

APPENDIX L
SPECIAL-STATUS RODENT TRAPPING SURVEY REPORTS
(Reports from 2013 and 2012)

This Page Intentionally Left Blank

August 28, 2013

Scott Holbrook
Southern California Edison
Corporate Environmental Services
1218 South 15th Avenue
Monrovia, CA 91016

Subject: Summary Report for Special-Status Rodent Trapping: Southern California Edison West of Devers Upgrade Project, Riverside and San Bernardino Counties, California; April–May 2013 (LSA Project No. SCE1110)

Dear Scott:

This letter report documents the results of seven protocol presence/absence surveys for special-status rodents conducted by LSA Associates, Inc. (LSA) in 2013. Two species were the targets of these surveys: (1) the Federal endangered and State threatened Stephens' kangaroo rat (SKR, *Dipodomys stephensi*) and, (2) the Los Angeles pocket mouse (LAPM, *Perognathus longimembris brevinasus*), a California Species of Special Concern. Surveys were conducted along access roads and associated infrastructure being considered by Southern California Edison (SCE) for the proposed West of Devers (WOD) Upgrade Project (Proposed Project) and complement the more extensive trapping conducted in 2012. The study area for the project alignment is generally located in southwestern San Bernardino County and northwestern Riverside County, California. The Proposed Project would upgrade the existing WOD system by replacing existing 220 kilovolt (kV) transmission lines and associated structures with new, higher-capacity 220 kV transmission lines and structures; modifying existing substation facilities; removing and relocating existing subtransmission (66 kV) lines; removing and relocating existing distribution (12 kV) lines; and making various telecommunication improvements.

No SKR and two LAPM were captured.

STUDY AREA

The Proposed Project would be located primarily within the existing WOD corridor in the incorporated and unincorporated areas of Riverside and San Bernardino Counties, including the Morongo Band of Mission Indians Reservation (Reservation) and the cities of Banning, Beaumont, Calimesa, Colton, Grand Terrace, Loma Linda, and Redlands. The existing WOD corridor traverses a combination of residential, commercial, agricultural, recreation, and open space land uses. Trapping in 2013 was restricted to the vicinities of the cities of Redlands (San Bernardino County), Banning, and Beaumont (Riverside County) (Figure 1, Appendix A).

METHODS

Habitat assessments were conducted along access roads and associated infrastructure being considered by SCE for the Proposed Project. Examination of aerial images to locate suitable habitat was followed up by ground visits to many areas to identify the most promising trapping sites for the target species. All surveys were conducted by LSA biologists Richard Erickson and Leo Simone pursuant to LSA's Federal Fish and Wildlife Permit TE-777965-10 (March 22, 2013–March 21, 2017) and a California Department of Fish and Wildlife attachment to Scientific Collecting Permit SC-000777 providing Conditions for Research on Listed Mammals (November 27, 2012–January 31, 2017).

Table A shows the target species, survey dates, and survey effort for each trapping location. Trapping locations are shown on Figure 1.

Table A: Summary of 2013 Trapping Activities for the West of Devers Upgrade Project

| Survey Location | Survey Dates | Target Species | No. of Trap Nights |
|-----------------|------------------------|-------------------------|--------------------|
| 1 | April 15–20 | SKR | 750 |
| 2 | April 21–26 | SKR | 750 |
| 3 | May 1–6 | SKR | 750 |
| 4 | May 7–12 | SKR, <i>LAPM</i> | 750 |
| 5 | May 13–18 | SKR | 750 |
| 6 | May 19–24 | SKR, LAPM | 300 |
| 7 | May 26–31 | SKR, LAPM | 300 |
| Totals | April 15–May 31 | SKR, <i>LAPM</i> | 4,350 |

NOTE: *Bold italics* indicate the species was captured.

LAPM = Los Angeles pocket mouse

SKR = Stephens' kangaroo rat

For each trapping session, traps were baited with bird seed and wild oats. Trap checks occurred at midnight and at dawn. All animals were identified and released unharmed at their capture sites.

RESULTS

There were 172 rodent captures involving 8 species. A complete summary is provided in Appendix B.

Target Species

Only one of the two target species was found. Two LAPM were captured in Location 4, on the south side of the City of Banning (Figure 1). No SKR were found, despite LSA's trapping near an historical location for the species, and where one SKR was captured in 2012, i.e., in Locations 1 and 3.

Other Special-Status Species

Two other California Species of Special Concern were also captured. The San Diego pocket mouse (*Chaetodipus fallax fallax*) was found at four sites (Locations 3, 4, 5, and 7) and the San Diego desert woodrat (*Neotoma lepida intermedia*) was found at one site (Location 7).

Other Rodents

In addition to those already discussed are five species listed in Appendix B. The most common among these were the North American deermouse (*Peromyscus maniculatus*, 42 captures at four locations), Dulzura kangaroo rat (*Dipodomys simulans*, 30 captures at two locations), and big-eared woodrat (*Neotoma macrotis*, 28 captures at two locations).

Birds

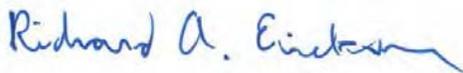
Two birds, representing two species, were inadvertently captured during LSA's work, as detailed below.

| Species | Location | No. of Captures |
|---|----------|-----------------|
| Northern mockingbird (<i>Mimus polyglottos</i>) | 4 | 1 |
| California towhee (<i>Melospiza crissalis</i>) | 4 | 1 |
| Total Birds Captured | | 2 |

If you have any questions or comments, please contact Leo Simone or me by phone at (949) 553-0666 or via email at leo.simone@lsa-assoc.com or richard.erickson@lsa-assoc.com.

Sincerely,

LSA ASSOCIATES, INC.



Richard Erickson
Associate/Biologist

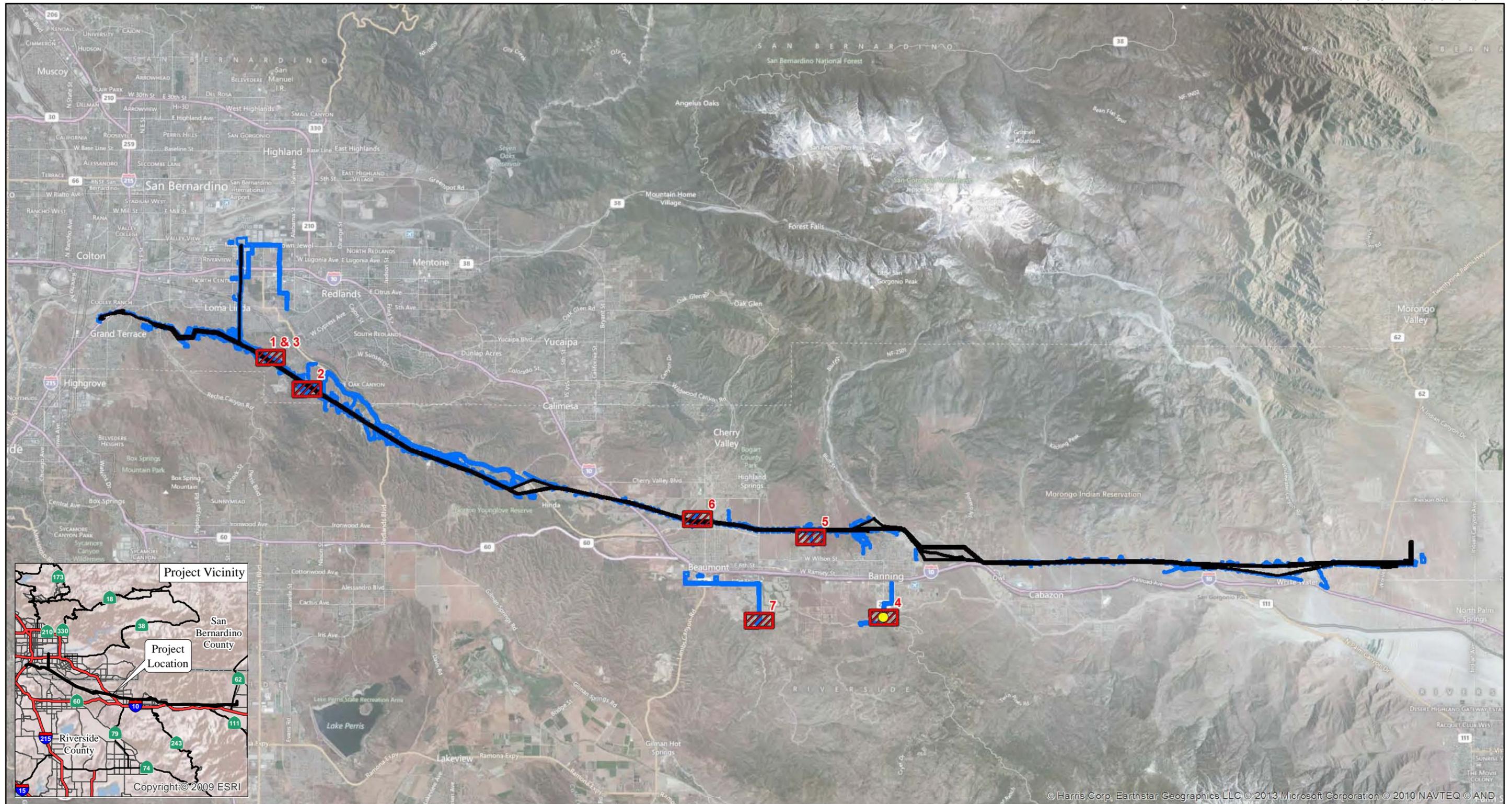
Attachments: Appendix A: Figure 1, Project Location
Appendix B: Table B-1, Trapping Results, West of Devers Upgrade Project

This Page Intentionally Left Blank

APPENDIX A

FIGURE 1, PROJECT LOCATION

This Page Intentionally Left Blank



© Harris, Corp, Earthstar Geographics LLC © 2013 Microsoft Corporation © 2010 NAVTEQ © AND

FIGURE 1

SOUTHERN CALIFORNIA EDISON
 AN EDISON INTERNATIONAL COMPANY

LEGEND

- Protocol Trapping Location
- Transmission Line Right of Way
- 2013 Project Survey Area (100-foot Survey Buffer)
- Los Angeles Pocket Mouse Capture Location

0 7920 15840
 FEET

Southern California Edison
 West of Devers Upgrade Project
 Project Location, Survey Locations, and Survey Results

SOURCE: Bing Maps (c. 2010); LSA (10/2011); SCE (11/2011)

I:\SCE1110\GIS\MXD\Biology\Traplans_Fig1_2013.mxd (7/18/2013)

This Page Intentionally Left Blank

APPENDIX B

**TABLE B-1, TRAPPING RESULTS, WEST OF DEVERS
UPGRADE PROJECT**

This Page Intentionally Left Blank

Table B-1: 2013 Trapping Results, West of Devers Upgrade Project

| Trapping Location | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Total |
|--|----------|-----------|----------|-----------|----------|----------|-----------|--------------|
| Species | | | | | | | | |
| Botta's pocket gopher <i>Thomomys bottae</i> | | | 1 | | | | | 1 |
| Dulzura kangaroo rat <i>Dipodomys simulans</i> | | 24 | | 6 | | | | 30 |
| Los Angeles pocket mouse <i>Perognathus longimembris brevinasus</i> | | | | 2 | | | | 2 |
| San Diego pocket mouse <i>Chaetodipus fallax fallax</i> | | | 8 | 28 | 2 | | 21 | 59 |
| Western harvest mouse <i>Reithrodontomys megalotis</i> | | | | | | | 1 | 1 |
| San Diego desert woodrat <i>Neotoma lepida intermedia</i> | | | | | | | 9 | 9 |
| Big-eared woodrat <i>Neotoma macrotis</i> | | | | | 1 | | 27 | 28 |
| North American deer mouse <i>Peromyscus maniculatus</i> | | 11 | | 9 | 1 | | 21 | 42 |
| Total Rodent Species per Location | 0 | 2 | 2 | 4 | 3 | 0 | 5 | 8 |
| Total Individuals | 0 | 35 | 9 | 45 | 4 | 0 | 79 | 172 |

This Page Intentionally Left Blank

March 14, 2013

Scott Holbrook
 Southern California Edison
 Corporate Environmental Services
 1218 South 15th Avenue
 Monrovia, CA 91016

Subject: Summary Report for Special-Status Rodent Trapping: Southern California Edison West of Devers Upgrade Project, Riverside and San Bernardino Counties, California; March–September 2012 (LSA Project No. SCE1110)

Dear Scott:

This letter report documents the results of 25 protocol presence/absence surveys for special-status rodents conducted by LSA Associates, Inc. (LSA) and Dudek. Three species were the targets of these surveys: (1) the endangered Stephens' kangaroo rat (SKR, *Dipodomys stephensi*) and two subspecies of little pocket mice considered California Species of Special Concern, (2) the Los Angeles pocket mouse (LAPM, *Perognathus longimembris brevinasus*), and (3) the Palm Springs pocket mouse (PSPM, *P. l. bangsi*). No potentially suitable habitat for the endangered San Bernardino kangaroo rat (*Dipodomys merriami parvus*) was found in the study area. Surveys were conducted along a potential alignment being considered by Southern California Edison (SCE) for the future West of Devers Upgrade Project. The study area for the preliminary project alignment is generally located in southwestern San Bernardino County and northwestern Riverside County, California. The project would upgrade the existing transmission facilities to provide additional transmission capacity between the Devers Substation at the east end and the San Bernardino and Vista Substations at the west end.

One SKR, 28 LAPM, and 39 PSPM were captured.

STUDY AREA

The preliminary alignment being considered for the West of Devers Upgrade Project occurs within an SCE right-of-way (ROW) and extends along an existing transmission line corridor from the Vista Substation in the City of Grand Terrace, San Bernardino County, to the Devers Substation near North Palm Springs, Riverside County, also extending up to the San Bernardino Substation between the Cities of San Bernardino and Redlands in San Bernardino County (Figure 1, Appendix A). The study area for rodents focused on the project ROW plus a 100-foot buffer on either side of the ROW.

METHODS

Eighteen surveys were conducted by LSA biologists Richard Erickson, Leo Simone, Wendy (Walters) Davis, and Claudia Bauer pursuant to LSA's Federal Fish and Wildlife Permit TE-777965-9 (April 8,

2008–April 7, 2012; renewal underway) and a California Department of Fish and Wildlife attachment to Scientific Collecting Permit SC-000777 providing Conditions for Research on Listed Mammals (September 30, 2009–April 30, 2012; renewal issued November 27, 2012, but coverage continuous in the interim). Seven surveys were conducted by Dudek subconsultant Philippe Vergne pursuant to Federal Fish and Wildlife Permit TE-068072-3 and a California Department of Fish and Wildlife Memorandum of Understanding covering the target species and others.

Table A shows the target species, survey dates, and survey effort for each trapping location. Trapping locations are shown on Figure 1.

Table A: Summary of 2012 Trapping Activities for the West of Devers Upgrade Project

| Survey Location | Survey Dates | Target Species | No. of Trap Nights | Surveyor |
|-----------------|------------------|------------------------|--------------------|------------|
| 1 | March 26–31 | SKR | 500 | LSA |
| 2 | June 10–15 | SKR, LAPM | 500 | LSA |
| 3 | May 27–June 1 | SKR | 350 | LSA |
| 4 | March 4–9 | SKR | 800 | LSA |
| 5 | April 7–11 | SKR | 960 | Dudek |
| 6 | March 11–16 | SKR | 1,150 | LSA |
| 7 | August 19–24 | LAPM | 600 | LSA |
| 8 | September 8–13 | SKR | 575 | LSA |
| 9 | June 17–22 | SKR, LAPM | 850 | LSA |
| 10 | June 3–8 | SKR | 600 | LSA |
| 11 | April 29–May 4 | LAPM, SKR | 1,050 | Dudek |
| 12 | April 15–20 | SKR | 1,200 | Dudek |
| 13 | April 15–20 | SKR | 1,000 | LSA |
| 14 | April 22–28 | SKR | 750 | LSA |
| 15 | May 6–11 | LAPM | 1,200 | Dudek |
| 16 | July 22–24 | LAPM | 410 | LSA |
| 17 | July 8–13 | LAPM | 800 | LSA |
| 18 | July 29–August 3 | LAPM | 850 | Dudek |
| 19 | August 11–16 | LAPM | 850 | Dudek |
| 20 | May 20–25 | PSPM, LAPM | 800 | LSA |
| 21 | May 7–12 | PSPM, LAPM | 750 | LSA |
| 22 | May 6–7 | PSPM | 150 | LSA |
| 23 | May 20–25 | PSPM | 1,100 | Dudek |
| 24 | May 1–2 | PSPM | 150 | LSA |
| 25 | April 30–May 1 | PSPM | 200 | LSA |
| Totals | Mar 11–Sep 13 | SKR, LAPM, PSPM | 18,145 | LSA, Dudek |

NOTE: **Bold italics** indicate the species was captured.

LAPM = Los Angeles pocket mouse

LSA = LSA Associates, Inc.

PSPM = Palm Springs pocket mouse

SKR = Stephens' kangaroo rat

For each trapping session, traps were baited with bird seed and wild oats. Trap checks occurred at midnight and at dawn. All animals were identified and released unharmed at their capture sites.

RESULTS

There were 3,407 rodent captures involving 21 taxa. A complete summary is provided in Appendix B.

Target Species

All three target species were found: SKR in the west, LAPM in the middle, and PSPM in the east portions of the project area (Figure 1). One SKR was captured. It was at trapping location 5 next to the City of Redlands, near an historical location for the species. LAPM were captured at five trapping locations ranging from Beaumont to Cabazon (locations 11–19). PSPM were captured at the four easternmost trapping locations, from the community of Whitewater to the Devers Substation.

Other Special-Status Species

Two other California Species of Special Concern were also found. The San Diego pocket mouse (*Chaetodipus fallax*) was fairly numerous and found along much of the length of the study area (locations 2–23). The coastal subspecies (*C.f. fallax*) and the desert subspecies (*C.f. pallidus*) share the same legal status. Both were reported, but they are difficult to distinguish in the field and their ranges overlap.

The coastal subspecies of the desert woodrat (*Neotoma lepida intermedia*) is currently recognized as a California Species of Special Concern, but other subspecies are not. Three subspecies have traditionally been recognized in the study area, and the boundary of the coastal subspecies' range is unclear (probably at about Banning). However, the most recent taxonomic work on these animals¹ suggested a species level split within the study area, with *N. lepida* to the east (desert) and *N. bryanti* to the west (coastal).

One other species that might cause confusion is the southern grasshopper mouse (*Onychomys torridus*). Like the woodrat, the coastal subspecies (*O.t. ramona*) is a California Species of Special Concern, but others are not. However, individuals from the eastern portion of the study area (where the 2012 captures occurred) have long been recognized as representative of the desert subspecies *O.t. pulcher*. Indeed, Cabazon is the type locality (the place from which the taxon was originally described) for *pulcher*.

Other Rodents

In addition to those already discussed are 15 species listed in Appendix B. The most common among these were the North American deer mouse (*Peromyscus maniculatus*, 1,667 captures throughout), long-tailed pocket mouse (*Chaetodipus formosus*, 400 captures in the east), Dulzura kangaroo rat (*Dipodomys simulans*, 210 captures primarily in the west), and Merriam's kangaroo rat (*D. merriami merriami*, 207 captures in the east). There were single captures of two species not native to the study area, the house mouse (*Mus musculus*) and Norway rat (*Rattus norvegicus*).

¹ Patton et al. 2008. The evolutionary history and a systematic revision of woodrats of the *Neotoma lepida* group. University of California Publications in Zoology No. 135.

Birds

Eleven birds of four species were inadvertently captured during our work, as detailed below.

| Species | Location | No. of Captures |
|---|----------|-----------------|
| Bewick's wren (<i>Thryomanes bewickii</i>) | 3 | 1 |
| California towhee (<i>Melospiza crissalis</i>) | 1 | 2 |
| | 4 | 5 |
| Savannah sparrow (<i>Passerculus sandwichensi</i>) | 6 | 1 |
| White-crowned sparrow (<i>Zonotrichia leucophrys</i>) | 4 | 2 |
| Total Birds Captured | | 11 |

If you have any questions or comments, please contact Leo Simone or me by phone at (949) 553-0666 or via email at leo.simone@lsa-assoc.com or richard.erickson@lsa-assoc.com.

Sincerely,

LSA ASSOCIATES, INC.

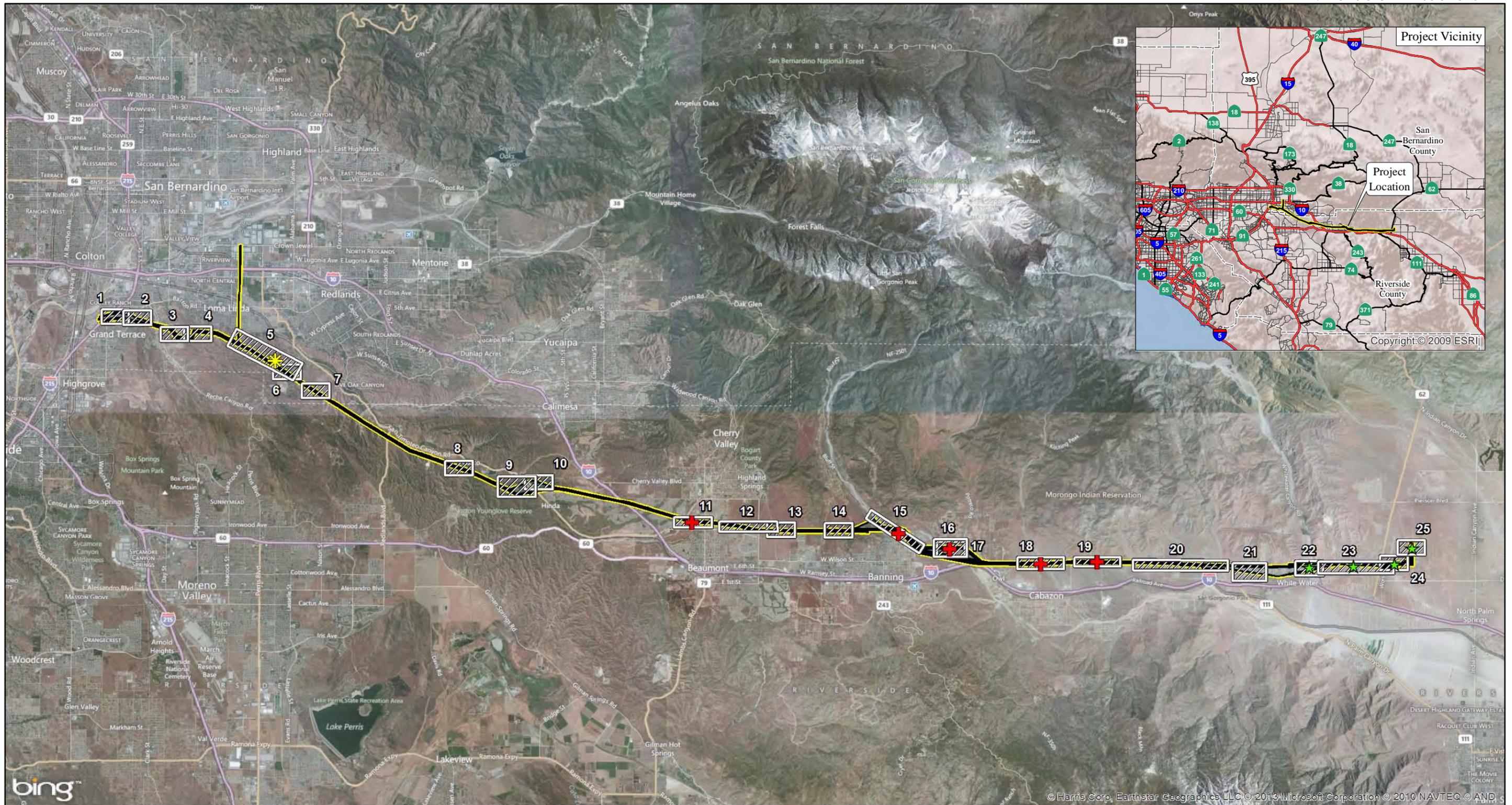
Richard Erickson
Associate/Biologist

Attachments: Appendix A: Figure 1, Project Location
Appendix B: Table B-1, Trapping Results

APPENDIX A

FIGURE 1, PROJECT LOCATION

This Page Intentionally Left Blank



LSA

LEGEND

- Transmission Line Right-of-Way
- 100' from Right-of-Way
- Protocol Trapping Areas
- ✱ Stephens' Kangaroo Rat Capture Location
- + Los Angeles Pocket Mouse Capture Location
- ★ Palm Springs Pocket Mouse Capture Location

0 1.5 3
MILES

FIGURE 1

PROTECTED MATERIALS
Contains Critical Energy Infrastructure Information

West of Devers Upgrade Project
Project Location

This Page Intentionally Left Blank

APPENDIX B

TABLE B-1, TRAPPING RESULTS

This Page Intentionally Left Blank

Table B-1: Trapping Results

| Trapping Area | 1 | 2 | 3 | 4 | 5 ¹ | 6 | 7 | 8 | 9 | 10 | 11 ¹ | 12 ¹ | 13 | 14 | 15 ¹ | 16 | 17 | 18 ¹ | 19 ¹ | 20 | 21 | 22 | 23 ¹ | 24 | 25 | Total | |
|---|----------|----------|----------|----------|----------------|----------|----------|----------|----------|----------|-----------------|-----------------|----------|----------|-----------------|----------|----------|-----------------|-----------------|----------|----------|----------|-----------------|----------|----------|-------|-------------|
| Botta's pocket gopher <i>Thomomys bottae</i> | | | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | | 2 |
| Desert kangaroo rat <i>Dipodomys deserti</i> | | | | | | | | | | | | | | | | | | 3 | | | | | 5 | | | | 8 |
| Merriam's kangaroo rat <i>Dipodomys merriami merriami</i> | | | | | | | | | | | | | | | | | | 27 | 21 | 39 | 68 | 8 | 29 | 9 | 6 | | 207 |
| Dulzura kangaroo rat <i>Dipodomys simulans</i> | | 8 | | | 13 | 1 | 21 | 3 | 3 | | 14 | 4 | | 9 | 20 | 71 | 18 | | | 19 | 6 | | | | | | 210 |
| Stephens' kangaroo rat ² <i>Dipodomys stephensi</i> | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 |
| Palm Springs pocket mouse <i>Perognathus longimembris bangsi</i> | | | | | | | | | | | | | | | | | | | | | | 1 | 11 | 5 | 22 | | 39 |
| Los Angeles pocket mouse <i>P. longimembris. brevinasus</i> | | | | | | | | | | 5 | | | | | 7 | | 7 | 6 | 3 | | | | | | | | 28 |
| California pocket mouse ² <i>Chaetodipus californicus</i> | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | 2 |
| San Diego pocket mouse <i>Chaetodipus fallax</i> | | 207 | | | 20 | 5 | 88 | 2 | | | 23 | 11 | | | 19 | 31 | 16 | 6 | 7 | 15 | | | 11 | | | | 461 |
| Long-tailed pocket mouse <i>Chaetodipus formosus</i> | | | | | | | | | | | | | | | | | | 19 | 12 | 131 | 208 | 5 | 14 | 2 | 9 | | 400 |
| Desert pocket mouse <i>Chaetodipus penicillatus</i> | | | | | | | | | | | | | | | | | | 12 | 8 | | | | 10 | | | | 30 |
| Pocket mouse sp. <i>Chaetodipus sp.</i> | | | | | | | | | | | | | | | | | | 18 | | | | | | | | | 18 |
| California vole <i>Microtus californicus</i> | | 5 | | | | 1 | | | 4 | | | | | | | | | | | | | | | | | | 10 |
| Western harvest mouse <i>Reithrodontomys megalotis</i> | 11 | 4 | | 8 | | 3 | | | 12 | | 1 | | | | | | 2 | | | | | | | | | | 41 |
| Desert woodrat <i>Neotoma lepida</i> | | 3 | | | 1 | | | | | | | | | | 8 | 35 | 17 | | | 100 | 36 | 1 | | 7 | 23 | | 231 |
| Southern grasshopper mouse <i>Onychomys torridus pulcher</i> | | | | | | | | | | | | | | | | | | 1 | | | 1 | | 2 | | 2 | | 6 |
| Brush deer mouse <i>Peromyscus boylii</i> | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | 2 |
| California deer mouse ² <i>Peromyscus californicus</i> | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | 2 |
| No. Baja California deer mouse <i>Peromyscus fraterculus</i> | | | | | | | | | | | | | | | 4 | 2 | | 1 | 3 | 24 | 7 | | | | | | 41 |
| North American deer mouse <i>Peromyscus maniculatus</i> | 35 | 106 | | 29 | 112 | 30 | 10 | 3 | 78 | 3 | 100 | 140 | 224 | 201 | 78 | 247 | 95 | 52 | 22 | 15 | 19 | 3 | 60 | 2 | 3 | | 1667 |
| House mouse <i>Mus musculus</i> | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Norway rat <i>Rattus norvegicus</i> | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | 1 |
| Total Rodent Species per Area | 2 | 7 | 0 | 2 | 5 | 5 | 3 | 3 | 4 | 1 | 6 | 3 | 2 | 3 | 9 | 5 | 6 | 9 | 7 | 7 | 7 | 5 | 8 | 5 | 6 | | |
| Total Individuals | | | | | | | | | | | | | | | | | | | | | | | | | | | 3407 |

¹ Includes captures obtained outside the 100-foot study buffer area.

² Captures obtained only outside the 100-foot study buffer area.

This Page Intentionally Left Blank