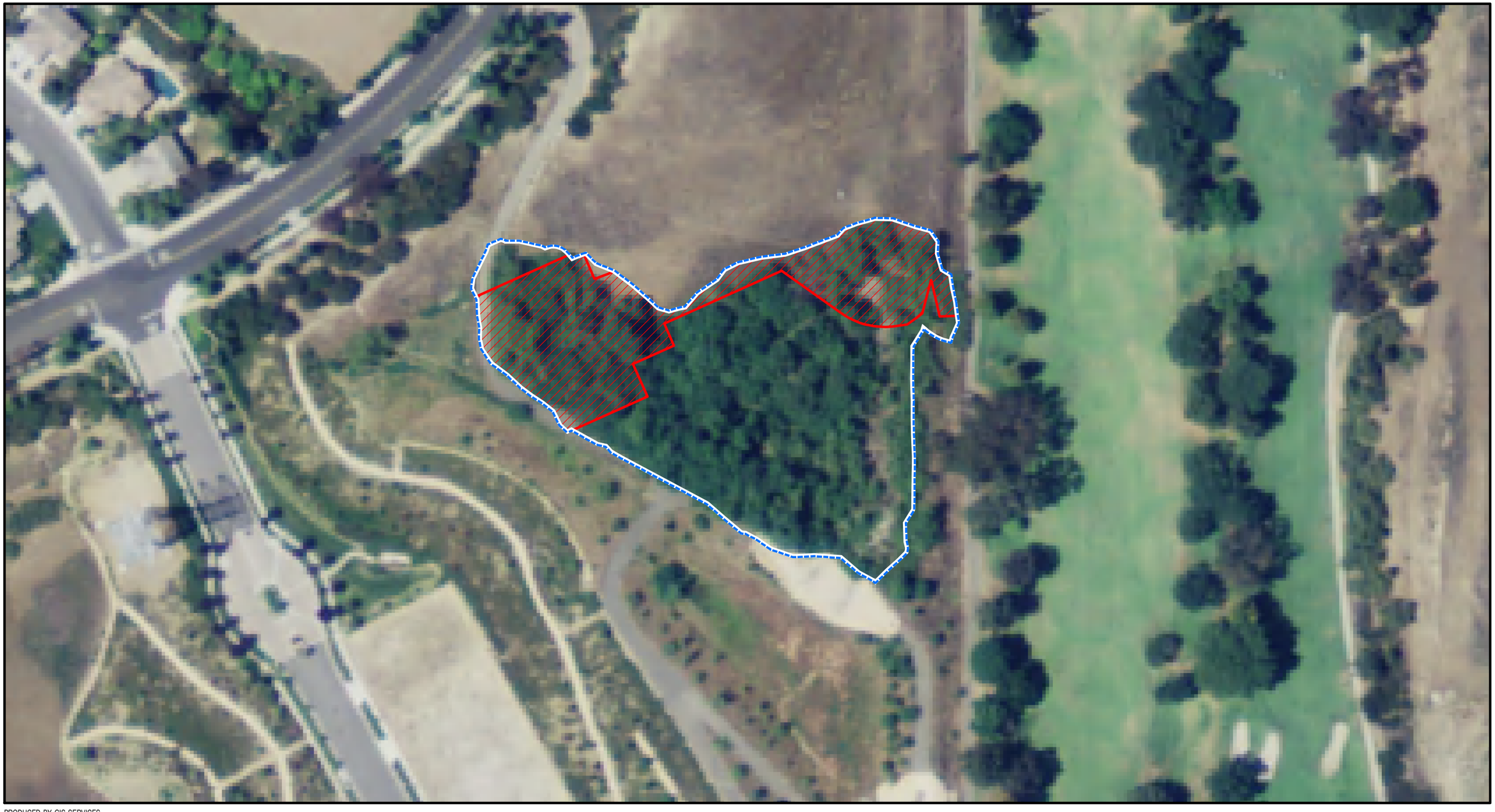
Service (U.S. Fish and Wildlife Service). 2006. Least Bell's vireo 5-year review: summary and evaluation. 26 pp.

Personal Communication

Aimar, M. 2014. Santa Ana Watershed Association, telephone conservations with C. Medak,

U.S. Fish & Wildlife Service
Carlsbad Fish and Wildlife Office
2177 Salk Ave. Suite 250, Carlsbad, California 92008

Figure 1. Tehachapi Renewable Transmission Project
Chino Hills Underground Least Bell's Vireo Habitat Impact



PRODUCED BY GIS SERVICES
CARLSBAD FIELD OFFICE
GIS CONTACT: ED TURNER
BIOLOGY CONTACT: JESSE BENNETT

MAP DATE: 05/07/14
DATA SOURCE: Southern California Edison
IMAGE SOURCE:NAIP 2012

S:\stem\edstemp\federal\usfs\S:\stem\edstemp\federal\usfs
\Chino_hills\Tehachapi Renewable Transmission Project.mxd

0 50 100 200
Feet

Legend

Least Bell's Vireo Occupied Habitat
Construction Impacts