DRAFT
Burrowing Owl Survey Report for the Valley-Ivyglen Transmission Line Project Riverside County, California

Prepared for:
Southern California Edison Company

Prepared by:
AMEC Earth & Environmental, Inc.

December 2007
Project No. 6151000801-1005

SOUTHERN CALIFORNIA EDISON

amec





DRAFT

BURROWING OWL SURVEY REPORT FOR THE VALLEY-IVYGLEN TRANSMISSION LINE PROJECT RIVERSIDE COUNTY, CALIFORNIA

Prepared for:
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December 2007

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ACRONYMS

AMEC	AMEC Earth & Environmental, Inc.
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database
CSC	California Special Concern Species
GPS	Geographic Positioning System
HCP	Habitat Conservation Plan
kV	kilovolt
MSHCP	Western Riverside County Multiple Species Habitat Conservation Plan
NCCP	Natural Communities Conservation Plan
NEPA	National Environmental Policy Act
ROW	right-of-Way
RWQCB	Regional Water Quality Control Board
SCE	Southern California Edison
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

EXECUTIVE SUMMARY

Project:	Valley-Ivyglen Transmission Line Project
Project Proponent:	Southern California Edison
Principal Investigator:	Matt Amalong AMEC Earth & Environmental, Inc. 9210 Sky Park Court, Suite 200 San Diego, California 92123

This report presents results of focused surveys for the Burrowing Owl (*Athene cunicularia*) conducted by AMEC Earth & Environmental, Inc. (AMEC) at the request of Southern California Edison (SCE) for the proposed Valley-Ivyglen Transmission Line Project, which is designed to improve reliability and meet projected electrical load requirements in the western Riverside County area. The Valley-Ivyglen Transmission Line Project involves the construction of a new 115kV transmission line, which will connect the Valley Substation to the Ivyglen Substation. The Valley Substation is located in the southwest corner of an unincorporated area known as Romoland, adjacent to the City of Perris. The Ivyglen Substation is located in unincorporated Riverside County, south of the City of Corona, along Temescal Canyon Road and near Glen Ivy Hot Springs.

The project site is in the coverage area of the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP). A biological resources habitat suitability assessment was conducted in 2006 (AMEC 2006) to provide an overview-level assessment of the biological resources present and potentially present within the project area, evaluate consistency with the MSHCP, and determine what focused sensitive species surveys or wetland/jurisdictional waters delineations may be necessary for further project review. As a result of the habitat suitability assessment, it was determined that focused burrow and Burrowing Owl surveys were required for project consistency with the MSHCP.

During focused burrow surveys, numerous potential burrows (e.g., ground squirrel burrows, underneath boulders, and debris piles, etc.) were located along the alignment, but no individuals or sign were detected. Although no sign of Burrowing Owls were detected during surveys, since suitable habitat is present, pre-construction surveys are required within 30 days prior to ground disturbance to avoid direct take of Burrowing Owls. If owls are identified onsite, all mitigation measures identified herein would be applied prior to surface disturbance taking place.

1.0 INTRODUCTION

1.1 Project Description

The proposed project is located in western Riverside County (Figure 1); the proposed transmission line route traverses unincorporated Riverside County, the cities of Lake Elsinore, Corona, Perris, and Sun City, California (Figure 2). The proposed transmission line route traverses through portions of the following U.S. Geological Survey (USGS) 7.5-minute series topographic quadrangles: Alberhill, Lake Elsinore, and Romoland.

The Valley-Ivyglen Transmission Line Project involves the construction of a new 115 kilovolt (kV) transmission line which will connect the Valley Substation to the Ivyglen Substation (Figure 2). This transmission line will be installed in an existing right-of-way (ROW) where available, and new ROWs where none exist. The Valley Substation is located in the southwest corner of an unincorporated area known as Romoland, adjacent to the City of Perris. The Ivyglen Substation is located in the southeastern portion of unincorporated Corona, along Temescal Canyon Road and near Glen Ivy Hot Springs. The Ivyglen Substation is approximately 19 miles west of the Valley Substation.

The proposed project is in the coverage area of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The MSHCP is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) focusing on conservation of species and their associated habitats in western Riverside County.

1.2 Purpose and Need

According to the MSHCP, surveys for the Burrowing Owl are to be conducted as part of the environmental review process. The MSHCP Additional Surveys Needs and Procedures identify a specific Burrowing Owl survey area within the MSHCP Plan Area (Figure 3). The MSHCP also identifies species-specific objectives for the Burrowing Owl, namely Objectives 5 and 6 (below).

> **Objective 5:** Surveys for Burrowing Owl will be conducted as part of the project review process for public and private projects within the Burrowing Owl survey area where suitable habitat is present. The locations of this species determined as a result of survey efforts shall be conserved in accordance with procedures described within *Section 6.3.2* of the MSHCP and the guidance provided below:
>
> - Burrowing Owl surveys shall be conducted utilizing accepted protocols as follows. If Burrowing Owls are detected on the project site then the action(s) taken will be as follows:
> - If the site is within the Criteria Area, then at least 90 percent of the area with long-term conservation value will be included in the MSHCP Conservation Area. Otherwise:
>
> 1) If the site contains, or is part of an area supporting less than 35 acres of suitable habitat or the survey reveals that the site and the surrounding area supports fewer than three pairs of Burrowing Owls, then the on-site Burrowing Owls will be passively or actively relocated following accepted protocols.

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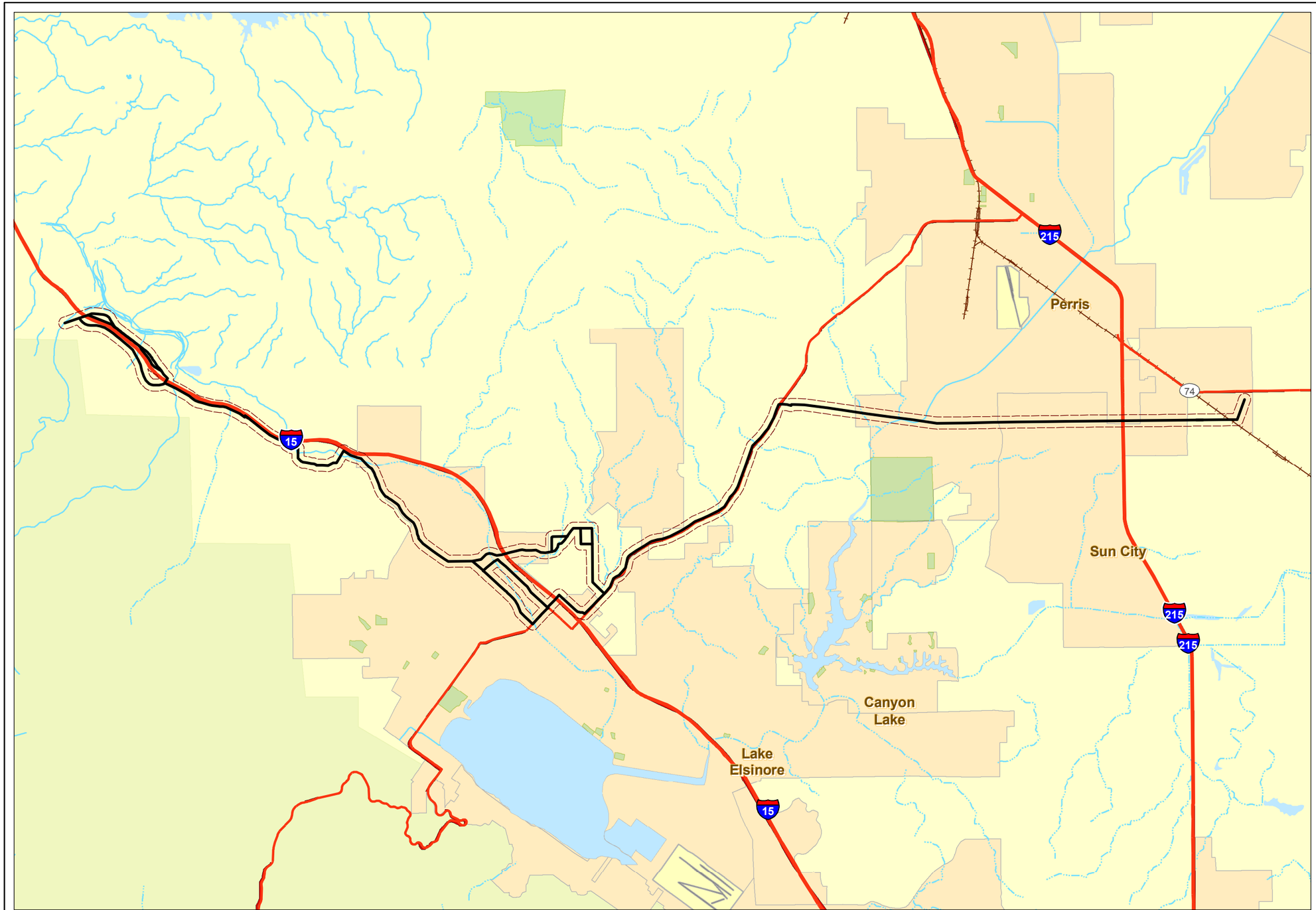
Date: 11/28/07

amec

Regional Project Location
Burrowing Owl Survey
Valley - Ivyglen Transmission Line Project, California

FIGURE

1



LEGEND

- Preferred Route (Updated on 08/16/2007)
- Survey Boundary

Base Data

- Major Freeways
- Perennial Stream
- Intermittent Stream and Canal
- Parks and Forests
- Major Cities

LOCATION MAP

MAP NOTE

Data Source:
AMEC - Project Boundary
RCIP - Riverside MSHCP
SCE - Proposed Segment, Base Data

Projection: State Plane, California 406
NAD 83, Feet
Path: w\sd06\bio\SCE\ivy_glen\mxd\
focus_survey\burrowing_owl\
MSHCP_BUOW.mxd
Date: 11/29/2007

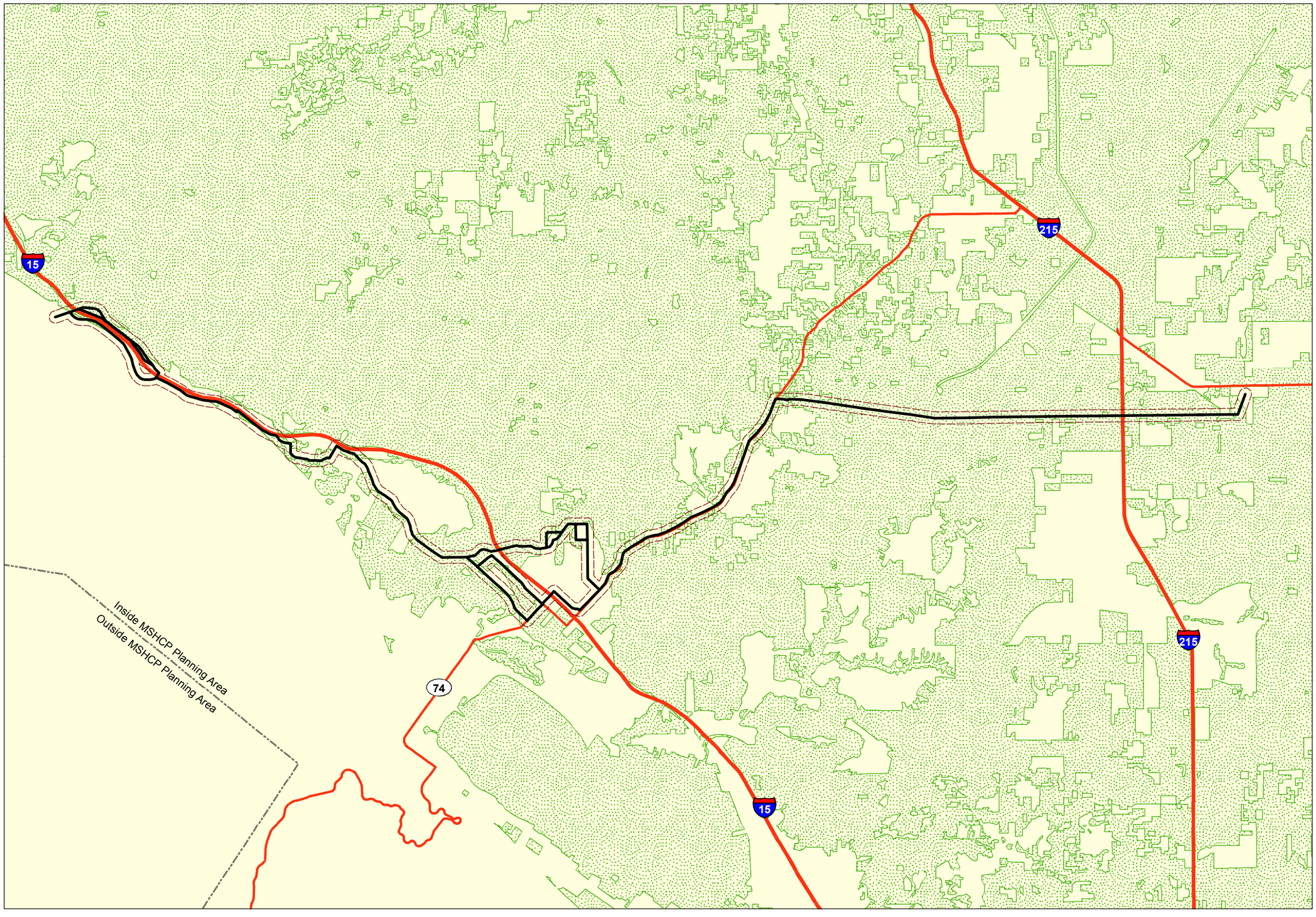
PROTECTED MATERIALS - Contains Critical Energy Infrastructure Information.

N

0 0.35 0.7 1.4 2.1 2.8 3.5
Miles

Project Overview
Burrowing Owl Survey
Valley - Ivyglen Transmission Line Project, California

FIGURE
2



LEGEND

Riverside MSHCP

- MSHCP Boundary
- Burrowing Owl Survey Areas

Project Data

- Preferred Route (Updated on 08/16/2007)
- Survey Boundary

Base Data

- Major Freeways

LOCATION MAP

MAP NOTE

Data Source:
AMEC - Project Boundary
RCIP - Riverside MSHCP
SCE - Proposed Segment, Base Data

Projection: State Plane, California 406
NAD 83, Feet
Path: w\sd06\bio\SCE\ivy_glen\mxd\
focus_survey\burrowing_owl\
MSHCP_BUOW.mxd
Date: 11/29/2007

PROTECTED MATERIALS - Contains Critical Energy Infrastructure Information.

N

0 0.35 0.7 1.4 2.1 2.8 3.5
Miles

County of Riverside Burrowing Owl Survey Areas
Burrowing Owl Survey
Valley - Ivyglen Transmission Line Project, California

FIGURE
3

2) If the site (including adjacent areas) supports three or more pairs of Burrowing Owls, supports greater than 35 acres of suitable habitat and is non-contiguous with MSHCP Conservation Area lands, at least 90 percent of the area with long-term conservation value and Burrowing Owl pairs will be conserved onsite.

Objective 6: Pre-construction presence/absence surveys for Burrowing Owl within the survey area where suitable habitat is present will be conducted for all Covered Activities through the life of the permit. Surveys will be conducted within 30 days prior to disturbance. Take of active nests will be avoided. Passive relocation (use of one way doors and collapse of burrows) will occur when owls are present outside the nesting season.

Although the MSHCP references the California Department of Fish and Game (CDFG) Staff Report (1995) which is based on the Burrowing Owl Consortium Guidelines (1993), the purpose of the following instructions is to clarify the methods necessary to obtain sufficient information to address consistency with (1) specific conservation requirements of the MSHCP as identified in species-specific Objective 5, and (2) ensure direct mortality of Burrowing Owls is avoided through implementation of species-specific Objective 6 (Pre-construction surveys). Note that surveys conducted to address Burrowing Owl species-specific Objective 5 are necessary during the project design phase while surveys to address species-specific Objective 6 are to be conducted just prior to project construction. Habitat assessments and Burrowing Owl surveys should be conducted by a biologist knowledgeable in Burrowing Owl habitat, ecology, and field identification of the species and Burrowing Owl sign.

1.3 Burrowing Owl Background

The Burrowing Owl (*Athene cunicularia*), a California Special Concern Species (CSC), uses a variety of natural and modified habitats for nesting and foraging typically characterized by low growing vegetation. Burrowing Owl habitat includes, but is not limited to, native and non-native grassland, interstitial grassland within shrub lands, shrub lands with low density shrub cover, golf-courses, drainage ditches, earthen berms, unpaved airfields, pastureland, dairies, fallow fields, and agricultural use areas.

Burrowing Owls typically use burrows made by fossorial (adapted for burrowing or digging) mammals, such as California Ground Squirrels (*Spermophilus beecheyi*) or Badgers (*Taxidea taxus*). They sometimes dig their own burrow. They often utilize manmade structures, such as earthen berms; cement culverts; cement, asphalt, rock, or wood debris piles; or openings beneath cement or asphalt pavement. Burrowing Owls are often found within, under, or in close proximity to man-made structures.

2.0 METHODOLOGY

AMEC biologists knowledgeable in Burrowing Owl habitat, ecology, and field identification of the species and its sign conducted surveys on the dates shown in Table 1. The weather conditions during these surveys were conducive to observing owls outside their burrows and detecting Burrowing Owl sign (Table 1). Survey methodology adhered to the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area*

(County of Riverside 2006). Data were collected using numerous techniques including hand-held Global Positioning System (GPS), standardized data forms, photographs, and aerial field maps. In addition to noting the presence/absence of burrowing owls at the site location during all survey dates, all species seen and heard were recorded along with any other animals on site (Appendix A).

Table 1. Survey Data

Date	Habitat Suitability Assessment	Focused Burrow Survey	Focused Burrowing Owl Survey	Weather Conditions			
				Time	Temp. (°F)	Last Rain Event	Wind (mph)
2006							
Apr 24	✓			n/a	n/a	n/a	n/a
Apr 25	✓			n/a	n/a	n/a	n/a
Apr 26	✓			n/a	n/a	n/a	n/a
Apr 27	✓			n/a	n/a	n/a	n/a
May 02	✓			n/a	n/a	n/a	n/a
May 03	✓			n/a	n/a	n/a	n/a
May 04	✓			n/a	n/a	n/a	n/a
2007							
May 03		✓		0830-1400	57-72	Apr 2007: 0.36 in.	5-10
May 15		✓		0800-1100	54-61	Apr 2007: 0.36 in.	0-5
Jun 11		✓		0800-1500	64-88	Apr 2007: 0.36 in.	0-5
Jun 13		✓		0730-1400	69-104	Apr 2007: 0.36 in.	0-5
Jun 14		✓		0600-1300	62-97	Apr 2007: 0.36 in.	0-3
Jul 10		✓	✓	0545-0800	64-65	Apr 2007: 0.36 in.	0-3
Jul 11			✓	0530-0800	68-69	Apr 2007: 0.36 in.	0-1
Jul 13			✓	0530-0800	57-69	Apr 2007: 0.36 in.	0-1
Jul 16			✓	0530-0800	61-72	Apr 2007: 0.36 in.	0-1
Jul 30			✓	0500-0800	70-76	Apr 2007: 0.36 in.	0-1
Jul 31			✓	0500-0800	68-70	Apr 2007: 0.36 in.	0-5
Aug 01			✓	0500-0800	69-75	Apr 2007: 0.36 in.	3-5
Aug 02			✓	0500-0800	69-75	Apr 2007: 0.36 in.	0-5

Surveyors:
Chet McGaugh; AMEC Wildlife Biologist
David Lee; AMEC Wildlife Biologist
John F. Green; AMEC Wildlife Biologist
Matt Amalong; AMEC Wildlife Biologist
Michael Wilcox; AMEC Wildlife Biologist
Nathan Moorhatch; AMEC Wildlife Biologist
Patrick McConnell; AMEC Botanist
Stephen J. Myers; AMEC Wildlife Biologist

2.1 Habitat Assessment

Habitat on each proposed transmission line route was assessed between April and May of 2006 for Burrowing Owl habitat suitability (Table 1). Areas with potential Burrowing Owl habitat, including grasslands, sage scrub, and other areas with sparse, low growing vegetation, were surveyed for potential owl burrows and owls. These surveys included ground squirrel and ground squirrel burrow surveys. Biologists walked areas of potential habitat while searching for Burrowing Owls; potential and active burrows; and owl sign such as feathers, pellets, and prey items. The survey area included a 150-meter (500-foot) buffer zone on each side of the 60-meter (200-foot) project corridor.

2.2 Focused Burrow Surveys

A focused burrow survey that included natural burrows or suitable man-made structures was conducted. A systematic survey for burrows, including owl sign, was conducted by walking through suitable habitat over the entire survey area (the proposed route and the 150-meter [500-foot] buffer zone). Pedestrian survey transects were spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines was no more than 30 meters (100 feet) and was reduced when necessary to account for differences in terrain, vegetation density, and ground surface visibility. The location of all suitable Burrowing Owl habitat, potential owl burrows, Burrowing Owl sign, and any owls observed were noted and mapped, including GPS coordinates.

2.3 Focused Burrowing Owl Surveys

Focused Burrowing Owl surveys, conducted in areas where suitable burrows were found during the focused burrow surveys, consisted of eight site visits covering all areas four times. Surveys were conducted in the morning 1 hour before sunrise to 2 hours after sunrise. Upon arrival at the survey area and prior to initiating the walking surveys, surveyors used binoculars and/or spotting scopes to scan all suitable habitat, location of mapped burrows, owl sign, and owls, including perch locations to ascertain owl presence. A survey for owls and owl sign was then conducted by walking through suitable habitat over the portions of the project route containing suitable burrows and within the adjacent 150-meter (500-foot) buffer zone. These pedestrian surveys followed transects spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines was no more than 30 meters (100 feet) and was reduced to account for differences in terrain, vegetation density, and ground surface visibility. In areas where access was not obtained, the area adjacent to the project site was surveyed using binoculars and/or spotting scopes to determine if owls are present in areas adjacent to project route.

3.0 RESULTS

3.1 Habitat Assessment

The majority of the proposed route passes through disturbed coastal sage scrub, agricultural fields, and developed habitats. Portions of this route are also vegetated by riparian habitat.

There is a California Natural Diversity Database (CNDDB) point that indicates the historic use of Burrowing Owls along this route and adjacent to this route outside of the survey area boundary. Surveys for Burrowing Owls were conducted in these potential habitat areas intensively; however, no owls or their sign were observed. Other areas along this route which are occupied by open, nonnative grassland and agricultural fields may support this species. No Burrowing Owls or evidence of this species were identified during field investigations.

3.2 Focused Burrow Surveys

Numerous potential Burrowing Owl burrows (e.g., ground squirrel burrows, underneath boulders, etc.) were located along the alignments, but no individuals or sign were detected. Potential Burrowing Owl burrow locations along the proposed route are illustrated on Figures 4, 5, and 6.

3.3 Focused Burrowing Owl Surveys

No Burrowing Owls or Burrowing Owl sign were detected along the proposed transmission line route.

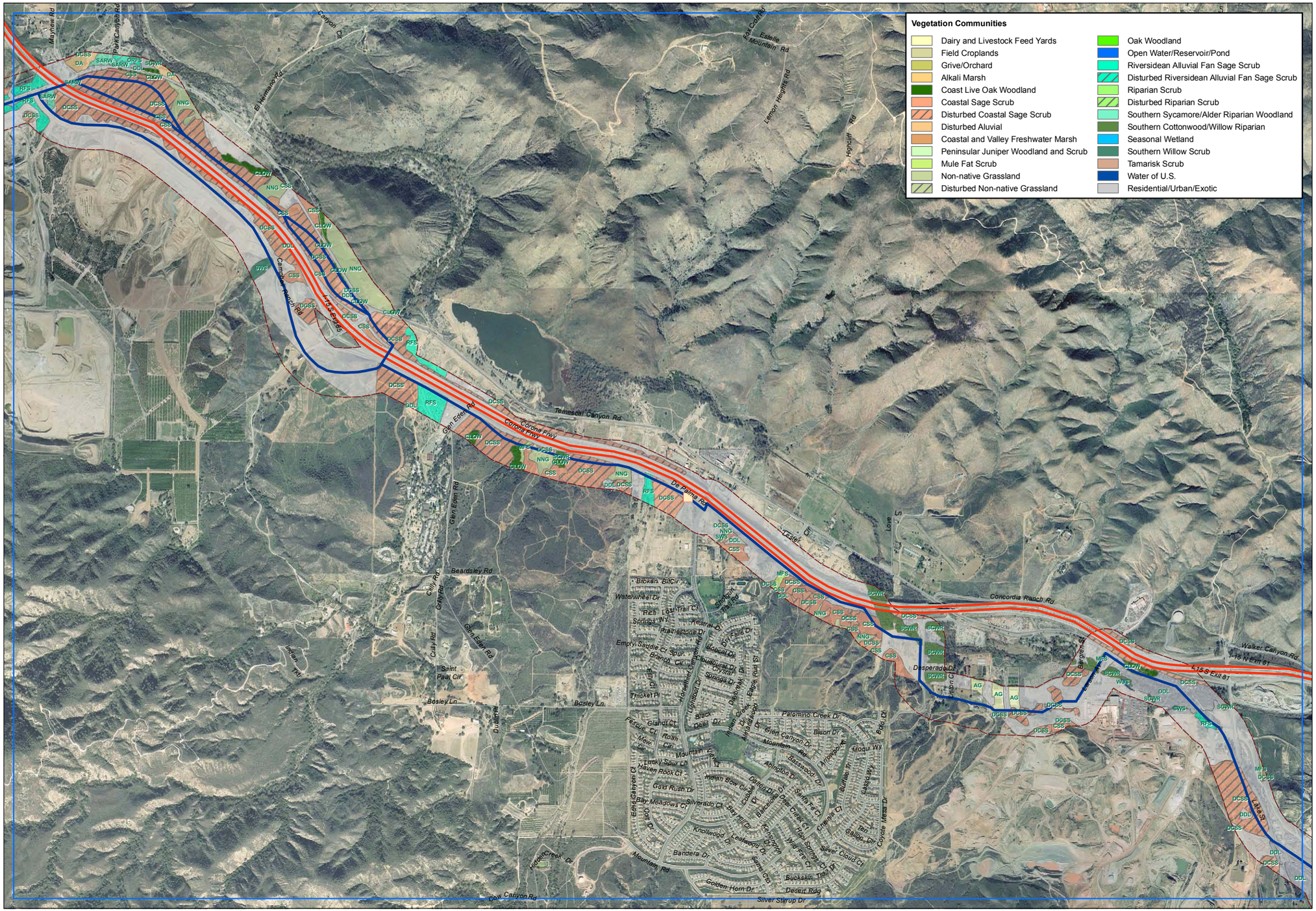
4.0 IMPACTS AND RECOMMENDATIONS

This section presents an impact analysis of the proposed Valley-Ivyglen Transmission Line project on Burrowing Owls. Because no Burrowing Owls or Burrowing Owl sign were identified during all phases of surveys, it is anticipated that impacts to Burrowing Owls will be less than significant.

Impacts are defined as activities that destroy, damage, alter, or otherwise affect biological resources in the project area. Direct biological impacts are defined as the removal and permanent loss of native plant communities functioning as wildlife habitat as well as losses of individual wildlife resulting from project implementation. Indirect impacts are those impacts resulting in decreased use of areas and/or adjacent habitats by wildlife due to increases in human-related activities. Cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for biological resources.

4.1 Thresholds for Determining Potential Significance

The primary sources for determining significance of impacts are determined by the National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), Natural Communities Conservation Plan (NCCP), MSHCP, and local guidelines and ordinances. Guidelines under CEQA provide guidance and interpretation for implementing CEQA statutes. CEQA significance entails any impact to plant and wildlife species listed by federal or state



LEGEND

- Potential Burrowing Owl Burrow

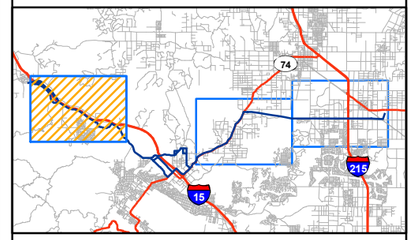
Project Data

- Proposed Route (Updated on 08/16/2007)
- Survey Boundary

Base Data

- Major Freeways
- Roads
- Map Index

MAP INDEX



LOCATION MAP

MAP NOTE

Data Source:
AMEC - Project Boundary
AMEC - Survey Result
SCE - Alternatives, Base Data

Projection: Stateplane, California 406
NAD 83, Feet
Path: w\sd06\bio\SCE\ivy_glen\mxd\
focused_survey\survey_overview.mxd
Date: 10/16/2007

N

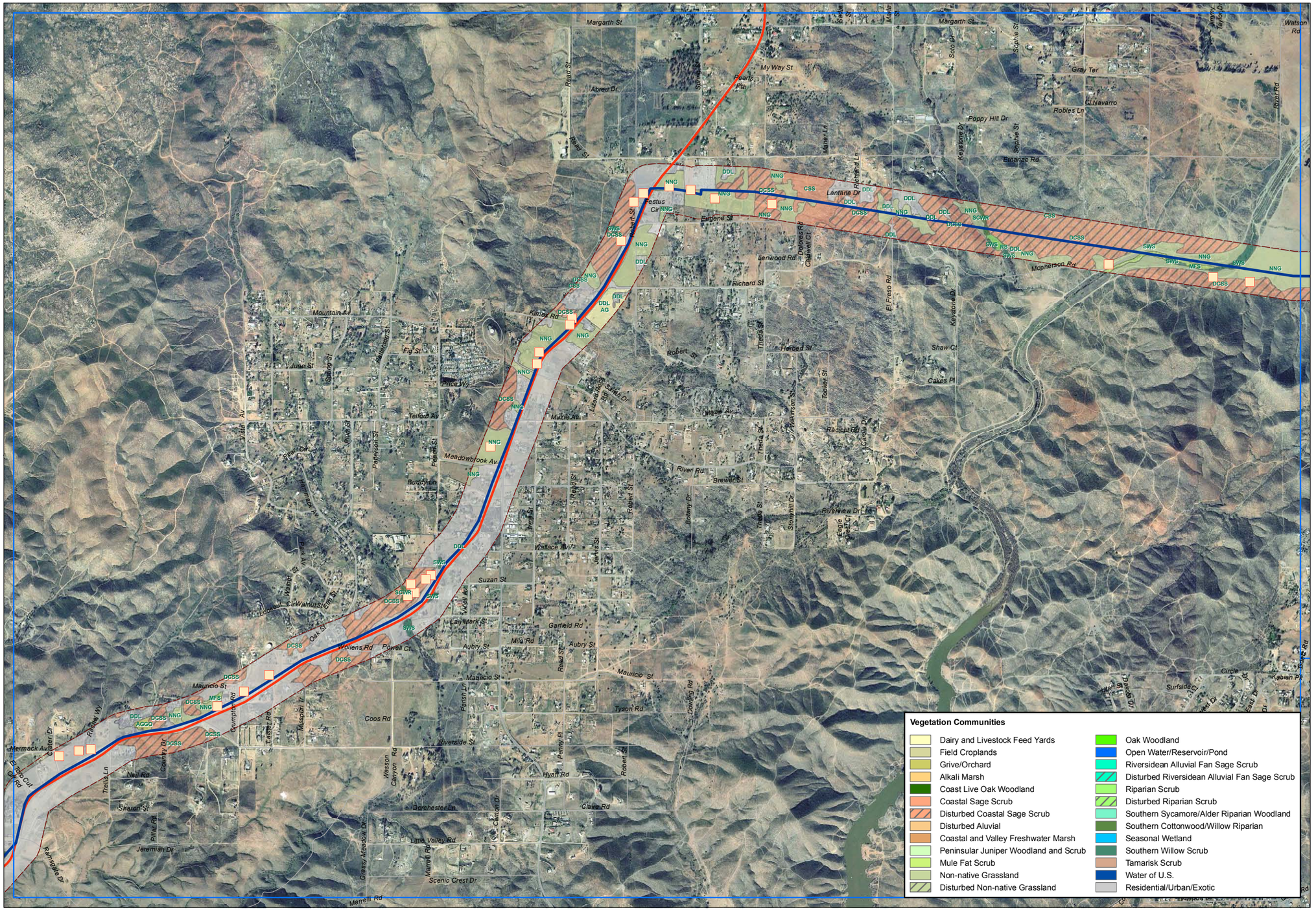
1 inch equals 2,000 feet

0 1,000 2,000 4,000

Feet

Potential Burrowing Owl Burrows
Burrowing Owl Survey
Valley - Ivyglen Transmission Line Project, California

FIGURE 4



LEGEND

- Potential Burrowing Owl Burrow

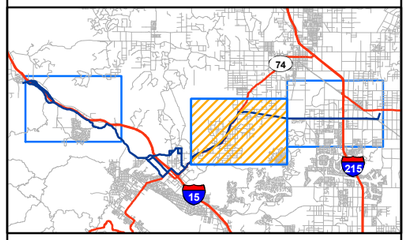
Project Data

- Proposed Route (Updated on 08/16/2007)
- Survey Boundary

Base Data

- Major Freeways
- Roads
- Map Index

MAP INDEX



LOCATION MAP

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AMEC - Survey Result
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focused_survey\survey_overview.mxd
Date: 10/16/2007

N

1 inch equals 2,000 feet

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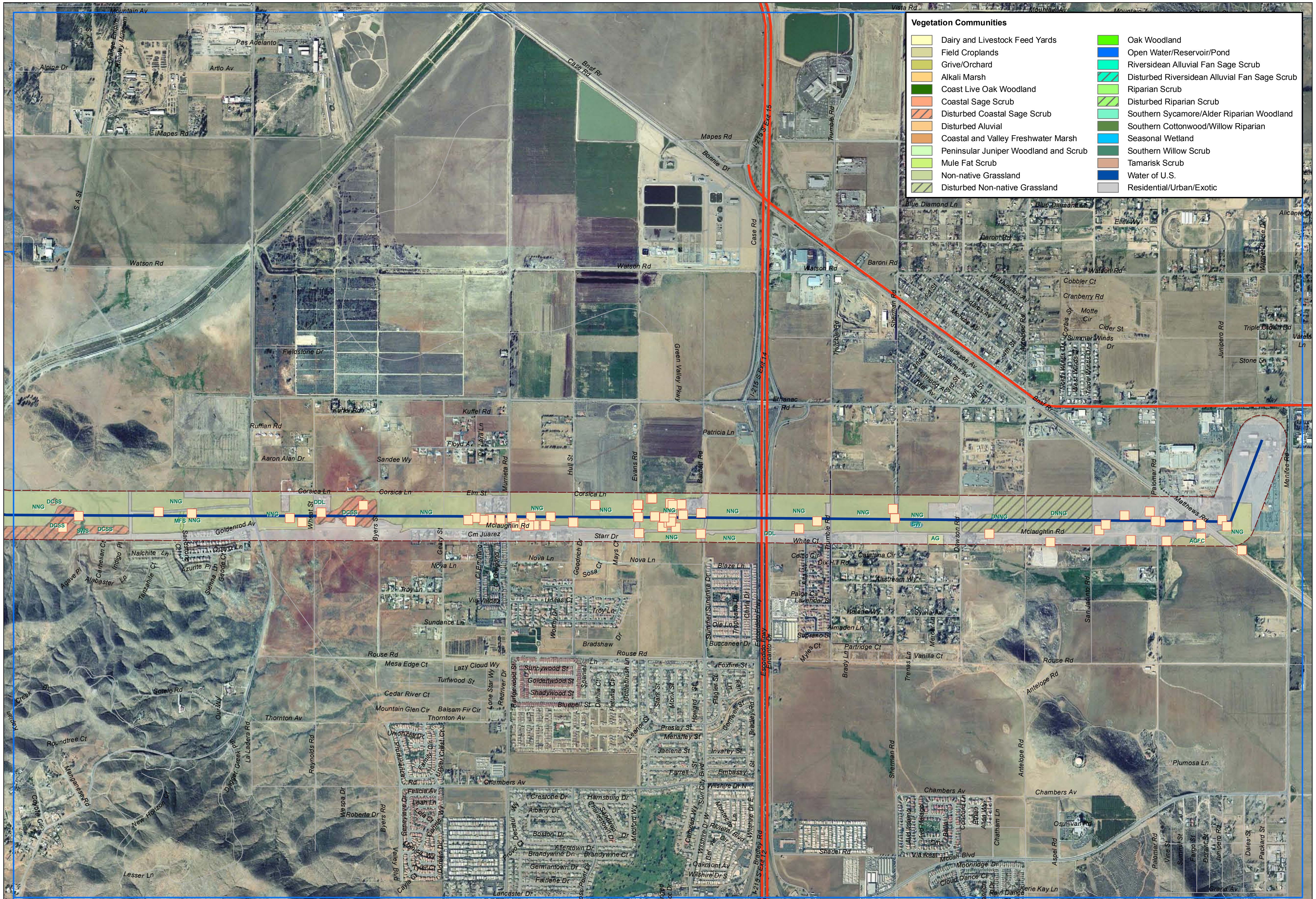
Feet

Potential Burrowing Owl Burrows
Burrowing Owl Survey
Valley - Ivyglen Transmission Line Project, California

FIGURE

5



LEGEND

Potential Burrowing Owl Burrow

Project Data

Proposed Route (Updated on 08/16/2007)

Survey Boundary

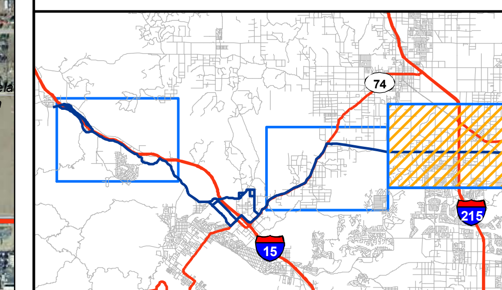
Base Data

Major Freeways

Roads

Map Index

MAP INDEX



LOCATION MAP

MAP NOTE

Data Source:
AMEC - Project Boundary
AMEC - Survey Result
SCE - Alternatives, Base Data

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NAD 83, Feet
Path: w\sd06\bio\SCE\ivy_glen\mxd\focused_survey\survey_overview.mxd
Date: 10/16/2007

N

1 inch equals 2,000 feet

0 1,000 2,000 4,000

Feet

amec

Potential Burrowing Owl Burrows
Burrowing Owl Survey
Valley - Ivyglen Transmission Line Project, California

FIGURE 6

agencies as threatened or endangered, or of regional or local significance. A significant impact to listed or sensitive species could be direct or indirect, with impacts to rare or sensitive habitats also considered significant.

In general, the proposed project could result in a potentially significant impact to the environment if it would:

- Substantially reduce the habitat of a plant or wildlife species
- Cause a plant or wildlife population to drop below self-sustaining levels
- Threaten to eliminate a plant or animal community
- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special species in local or regional plans, policies, or regulations, or by the CDFG or U.S. Fish and Wildlife Service (USFWS)
- Reduce the number or restrict the range of an endangered, rare, or threatened species
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFG, U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), or USFWS

4.2 Direct Impacts

If Burrowing Owls move into the project area, direct impacts to them as a result of project activities are possible. These possibilities include loss of foraging habitat and injury or mortality during project implementation. Mitigation measures, outlined below, would be implemented to reduce the impacts to a less than significant level.

4.3 Indirect Impacts

Because Burrowing Owls could be present in adjacent habitats, variable levels of indirect impact could occur as a result of project implementation. Examples of indirect impacts include, but are not limited to, the following:

- Human activity in areas not generally having this presence
- Attraction and/or facilitation of human-subsidized scavenger use
- Temporary and/or permanent increases in ambient night lighting as a result of the use of street, parking lot, and/or building lights
- Runoff of hazardous materials into adjacent areas
- Changes in surface drainage patterns following precipitation events
- Temporary and/or permanent noise increases
- Increases in fugitive dust that may accumulate on off-site plants and habitats
- The introduction of exotic or invasive plants or animals

Human activity can alter wildlife behavior patterns. Increases in noise can disrupt the normal behavior patterns of wildlife, sometimes resulting in displacement or attraction of some wildlife. Temporary and permanent changes in ambient night lighting can result in higher predation rates upon wildlife by nocturnal predators because of increased visibility during nighttime hours. Runoff of hazardous materials can adversely affect special status plants and animals, as well as more commonly occurring species. The water table in general, which supports off-site plants and animals, can similarly be affected. Surface drainage changes can alter the extent and health of native plant communities. Fugitive dust accumulation can result in a decreased reproductive viability of affected plants, sometimes resulting in the reduction of available food and cover sources for wildlife. The introduction of exotic and/or invasive species can likewise degrade off-site habitats, alter wildlife behavior patterns, and/or result in animal displacement, injury or mortality in affected areas.

4.4 Cumulative Impacts

Impacts associated with the project, when considered individually, may not be considered significant. However, when considered collectively with other past, present, and future projects in the region, these project impacts may contribute incrementally to the loss of Burrowing Owl habitat or individuals. If the project's incremental contribution were to be substantial, then the project could be considered to have significant cumulative impacts.

The project will not reduce the amount of available habitat for Burrowing Owls since the ROW has already been established. Providing mitigation measures described below to minimize the effects of project activities on Burrowing Owls will reduce the project's potential cumulative biological impacts to a level that is less than significant.

4.5 Avoidance and Mitigation Measures

All project sites containing burrows or suitable habitat, whether owls were found or not, require pre-construction surveys that shall be conducted within 30 days prior to ground disturbance to ensure no Burrowing Owls have established territories on site between initial surveys and receipt of all project approvals, and to avoid direct take of Burrowing Owls (MSHCP Species-Specific Objective 6). If Burrowing Owls are identified on site, all mitigation measures identified herein, as well as in proponents environmental assessment prepared for this project, would be applied prior to surface disturbance taking place.

4.5.1 Off-Site Habitat Compensation

The CDFG requires a minimum of 6.5 acres of foraging habitat permanently protected per pair or unpaired resident birds to offset the associated loss of foraging and burrowing habitat. The protected land would be located adjacent to occupied Burrowing Owl habitat in a locality acceptable to the CDFG.

An implementation agreement with a mitigation banking and land management entity (e.g., a third-party entity approved by CDFG) would be secured to acquire 6.5 acres of replacement Burrowing Owl habitat for each pair/unpaired bird, initially enhance, and manage the acquired land over the long term for the benefit of the species.

4.5.2 Habitat Restoration

All Burrowing Owl habitats temporarily disturbed through project activities will be revegetated and restored in accordance with project-specific Habitat Restoration mitigation measures.

4.5.3 Specific Impact Minimization Measures

1. Occupied burrows would not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by the CDFG verifies through non-invasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

2. A buffer zone of 75 meters (250 feet) around an active nest should be established, appropriately flagged, and monitored by a qualified biologist.

3. When destruction of occupied burrows is unavoidable, existing unsuitable burrows would be enhanced (enlarged or cleared of debris) or new burrows created (by installing artificial burrows) at a ratio of 2:1 on the protected lands site.

4. If Burrowing Owls must be moved away from the disturbance area, passive relocation techniques would be used rather than actual avian trapping. At least one or more weeks would be necessary to accomplish this and allow the birds to acclimate to alternate burrows.

5. The project would provide funding for long-term management and monitoring of the protected lands acquired for Burrowing Owl impacts. This monitoring would include an annual report submittal to the CDFG.

5.0 REFERENCES

AMEC Earth and Environmental, Inc. 2006. Final Biological Technical Report for the Valley-Ivyglen Transmission Line Project, Riverside County, California. Volumes I and II.

California Burrowing Owl Consortium. 1993. Burrowing Owl Survey Protocol and Mitigation Guidelines.

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Appendix A
Other Species Observed or Heard During Survey Effort

Appendix A
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[1] California Special Concern species	
[2] Non-native species	
Anatidae	**Ducks, Geese, and Swans**
Mallard	*Anas platyrhynchos*
Odontophoridae	**New World Quail**
California Quail	*Callipepla californica*
Ardeidae	**Herons and Bitterns**
Great Blue Heron	*Ardea herodias*
Great Egret	*Ardea alba*
Black-crowned Night-Heron	*Nycticorax nycticorax*
Cathartidae	**Vultures**
Turkey Vulture	*Cathartes aura*
Acciptridae	**Hawks, Kites, and allies**
[1]Cooper's Hawk	*Accipiter cooperii*
Red-shouldered Hawk	*Buteo lineatus*
Red-tailed Hawk	*Buteo jamaicensis*
Falconidae	**Falcons and Caracaras**
American Kestrel	*Falco sparverius*
Charadriidae	**Plovers and allies**
Killdeer	*Charadrius vociferus*
Recurvirostridae	**Stilts and Avocets**
American Avocet	*Recurvirostra americana*

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Columbidae	**Pigeons and Doves**
[2]Rock Pigeon	*Columba livia*
[2]Eurasian Collared-Dove	*Streptopelia decaocto*
Mourning Dove	*Zenaida macroura*
Strigidae	**Typical Owls**
Great Horned Owl	*Bubo virginianus*
Caprimulgidae	**Goatsuckers**
Lesser Nighthawk	*Chordeiles acutipennis*
Apodidae	**Swifts**
[1]Vaux's Swift	*Chaetura vauxi*
Trochilidae	**Hummingbirds**
Anna's Hummingbird	*Calypte anna*
Costa's Hummingbird	*Calypte costae*
Picidae	**Woodpeckers**
Nuttall's Woodpecker	*Picoides nuttallii*
Tyrannidae	**Tyrant Flycatchers**
Black Phoebe	*Sayornis nigricans*
Say's Phoebe	*Sayornis saya*
Ash-throated Flycatcher	*Myiarchus cinerascens*
Cassin's Kingbird	*Tyrannus vociferans*
Western Kingbird	*Tyrannus verticalis*

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Laniidae	**Shrikes**
[1]Loggerhead Shrike	*Lanius ludovicianus*
Corvidae	**Jays, Crows, and allies**
Western Scrub-Jay	*Aphelocoma californica*
American Crow	*Corvus brachyrhynchos*
Common Raven	*Corvus corax*
Alaudidae	**Larks**
[1]California Horned Lark	*Eremophila alpestris actia*
Hirundinidae	**Swallows**
Tree Swallow	*Tachycineta bicolor*
Northern Rough-winged Swallow	*Stelgidopteryx serripennis*
Cliff Swallow	*Petrochelidon pyrrhonota*
Barn Swallow	*Hirundo rustica*
Aegithalidae	**Bushtits**
Bushtit	*Psaltriparus minimus*
Troglodytidae	**Wrens**
House Wren	*Troglodytes aedon*
Mimidae	**Mockingbirds and Thrashers**
Northern Mockingbird	*Mimus polyglottos*

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Sturnidae	**Starlings and Mynas**
[2]European Starling	*Sturnus vulgaris*
Parulidae	**Warblers**
[1]Yellow Warbler	*Dendroica petechia brewsteri*
Common Yellowthroat	*Geothlypis trichas*
Emberizidae	**Towhees and Sparrows**
[1]Spotted Towhee	*Pipilo maculatus*
California Towhee	*Pipilo crissalis*
Lark Sparrow	*Chondestes grammacus*
Savannah Sparrow	*Passerculus sandwichensis*
Song Sparrow	*Melospiza melodia*
Cardinalidae	**Cardinals, Grosbeaks, Buntings**
Blue Grosbeak	*Passerina caerulea*
Lazuli Bunting	*Passerina amoena*
Icteridae	**Blackbirds, Cowbirds, Grackles, Orioles**
Red-winged Blackbird	*Agelaius phoeniceus*
Western Meadowlark	*Sturnella neglecta*
Brewer's Blackbird	*Euphagus cyanocephalus*
Brown-headed Cowbird	*Molothrus ater*
Hooded Oriole	*Icterus cucullatus*
Bullock's Oriole	*Icterus bullockii*

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Fringillidae	**Finches and allies**
House Finch	*Carpodacus mexicanus*
Lesser Goldfinch	*Carduelis psaltria*
American Goldfinch	*Carduelis tristis*
Passeridae	**Old World Sparrows**
[2]House Sparrow	*Passer domesticus*