

Southern California Edison
WODUP A.13-10-020

DATA REQUEST SET A.13-10-020 WODUP ED-SCE-02

To: ENERGY DIVISION
Prepared by: Paul Yamazaki
Title: Senior Biologist
Dated: 04/02/2014

Question BIO-01b:

Biological Resources

BIO-1 The Proponents Environmental Assessment (PEA) states that aeolian sand habitat was mapped and surveyed for Coachella Valley Jerusalem cricket and Coachella giant sand treader cricket on the right-of-way (ROW), but the cricket survey report was not included in the appendices to the Biological Resources Technical Report (BRTR).

b. Please provide the focused survey report for sensitive herpetofauna (AMEC 2012). It is our understanding that surveys for Coachella Valley fringe-toed lizard (CVFTL) were not done in aeolian sand habitat. If not included in the AMEC reports, please provide an explanation for not surveying for CVFTL in aeolian sand habitat.

Response to Question BIO-01b:

The Draft Focused Survey for Sensitive Herpetofauna (AMEC, 2012) is attached, per your request.

AMEC's report titled "Focused Survey for Sensitive Herpetofauna" (June 2012) also did not include a detailed project description, however a generalized description of the project was provided in the Introduction section. The current project description is the element that would have been inserted under "Project Description" in the reports had it been available at the time. The study area for sensitive herpetofauna is the same as for the invertebrates.

A fully detailed project description was not available because the scope of the project and potential alternatives were still being defined at the time these studies were conducted. Nevertheless, the study areas are appropriate for the project as currently described. The field work that was performed for these studies was also supplemented by surveys for desert tortoise and other species (e.g., special status plants, small mammals) in 2012 and 2013. The literature review, habitat assessment, and field studies conducted by AMEC provided important guidance indicating that additional surveys were not warranted for Coachella Valley fringe-toed lizard (CVFTL), and flat-tailed horned lizard in the project area due to the absence of suitable habitat and/or because the study area lies outside the known range of these species.

**Southern California Edison
West of Devers Upgrade Project**



**Focused Surveys for Sensitive
Herpetofauna**

Devers Substation to Beaumont,
Riverside County, California

June 2012

Prepared By

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Summary

AMEC Environment and Infrastructure, Inc.(AMEC) was contracted by Southern California Edison (SCE) to perform a variety of focused surveys for sensitive herpetofauna along an approximately 26.5 mile segment of the SCE power line corridor that extends from the Devers substation on the east to the Interstate 10 corridor west of the City of Beaumont, Riverside County, California. The survey area is largely within the San Gorgonio Pass, in an area that transitions from Sonoran Desert through a coastal-influenced ecotone to cismontane habitats. Because the Project area is within suitable habitat for the desert tortoise (*Gopherus agassizii*), AMEC was contracted to perform a focused survey for that species on the Project alignment. The survey was performed in accordance with the current United States Fish and Wildlife Service protocol (USFWS 2010). A separate report submitted in January 2012 presented the results of that focused survey.

Based upon a review of pertinent literature (including but not limited to the California Natural Diversity Database – CNDDB), and AMEC biologist’s knowledge of the project site and vicinity, several sensitive and listed reptile species were identified that had potential to occur in the project vicinity. These species included: western pond turtle (*Emys marmorata*), Coachella Valley fringe-toed lizard (*Uma inornata*), flat-tailed horned lizard (*Phrynosoma mcallii*), San Diego (coast) horned lizard (*Phrynosoma blainvillii*), silvery legless lizard (*Aniella pulchra pulchra*), orange-throated whiptail (*Aspidoscelis hyperythra*), desert rosy boa (*Lichanura orcutti*), red diamond rattlesnake (*Crotalus ruber*), coast patchnose snake (*Salvadora hexalepis virgultea*), and two-striped garter snake (*Thamnophis hammondi*).

AMEC biologists observed 14 species of common reptiles and 3 species of sensitive herpetofauna during the course of the surveys. Desert tortoise is the only listed (Federal and State threatened) species that AMEC biologists found sign of on the project right-of-way (ROW) during the surveys. AMEC biologists also found two additional species of sensitive reptile on the project ROW during the performance of the surveys: red diamond rattlesnake and desert rosy boa.

AMEC biologists observed a total of seven red diamond rattlesnakes (including two that were found together while performing the focused tortoise surveys), and eight individual desert rosy boas during the surveys. Of the remaining eight species of sensitive reptiles that were the focus of this survey effort, AMEC biologists feel there is potential for San Diego (coast) horned lizards, silvery legless lizards, and coast patchnose snakes to occur in areas of suitable habitat on the western two thirds of the project ROW, although these species were not observed during the surveys.

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List of Acronyms & Abbreviated Terms

AMEC	AMEC Environment & Infrastructure, Inc.
BLM	Bureau of Land Management
BSA	Biological Study Area
CDFG	California Department of Fish and Game
CNDDDB	California Natural Diversity Database
FESA	Federal Endangered Species Act
I-10	Interstate 10
kV	Kilovolt
Project	SCE West of Devers Upgrade Project
Reservation	Morongo Indian Reservation
SCE	Southern California Edison
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

SCE West of Devers Upgrade Project Focused Surveys For Sensitive Herpetofauna

1.0 INTRODUCTION

AMEC Environment and Infrastructure (AMEC) was contracted by Southern California Edison (SCE) to perform a variety of focused surveys for sensitive herpetofauna along an approximately 26.5 mile segment of the SCE power line corridor that extends from the Devers substation on the east to the Interstate 10 corridor west of the City of Beaumont, Riverside County, California (see Map 1). The eastern end of the alignment is located on the southern edge of Section 5, Township 3 South, Range 4 East, as shown on the USGS 7.5 minute *Desert Hot Springs, Calif.* quadrangle. The western end of the survey segment is located in the northeast ¼ of Section 31, Township 2 South, Range 1 West, as shown on the USGS 7.5 minute *El Casco, Calif.* quadrangle. The purpose of the project is to upgrade existing transmission lines to provide for delivery of additional energy resources, including renewable energy, to the power grid. The Project will involve the removal and replacement of the existing 220 kilovolt (kV) transmission lines with new double-circuit 220 kV transmission lines between the existing Devers Substation (located near Palm Springs), El Casco Substation (located in Western Riverside County), Vista Substation (located in Grand Terrace), and San Bernardino Substation (located in San Bernardino).

A portion of the Project alignment is within suitable habitat for the desert tortoise (*Gopherus agassizii*). AMEC biologists conducted a United States Fish and Wildlife (USFWS) protocol survey, utilizing the current 2010 guidelines, for that portion of the alignment that had potential tortoise habitat (approximately 13.8 miles extending from the Devers Substation on the east to a point on the Morongo Indian Reservation where the potential tortoise habitat ended). A separate report submitted in January 2012 presented the results of that focused survey.

Based upon a review of pertinent literature (including but not limited to the California Natural Diversity Database – CNDDDB), and AMEC biologist’s knowledge of the project site and vicinity, several sensitive and listed reptile species were identified that had potential to occur in the project vicinity. These species included: western pond turtle (*Emys marmorata*), Coachella Valley fringe-toed lizard (*Uma inornata*), flat-tailed horned lizard (*Phrynosoma mcallii*), San Diego (coast) horned lizard (*Phrynosoma blainvillii*), silvery legless lizard (*Aniella pulchra pulchra*), orange-throated whiptail (*Aspidoscelis hyperythra*), desert rosy boa (*Lichanura orcutti*), red diamond rattlesnake (*Crotalus ruber*), coast patchnose snake (*Salvadora hexalepis virgultea*), and two-striped garter snake (*Thamnophis hammondi*).

2.0 PROJECT DESCRIPTION

Scott – Per your request I have left this section blank.

3.0 METHODS

3.1 Review for Existing Records

Prior to the initiation of field work, a review of pertinent literature was performed to check for records of sensitive herpetofauna from the vicinity of the Project site. One source of known

records was the CNDDDB RareFind application (CDFG 2011 & 2012), from which data was obtained for the Desert Hot Springs, White Water, Cabazon, Beaumont, and El Casco, California USGS quadrangles. The review also included an overview of other unpublished data from the Project site and vicinity including previous AMEC work in the area. Additionally, the AMEC biologists that conducted the field surveys: Nathan Moorhatch and Michael Wilcox; as well as AMEC subconsultant Ted Rado, have extensive experience looking for both common and “rare” amphibians and reptiles in the area surrounding the project site, especially in the vicinity of Haugen-Lehmann Road (formerly Verbenia Road) east to White Water Canyon. Other naturalists, biologists, and persons with knowledge of and/or experience in the vicinity of the Project site were consulted regarding amphibian and reptile occurrences in the area. Additional references are included in Section 6 below.

3.2 Focused Surveys

AMEC biologists employed a variety of survey techniques to search for the ten reptile species (listed in the last paragraph of Section 1) that were the focus of this survey effort. Utilizing these different survey methodologies allowed AMEC biologists to maximize the number of herpetofauna species observed on the project alignment and immediate surroundings. Survey methods employed during the performance of this task included:

- 1) Inspecting areas of suitable habitat on foot (also during the performance of the USFWS protocol tortoise survey conducted for this project). The areas of potential flat-tailed horned lizard habitat on the eastern lip and floor of White Water Canyon were surveyed on foot in accordance with the interim protocol outlined in the “Flat-tailed Horned Lizard Rangewide Management Strategy (Foreman [ed.] 1997).
- 2) Driving the alignment during the day (for San Diego (coast) horned lizard and other common diurnal species), and inspecting some areas on foot.
- 3) Driving the alignment at night – Four “night driving” surveys to observe crepuscular and nocturnal species. The “Night driving” surveys were constrained to access roads that were on or immediately adjacent to the project right-of-way (ROW), with areas of limited or no access omitted (private property, gated areas, the Morongo Indian Reservation, fully developed areas, etc.).
- 4) Inspecting (turning over) surface debris such as old boards, cardboard, trash, etc. to locate lizards and snakes that may be hiding underneath (such as silvery legless lizard). This also included recording any herpetofauna observed under the cover boards AMEC biologists had placed at various points along the alignment during the performance of a sensitive invertebrate study undertaken for this project (and detailed in a separate report).

Binoculars, GPS units, and cameras were utilized to help detect and record reptiles encountered during the surveys. Representative photos are included in Appendix 2 of portions of the project ROW and some of the reptile species encountered on the surveys. All plant and vertebrate species observed were recorded in field notes. Surveys were not conducted when the air temperature as measured ~5 centimeters above the soil surface in the shade of the observer exceeded 40°C (104°F).

The following table shows the survey dates, weather conditions, and personnel that participated in each survey. AMEC biologists consisted of Nathan Moorhatch (NM), Michael Wilcox (MW), and Zsolt Kahancza (ZK). AMEC subconsultant Ted Rado (TR) also participated in some of the surveys.

Table 1. Focused Survey Data

Date/Survey Type	Personnel	Times	Weather	Temperature (°F)	Wind (mph)
9/22/11 FTHL habitat assessment & survey	ZK, TR	0920 - 1505	Clear (0%)	90 - 116	1-8
9/29/11 FTHL Survey	NM, TR	0920 - 1041	Clear (0%)	95 - 104	0-6
11/21/11 Cover Board	NM	0910 - 1145	Clear (0%)	59 - 66	0-10
12/13/11 Cover Board	NM, MW	1300-1530	Cloudy (100%cc), rain previous day	50	0-2
1/25/12 Cover Board	NM, MW	1030-1300	Clear (0%)	76 - 78	2-8
2/17/12 Cover Board	NM	1158-1400	Clear (0%)	78 - 75	0-5
2/29/12 Cover Board	NM, MW	1030-1230	Clear (0%)	59 - 61	2-21
3/20/12 Cover Board	MW	1400-1700	Clear (0%)	68 - 70	2-4
3/28/12 Cover Board	MW	1130-1500	Partly cloudy (30%)	70	4-12
4/10/12 Day Drive	NM	1515-1715	Clear (0%)	84 - 81	4-13
4/12/12 Cover Board	MW	1030-1430	Partly cloudy (10%)	60 - 63	7-20
4/27/12 Cover Board – Day Drive – Foot Survey	NM, TR	0745-1515	Clear (0-2%)	65 - 88	2-15
4/30/12 Day Drive – Foot Survey	NM, MW	1255-1520	Clear (0%)	83 - 78	3-9
5/12/12 Night Drive	NM, MW, TR	2013-2250	Clear (0%)	79 - 71	4-15
5/13/12 Night Drive	TR	1938-2201	Clear (0%)	80 - 73	2-12
5/17/12 Night Drive	NM, MW, TR	1900-2311	Clear (0%)	85 - 71	7-23
5/31/12 Night Drive	NM, MW, TR	1905 - 0014	Clear (0%)	92 - 85	2-9

It should be noted that the table above does not include the dates spent performing the focused desert tortoise surveys for this project. AMEC biologists spent nine days surveying for desert tortoise between 11 October 2011 and 21 October 2011.

4.0 RESULTS

The survey area is largely within the San Gorgonio Pass, in an area that transitions from Sonoran Desert through a coastal-influenced ecotone to true cismontane habitats including nonnative grasslands and coastal sage scrub communities (with varying degrees of disturbance). The topography in the Biological Study Area (BSA) varies from fairly level near the Devers Substation to medium height rolling hills cut by smaller washes west of Whitewater Canyon. Elevation ranges from approximately ~1,081 feet above mean sea level (AMSL) near the Devers

Substation to a high of ~2,035 feet AMSL in the hills west of Whitewater Canyon, to ~1,985 feet AMSL at the western end of the survey area.

4.1 Plants and Vegetation Communities

Fifty-six (56) plant taxa were identified in the BSA by AMEC during the surveys (see Appendix 1, Table 1). These taxa are believed to represent the majority of the perennial and some of the annual species that could occur on-site. The fall survey period is after many of the current year's annuals have bloomed and died, and many annuals are more easily detectable in the spring or early summer. However, 2012 appeared to have been a relatively poor rainfall year in the survey area, as evidenced by the low numbers of annuals that were observed during those surveys that took place throughout the early winter to late spring period of 2012.

The project alignment starts in sparse Sonoran creosote bush scrub near the Devers Substation, gradually grades into almost monotypic areas of brittlebush (*Encelia farinosa*) at the base of the slopes west of Whitewater Canyon, continues on through ecotonal Sonoran creosote bush scrub/Riversidean sage scrub east of the Morongo Indian Reservation, and eventually reenters better quality Sonoran creosote bush scrub/Sonoran mixed woody and succulent scrub on the Morongo Indian Reservation. As the project ROW proceeds west the plant communities transition to cismontane habitats, including large areas of nonnative grassland, ruderal fields, and areas of coastal (Riversidean) sage scrub.

The vegetation communities in the BSA all suffer some level of degradation, due to the proximity of I-10, State Highway 62, well-used paved and dirt roads, presence of wind farms, residential development, conversion to golf courses and recreational parks, and cattle grazing on the Morongo Indian Reservation and on areas west of the reservation.

4.2 Wildlife

Seventy-five (75) vertebrates or their sign were identified on or adjacent to the BSA. These included 17 reptiles, 48 birds, and 10 mammal species, most of which are commonly observed species in our desert and cismontane habitats. The full list of vertebrate species observed is in Appendix 1, Table 2.

No amphibians were detected within the BSA, likely due to a lack of suitable aquatic habitat. The exception being Whitewater Creek, although this area is spanned by power lines and no ground impacts are expected due to project implementation. The author of this report has observed at least four species of amphibians in Whitewater Canyon over a period of several years, all of them north of the where the project alignment crosses the canyon. These common amphibians included: red-spotted toad (*Anaxyrus [Bufo] punctatus*), California chorus frog (*Pseudacris cadaverina*), Baja California chorus frog (*Pseudacris hypochondriaca*), and California toad (*Anaxyrus [Bufo] boreas halophilus*). Additionally, AMEC biologists expect the introduced bullfrog (*Lithobates [Rana] catesbeianus*) to potentially occur on some of the manmade water bodies on the western end of the survey area (golf course ponds). Several common reptiles of the area were encountered, including side-blotched lizard (*Uta stansburiana*), Great Basin whiptail (*Aspidoscelis t. tigris*), red coachwhip (*Masticophis flagellum piceus*), Great Basin gopher snake (*Pituophis catenifer deserticola*), and California

kingsnake (*Lampropeltis getula californiae*). For a complete list of reptiles observed on the project ROW during the surveys, please see Appendix 1.

Forty-eight species of birds were detected by AMEC biologists on the Project; these included common resident species such as: red-tailed hawk (*Buteo jamaicensis*), common raven (*Corvus corax*), verdin (*Auriparus flaviceps*), cactus wren (*Campylorhynchus brunneicapillus*) and black-throated sparrow (*Amphispiza bilineata*). Several birds were also observed migrating and/or wintering along portions of the alignment, including: white-crowned sparrow (*Zonotrichia leucophrys*), yellow-rumped warbler (*Setophaga coronata*), western tanager (*Piranga ludoviciana*), Townsend's warbler (*Setophaga townsendi*), and sage thrasher (*Oreoscoptes montanus*).

Common mammals of the area were detected and/or observed, including desert cottontail (*Sylvilagus audubonii*), black-tailed jackrabbit (*Lepus californicus*), white-tailed antelope squirrel (*Ammospermophilus leucurus*), and gray fox (*Urocyon cinereoargenteus*). Sign of several mammals was seen, including coyote (*Canis latrans*) and fossorial rodent burrows characteristic of kangaroo rats (*Dipodomys* spp.) and pocket mice (*Chaetodipus* and/or *Perognathus* spp.). Several kangaroo rats, pocket mice, and native mice (*Peromyscus*) were also observed during the performance of the night-driving surveys, but were not captured and identified to species.

4.3 Sensitive Herpetofauna

AMEC biologists observed 14 species of common reptiles and three species of sensitive herpetofauna during the course of the surveys. As detailed in a separate report, AMEC biologists found desert tortoise sign (burrows and scats) on a portion of the project ROW that crosses the eastern Morongo Indian Reservation (AMEC 2012). Desert tortoise is the only listed (Federal and State threatened) species that AMEC biologists found on the project ROW during the surveys. AMEC biologists also found two additional species of sensitive reptile on the project ROW during the performance of the surveys: red diamond rattlesnake (*Crotalus ruber*) and desert rosy boa (*Lichanura orcutti* – formerly *L. trivirgata*). Table 2 on page 8 lists the numbers and locations of these two species observed on the project. AMEC biologists observed a total of seven red diamond rattlesnakes (including two that were found together while performing the focused tortoise surveys), and eight individual desert rosy boas during the “night driving” surveys. Please refer to Map 3 to see the distribution of these two species on the project ROW. Observations of red diamond rattlesnakes and desert rosy boas along the alignment were oddly segregated, with all of the red diamond rattlesnake observations occurring in the area east of the Haugen-Lehmann (formerly “Verbenia”) residential area and just west of White Water Canyon; and all of the desert rosy boa observations occurring west of the Haugen-Lehmann residential area and east of the eastern Morongo Indian Reservation fence.

The red diamond rattlesnake is not listed as threatened or endangered by the USFWS or California Department of Fish and Game (CDFG), but is considered a “California Species of Special Concern” (CSC). This species also has a state ranking of S2?, where S2 is defined as: “~~Imperiled~~—Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province.” The question mark after the 2 refers to

“Uncertainty about the rank of an element”, with uncertainty expressed as either a range of values such as S2S3 or by use of the question mark after a value (the question mark represents less uncertainty than the range of values). The desert rosy boa is not listed as threatened or endangered by the USFWS or CDFG, and is not considered a CSC. However, this species has a state ranking of S3S4, which is defined as between S3: ~~Vulnerable~~—Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation”, and S4: ~~Apparently Secure~~—Uncommon but not rare; some cause for long-term concern due to declines or other factors.” Desert rosy boa also as a World Conservation Union (IUCN - formerly the International Union for the Conservation of Nature, hence **IUCN**) ranking of ~~Least Concern~~”.

AMEC biologists did not observe any western pond turtle (*Emys marmorata*), Coachella Valley fringe-toed lizard (*Uma inornata*), flat-tailed horned lizard (*Phrynosoma mcallii*), San Diego (coast) horned lizard (*Phrynosoma blainvillii*), silvery legless lizard (*Aniella pulchra pulchra*), orange-throated whiptail (*Aspidoscelis hyperythra*), coast patchnose snake (*Salvadora hexalepis virgulata*), and two-striped garter snake (*Thamnophis hammondi*) on the project ROW during the surveys. Apart from the Coachella Valley fringe-toed lizard, none of these species are Federal or State listed as threatened or endangered. All of these species are considered CDFG CSC’s. A brief discussion of each species and their occurrence probability follows.

Suitable habitat for Coachella Valley fringe-toed lizard (CVFTL) was not present on the project ROW. AMEC biologists did not observe any areas of fine, wind-deposited sand suitable for CVFTL occupation. The author of this report has observed this species at several locations in the Coachella Valley, and near the species westernmost occurrence in the Fingal’s Finger area well south of I-10 and the project alignment. The limited area of relatively fine sands on the eastern floor of White Water Canyon was specifically surveyed for flat-tailed horned lizard (FTHL) on September 29, 2011 under weather conditions suitable for CVFTL activity, and neither species was observed. Zebra-tailed lizards (*Callisaurus draconoides*), side-blotched lizards (*Uta stansburiana*), and Great Basin whiptails (*Aspidoscelis tigris tigris*) were all observed in this area during the survey. No sign of either FTHL or CVFTL was observed in this area or on the eastern lip of White Water Canyon during the 11 survey visits AMEC biologists made to these areas during the invertebrate cover board surveys and FTHL/CVFTL habitat assessment. AMEC biologists also investigated the location of a historic (1962) CNDDDB record for CVFTL near the Devers substation on September 22, 2011 and determined that this site was not CVFTL habitat (a bladed, gravel flat at the base of a wind tower). This site may have been incorrectly recorded, or the habitat has since been converted.

Similarly, no habitat for western pond turtle was observed on the project. The section of the White Water River crossed by the ROW is not habitat for this species, consisting of an open, unvegetated segment of the stream with extremely fast flow (~~rapids~~”). Since the project is only ~~spanning~~” the river at this point, no ground impacts are expected in this area.

No two-striped garter snakes were observed on the project ROW, and suitable habitat was lacking for this species as outlined for the western pond turtle above. The author of this report has observed two-striped garter snakes in White Water Canyon, approximately four miles north of the project alignment adjacent to the White Water Preserve (an area of well developed riparian

woodland). The author has also observed a road-killed patchnose snake (*Salvadora hexalepis* ssp.) in this same area in the past, but did not determine which subspecies it represented. Although no coast patchnose snakes were observed on the project during the surveys, AMEC biologists feel there is a low to moderate potential for this species to occur on the western half of the project.

No San Diego or coast horned lizards were observed on or adjacent to the ROW during the surveys. There is a CNDDDB record located on the southern edge of the project ROW on the central/western portion of the Morongo Indian Reservation. AMEC biologists searched for this species along the ROW, but were unsuccessful in locating any horned lizard species during the surveys. AMEC biologists expect that this often cryptic (and easily missed) species is present on some areas of the western two thirds of the project (this species can occur in coastal/desert ecotonal habitats).

The only whiptail species observed on the project ROW during the surveys was the Great Basin whiptail. AMEC biologists did not observe any orange-throated whiptails, nor did they expect to, since that portion of the project alignment surveyed for this task is east of the known range of the species (a historic CNDDDB record from the vicinity of White Water Canyon is widely held to be erroneous).

No silvery legless lizards were observed during the surveys, despite the presence of suitable habitat on portions of the ROW. No individuals of this species were observed under any of the cover boards, or under any surface debris examined during the surveys. The author of this report has observed silvery legless lizards approximately 1.5 miles south of the project alignment in the vicinity of the San Gorgonio River channel. AMEC biologists expect that this species may be present sparingly on the western two thirds of the ROW, but would be unlikely to be observed unless accidentally unearthed due to ground disturbance.

Table 2. West of Devers Upgrade Sensitive Herpetofauna Observations

Species	Number	Location (UTM)	Date
Crotalus ruber	2	530107 E, 3754554 N	10/17/11
Crotalus ruber	1	529999 E, 3754314 N	05/12/12
Lichanura orcutti	1	524971 E, 3754767 N	05/12/12
Crotalus ruber	1	548307 E, 3738464 N	05/12/12
Crotalus ruber	1	532488 E, 3753987 N	05/12/12
Crotalus ruber	1	531215 E, 3754176 N	05/12/12
Lichanura orcutti	1	525326 E, 3754768 N	05/13/12
Lichanura orcutti	1	526838 E, 3754697 N	05/13/12
Lichanura orcutti	1	525092 E, 3754768 N	05/17/12
Lichanura orcutti	1	525099 E, 3754765 N	05/17/12
Lichanura orcutti	1	525916 E, 3754760 N	05/31/12
Crotalus ruber	1	532280 E, 3754005 N	05/31/12
Lichanura orcutti	1	526790 E, 3754705 N	05/31/12
Lichanura orcutti	1	526191 E, 3754769 N	05/31/12

5.0 CONCLUSION

Three sensitive (including one Federal and State listed threatened) reptiles were observed and/or detected on the project ROW. Sign of desert tortoise was observed on the project starting just east of the Morongo Indian Reservation, west onto the eastern part of the reservation. At the time of the focused survey no live tortoises were detected in the BSA/ Action Area. However, the presence of positive tortoise sign within the BSA indicates that there is a low density tortoise population in that area of the alignment that passes through mixed Sonoran creosote bush scrub/Sonoran mixed woody and succulent scrub habitat on the Morongo Indian Reservation. Thus, tortoises could potentially enter this portion of the Project area at any time. Appropriate measures for the avoidance of impacts to the desert tortoise will be required, following the recommendations of the USFWS and other agencies. Seven red diamond rattlesnakes and eight desert rosy boas were observed in an area starting immediately west of White Water Canyon west to where the ROW enters the eastern boundary of the Morongo Indian Reservation. As mentioned previously, observations of red diamond rattlesnakes and desert rosy boas along the alignment were oddly segregated, with all of the red diamond rattlesnake observations occurring in the area east of the Haugen-Lehmann (formerly “Verbenia”) residential area and just west of White Water Canyon; and all of the desert rosy boa observations occurring west of the Haugen-Lehmann residential area and east of the eastern Morongo Indian Reservation fence. AMEC biologists have personally observed both of these species in White Water Canyon (including an observation of a red diamond rattlesnake this year and several observations of rosy boa over several years), and expect that both of these species occur throughout the area from White Water Canyon west onto and potentially past the Morongo Indian Reservation. AMEC biologists feel there is potential for San Diego (coast) horned lizards, silvery legless lizards, and coast patchnose snakes to occur in areas of suitable habitat on the western two thirds of the project ROW, although these species were not observed during the surveys.

6.0 CONTACTS, LITERATURE CITED AND REFERENCES

6.1 Contact

Larry LaPre: BLM Desert District Biologist who was contacted regarding the western extent of tortoise surveys on the alignment.

6.2 Literature Cited and References

AMEC Earth & Environmental, Inc. 2011a. Interstate 15 Cenda Ditch and Wheaton Wash Bridge Widening and Replacement Project Natural Environment Study. Unpublished report submitted to Caltrans.

AMEC Earth & Environmental, Inc. 2011b. Interstate 15 Cenda Ditch and Wheaton Wash Bridge Widening and Replacement Project Biological Assessment. Unpublished report submitted to Caltrans.

BLM and CDFG. 1992. California statewide Desert Tortoise management policy. Unpublished report prepared by the California Desert District. Riverside, CA.

California Department of Fish and Game. 2008. Complete List of Amphibian, Reptile, Bird and Mammal Species in California. Online at:
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APPENDIX 1

PLANT AND VERTEBRATE WILDLIFE SPECIES LISTS

**Vascular Plants Observed on the SCE West of Devers Project Alignment,
Riverside County, California**

September 2011 - May 2012

GNETAE

Ephedraceae

Ephedra californica
Ephedra nevadensis

JOINT FIRS

Ephedra Family

California joint fir
Nevada joint fir

ANGIOSPERMAE

DICOTYLEDONEAE

DICOT FLOWERING PLANTS

Asteraceae

Acamptopappus sphaerocephalus
Ambrosia acanthicarpa
Ambrosia dumosa
Ambrosia salsola
Artemisia californica
Bebbia juncea
Dicoria canescens
Encelia farinosa
Ericameria paniculata
Lepidospartum squamatum
Stephanomeria exigua

Sunflower Family

rayless goldenhead
annual bur-sage
burrobush
cheesebush
California sagebrush
sweetbush
desert twinbugs
brittlebush
black-banded rabbitbrush
scale-broom
small wirelettuce

Bignoniaceae

Chilopsis linearis

Bignonia Family

desert-willow

Boraginaceae

Cryptantha sp.

Borage Family

cryptantha

Brassicaceae

**Brassica tournefortii*
**Hirschfeldia incana*

Mustard Family

Sahara mustard
shortpod mustard

Cactaceae

Cylindropuntia bigelovii
Cylindropuntia echinocarpa
Cylindropuntia ramosissima
Echinocactus polycephalus var. *polycephalus*
Echinocereus engelmannii
Ferocactus cylindraceus

Cactus Family

teddy-bear cholla
golden cholla
diamond cholla
cottontop cactus
calico cactus
California barrel cactus

**Vascular Plants Observed on the SCE West of Devers Project Alignment,
Riverside County, California
(Continued)**

Mammillaria sp.
Opuntia basilaris

fish-hook cactus
beavertail cactus

Capparaceae
Isomeris arborea

Caper Family
bladderpod

Chenopodiaceae
Atriplex canescens
**Salsola tragus*

Goosefoot Family
four-wing saltbush
Russian thistle

Euphorbiaceae
Croton californicus
Euphorbia polycarpa

Spurge Family
California croton
desert sand mat

Fabaceae
Acacia greggii
Acemisson glaber
Lupinus sp.
Psoralethamnus arborescens var. *simplicifolius*
Psoralethamnus spinosus

Pea Family
catclaw
deerweed
UnId'd lupine
indigo bush
smoke tree

Geraniaceae
**Erodium cicutarium*

Geranium Family
redstem filaree

Krameriaceae
Krameria grayi

Rhantany Family
white rhatany

Lamiaceae
Hyptis emoryi
**Marrubium vulgare*
Salvia columbariae

Mint Family
desert-lavender
horehound
chia

Myrtaceae
**Eucalyptus globulus*

Myrtle Family
blue gum

Plantaginaceae
Plantago ovata

Plantain Family
woolly plantain

Polemoniaceae
Eriastrum sp.

Phlox Family
woollystar

Polygonaceae
Eriogonum inflatum

Buckwheat Family
desert trumpet

**Vascular Plants Observed on the SCE West of Devers Project Alignment,
Riverside County, California
(Continued)**

<i>Eriogonum fasciculatum</i>	California buckwheat
Rhamnaceae <i>Ziziphus parryi</i> var. <i>parryi</i>	Buckthorn Family lotebush
Rutaceae <i>Thamnosma montana</i>	Rue Family turpentine-broom
Solanaceae <i>Lycium</i> sp.	Nightshade Family box thorn
Tamaricaceae * <i>Tamarix ramosissima</i>	Tamarisk Family saltcedar
Zygophyllaceae <i>Larrea tridentata</i>	Caltrop Family creosote bush
MONOCOTYLEDONEAE	MONOCOT FLOWERING PLANTS
Liliaceae <i>Yucca schidigera</i>	Lily Family Mohave yucca
Poaceae * <i>Avena barbata</i> * <i>Avena fatua</i> * <i>Bromus diandrus</i> * <i>Bromus madritensis</i> ssp. <i>rubens</i> * <i>Schismus barbatus</i>	Grass Family slender wild oat wild oat ripgut brome red brome Mediterranean schismus

This list is not exhaustive, as focused surveys for sensitive plant species were not conducted, and several common species may have been overlooked or unrecorded.

*- denotes a nonnative species

**Vertebrates Observed or Detected on the SCE West of Devers Project Alignment,
Riverside County, California**

September 2011 - May 2012

REPTILES

True Land Tortoises

desert tortoise (sign)

Horned Lizards and allies

side-blotched lizard

zebra-tailed lizard

desert spiny lizard

Great Basin fence lizard

Collared and Leopard Lizards

long-nosed leopard lizard

Whiptails and relatives

Great Basin whiptail

Night Lizards

desert night lizard

Boas

desert rosy boa

Harmless Egg-laying Snakes

desert glossy snake

Mojave shovelnose snake

California kingsnake

red coachwhip

Great Basin gopher snake

longnose snake

Rattlesnakes, New World Pitvipers

Colorado Desert sidewinder

red diamond rattlesnake

BIRDS

New World Vultures

turkey vulture

REPTILIA

Testudinidae

Gopherus agassizii

Phrynosomatidae

Uta stansburiana

Callisaurus draconoides

Sceloporus magister

Sceloporus occidentalis longipes

Crotaphytidae

Gambelia wislizenii

Teiidae

Aspidozelis tigris tigris

Xantusiidae

Xantusia vigilis

Boidae

Lichanura orcutti

Colubridae

Arizona occidentalis eburnata

Chionactis occipitalis occipitalis

Lampropeltis getula californiae

Masticophis flagellum piceus

Pituophis catenifer deserticola

Rhinocheilus lecontei

Crotalidae

Crotalus cerastes laterorepens

Crotalus ruber

AVES

Cathartidae

Cathartes aura

**Vertebrates Observed or Detected on the SCE West of Devers Project Alignment,
Riverside County, California**

Kites, Eagles, Hawks, and allies

northern harrier
red-tailed hawk

Accipitridae

Circus cyaneus
Buteo jamaicensis

Caracaras and Falcons

prairie falcon
American kestrel

Falconidae

Falco mexicanus
Falco sparverius

New World Quail

California quail

Odontophoridae

Callipepla californica

Pigeons and Doves

Eurasian collared-dove
mourning dove

Columbidae

Streptopelia chinensis
Zenaida macroura

Cuckoos, Roadrunners & allies

greater roadrunner

Cuculidae

Geococcyx californianus

Barn Owls

barn owl (remains)

Tytonidae

Tyto alba

Typical Owls

burrowing owl

Strigidae

Athene cunicularia

Goatsuckers

common poorwill

Caprimulgidae

Phalaenoptilus nuttallii

Hummingbirds

Anna's hummingbird
Costa's hummingbird

Trochilidae

Calypte anna
Calypte costae

Woodpeckers

ladder-backed woodpecker
northern flicker

Picidae

Picoides scalaris
Colaptes auratus

Tyrant Flycatchers

Say's phoebe
ash-throated flycatcher

Tyrannidae

Sayornis saya
Myiarchus cinerascens

Shrikes

loggerhead shrike

Laniidae

Lanius ludovicianus

Jays, Magpies, & Crows

common raven

Corvidae

Corvus corax

**Vertebrates Observed or Detected on the SCE West of Devers Project Alignment,
Riverside County, California**

Larks

horned lark

Alaudidae

Eremophila alpestris

Swallows

barn swallow

Hirundinidae

Hirundo rustica

Penduline Tits & Verdin

verdin

Remizidae

Auriparus flaviceps

Wrens

cactus wren

rock wren

Bewick's wren

Troglodytidae

Campylorhynchus brunneicapillus

Salpinctes obsoletus

Thryomanes bewickii

Old World Warblers & Gnatcatchers

blue-gray gnatcatcher (M)

black-tailed gnatcatcher

Sylviidae

Polioptila caerulea

Polioptila melanura

Mockingbirds, Thrashers, & allies

northern mockingbird

sage thrasher (M)

California thrasher

Mimidae

Mimus polyglottos

Oreoscoptes montanus

Toxostoma redivivum

Starlings

European starling

Sturnidae

Sturnus vulgaris

Wagtails and Pipits

American pipit

Motacillidae

Anthus rubescens

Wood-warblers

yellow-rumped warbler (M)

black-throated gray warbler (M)

Townsend's warbler (M)

Parulidae

Setophaga coronata

Setophaga nigrescens

Setophaga townsendi

Emberizines

California towhee

Brewer's sparrow (M)

black-throated sparrow

sage sparrow

savannah sparrow (M)

white-crowned sparrow (M)

Emberizidae

Melospiza crissalis

Spizella breweri

Amphispiza bilineata

Amphispiza belli

Passerculus sandwichensis

Zonotrichia leucophrys

Cardinals and allies

western tanager (M)

Cardinalidae

Piranga ludoviciana

**Vertebrates Observed or Detected on the SCE West of Devers Project Alignment,
Riverside County, California**

Blackbirds

western meadowlark

Fringilline & Cardueline Finches

house finch

lesser goldfinch

Lawrence's goldfinch

Old World Sparrows

house sparrow

MAMMALS

Rabbits and Hares

desert cottontail

black-tailed jackrabbit

Squirrels, Chipmunks, and Marmots

California ground squirrel

white-tailed antelope squirrel

Pocket Mice and Kangaroo Rats

kangaroo rat (not ID'd to species)

pocket mouse (not ID'd to species)

New World Mice

native mouse (not ID'd to species)

desert woodrat (middens)

Foxes, Wolves, and relatives

gray fox (observed)

coyote (scat)

Icteridae

Sturnella neglecta

Fringillidae

Carpodacus mexicanus

Spinus psaltria

Spinus lawrencei

Passeridae

Passer domesticus

MAMMALIA

Leporidae

Sylvilagus audubonii

Lepus californicus

Sciuridae

Spermophilus beecheyi

Ammospermophilus leucurus

Heteromyidae

Dipodomys sp.

Chaetodipus sp.

Cricetidae

Peromyscus sp.

Neotoma lepida

Canidae

Urocyon cinereoargenteus

Canis latrans

M = species observed during migration or wintering

APPENDIX 2

PHOTOGRAPHIC EXHIBITS



Photo 1. East end of the alignment near the Devers Substation. No reptiles were observed in this area during the nocturnal “night-driving” surveys.



Photo 2. View of the alignments at the east end of the project, facing west (East of State Highway 62).



Photo 3. Representative view of the sparse Sonoran Creosote Bush Scrub habitat east of State Highway 62.



Photo 4. View of Super Creek on Whitewater Hill, a desert spiny lizard (*Sceloporus magister*) was observed under a cover board at this location.



Photo 5. View of the east floor of Whitewater Canyon, one of the few areas on the ROW with potential habitat for flat-tailed horned lizard (*Phrynosoma mcallii*). This area was not suitable for Coachella Valley fringe-toed lizard (*Uma inornata*) occupation (too limited).



Photo 6. Alignment crossing Whitewater Canyon (note lines in upper part of photo). View from east edge of Whitewater Canyon looking west.



Photo 7. View from western edge of Whitewater Canyon, looking east along alignment.



Photo 8. Hilly terrain west of Whitewater Canyon.



Photo 9. View from one of the hilltops west of Whitewater Canyon, showing steep topography and I-10 to the south.



Photo 10. View looking west as alignment exits hilly terrain, east of Verbenia and the Morongo Indian Reservation.



Photo 11. Brittlebush-dominated habitat at the base of the hills, several red diamond rattlesnakes (*Crotalus ruber*) were observed in this type of habitat during the “night-driving” surveys .



Photo 12. Alignment west of “Verbena” residential area, facing east.



Photo 13. One of seven red diamond rattlesnakes observed on the project ROW during the surveys. The majority of observations of this species were during the “night driving” surveys performed throughout May 2012.



Photo 14. California kingsnake (*Lampropeltis getula californiae*) observed on “night driving” survey east of the Morongo Indian Reservation.



Photo 15. One of several longnose snakes (*Rhinocheilus lecontei*) observed during the “night driving” surveys. This individual was on that portion of the ROW that traversed the “Verbenia” residential area.



Photo 16. Great Basin gopher snake (*Pituophis catenifer deserticola*) observed on the project ROW just west of the paved Rushmore Avenue.



Photo 17. Large adult desert rosy boa (*Lichanura orcutti*) observed on the project ROW at dusk on May 13, 2012.



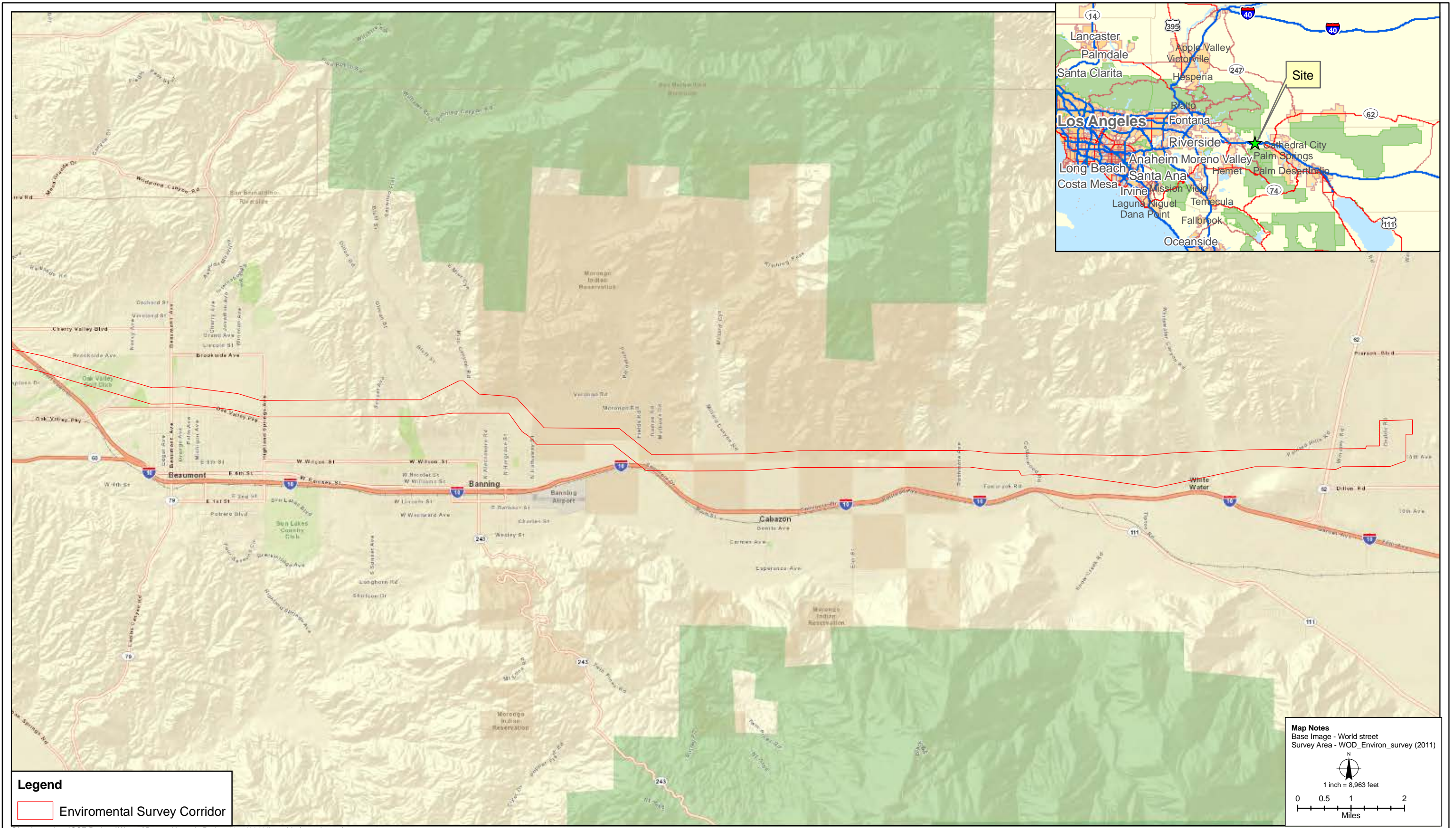
Photo 18. Another of the desert rosy boas observed on the project ROW (a total of eight individuals were found).



Photo 19. Desert rosy boa found on the project ROW during the “night driving” surveys. Note the variation in pattern among the individuals pictured in these three photographs.

APPENDIX 3

MAP FIGURES



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5/31/12



Vicinity & Location
 Focused Survey for Sensitive Herpetofauna
 West Of Devers Upgrade Project

FIGURE

1



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5.30.12



Flat-tailed Horn Lizard Survey Area
Focused Survey for Sensitive Herpetofauna
West Of Devers Upgrade Project

FIGURE
2



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**Night Driving Survey Results
 Focused Survey for Sensitive Herpetofauna
 West Of Devers Upgrade Project**

FIGURE

3