FINAL BIOLOGICAL TECHNICAL REPORT

TL 637 WOOD TO STEEL POLE REPLACEMENT CREELMAN SUBSTATION TO SANTA YSABEL SUBSTATION,

RAMONA AND SANTA YSABEL, SAN DIEGO COUNTY, CALIFORNIA

Prepared for:

SAN DIEGO GAS & ELECTRIC COMPANY
8315 Century Park Court, CP21E
San Diego, California 92123
Contact: Debbie Collins

Prepared by:

CHAMBERS GROUP, INC.
9909 Huennekens Street, Suite 206
San Diego, CA 92121

Chambers Group Project

December 2012

TABLE OF CONTENTS

Page

LIST OF APPENDICES

LIST OF TABLES

Table **Page**

SECTION 1.0 – EXECUTIVE SUMMARY

San Diego Gas and Electric (SDG&E) Company proposes to replace wood poles with steel poles and install new steel poles along the approximately 14-mile expanse of Tie Line (TL) 637 from the existing Creelman Substation to the existing Santa Ysabel Substation. SDG&E has contracted Chambers Group, Inc. (Chambers Group) to conduct wildlife surveys, plant surveys, vegetation mapping, and drainage surveys for this wood to steel project. The biological surveys were conducted during the course of several months in the spring, summer, and fall of 2010, in the spring and summer of 2011 and in the spring of 2012. Focused rare plant surveys and sensitive wildlife surveys for the targeted species were performed in accordance with survey protocols set forth by the California Department of Fish and Wildlife (CDFW), the California Native Plant Society (CNPS 2001), and United States Fish and Wildlife Service (USFWS 2000) Guidelines.

Construction of the TL 637 wood to steel pole project would result in temporary disturbance and/or permanent loss of sensitive vegetation communities, native trees, wetlands and jurisdictional waters; however, SDG&E has incorporated project design features according to the NCCP and the Operation Protocols, and the associated 401 (Certification No. 11C-114; Categorical Exemption; Appendix A) permit conditions, which will ensure that project impacts will remain less than significant.

SECTION 2.0 – BACKGROUND INFORMATION

2.1. PROJECT DESCRIPTION

In an effort to maintain existing electric power lines in high fire and wind areas in SDG&E's service territory, SDG&E proposes to replace wood poles with steel poles and install new steel poles along the approximately 14-mile expanse of TL 637 from the existing Creelman Substation to the existing Santa Ysabel Substation. TL 637 is a 69-kilovolt (kV), mostly single-circuit power line located in the unincorporated communities of Ramona and Santa Ysabel within San Diego County, California. TL 637 traverses a large expanse of densely vegetated and fire-prone areas on private and public lands, including lands owned by the County of San Diego, Bureau of Land Management (BLM), and Cleveland National Forest (CNF). Installation of steel poles will minimize damages to utilities in the event of a fire, thereby increasing system reliability as well as decreasing routine maintenance needs and increasing the lifespan of both the poles themselves and the entire line.

Specifically, SDG&E is proposing the following:

- Replacement of approximately 156 wood power and interset distribution structures with approximately 156 weathering steel structures. Of the 156 replacement structures, approximately 69 will be directly-embedded, and approximately 87 will be micropile foundations.
- Approximately 16 small sections of new underground distribution line.
- Removal of approximately eight wood structures.
- Pole top work at approximately three structures.
- Topping one pole above communication.
- Installation of fiber-optic cable on the entire line. Undergrounding of fiber-optic cable at the Santa Ysabel and Creelman substations, including anchor installation for one pole at Santa Ysabel.
- Relocation of approximately 1,170 feet of conductor.
- Reconductoring of the entire line from 3/0 ACSR/AW to 636 ACSS/AW conductor.
- Utilization of approximately 22 stringing sites.
- Installation of approximately 10 temporary guard structures.
- Use of approximately six staging yards/helicopter landing zones.

The proposed project is consistent with SDG&E's efforts to improve reliability and reduce fire risks in fire-prone areas through fire-hardening projects and other enhancements. SDG&E prioritizes the maintenance of poles in each power line in high-risk fire areas according to the existing vegetation/fuel conditions, the history of high-speed winds, and age and condition of the existing infrastructure as part of a strategy to strengthen power lines connecting backcountry substations for improved reliability.

SDG&E periodically reviews and updates the prioritization of poles to be replaced due to changes in field conditions, e.g., increased density of vegetation (fire fuel) in the vicinity of poles. The project incorporates updated design standards to reduce fire risks and will implement a project-specific fire plan to minimize fire risks during construction.

During the evaluation process, TL 637 met the criteria for immediate replacement based on the above factors. Specifically, these factors include: (1) a designation of Very High Fire Threat, as indicated on SDG&E's 2012 Fire Threat Zone map, and (2) a record of very high winds. The proposed project will result in the strengthening of TL 637 in the high-fire threat area, which will reduce the risk of potential fire hazard impacts under certain atmospheric conditions.

Additional benefits of the proposed project include reduction of outage potential, improved contamination resistance, reduction of facility maintenance, maximization of equipment life span potential, installation of fiber-optic cable for enhanced digital protective relay systems, and improved avian protection.

2.2. PROJECT AREA

The project area includes approximately 14 linear miles of power line and includes the associated access roads and work areas. TL 637 traverses a large expanse of densely vegetated and fire-prone areas on public and private lands, including lands owned by the BLM and CNF. This power line is located in the unincorporated communities of Ramona and Santa Ysabel within San Diego County, California (Thomas Bros. pages 1152-H4 to 1135-C3). The project area extends into two United States Geological Survey (USGS) 7.5-minute quadrangles: *Santa Ysabel* and *Ramona*.

Chambers Group was contracted to conduct biological surveys over all of the systems upgrades, access roads, and off right-of-way (ROW) work spaces within and around the CNF to apply for a 50-Year Master Special Use Permit (MSUP). Possible impacts could occur along the existing electricity power lines, designated access roads, and other appurtenant facilities. The TLs surveyed included 637, 682, 629, 6926 (626), 625, and 6923. The circuits surveyed were 78, 79, 157, 449, 440, and 442. It was determined that TL 637, which hosted only two poles within CNF boundaries, be separated from the CNF MSUP project. Therefore, the results of biological surveys regarding TL 637 will be discussed separately in this biological technical report.

The areas surveyed (Survey Area) consisted of a 150-foot buffer around the pole centerline, which was extended to a 250-foot radius around each pole where the overhead line makes an angle greater than 2 degrees. The additional buffer was surveyed to include potential additional work space that is typically required during operation and maintenance work at angle points within the overhead lines. Appendix B contains the TL 637 Figures (Project Location Map; CNDDB and Critical Habitats Map; Critical Habitats, Preserve Areas, and Sensitive Species Map; Vegetation Communities Map; Land Ownership Map; and Soils Survey Map).

2.3. PROJECT COMPONENTS

The existing wooden poles will be replaced with new weathering steel-wood equivalent, directly-embedded, tubular light-duty and heavy-duty steel poles and engineered steel poles with micropile foundations. Construction-related activities associated with the TL 637 project include replacing approximately 156 wood poles; removing eight wooden poles from service; topping one wooden pole

above communication; pole-top work at three poles; installing 10 temporary wooden guard structures; installing seven temporary wooden shoe-fly poles to facilitate the installation of new steel poles in a same-hole set alignment; re-establishing existing access roads; and accessing 22 stringing sites, two helicopter landing zones (HLZ), and four staging yards; as well as reconductoring the entire line; and installing fiber-optic cable along the entire line. Once the new poles have been installed, a mechanical pulling machine (powered dolly) and/or helicopter will be used to facilitate the installation of new conductors. Wherever possible, activities will occur within existing paved or unpaved access roads or other previously disturbed areas.

2.3.1 Staging Yards

The Warnock Staging Yard is approximately 258,311 square feet (sq. ft.) (5.93 acres). The site is located at the corner of Keyser Road and Warnock Road in the unincorporated community of Ramona and can be accessed via either road. Staging yards are necessary for storing and preparing materials and personnel for project activities.

The Creelman Staging Yard is approximately 43,560 sq. ft. (1 acre). This site is located on SDG&E-owned land at the corner of Creelman Lane and Ashley Road in the unincorporated community of Ramona and can be accessed via Ashley Road.

The Woodlot Staging Yard is approximately 27,000 sq. ft. (0.62 acre). This site is located in a cleared storage lot off an access road. It can be accessed by either of two existing private roads from California State Route Highway (Hwy) 78 in the unincorporated community of Santa Ysabel.

The Santa Ysabel Staging Yard is located on Grutly Street in the unincorporated community of Santa Ysabel and can be accessed via Washington Street from Hwy 78. The Santa Ysabel Staging Yard is divided into two areas by an unpaved private road. The total area is approximately 283,140 sq. ft. (6.5 acres). The largest area is located east of the private unpaved road leading off Grutly Street and is approximately 226,512 sq. ft. (5.2 acres). The smaller area is west of the private unpaved road and is approximately 56,628 sq. ft. (1.3 acres).

All staging yards may also be used as helicopter landing zones, if necessary.

2.3.2 Helicopter Landing Zone

The Mt. Gower HLZ is approximately 75 feet by 75 feet, or approximately 5,625 sq. ft. (0.13 acre). Helicopter landing zones are necessary to facilitate the placement of poles with limited access via helicopter. This site is located in the unpaved parking area for the Mt. Gower Preserve and is accessible from Gunn Stage Road.

The Littlepage Road HLZ is approximately 200 feet by 200 feet, or approximately 40,000 sq. ft. (0.92 acre). This site is located northeast of pole P98 and is accessible from the existing access road.

2.3.3 Stringing Sites

To facilitate the reconductoring of the TL, 22 stringing sites of various dimensions will be utilized. Stringing sites, where feasible, will be confined to previously disturbed areas within the ROW and along Project access roads. The Project will require use of 22 stringing sites that will temporarily impact

approximately 247,200 sq. ft. (5.67 acres) of habitat. Vehicles, equipment, and personnel will remain within the SDG&E ROW, existing paved or unpaved access roads, or previously disturbed areas to the extent possible.

- Stringing Site 1 is located adjacent to Creelman Substation. Stringing Site 1 will temporarily impact approximately 4500 sq. ft. and will be accessed via Creelman Lane and is located in the unincorporated community of Ramona.
- Stringing Site 2 is located adjacent to pole P3. Stringing Site 2 will temporarily impact approximately 6000 sq. ft. and will be accessed via Creelman Lane in the unincorporated community of Ramona.
- Stringing Site 3 is located adjacent to pole P2. Stringing Site 3 will temporarily impact approximately 6000 sq. ft. and will be accessed via Creelman Lane in the unincorporated community of Ramona.
- Stringing Site 4 is located adjacent to pole P25. Stringing Site 4 will temporarily impact approximately 2,100 sq. ft., and will be accessed via existing SDG&E access roads in the unincorporated community of Ramona.
- Stringing Site 5 is located adjacent to pole P29. Stringing Site 5 will temporarily impact approximately 22,500 sq. ft. and will be accessed via existing SDG&E access roads in the unincorporated community of Ramona.
- Stringing Site 6 is located adjacent to pole P47. Stringing Site 6 will temporarily impact approximately 16,500 sq. ft. and will be accessed via existing SDG&E access roads in the unincorporated community of Ramona.
- Stringing Site 7 is located adjacent to pole P47. Stringing Site 7 will temporarily impact approximately 2,100 sq. ft. and will be accessed via existing SDG&E access roads in the unincorporated community of Ramona.
- Stringing Site 8 is located adjacent to pole P51. Stringing Site 8 will temporarily impact approximately 2,100 sq. ft. and will be accessed via existing SDG&E access roads in the unincorporated community of Ramona.
- Stringing Site 9 is located adjacent to pole P64. Stringing Site 9 will temporarily impact approximately 7,500 sq. ft. and will be accessed via existing SDG&E access roads in the unincorporated community of Ramona.
- Stringing Site 10 is located adjacent to pole P64. Stringing Site 10 will temporarily impact approximately 11,250 sq. ft. and will be accessed via existing SDG&E access roads in the unincorporated community of Ramona.
- Stringing Site 11 is located adjacent to pole P65. Stringing Site 11 will temporarily impact approximately 12,000 sq. ft. and will be accessed via existing SDG&E access roads in the unincorporated community of Ramona.
- Stringing Site 12 is located adjacent to pole P83. Stringing Site 12 will temporarily impact approximately 22,500 sq. ft. and will be accessed via existing SDG&E access roads in the unincorporated community of Ramona.
- Stringing Site 13 is located adjacent to pole P84. Stringing Site 13 will temporarily impact approximately 22,500 sq. ft. and will be accessed via existing SDG&E access roads in the unincorporated community of Ramona.

- Stringing Site 14 is located adjacent to pole P100. Stringing Site 14 will temporarily impact approximately 2,100 sq. ft. and will be accessed via existing SDG&E access roads in the unincorporated community of Ramona.
- Stringing Site 15 is located adjacent to pole P100. Stringing Site 15 will temporarily impact approximately 2,100 sq. ft. and will be accessed via existing SDG&E access roads in the unincorporated community of Ramona.
- Stringing Site 16 is located adjacent to pole P114. Stringing Site 16 will temporarily impact approximately 22,500 sq. ft. and will be accessed via West Side Rd a county road located in the unincorporated community of Santa Ysabel.
- Stinging Site 17 is located between poles P122 and P123. Stringing Site 17 will temporarily impact approximately 2,100 sq. ft. and will be accessed via existing SDG&E access roads located in the unincorporated community of Santa Ysabel.
- Stringing Site 18 is located adjacent to pole P145. Stringing Site 18 will temporarily impact approximately 2,100 sq. ft. and will be accessed via existing SDG&E access roads located in the unincorporated community of Santa Ysabel.
- Stringing Site 19 is located adjacent to pole P146. Stringing Site 19 will temporarily impact approximately 11,250 sq. ft. and will be accessed via existing SDG&E access roads located in the unincorporated community of Santa Ysabel.
- Stringing Site 20 is located adjacent to pole P151. Stringing Site 20 will temporarily impact approximately 22,500 sq. ft. and will be accessed via existing access roads located in the unincorporated community of Santa Ysabel.
- Stringing Site 21 is located adjacent to pole P151. Stringing Site 21 will temporarily impact approximately 22,500 sq. ft. and will be accessed via existing access roads located in the unincorporated community of Santa Ysabel.
- Stringing Site 22 is located adjacent to pole P163 inside the Santa Ysabel Substation. Stringing Site 22 will temporarily impact approximately 22,500 sq. ft. and will be accessed via existing access roads located in the unincorporated community of Santa Ysabel.

2.3.4 Fiber Optic Cable

Fiber-optic cable (FOC) will be installed using a mechanical pulling machine (powered dolly) and/or helicopter along the entire length of the TL. Installation of the FOC will require trenching from pole P2 into the Creelman Substation, and from pole D182 into the Santa Ysabel Substation.

2.3.5 Guard Structures

Temporary guard structure installation will occur in locations within the 14-mile project alignment where stringing work will cross existing facilities such as other utilities, and roadways to assure minimum clearances are maintained while conductors are being pulled. Different types of guard structures may be used, depending on the site conditions. Often, bucket trucks are utilized as guard structures during stringing activities. Where wooden poles are used as guard structures, installation requires the temporary use of approximately 36 square feet of area for a single-pole guard structure and approximately 72 square feet of area for an h-frame guard structure. The temporary work area is located in the immediate vicinity of the guard structure location. No permanent impacts would result

from the utilization of guard structures. Approximately 10 wooden guard structures will be utilized on the project at locations where the TL crosses public roads. The guard structures are necessary to provide for safety while conductor is pulled through the line.

2.4. ACCESS

TL 637 project-related activities will remain within the existing SDG&E ROW easements wherever feasible. Most sites/pole locations are accessible by vehicle on unpaved SDG&E-maintained access roads or by overland travel. Other areas without road access will be accessed via footpaths, and poles will be set by helicopter. Road re-establishment and/or vegetation clearing may be necessary to improve some existing access roads and to re-establish unmaintained access roads. No new access roads are anticipated to be established. Vehicles will remain within existing access roads, previously disturbed areas, and designated temporary work areas whenever feasible. Seven footpaths are required to access poles that are not accessible by road. Six existing wooden poles will require footpaths that will be no greater than 4 feet wide. One footpath is an existing trail.

2.5. CONSTRUCTION METHODS

Three distinct types of poles will be used for the project: direct-embedded SW light-duty and direct-embedded SW heavy-duty steel weatherized poles and engineered steel weatherized poles used with micropile foundations. Work areas for each type of pole will vary but will be confined to the previously disturbed areas around the base of the existing poles to the extent possible in order to provide a safe and adequate workspace.

2.5.1 Directly-Embedded Steel Poles

Directly-embedded steel poles are light-duty and heavy-duty direct-embedded, weathering steel poles that are secured using a concrete backfill. The poles will range in heights above grade from approximately 43 to 79 feet. The diameter of the pole at ground level is approximately 30 inches for light-duty steel poles and approximately 42 inches for heavy-duty steel poles. The poles will be directly-embedded at a depth of approximately 7 to 16 feet as necessary for installation. Light-duty steel poles will be used at 29 locations, and heavy-duty steel poles will be used at 40 locations.

2.5.2 Micropile Foundation Poles

Micropile foundation poles are heavy-duty, engineered steel poles installed using a micropile foundation, which uses a series of level work platforms from which small micropiles (or small, individual foundations) are installed. The poles will have a height above grade of approximately 55 to 110 feet. A steel cap and micropile anchor bolt ring are installed above the micropile foundation to act as the base foundation for an engineered steel pole. The combined dimensions of the micropile foundation and pole are expected to average 7 feet in diameter at ground level (and not have a diameter greater than 8 feet).

2.5.3 Steel Replacement Poles

Replacement poles will be located as close as possible to the existing poles, usually within 6 to 8 feet; and installation of the new steel poles will require excavating the pole holes using either a truck-mounted auger or drill rig, or by hand with the aid of a hand jack powered by an air compressor.

Excavated soil will be placed in a spoil pile adjacent to each hole. In locations where poles are moved further than eight feet, two temporary work areas will be required, one for the removal of the old pole and one for the installation of the new pole. Spoil boxes may be used to store spoils at sites that are located on steep or uneven terrain. Plywood boards or visqueen covers will be used to cover the excavated holes until pole installation activities begin. New poles will be installed by line truck or by helicopter. Excess spoils generated from project activities will be dispersed around the bases of the poles within the allotted temporary work areas and/or evenly distributed on the existing access roads and properly compacted. In the event that the soil cannot be spread and adequately contoured or compacted onto the existing access roads, crews will remove the excess soil from the project site. The appropriate Best Management Practices (BMPs) will be used before, during, and after project-related construction activities where necessary to prevent offsite sedimentation. Bucket trucks will be utilized to remove conductor and cross-arms from old poles. Wood poles will be removed by cutting the poles into sections or removed completely by use of a hydraulic jack and line truck. The old pole butts will be completely removed, and the holes will be backfilled with spoils.

2.5.4 Wood Pole Removal

Wood pole removal activities will utilize boom and bucket trucks and a helicopter to remove cross arms, conductors, and poles. Associated hardware, including anchors and old wood poles will be recycled and/or disposed of at an approved offsite location.

2.5.5 Anchors

Two 24-inch temporary anchors and one 20-inch temporary anchor shall be installed on the TL for the purpose of facilitating the installation of temporary shoe-fly poles. Temporary sled and block anchors will be installed at five locations by poles P51, P65, P150, and P151. Each sled and block measures 6.5 feet by 10 feet. New design standards for poles eliminate the need for placement of permanent new anchors. Existing anchors will be removed and backfilled with native soil.

SECTION 3.0 – REGULATORY SETTINGS

3.1. FEDERAL

3.1.1 Bureau of Land Management Sensitive Species

BLM Sensitive Species (BLMS) are species that are not federally listed that occur on BLM public lands, where BLM "has the capability to significantly affect the conservation status of the species through management." BLM's policy is to "ensure that actions authorized, funded, or carried out do not contribute to the need to list any of these species as threatened or endangered." BLM offices maintain a list of special status plant and wildlife species specific to BLM management activities. This report includes an analysis of BLMS for those work locations that are located on BLM land, since the project cannot lead to a trend toward listing of loss or viability.

3.1.2 Clean Water Act of 1977 (Public Law 95-217)

The Clean Water Act (CWA) governs discharge or dredge of materials in the waters of the United States, and it governs pollution control and water quality of waterways throughout the United States. Its intent, in part, is to restore and maintain the biological integrity of the nation's waters. The goals and standards of the CWA are enforced through permit provisions.

Pursuant to Section 404 of the CWA, the United States Army Corps of Engineers (USACE) regulates the discharge of dredged and/or fill material into waters of the United States. Waters of the United States include navigable waterways and wetlands adjacent to navigable waterways, and non-navigable waterways and wetlands adjacent to non-navigable waters that are contiguous with navigable waterways. The term "waters of the United States" is defined by 33 Code of Federal Regulations (CFR) Part 328 and currently includes (1) all navigable waters (including all waters subject to the ebb and flow of the tide), (2) all interstate waters and wetlands, (3) all other waters (e.g., lakes, rivers, intermittent streams) that could affect interstate or foreign commerce, (4) all impoundments of waters mentioned above, (5) all tributaries to waters mentioned above, (6) the territorial seas, and (7) all wetlands adjacent to waters mentioned above.

Wetlands are defined by 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions." In the absence of wetlands, the limits of USACE jurisdiction in nontidal waters, including intermittent Relatively Permanent Water (RPW) streams, extend to the Ordinary High Water Mark (OHWM) which is defined by 33 CFR 328.3(e) as: "*...that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*" On January 9, 2001, the United States Supreme Court ruled (in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*) that the USACE jurisdiction does not extend to "isolated, non-navigable, intra-state waters or wetlands," including but not limited to isolated ponds, reservoirs, and wetlands. A joint guidance by the United States Environmental Protection Agency (USEPA) and USACE was issued on June 5, 2007, regarding the Court's decision on the consolidated cases Rapanos v. United States and Carabell v. United States (126 S. Ct. 2208 (2006)) ("Rapanos"), to clarify circumstances where a CWA Section 404 permit would be required before conducting activities in wetlands, tributaries, and other waters.

The State of California (State) regulates discharge of material into waters of the State pursuant to Section 401 of the CWA. The State Water Resources Control Board (SWRCB) and the local RWQCB are the relevant permitting agencies. Waters of the State determined to be jurisdictional as surface and/or ground waters, if impacted, would require a 401 Certification if an USACE 404 permit is required. Limits of jurisdiction include wetland boundaries and the OHWMs of traditional navigable waters (TNWs), relatively permanent waters (RPWs), and non-RPWs.

3.1.3 Federal Endangered Species Act of 1973

The Federal Endangered Species Act of 1973 (ESA) protects endangered and threatened species by prohibiting Federal actions that would jeopardize the continued existence of such species or result in the destruction or adverse modification of habitat of such species. Section 9 of ESA prohibits the "take" of endangered wildlife, where take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 CFR Section 17.3). For plants, this includes removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging-up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 Unites States Code [USC] 1538).

Under Section 7(a)(2) of the ESA, federal agencies must consult with federal resource agencies (i.e., USFWS) if listed species, "proposed" and "candidate" species, and/or critical habitat could be impacted by proposed project activity. USFWS then would prepare a Biological Opinion (BO) on how the action would affect the species and/or its critical habitat and would suggest reasonable and prudent measures or alternatives to minimize take of a listed species, avoid jeopardizing the continued existence of the species, or avoid adversely modifying its critical habitat.

3.1.4 Forest Service Sensitive Species

Forest Service Sensitive (FSS) species are plant and animal species identified by a Regional Forester for which population viability is a concern (FSM 2670.5). This report includes an analysis of forest sensitive species for those work locations that are located on Forest Service land, since the project cannot lead to a trend toward listing of loss or viability.

3.1.5 Migratory Bird Treaty Act, as Amended (16 USC 703-711)

The Migratory Bird Treaty Act (MBTA), as amended, provides legal protection for almost all bird species occurring in, migrating through, or spending a portion of their life cycle in North America by restricting the killing, taking, collecting, and selling or purchasing of native bird species or their parts, nests, or eggs. USFWS determined it was illegal under the MBTA to directly kill, or destroy an active nest (nest with eggs or nestlings), of nearly any bird species (with the exception of non-native species through the MBTA Reform Act of 2004). Certain game bird species are allowed to be hunted for specific periods determined by Federal and State governments. The intent of the MBTA is to eliminate any commercial market for migratory birds, feathers, or bird parts, especially for eagles and other birds of prey.

3.1.6 Bald and Golden Eagle Protection Act, as Amended (16 USC. 668-668c)

The Bald and Golden Eagle Protection Act (BGEPA) of 1940, as amended, provides legal protection to bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) in addition to protection afforded under the MBTA. The BGEPA prohibits the "take" (to pursue, shoot, shoot at, wound, kill,

capture, trap, collect, molest, or disturb) of bald and golden eagles including their nests, eggs, or parts. "Disturbance" of bald and golden eagles is also prohibited under the BGEPA, and "disturbance" relates to injuries to bald or golden eagles or a disruption to life cycles, productivity, and/or substantial interference of normal bald and golden eagle behavior. The BGEPA also extends to potential impacts to bald and golden eagles caused by human-induced environmental changes near a previously used nest when the eagles are not present.

3.2. STATE

3.2.1 California Endangered Species Act (California Fish and Wildlife Code Sections 2050-2116)

The California Endangered Species Act (CESA) parallels the Federal ESA. As a responsible agency, CDFW has regulatory authority over species State listed as endangered and threatened. The State legislature encourages cooperative and simultaneous findings between State and Federal agencies. Consultation with CDFW is required for projects with the potential to affect listed or candidate species. CDFW would determine whether a reasonable alternative would be required for the conservation of the species. CESA prohibits the "take" of these species unless an incidental take permit is granted. Under California Fish and Wildlife Code Section 2081 (Incidental Take Permit), CDFW can authorize the "take" of a listed species (with exception to fully protected species) if the "take" of the listed species is incidental to carrying out an otherwise lawful project that has been approved under CEQA. Section 2080.1 allows for "take" once an applicant obtains a Federal Incidental Take Permit which can be approved (Consistency Determination letter) within 30 days by the CDFW Director. If the Federal Incidental Take Statement is determined not to be consistent with CESA, then application for a State Incidental Take Permit (2081) is required.

The California Fish and Wildlife Code outlines protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are "fully protected" (FP) may not be taken or possessed at any time. CDFW has designated certain species native to California as Species of Special Concern to "focus attention on animals at conservation risk by the Department, other State, Local and Federal governmental entities, regulators, land managers, planners, consulting biologists, and others; stimulate research on poorly known species; achieve conservation and recovery of these animals before they meet CESA criteria for listing as threatened or endangered."

3.2.2 State Fully Protected Species

The State of California designated species as FP prior to the creation of CESA and ESA. Lists of FP species were initially developed to provide protection to species that were rare or faced possible extinction/extirpation. Most FP species have since been state listed as threatened or endangered species. Under California Fish and Wildlife Code Section 4700, FP species may not be taken or possessed at any time.

In September 2011, the California Legislature sent the Governor legislation authorizing CDFW to permit the incidental take of 36 fully protected species pursuant to a Natural Community Conservation Plan (NCCP) approved by CDFW (Senate Bill 618 [Wolk]). The legislation gives FP species the same level of protection as provided under the NCCP Act for endangered and threatened species (California Fish and Wildlife Code § 2835). The NCCP Act, enacted in the 1990s, authorizes the incidental take of species "whose conservation and management" is provided for in a conservation plan approved by CDFW.

3.2.3 Sections 1600-1602 of the California Fish and Wildlife Code

Pursuant to Division 2, Chapter 6, Sections 1600-1602 of the California Fish and Wildlife Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife. CDFW defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW limits of jurisdiction include the maximum extents of the uppermost bank-to-bank distance or riparian vegetation dripline. CDFW jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife.

3.2.4 California Environmental Quality Act (Public Resources Code, Sections 21000-21177)

The California Environmental Quality Act (CEQA) requires that State and Local agencies consider environmental consequences and project alternatives before a decision is made to implement a project requiring State or Local government approval, financing, or participation by the State of California. In addition, CEQA requires the identification of ways to avoid or reduce environmental degradation or prevent environmental damage by requiring implementation of feasible alternatives or mitigation measures.

3.2.5 California Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 directed CDFW to "preserve, protect and enhance rare and endangered plants in this State." CDFW "requires a CESA Section 2081 (a) permit for take of candidate or listed threatened and endangered plants for scientific, educational, or management purposes, and a CESA Section 2081 (b) permit for incidental take of listed threatened and endangered plants from all activities, except those specifically authorized by the NPPA." The California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California was referenced in the literature review of the proposed project.

3.2.6 Porter-Cologne Water Quality Control Act of 1966 (California Water Code §§ 13000-13999.10)

This act mandates that activities that may affect waters of the State shall be regulated to attain the highest quality. The SWRCB and the local Regional Water Quality Control Board (RWQCB) are the relevant permitting agencies. RWQCB provides regulations for a "non-degradation policy" that are especially protective of waters with high quality. Porter–Cologne reserves the right for the State of California to regulate activities that could affect the quantity and/or quality of surface and/or ground waters, including isolated wetlands, within the State. Waters of the State include isolated waters that are no longer regulated by USACE. If the project is proposed to discharge into waters of the State, a Waste Discharge Report (WDR) must be filed.

3.3. LOCAL

3.3.1 County of San Diego

The *County of San Diego General Plan* provides direction for future growth in the unincorporated areas of San Diego County, and provides policies related to land use, mobility, conservation, housing, safety, and noise. The *County of San Diego General Plan Land Use Element* provides a framework for managing future development in the County so that it is thoughtful of the existing character of the current communities and the sensitive natural resources within the County.

The *County of San Diego General Plan* contains the following relevant policies:

> Conservation and Open Space (COS) Policy COS-1.2: Minimize Impacts. Prohibit private development within established preserves. Minimize impacts within established preserves when the construction of public infrastructure is unavoidable.
>
> Conservation and Open Space Policy COS-1.3: Management. Monitor, manage, and maintain the regional preserve system facilitating the survival of native species and the preservation of healthy populations of rare, threatened, or endangered species.

3.3.2 Communities of Ramona and Santa Ysabel

The *Ramona Community Plan* (2010) provides guidance for the community of Ramona and the surrounding area. The *Ramona Community Plan* is a portion of the *San Diego County General Plan* that provides goals and policies for the community. The goals and policies were decided based on analysis by the Ramona Community Planning Group.

The *Ramona Community Plan* contains the following relevant policies and goals:

> Conservation and Open Space Policy – COS 1.1.2 Protect raw land from grading or other disturbances prior to approval and permit process.
>
> Conservation and Open Space Policy – COS 1.1.8 Conserve functional wildlife and plant habitats, particularly those supporting rare or endangered species. These areas have been mapped as RCAs on the Ramona Resource Conservation Map.
>
> Conservation and Open Space Policy – COS 1.1.9 Encourage the conservation of riparian brush and woodland areas and significant wildlife habitat.
>
> Conservation and Open Space Policy – COS 1.1.11 Require the use of native seed mixes wherever feasible for the revegetation of cleared areas, provided that the use of native brush does not pose a fire hazard.
>
> Conservation and Open Space Policy – COS 1.1.12 Discourage severe grading and encourage the preservation of native brush.

3.3.3 Central Mountain Subregional Plan

The *Central Mountain Subregional Plan* (2011) provides guidance to the communities of Cuyamaca, Descanso, Guatay, Mount Laguna, and Pine Valley, and covers an area of approximately 203,000 acres. The *Central Mountain Subregional Plan* is a portion of the *San Diego County General Plan* that provides goals and policies for that area of the county.

The *Central Mountain Subregional Plan* contains the following relevant goals and policies:

> Conservation Goal 1: The careful management of environmental resources in the plan area that prevents wasteful exploitation or degradation of those resources, and preserves them for future generations.
>
> Vegetation and Wildlife Policy 2: In chaparral, clearing of brush shall be limited to that required for fire protection.
>
> Vegetation and Wildlife Policy 4: Cumulative effects of habitat disturbance should be addressed during evaluation of environmental impacts of development projects.
>
> Vegetation and Wildlife Policy 7: For any project requiring environmental review, biological studies will be required that specifically address wildlife movement corridors and areas of wildlife concentration whenever applicable.
>
> Vegetation and Wildlife Policy 11: Biological studies shall be required for discretionary permits when deemed necessary by County environmental review staff. These studies shall specifically address, but not be limited to, the identification of endangered, threatened, and sensitive species.
>
> Vegetation and Wildlife Policy 12: Spring surveys shall be required in areas where sensitive species are known to exist.
>
> Vegetation and Wildlife Policy 13: Require all biological resources to be recorded on a Resources Map and biological reports to be kept for public record and use.

3.3.4 North Mountain Subregional Plan

The *North Mountain Subregional Plan* (2011) provides guidance to the communities of Santa Ysabel, Warner Springs, Palomar Mountain, Mesa Grande, Sunshine Summit, Ranchita, and Oak Grove. As noted in the community plan, a majority of the area is characterized by large areas of open space with some scattered rural residential development. The *North Mountain Subregional Plan* is a portion of the *San Diego County General Plan* that provides goals and policies for the specific communities within the planning area.

The *North Mountain Subregional Plan* contains the following relevant goals and policies:

> Community Character Policy 3: Require development to provide for two replacement trees for each tree removed at appropriate locations elsewhere on the subject property.

Land Use Policy 5: Encourage preservation of areas with rare, unique, or endangered wildlife and plants.

Conservation General Goal: The careful management of the environmental resources in the subregion to prevent wasteful exploitation or degradation of those resources, and to preserve resources for future use.

Vegetation and Wildlife Goal: The preservation of the natural landscape and wildlife habitat within the subregion.

3.3.5 SDG&E Subregional Natural Community Conservation Plan

In December 1995, USFWS and CDFW approved the *SDG&E Subregional NCCP*, developed in coordination with such agencies that address potential impacts to species and habitat associated with SDG&E's ongoing installation, use, maintenance, and repair of its gas and electric systems, and typical expansion to those systems throughout much of SDG&E's existing service territory. As a part of the *SDG&E Subregional NCCP*, SDG&E has been issued incidental take permits (Permit PRT-809637) by USFWS and CDFW for 110 Covered Species. The *SDG&E Subregional NCCP* was developed by following the multiple species and habitat conservation planning approach. Even with the *SDG&E Subregional NCCP*, SDG&E's goal is to avoid "take" of Covered Species whenever possible and to implement measures to avoid and minimize any take to the maximum extent possible. The *SDG&E Subregional NCCP* includes avoidance and minimization measures and operational protocols that apply to construction and operations and maintenance activities. In approving the NCCP, USFWS and CDFW determined that the avoidance and minimization measures and operational protocols avoid potential impacts and provide appropriate mitigation where such impacts are unavoidable and ensure the protection and conservation of federal and state listed species and Covered Species.

The proposed project falls within the area in which SDG&E's utility operations are governed by the *SDG&E Subregional NCCP* and the NCCP will be applied to the proposed project. As such, the NCCP fully addresses all of the potential construction and operations and maintenance impacts of the proposed project on federal and state listed species and Covered Species. The NCCP avoidance and minimization measures and operational protocols have been incorporated as part of the proposed project description.

SDG&E is a public utility regulated by the California Public Utilities Commission (CPUC). As described in the *SDG&E Subregional NCCP Implementing Agreement*, local governments are precluded from regulating public utilities through their zoning laws, land use laws, ordinances, and other police powers (including other NCCPs or Habitat Conservation Plans[HCPs]) by the exclusive jurisdiction of CPUC. Therefore, as stated in the *SDG&E Subregional NCCP Implementing Agreement,* the *SDG&E Subregional NCCP* "is independent of other NCCP/HCPs and the Covered Species for which Incidental Take is authorized under the Take Authorizations is not dependent upon the implementation of such plans."

3.3.6 North County Multiple Species Conservation Plan

The North County Multiple Species Conservation Plan (MSCP) is located in the northwest portion of San Diego County, encompassing the unincorporated communities of Bonsall, De Luz, Fallbrook, Harmony Grove, Rancho Santa Fe, Lilac, Pala, Pauma Valley, Ramona, Rincon Springs, and Valley Center, among others. The North County MSCP area is governed by the County of San Diego's *North County Plan*

document, a planning document that aims to protect biodiversity and quality of life in the region by "reducing constraints on future development outside of proposed preserve areas and decreasing the costs of compliance with federal and state laws protecting biological resources" (North County Plan 2009). In order to maintain biodiversity and ecosystem health, the *North County Plan* incorporates goals including biological goals, economic goals, and social goals.

The proposed project is anticipated to occur within SDG&E's ROW; therefore no conflicts should occur with any other conservation plans or mitigation/preservation areas. The *SDG&E Subregional NCCP* is independent of other NCCP/HCPs; and therefore is not dependent upon the implementation of such plans and is not superseded by theirs.

3.3.7 East County MSCP

The East County MSCP area is located on approximately 1.6 million acres covering the eastern half of the County of San Diego. The East County MSCP area includes the communities of Central Mountain, Cuyamaca, Descanso, Pine Valley, Borrego Springs, Julian, Mountain Empire, Jacumba, Campo, Potrero, and Tecate, among others. However, the County only has land use authority over the private parcels within this area, which includes approximately 418,930 acres. The *East County Plan* is currently being developed. This document will eventually provide guidelines for the East County MSCP. As stated above, the proposed project is anticipated to occur within SDG&E's ROW; therefore no conflicts should occur with any other conservation plans or mitigation/preservation areas. The *SDG&E Subregional NCCP* is independent of other NCCP/HCPs; and therefore is not dependent upon the implementation of such plans and is not superseded by theirs.

3.3.8 Simon Preserve Resource Management Plan

The Simon Preserve is approximately 617 acres in size and is located from approximately 2 miles southeast of the unincorporated community of Ramona to approximately 13 miles northeast of the City of Poway. The *Simon Preserve Resource Management Plan* is a document that guides activities within the Simon Preserve in order to protect the biological and cultural resources present in the preserve. The Resource Management Plan not only catalogues the existing habitats, species, and resources within the preserve, it also guides future management of these resources and outlines operations and maintenance requirements for meeting management goals. As stated above, the proposed project is anticipated to occur within SDG&E's ROW; therefore no conflicts should occur with any other conservation plans or mitigation/preservation areas.

3.3.9 County of San Diego Tree Ordinance

The San Diego Regulatory Code of Ordinances, Title 7, Division 1, Chapter 5 regulates the planting, trimming and removal of trees on County-owned property and County highways. However, the proposed project is anticipated to occur within SDG&E's ROW and no conflicts should occur with any other conservation plans or County tree ordinances. SDG&E is a public utility regulated by the CPUC. Local governments are precluded from regulating public utilities through their zoning laws, land use laws, ordinances, and other police powers by the exclusive jurisdiction of CPUC.

SECTION 4.0 – METHODS

4.1. LITERATURE AND DATABASE REVIEW

Prior to conducting the field surveys, existing documentation relevant to the Survey Area was reviewed. The most recent records of the CDFW California Natural Diversity Database (CNDDB 2012) and the California Native Plant Society's Electronic Inventory of Rare and Endangered Vascular Plants of California (CNPSEI 2012) were reviewed for the quadrangles containing and surrounding the Survey Area (i.e., *Santa Ysabel* and *Ramona* California USGS 7.5-minute quadrangles); a 3 mile radius surrounding the proposed project ROW was reviewed. CNDDB contains records of reported occurrences of federal or state listed species, proposed endangered or threatened species, Federal Birds of Conservation Concern, California Species of Special Concern (SSC), or otherwise sensitive species or habitats that may occur within or in the vicinity of the Survey Area.

Chambers Group collected general field reconnaissance data throughout the period from April through September 2010. Field data were recorded during sensitive plant and wildlife surveys. Focused plant surveys were conducted between April and September 2010 to cover the blooming periods of the sensitive annual plant species (perennial shrub species could be observed throughout the year). Focused wildlife surveys were conducted between May and September 2010. Additional surveys along TL 637 were conducted in 2011 on May 2, July 11 through 15, and November 8 and in 2012 on February 3, 7, 13, and 23 during Pre-activity Surveys; and from July 11 through 19, 2011, during the Jurisdictional Delineation Survey.

The focused wildlife and plant surveys conducted were in support of the CNF Master Services Use Project; therefore, the species for which focused surveys were conducted were targeted for Unites States Forest Service (USFS) listed species. The species surveyed for were determined under the direction of USFS and did not include all federal and/or state listed sensitive species; however, through discussions with SDG&E, the decision to survey for non-USFS species (including non-USFS Sensitive CNPS List 1B.1 plants) was approved in the event specific TLs would not be included in the CNF MSUP Project. Therefore, the majority of species discussed in this report have been directly targeted and surveyed for.

4.1.1 Vegetation

All plant species observed within the Survey Area were noted. Plant communities within the Survey Area were identified, qualitatively described, and mapped onto aerial photographs. The mapped plant communities were digitized in Geographic Information System (GIS), and acreages were calculated based on the vegetation types within the survey buffer. Plant communities were determined in accordance with the categories set forth in Holland (1986) or Gray and Bramlet (1992). Plant nomenclature follows that of *The Jepson Manual: Higher Plants of California* (Hickman 1993). The sensitive plants with a potential to occur within the Survey Area are described in Section 5.3.

4.1.2 Wildlife

All wildlife observed and wildlife sign detected, including tracks, scat, carcasses, burrows, excavations, and vocalizations, were recorded and are included as Appendix F. Additional survey time was spent in those habitats most likely to be utilized by wildlife (e.g., undisturbed native habitat, wildlife trails) or in habitats with the potential to support state and/or federally listed or proposed listed species. Notes

were made on the general habitat types, species observed, and the conditions of the site. The sensitive wildlife species with a potential to occur within the Survey Area are described in Section 5.4.

4.1.3 Special Status Species

The following information is a list of abbreviations used to help determine the significance of biologically sensitive resources potentially occurring within the Survey Area.

Federal

FE	=	Federally listed; Endangered
FT	=	Federally listed; Threatened
FC	=	Federal Candidate Species
FCC	=	Former Federal Species of Concern
BCC	=	Birds of Conservation Concern
FSS	=	Forest Service Sensitive
BLMS	=	Bureau of Land Management Sensitive

State

ST	=	State listed; Threatened
SE	=	State listed; Endangered
RARE	=	State-listed; Rare (Listed "Rare" animals have been re-designated as Threatened, but Rare plants have retained the Rare designation.)
SSC	=	State Species of Special Concern
FP	=	State Fully Protected
WL	=	California Watch List Species

California Rare Plant Rank (CRPR)

List 1A	=	Plants presumed extinct in California.
List 1B	=	Plants Rare and Endangered in California and throughout their range.
List 2	=	Plants Rare, Threatened, or Endangered in California but more common elsewhere in their range.
List 3	=	Plants about which we need more information; a review list.
List 4	=	Plants of limited distribution; a watch list.

CRPR Extensions

0.1	=	Seriously endangered in California (greater than 80 percent of occurrences threatened/high degree and immediacy of threat).
0.2	=	Fairly endangered in California (20 to 80 percent occurrences threatened).
0.3	=	Not very endangered in California (less than 20 percent of occurrences threatened).

Table 1.
Criteria for Evaluating Sensitive Wildlife Species Potential for Occurrence (PFO)

PFO	CRITERIA
Absent:	Species is restricted to habitats or environmental conditions that do not occur within the project site.
Low:	Historical records for this species do not exist within the immediate vicinity (approximately 3 miles) of the project site, and/or habitats or environmental conditions needed to support the species are of poor quality.
Moderate:	Either a historical record exists of the species within the immediate vicinity of the project site (approximately 3 miles) and marginal habitat exists on the project site, or the habitat requirements or environmental conditions associated with the species occur within the project site, but no historical records exist within 3 miles of the project site.
High:	Both a historical record exists of the species within the project site or its immediate vicinity (approximately 3 miles), and the habitat requirements and environmental conditions associated with the species occur within the project site.
Present:	Species was detected within the project site at the time of the survey.

4.2. FOCUSED PLANT SURVEYS

Due to the presence of environmental conditions suitable for multiple sensitive plant species to occur within the Survey Area, a series of focused rare plant surveys for specific target species was completed according to the guidelines set forth by CNPS (CNPS 2001). Three separate surveys were conducted within the Survey Area to capture the blooming periods for each of the 16 targeted species with a potential to occur onsite. Sensitive plant species with a potential for occurrence onsite that were targeted during the surveys include:

- San Diego thornmint (*Acanthomintha ilicifolia*)
- San Bernardino aster (*Symphyotrichum defoliatum*)
- San Diego milk-vetch(*Astragalus oocarpus*)
- Orcutt's brodiaea (*Brodiaea orcuttii*)
- Palmer's goldenbush (*Ericameria palmeri* var. *palmeri*)
- San Diego button-celery (*Eryngium aristulatum* var. *parishii*)
- long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*)
- delicate clarkia (*Clarkia delicata*)
- San Diego gumplant (*Grindelia hallii*)
- Ramona horkelia (*Horkelia truncata*)
- spreading navarretia (*Navarretia fossalis*)
- felt-leaved monardella (*Monardella hypoleuca* ssp. *lanata*)
- southern skullcap (*Scutellaria bolanderi* ssp. *austromontana*)

- purple stemodia (*Stemodia durantifolia*)
- Parry's tetracoccus (*Tetracoccus dioicus*)
- velvety false-lupine (*Thermopsis californica* var. *semota*)

Focused rare plant surveys for these target species were performed in accordance with survey protocols set forth by CDFW, CNPS, and USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants. Species identified as being sensitive and having the potential to occur along the survey routes were reviewed by Chambers Group botanists prior to starting surveys each day. Botanists walked within the Survey Area approximately 30 feet (9 meters [m]) apart and visually surveyed for any signs of the targeted plant species. A complete inventory of all plant species observed within the Survey Area was prepared. Sensitive plant species observed during the survey were documented by counting individuals or estimating numbers for larger populations, characterizing the approximate population size, and recording a Global Positioning System (GPS) location. Comprehensive results of these surveys were presented in the *Rare Plant Survey Draft Report for the San Diego Gas & Electric Company Cleveland National Forest Master Services Permit Project San Diego County, California* prepared by Chambers Group (2011k).

Areas that were designated as private property separated by fences and signs were avoided unless specific permission to enter was granted by the landowner. The first round of spring surveys commenced on April 20, 2010, and concluded June 4, 2010. The second round of surveys commenced on June 7, 2010, and concluded on June 30, 2010. The third round of surveys commenced on August 2, 2010; continued through August 17, 2010; recessed for two weeks; and resumed from September 7, 2010, through September 15, 2010.

4.2.1 Weather Conditions for 2010

Precipitation in 2010 was above the annual average for San Diego County (Table 2). The increased precipitation did not halt the plant or wildlife surveys or hinder access to TLs and circuits; however, the above-average precipitation for the year did prolong the survey periods.

Table 2.
Weather Conditions of San Diego County (April-September 2010)

Month	Total Precipitation	Weather Conditions & Storm Events
April	1.74 inches	Rainfall
	11.00 inches	Snowfall occurred in eastern San Diego County at elevations above 2,500 feet
May	none	No storm events. Below average temperatures.
June	none	No storm events. Below average temperatures.
August	none	No storm events. Above average temperatures.
September	none	No storm events. Average temperatures.

Abiotic Factors

Additional abiotic factors may have played a significant role in the change in population size of rare plants and the locations where they were found and a change in the distribution of sensitive wildlife species. Species may have been impacted by factors such as: below average seasonal temperatures, recent and or past wildfires, an increase in soil salinity due to recent road re-establishment, and soil erosion.

4.3. FOCUSED SENSITIVE WILDLIFE SURVEYS

4.3.1 Quino Checkerspot Butterfly (*Euphydryas editha quino*; QCB)

Habitat Assessment

The purpose of the QCB habitat assessment was to determine the degree and nature of gross vegetation cover in order to assess potential for QCB occurrence in the project area. QCB colonies are primarily associated with low elevation (sea level to 3,000 feet) open grasslands, vernal pools, and sunny openings within chaparral, coastal-sage scrub, and juniper woodland vegetation communities. Colonies are found frequently near clay soils and soils that possess cryptogamic crusts (soil infused with algae and lichen in the soil surface) (Osborne 1998). QCB distributions closely approximate the distributions of the primary larval host plant, dot-seed plantain (*Plantago erecta*), also known as dwarf plantain. Higher elevation QCB populations (Pratt et al. 2001) have been found to use woolly plantain (*Plantago patagonica*), Coulter's snapdragon (*Antirrhinum coulterianum*), bird's beak (*Cordylanthus rigidus*), and southern Chinese houses (*Collinsia concolor*) (Pratt and Pierce 2009). Purple owl's clover (*Castilleja exserta*) is also known to occasionally be used by larvae and may also represent an ovipositional substrate. Larvae may use other plantain (*Plantago*) species (e.g., *P. ovata* and *P. insularis*) as well. Introduced Mediterranean plantain species, such as *P. lanceolata* and *P. major* (common weeds of residential lawns and city lots), although suitable in the laboratory (Osborne 2009) and used by some wild *E. editha* populations in Oregon, are not likely used where they occur in habitats not frequented by QCB. Nevertheless, these exotic host plants may be of potential use to QCB where they occur in wild habitats proximal to QCB populations.

Permitted QCB biologists Michael Klein (TE-837760-6), Kris Alberts (TE-039640-2), and Paul Morrissey conducted the QCB habitat assessment in accordance with the *USFWS Quino Checkerspot Survey Protocol Information* (USFWS 2002a). The biologists surveyed the project route by helicopter, which allowed for an efficient and comprehensive aerial search of the project landscape. The helicopter flew low enough over the Survey Area to allow for visual determination of the ground cover type and vegetation density. The biologists then mapped QCB suitable and non-suitable areas of the Survey Area on aerial maps in the helicopter during the survey flight. The helicopter was determined by USFWS to be a suitable method of conducting a protocol habitat assessment. The helicopter QCB habitat assessment was then ground-truthed by a USFWS permitted QCB survey biologist on foot.

Handheld GPS units and aerial maps were used to outline portions of the Survey Area that would be surveyed during the 2010 QCB focused surveys. Information characteristic of QCB-occupied habitat, including locations of breaks in vegetation, rocky outcrops, and hilltops, were noted and mapped. Areas that were developed; contained closed-canopy, general agricultural, or non-native vegetation; or were

unsafe to access were mapped and excluded from focused surveys. The remaining habitat along the project Survey Area was deemed appropriate to survey. The following section describes methods used for conducting the focused surveys for QCB.

Methods for QCB Focused Surveys

QCB received federal protection under the Endangered Species Act in 1997 (United States Federal Register, January 17, 1997). The QCB focused surveys were conducted in accordance with protocol set forth by the *USFWS Quino Checkerspot Survey Protocol Information* (USFWS 2002a) and the USFWS *Year 2005 Quino Survey Areas*. In addition, USFWS reference material concerning reference sites, recommended survey areas, critical habitat designations, and conservation plans (USFWS 2002-2009) were reviewed before the surveys were performed. The flight season varies regionally and annually; therefore, coordination with permitted biologists was conducted to determine the beginning and end of the flight season, determined by identified QCB at known locations. If a QCB was detected at a site during the first five surveys, additional surveys were not required. If a QCB was not detected during the first five surveys, but the QCB flight season continued (as determined by conditions listed above), then additional surveys were conducted through the end of the flight season. Each survey segment was surveyed weekly at a minimum of five times during the QCB flight season. Certain segments were surveyed more than five times depending on QCB host plant conditions, nectar source availability, and whether QCB were still observed flying at nearby reference sites beyond the fifth survey. Surveys were conducted at an approximate rate of 10 to 15 acres per hour when temperatures were above 60 degrees Fahrenheit (°F) on a clear, sunny day or 70°F on an overcast or cloudy day. In the field, temperatures were measured in the shade; and warmer conditions prevailed under sunlight where butterflies are active. In addition, surveys were generally conducted between the hours of 0900 and 1600. If weather conditions were unsuitable for a survey, two surveys on nonconsecutive days were conducted during the following week. If weather conditions were unsuitable for 2 weeks in a row, two surveys were conducted on nonconsecutive days during each of the following 2 weeks.

Experienced biologists utilized binoculars, cameras, or butterfly nets for butterfly identification. If QCB were identified, the locations were recorded using handheld GPS units and mapped on aerial photographs by GIS. Plant communities and QCB host plants were also mapped. Photographs were taken of suitable QCB habitat. All butterfly species were recorded on standardized field data sheets.

Potential QCB habitat for the protocol focused surveys along the project Survey Area was conducted by USFWS permitted QCB biologist Greg Chapman (TE-075112-1). Comprehensive results of these surveys were presented in the *Quino Checkerspot Butterfly 45-Day Focused Survey Report for the San Diego Gas & Electric Cleveland National Forest Project, San Diego County, California* prepared by Chambers Group (2011e).

4.3.2 Coastal California Gnatcatcher (*Polioptila californica californica*; CAGN)

Habitat Assessment

The purpose of the CAGN habitat assessment was to determine the presence potential for CAGN within the proposed project Survey Area. The historic range of the CAGN extends from the coast and foothills of Ventura County, south through Los Angeles, southwestern San Bernardino, western Riverside, Orange, and San Diego counties of California into northwestern Baja California, Mexico. This species is a permanent resident of Diegan, Riversidian, and Venturan sage scrub sub-associations found from sea

level to 2,500 feet in elevation. Within its range, it associates strongly with California sagebrush (*Artemisia californica*) dominant habitats and also occurs in mixed scrub habitats with lesser percentages of this favored shrub. Other plant species important to this species for the nesting and foraging include California buckwheat, white sage (*Salvia apiana*), black sage (*Salvia mellifera*), and chaparral broom (*Baccharis sarothroides*). Chamise habitats may also support breeding pairs, especially where coastal sage scrub occurs nearby or forms a component (Bontrager 1991).

Permitted Chambers Group biologists Kris Alberts (TE-039640-2) and Paul Morrissey conducted a helicopter survey of the proposed project Survey Area to locate species-specific survey areas. CAGN habitat suitability was assessed during this helicopter flyover. All sage scrub habitat areas that intersected the Survey Area were reviewed for the presence of suitable habitat necessary for breeding. Handheld GPS units and aerial maps were used to outline portions of the Survey Area that would be surveyed during the 2010 CAGN focused surveys.

Areas classified as potential CAGN habitat were further assessed during the first round of focused surveys by CAGN permitted biologists. Observations were recorded on standardized field data sheets. Notes were made on the general vegetation types, species observed, and the potential for CAGN to occur onsite. Plant communities and associations were determined in accordance with the categories set forth in Sawyer and Keeler-Wolf (1995). Plant nomenclature follows that of *The Jepson Manual, Higher Plants of California* (Hickman 1993).

CAGN Focused Survey Methodology

All CAGN focused surveys were conducted by biologists holding the necessary federal ESA section 10(a)(1)(A) survey permit. Surveys were conducted according to the *USFWS Presence or Absence Survey Guidelines* (USFWS 1997b). Surveys were conducted below 2,500 feet in elevation within areas primarily consisting of coastal sage scrub. The majority of plant species found in sage scrub are low-growing, drought-deciduous shrubs and subshrubs, including California sagebrush, California buckwheat, and sages. Areas containing alluvial fan scrub, chaparral, grassland, or riparian habitats adjacent to or intermixed with coastal sage scrub were also surveyed. Surveys were limited to areas located within the range of this species.

Six focused surveys were conducted at least 1 week apart in areas of suitable CAGN habitat between the hours of 0600 and 1200. Periods of excessive or abnormal heat, wind, fog, or other inclement weather were avoided; and no more than 80 acres (32 hectares) were surveyed per biologist per day. Sites with deep canyons, ridge lines, steep terrain, and thick shrub cover were surveyed more slowly.

Surveys were conducted by permitted biologists slowly walking transects within suitable CAGN habitat within the Survey Area and using binoculars to achieve 100 percent visual coverage. Taped CAGN vocalizations were used only to initially locate individuals, and tapes were not used frequently or to elicit further behaviors from any CAGN present. Information was recorded on the survey methods performed, including number of acres surveyed per biologist per day, start and stop times of survey, weather conditions, survey routes delineated on maps, and how frequently taped vocalizations were used.

Data were collected on the number, approximate age, class, sex, and color band information, if any was observed. All CAGN detections (e.g., vocalization, foraging behavior, nesting behavior) were recorded using handheld GPS units and photo-documented when possible. Information on any CAGN individuals observed was recorded to document the numbers and locations of paired or unpaired territorial males,

ages and sexes of all birds observed, and nesting behavior. Comprehensive results of these surveys were presented in the *Coastal California Gnatcatcher Focused Survey Report for the San Diego Gas & Electric Company Cleveland National Forest Master Services Permit Project San Diego County, California* prepared by Chambers Group (2011c).

4.4. JURISDICTIONAL DELINEATION SURVEY

4.4.1 Literature Review

Chambers Group scientists researched available maps and documents that pertain to TL 637. The search consisted of a review of the USGS 7.5-minute topographic quadrangle containing the site (USGS 2011), the USFWS National Wetlands Inventory (NWI) maps (USFWS 2011b), the United States Department of Agriculture, National Resource Conservation Science (USDA-NRCS) Web Soil Survey and National List of Hydric Soils (USDA-NRCS 2011, respectively), and a review of aerial photographs. As prescribed by the 1987 Wetland Manual and Arid West Supplement, all available lists of hydric soils were referenced to identify any occurrence of hydric soils listed within the Survey Area. The national, state, and local hydric soils lists were used along with local soil survey maps.

4.4.2 Field Survey

Chambers Group biologists Nichole Cervin and Maya Mazon conducted the water resources survey from July 11 through July 14 and on July 18 and 19, 2011. During the survey the biologists drove and/or walked the access roads associated with TL 637. Any potential jurisdictional feature observed within a 50-foot radius of a proposed pole or facility location was recorded. This 50-foot radius survey area was determined to include permanent and temporary work areas of pole installation and removal. In the field, boundaries and dimensions of jurisdictional features were recorded on aerial photographs, sub-meter GPS units, tablet computers, and field notes. Features within the 50-foot radius survey area were investigated for the presence of drainages, including culverts, corrugated metal pipe (CMP) drains, reinforced concrete pipes (RCP), V-ditches, water bodies, riparian habitats, potential wetlands, and connectivity. The biologists noted alternatives if a proposed pole or facilities location may impact a jurisdictional water feature and whether the feature could be avoided during construction.

Potential USACE / RWQCB / CDFW jurisdictional areas were field-checked for the presence of definable channels and/or wetland vegetation, riparian habitat, soils, and hydrology. Potential wetland habitats were evaluated using the methodology set forth in the 1987 USACE Wetlands Delineation Manual (1987 Manual) and the 2008 Regional Supplement to the USACE Wetland Delineation Manual: Arid West Region, Version 2.0 (Arid West Supplement [USACE 1987, 2008]). Features with no evidence of wetland hydrology and that supported only upland vegetation were evaluated for the upward limits of jurisdiction. Drainage widths were measured (in feet). Reference photographs were recorded.

The lateral extent of a jurisdictional drainage feature was also measured. USACE and RWQCB traditionally use the determination of the presence of a bed and bank to the upper limit of the OHWM. Under the Rapanos court decision, USACE now requires a fact-specific significant nexus analysis to be performed for dry or ephemeral washes (non-RPWs) in southern California to determine the extent of USACE jurisdiction on a given project area. Connectivity was investigated and determined through a "desktop" study by utilizing the USGS topographic maps (USGS 2011), NWI maps (USFWS 2011b), and Google Earth images (Google 2012).

Wetland data was recorded onto standardized Wetland Determination Data Forms – Arid West Region data forms. In order to formally determine the presence or absence of wetlands, upland features were also recorded onto the standardized data sheets. Sample plots were established, and recorded data included plant species with estimated percent areal coverage within each vegetation stratum (i.e., tree, sapling/shrub, herb, woody vine), soil profiles were investigated (where feasible), and evidence of hydrology. All delineation data was digitized for the precise mapping of jurisdictional areas. All data on jurisdictional determinations and wetland delineations were reproduced using GIS software and displayed on aerial maps.

4.4.3 Vegetation

Plants were categorized according to their probabilities to occur in wetlands versus nonwetlands in accordance with the categories in the *National List of Species that Occur in Wetlands* (Reed 1988). More specifically, the California Land Resource Region (Region 0) wetlands plant list was used, which is a regional adaptation of the *National List*. The wetland species categories are:

I. **Obligate Wetland**– Occur almost always (estimated probability >99 percent) under natural conditions in wetlands.

II. **Facultative Wetland**– Usually occur in wetlands (estimated probability 67 percent to 99 percent), but occasionally found in nonwetlands.

III. **Facultative**– Equally likely to occur in wetlands or nonwetlands (estimated probability 34 percent to 66 percent).

IV. **Facultative Upland**– Usually occur in nonwetlands (estimated probability 67 percent to 99 percent), but occasionally found in wetlands.

V. **Obligate Upland**– May occur in wetlands in another region, but occur almost always (estimated probability >99 percent) under natural conditions in nonwetlands in southern California. All species not listed on the National List of Species that Occur in Wetlands (Reed 1988) are considered to be UPL.

VI. **No Indicator**– NI is recorded for those species for which insufficient information was available to determine an indicator status.

Plant species and absolute percent covers were recorded by stratum (i.e., tree, sapling/shrub, herb, woody vine) and evaluated for dominance and prevalence according to guidelines in the 1987 Wetland Manual and Arid West Supplement. Naming conventions follow the *Jepson Manual* (Hickman 1993).

4.4.4 Soils

Soil map data for San Diego County was referenced online to determine the types of soil found on the site at (http://soils.usda.gov/survey/geography/ssurgo/). Soils were determined in accordance with categories set forth by the USDA Soil Conservation Service and by referencing the USDA NRCS Web Soil Survey (USDA 2011).

Soils were analyzed where feasible within the Survey Area (digging pits was not approved for Federal lands and some private lands) and were evaluated according to guidelines in the 1987 Wetland Manual and Arid West Supplement. Exposed soil layers were examined for the presence or absence of hydric soil indicators and oxidation/reduction features indicative of a history of saturated soil conditions.

4.4.5 Hydrology

Typical hydrologic indicators were observed per the 1987 Wetland Manual and Arid West Supplement guidelines. Indicators include evidence of inundation, saturation, surface water, watermarks, drift lines, sediment deposits, destruction of vegetation, water-stained leaves, surface soil cracks, biotic crust, aquatic invertebrates, and oxidized rhizospheres along living roots, and the presence or oxidation/reduction features in the soil, among several others.

Consideration of the climate and flow frequency was given when observing watermarks and drift lines. For the purpose of determining hydrologic connectivity to a TNW, aerial photos, National Wetland Inventory maps, and USGS quads were referenced, and all features were inspected in the field on and offsite for true connectivity.

4.5. IMPACT DETERMINATION

Potential impacts associated with the proposed construction for TL 637 include temporary and permanent impacts to biological resources. These impacts can be further classified into direct and indirect impacts. Direct temporary impacts include those associated with the use of vehicles and helicopters during construction, such as the potential displacement of nesting areas or foraging from the loss of food sources. Indirect temporary impacts can be classified as temporary effects including noise, light, and vibrations that occur only in close proximity during construction activities. Direct permanent impacts include those that require permanent vegetation removal that cannot be restored as a result of the installation of a structure. Indirect permanent impacts include effects from a surrounding influence such permanent light source or invasive species that may enter the project area as a result of a new access road. Potential impacts for this project were assessed by proposed construction activities and include: the area required for pole removal, the type of pole installed, anchors, the workspace required, access to the pole (including foot paths), and the use of staging yards, stringing sites, and guard structures.

SECTION 5.0 – RESULTS AND DISCUSSION

5.1. ECOSYSTEMS

The proposed project passes through several ecosystems or eco-regions, including foothills and the central valley regions of San Diego County. The Survey Area supports a variety of vegetation communities totaling approximately 558.17 acres (this calculation does not include paved roads). General vegetation communities (as described by on Holland (1986) or Gray and Bramlet (1992)) observed during the surveys include Mixed Oak Woodland, Southern Riparian Forest, Oak Savanna, Chaparral, Southern Mixed Chaparral, Mixed Chaparral/Coastal Sage Scrub, Diegan Coastal Sage Scrub, Freshwater Seep/Open Water, Grassland, Pastureland/Cultivated Agriculture, Urban and Developed/Ornamental Landscaping, and Disturbed. Vegetation communities observed within the survey areas and the plants that typically occur within those communities are described below. Plant species observed during the surveys are included as Appendix C. The total vegetation acreages within the Survey Area are presented in Table 3 below.

Table 3.
Vegetation Communities

Vegetation Communities (with associated NCCP vegetation community classification)	Acreage
Agriculture	7.37
Chaparral	26.05
Diegan Coastal Sage Scrub Buckwheat Scrub Coastal Sage Scrub	37.29
Disturbed Wetland	4.10
Disturbed Bare Ground	30.37
Freshwater Seep/Open Water Freshwater Marsh Meadow/Seep	1.31
Grassland (Includes Non-Native Grassland)	186.51
Mixed Oak Woodland Coast Live Oak Forest Open/Dense Engelmann Oak Woodland	10.98
Oak Savanna Open Oak Woodlands	83.21
Southern Mixed Chaparral	72.77
Southern Mixed Chaparral/Coastal Sage Scrub Coastal Sage Scrub/Chaparral Mix	15.62
Southern Riparian Forest Riparian Forests	3.74
Urban and Developed/Ornamental Landscaping Landscape/Ornamental	78.86
Grand Total	**558.17**

5.1.1 Forests and Woodlands

Forest and woodland habitats consist of multilayered vegetation. Forest habitats typically are characterized as having closed, dense tree canopies. Woodland habitats usually have a more open (20 percent) canopy than forest habitats (Gray and Bramlet 1992).

Mixed Oak Woodland

Mixed Oak Woodlands are most often found at elevations below 4,000 feet above mean sea level (amsl). This type of community typically varies from pure, closed canopies of more than one oak (*Quercus* sp.) species. The dominant species within the Survey Area include coast live oak (*Quercus agrifolia*), scrub oak (*Q. berberidifolia*), Engelmann's oak (*Q. engelmannii*), Palmer's oak (*Q. palmeri*), canyon live oak (*Q. chrysolepis*), California black oak (*Q. kelloggii*), interior live oak (*Q. wislizenii* var. *frutescens*), desert scrub oak (*Q. cornelius-mulleri*), and oak hybrids including (*Quercus x acutidens*), and (*Quercus x morehus*). Trees in this community are approximately 10 to 25 m in height. The herbaceous layer, mainly consisting of nonwoody annual grasses and forbs, can be continuous. Poison oak (*Toxicodendron diversilobum*) also plays a major role in the woody understory or certain Oak Woodlands onsite. Mixed Oak Woodland can be found in canyon bottoms and steep, north-facing slopes with various soil types. This type of community recovers from fires very rapidly. Approximately 10.98 acres of this community exist within the Survey Area. Open/Dense Engelmann Oak Woodlands and Coast Live Oak Forest are also a component of Mixed Oak Woodland.

The following two vegetation communities are NCCP vegetation classifications that are components of Mixed Oak Woodland. Descriptions of these two NCCP vegetation communities are found below.

Coast Live Oak Forest

Areas within and/or surrounded by coast live oak forest consist of an evergreen woodland community, dominated by coast live oak that may reach a height of 35 to 80 feet. The shrub layer may consist of toyon (*Heteromeles arbutifolia*), Mexican elderberry (*Sambucus mexicana*), fuchsia-flowered gooseberry (*Ribes speciosum*), and poison oak. A dense herbaceous understory generally consists of miner's lettuce (*Claytonia perfoliata* var. *perfoliata*) and chickweed (*Stellaria media*) as potential dominant species. This community occurs along the coastal foothills of the Peninsular Ranges, typically on north-facing slopes and in shaded ravines.

Open/Dense Engelmann Oak Woodlands

Areas characterized by open/dense Engelmann oak woodlands are dominated by Engelmann oak trees and may include other oak species such as coast live oak and black oak and scrub oak (*Q. dumosa*). Trees are widely spaced in open Engelmann oak woodland. The understory is typically grassland or meadow.

Southern Riparian Forest

Southern Riparian Forests are most often found at elevations below 3,000 feet amsl. This type of community is dominated by tall, open, broadleaved, winter-deciduous riparian species such as willow (*Salix* spp.), cottonwood (*Populus* spp.), sycamore (*Platanus racemosa*), and alder (*Alnus* spp.) species. The understory is usually dominated by shrubby willow species or other riparian shrubs. This community

is almost always found along rivers and streams or in areas with a high water table. Dominant species require moist, bare mineral soil for germination and establishment and will typically begin to establish after flood waters recede. Approximately 3.74 acres of this community exist within the Survey Area.

The following vegetation community is a NCCP vegetation classification that is a component of Southern Riparian Forest. The description of the NCCP vegetation community is found below.

Riparian Forests

Areas characterized as riparian forests are identified by the following site conditions: areas occurring along the banks of stream channels and in flood plains dominated by trees such as coast live oak, western sycamore (*Platanus racemosa*), Fremont's cottonwood (*Populus fremontii*), black willow (*Salix gooddingii*), and arroyo willow (*Salix lasiolepis*). The canopy is dense to open. The understory consists of herbaceous species and shrubs, frequently including Fendler's meadow-rue (*Thalictrum fendleri*), poison oak, skunkbush (*Rhus trilobata*), and spreading snowberry (*Symphoricarpos mollis*).

Oak Savanna

Oak Savannas in San Diego County are most often found at elevations ranging from 200 to 2,300 feet amsl. This type of community consists of annual grasses or perennial needlegrass (*Nassella* spp.) species along with widely scattered oak trees that provide less than 10 to 20 percent of the canopy cover. The dominant oak species in this community, particularly in San Diego County, is mainly coast live oak. The Oak Savanna community usually intergrades with Open Oak Woodlands (Gray and Bramlet 1992). Approximately 83.21 acres of this community exist within the Survey Area.

The following vegetation community is a NCCP vegetation classification that is a component of Oak Savanna. The description of the NCCP vegetation community is found below.

Open Oak Woodlands

Areas characterized as Open Oak Woodlands are made up of a combination of oak tree species that may include Engelmann oak, coast live oak, scrub oak, and black oak trees. Generally, these areas contain oaks that are widely spaced, similar to a savanna habitat. The understory is typically grassland or meadow.

Scrublands and Chaparral

Scrublands consist of drought-deciduous, low, soft-leaved shrubs and herbs which are often gray-green in color (e.g., sagebrush, buckwheat, sage). They occupy gentle to steep slopes with shallow or heavy soils mostly at elevations below 3,000 feet amsl. Chaparrals consist of evergreen, dark green, leathery-leaved, medium to tall shrubs that are adapted to occasional fires (Gray and Bramlet 1992). Specific types of scrublands and chaparrals are discussed in more detail below.

Chaparral

Chaparral communities are most often found at elevations below 3,000 feet amsl. This type of community is dominated by leathery-leaved, woody shrubs 1.5 to 3 meters in height, forming a dense

vegetation canopy typically dominated by chamise, black sage (*Salvia mellifera*), sugar bush (*Rhus ovata*), California buckwheat, and ceanothus (*Ceanothus* spp.) species. Plants are deeply rooted with little to no understory but have an accumulation of leaf litter. Growth occurs throughout the year, with the highest growth period occurring during the spring. Chaparral is adapted to repeated fires, after which many species respond by stump-sprouting from an underground root burl. Approximately 26.05 acres of this community exist within the Survey Area.

Southern Mixed Chaparral

Southern Mixed Chaparral communities are most often found at elevations below 3,000 feet amsl. This type of community is dominated by broad, leathery-leaved, woody shrubs 1.5 to 3 meters in height, forming a dense vegetation canopy typically dominated by scrub oak, chamise, several manzanita (*Arctostaphylos* spp.) and ceanothus species with patches of bare soil. Plants are deeply rooted with little to no understory but have an accumulation of leaf litter. Growth occurs throughout the year, with the highest growth period occurring during the spring. Growth is reduced during the late summer-fall dry season or during winter at higher elevations. Southern Mixed Chaparral is adapted to repeated fires, after which many species respond by stump-sprouting from an underground root burl. This community is typically found on dry, rocky, often steep slopes with little soil. This community can be found adjacent to Chamise Chaparral. Approximately 72.77 acres of this community exist within the Survey Area.

Mixed Chaparral/Coastal Sage Scrub

Mixed Chaparral/Coastal Sage Scrub communities are most often found at elevations below 3,000 feet amsl. This type of community represents a gradation and intermingling of coastal sage scrub and chaparral types. These communities represent ecotonal areas between chaparral and scrub communities with component species of both types (Gray and Bramlet 1992). Approximately 15.62 acres of this community exist within the Survey Area.

Diegan Coastal Sage Scrub

Diegan Coastal Sage Scrub communities are most often found at elevations below 1,500 feet amsl. This community is the most common form of Coastal Sage Scrub found in San Diego County. This community is made up of low, soft-woody subshrubs up to 1 meter in height that are most active in winter and early spring. Most species commonly found in the community are drought-deciduous and include species such as California sagebrush, California buckwheat, white sage, and laurel sumac. This community can be found on steep, xeric slopes or clay-rich soils that release stored water slowly. Diegan Coastal Sage Scrub may integrate with Buckwheat Scrub and types of chaparral at higher elevations (Holland 1986). Approximately 37.29 acres of this community exist within the Survey Area.

The following two vegetation communities are NCCP vegetation classifications that are components of Diegan Coastal Sage Scrub. Descriptions of these two NCCP vegetation communities are found below.

Buckwheat Scrub

Areas within and/or surrounded by buckwheat scrub primarily consist of foothill buckwheat (*Eriogonum wrightii* var. *membranaceum*) or white sage), and generally lack of the presence of coastal sagebrush. The inland form of buckwheat scrub may also contain species such as matchweed (*Gutierrezia* spp.) and cheat grass (*Bromus tectorum*).

Coastal Sage Scrub

Areas within and/or surrounded by coastal sage scrub vegetation are primarily dominated by various combinations of California sagebrush, California buckwheat (*Eriogonum fasciculatum*), saw-toothed goldenbush (*Hazardia squarrosa*), laurel sumac, and black sage (*Salvia mellifera*) and to a lesser extent by deerweed (*Lotus scoparius*), wild cucumber (*Marah macrocarpus*), chaparral yucca (*Yucca whipplei*), mission manzanita (*Xylococcus bicolor*), and California aster (*Corethrogyne filaginifolia*).

5.1.2 Grasslands and Meadows

Grasslands consist of low, herbaceous vegetation dominated by grasses. These habitats grow in deep, well-developed soils on gentle slopes and flats. Meadow habitats are often referred to as seasonal wetlands that consist of seasonally-flooded or saturated areas dominated by annual and perennial herbs (Gray and Bramlet 1992).

The following vegetation community is a NCCP vegetation classification that is a component of Grasslands and Meadows. The description of the NCCP vegetation community is found below.

Grassland

Grasslands are most often found at elevations below 3,000 feet amsl. This type of community consists of a dense to sparse cover of annual grasses such as oats (*Avena* sp.), bromes (*Bromus* sp.), and ryegrass (*Lolium* sp.) with flowering culms up to 3 feet in height. This community is often associated with numerous species of showy-flowered, native annual forbs, "wildflowers," such as California poppy (*Eschscholzia californica*), lupines (*Lupinus* sp.), and goldfields (*Lasthenia* sp.), especially in years of favorable rainfall (Holland 1986). Germination occurs with the onset of the late fall rains; growth, flowering, and seed-set occur from winter through spring. Typically plants are dead through the summer-fall dry season, persisting as seeds. Grassland can be found on fine-textured, usually clay soils, that are moist or even waterlogged during the winter rainy season and very dry during the summer and fall. Approximately 186.51 acres of this community exist within the Survey Area.

Freshwater Seep/Open Water

Freshwater Seeps in San Diego County are most often found at elevations ranging from 2,000 to 4,000 feet amsl. This type of community is composed mostly of perennial herbs, typically sedges and grasses, often forming complete vegetative cover that grows throughout the year. Soils are permanently moist. Freshwater Seeps were often found on pasturelands on private property within the Survey Area. Freshwater marshes and meadows are also found within this community. Approximately 1.31 acres of this community exist within the Survey Area.

The following two vegetation communities are NCCP vegetation classifications that are components of Freshwater Seep/Open Water. Descriptions of these two NCCP vegetation communities are found below.

Meadow/Seep

Areas characterized as meadow/seep include vegetation such as annual and perennial herbs, including wildflowers and bulbs such as mariposa lily (*Calochortus* spp.), lupine (*Lupinus* spp.), bluedicks (*Dichelostemma capitatum*), and many others. Where seeps occur, groundwater keeps the soil moist longer; and vegetation often includes rushes (*Carex* spp.) and spike rushes (*Eleocharis* spp.) and other plants typically associated with wet areas.

Freshwater Marsh

Areas characterized freshwater marsh is characterized by soil that is saturated by fresh water. Fresh water marshes contain vegetation dominated by emergent herbaceous species such as rushes (*Carex* spp.), and spike rushes (*Eleocharis* spp.).

Wetland

Areas characterized as a Wetland generally consist of alkali heath (*Frankenia grandiflora*), arroyo willow (*Salix lasiolepis*), black willow (*Salix goodingii*), hardstem bulrush (*Scirpus acutus*), mulefat (*Baccharis salicifolia*), and common cattail (*Typha latifolia*). Approximately 4.10 acres of this community exists within the proposed project Survey Area.

The following vegetation community is a NCCP vegetation classification that is a component of Wetland communities. The description of the NCCP vegetation community is found below.

Disturbed Wetland

Disturbed Wetland areas consist of flooded or saturated native wetland sites that have been infiltrated and fractured by non-native exotic species (e.g., giant reed [*Arundo donax*], oats, bromes, and ryegrass).

5.1.3 Other Areas

Areas that are not considered native, naturally-occurring habitats are categorized as "Other Areas" for their lack of dominant native vegetation or because they have been dramatically disturbed or altered by humans.

Pasturelands/Cultivated Agriculture

This type of community is best characterized as Dryland Field Crops, as described in Gray and Bramlet (1992), consisting of planted, annual grasses and forbs harvested for livestock feed. These species include barley (*Hordeum* spp.), wild oat, and clover or alfalfa (*Trifolium* spp., *Medicago sativa*) species. Soils are similar to native grasslands, made up of fine-textured, often clay soils that can be very moist in the winter and very dry in the summer. Approximately 7.37 acres of Pasturelands and Cultivated Agriculture exist within the Survey Area.

The following vegetation community is a NCCP vegetation classification that is a component of Pasturelands/Cultivated Agriculture. The description of the NCCP vegetation community is found below.

Agricultural

Areas characterized as agricultural habitat consist of vegetation that has been disturbed by agricultural management practices, including the removal of native vegetation, planting of crop species, and ground-disturbing activities such as grading and tilling. Agricultural activities range from crop production to livestock production and pasture land. Crops may or may not be present.

Urban and Developed/Ornamental Landscaping

Urban and Developed areas consist of buildings, pavement, and highway ROWs throughout incorporated portions of the county (Gray and Bramlet 1992). Approximately 78.86 acres of Urban and Developed land or Landscaped land exist within the Survey Area.

The following vegetation community is a NCCP vegetation classification that is a component of Urban and Developed/Ornamental Landscaping. The description of the NCCP vegetation community is found below.

Landscape/Ornamental

Areas characterized as landscape/ornamental vegetation are dominated by non-native species planted for landscaping and generally occur in residential neighborhoods or along roadsides.

Disturbed

Disturbed, often barren areas either lack vegetation because of clearing or grading (bare ground) or are dominated by pioneering herbaceous species that readily colonize disturbed ground, such as tocalote (*Centaura melitensis*), wild oat, black mustard (*Brassica nigra*), prickly sow-thistle (*Sonchus asper*), and wild lettuce (*Lactuca serriola*) (Gray and Bramlet 1992). Approximately 30.37 acres of this community exists within the Survey Area.

The following two vegetation communities are NCCP vegetation classifications that are components of Disturbed vegetation community. Descriptions of these two NCCP vegetation communities are found below.

Bare Ground

Areas characterized as bare ground habitats include areas with exposed soils, rocky substrate, access roads, and disturbed areas devoid of plant cover.

Disturbed

Areas within and/or surrounded by disturbed areas are primarily dominated by various combinations of ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis* ssp. *rubens*), prickly Russian thistle (*Salsola tragus*), slender wild oat (*Avena fatua*), tocalote (*Centaurea melitensis*), redstem stork's bill (*Erodium cicutarium*), lambsquarters (*Chenopodium album*), and hairy crabgrass (*Digitaria sanguinalis*) with scattered individuals or remnants of coastal sage scrub including California buckwheat, California sagebrush, and deerweed.

5.2. TOPOGRAPHY

Topography along the proposed project varies from relatively flat developed, urban/residential areas in Ramona, through steep, rocky hills and relatively flat, grazing/pasturelands to the east/northeast to Santa Ysabel.

5.3. SPECIAL STATUS PLANTS

The California Natrual Diversity Database (CNDDB) and California Native Plant Society Electronic Inventory (CNPSEI) database search resulted in a list of 16 special status plant species that have been known to occur in the vicinity of the proposed project (see Appendix D, CNDDB Sensitive Plant Species Occurance Table). Five of these species are USFS Sensitive Species, and three of these species are covered under the NCCP in San Diego. San Diego thornmint and San Diego button-celery are species federally listed as threatened and state listed as endangered. Spreading navarretia is federally listed as threatened. All three of these species are considered absent from the TL 637 ROW. Five species, San Diego milk-vetch, Orcutt's brodiaea, delicate clarkia, San Bernardino aster, and Parry's tetracoccus, have been found within the project Survey Area. One species, San Diego gumplant is considered to have a moderate potential to occur within the project Survey Area. The remaining seven sensitive plant species are considered absent from the project Survey Area. Descriptions of the sensitive plant species and general areas identified during the focused plant surveys are found below.

San Diego Thornmint (*Acanthomintha ilicifolia*) FT, SE, CRPR 1B.1, BLMS, NCCP-Covered

San Diego thornmint is an annual herb in the Lamiaceae family that flowers between April and June. This species favors clay soils and openings of chaparral, coastal scrub, valley and foothill grassland, and vernal pools. San Diego thornmint can be found at elevations between 30 and 3,150 feet (9 to 960 m) amsl. Approximately one-third of the historical occurrences in California have been extirpated; it is threatened by urbanization, road construction, vehicles, grazing, trampling, erosion, and non-native plants (CNPS 2012). San Diego thornmint is considered a sensitive species by the BLM.

San Diego thornmint is considered ABSENT from the project Survey Area. Suitable habitat is present within the project Survey Area and historical occurrences of this species have been recorded within 3 miles of the TL 637 ROW near poles P35, P36, and P37; however, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

San Diego Milk-Vetch (*Astragalus oocarpus*) CRPR List 1B.2, BLMS

San Diego milk-vetch is a perennial herb in the Fabaceae family that flowers between May and August. This species often grows in the openings among chaparral and cismontane woodland. San Diego milk-vetch can be found at elevations between 1,000 and 5,000 feet (304 to 1,524 m) amsl. This species is threatened by development, road maintenance, and recreation (CNPS 2012). San Diego milk-vetch is considered a sensitive species by the BLM.

A total of 83 individuals were observed within the TL 637 ROW near pole R107 during protocol-level focused plant surveys conducted during the 2010 blooming period.

Orcutt's Brodiaea (*Brodiaea orcuttii*) CRPR List 1B.1, BLMS, NCCP-Covered

Orcutt's brodiaea is a perennial, bulbiferous herb in the Themidaceae family that flowers between May and July. This species often grows in the openings of chaparral, cismontane woodland, coastal scrub, playas, and valley and foothill grassland. This species favors a variety of soil types including; clay, mesic, and sometimes serpentine soils. Orcutt's brodiaea can be found at elevations between 100 and 5,550 feet (30 to 1,676 m) amsl. This species is seriously threatened by residential development, agriculture, foot traffic, grazing, illegal dumping, non-native plants, and vehicles. It is potentially threatened by road construction. It can hybridize with the state and federal listed endangered thread-leaved brodiaea (*Brodiaea filifolia*) (CNPS 2012). Orcutt's brodiaea is considered a sensitive species by the BLM.

A total of 1,020 individuals were observed within the TL 637 ROW near poles D26 and D28 during protocol-level focused plant surveys conducted during the 2010 blooming period.

Delicate Clarkia (*Clarkia delicata*) CRPR List 1B.2

Delicate clarkia is an annual herb in the Onagraceae family that flowers between April and June. This species often grows in gabbroic soils in chaparral and cismontane woodland. Delicate clarkia can be found at elevations between 770 and 3,280 feet (234 to 999 m) amsl. This species is threatened by development, competition from non-native plants, frequent wildfires, road improvement and/or maintenance, and vehicles (CNPS 2012).

A total of 2,830 individuals were observed within the TL 637 ROW near poles P90, P91 P108, and R174 during protocol-level focused plant surveys conducted during the 2010 blooming period.

Long-Spined Spineflower (*Chorizanthe polygonoides* var. *longispina*) FSS, CRPR 1B.2, BLMS

Long-spined spineflower is an annual herb in the Polygonaceae family that flowers between April and July. This species often grows in clay soils of chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, and vernal pools. Long-spined spineflower can be found at elevations between 100 and 5,020 feet (30 to 1,530 m) amsl. Much of its habitat has been lost to development. This species is threatened by competition from non-native grasses, recreational activities, vehicles, and grazing (CNPS 2012). Long-spined spineflower is considered a sensitive species by the BLM.

Long-spined spineflower is considered ABSENT from the TL 637 ROW. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the ROW. Furthermore, this species was not observed on the TL 637 ROW during protocol-level focused plant surveys conducted during the 2010 blooming period.

Palmer's Goldenbush (*Ericameria palmeri* var. *palmeri*) CRPR 1B.1, BLMS

Palmer's goldenbush is a perennial, evergreen shrub in the Asteraceae family that flowers from July through November. This species is found in mesic soils within chaparral and coastal scrub habitats. The elevation range of this species ranges between 98 and 1,970 feet (30 to 600 m) amsl. Threats to this species include development, road construction, road maintenance, and vehicles (CNPS 2012). Palmer's goldenbush is considered sensitive by the BLM.

Palmer's goldenbush is considered ABSENT from the TL 637 ROW. TL 637 is outside the elevation range of this species. Furthermore, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

San Diego Button-Celery (*Eryngium aristulatum* var. *parishii*) FE, SE, CRPR 1B.1, NCCP-Covered

San Diego button-celery is an annual/perennial herb in the Apiaceae family that flowers between April and June. This species can be found mesic soils of coastal scrub, valley and foothill grassland, and vernal pools. San Diego button-celery can be found at elevations between 65 and 2,034 feet (20 to 620 m) amsl. This species is threatened by agriculture, urbanization, road maintenance, grazing, vehicles, illegal dumping, competition from non-native plants, and foot traffic (CNPS 2012). San Diego button-celery is covered under the San Diego NCCP.

San Diego button-celery is considered ABSENT from the TL 637 ROW because the range of this species is outside of the elevation range found within the TL 637 ROW.

San Diego Gumplant (*Grindelia hallii*) CRPR 1B.2

San Diego gumplant is a perennial herb in the Asteraceae family that flowers from July to October. This species is found in chaparral, lower montane coniferous forests, meadows and seeps, and valley and foothill grassland habitats. San Diego gumplant grows at elevations between 607 and 7,525 feet (185 to 2,300 m) amsl. This species is endemic to San Diego County. Threats to this species include grazing, road maintenance, invasive species, and development (CNPS 2012).

San Diego gumplant has a MODERATE potential to occur within the TL 637 ROW. Suitable habitat for this species is present within the ROW, and historical occurrences of this species have been recorded within 3 miles of the ROW. The San Diego gumplant was not specifically surveyed for during the 2010 survey efforts. SDG&E will survey for this species during the Project-wide verification survey prior to construction activities to avoid potential impacts to this species.

Ramona Horkelia (*Horkelia truncata*) FSS, CRPR 1B.3

Ramona horkelia is a perennial herb in the Rosaceae family that flowers from May through June in chaparral and cismontane woodland. This species is found in San Diego County and Baja California in clay and gabbroic soils at elevations between 1,312 and 4,265 feet (400 to 1,300 m) amsl. Threats to this species include recreational activities. This species may also possibly be threatened by chaparral management and potentially threatened by mining, road maintenance, and grazing (CNPS 2012). Ramona horkelia is considered a sensitive species by the CNF.

Ramona horkelia is presumed ABSENT from the TL 637 ROW. Suitable habitat for this species is present within the ROW, and historical occurrences of this species have been recorded within 3 miles of the TL 637 ROW; however, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Felt-Leaved Monardella (*Monardella hypoleuca* ssp. *lanata*) CRPR 1B.2

Felt-leaved monardella is a perennial, rhizomatous herb in the Lamiaceae family that flowers between June and August. This species often grows in chaparral and cismontane woodland. Felt-leaved

monardella can be found at elevations between 580 and 5,170 feet (176 to 1,575 m) amsl. This species is threatened by vehicles (CNPS 2012). Felt-leaved monardella was included in the list of targeted plant species for which surveys were performed.

Felt-leaved monardella is presumed ABSENT from the TL 637 ROW. Suitable habitat for this species is present within the ROW, and historical occurrences of this species have been recorded within 3 miles of the TL 637 ROW; however, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Spreading Navarretia (*Navarretia fossalis*) FT, NCCP, CRPR 1B.1, NCCP-Covered

Spreading navarretia is an annual herb in the Polemoniaceae family that flowers between April and June. This species can be found in chenopod scrub, freshwater marshes and swamps, playas, and vernal pools. Spreading navarretia can be found at elevations between 98 and 2,149 feet (30 to 655 m) amsl. This species is threatened by urbanization, agriculture, road construction, grazing, flood control activities, competition with non-native plants, illegal dumping, foot traffic, and off-highway vehicles. Potential threats may include hydrological alterations (CNPS 2012). Spreading navarretia is covered under the San Diego NCCP.

Spreading navarretia is considered ABSENT from the TL 637 ROW because the range of this species is outside of the elevation range found within the TL 637 ROW.

Southern Skullcap (*Scutellaria bolanderi* ssp. *austromontana*) FSS, CRPR 1B.2

Southern skullcap is a perennial, rhizomatous herb in the Lamiaceae family that flowers between June and August. This species often grows in mesic soils in chaparral, cismontane woodland, and lower montane coniferous forest. Southern skullcap can be found at elevations between 1,400 and 6,560 feet (426 to 1,999 m) amsl. This species is threatened by grazing and recreational activities (CNPS 2012). Southern skullcap is considered a sensitive species by the CNF.

Southern skullcap is presumed ABSENT from the TL 637 ROW. Suitable habitat for this species is present within the ROW, and historical occurrences of this species have been recorded within 3 miles of the ROW; however, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Purple Stemodia (*Stemodia durantifolia*) CRPR 2.1

Purple stemodia is a perennial herb in Plantaginaceae family that flowers between January and December. This species can be found in Sonoran desert scrub often on mesic, sandy soils at elevations between 591 and 984 feet (180 to 300 m) amsl (CNPS 2012).

Purple stemodia is considered ABSENT from the TL 637 ROW because the range of this species is outside of the elevation range found within the TL 637 ROW. No suitable habitat for this species is found within the TL 637 ROW.

San Bernardino Aster (*Symphyotrichum defoliatum*) CRPR 1B.2, BLMS

San Bernardino aster is a perennial, rhizomatous herb in the Asteraceae family that flowers between July and November. This species often grows in a variety of habitats, typically in vernally mesic soils in cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland, and near ditches, streams, and springs. This plant can be found at elevations between 6 and 6,700 feet (0 to 2,042 m) amsl (CNPS 2012). San Bernardino aster is considered a sensitive species by the BLM.

A total of 100 individuals were observed within the TL 637 ROW near pole P106 during protocol-level focused plant surveys conducted during the 2010 blooming period.

Parry's Tetracoccus (*Tetracoccus dioicus*) CRPR 1B.2, BLMS, NCCP-Covered

Parry's tetracoccus is a perennial deciduous shrub in the Euphorbiaceae family that flowers between April and May. This species often grows in chaparral and coastal scrub. Parry's tetracoccus can be found at elevations between 540 and 3,280 feet (164 to 999 m) amsl. This species is threatened by agriculture and development (CNPS 2012). Parry's tetracoccus is considered a sensitive species by the BLM.

A total of 181 individuals were observed within the TL 637 ROW near poles D46, P50, and P48 during protocol-level focused plant surveys conducted during the 2010 blooming period.

Velvety False-Lupine (*Thermopsis californica* var. *semota*) CRPR 1B.2

Velvety false-lupine is a perennial, rhizomatous herb in the Fabaceae family that flowers between March and June. This species often grows in cismontane woodland, lower montane coniferous forest, meadows and seeps, and valley and foothill grassland. Velvety false-lupine can be found at elevations between 3,280 and 6,140 feet (999 to 1,871 m) amsl. This species is threatened by grazing, trampling, recreational activity, and competition from non-native plants (CNPS 2012).

Velvety false-lupine is presumed ABSENT from the TL 637 ROW. The ROW contains suitable habitat, and historical occurrences of this species have been recorded within 3 miles of the TL 637 ROW; however, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

5.4. SPECIAL STATUS WILDLIFE

The CNDDB and BLM search resulted in a list of 56 special status wildlife species that have been known to occur in the vicinity of the Survey Area (CNDDB Sensitive Wildlife Species Occurrence Table; Appendix E). Based on the habitat assessments by qualified and permitted biologists, focused surveys were conducted for QCB and CAGN. Only CAGN, a NCCP-covered species, were identified during the focused survey efforts (Appendix F; Wildlife Species Observed List). No QCB were detected or observed within the project Survey Area. Based on the CNDDB review and field surveys conducted in 2010 and 2011, 41 of the 56 special status wildlife species were determined to have a low potential to occur or to be absent from the project Survey Area. Of the 56 species, seven are federally listed as endangered (of the seven, two are also state listed as endangered), one federally listed as threatened, two fully protected, and one listed as a federal candidate species. Of the seven listed species, only coastal California gnatcatchers (FT/SSC) were observed. Two fully protected species, golden eagle (NCCP-covered) and

white-tailed kite (not NCCP-covered) were observed or have a high potential to forage on the site, but are considered absent or have a low potential to nest on the ROW, respectively

Seven species have a moderate to high potential to occur (northern red-diamond rattlesnake, San Diego ringneck snake, Belding's orange-throated whiptail, golden eagle, Dulzura pocket mouse, San Diego desert woodrat, and American badger), and eight are considered present (coast horned lizard, Coronado Island skink, coastal rosy boa, coastal California gnatcatcher, purple martin, white-tailed kite, Cooper's hawk, and rufous-crowned sparrow) within the TL 637 ROW. Approximately 10 poles (R66 to P68, P75 to P81) are located in the northeast area of the Survey Area and fall within BLM lands referred to as the Mt. Gower Preserve. Three species of bats are BLM Sensitive species only, are considered to have a low potential to occur on BLM Lands within the Survey Area, and are described in Section 5.6 Sensitive Wildlife on BLM lands. Descriptions of the sensitive wildlife species and general areas identified during the focused surveys are found below.

San Diego Fairy Shrimp (*Branchinecta sandiegonensis*) FE, NCCP-Covered

The San Diego fairy shrimp is a federally listed as endangered species (USFWS 1997d), is covered under the NCCP, and is found within coastal mesa systems in Orange County (small population) and San Diego County, California, and Baja California, Mexico (INRMP 2007). In San Diego County, this species has been identified from Camp Pendleton inland to the Ramona area, south through Del Mar Mesa, Proctor Valley, and Otay Mesa. It is generally limited to high quality vernal pools but can also be found in man-made pools that have not been disturbed for several years (INRMP 2007). Although less common, fairy shrimp species have been identified along road ruts with hard-pan clay type soils. It is a small, freshwater shrimp with large, stalked eyes; no carapace; and eleven pairs of swimming legs, which it uses to swim/walk upside down using a complex movement of the legs passing from back to forth (NatureServe 2011). Females carry eggs in a brood sac, which either drops off as the eggs hatch or stays attached to the female after she dies. The eggs sink to the bottom of the pool environ, where they can withstand temperature extremes or pool drying and hatch in the future when conditions are more favorable. Eggs can stay dormant for years until conditions are right. Eggs that are dropped hatch between 7 and 14 days later, depending on temperature (NatureServe 2011). Populations vary between years of favorable and unfavorable conditions, with populations being higher in the former and lower in the latter. A variation in age of "resting eggs" appears critical for the survival of this species (NatureServe 2011). Loss of habitat is the major threat to the San Diego fairy shrimp.

San Diego Fairy Shrimp has a LOW potential to occur within the TL 637 ROW. CNDDB records 11 occurrences within 3 miles of the ROW, the closest being approximately 1.3 miles west (outside the Survey Area) in a pool southeast of 7th and Telford Streets in Ramona, California. The project Survey Area was inspected for vernal pools and areas that could potentially support this species, including road ruts with clay soils. Low quality road ruts were observed outside the Survey Area along Creelman Lane outside of the Creelman Staging Yard; however, no vernal pools or claypan areas that would hold water for long durations after a rain event were identified within the Survey Area. During Pre-Activity surveys conducted in 2012 for TL 637, low quality vernal pools were identified outside the fenced Creelman Staging Yard. These vernal pools will be completely avoided during the proposed construction activities.

Quino Checkerspot Butterfly (*Euphydryas editha quino*) FE, NCCP-Covered

The QCB is a federally listed as endangered subspecies of *Euphydryas editha* and is covered under the NCCP (The QCB HCP covers QCB; an amendment to the NCCP). The species ranges from northern Baja

California to Canada along the Pacific coast and east to Colorado. The historical range of this subspecies once included the coastal plains and inland valleys of southern California and northern Baja California. It formerly occurred at many sites in San Diego, Orange, Los Angeles, and western Riverside counties. It is associated with habitats that contain its primary larval host plant, western plantain (*Plantago erecta*) and other host plants such as bird's beak (*Cordylanthus rigidus*) and owl's clover (*Castilleja exserta*). Specifically, owl's clover serves as an additional larval host plant for some Quino checkerspot colonies located east of Temecula. These host plants tend to occur in clay or cryptogamic soils in areas mostly devoid of tall, weedy growth and/or a dense cover of shrubs. Adult butterflies characteristically tend to patrol low hilltops, rocky outcrops, and ridges. Additional habitat requirements include the presence of adult nectar sources and topographic features that include bare, open soils and ridgetops. Habitat loss and invasive plant species are contributing factors in the continuing decline of this species. Chambers Group conducted focused surveys for this species in 2010. Suitable habitat was identified during the habitat assessment by a permitted biologist; therefore focused surveys were conducted in areas containing suitable habitat for QCB within the Survey Area. No QCB were identified. For details regarding the results of the surveys, please see *Quino Checkerspot Butterfly Focused Survey Report for the San Diego Gas & Electric Cleveland National Forest Project, San Diego County, California,* 2010*.*

The Quino checkerspot butterfly can be considered ABSENT from the project Survey Area. Although the project Survey Area has suitable habitat, CNDDB lists no records of occurrence within 3 miles of the project Survey Area. Protocol focused surveys within the Survey Area were conducted by USFWS permitted QCB biologist Greg Chapman (TE-075112-1). No QCB were identified during the protocol surveys. Comprehensive results of these surveys were presented in the *Quino Checkerspot Butterfly 45-Day Focused Survey Report for the San Diego Gas & Electric Cleveland National Forest Project, San Diego County, California* prepared by Chambers Group (2011e).

Hermes Copper Butterfly (*Lycaena hermes*) FC

The Hermes copper butterfly is not covered under the NCCP and is not currently listed by any agency, but recent efforts have been made for federal listing. It is an endemic species that occupies a narrow and restricted range within San Diego County and northern Baja California, Mexico. It is strongly associated with spiny redberry (*Rhamnus crocea*) as its host plant and occurs in a spotty distribution in coastal sage scrub and southern mixed chaparral habitats where this plant is found. The upper side of the Hermes copper butterfly is brown with a yellow-orange patch surrounding black spots, and its underside is bright yellow. The forewing has four to six black spots, and the hind wing has three to six black spots. Each wing has one tail, and the wingspan is from 1 to 1.25 inches (Faulkner et al. 2008; Emmel and Emmel 1973). Wildfires in 2003 and 2007 in San Diego County may have significantly impacted existing occupied mature stands of spiny redberry, further reducing appropriate habitat for the species within its range (Marschalek and Klein 2010). Chambers Group conducted focused surveys for Hermes copper butterflies in 2010. Please see *Hermes Copper Butterfly Focused Survey Report for the San Diego Gas & Electric Cleveland National Forest Project, San Diego County, California*, 2011d.

The Hermes copper butterfly can be considered ABSENT from the TL 637 ROW. CNDDB lists no records of occurrence within 3 miles of the ROW. No suitable habitat for Hermes copper larvae (mature spiny redberry plants) was identified during a Hermes copper habitat assessment conducted in 2010 (Chambers Group 2011d).

Laguna Mountains Skipper (*Pyrgus ruralis lagunae*) FE

The Laguna Mountains skipper is a federally endangered species and is not covered under the NCCP. Found only at higher elevations, it is known to occur in two locations in San Diego County, Mt. Palomar and the Laguna Mountains (Berkeley.edu 2011). This species is found in montane meadows at elevations between 4,000 and 6,000 feet within yellow pine forests (Black and Vaughan 2011). Mt. Palomar is thought to have four separate populations, including Mendenhall Meadow where numbers in the late 1990s appeared to be strong, and one population in the Laguna Mountains. This species is a small butterfly with an approximately 3-centimeter wingspan, distinguished from *Pyrgus ruralis ruralis* by its extensive white wing markings rather than the overall black coloration of *P. r. ruralis* (Black and Vaughan 2011). Larvae of the Laguna Mountains skipper feed solely on Cleveland's horkelia, and adults rely heavily on this species as a nectar source (Black and Vaughan 2011). Adults mate during the two flight seasons that occur each year, the first occurring in mid spring (April to May) and the second in late summer (June to July); eggs are laid on the underside of the Cleveland's horkelia leaves (Black and Vaughan 2011). The main threat to this species is the loss of its host plant, *Horkelia clevelandii*. This plant is restricted to montane meadows, which have been degraded by grazing, recreational activities, and development (Berkley.edu 2011). Grazing and trampling by cattle are the related threats, especially in late summer when fewer food sources are available to cattle (Black and Vaughan 2011).

The Laguna mountains skipper can be considered ABSENT from the TL 637 ROW. CNDDB lists no records of occurrence within 3 miles of the ROW and no suitable habitat occurs within the ROW. This species is believed to be extirpated from San Diego County (personal communication with USFS) due to fires, with the exception of a possible small population that exists near the Laguna Mountains, outside the project Survey Area.

Arroyo Chub (*Gila orcutti*) SSC

The arroyo chub is a California SSC and is not covered under the NCCP. It occurs in only a few streams in coastal southern California. In San Diego County, it is native to the San Luis Rey and Santa Margarita rivers. This species inhabits slow-moving or backwater sections of streams that are cool to warm and contain mud and sand deposits, as well as intermittent streams. Most spawning occurs in pools or in quiet edge water, at temperatures of 14 to 22 degrees Centigrade (°C). Fry live their first 3 to 4 months in quiet water, in the water column and usually among vegetation or other flooded cover (Moyle et al. 1995). Adults average 3.5 inches in length, and coloration ranges from silver to gray to olive green above and paler below. A dull gray band usually appears along each side. It is omnivorous and may consume algae, crustaceans, insects, larval insects, and floating plants.

The arroyo chub can be considered ABSENT from the TL 637 ROW. CNDDB lists no records of occurrence within 3 miles of the ROW, and the ROW contains low quality suitable habitat to support this species.

Mountain Yellow-Legged Frog (*Rana muscosa*) FE, FC, SSC

The mountain yellow-legged frog is a federally listed as endangered species in the south part of its range, which includes the San Bernardino, San Jacinto, and San Gabriel mountains, a federal candidate to the north, and a California SSC throughout the state. This species is not covered under the NCCP. It seems to prefer gently sloping banks with rocks and/or vegetation up to the edge of the water (Stebbins 1985) and is most always found within several meters of water, including streams, ponds, lakes, reservoirs, and riparian woodlands at moderate to high elevations (Mullally and Cunningham 1956).

According to USFWS, the southern California distinct population segment requires the following habitat elements: (1) streams or stream reaches between 1,214 feet and 7,546 feet in elevation, containing perennial flowing water with pools connected by riffles and runs that have year-round water (in at least some portion of the occupied stream or stream reaches); and (2) riparian and upland vegetation extending about 866 feet from each side of the stream, with an open canopy that allows sunlight to reach the stream (USFWS 2005a). The mountain yellow-legged frog is relatively small in size, ranging from 2 to 3 inches in length. It is typically drab yellowish to reddish in color with black or brown spots or blotches on the dorsum and yellow along the leg margins. Steep population declines have been attributed to many factors, including habitat loss, pollution, cattle grazing, ozone depletion, mining activities and tailings pollution, offroad vehicle disturbance, public dumping, chytrid fungus outbreaks, fires, excessive flooding, and non-native species predation. Predators include non-native bullfrogs, turtles, trout, and other fish; it seems to be most successful where predatory fish are absent (Bradford 1989, Bradford et al. 1993, in press).

The mountain yellow-legged frog can be considered ABSENT from the TL 637 ROW. CNDDB lists no records of occurrence within 3 miles of the ROW, and the ROW lacks suitable habitat to support this species.

Western Spadefoot (*Spea* [*=Scaphiopus*] *hammondii*) SSC, BLMS, NCCP-Covered

The western spadefoot is a California SSC, BLMS, and is covered under the NCCP. The range of this toad includes the coastal slope of California from the Great Valley area into Baja California, Mexico. It inhabits lowland areas such as floodplains, washes, and playas; and it may also be found in woodland, chaparral and grassland habitats of the foothills (California Herps 2012). This species can be found in habitats above 4,000 feet in elevation but is most commonly encountered below 3,000 feet. It prefers sparsely vegetated areas with sandy or gravelly soils, such as open grasslands, for locomotion and burrowing (Santa Ana Watershed Association 2008). From January to May, it primarily breeds in temporary pools but may also breed in slow-moving sections of streams; however, its breeding activities are primarily associated with vernal pools formed by winter rains and underlying clay hardpans. Its vertical cat-like pupils and its horny spade-like digging appendages on the hind feet readily identify this species. The primary threat to this species is habitat loss.

The western spadefoot toad has a LOW potential to occur within the TL 637 ROW. Although CNDDB lists no records of occurrence within 3 miles of the ROW, low quality suitable habitat is present within the ROW to support this species.

Arroyo Toad (*Anaxyrus californicus*) FE, SSC, NCCP-Covered

The arroyo toad is a federally listed as endangered species and a California SSC and is covered under the NCCP. The range of this species is within coastal California from Monterey County into northwestern Baja California, Mexico. It is found in washes, streams, and arroyos; and preferred habitats include sandy banks within riparian woodlands such as willow, cottonwood, sycamore, mulefat, and/or coast live oak. It breeds in shallow, sandy/gravelly, riverine pools with low silt content and normally disperses onto adjacent uplands after breeding (USFWS 1999). Individuals have been observed up to 2 kilometers (km) from the streams in which they breed, but most often they are within 0.5 km of those streams (USFWS 2009b). During the breeding season, males call nocturnally from open areas on banks at the edges of streams. Females lay their eggs among gravel, leaves, or sticks on mud or clean sand within low to moderately flowing sections of streams in areas with little or no emergent vegetation and little woody

marginal growth. Newly metamorphosed individuals remain near pools for up to several weeks until the areas dry. This small to moderately-sized species is distinguished from other toads by its chevron-shaped marking between the eyes and by the lack of a mid-dorsal stripe. Coloration may vary from light olive gray to tannnish brown above, and the unmarked undersurfaces are creamy to dirty white. The iris is dark brown with scattered gold iridophores on the upper and lower portions of the iris. The primary threat to this species is habitat loss (Hollingsworth et al. 2010). Chambers Group conducted focused surveys for arroyo toad in 2010 in areas that were identified as suitable for toads. The survey effort was not conducted in areas that were identified as "occupied" (verified records) by CNF and USFWS. *Please see Arroyo Toad Focused Survey Report for the San Diego Gas & Electric Cleveland National Forest Project, San Diego County, California* (Chambers Group 2011a).

The arroyo toad can be considered ABSENT from the TL 637 ROW. Although CNDDB lists several records of occurrence and Critical Habitat Areas are located within 3 miles of the ROW, no suitable breeding habitat occurs within the ROW (areas now developed lacked surface water; areas that were steep gradient and boulder-strewn lacked sand bars or sandy, braided channels for breeding and egg-laying sites). The ROW was assessed for the potential for arroyo toad breeding sites by arroyo toad biologist Frank Wegscheider and reviewed by Ruben Ramirez. Based on the results of their surveys, pasture grazing and development have removed potential habitat for this species from the ROW.

Coast Range Newt (*Taricha torosa torosa*) SSC

The coast range newt is a California SSC in southern California and occurs in terrestrial habitats such as grasslands, woodlands, and forests. Within these habitat types, this species uses pools, ponds, reservoirs, and slow-moving streams as breeding sites. This species is not covered under the NCCP. Its range includes most of coastal California, and it may be found up to 7,800 feet in elevation. It has a light brown dorsum, reddish-orange or yellow venter, large eyes, smooth to rough skin, and may exceed 7 inches in total length. Breeding males have flattened tails, dark skin on the undersides of the feet, and smooth skin. Its diet includes invertebrates such as earthworms, slugs, sowbugs, snails, and larval insects. This species is threatened by habitat loss and alteration of hydrological systems during the breeding season.

The coast range newt has a LOW potential to occur within the TL 637 ROW. Although CNDDB lists no records of occurrence within 3 miles of the ROW, low quality suitable habitat is present within the ROW to support this species.

Large-Blotched Salamander (*Ensatina klauberi*) SSC

The large-blotched salamander is a California SSC and is not covered under the NCCP. This species is found in the peninsular ranges of southern California and in portions of the eastern San Bernardino Mountains, with isolated populations occurring in the Sierra de San Pedro Mártir and the Sierra Juárez of northern Baja California (CalHerps 2011). It is a member of the Plethodontidae family (lungless salmanders) that conducts respiration through its skin and requires damp environments and high humidity. Large-blotched salamanders are most active on rainy or wet nights with moderate temperatures (Calherps 2011). The large-blotched salamander inhabits moist, shaded, evergreen and oak woodland forests with coarse, woody debris on the forest floor. It uses logs, rocks, and bark that has peeled off and fallen near trees and logs for cover; during dry or cold weather it will stay inside burrows, logs, woodrat nests, or under rocks and tree roots (Calherps 2011). Large-blotched salamanders are insectivorous, medium-sized salamanders ranging from 1.5 to 3.5 inches in snout to vent length (SVL)

(Calherps 2011). They have a blackish ground color above with large, orange or pinkish blotches and dark eyes that lack yellow markings. Reproduction occurs in fall or spring, typically at the end of the rainy season. Typically three to 25 eggs are laid in burrows or on logs; and young hatch after 113 to 177 days, fully formed, emerging with fall rains (Calherps 2011). Threats to this species include habitat loss for pasture land, orchards, housing developments, and collection for sale as pets (Jennings and Hayes 1994).

The large-blotched salamander has a LOW potential to occur within the TL 637 ROW. Although CNDDB lists no records of occurrence within 3 miles of the ROW, low quality suitable habitat is present within the ROW to support this species.

Southwestern Pond Turtle (*Actinemys marmorata pallida*) SSC, BLM and USFS Sensitive, NCCP-Covered

This species is a California SSC, BLM and USFS Sensitive, and is covered under the NCCP. The southwestern pond turtle occurs along the coast of North America from Baja California up to San Francisco Bay and occurs from sea level to 5,900 feet in elevation (California Reptiles and Amphibians 2009). It inhabits permanent or nearly permanent bodies of water in many habitat types including ponds, marshes, rivers, and streams that typically have a rocky or muddy bottom and extensive aquatic vegetation along water body margins (California Reptiles and Amphibians 2009). The southwestern pond turtle requires basking sites such as partially submerged logs, vegetation mats, or open mud banks. Although this species is considered aquatic, some spend a lot of time on land (Bury 2008). The top of the shell is dark brown or yellow-olive and may have dark streaks (Bury 2008). Pond turtles are diurnal but will quickly slide into water when they feel threatened. Most activity takes place from February to November. They hibernate under water in mud and will aestivate during dry summers in soft mud, leaf litter, or woodrat nests (California Reptiles and Amphibians 2009). Pond turtles mate in April and May and nest between April and August (California Reptiles and Amphibians 2009). Habitat destruction is the primary threat to this species. Dams cause cooler water temperatures, fast flows below the dams, and human disturbance due to fishing in reservoirs behind the dams. Reservoirs also tend to have decreased vegetation cover, which decreases invertebrates (Bury 2008).

The southwestern pond turtle has a LOW potential to occur within the TL 637 ROW. Although CNDDB lists no records of occurrence within 3 miles of the ROW, the ROW contains some low quality suitable habitat to support this species. No focused surveys for this species were conducted, and no western pond turtles were observed in ponded areas (including stock ponds) during the arroyo toad surveys conducted by Chambers Group in 2010.

California Legless Lizard (*Anniella pulchra*) SSC

The California legless lizard is a California SSC and is broadly distributed across the Los Padres, Angeles, San Bernardino, and Cleveland national forests from sea level to 5,000 feet (Fisher and Case 1997). This species is not covered under the NCCP. It is a burrowing species generally associated with sandy or loose, loamy soils under the sparse vegetation of beaches, chaparral, or pine-oak woodland or under sycamores, cottonwoods, or oaks on stream terraces (Stephenson and Calcarone 1999). The species also may be found under logs, rocks, and leaf litter (Stephenson and Calcarone 1999) and can be difficult to detect due to its burrowing nature. It requires soil moisture for thermal regulation, and animals may die if they are unable to reach a moist substrate. Soil moisture may limit these lizards within the extent of their range (Bury and Balgooyen 1976).

The California legless lizard is thought to have been extirpated from approximately 20 percent of its known historical range due to urbanization, water diversion, agricultural development, and the spread of exotic plant species (Goldberg and Miller 1985; Jennings and Hayes 1994). Suitable habitats occur in CNF along sandy washes, north-facing slopes, and other areas where leaf-litter, logs, and rocks may offer shelter and a source of protective moisture.

The California legless lizard has a LOW potential to occur within the TL 637 ROW. Although CNDDB lists no records of occurrence within 3 miles of the ROW, the ROW contains moderate quality suitable habitat to support this species.

Coast (=San Diego) Horned Lizard (*Phrynosoma coronatum blainvillii*) SSC, BLM and USFS Sensitive, NCCP-Covered

The coast horned lizard is a California SSC, BLM and USFS Sensitive, and is covered under the NCCP. It occurs from the Transverse Ranges in Kern, Los Angeles, Santa Barbara, and Ventura counties southward throughout the Peninsular Ranges of southern California to Baja California, Mexico, as far south as San Vicente. It is found in a wide variety of habitats, including coastal sage scrub, annual grasslands, chaparral, oak woodlands, riparian woodlands, and coniferous forests. It is perhaps most abundant in riparian and coastal sage scrub habitats on old alluvial fans of the southern California coastal plain. In foothill and mountain habitats that are covered with dense brush or other vegetation, the species is largely restricted to areas with pockets of open microhabitat; this habitat structure can be created by natural events such as fire and floods or human-created disturbances such as livestock grazing, fire breaks, and road construction. The key elements of these microhabitats are loose, fine, sandy soils; an abundance of native ants; open areas for basking; and low but relatively dense shrubs for refuge. The coast horned lizard is a moderately-sized, dorso-ventrally flattened lizard with five backwardly projecting head spines; a large shelf above each eye; large, convex, smooth scales on the forehead; and two parallel rows of pointed scales fringing each side of the body. No stripes radiate from the eyes, and the iris is black. The dorsal color is highly variable, but typically gray, tan, reddish-brown, or whitish and usually resembles the prevailing soil color, while the venter is yellow to white with discrete, dark spots. Its diet is almost entirely composed of ants, especially harvester ants, but it will take other insects on an opportunistic basis. The primary threat to the continued existence of this species is habitat loss. Other threats include non-native ants (especially Argentine ants) and disturbances related to off-road vehicles.

The coast horned lizard can be considered PRESENT within the TL 637 ROW. CNDDB lists six records of occurrence for this species within 3 miles of the ROW, the ROW contains good quality habitat, and this species was observed on the ROW near pole P116.

Belding's Orange-Throated Whiptail (*Aspidoscelis hyperythra beldingi*) SSC, NCCP-Covered

The orange-throated whiptail is a California SSC and is covered under the NCCP. This species is found from San Bernardino County, California, through Baja California, Mexico. It is found in Diegan Coastal Sage Scrub and Coastal Sage-Chaparral Scrub, which provide both open territory and adequate shading, and in sandy washes, rocky outcrops, and open dirt roads. This species is undoubtedly limited by habitat but may be a species that is locally abundant as long as appropriate habitat exists. This species is often found in California buckwheat, California sagebrush, black sage, white sage, chamise, and redshank (*Adenostoma sparsifolium*) sage scrub and chaparral habitats. Due to similar habitat requirements, it typically occurs in association with the San Diego horned lizard. Hibernation sites occur on well-insulated, south-facing, open slopes that are often adjacent to terraces with woody perennials. The

orange-throated whiptail is a moderately sized, gray, reddish brown, dark brown, or black lizard with five to seven pale yellow or tan stripes along each side. The top of the head has a yellow-brown to olive gray, single, fused frontoparietal scale. Undersurfaces are yellowish white, often with gray or bluish slate on the belly. Adults have varying degrees of red-orange wash that may occur on all undersurfaces. The latter is especially prominent on the throat and chest in breeding males. In hatchlings and juveniles, the tail is a highly visible, bright blue. Prey items include a variety of insects and spiders. The primary threat to the continued existence of this species is habitat loss (Brattstrom 2000).

The Belding's orange-throated whiptail has a HIGH potential to occur within the TL 637 ROW. CNDDB lists four records of occurrence within 3 miles of the ROW, the closest occurrence being approximately 0.7 mile away, approximately 1.1 miles south of Ballena Valley at Hwy 78, 6 miles east of Ramona. In addition, the ROW contains good quality habitat to support this species.

Coronado Island Skink (*Plestiodon* [=*Eumeces*] *skiltonianus interparietalis*) SSC, BLMS, NCCP-Covered

The Coronado Island skink is a California SSC, BLMS, and is covered under the NCCP. It inhabits the coastal plain and Peninsular Ranges west of the deserts from approximately San Gorgonio Pass (Riverside County) southward to San Quintín (Baja California), Mexico. It occurs in a variety of plant associations ranging from coastal sage, chaparral, oak woodlands, pinyon-juniper, and riparian woodlands to pine forests; but within these associations it prefers early successional stages and is often restricted to areas with adequate rocky cover, usually near streams. This species is diurnal, with most activity occurring in early spring to early fall, with bimodal activity in summer. The Coronado Island skink is a medium-sized (53 to 83 millimeters snout to vent length [SVL]) smooth-scaled lizard with relatively small limbs and four white or beige stripes on a brown dorsum. The intervening mid-dorsal and lateral dark stripes extend to or beyond the middle of the tail in adults. The tail has at least some blue coloration; the tail color is often brilliant blue in juveniles and adults having unbroken tails. Coronado Island skinks feed upon small invertebrates found in leaf litter. Threats to the Coronado Island skink include habitat loss to citrus and avocado orchards, pesticide use in agricultural fields and orchards, and human use of surface and ground water causing mesic areas to become drier (California Reptiles and Amphibians 2012).

The Coronado Island skink can be considered PRESENT within the TL 637 ROW. CNDDB lists a record of occurrence within 1 mile of the ROW, and this species was observed on the ROW near pole R107. In addition, the ROW contains good quality suitable habitat to support this species.

Northern Red-Diamond Rattlesnake (*Crotalus ruber ruber*) SSC, NCCP-Covered

The northern red-diamond rattlesnake is a California SSC and is covered under the NCCP. It ranges throughout southern California from San Bernardino County to Cabo San Lucas, Baja California, Mexico, at elevations from sea level to 1,520 meters, with most encountered below 1,200 meters. It occurs in habitats with heavy brush associated with large rocks or boulders. This species is found in chamise and red shank-dominated associations, as well as coastal sage scrub, grassland, woodland, and desert slope scrub associations within canyons, mountains, deserts, and foothills. The northern red-diamond rattlesnake is a large (75 to 163 centimeters), heavy-bodied rattlesnake with a tan, pink, brick-red, or reddish-colored dorsal color and obscure, usually light-edged brick or pinkish diamond-shaped blotches. The tail base is prominently "raccoon tail" marked with broadly spaced but relatively narrow, distinct, black rings contrasting with the rest of the body color. The belly is white to pale yellow, and the undersurface of the tail is pinkish buff. The iris is brown. Northern red-diamond rattlesnakes are

crepuscular or nocturnal during periods of excessive heat and active during the day when temperatures are more moderate. Some individuals have been observed year-round, but it is thought that most hibernate in the winter (Calherps 2011). Peak activity occurs between April and May, potentially in relation to the breeding season. Between three and 20 live young are born between late July and September. Range restriction and habitat loss are the primary reasons for the decline of this species (California Reptiles and Amphibians 2011d).

The northern red-diamond rattlesnake has a MODERATE potential to occur within the TL 637 ROW. Although CNDDB lists no records of occurrence within 3 miles of the ROW, the ROW contains good quality suitable habitat.

Coastal Rosy Boa (*Lichanura trivirgata roseofusca*) USFS Sensitive, NCCP-Covered

The rosy boa is a USFS Sensitive Species and is covered under the NCCP. This subspecies of the rosy boa occurs from the foothills of the San Gabriel and San Bernardino mountains, south through San Diego County, and into the Sierra de San Pedro Mártir, Baja California, Mexico. It can be found from sea level to 6,800 feet amsl. Distribution is spotty throughout its range. The rosy boa is considered a sensitive species by both BLM and USFS.

The coastal rosy boa is associated with rocky coastal sage, inland sage, and chaparral-covered hillsides and canyons from the coast to the desert transition zone. It may be found under rocks, in rock crevices, or in boulder piles (Klauber 1931). It also is an excellent climber that willingly moves through vegetation and branches in search of prey (Stebbins 2003). It preys upon small mammals, reptiles, amphibians, and birds and kills though constriction (Stebbins 2003). Associated vegetation types include coastal sage scrub dominated by California sagebrush and buckwheat, chamise chaparral, and ceanothus/manzanita chaparral. It often is attracted to oases, intermittent streams, and other sources of water but does not require it (Stebbins 2003). It is chiefly nocturnal but also is regularly seen during the day (Stebbins 2003).

The coastal rosy boa is believed to be declining due to loss of habitat and over-collecting, particularly in coastal areas where it was once common (Fisher and Case 2011). The Angeles, San Bernardino, and Cleveland national forests are all within the historical range of the coastal rosy boa and all support this species (Klauber 1931; Fisher and Case 2011). Several historical locations known for this species occur in the vicinity of the proposed TL 637 construction; and suitable habitat for this species occurs along most of the coastal slope portion of the project Survey Area, as well as the desert transition area. Suitable habitat occurs nearly throughout CNF (California Reptiles and Amphibians 2011e).

This species is considered PRESENT with the TL 637 ROW. CNDDB lists 2 records of occurrence within 3 miles of the ROW and the ROW contains good quality suitable habitat to support this species. In addition, this species was observed on the ROW near poles P51 and P116. However, this species is not a state sensitive species (not a designated SSC or listed species). The two poles located within CNF Lands are P115 and P116 (where this species was observed). However, no ground disturbing activities would occur during construction. These two poles have already been replaced with steel poles and only pole top work will occur during the proposed project at these locations.

San Diego Mountain Kingsnake (*Lampropeltis zonata pulchra*) SSC, BLMS, and USFS Sensitive

The San Diego mountain kingsnake is a California SSC, BLMS and USFS Sensitive, and is not covered under the NCCP. This California endemic subspecies of the mountain kingsnake is found from 1,640 feet

to approximately 5,900 feet of elevation (Stebbins 2003; Jennings and Hayes 1994). The species in the interior mountains is associated with ponderosa, Jeffrey, and Coulter pines and black oak and is infrequently found below the coniferous forest associations. At lower elevations, it is associated with mixed oak-coniferous forest in riparian woodlands, usually in canyon bottoms that have western sycamore, Fremont cottonwood, coast live oak, willows, wild rose (*Rosa* spp.), and blackberry (*Rubus ursinus)*. It may be found in narrow, riparian woodlands in association with chaparral and coastal sage vegetation types (Zweifel 1952). Rocks or rocky outcrops appear to be an important habitat element, providing suitable hibernation and refuge sites as well as food resources (Jennings and Hayes 1994). This snake also is an excellent climber and will move through bushes, perhaps to find bird nests (Stebbins 2003). Prey items include bird eggs and chicks, lizards, small mammals, and other prey. This species is primarily diurnal but becomes more nocturnal during warmer months (Stebbins 2003). CNF is within the historical range of the California mountain kingsnake and provides suitable habitat for this species (Fisher and Case 2011, California Reptiles and Amphibians 2011a).

The San Diego mountain kingsnake has a LOW potential to occur on the TL 637 ROW. The TL 637 ROW is located within the lower elevation range for this species; however, this species is not commonly found within the lower range and was not observed during surveys conducted by Chambers Group in 2010 and 2011. Although CNDDB lists no records of occurrence within 3 miles of the ROW, the ROW contains low quality suitable habitat.

San Diego Ringneck Snake (*Diadophis punctatus similis*) USFS Sensitive, NCCP-Covered

The San Diego ringneck snake is a USFS Sensitive Species and is covered under the NCCP. This subspecies of the ringneck snake is confined to mountains and watercourses and is associated with moist woodlands, grassland, chaparral, mixed conifer forest, and riparian areas in southern California. This species is diurnal but seldom is seen in the open. It usually is found during the day under cover objects, such as rotting logs, bark fragments, boards, and rocks (Stebbins 2003). Prey items include earthworms, salamanders, small frogs, amphibian larvae, slugs, and other mesic-associated organisms. It is active at dusk and at night during warmer periods and, due to its secretive nature, is often difficult to detect. Ringneck snakes may aggregate at dens for winter hibernation. Home range size is unknown (Zeiner et al. 1988). The San Diego ringneck snake is believed to be declining due to loss of habitat.

The San Bernardino National Forest and CNF are considered to be within the range of the San Diego ringneck snake and are likely to have suitable habitat for the species (Lind 1998). Few historical locations are known for this species in the vicinity of the proposed TL 637 construction, but suitable habitat is present along many areas of the coastal slope portion of the TL 637 ROW, including oak woodlands, dense chaparral, north-facing slopes, and riparian systems.

The San Diego ringneck snake has a MODERATE potential to occur on the TL 637 ROW. Although CNDDB lists no records of occurrence within 3 miles of the ROW, the ROW contains good quality suitable habitat. However, this species is not a state sensitive species (not a designated SSC or listed species). The two poles located within CNF Lands are P115 and P116. These two poles have already been replaced with steel poles and only pole top work will occur during the proposed project at these locations.

Two-Striped Garter Snake (*Thamnophis hammondii*) SSC, BLM and USFS Sensitive, NCCP-Covered

The two-striped garter snake is a California SSC, BLM and USFS Sensitive, and is covered under the NCCP. It is found in disjunct populations from the San Francisco area in California to northwest Baja California, Mexico. Additional populations occur several hundred miles further to the south in Baja California. The two-striped garter snake is found in or near permanent and intermittent freshwater habitats, including streams, rivers, ponds, and small lakes, from sea level to around 8,000 feet amsl. Oak woodlands, brushlands, sparse coniferous forests, and riparian forests may surround its freshwater habitat. It is recognized by its lack of a mid-dorsal stripe, and its coloration is usually olive or brownish above and dull yellow to orange-red or salmon below. Intergrading color morphs are common. This highly aquatic snake is most active at dusk or at night, but it may also forage by day. Its diet includes tadpoles, toads, frogs, small fish, earthworms, California newt larvae, and aquatic eggs. The two-striped garter snake is a live-bearing species that gives birth to up to 36 young at a time. The life history of this species is poorly known. It is highly aquatic and is rarely seen far from water. It emerges from hibernation in the spring and may be active on warm winter days. It is active at temperatures ranging from 66.2 to 89.6°F (Jennings and Hayes 1994). An estimated 40 percent of the historical range of this species has been lost to housing, urban development, and other human impacts (Stebbins 2003).

The two-striped garter snake has a LOW potential to occur on the TL 637 ROW. Although CNDDB lists no records of occurrence within 3 miles of the ROW, the ROW contains low quality suitable habitat.

South Coast Garter Snake (*Thamnophis sirtalis* ssp.) SSC

The south coast garter snake is a California SSC and is not covered under the NCCP. This species is endemic to California, occurring only in scattered localities along the southern coastal plain from the Santa Clara River Valley south to the vicinity of San Pasqual, ranging in elevation from sea level to 2,500 feet amsl (Jennings and Hayes 1994). Restricted to marsh and upland habitats near permanent water sources with riparian vegetation, its diet consists of small fishes, tadpoles, and insects (Jennings and Hayes 1994). Active from March through October, some individuals have been observed during winter months during exceptionally warm weather. South coast garter snakes breed in spring, bearing 12 to 20 live young in August through early fall (Jennings and Hayes 1994). Habitat loss from urbanization, flood control projects, agriculture, and the introduction of non-native aquatic predators like bullfrogs, large mouth bass, and catfish are the major threats to this species (Jennings and Hayes 1994).

The south coast garter snake has a LOW potential to occur on the TL 637 ROW. Although CNDDB lists no records of occurrence within 3 miles of the, the ROW contains moderate quality suitable habitat.

Coast Patch-Nosed Snake (*Salvadora hexalepis virgultea*) SSC, NCCP-Covered

The coast patch-nosed snake is listed as a California SSC and is covered under the NCCP. It occurs from northern Carrizo Plains of San Luis Obispo County southward into Baja California at elevations of sea level to 9,000 feet (Jennings and Hayes 1994). It is a slender, medium-sized snake ranging in size from 10 to 46 inches in length (Calherps 2011), with a yellow or beige, dark-bordered mid-dorsal stripe one full scale row and two half scale rows on each side with a large patch-like rostral scale (Jennings and Hayes 1994). Undersurfaces are cream to white-colored, often with pink or orange washing near the tail; its iris is black with a buff ring around the pupil (Jennings and Hayes 1994). This species is found in chaparral and semi-arid areas with brushy or shrubby vegetation in canyons, plains and rocky hillsides. It seeks refuge and potentially overwinters in woodrat middens and small mammal burrows, so these may be

necessary for this species to occur (Jennings and Hayes 1994). The coast patch-nosed snake is bimodally active, with evidence that its peak activity interval corresponds to the peak activity intervals of its main prey item, whiptail lizards; and it will climb shrubs in pursuit of prey (Jennings and Hayes 1994). This species overwinters from October to March and is thought to lay eggs from May to August. In addition to whiptail lizards, it feeds on small mammals, amphibians, bird nestlings, and, possibly, small snakes (Calherps 2011). Considered an uncommon species with little information existing about its natural history or abundance, threats to the coast patch-nosed snake include habitat degradation from heavy grazing, land development, and loss of former habitat (California Reptiles and Amphibians 2011b).

The coast patch-nosed snake has a LOW potential to occur on the TL 637 ROW. Although CNDDB lists no records of occurrence within 3 miles of the ROW, the ROW contains moderate quality suitable habitat.

Golden Eagle (*Aquila chrysaetos*) FP Under BGEPA and CDFW, CDFW Watch List, BLMS, NCCP-Covered

The golden eagle is a FP species under the BGEPA and by the State of California, is a CDFW watch list species, and is BLMS. This species is covered under the NCCP. This species is found mostly in western North America, from Alaska south to central Mexico. Fewer are found in eastern Canada, as well as a few isolated pairs in the eastern United States. The golden eagle prefers mountainous or hilly terrain, hunting over open country for small mammals, snakes, birds, or carrion. The golden eagle nests on cliff faces, walled canyons, or in tall trees. The golden eagle is a very large raptor, standing nearly three feet tall, with a large, hooked bill. It is brown all over, with a golden sheen on its head and golden patches and highlights over its life molt. Direct or indirect human activities (e.g., collisions with vehicles, power lines, or other structures; electrocution; gunshot; and poisoning) have been estimated to cause up to 70 percent of recorded golden eagle deaths. Populations are also threatened by habitat degradation and nest disturbance (Kochert et al. 2002). Although data regarding golden eagles was obtained from SDG&E from a golden eagle nest survey conducted for the Sunrise Powerlink Project in 2010, this data was not publicly published in an effort to protect the location of the nest sites.

The golden eagle has a HIGH potential to forage within TL 637 ROW and can be considered ABSENT for nesting within the ROW. Although CNDDB lists no records of occurrence within 3 miles of the TL 637 ROW, a historic golden eagle nesting location was identified within 5 miles southeast of the proposed TL 637 construction site, known as the Gower Mountain site in the Cleveland National Forest. Wildlife Research Institute conducted golden eagle surveys and provided SDG&E with raw data to create the 4,000 foot exclusionary buffers for the Sunrise Powerlink Project. According to the Raptor Management page on the USDA Forest Service website (http://www.fs.usda.gov/ detail/cleveland/ landmanagement/ resourcemanagement), this nest was not active in 2012. Therefore, this species is considered to have a high potential to forage but is not considered to have a potential to nest directly within the ROW.

White-Tailed Kite (*Elanus leucurus*) FPS, BLM Sensitive

The white-tailed kite (nesting) is a California Fully Protected Species, BLM Sensitive, and is not covered under the NCCP. In the United States, its range extends along the Pacific coast from southwest Washington through California and also includes south-central Arizona, south Texas, and south Florida. It also occurs in Mexico and Central America. In California, it is a resident and localized migrant of the Central Valley and Pacific coast. Evidence in recent years suggests that the range of this species is increasing, although erratic shifts in the distribution of this species are not uncommon. It inhabits low- to moderate-elevation grasslands, savannas, agricultural areas, wetlands, oak woodlands, marshes, and riparian woodlands and usually breeds in open areas with scattered trees, often near water. The white-

tailed kite is a medium-sized hawk with a white head; grey back; long, white tail; and large, black scapulars. It forages often by "kiting," or hovering in one area while scanning the ground for potential prey. Its diet includes primarily small mammals, but it will also take large insects, amphibians, and lizards. Degradation or loss of grassland habitat to development or ranching is a significant threat to populations (Dunk 1995). Historical population declines may be attributed to chemical poisoning.

The white-tailed kite can be considered PRESENT on the TL 637 ROW for foraging purposes and has a LOW potential to nest on the ROW. CNDDB lists one record of occurrence within 1 mile of the ROW, and this species was observed on the ROW near pole P158. In addition, the ROW contains suitable foraging habitat.

Cooper's Hawk (*Accipiter cooperii*) SSC, NCCP-Covered

The Cooper's hawk (nesting) is a California SSC and is covered under the NCCP. This species occurs as a migrant and/or resident over most of the United States from southern Canada to northern Mexico. Historically, the Cooper's hawk has favored habitats include open woodlands, mature forests, woodland edges, and river groves. More recently, the Cooper's hawk has been known to breed in suburban and urban areas with similar tree structure to native habitats. This species is similar in appearance to the sharp-shinned hawk (*Accipiter striatus*), but is distinguished by its larger size, more rounded tail, and darker crown. The Cooper's hawk is a medium-sized (14 to 20 inches) hawk and is well-adapted for hunting birds as prey with its long tail and short, rounded wings; these features allow maneuverability in pursuit and on the ambush. In addition to birds, it may also take amphibians, reptiles and small mammals as supplemental prey items. Historic population losses resulted from the widespread use of DDT. Other threats include habitat loss and illegal hunting (Remsen 1978).

The Cooper's hawk can be considered PRESENT on the TL 637 ROW for foraging purposes and has a HIGH potential to nest on the ROW. Although CNDDB lists no records of occurrence within 3 miles of the, the ROW contains good quality suitable habitat and this species was observed on the ROW near pole P156.

Burrowing Owl (*Athene cunicularia*) SSC, BLMS, NCCP Narrow Endemic

The burrowing owl is a California SSC, BLMS, and is a narrow endemic species covered under the NCCP. It breeds in open plains from western Canada and the western United States, Mexico through Central America, and into South America to Argentina (Klute et al. 2003). This species inhabits dry, open, native or non-native grasslands, deserts, and other arid environments with low-growing and low-density vegetation (Ehrlich et al. 1988). It may occupy golf courses, cemeteries, road ROWs, airstrips, abandoned buildings, irrigation ditches, and vacant lots with holes or cracks suitable for use as burrows (TLMA 2006). It occupies mammal burrows such as badger, prairie dog, and ground squirrel burrows for subterranean shelter and nesting (Trulio 1997). When burrows are scarce, the burrowing owl may use man-made structures such as openings beneath cement or asphalt pavement, pipes, culverts, and nest boxes (TLMA 2006). One burrow is typically selected for use as the nest; however, satellite burrows are usually found in the immediate vicinity of the nest burrow within the defended territory of the owl. Burrowing owls are active day and night, with peak times at dawn and dusk (Klute et al. 2003). Breeding typically occurs from March through August, with peak periods in May and July. The burrowing owl is a small, ground-dwelling owl with a round, grey-brown, tuftless head; long, bare yellow legs; bright yellow iris; brown back; and buffy-white underparts with brown barring (Klute et al. 2003). Insects form the bulk of its diet in the summer and small mammals, birds and reptiles in the winter (Klute et al. 2003).

Threats to burrowing owl populations include the loss of and destruction of habitat from agriculture and urban development, the destruction of burrows, and indirect poisoning via rodent eradication efforts (Klute et al. 2003).

The burrowing owl has a LOW potential to forage, winter, and have active burrow sites on the TL 637 ROW. Although CNDDB lists no records of occurrence within 3 miles of the ROW, the ROW contains low quality suitable habitat to support the species.

California Spotted Owl (*Strix occidentalis occidentalis*) SSC, BLMS, USFS Sensitive

The California spotted owl is a BLM and USFS Sensitive species and a California SSC, and is not covered under the NCCP. This subspecies of spotted owl inhabits the Sierra Nevada and southern California mountain ranges from sea level to 7,000 feet in elevation (Call 1990). This species breeds and roosts in forests and woodlands with dense multiple canopy layers, large trees, and downed woody debris (Bond et al. 2009; LaHaye et al. 1997). In southern California, this species is known to use riparian hardwood forest types containing coast and canyon live oak, cottonwood, California sycamore, white alder, and California bay (Verner et al. 1992a, Verner et al. 1992b); these forest types typically occur at lower elevations. Small to medium-sized mammals, primarily rodents, are the main foods of this species. The primary threat to the California spotted owl is habitat loss and degradation from logging, mining, agriculture, water development, and urban development (Gutiérrez et al. 1995a, 1995b; Bias 1992; USFS 1991-2005).

The California spotted owl has a LOW potential to occur within the TL 637 ROW. CNDDB lists no records of occurrence within 3 miles of the ROW, but the ROW contains low quality suitable habitat to support the species (Chambers Group 2011b).

Southwestern Willow Flycatcher (*Empidonax traillii extimus*) FE, NCCP-Covered

The southwestern willow flycatcher (SWFL) (nesting) is a federally listed as endangered subspecies of willow flycatcher and is covered under the NCCP. The summer breeding range of this species includes southern California (from the Santa Ynez River south), Arizona, New Mexico, extreme southern portions of Nevada and Utah, extreme southwest Colorado, and western Texas (USFWS 1995). Records of probable breeding SWFL in Mexico are rare and restricted to extreme northern Baja California del Norte and Sonora. The largest California populations occur along the Santa Margarita, San Luis Rey, and South Fork Kern river systems. It is known to breed in a variety of riparian habitats with multi-tiered canopies and surface water and/or saturated soils, whether along streams in broad valleys, in canyon bottoms, around mountain-side seepages, or at the margins of ponds and lakes (Grinnell and Miller 1944). Where willow species dominate, high foliage-volume willow cover is preferred but with willow clumps separated by openings (Harris et al. 1988). Habitat types may include a variety of willow (*Salix* spp.), cottonwood (*Populus* spp.), coast live oak, alder (*Alnus* spp.), and tamarisk (*Tamarix* spp.) woodlands. It is safely distinguished from other members of its genus only by its characteristic *fitzbew* song and breeding area. It is a relatively non-descript flycatcher with a dark back, two faint wing bars, yellow lower mandible, faint wash of yellow on the belly, and little to no eye ring. It forages for insects on the wing and embarks on short flights from favorite perches to catch the flying insects. While perched, it characteristically flicks its tail upwards on occasion. This species is in decline primarily due to extensive habitat loss and brood parasitism by the brown-headed cowbird (*Molothrus ater*) (Kus et al. 1999).

The SWFL has a LOW potential to forage within the TL 637 ROW and can be considered ABSENT for nesting within the ROW. Chambers Group permitted biologist Kris Alberts (TE-039640-2) conducted habitat assessment surveys for this species in 2010. Please see *Southwestern Willow Flycatcher Focused Survey Report for the San Diego Gas & Electric Cleveland National Forest Project, San Diego County, California* (Chambers Group 2011h). The ROW contains low quality foraging habitat; therefore the SWFL has a low potential to forage within this habitat. However, since CNDDB lists no records of occurrence within 3 miles of the ROW, and the SWFL has high site fidelity and is not known to breed outside historic locations, this species can be considered absent for nesting within the ROW.

Purple Martin (*Progne subis*) SSC

The purple martin (nesting) is a California SSC and is not covered under the NCCP. The breeding range of this species covers most of eastern North America from southern Canada to northern Mexico to the eastern seaboard and throughout the Gulf Coast. Other localized breeding populations occur in scattered areas of the western United States and Mexico, including southwestern California. Fall flocks in migration have numbered in the tens of thousands. It winters mostly in South America to southeastern Brazil. Habitats include towns and farms in open or semi-open country near water. This species prefers to nest in man-made martin houses but will also nest in tree cavities and saguaro cactus. It tends to fly in circles while foraging for insects over water bodies but occasionally gleans insects from the ground. With a wingspan of up to 17 inches, the purple martin is the largest North American swallow. The male is uniformly blue-black above and below; it is the only American swallow with a dark belly. The female is light-bellied, with a grayish throat and breast and often a faint collar. A major cause for the decline of this species is competition from European starlings and house sparrows; these birds are very aggressive cavity nesters that effectively out-compete purple martins for nest sites. Other factors include the felling of dead trees with nesting cavities.

The purple martin can be considered PRESENT on the TL 637 ROW for both foraging and nesting purposes. CNDDB lists a record of this species in 2007, nesting in a wood power pole east of Little Page Road and 0.5 mile south of Hwy 78, at Collier Flat. In addition, a purple martin pair was observed nesting at pole P113.

Least Bell's Vireo (*Vireo bellii pusillus*) FE, SE, NCCP-Covered

The least Bell's vireo (LBVI) (nesting) is a federal and state listed as endangered subspecies of the Bell's vireo and is covered under the NCCP. The LBVI subspecies is restricted to coastal California and Baja California, Mexico, and a few inland populations. Its winter range extends along the Pacific coast from northern Mexico south to northern Nicaragua. It is a small, gray songbird with two faint wingbars and a faint eyering and is whiter below. This species prefers to nest in low, dense, scrubby vegetation in early successional areas and is particularly dependent on corridors of habitat along rivers and streams (Brown 1993; Goldwasser 1981). The two major factors in the decline of LBVI populations are loss of habitat and nest parasitism by the brown headed-cowbird. Despite historical population losses, recent trends indicate that populations are on the rise and that the LBVI is returning to parts of its former range as well as colonizing some new areas.

The LBVI has a LOW potential to forage and nest on the TL 637 ROW. Chambers Group conducted habitat assessments for this species in 2010. Please see *Least Bell's Vireo Focused Survey Report for the San Diego Gas & Electric Cleveland National Forest Project, San Diego County, California* (Chambers

2011f). Although CNDDB lists no records of occurrence within 3 miles of the ROW, the ROW contains low quality suitable habitat to support this species.

San Diego Coastal Cactus Wren (*Campylorhynchus brunneicapillus sandiegensis*) SSC, NCCP Narrow Endemic, NCCP-Covered

The San Diego coastal cactus wren is a California SSC and is a narrow endemic species covered under the NCCP. It is found from the lower southwestern United States south into Mexico; in California it is found only in Orange and San Diego counties. Its preferred habitat includes coastal sage scrub interlaced with patches of opuntia cactus (such as chollas and prickly pear), which it uses almost exclusively for the construction of nests (Unitt 2008). The nests are remarkably large and conspicuous, given the size of the bird, and are constructed as woven spherical nests with a side opening in the branches of the host cactus. San Diego coastal cactus wrens nest primarily from early March through July, and young disperse only a short distance from nesting sites. This species is predominantly insectivorous, foraging on the ground and within vegetation for a variety of insects, including caterpillars, moths, and grasshoppers. San Diego cactus wrens establish resident territories and maintain them for life. The primary threat to this species is urbanization. Additional threats include fire, habitat degradation, and fragmentation (Unitt 2008).

The San Diego coastal cactus wren has a LOW potential to occur on the TL 637 ROW. This species was not observed during surveys conducted by Chambers Group from 2010 to 2012. Although CNDDB lists no records of occurrence within 3 miles of the ROW, the ROW contains low quality suitable habitat to support this species.

Coastal California Gnatcatcher (*Polioptila californica californica*) FT, SSC, NCCP-Covered

The coastal California gnatcatcher (CAGN) is a federally listed as threatened species and a California SSC, and is covered under the NCCP. The historical range of this species extended from the coast and foothills of Ventura County and south through Los Angeles, southwestern San Bernardino, western Riverside, Orange, and San Diego counties of California into northwestern Baja California, Mexico. Populations have since become increasingly fragmented (Bontrager 1991). It is a permanent resident of Diegan, Riversidian, and Venturan sage scrub sub-associations found from sea level to 2,500 feet in elevation. The CAGN is a small, secretive songbird with grayish coloration and faint, white, outer tail margins. Males of this species exhibit a black cap during the breeding season. This insectivorous bird nests and forages in moderately dense stands along gentle slopes, arid hillsides, mesas, foothills, and alluvial washes. It gleans a variety of insects within its territory, including caterpillars and other larval insects. It builds a cup nest in suitably dense shrubs and lays four eggs, on average. Contributing factors in the decline of this species include overly frequent fire cycles, non-native plant invasions, brown-headed cowbird nest parasitism, predation, and widespread habitat loss to urbanization and agriculture (Mock et al. 1990; Bontrager 1991). Chambers Group conducted focused surveys for this species in 2010. Please see *Coastal California Gnatcatcher Focused Survey Report for the San Diego Gas & Electric Cleveland National Forest Project, San Diego County, California* (Chambers Group 2011c).

The USFWS designation of critical habitat for the CAGN specifically excluded areas within functioning HCPs, such as SDG&E's *SDG&E Subregional NCCP.* The CAGN habitat owned by SDG&E (and covered under the *SDG&E Subregional NCCP*) was determined to have greater benefits CAGN than from lands designated as critical habitat (Federal Register 2007). Habitat for the CAGN is found in several locations along the proposed project route as well as designated critical habitat. This species was observed

nesting and foraging on the TL 637 ROW near poles P64 west to P52, P48 to P51, D44 to P43 to P47, and D46 during focused surveys conducted in 2010 (Chambers Group 2010). These CAGN occupied areas are outside the USFWS designated critical habitat.

CNDDB lists two records of occurrence of this species within 2 miles of the TL 637 ROW. In addition, the ROW contains good quality suitable habitat. The CAGN can be considered PRESENT on the ROW for both foraging and nesting purposes.

Southern California Rufous-Crowned Sparrow (*Aimophila ruficeps canescens*) WL, NCCP-Covered

The southern California rufous-crowned sparrow is a California Watch List species and is covered under the NCCP. It is one of 17 recognized subspecies of the rufous–crowned sparrow, whose overall range includes parts of California, Arizona, New Mexico, Texas, Oklahoma and Arkansas as well as Mexico. This sub-species is a resident of southwest California on the slopes of the Transverse and Coast ranges from Los Angeles County south to Baja California Norte; it can also be found on San Martin Island. Habitats include broken sage scrub and chaparral, native grasslands with sparse shrubs, and rocky, brush laden hillsides and canyons with open patches. It is a small, non-descript sparrow with a rusty crown, white eye-ring, dark whisker marks, and a flat-headed appearance. It is a secretive species that is more often heard than seen as it forages among the shrubs. Habitat loss is the primary factor in the decline of the southern California rufous-crowned sparrow.

The southern California rufous-crowned sparrow can be considered PRESENT within the TL 637 ROW for foraging, with a HIGH potential to nest within the ROW. CNDDB lists three records of occurrence within 3 miles of the ROW. This species was observed foraging in several locations along the ROW, and the ROW contains good quality suitable habitat.

Tricolored Blackbird (*Agelaius tricolor*) (nesting colony) SSC, BLMS, NCCP-Covered

The tricolored blackbird is a California SSC and a BLMS and is covered under the NCCP. This species occurs primarily in California, with smaller populations in northern Mexico. This species is locally common in parts of the Central Valley and along the coast in Sonoma County but is not found commonly over most parts of its range. This species breeds near fresh water; often in emergent wetlands with tall, dense cattails or tules; but also in thickets of willow, blackberry, wild rose, or tall, dense forbs. Seeds and cultivated grains, such as rice and oats, compose most of its fall and winter diet. Tricolored blackbirds forage on the ground in croplands, grassy fields, flooded land, and along edges of ponds. Breeding season usually takes place from mid-April into late July, but Orians (1960) also reported active breeding in October and November in Sacramento Valley. Over the past few decades, numbers have been declining in California (DeHaven et al. 1975). Reasons for the decline include the conversion of marshland habitats and agricultural poisoning (Hamilton 2004; University of California, Davis 2010).

The tricolored blackbird has a LOW potential to forage on the TL 637 ROW. Although CNDDB lists no records of occurrence within 3 miles of the ROW, the ROW contains suitable habitat to support this species for foraging; however, no large stands of cattails that typically support colonial nesting were identified within the ROW. Therefore, this species is considered to have a LOW potential to nest within the ROW.

Yellow Warbler (*Dendroica petechia brewsteri*) SSC

The yellow warbler (nesting) is a California SSC and is not covered under the NCCP. Its breeding range includes most of North America from northern Alaska and northern Canada to the southern United States and Mexico. Wintering birds occur from Mexico to Peru. Breeding habitats include wet areas such as riparian woodlands, orchards, gardens, swamp edges, and willow thickets. Most breeding habitats generally contain medium to high-density tree and shrub species with ample early successional understories. In migration, this species may occur in other habitats, including early seral riparian habitats. Its plumage is more extensively yellow than other North American wood-warblers, and it is also unique in having yellow on the inner webs of its tail feathers (except the middle pair). Males show rusty streaking on the breast. It is almost entirely insectivorous but also eats a few berries. Populations are in decline in California due to habitat loss, grazing of riparian understories, and brood parasitism by the brown-headed cowbird.

There is a LOW potential for the yellow warbler to forage and nest within the TL 637 ROW. Although CNDDB lists no records of occurrence within 3 miles of the ROW, the ROW contains low to moderate quality suitable habitat to support this species.

California Leaf-Nosed Bat (*Macrotus californicus*) SSC, BLM Sensitive

The California leaf-nosed bat is a California SSC and is not covered under the NCCP. Its range includes southern California, southern Nevada, western and southern Arizona, and northwestern Mexico to the tip of Baja California. In California, some individuals migrate to Mexico for the winter, while others occur year-round. It inhabits desert riparian, desert wash, desert scrub, desert succulent shrub, alkali desert scrub, and palm oasis habitats. Roost sites include tunnels, rock shelters, mines, caves, buildings, and bridges. It is a colonially roosting species, and colonies can become quite large. It feeds on insects, primarily moths, beetles, and cicadas. The California leaf-nosed bat appears well after sunset and forages quietly and very close to the ground over flats and washes. Copulation occurs from September to November, and births take place from May to June. Lactation occurs for one month. This species is sensitive to roost disturbance and is declining in desert habitats; but it can still be found in various locations along the Colorado River. The California leaf-nosed bat no longer occurs along the coast of California.

The California leaf-nosed bat can be considered to have a LOW potential to occur within the TL 637 ROW. CNDDB lists no records of occurrence within 3 miles of the ROW. The ROW contains low quality roosting habitat to support this species.

Pallid Bat (*Antrozous pallidus*) SSC, BLMS, USFS Sensitive

The pallid bat is listed as a California SSC and is BLMS and USFS Sensitive. This species is not covered under the NCCP. Its range extends from southern British Columbia along the Pacific coast, south to central Mexico, and east to central Kansas and Oklahoma. It occurs in a variety of habitats, including arid desert scrub, oak woodlands, juniper woodlands, grasslands, coniferous forests, and water-associated habitats. It may be more common throughout its range where rocky outcrops provide roost sites. The pallid bat, a member of the Vespertilionidae family (free-tailed bat family), is a rather large, pale, yellowish-brown bat with paler coloration below and a wingspan of about 9 inches (CDFW and CIWTG 1990b, 2005). Population dynamics are not fully understood, but one contributing factor in the decline of this species includes roost disturbance; it is highly susceptible to disturbance and may vacate a roost

for years afterwards. Other factors include the razing of abandoned buildings, mining operations, pesticide-induced poisoning, and loss of foraging habitats (Bat Conservation International, Inc. 2011a).

The pallid bat has a LOW potential to occur within the TL 637 ROW. CNDDB lists six records of occurrence within 3 miles of the ROW, the closest being approximately 0.6 mile from the ROW. In addition, the ROW contains low quality roosting habitat to support this species.

Townsend's Big-Eared Bat (*Corynorhinus townsendii*) SSC, BLMS, USFS Sensitive

The Townsend's big-eared bat is a California SSC, BLMS and USFS Sensitive and is not covered under the NCCP. This species ranges over most of the western United States north to southwest Canada, south into central Mexico, and east along a smaller range through the middle of the United States to Pennsylvania from sea level to 6,000 feet amsl. This species is found in all habitat types except alpine, but it is rare throughout most of its range. Roosts are found in caves, buildings, tunnels, mines, and other human-made structures. This species hibernates singly or in groups from October to April and undergoes short migrations to hibernation roosts. Females form maternity colonies, but males are solitary in the spring and summer. Births of one young to each litter take place in May and June; the young are independent after six weeks. Moths are its main food source, but beetles and insects are consumed as well. This species has high site fidelity, but it is extremely sensitive to disturbance of roosting sites (Bat Conservation International, Inc. 2010; Gruver and Keinath 2006).

The Townsend's big-eared bat has a LOW potential to occur within the TL 637 ROW. CNDDB lists three records of occurrence within 3 miles of the ROW, and the ROW contains low quality roosting habitat to support this species.

Silver-Haired Bat (*Lasionycteris noctivigans*) WBWG-Moderate Priority Species

The silver-haired bat is a Western Bat Working Group (WBWG) moderate-priority species. The WBWG is comprised of agencies, organizations and individuals interested in bat research, management and conservation from the 13 western states and provinces. This species is not covered by the NCCP. The silver-haired bat's distribution includes coast and montane forest from the Oregon border south along the coast to San Francisco Bay and along the Sierra Nevada and Great Basin region to Inyo County. It is also found in southern California from Ventura and San Bernardino counties south to Mexico and on the Channel Islands. Silver-haired bats are migratory and may be found anywhere in California during migrations. This species is primarily a forest dweller and roosts in hollow trees, snags, buildings, rock crevices, caves, and under bark. The silver-haired bat mates in autumn, starting in late August; and the young are born from May to July. This species may forage with other bat species, feeding on moths, but has been found to feed on other types of prey, such as beetles and other hard-shelled insects. It prefers to feed over streams, ponds, and open brushy areas, usually less than 20 feet above the pond/stream surface or ground.

The silver-haired bat has a LOW potential to occur within the TL 637 ROW. CNDDB lists a single record of occurrence within 3 miles of the ROW from 1982, and the ROW contains low quality roosting habitat to support this species. However, this is not a state sensitive species (designated SSC or listed species).

Western Red Bat (*Lasiurus blossevillii*) SSC, USFS Sensitive

The western red bat is a California SSC, a USFS Sensitive species and is not covered under the NCCP. Western red bats have a broad range, extending from southern British Columbia; throughout much of the western United States, Mexico, and Central America; and as far south as Argentina and Chile (Pierson and Rainey 1998). Within California this species is found in coastal areas near San Francisco Bay south to the Central Valley and into eastern portions of Riverside County and central San Diego County of southern California (Pierson and Rainey 1998). It roosts in small colonies in the foliage of trees and shrubs in edge areas adjacent to streams and open fields, preferring foraging areas that are distant from human habitation (Pierson and Rainey 1998). Western red bats are medium-sized bats best distinguished by their brick-red colored fur; short rostrum; short, rounded ears; and heavily furred interfemoral membrane (Pierson and Rainey 1998). Breeding occurs in late summer or early fall; females become pregnant in spring and give birth to 1 to 5 pups after an 80- to 90-day gestation period. This species is insectivorous and migratory. Threats to the western red bat include predation, agricultural conversion of riparian habitat, storage reservoirs that submerge riparian habitat, pesticides from agriculture, and fire (Pierson and Rainey 1998; Bat Conservation International, Inc. 2010).

The western red bat has a LOW potential to occur within the TL 637 ROW. CNDDB lists three records of occurrence within 3 miles of the ROW, and the ROW contains low low quality roosting habitat to support this species.

Hoary Bat (*Lasiurus cinereus*) WBWG- Moderate Priority Species

The hoary bat is a WBWG moderate-priority species and is not covered under the NCCP. The hoary bat occurs in a variety of habitats across the North American continent but has a patchy distribution in southeastern California. This species winters in coastal and southern California but can be widespread during migration. Suitable breeding habitat includes all woodlands and forests with medium to large-size trees and dense foliage. This species can be found from sea level to 13,200 feet. This solitary bat prefers to roost in dense foliage in sites that are hidden from above with few branches below and near areas with water. During migration in southern California, males are found in foothills, deserts, and mountains; while females prefer lowlands and coastal valleys.

The hoary bat has a LOW potential to occur within the TL 637 ROW. CNDDB lists five records of occurrence within 3 miles of the ROW, and the ROW contains low quality roosting habitat to support this species. However, this is not a state sensitive species (designated SSC or listed species).

Western Yellow Bat (*Lasiurus xanthinus*) SSC

The western yellow bat is a California SSC and is not covered under the NCCP. It is found in localized populations throughout the southwestern United States, but primarily it is found in Mexico and Central America. In California, it is an obligate foliage-roosting species that prefers dead palm fronds to other types of tree substrates. The western yellow bat is primarily non-colonial, but small colonies have been documented in some areas. Unlike many other bats found in this region, it appears that this species is found throughout the year in southern California. It is most commonly associated with palm oases but can also occur in grasslands, scrublands, ornamental landscaping, and wooded areas in riparian zones. It can be distinguished from other bat species in California by its yellow fur, short ears, and medium size. Females give birth to one to four pups from June through July. Threats to this species include its limited distribution, restrictive habitat requirements, and predation.

The western yellow bat has a LOW potential to occur within the TL 637 ROW. CNDDB lists two records of occurrence within 3 miles of the ROW, and the ROW contains low quality roosting habitat to support this species.

Western Mastiff Bat (*Eumops perotis*) SSC, BLM Sensitive

The western mastiff bat is listed as a California SSC, a BLM Sensitive species and is not covered under the NCCP. It is a permanent resident throughout its range in southern California, southern Arizona, Texas, and south to South America. With a wingspan approaching 2 feet, the western mastiff bat is the largest bat species in North America. It is also unique in that its call can be readily identified with the unaided ear. It roosts in small colonies or singly in primarily natural substrates such as cliff faces, large boulders, and exfoliating rock surfaces. It is less commonly found in artificial structures such as buildings and roof tiles. It is found in a wide variety of habitats, including desert scrub, chaparral, woodlands, floodplains, and grasslands. Reasons for observed population declines are unknown (Ahlborn 1990).

The western red mastiff bat has a LOW potential to occur within the TL 637 ROW. CNDDB lists seven records of occurrence within 3 miles of the ROW, and the ROW contains low quality roosting habitat to support this species.

Pocketed Free-Tailed Bat (*Nyctinomops femorosaccus*) SSC

The pocketed free-tailed bat is a California SSC and is not covered under the NCCP. This primarily Mexican bat species is found in Mexico south to the state of Michoacan and occurs in the southwestern United States from southern California, southern Arizona, southeastern New Mexico, and western Texas. In California, this species is found in Riverside, San Diego, and Imperial counties; it is rare in California. It inhabits pinyon-juniper woodlands, desert scrub, desert succulent scrub, desert riparian, desert washes, alkali desert scrub, Joshua tree, and palm oasis habitats. It roosts in small colonies of up to 100 individuals in rock crevices, caverns, roof tiles, and buildings. Although possible migration patterns are not well understood, it is most likely a year-long resident. Little wintering information exists for this species within its range in the United States. The pocketed free-tailed bat feeds on insects flying over desert habitat, streams, or ponds. This species feeds primarily on moths but also eats crickets, flying ants, stinkbugs, froghoppers, leafhoppers, lacewings, and other insects. It usually appears well after sunset. It is similar in appearance to the more common Brazilian free-tailed bat (*Tadarida brasiliensis*), with the exceptions that its ears are joined at the midline; and it has a fold of skin that creates a small pocket near the knee area of the interfemoral membrane, from which it gets its common name. It gives birth to one young per year, which takes place in June or July; lactation occurs in July and August. Little is known of the factors contributing to the decline of this species in the United States (Harris 2000).

This species has a LOW potential to occur within the TL 637 ROW. The CNDDB lists six records of occurrence within 3 miles of the ROW. The ROW contains low quality roosting habitat to support this species.

Big Free-Tailed Bat (*Nyctinomops macrotis*) SSC

The big free-tailed bat is a California SSC and is not covered under the NCCP. It is widely but locally distributed from Iowa and southwestern British Columbia in the north, southward through Mexico and the West Indies to Uruguay in South America. It is rarely found in California. Few records exist for its

occurrence in the state, and no roosts for this species have been identified to date. It is a colonial roosting species that prefers rugged cliff faces, slopes, and outcrops; up to 150 individuals have been observed in roost sites. Roosts are rarely found in human structures. Like most bat species, it can be found in a wide variety of habitats, including various woodland, desert, and scrub associations. Little is known of its habits, but it has been observed to emerge late in the evening. It eats primarily moths but will also take crickets, grasshoppers, flying ants, stink bugs, beetles, and leafhoppers. With the exception of its noticeably larger size, this species is superficially similar in appearance to the more common Brazilian free-tailed bat. It has deep reddish to dark brown overall coloration; a dark facial mask; and large, dark, forward-pointing ears that are briefly joined at the forehead. Little is known about its reproduction and development, but data suggest that each gravid female gives birth to a single offspring in late June to early July. By October, the young are nearly full-grown and are able to feed themselves. While rearing its young, the females gather in nursery colonies, while adult males gather elsewhere. Factors contributing to the decline of this species are not well known.

The big free-tailed bat has a LOW potential to occur within the TL 637 ROW. CNDDB lists two records of occurrence within 3 miles of the ROW, and the ROW contains low quality roosting habitat to support this species.

San Diego Black-Tailed Jackrabbit (*Lepus californicus bennettii*) SSC, NCCP-Covered

The San Diego black-tailed jackrabbit is listed as a California SSC and is covered under the NCCP. It is found on coastal slopes from Kern County, California, south into Baja California, Mexico, between sea level and approximately 3,000 feet amsl. It occurs in a variety of habitats but prefers intermediate canopy stages of shrub habitats, grasslands, and open scrub along herbaceous and tree edges within coastal sage scrub habitats in southern California. It also occurs on agricultural lands. This species does not typically burrow but sits in depressions called forms at the bases of shrubs by day. It is chiefly nocturnal and is an opportunistic forager that feeds on a variety of herbaceous matter, depending on plant availability and time of year. Reasons for decline include habitat loss, fragmentation, and disease outbreaks.

The San Diego black-tailed jackrabbit has a LOW potential to occur within the TL 637 ROW. Although CNDDB lists no records of occurrence within 3 miles of the ROW, the ROW contains low to moderate quality suitable habitat.

Dulzura (California) Pocket Mouse (*Chaetodipus californicus femoralis*) SSC, NCCP-Covered

The Dulzura pocket mouse is a California SSC and is covered under the NCCP. The range of this species includes the western slope of the Peninsular Range of California from Riverside County into northern Mexico. Scattered locations are also known in the Camp Pendleton area. Dulzura pocket mouse habitat includes chaparral, dense coastal sage scrub slopes, and, occasionally, desert grasslands. It is a large, brownish grey pocket mouse, with distinct white bristles on its rump and a brownish line on its side. The underside is yellowish white, and its tail is brownish above and whitish below with a prominent tuft. It produces one litter per year of two to five young born from March through June.

The Dulzura pocket mouse (NCCP covered species) has a MODERATE potential to occur within the TL 637 ROW. CNDDB lists three records of occurrence within 3 miles of the ROW, and the ROW contains moderate quality suitable habitat.

Northwestern San Diego Pocket Mouse (*Chaetodipus fallax fallax*) SSC, NCCP-Covered

The northwestern San Diego pocket mouse is a California SSC and is covered under the NCCP. Its range includes western Riverside, southwestern San Bernardino, eastern Orange, and San Diego counties in California, as well as northwestern Baja California, Mexico. This species prefers sage scrub, chaparral, and non-native grasslands in association with rocks or coarse gravel (McClenaghan 1983; Bleich 1973). The northwestern San Diego pocket mouse has relatively small ears and yellowish or orange hair on its sides contrasting with a dark brown back (Lackey 1996). Primarily a granivore, this pocket mouse will occasionally eat herbaceous forbs, green grasses, and insects during certain seasons. Habitat fragmentation and development are primary threats to this species.

The northwestern San Diego pocket mouse has a LOW potential to occur within the TL 637 ROW. Although CNDDB lists no records of occurrence within 3 miles of the ROW, the ROW contains low to moderate quality habitat to support this species.

Pallid San Diego Pocket Mouse (*Chaetodipus fallax pallidus*) SSC, NCCP-Covered

The pallid San Diego pocket mouse is a California SSC and is covered under the NCCP. It is found on the margins of the Mojave Desert in California, on the northern slopes of the San Bernardino Mountains, in high elevations of eastern San Diego County, and on the edge of the Colorado Desert, south to the Mexican boundary. It is especially known to occur in arid, desert border areas of San Diego County, in Riverside County southwest of Palm Springs, in San Bernardino County from Cactus Flat to Oro Grande, and east to Twentynine Palms. It prefers drier environments of the higher elevations and plateaus; and it is found up to 6,000 feet in elevation at Cactus Flat, along the north slope of the San Bernardino Mountains. It tends to occur in sandy, herbaceous areas, usually in association with rocks or coarse gravel (Grinnell 1933; Miller and Stebbins 1964). This species is found in a wide variety of habitats, including dry alluvial fans, dry desert slopes, sparse scrublands and grasslands, grassland/chaparral/sage scrub ecotones, redshank chaparral, and pinyon-juniper woodlands. Pallid San Diego pocket mouse densities have been recorded as high as 39 per hectare (Lackey 1996). This species is similar in appearance to *C.f. fallax* but is lighter in overall coloration. Population declines may be due to urban and agricultural development.

The pallid San Diego pocket mouse can be considered ABSENT from the TL 637 ROW. CNDDB lists no records of occurrence within 3 miles of the ROW, and the ROW lacks suitable habitat to support this species.

Stephens' Kangaroo Rat (*Dipodomys stephensi*) FE, ST, NCCP-Covered

The Stephens' kangaroo rat (SKR) is a federally listed as endangered and state listed as threatened species, and is covered under the NCCP. Current populations exist only in the San Jacinto Valley, western Riverside County, and northwestern San Diego County, California. This species generally occurs in both non-native annual and native perennial grasslands with sparse perennial vegetation as well as in sparse coastal sage scrub and sagebrush communities with sparse canopy coverage. Plant species may include buckwheat (*Eriogonum* spp.), chamise, brome grasses, and filarees (*Erodium* spp.). Although it can burrow into firm soil, it prefers areas with well-drained, gravelly or sandy soils for digging its burrows. It can live indefinitely without water, subsisting on dry seeds that it often stores in its burrows for later consumption. It also consumes some green vegetation and insects when available. This species physically resembles other kangaroo rat species in having long hind legs; small front legs and feet;

brown upper parts; a white belly; and a long, tufted tail. Stephens' kangaroo rat is threatened by the continued destruction, fragmentation, and degradation of its habitat through human and human-induced activities such as the clearing of land for urban and suburban development, agriculture, water projects, military activities, wildland or prescribed fires, off-road vehicle use, and to a lesser degree, by livestock grazing and the invasion of non-native plant species (Montgomery 1990-2010; Montgomery et al. 1996).

The Stephens' kangaroo rat can be considered ABSENT from the TL 637 ROW. CNDDB lists no records of occurrence within 3 miles of the ROW. Stephen J. Montgomery, a biologist permitted by USFWS (Permit TE45541-10) and CDFW (Memorandum of Understanding) conducted habitat assessments surveys within the ROW for SKR in 2010. No sign was observed. No populations of Stephens' kangaroo rat have been reported for the southern parts of San Diego County south of the area of Ramona. Please see *Stephens' Kangaroo Rat Focused Survey Report for the San Diego Gas & Electric Company Cleveland National Forest Master Services Permit Project San Diego County, California* prepared by Chambers Group (2011g).

San Diego Desert Woodrat (*Neotoma lepida intermedia*) SSC, NCCP-Covered

The San Diego desert woodrat is a California SSC that occurs in southern California from San Diego County to San Luis Obispo County and is covered under the NCCP. The San Diego desert woodrat inhabits moderate to dense canopies in a variety of shrub and desert habitats, especially in rock outcrops, rocky cliffs, and slopes. The desert woodrat is often associated with large cactus patches (Montgomery 1998); within coastal sage scrub communities, it almost is invariably associated with prickly pear (*Opuntia littoralis*). This species is also found in rocky outcroppings and boulder-covered hillsides in chaparral or oak woodlands.

The San Diego desert woodrat (NCCP covered species) has a MODERATE potential to occur within the TL 637 ROW. Although CNDDB lists no records of occurrence within 3 miles of the ROW, the ROW contains moderate quality suitable habitat to support this species.

Southern Grasshopper Mouse (*Onychomys torridus ramona*) SSC, NCCP-Covered

The southern grasshopper mouse is a California SSC and is covered under the NCCP. It occurs throughout desert and semi-arid habitats in the southwestern United States and much of Mexico, including western Nevada, the southern portions of California, Arizona, and New Mexico, northern Baja California, western Texas, and south to central Mexico (Hall 1981). The subspecies *ramona* is restricted to coastal southern California, with marginal records for Mint Canyon west of Palmdale, San Fernando, Riverside, Valle Vista, Warner Pass, La Puerta Valley, Jacumba, Santee Mountains, and the mouth of the Tijuana River Valley (Hall 1981). The grasshopper mouse, rangewide, is often found in low, arid scrub and semi-arid scrub vegetation; but this subspecies is found in grasslands and sparse sage scrub habitats. It nests in burrows often dug by kangaroo rats and pocket gophers, but it may dig its own burrows in sandy or other friable substrates (Baily and Sperry 1929; Stapp 1997). Specific habitat requirements of the southern grasshopper mouse generally are unknown, but Stapp (1997) found that grasshopper mice use open areas and microhabitats dominated by gopher mounds and burrows. Habitat loss and degradation are the primary threats to this species.

The southern grasshopper mouse has a LOW potential to occur within the TL 637 ROW. Although CNDDB lists no records of occurrence within 3 miles of the ROW, the ROW contains low quality suitable habitat to support this species.

American Badger (*Taxidea taxus*) SSC, NCCP-Covered

The American badger is a California SSC and is covered under the NCCP. This carnivorous species ranges over most of the western U.S and upper midwestern United States south into central Mexico. In California, the badger may occupy a variety of habitats, especially grasslands, savannas, montane meadows, sparse scrublands, and deserts. It prefers friable soils for burrowing and relatively open, uncultivated ground. Prey items include gophers, ground squirrels, marmots, kangaroo rats, other rodents, and the occasional reptile or amphibian. This tenacious mammal may weigh up to 25 pounds and is easily recognized by its overall yellowish gray coloration, the white stripe on top of its head, white cheeks, and black feet with noticeably long front claws. It is a heavy-bodied animal with short legs and a characteristic pigeon-toed gait. It is chiefly nocturnal, but it is often seen by day as well. It gives birth to two to five young anywhere from February to May, depending on its altitude and latitude. Threats to this species include habitat loss to agriculture, housing and other land conversions, and illegal hunting.

The American badger has a MODERATE potential to occur within the TL 637 ROW. CNDDB lists three records of occurrence within 3 miles of the ROW, the closest being approximately 0.5 mile from the ROW. In addition, the ROW contains moderate quality suitable habitat to support this species.

5.5. SPECIAL STATUS PLANTS WITHIN BLM LANDS

Portions of the Survey Area exist within BLM lands under jurisdiction of BLM (Palm Springs/South Coast Field Office). Approximately 40.4 acres of the Survey Area fall within BLM Lands. Approximately 10 poles (R66 to P68, P75 to P81) on TL 637 located in the northeast area of the proposed project Survey Area fall within BLM lands referred to as the Mt. Gower Preserve. Descriptions of the sensitive plant species and general areas identified during the focused plant surveys are found below.

During the literature search, 67 BLM sensitive species were identified as having a potential to occur within the Survey Area on BLM Lands. Of these 67 BLM species identified, 20 are not known to occur within San Diego County; therefore, these species are considered absent from BLM lands within the Survey Area:

- Braunton's milk-vetch (*Astragalus brauntonii*) – FE, CRPR 1B.1, BLMS
- Coachella Valley milk-vetch (*Astragalus lentiginosus* var. *coachellae*) – FE, CRPR 1B.2, BLMS
- Peirson's milk-vetch (*Astragalus magdalenae* var. *peirsonii*) – FT, SE, CRPR 1B.2, BLMS
- triple-ribbed milk-vetch (*Astragalus tricarinatus*) – FE, CRPR 1B.2, BLMS
- San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*) – FE, CRPR 1B.1, BLMS
- Mt. Gleason paintbrush (*Castilleja gleasoni*) – RARE, CRPR1B.2, BLMS
- Parry's spineflower (*Chorizanthe parryi* var. *parryi*) – CRPR 1B.1, BLMS
- Santa Susana tarplant (*Deinandra minthornii*) – RARE, CRPR 1B.2, BLMS
- beach spectaclepod (*Dithyrea maritimal*) – ST, CRPR 1B.1, BLMS
- slender-horned spineflower (*Dodecahema leptoceras*) – FE, SE, CRPR 1B.1, BLMS
- marcescent dudleya (*Dudleya cymosa* ssp. *marcescens*) – FT, RARE, CRPR, BLMS
- Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*) – FE, ST, CRPR 1B.1, BLMS
- Parish's daisy (*Erigeron parishii*) – FT, CRPR 1B.1, BLMS

- Alvin Meadow bedstraw (*Galium californicum* ssp. *primum*) – CRPR 1B.2, BLMS
- San Gabriel bedstraw (*Galium grande*) – CRPR 1B.2, BLMS
- Robison's monardella (*Monardella robisonii*) – CRPR 1B.3, BLMS
- Latimer's woodland-gilia (*Saltugilia latimeri*) – CRPR1B.2, BLMS
- Orocopia sage (*Salvia greatae*) – CRPR 1B.3, BLMS
- Parish's checkerbloom (*Sidalcea hickmanii* ssp. *parishii*) – CRPR 1B.2, BLMS
- Mecca aster (*Xylorhiza cognata*) – CRPR 1B.2, BLMS

Of the 67 BLM Sensitive Species identified during the literature search, 47 BLM Sensitive Species are known to occur within San Diego County. Of these 47 sensitive species, six — San Diego milk-vetch, Orcutt's brodiaea, Palmer's goldenbush, San Bernardino aster, long-spined spineflower, and Parry's tetracoccus — were results from CNDDB and CNPSEI database search of the TL 637 Survey Area and have been described in the previous section. The remaining 39 sensitive species are considered absent from the Survey Area. Only three of the BLM Sensitive Species are considered to have a low potential to occur within project Survey Area. The 41 BLM Sensitive Species known to occur in San Diego County and their potential to occur on the project Survey Area are listed below. Although these species below were only addressed for the poles on BLM lands, these plants were also searched for during the focused plant surveys within the entire project Survey Area.

Chaparral Sand-Verbena (*Abronia villosa* var. *aurita*) CRPR 1B.1, BLMS

Chaparral sand-verbena is an annual herb in the Nyctaginaceae family that flowers between January and September. This species favors sandy soils in chaparral, coastal scrub, and desert dune habitats. Chaparral sand-verbena can be found at elevations between 250 to 5,250 feet (75 to 1,600 m) amsl. This species is threatened by non-native plants, alteration of fire regimes, road maintenance, flood control activities, vehicles, and development (CNPS 2012). Chaparral sand-verbena is considered a sensitive species by the BLM.

Chaparral sand-verbena is considered ABSENT from BLM lands within the TL 637 ROW. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the ROW. Furthermore, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Munz's Onion (*Allium munzii*) FE, ST, CRPR 1B.1, BLMS

Munz's onion is a perennial, bulbiferous herb in the Themidaceae family that flowers between March and May. This species favors mesic, clay soils in chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland, and valley and foothill grassland habitats. Munz's onion can be found at elevations between 975 to 3,510 feet (297 to 1,070 m) amsl. This species is threatened by development, clay mining, agriculture, grazing, vehicles, and non-native plants (CNPS 2012). Munz's onion is considered a sensitive species by the BLM.

Munz's onion is considered ABSENT from BLM lands within the TL 637 ROW. No suitable habitat for this species is present within the ROW, and no historical occurrences of this species have been recorded within 3 miles of the ROW.

San Diego Ambrosia (*Ambrosia pumila*) FE, CRPR 1B.1, BLMS, NCCP-Covered

San Diego ambrosia is a perennial, rhizomatous herb in the Asteraceae family that flowers between April and October. This species favors sandy loam or clay, often in disturbed alkaline soils in chaparral coastal scrub, valley and foothill grassland, and vernal pool habitats. San Diego ambrosia can be found at elevations between 65 to 1,360 feet (20 to 415 m) amsl. This species is threatened by development, non-native plants, vehicles, road maintenance, and foot traffic (CNPS 2012). San Diego ambrosia is considered a sensitive species by BLM.

San Diego ambrosia is considered ABSENT from BLM lands within the TL 637 ROW. This species is found outside the elevation range found within the ROW. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the ROW. Furthermore, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Otay Manzanita (*Arctostaphylos otayensis*) CRPR 1B.2, BLMS

Otay manzanita is a perennial, evergreen shrub in the Ericaceae family that flowers between January and April. This species favors metavolcanic soils in chaparral and cismontane woodland. Otay manzanita can be found at elevations between 900 and 5,600 feet (275 to 1,700 m) amsl. This species is threatened by development and frequent wildfires (CNPS 2012). Otay manzanita is considered sensitive by the BLM.

Otay manzanita is presumed ABSENT from BLM lands within the TL 637 ROW. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the ROW. Furthermore, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Dean's Milk-Vetch (*Astragalus deanei*) CRPR 1B.1, BLMS

Dean's milk-vetch is a perennial herb in the Fabaceae family that flowers between February and May. This species often grows in chaparral, cismontane woodland, coastal scrub, and riparian forest. Dean's milk-vetch can be found at elevations between 250 and 2,200 feet (76 to 670 m) amsl. This species is known from fewer than 15 occurrences and from fewer than 10 locations in Diegan sage scrub, chaparral, and riparian communities, particularly southern oak woodlands. This species is seriously threatened by development, vegetation/fuel management activities, foot traffic, competition from non-native plants, and road maintenance (CNPS 2012). Dean's milk-vetch is considered sensitive by the BLM.

Dean's milk-vetch is presumed ABSENT from BLM lands on the ROW within TL 637. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the ROW. Furthermore, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Jacumba Milk-Vetch (*Astragalus douglasii* var. *perstrictus*) CRPR 1B.2, BLMS

Jacumba milk-vetch is a perennial herb in the Fabaceae family that flowers between April and June. This species grows on rocky soils of chaparral, cismontane woodland, pinyon and juniper woodland, riparian scrub, and valley and foothill grassland. Jacumba milk-vetch can be found at elevations between 3,000

and 4,500 feet (914 to 1,371 m) amsl. This species is threatened by development and competition from non-native plants (CNPS 2012). Jacumba milk-vetch is considered sensitive by the BLM.

Jacumba milk-vetch is presumed ABSENT from the ROW on BLM lands within the TL 637 ROW. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the ROW. Furthermore, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Encinitas Baccharis (*Baccharis vanessae*) FT, SE, CRPR 1B.1, BLMS, NCCP-Covered

Encinitas baccharis is a perennial, deciduous shrub in the Asteraceae family that flowers between August and November. This species often grows in sandstone soils in maritime chaparral and cismontane woodland. Encinitas baccharis can be found at elevations between 200 and 2,300 feet (60 to 720 m) amsl. This species is believed to be extirpated from the Encinitas area. Remaining populations are threatened by development and recreational activity (CNPS 2012). Encinitas baccharis is considered sensitive by the BLM.

Encinitas baccharis is presumed ABSENT from BLM lands within the TL 637 ROW. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the ROW. Furthermore, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Nevin's Barberry (*Berberis nevinii*) FE, SE, CRPR 1B.1, BLMS

Nevin's barberry is a perennial, evergreen shrub in the Berberidaceae family that flowers between March and June. This species often grows in sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian scrub. Nevin's barberry can be found at elevations between 900 and 2,700 feet (274 to 825 m) amsl. Many historical occurrences of this species have been extirpated. Nevin's barberry is threatened by alteration of fire regimes, development, and road maintenance. This species may also be threatened by illegal dumping, fire suppression, and vehicles (CNPS 2012). Nevin's barberry is considered sensitive by the BLM.

Nevin’s barberry is presumed ABSENT from BLM lands within the TL 637 ROW. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the ROW. Furthermore, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

San Diego Goldenstar (*Bloomeria clevelandii*) CRPR 1B.1, BLMS

San Diego goldenstar is a perennial, bulbiferous herb in the Themidaceae family that flowers between April and May. This species often grows in clay soils within chaparral, coastal scrub, valley and foothill grassland, and vernal pool habitats. San Diego goldenstar can be found at elevations between 160 and 1,525 feet (50 to 465 m) amsl. This species is threatened by urbanization, road construction, vehicles, non-native plants, and illegal dumping (CNPS 2012). San Diego goldenstar is considered sensitive by the BLM.

San Diego goldenstar is considered ABSENT from BLM lands within the TL 637 ROW. This species occurs outside the elevation range found within the ROW. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the ROW.

Thread-Leaved Brodiaea (*Brodiaea filifolia*) FT, SE, CRPR 1B.1, BLMS, NCCP-Covered

Thread-leaved brodiaea is a perennial, bulbiferous herb in the Themidaceae family that flowers between March and June. This species often grows in clay soils within openings in chaparral, cismontane woodland, coastal scrub, playa, valley and foothill grassland, and vernal pool habitats. Thread-leaved brodiaea can be found at elevations between 80 and 3,675 feet (25 to 1,120 m) amsl. This species is seriously threatened by residential development, agriculture, foot traffic, grazing, illegal dumping, non-native plants, vehicles, road construction, and fuelbreak maintenance. Hybridization of this species with *B. orcuttii* and *B. terrestris* ssp. *kernensis* is facilitated by European honeybees (CNPS 2012). Thread-leaved brodiaea is considered sensitive by the BLM and is a NCCP-Covered species.

Thread-leaved brodiaea has a LOW potential to occur on BLM lands within the TL 637 ROW. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the ROW.

Dunn's Mariposa Lily (*Calochortus dunnii*) RARE, CRPR 1B.2, BLMS

Dunn's mariposa lily is a perennial, bulbiferous herb in the Themidaceae family that flowers between April and June. This species often grows in gabbroic or metavolcanic soils and rocky, closed-cone, coniferous forest, chaparral, and valley and foothill grassland. Dunn's mariposa lily can be found at elevations between 600 and 6,000 feet (185 to 1,830 m) amsl. This species is threatened by development, competition from non-native plants, and vehicles (CNPS 2012). Dunn's mariposa lily is considered sensitive by the BLM.

Dunn’s mariposa lily is presumed ABSENT from BLM lands within the TL 637 ROW. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the ROW. Furthermore, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Lakeside Ceanothus (*Ceanothus cyaneus*) CRPR 1B.2, BLMS

Lakeside ceanothus is an evergreen shrub in the Rhamnaceae family that flowers between April and June. This species often grows in sandy or rocky openings of closed-cone coniferous forests and chaparral habitats. Lakeside ceanothus can be found at elevations between 770 and 2,550 feet (235 to 777 m) amsl. This species is threatened by development (CNPS 2012). Lakeside ceanothus is considered sensitive by the BLM.

Lakeside ceanothus is presumed ABSENT from BLM lands within the TL 637 ROW. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the ROW. Furthermore, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Flat-Seeded Spurge (*Chamaesyce platysperma*) CRPR 1B.2, BLMS

Flat-seeded spurge is an annual herb in the Euphorbiaceae family that flowers between February and September. This species often grows in sandy soils within Sonoran desert dune habitat. Flat-seeded spurge can be found at elevations between 200 and 330 feet (60 to 100 m) amsl. This species is threatened by development (CNPS 2012). Flat-seeded spurge is considered sensitive by the BLM.

Flat-seeded spurge is presumed ABSENT from BLM lands within the TL 637 ROW. This species occurs outside the elevation found within the ROW. No suitable habitat for this species is present within the ROW, and no historical occurrences of this species have been recorded within 3 miles of the ROW.

Orcutt's Spineflower (*Chorizanthe orcuttiana*) FE, SE, CRPR 1B.1, BLMS

Orcutt's spineflower is an annual herb in the Polygonaceae family that flowers between March and May. This species grows in sandy soils within openings of closed-cone coniferous forest, maritime chaparral, and coastal scrub habitats. Orcutt's spineflower can be found at elevations between 200 and 330 feet (60 to 100 m) amsl. This species is threatened by development (CNPS 2012). Orcutt's spineflower is considered sensitive by the BLM.

This species is presumed ABSENT from BLM lands within the TL 637 ROW. This species occurs outside the elevation found within the ROW. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the ROW.

White-Bracted Spineflower (*Chorizanthe xanti* var. *leucotheca*) CRPR 1B.2, BLMS

White-bracted spineflower is an annual herb in the Polygonaceae family that flowers between April and June. This species often grows in sandy or gravelly alluvial fan soils within coastal scrub, Mojavean desert scrub, and pinyon and juniper woodland habitats. White-bracted spineflower can be found at elevations between 980 and 3,940 feet (300 to 1,200 m) amsl. This species is threatened by development, flood control projects, mining, and vehicles (CNPS 2012). White-bracted spineflower is considered sensitive by the BLM.

White-bracted spineflower is presumed ABSENT from BLM lands within the TL 637 ROW. No suitable habitat for this species is present within the ROW, and no historical occurrences of this species have been recorded within 3 miles of the ROW.

Gander's Cryptantha (*Cryptantha ganderi*) CRPR 1B.1, BLMS

Gander's cryptantha is an annual herb in the Boraginaceae family that flowers between February and May. This species often grows in sandy soils of Sonoran desert dune habitat. Gander's cryptantha can be found at elevations between 520 and 1,315 feet (160 to 1,315 m) amsl. This species is threatened by development and vehicles (CNPS 2012). Gander's cryptantha is considered sensitive by the BLM.

Gander’s cryptantha is presumed ABSENT on BLM lands within the TL 637 ROW. This species occurs outside the elevation range found within the ROW. No suitable habitat for this species is present within the ROW, and no historical occurrences of this species have been recorded within 3 miles of the ROW.

Munz's Cholla (*Cylindropuntia munzii*) CRPR 1B.3, BLMS

Munz's cholla is a perennial stem succulent in the Cactaceae family that flowers during May. This species often grows in sandy soils of Sonoran desert scrub habitat. Munz's cholla can be found at elevations between 490 and 1,970 feet (150 to 600 m) amsl. Some populations of this species are threatened by military activities (CNPS 2012). Munz's cholla is considered sensitive by the BLM.

Munz's cholla is presumed ABSENT from BLM lands within the TL 637 ROW. This species is found outside the elevation range found within the ROW. No suitable habitat for this species is present within the ROW, and no historical occurrences of this species have been recorded within 3 miles of the ROW.

Otay Tarplant (*Deinandra conjugens*) FT, SE, CRPR 1B.1, BLMS

Otay tarplant is an annual herb in the Asteraceae family that flowers between May and June. This species grows on clay soils within coastal scrub, and valley and foothill grassland habitats. Otay tarplant is found at elevations between 80 and 980 feet (25 to 300 m) amsl. This species is threatened by development, agriculture, vehicles, illegal dumping, non-native plants, habitat disturbance, and Border Patrol activities (CNPS 2012). Otay tarplant is considered sensitive by the BLM.

Otay tarplant is presumed ABSENT from BLM lands within the TL 637 ROW. This species occurs outside the elevation range found within the ROW. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the ROW.

Tecate Tarplant (*Dienandra floribunda*) CRPR 1B.2, BLMS

Tecate tarplant is an annual herb in the Asteraceae family that flowers between August and October. This species grows in chaparral and coastal scrub habitats. Tecate tarplant can be found at elevations between 230 and 4,000 feet (70 to 1,219 m) amsl. This species is threatened by development and grazing (CNPS 2012). Tecate tarplant is considered sensitive by the BLM.

Tecate tarplant is presumed ABSENT from BLM lands within the TL 637 ROW. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the ROW. Furthermore, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Cuyamaca Larkspur (*Delphinium hesperium* ssp. *cuyamacae*) Rare, CRPR 1B.2, BLMS

Cuyamaca larkspur is a perennial herb in the Ranunculaceae family that flowers between May and July. This species often grows in mesic soils of lower montane coniferous forest, meadows and seeps, and vernal pools. Cuyamaca larkspur can be found at high elevations between 4,000 and 5,350 feet (1,219 to 1,630 m) amsl. This species is threatened by development, grazing, and recreational activities (CNPS 2012). Cuyamaca larkspur is considered sensitive by the BLM.

Cuyamaca larkspur is presumed ABSENT from BLM lands within the TL 637 ROW. This species occurs outside the elevation range found within the ROW. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the ROW. Furthermore, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Many-Stemmed Dudleya (*Dudleya multicaulis*) CRPR 1B.2, BLMS

Many-stemmed dudleya is a perennial herb in the Crassulaceae family that flowers between April and July. This species grows in clay soils within chaparral, coastal scrub, valley and foothill grassland habitats. Laguna Mountain aster can be found at elevations between 50 and 2,600 feet (15 to 790 m) amsl. This species is threatened by development, road construction and maintenance, fire suppression, non-native plants, mining, grazing, and recreation (CNPS 2012). Many-stemmed dudleya is considered sensitive by the BLM.

Many-stemmed dudleya has a LOW potential to occur within the TL 637 ROW on BLM lands within the TL 637 ROW. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the ROW.

Variegated Dudleya (*Dudleya variegata*) CRPR 1B.2, BLMS

Variegated dudleya is a perennial herb in the Crassulaceae family that flowers from April to June. This species is found in heavy clay soils within chaparral, cismontane woodland, coastal scrub, valley and foothill grassland, and vernal pool habitats at elevations between 10 and 1,900 feet (3 to 580 m) amsl. Threats to this species include development and grazing (CNPS 2012). Variegated dudleya is considered sensitive by the BLM.

Variegated dudleya is considered ABSENT from BLM lands within the TL 637 ROW. This species occurs outside the elevation range found within the ROW, and no historical occurrences of this species have been recorded within 3 miles of the ROW.

Harwood's Eriastrum (*Eriastrum harwoodii*) CRPR 1B.2, BLMS

Harwood's eriastrum is an annual herb in the Polemoniaceae family that flowers from March to June. This species is found in sandy soils within desert dune habitats. Harwood's eriastrum occurs at elevations between 410 and 3,000 feet (125 to 915 m) amsl. This species is threatened by mining, non-native plants, and vehicles and is potentially threatened by solar energy development (CNPS 2012). Harwood's eriastrum is considered sensitive by the BLM.

Harwood’s eriastrum is presumed ABSENT from BLM lands within the TL 637 ROW. No suitable habitat for this species is present within the ROW, and no historical occurrences of this species have been recorded within 3 miles of the ROW.

Mexican Flannelbush (*Fremontodendron mexicanum*) FE, Rare, CRPR 1B.1, BLMS

Mexican flannelbush is a perennial, evergreen shrub in the Malvaceae family that flowers between March and June. This species often grows in gabbroic, metavolcanic, or serpentinite soils in closed-cone coniferous forest, chaparral, and cismontane woodland habitats. Mexican flannelbush can be found at elevations between 100 and 8,038 feet (30 to 2,449 m) amsl. Threats to this species include urbanization (CNPS 2011). Mexican flannelbush is considered sensitive by the BLM.

Mexican flannelbush is presumed ABSENT from BLM lands within the TL 637 ROW. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been

recorded within 3 miles of the ROW. Furthermore, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Orcutt's Hazardia (*Hazardia orcutti*) FC, ST, CRPR 1B.1, BLMS

Orcutt's hazardia is a perennial, evergreen shrub in the Asteraceae family that flowers between August and October. This species grows in clay soils in maritime chaparral, coastal scrub habitats. Orcutt's hazardia can be found at elevations between 260 and 280 feet (80 to 85 m) amsl. Threats to this species include recreational activities, foot traffic, and urbanization (CNPS 2012). Orcutt's hazardia is considered sensitive by the BLM.

Orcutt's hazardia is presumed ABSENT from BLM lands within the TL 637 ROW. This species is found outside the elevation range found within the ROW. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the ROW.

Tecate Cypress (*Hesperocyparis forbesii*) CRPR 1B.1, BLMS

Tecate cypress is a perennial, evergreen tree in the Cupressaceae family. This species often grows in clay, gabrroic, or metavolcanic soils in closed-cone coniferous forest and chaparral habitats. Tecate cypress can be found at elevations between 840 and 4,900 feet (256 to 1,493 m) amsl. This species is threatened by alteration of fire regimes and mining and by development in both Orange and Riverside counties. In San Diego County, Tecate cypress is protected in part at Otay Mountain (CNPS 2012). Tecate cypress is considered sensitive by BLM.

Tecate cypress is presumed ABSENT from BLM lands within the TL 637 ROW. Suitable habitat for this species is present within the ROW, and historical occurrences of this species have been recorded within 3 miles of the circuit ROW; however, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Laguna Mountains Alumroot (*Heuchera brevistaminea*) CNPS 1B.3, BLMS

Laguna Mountains alumroot is a perennial, rhizomatous herb in the Saxifragaceae family that flowers from April through September. This species grows in rocky soils in broadleaved upland forests, chaparral, cismontane woodlands, and riparian forests at elevations between 4,495 and 6,562 feet (1,370 to 2,000 m) amsl (CNPS 2012). Laguna Mountain alumroot is considered sensitive by the BLM.

This species is presumed ABSENT from BLM lands within the TL 637 ROW. The ROW is outside the elevation range for this species, and no historical occurrences of this species have been recorded within 3 miles of the ROW.

Gander's Pitcher Sage (*Lepechinia ganderi*) CRPR 1B.3, BLMS

Gander's pitcher sage is a perennial shrub in the Lamiaceae family that flowers between June and July. This species grows in gabrroic or metavolcanic soils in closed-cone coniferous forest and chaparral, coastal scrub, and valley and foothill grassland habitats. Gander's pitcher sage can be found at elevations between 1,000 and 3,300 feet (305 to 1005 m) amsl. Threats to this species include development (CNPS 2012). Gander's pitcher sage is considered sensitive by the BLM.

Ganders' pitcher sage has a LOW potential to occur on BLM lands within the TL 637 ROW. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the ROW.

Borrego Valley Pepper-grass (*Lepidium flavum* var. *felipense*) CRPR 1B.2, BLMS

Borrego Valley pepper-grass is an annual herb in the Brassicaceae family that flowers between March and May. This species grows in sandy soils within pinyon and juniper woodland and Sonoran desert scrub habitats. Borrego Valley pepper-grass can be found at elevations between 1,500 and 2,750 feet (455 to 840 m) amsl. Threats to this species include recreational activities and vehicles (CNPS 2012). Borrego Valley pepper-grass is considered sensitive by the BLM.

Borrego Valley pepper-grass is presumed ABSENT from BLM lands within the TL 637 ROW. This species is found outside the elevation range found within the ROW. No suitable habitat for this species is present within the ROW, and no historical occurrences of this species have been recorded within 3 miles of the ROW.

Robinson's Pepper-Grass (*Lepidium virginicum* var. *robinsonii*) CNPS 1B.2, BLMS

Robinson's pepper-grass is an annual herb in the Brassicaceae family that flowers between January and April. This species grows in openings in coastal sage scrub and chaparral vegetation below 1,600 feet (500 m) amsl (CNPS 2012). Robinson's pepper-grass is considered sensitive by the BLM.

Robinson's pepper-grass is presumed ABSENT from BLM lands within the TL 637 ROW. This species is found outside the elevation range found within the ROW. No suitable habitat for this species is present within the ROW, and no historical occurrences of this species have been recorded within 3 miles of the ROW.

Parish's Meadowfoam (*Limnanthes gracilis* ssp. *parishii*) SE, CRPR 1B.2, BLMS

Parish's meadowfoam is an annual herb in the Limnanthaceae family that flowers between April and June. This species often grows in mesic soils in lower montane coniferous forest, meadows and seeps, and vernal pool habitats. Parish's meadowfoam can be found at elevations between 2,000 and 6,600 feet (609 to 2,011 m) amsl. This species is threatened by altered hydrology, grazing, and recreational development (CNPS 2012). Parish's meadowfoam is considered sensitive by the BLM.

Parish's meadowfoam is presumed ABSENT from BLM lands within the TL 637 ROW. No suitable habitat for this species is present within the ROW, and no historical occurrences of this species have been recorded within 3 miles of the ROW. Furthermore, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Little San Bernardino Mountains Linanthus (*Linanthus maculatus*) CRPR 1B.2, BLMS

Little San Bernardino Mountains linanthus is an annual herb in the Polemoniaceae family that flowers between March and May. This species in grows sandy soils within desert dune, Joshua tree woodland, Mojavean desert scrub and Sonoran desert scrub habitats. Little San Bernardino Mountains linanthus can be found at elevations between 640 and 6,800 feet (195 to 2075 m) amsl. This species is threatened

by development, vehicles, and dumping (CNPS 2012). Little San Bernardino Mountains linanthus is considered sensitive by the BLM.

Little San Bernardino Mountains linanthus is presumed ABSENT from BLM lands within the TL 637 ROW. No suitable habitat for this species is present within the ROW, and no historical occurrences of this species have been recorded within 3 miles of the ROW. Furthermore, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Orcutt's Linanthus (*Linanthus orcuttii*) CRPR 1B.3, BLMS

Orcutt's linanthus is an annual herb in the Polemoniaceae family that flowers between May and June. This species often grows in the openings of chaparral, lower montane coniferous forest, and pinyon and juniper woodland habitats. Orcutt's linanthus can be found at higher elevations between 3,000 and 7,037 feet (914 to 2,144 m) amsl. This species is threatened by foot traffic and recreational activities (CNPS 2012). Orcutt's linanthus is considered sensitive by the BLM.

Orcutt's linanthus is presumed ABSENT from BLM lands within the TL 637 ROW. No suitable habitat for this species is present within the ROW, and no historical occurrences of this species have been recorded within 3 miles of the ROW. Furthermore, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Mountain Springs Bush Lupine (*Lupinus excubitus* var. *medius*) CRPR 1B.3, BLMS

Mountain Springs bush lupine is a perennial shrub in Fabaceae family that flowers between March and May. This species grows on dry, sandy, gently sloping canyon washes, sandy soil pockets, and flats in steeper slopes and drainages. Mountain Springs bush lupine is often found in pinyon and juniper woodland, as well as Sonoran desert scrub, at elevations between 1,394 and 4,495 feet (125 to 1,370 m) amsl (CNPS 2011). Mountain Springs bush lupine is considered sensitive by the BLM.

Mountain Springs bush lupine is presumed ABSENT from BLM lands within the TL 637 ROW. No suitable habitat for this species is present within the ROW, and no historical occurrences of this species have been recorded within 3 miles of the ROW.

Jennifer's Monardella (*Monardella stoneana*) CRPR 1B.2, BLMS

Jennifer's monardella is a perennial herb in Lamiaceae family that flowers between June and September. This species grows in rocky intermittent streambeds within closed-cone coniferous forest, chaparral coastal scrub, and riparian scrub habitats. Jennifer's monardella occurs at elevations between 30 and 2,600 feet (10 to 90 m) amsl. This species is threatened by urbanization in portions of its range (CNPS 2012). Jennifer's monardella is considered sensitive by the BLM.

Jennifer's monardella is presumed ABSENT from BLM lands within the TL 637 ROW. No suitable habitat for this species is present within the ROW, and no historical occurrences of this species have been recorded within 3 miles of the ROW.

Dehesa Nolina (*Nolina interrata*) CRPR 1B.1, BLMS

Dehesa nolina is a perennial herb in Nolinaceae family that flowers between June and July. This species typically grows on rocky hillsides or ravines on ultramafic soils. Dehesa nolina can be found in chaparral habitats at elevations between 591 and 2,805 feet (180 to 855 m) amsl. This species is threatened by residential development, vehicles, altered fire regimes, and horticultural collecting (CNPS 2012). Dehesa nolina is considered sensitive by the BLM.

Dehesa nolina is presumed ABSENT from BLM lands within the TL 637 ROW. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the ROW. Furthermore, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

California Orcutt Grass (*Orcuttica californica*) FE, SE, CRPR 1B.1, BLMS, NCCP-Covered

California Orcutt grass is an annual herb in the Poaceae family. This species flowers between April and August on drying mud flats. Habitat includes vernal pools at elevations between 50 to 2,200 feet (15 to 670 m) amsl. This species is threatened by agriculture, development, non-native plants, grazing, and vehicles (CNPS 2012). California Orcutt grass is considered sensitive by the BLM and a NCCP Covered species in San Diego.

California orcutt grass is presumed ABSENT from BLM lands within the TL 637 ROW. This species is found outside the elevation range found within the ROW. No suitable habitat for this species is present within the ROW; and no historical occurrences of this species have been recorded within 3 miles of the ROW.

Gander's Ragwort (*Packera ganderi*) Rare, CRPR 1B.2, BLMS

Gander's ragwort is a perennial herb in the Asteraceae family that flowers between April and June. This species often grows in gabbro soils of chaparral, especially after a recent burn. Gander's ragwort can be found at elevations between 1,300 and 4,000 feet (396 to 1,219 m) amsl. This species is known from fewer than 20 occurrences and is threatened by recreational activities, vehicles, and trampling (CNPS 2012). Gander's ragwort is considered sensitive by the BLM.

Gander's ragwort is presumed ABSENT from BLM lands within the TL 637 ROW. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the ROW. Furthermore, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Otay Mesa Mint (*Pogogyne nudiuscula*) CRPR 1B.1, BLMS

Otay Mesa mint is a perennial herb in the Lamiaceae family that flowers between May to June. This species often grows in clay soils within vernal pool habitats. Otay Mesa mint can be found at elevations between 295 and 820 feet (90 to 250 m) amsl. This species is known from fewer than 20 occurrences and is threatened by recreational activities, vehicles, and trampling (CNPS 2012). Otay Mesa mint is considered sensitive by the BLM.

Otay mesa mint is presumed ABSENT from BLM lands within the TL 637 ROW. This species is found outside the elevation range found within the ROW. No suitable habitat for this species is present within the ROW, and no historical occurrences of this species have been recorded within 3 miles of the ROW.

Moreno Currant (*Ribes canthariforme*) CRPR 1B.3, BLMS

Moreno currant is a perennial, deciduous shrub in the Grossulariaceae family that flowers between February and April. This species often grows in chaparral and riparian scrub. Moreno currant can be found at elevations between 1,113 and 3,937 feet (339 to 1,199 m) amsl. This species is threatened by recreational activities and vehicles (CNPS 2010). Moreno currant is considered sensitive by the BLM.

Moreno currant is presumed ABSENT from BLM lands within the TL 637 ROW. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the ROW. Furthermore, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Southern Jewelflower (*Streptanthus campestris*) CNPS 1B.3, BLMS

Southern jewelflower is a perennial herb in the Brassicaceae family that flowers between May and July and, on occasion, as early as April. This species often grows in rocky soils of chaparral, lower montane coniferous forest, and pinyon and juniper woodland. Southern jewelflower can be found at elevations between 2,950 and 7,550 feet (899 to 2,301 m) amsl (CNPS 2012). Southern jewelflower was included in the list of targeted plant species for which surveys were performed. Southern jewelflower is considered sensitive by the BLM.

Southern jewelflower is presumed ABSENT from BLM lands within the TL 637 ROW. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the ROW. Furthermore, this species was not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

5.6. SPECIAL STATUS WILDLIFE WITHIN BLM LANDS

Portions of TL 637 exist within BLM lands under jurisdiction of BLM (Palm Springs/South Coast Field Office). Approximately 40.4 acres of the Survey Area fall within BLM Lands. Ten poles on TL 637 fall within BLM lands (R66 to P68, P75 to P81). Descriptions of the sensitive wildlife species and general areas identified during the general and focused surveys are found below.

The following 14 BLMS species do not have suitable habitat present on the project Survey Area, have no records of occurrence within 3 miles of the TL 637 ROW, or the ROW is outside their known ranges; therefore, these species are considered absent from BLM lands within the proposed project Survey Area:

- barefoot banded gecko (*Coleonx switaki*) ST, BLMS
- foothill yellow-legged frog (*Rana boylii*) BLMS
- Colorado desert fringe-toed lizard (*Uma notata notate*) SSC, BLMS
- Mojave fringe-toed lizard (*Uma scoparia*) SSC, BLMS
- flat-tailed horned lizard (*Phrynosoma mcallii*) BLMS
- Gila monster (*Heloderma suspectum*) SSC, BLMS

- bald eagle (*Haliaeetus leucocephalus*) FD, SE, FPS, BLMS
- elf owl (*Micrathene whitneyi*) SE, BLMS
- gray vireo (*Vireo vicinior*) BLMS
- Bendire's thrasher (*Toxostoma bendirei*) SSC, BLMS
- cave myotis (*Myotis velifer*) SSC, BLMS
- spotted bat (*Euderma maculatum*) SSC, BLMS
- California leaf-nosed bat (*Macrotus californicus*) SSC, BLMS
- desert bighorn sheep (*Ovis Canadensis nelsoni*) BLMS

Of these 17 sensitive species, the following 14 species were results from CNDDB and BLM database search of the Survey Area and have been described in the previous section.

- Western Spadefoot (*Spea* [=Scaphiopus] *hammondii*) SSC, BLMS
- Southwestern Pond Turtle (*Actinemys marmorata pallida*) SSC, BLMS and USFS Sensitive
- Coast (=San Diego) Horned Lizard (*Phrynosoma coronatum blainvillii*) SSC, BLMS and USFS Sensitive
- Coronado Island Skink (*Plestiodon* [=Eumeces] *skiltonianus interparietalis*) SSC, BLMS
- San Diego Mountain Kingsnake (*Lampropeltis zonata pulchra*) SSC, BLMS and USFS Sensitive
- Two-Striped Garter Snake (*Thamnophis hammondii*) SSC, BLMS and USFS Sensitive
- Golden Eagle (*Aquila chrysaetos*) FPS Under Bald and Golden Eagle Protection Act and CDFW, CDFW WL, BLMS
- White-Tailed Kite (*Elanus leucurus*) FPS, BLMS
- Burrowing Owl (Athene cunicularia) SSC, BLMS
- California Spotted Owl (*Strix occidentalis occidentalis*) SSC, BLMS and USFS Sensitive
- Tricolored Blackbird (*Agelaius tricolor*) (nesting colony) SSC, BLMS
- Pallid Bat (*Antrozous pallidus*) SSC, BLMS and USFS Sensitive
- Townsend's Big-Eared Bat (*Corynorhinus townsendii*) SSC, BLMS and USFS Sensitive
- Western Mastiff Bat (*Eumops perotis*) SSC, BLMS

The following three BLMS have low quality habitat present within the Survey Area within BLM Lands (R66 to P68, P75 to P81) and have records of occurrence within 3 miles of the TL 637 ROW.

Western Small-Footed Myotis (*Myotis ciliolabrum*) BLMS

The western small-footed myotis is a BLMS. It occurs over much of the western United States into southern Canada and Mexico from sea level to over 8,900 feet in elevation. The species is found along the California coast from Contra Costa County south to the Mexican border (Harris 1990a). It is also found on both the east and west sides of the Sierra Nevada, and in the Great Basin and desert habitats from Modoc County to San Bernardino County (Harris 1990a). It is found in a wide ecological range, from rock outcrops on open grasslands to canyons in the foothills to lower mountains with yellow pine woodlands. The western small-footed myotis prefers humid roost sites and has a high tolerance for cold. Day roosts are variable but include cracks and crevices in cliffs, beneath tree bark, in mines and caves, and occasionally in dwellings of humans (NatureServe 2011). Night roosts are under a variety of natural and human-induced structures. Hibernacula include caves, mines, and tunnels, where individuals usually hang singly, often exposed; although groups of 50 or more can inhabit a hibernation site (NatureServe 2011). Maternity colonies of 12 to 20 females and young can be found in buildings, caves, and mines

(Harris 1990a). The western small-footed myotis often associates with Townsend's big-eared bats and can be found feeding or roosting with other species of bats. This species begins foraging well before full dark. It takes a variety of insects on the wing, including moths and beetles. Reasons for observed population declines are not entirely known at this time (Harris 1990a).

The western small-footed myotis has a LOW potential to occur within the TL 637 ROW within BLM lands. CNDDB lists seven records of occurrence within 3 miles of the ROW, and the ROW contains low quality roosting habitat to support this species.

Long-Eared Myotis (*Myotis evotis*) BLMS

The long-eared myotis is a BLMS. It is found across much of western North America, from British Colombia to southern California and New Mexico. This species is found predominantly in coniferous forests, typically in higher elevations in southern areas (7,000 to 9,600 feet) but is also known to occur at sea level. The long-eared myotis often roosts in tree cavities and beneath exfoliating bark in both living trees as well as in dead snags. It is one of only two western bats to also roost at ground level in fallen trees, tree stumps, and rock crevices. The main diet of the long-eared myotis consists of insects, including moths. The long-eared myotis captures prey in flight and also captures stationary insects from the ground and off foliage (Harris 1990b; National Park System 2006).

The long-eared myotis has a LOW potential to occur within the TL 637 ROW within BLM lands. CNDDB lists three records of occurrence within 3 miles of the ROW, and the ROW contains low quality roosting habitat to support this species.

Yuma Myotis (*Myotis yumanensis*) BLMS

The Yuma myotis is a BLMS. This species is found from British Columbia south through Washington, Oregon, Arizona, New Mexico, parts of the surrounding states, and into Mexico. In California, this species is common and widespread except in the Mojave and Colorado desert regions, although it is found within the mountain ranges bordering the Colorado River Valley. It is a colonial bat species that roosts in crevices in a variety of both natural and artificial substrates. Thousands of individuals may be found in roost sites, clinging together to conserve body heat. Like most bat species, it can be found in a wide variety of habitats, although its optimal habitats are open forest and various woodland associations with sources of water over which to feed. The Yuma myotis is strongly correlated with open water, perhaps more so than any other North American bat species. This species mates in the fall and the young are born from late May to mid June. This species will feed and roost with other bat species (CDFW and CIWTG 1990b; NatureServe 2012c).

The Yuma myotis has a LOW potential to occur within the TL 637 ROW within BLM lands. CNDDB lists six records of occurrence within 3 miles of the ROW, and the ROW contains contains low quality roosting habitat to support this species.

5.7. USFWS CRITICAL HABITAT AREAS

USFWS designates critical habitat for endangered and threatened species under the Federal ESA (16 USC § 1533 (a)(3). Critical habitat is designated for the survival and recovery of federally listed endangered and/or threatened species. Protected habitat includes areas for foraging, breeding, roosting, shelter, and movement of migration. However, the USFWS designation of critical habitat for the CAGN

specifically excluded areas within functioning HCPs, such as SDG&E's *SDG&E Subregional NCCP*. The CAGN habitat owned by SDG&E (and covered under the *SDG&E Subregional NCCP*) was determined to have greater benefits to CAGN than from lands designated as critical habitat (Federal Register 2007).

The USFWS critical habitat areas for listed species were searched using GIS shapefiles provided by USFWS within 4 miles of the TL 637 ROW alignment. Three USFWS designated critical habitat areas were identified CAGN (within the TL 637 Survey Area), and arroyo toad and San Diego fairy shrimp (outside of the TL 637 Survey Area). Approximately 50.12 acres of CAGN critical habitat is located within a 1 mile buffer survey area. From the west, the critical habitat crosses the alignment at poles P95/P96 to approximately pole P108. No CAGN were identified within these critical habitat areas. Designated critical habitat areas for arroyo toad exist outside the TL 637 Survey Area. Critical habitat for the San Diego fairy shrimp exists outside the TL 637 Survey Area just north of Ramona High School, approximately 1 mile west of the project Survey Area.

5.8. PRESERVE AREAS

The following determinations are based on Table 7.4 of SDG&E's Subregional NCCP for project sites located within the East County MSCP; where no Preserve boundaries (mapped areas) have been established, habitat of moderate, high, or very high quality shall be considered a "Preserve." Habitat quality is based on species composition and connectivity with the surrounding natural vegetation communities. Therefore, SDG&E proposes to withdraw credit from the SDG&E mitigation bank for permanent impacts to sensitive vegetation communities within a Preserve area at a 2:1 ratio and for temporary impacts to sensitive vegetation communities within a Preserve area at a 1:1 ratio. Sensitive vegetation communities include all communities described in this report with the exception of bareground, landscape/ornamental, agriculture, and disturbed vegetation communities.

Poles R66, P67, P68, P76, P77, P78, P79, P80, andP81 and the Mt. Gower HLZ are located in the Mt. Gower Preserve, previously designated as a Preserve by BLM and County of San Diego. Poles D21, P23, P24, P25, D26, P27, D28, P29, Stringing Site # 4, P30, D31, P32, D33, D34, P35, P36, P37, P38, P39, and D40 are located in Simon Preserve and are defined as a mapped Preserve. Pole locations P45, D46, P47, Stringing Site # 5, Stringing Site # 6, P48, P49, P50, P117, P118, P119, P120, P121, P122, P141, P142, P143, P144, P145, Stringing Site # 7, Stringing Site # 16, Stringing Site # 18, Stringing Site # 19, P152, P153, P154, P155, P156, P157, and P158 are located in areas that meet the definition of a Preserve.

5.9. WILDLIFE CORRIDORS

Wildlife corridors are areas that connect fragmented habitats. They serve as wildlife linkages (wildlife travel corridors) caused by changes in vegetation communities, rugged terrain, and human disturbances. These linkages may be drainages, canyons, or ridgelines that provide access to foraging areas, water, breeding sites, and dispersal areas. These corridors provide cover and shelter during travel. Disturbance to wildlife corridors such as human disturbance and development can cause harm to migrating species, cause species to exceed the population thresholds, and/or prevent healthy gene flow between populations.

Several drainage features adjacent to the proposed construction areas could potentially be used as a migration corridor for mammal species. However, the proposed construction activities would not directly impact or restrict general wildlife movement due to the temporary and intermittent locations of construction activities outside the drainage features. In addition, the new poles will be installed in a

pre-existing TL ROW. No extension of this TL is proposed; therefore, the quality of the adjacent wildlife movement corridors for terrestrial species is diminished on a temporary basis only during construction. No additional impacts to wildlife corridors are anticipated.

5.10. JURISDICTIONAL DELINEATION SURVEY

The results presented below represent the conditions of the TL 637 ROW Survey Area at the time of the investigation. The vegetation was assessed during the growing season, and no recent storm events or other indications that vegetation or soil condition had been altered were noted. The interactions of three parameters were examined in the field for hydrophytic characteristics and used to determine the presence or absence of a wetland. Details on the characteristics of the soils, hydrology, and vegetation observed within the TL 637 ROW Survey Area are described below.

5.10.1 Soils

Soils were determined in accordance with soil classification set forth by the USDA Natural Resources Conservation Service (http://soils.usda.gov/technical/classification/osd/index.html). The soil investigation encompassed a much larger area than the 50-foot delineation area. The following soil map units were found to occur within the TL 637 soil investigation area, an area approximately 500-feet wide from the centerline of the TL.

- **Acid igneous rock land** 15 to 75 percent slopes map unit consists of unweathered bedrock typically found on mountain flanks from 650 to 4,000 feet amsl. The profile is composed of unweathered bedrock formed from acid igneous rock. This map unit comprises 2.9 percent (14.8 acres) of the soil investigation area.

- **Anderson very gravelly sandy loam**, 9 to 45 percent slopes map unit consists of somewhat excessively drained soil typically found on alluvial fans from 350 to 1,500 feet amsl. The soil profile is typically composed of very gravelly sandy loam and very gravelly coarse sandy loam that develops from alluvium derived from schist and granite parent material. These soils typically have a moderate infiltration rate (low to medium runoff potential) when thoroughly wet. These soils typically have a slight hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 8.0 percent (40.1 acres) of the soil investigation area.

- **Cieneba rocky coarse sandy loam**, 9 to 30 percent slopes, eroded map unit consists of somewhat excessively drained soils typically found on hills from 500 to 4,000 feet amsl. Thirty percent of the map unit is composed of rock outcropping. The soil profile is typically composed of coarse sandy loam and weathered bedrock that develops from residuum weathered from granite and granodiorite parent material. These soils typically have a slow infiltration rate (medium to high runoff potential) when thoroughly wet. These soils typically have a moderate hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 3.7 percent (18.7 acres) of the soil investigation area.

- **Cieneba very rocky coarse sandy loam**, 30 to 75 percent slopes map unit consists of somewhat excessively drained soils typically found on hills from 500 to 4,000 feet amsl. Forty five percent of the map unit is rock outcropping. The soil profile is typically composed of coarse sandy loam and weathered bedrock that develops from residuum weathered from granite and granodiorite

parent material. These soils typically have a slow infiltration rate (medium to high runoff potential) when thoroughly wet. These soils typically have a moderate hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 12.8 percent (64.6 acres) of the soil investigation area.

- **Cieneba-Fallbrook rocky sandy loams**, 9 to 30 percent slopes, eroded map unit consists of somewhat excessively drained soil typically found on hills from 300 to 4,000 feet amsl. Fifteen percent of the map unit consists of rock outcropping. The soil profile is typically composed of coarse sandy loam and weathered bedrock that develops from residuum weathered from granite and granodiorite parent material. These soils typically have a slow infiltration rate (medium to high runoff potential) when thoroughly wet. These soils typically have a slight hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 0.8 percent (4.0 acres) of the soil investigation area.

- **Clayey alluvial land** map unit consists of moderately well drained soil found on basin floors at 2,000 feet amsl. The soil profile is typically composed of clay that develops from alluvium derived from mixed sources parent material. This soil typically has a very slow infiltration rate (high runoff potential) when thoroughly wet. This soil typically has a severe hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 2.4 percent (12.0 acres) of the soil investigation area.

- **Crouch rocky coarse sandy loam**, 5 to 30 percent slopes map unit consists of well drained soils typically found on mountainflanks from 3,000 to 8,000 feet amsl. The soil profile is typically composed of loam, sandy loam, coarse sandy loam and weathered bedrock that develops from residuum weathered from granite and acid igneous rock parent material. These soils typically have a moderate infiltration rate (low to medium runoff potential) when thoroughly wet. These soils typically have a moderate hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 1.4 percent (7.2 acres) of the soil investigation area.

- **Fallbrook sandy loam**, 9 to 15 percent slopes, eroded map unit consists of well drained soils typically found on hill sideslopes from 200 to 3,500 feet amsl. The soil profile is typically composed of loam, sandy loam, sandy clay loam, clay loam and weathered bedrock that develops from residuum weathered from granodiorite parent material. These soils typically have a moderate infiltration rate (low to medium runoff potential) when thoroughly wet. These soils typically have a moderate hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 0.9 percent (4.3 acres) of the soil investigation area.

- **Greenfield sandy loam**, 5 to 9 percent slopes map unit consists of well drained soils typically found on alluvial fans from 100 to 1,500 feet amsl. The soil profile is typically composed of loam, sandy loam, and stratified loamy coarse sand to sandy loam that develops from alluvium derived from granite parent material. These soils typically have a moderate infiltration rate (low to medium runoff potential) when thoroughly wet. These soils typically have a moderate hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 0.4 percent (2.0 acres) of the soil investigation area.

- **Holland fine sandy loam**, 5 to 15 percent slopes map unit consists of well drained soils typically found on mountainflanks from 1,900 to 5,000 feet amsl. The soil profile is typically composed of sandy loam, sandy clay loam, clay loam and weathered bedrock that develops from residuum

weathered from mica schist parent material. These soils typically have a slow infiltration rate (medium to high runoff potential) when thoroughly wet. These soils typically have a moderate hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 3.1 percent (15.8 acres) of the soil investigation area.

- **Holland fine sandy loam**, 15 to 30 percent slopes map unit consists of well drained soils typically found on mountainflanks from 1,900 to 5,000 feet amsl. The soil profile is typically composed of sandy loam, sandy clay loam, clay loam and weathered bedrock that develops from residuum weathered from mica schist parent material. These soils typically have a slow infiltration rate (medium to high runoff potential) when thoroughly wet. These soils typically have a moderate hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 0.7 percent (3.5 acres) of the soil investigation area.

- **Holland stony fine sandy loam**, 5 to 30 percent slopes map unit consists of well drained soils typically found on mountainflanks from 2,000 to 5,000 feet amsl. The soil profile is typically composed of stony fine sandy loam, sandy clay loam, clay loam and weathered bedrock that develops from residuum weathered from mica schist parent material. These soils typically have a slow infiltration rate (medium to high runoff potential) when thoroughly wet. These soils typically have a moderate hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 11.2 percent (56.3 acres) of the soil investigation area.

- **Holland stony fine sandy loam**, 30 to 60 percent slopes map unit consists of well drained soils typically found on mountainflanks from 2,000 to 5,000 feet amsl. The soil profile is typically composed of stony fine sandy loam, sandy clay loam, clay loam and weathered bedrock that develops from residuum weathered from mica schist parent material. These soils typically have a slow infiltration rate (medium to high runoff potential) when thoroughly wet. These soils typically have a moderate hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 5.0 percent (25.1 acres) of the soil investigation area.

- **Holland fine sandy loam, deep**, 2 to 9 percent slopes map unit consists of well drained soils typically found on mountainflanks from 1,000 to 5,000 feet amsl. The soil profile is typically composed of fine sandy loam, sandy loam, sandy clay loam, clay loam and weathered bedrock that develops from residuum weathered from mica schist parent material. These soils typically have a slow infiltration rate (medium to high runoff potential) when thoroughly wet. These soils typically have a moderate hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 5.1 percent (25.7 acres) of the soil investigation area.

- **La Posta rocky loamy coarse sand**, 5 to 30 percent slopes map unit consists of somewhat excessively drained soils typically found on mountainflanks from 650 to 4,500 feet amsl. The soil profile is typically composed of loamy coarse sand, gravelly loamy coarse sand, loamy sand and weathered bedrock that develops from residuum weathered from granodiorite parent material. These soils typically have a moderate infiltration rate (low to medium runoff potential) when thoroughly wet. These soils typically have a moderate hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 4.2 percent (20.9 acres) of the soil investigation area.

- **Loamy alluvial land** map unit consists of somewhat poorly drained soil typically found on alluvial fans from 20 to 3,100 feet amsl. The soil profile is typically composed of silt loam, silty clay loam

and clay loam that develops from residuum weathered from calcareous sandstone and shale parent material. These soils typically have a slow infiltration rate (medium to high runoff potential) when thoroughly wet. These soils typically have a severe hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 5.7 percent (28.7 acres) of the soil investigation area.

- **Olivenhain cobbly loam**, 9 to 30 percent slopes map unit consists of well drained soil typically found on marine terraces from 100 to 600 feet amsl. The soil profile is typically composed of cobbly loam, cobbly clay loam, very cobbly clay loam and very cobbly clay that develop from gravelly alluvium derived from mixed sources of parent material. These soils typically have a very slow infiltration rate (high runoff potential) when thoroughly wet. These soils typically have a severe hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 7.4 percent (37.3 acres) of the soil investigation area.

- **Olivenhain cobbly loam**, 30 to 50 percent slopes map unit consists of well drained soil typically found on marine terraces from 100 to 600 feet amsl. The soil profile is typically composed of cobbly loam, cobbly clay loam, very cobbly clay loam and very cobbly clay that develop from gravelly alluvium derived from mixed sources of parent material. These soils typically have a very slow infiltration rate (high runoff potential) when thoroughly wet. These soils typically have a severe hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 4.1 percent (20.4 acres) of the soil investigation area.

- **Placentia sandy loam**, 2 to 9 percent slopes map unit consists of moderately well drained soil typically found on alluvial fans from 50 to 2,500 feet amsl. The soil profile is typically composed of sandy loam, sandy clay loam, clay loam and sandy clay that develop from alluvium derived from granite parent material. These soils typically have a very slow infiltration rate (high runoff potential) when thoroughly wet. These soils typically have a moderate hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 0.7 percent (3.3 acres) of the soil investigation area.

- **Ramona sandy loam**, 5 to 9 percent slopes map unit consists of well drained soil typically found on alluvial fans from 250 to 3,500 feet amsl. The soil profile is typically composed of sandy loam, sandy clay loam and clay loam that develop from alluvium derived from granite parent material. These soils typically have a moderate infiltration rate (low to medium runoff potential) when thoroughly wet. These soils typically have a moderate hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 0.3 percent (1.6 acres) of the soil investigation area.

- **Ramona gravelly sandy loam**, 9 to 15 percent slopes map unit consists of well drained soil typically found on alluvial fans from 2,500 to 3,500 feet amsl. The soil profile is typically composed of gravelly sandy loam and gravelly sandy clay loam that develops from alluvium derived from granite parent material. These soils typically have a moderate infiltration rate (low to medium runoff potential) when thoroughly wet. These soils typically have a moderate hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 0.6 percent (2.8 acres) of the soil investigation area.

- **Reiff fine sandy loam**, 0 to 2 percent slopes map unit consists of well drained soil typically found on alluvial fans from 30 to 500 feet amsl. The soil profile is typically composed of fine sandy

loam and stratified sandy loam to loam that develops from alluvium derived from granite parent material. These soils typically have a moderate infiltration rate (low to medium runoff potential) when thoroughly wet. These soils typically have a moderate hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 0.3 percent (1.6 acres) of the soil investigation area.

- **Sheephead rocky fine sandy loam**, 9 to 30 percent slopes, eroded map unit consists of well drained soil typically found on mountainflanks from 3,500 to 7,500 feet amsl. The soil profile is typically composed of cobbly fine sandy loam and weathered bedrock that develops from residuum weathered from gneiss and schist parent material. These soils typically have a slow infiltration rate (medium to high runoff potential) when thoroughly wet. These soils typically have a moderate hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 3.3 percent (16.7 acres) of the soil investigation area.

- **Sheephead rocky fine sandy loam**, 30 to 65 percent slope s, eroded map unit consists of well drained soil typically found on mountain flanks from 3,500 to 7,500 feet amsl. The soil profile is typically composed of cobbly fine sandy loam and weathered bedrock that develops from residuum weathered from gneiss and schist parent material. These soils typically have a slow infiltration rate (medium to high runoff potential) when thoroughly wet. These soils typically have a moderate hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 3.3 percent (16.7 acres) of the soil investigation area.

- **Tollhouse rocky coarse sandy loam**, 30 to 65 percent slopes map unit consists of somewhat excessively well drained soil typically found on mountain flanks from 650 to 8,000 feet amsl. Twenty five percent of this map unit is composed of rock outcropping. The soil profile is typically composed of gravelly coarse sandy loam and weathered bedrock that develops from residuum weathered from granodiorite. These soils typically have a very slow infiltration rate (high runoff potential) when thoroughly wet. These soils typically have a moderate hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 0.8 percent (4.0 acres) of the soil investigation area.

- **Visalia sandy loam,** 9 to 15 percent slopes map unit consists of well drained soil typically found on alluvial fans from 0 to 1,500 feet amsl. The soil profile is typically composed of sandy loam, fine sandy loam and very fine sandy loam that develops from alluvium derived from granite parent material. These soils typically have a moderate infiltration rate (low to medium runoff potential) when thoroughly wet. These soils typically have a moderate hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 0.3 percent (1.7 acres) of the soil investigation area.

- **Vista coarse sandy loam**, 9 to 15 percent slopes map unit consists of well drained soil typically found on hill side slopes from 400 to 3,900 feet amsl. The soil profile is typically composed of sandy loam, coarse sandy loam and weathered bedrock that develops from residuum weathered from granodiorite and quartz-diorite parent material. These soils typically have a moderate infiltration rate (low to medium runoff potential) when thoroughly wet. These soils typically have a moderate hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 0.3 percent (1.7 acres) of the soil investigation area.

- **Vista rocky coarse sandy loam**, 5 to 15 percent slopes map unit consists of well drained soil typically found on hill side slopes from 400 to 4,000 feet amsl. Twenty five percent of this map unit is composed of rock outcropping. The soil profile is typically composed of sandy loam, coarse sandy loam and weathered bedrock that develops from residuum weathered from granodiorite and quartz-diorite parent material. These soils typically have a moderate infiltration rate (low to medium runoff potential) when thoroughly wet. These soils typically have a moderate hazard of surface rut formation resulting from the operation of equipment. This map unit comprises 9.9 percent (49.8 acres) of the soil investigation area.

5.10.2 Drainage Features and Connectivity

Four watersheds exist within the TL 637 Survey Area: the Santa Maria, San Vicente, San Diego River, and Santa Ysabel watersheds.

The Santa Maria watershed is located at the western end of the TL 637 ROW in the unincorporated community of Ramona. Rainwater is fed into the watershed from two tributaries, Hatfield and Wash Hollow creeks, along with several unnamed streams into Santa Maria Creek. Specifically within the TL 637 ROW, water flows from seven drainages northwest into an unnamed stream. The distance from the furthest drainage to the unnamed stream is approximately 1 river mile. The unnamed stream continues northwest for approximately 3 river miles. The water is then diverted north for approximately 1 mile through an underground pipe following San Vicente Road. The water merges with Santa Maria Creek and flows west for approximately 15 river miles to terminate at Lake Hodges, a TNW.

The San Vicente watershed begins at the origin of San Vicente Creek east of Littlepage Road and spans the TL 637 ROW to Simon Preserve in the unincorporated community of Ramona. Rainwater is fed into the watershed from two creeks. Dye Creek is located east of West Side Road. Dye Creek flows south for approximately 5 river miles to an unnamed stream. The water flows southwest for approximately 1 river mile through the unnamed stream to merge into San Vicente Creek. The second creek that feeds the watershed is San Vicente Creek. The origin of San Vicente Creek is located east of Littlepage Road. The water flows southwest for approximately 2 river miles before Dye Creek merges with San Vicente Creek. The creek then continues southwest for approximately 7 river miles to terminate at San Vicente Reservoir, a TNW.

The San Diego River watershed originates at the San Diego River located in the unincorporated community of Santa Ysabel and is fed by rainwater and snowmelt from the Volcan Mountains. The San Diego River is fed by several creeks; however, Dye Creek and an unnamed creek are the only creeks within the TL 637 ROW. Dye Creek flows south for approximately 5 river miles to an unnamed stream. At this junction, water diverges into two unnamed streams. One stream flows toward San Vicente Creek, as describe above, and the other flows southeast for approximately 1 river mile to the San Diego River. The San Diego River flows southwest for approximately 12 river miles to terminate at El Capitan Lake, a TNW.

The Santa Ysabel watershed originates in the Volcan Mountains in the unincorporated community of Santa Ysabel and is fed by rainwater and snowmelt from the Volcan Mountains. Several streams flow into Santa Ysabel Creek; however, an unnamed stream located south of the junction between Hwy 78 and Hwy 79 is the only stream within the TL 637 ROW. The unnamed stream flows northeast for approximately 1 river mile to Santa Ysabel Creek. Santa Ysabel Creek flows west for approximately 5 river miles to terminate at Sutherland Reservoir, a TNW.

Santa Maria Creek, San Vicente Creek, the San Diego River, and Santa Ysabel Creek are RPWs leading to several reservoirs and lakes. The total distance of water flow from the TL 637 ROW to Lake Hodges via Santa Maria Creek is approximately 20 river miles. Santa Maria Creek does not flow directly within the TL 637 ROW area but is fed by several ephemeral drainages that direct surface water only immediately after rain events. The total distance of water flow from the TL 637 ROW to the San Vicente Reservoir via San Vicente Creek is approximately 13 river miles. San Vicente Creek originates within the TL 637 ROW; however, perennial flow does not establish until after the inflow from Dye Creek, which is outside the work area. Dye Creek is a RPW with water flow year round. One drainage is an intermittent tributary to Dye Creek, meaning that during the dry season and in years with little rainfall it does not always contain flowing water. One drainage is also within this watershed is a blue line intermittent stream. All other drainages within this watershed are characterized as ephemeral drainage features. The total distance of water flow from the TL 637 ROW to El Capitan Lake via the San Diego River is approximately 18 river miles. The San Diego River does not flow directly within the TL 637 ROW but is fed by several ephemeral drainages and Dye Creek. The total distance of water flow from the TL 637 ROW to the Sutherland Reservoir via Santa Ysabel Creek is approximately 7 river miles. Drainages flowing into Santa Ysabel Creek are intermittent.

5.10.3 Vegetation Communities

The TL 637 ROW is composed of several vegetation communities including wetland communities, upland communities, and other communities as well as non-native grasslands and disturbed habitats. Please see Section 5.1 for a description of the vegetation communities found along TL 637.

Areas characterized as a wet meadow occur where the soil is more or less continuously saturated by freshwater and vegetation is dominated by emergent herbaceous species. Common species include cattail (*Typha* spp.), rushes (*Juncus* spp.) and spikerushes (*Eleocharis* spp.) and other plants associated with wet areas such as curly dock (*Rumex crispus*), salt grass (*Distichlis spicata*), and rabbitsfoot grass (*Polypogon monspeliensis*).

Plant species found on the TL 637 ROW typical of this vegetation community include: fascicled tarweed (*Deinanadra fasciculata*), Mexican rush (*Juncus arcticus* var. *mexicanus*), Spanish-clover (*Lotus purshianus*), annual beard grass (*Polypogon monspeliensis*), mariposa rush (*Juncus dubius*), annual bur-sage (*Ambrosia acanthicarpa*), slender oat (*Avena barbata*), doveweed (*Croton setigerus*), scarlet pimpernel (*Anagalis arvensis*), soft brome (*Bromus hordeacous*), curly dock, spikerush, everlasting cudweed (*Gnaphalium luteo-album*), salt grass, Italian ryegrass (*Lolium multiflorum*), seep monkey flower (*Mimulus guttatus*), cattail, Indian sweet-clover (*Melilotus indicus*), and English plantain (*Plantago lanceolata*).

SECTION 6.0 – IMPACT DETERMINATIONS

6.1. PROJECT SPECIFIC IMPACTS

The following discussion describes the proposed project's potential to impact sensitive resources during construction of the TL 637 wood to steel pole project. SDG&E would operate in compliance with all state and federal laws, regulations, and permit conditions. This includes compliance with the CWA, Porter-Cologne Water Quality Control Act, ESA, MBTA, BGEPA, CESA, CEQA, requirements and protective measures from BLM (when working on BLM land), CDFW, USFWS, and CNF (when working on CNF land). In addition, SDG&E would operate under the *SDG&E Subregional NCCP,* which was established according to the ESA and CESA and the NCCP Act. This would include compliance with Section 7.1, *Operational Protocols* and Section 7.2, *Habitat Enhancement Measures* of the *SDG&E Subregional NCCP.* The *SDG&E NCCP Operational Protocols* are designed to provide avoidance and minimize impacts to all sensitive resources, regardless of whether the species is a NCCP-covered species. No additional Applicant Proposed Measures (APMs) are recommended at this time. All associated impacts to biological resources for this project are considered less than significant due to permit conditions and SDG&E standard practices.

Construction of the TL 637 wood to steel pole project would result in temporary disturbance and/or permanent loss of sensitive vegetation communities, native trees, wetlands and jurisdictional waters; however, SDG&E would avoid and minimize impacts according to the *SDG&E NCCP Operational Protocols*, and the RWQCB 401 certification conditions (Certification No. 11C-114; Categorical Exemption; Appendix A). In addition, temporary disturbance and/or permanent loss could occur to sensitive plant species, sensitive wildlife, and critical habitat areas. Permanent loss involves long-term impacts associated with permanent features such as new poles. Temporary disturbance includes short-term impacts during removal of old wood poles, installation for new poles, and work at string sites, staging/laydown areas, and improvements to existing access roads.

6.1.1 Permanent Impacts

Permanent impacts include the placement of either a light-duty steel pole, heavy-duty steel pole, or micropile foundation steel pole.

Permanent impacts resulting from the installation of light-duty steel poles were calculated with an assumption that each pole location would require up to an approximately 54-inch diameter hole for the replacement pole and that each pole would measure up to 30 inches in diameter at ground level, which would result in an approximately 5 sq. ft. permanent impact per pole for the pole alone. Permanent impacts resulting from the installation of heavy-duty steel poles were calculated with an assumption that each pole location would require up to an approximately 66-inch diameter hole for the replacement pole and that each pole would measure up to 42 inches at ground level, which would result in an approximately 10 sq. ft. permanent impact for the pole alone. Permanent impacts for light- and heavy-duty directly embedded steel poles are only calculated for the area of the pole alone. As all light- and heavy-duty poles will be backfilled with concrete, there will be an additional permanent impact surrounding the pole resulting from the concrete backfill. As terrain will vary between pole replacement locations, and pole diameter at the base will vary between pole replacement locations, these additional permanent impacts cannot be accurately estimated at this time. Actual permanent impacts from both the pole and the concrete backfill surrounding the pole will be assessed in the post-construction report, and addressed through credit withdrawal from the SDG&E mitigation bank where appropriate.

The assumed permanent impact for micropile steel poles is based on a micropile steel cap plate with an average diameter of 7 feet, for a 39 sq. ft. permanent impact area.

6.1.2 Temporary Impacts

Light-Duty Direct Embedded Steel Poles

The anticipated temporary impacts for installation of light-duty directly-embedded steel poles was calculated with an assumption that each location would require a 10-foot radius around the pole for a designated temporary work area, resulting in a temporary impact area of 314 sq. ft. and a permanent impact area of 5 sq. ft. for the pole alone, resulting in the calculated 309 sq. ft. of temporary impacts for light-duty steel poles.

Heavy-Duty Direct Embedded Steel Poles

The anticipated temporary impacts for installation of heavy-duty directly-embedded steel poles was calculated with an assumption that each location would require a 10-foot radius around the pole for a designated temporary work area, resulting in a temporary impact area of 314 sq. ft. and a permanent impact area of 10 sq. ft. for the pole alone, resulting in the calculated 304 sq. ft. of temporary impacts for heavy-duty steel poles.

Micropile Foundations Steel Pole

The anticipated temporary impacts for installation of micropile foundation steel poles was calculated with an assumption that each location would require a 20-foot radius around the pole for a designated temporary work area, resulting in a temporary impact area of 1,250 sq. ft. and an average permanent impact area of 39 sq. ft., resulting in 1,211 sq. ft. of total temporary impacts for the new micropile foundation steel pole locations.

Access Roads

SDG&E will use existing access roads during construction. No new access roads are proposed for this project. Where existing access roads are damaged, repairs may be made by blading and smoothing the access road as applicable. Importing and compacting more stable materials on existing facilities in unstable areas may also be required. Generally, access roads and spur roads would be smoothed level and approximately 12 to 15 feet wide (approximately 20 feet wide at corners) to allow construction equipment and vehicles to access each site safely in accordance with the 2007 *SDG&E Design and Procedure Manual for Transmission Line Access Roads*. Turnarounds would be sized according to local site conditions and as required by construction equipment and vehicles. SDG&E would continue to utilize BMPs to minimize dust and erosion.

Footpaths

A total of approximately 15,180 sq. ft. of temporary impacts is anticipated to occur as a result of clearing seven footpaths of varying lengths and widths, generally 4 feet wide, to access poles and from crew members walking along these paths to access pole locations. No vegetation mowing or trimming is required or allowed at six of the footpaths due to jurisdictional water features. Vegetation trimming is allowed on only one of the footpaths, the footpath to the pole R66.

Staging Yards, Helicopter Landing Sites/Stringing Site Impacts

The TL 637 project will require use of 22 stringing sites that will temporarily impact approximately 247,200 sq. ft. (5.67 acres) of habitat. Vehicles, equipment, and personnel will remain within the SDG&E ROW, existing paved or unpaved access roads, or previously disturbed areas to the extent possible.

The use of four staging yards at the Warnock, Creelman, Woodlot, and Santa Ysabel sites and two HLZs at the Littlepage and Mt. Gower sites will result in approximately 657,636 sq. ft. of temporary impacts.

Temporary Work Areas Greater Than Eight Feet from the Existing Wood Pole Location

Fourteen poles will be relocated more than 8 feet from the existing pole locations. The temporary work area for the removal of the wood pole locations will be no greater than 314 sq. ft.

Temporary Wood Poles

The proposed project will require the use of seven temporary wooden poles known as shoe-fly poles to facilitate the installation of new poles in a same-hole set alignment. Wooden poles will be installed within the existing temporary work areas; therefore, no additional temporary impacts are calculated for these poles.

Anchors

Three temporary traditional anchors and three temporary block and sled anchors will be utilized for installing temporary shoe-fly poles. Temporary impacts associated with the placement of three steel anchors will result in approximately 48 sq. ft. of temporary impacts. Temporary impacts associated with the placement of three block and sled anchors will result in approximately 260 sq. ft. of temporary impacts. Total temporary impacts as a result of the use of these six temporary anchors will result in approximately 308 sq. ft. of temporary impacts.

Guard Structures

Approximately ten wooden guard structures will be utilized during construction at various locations where the TL crosses public roads. The guard structures are necessary to provide for safety while conductor is pulled through the line. Two wooden poles will be erected at the junction of where public roads intersect the existing TL. Approximately 72 sq. ft. of vegetation will be temporarily impacted to install each of the ten H -frame guard structure along the ROW. Total temporary impacts as a result of the use of these ten H-frame temporary guard structures will result in approximately 720 sq. ft. of temporary impacts.

Underground Distribution Line

Thirteen locations will have impacts associated with the installation of existing distribution lines underground. Impacts associated with trenching and placement of distribution lines underground will result in approximately 422 sq. ft. of temporary impacts.

Underground Fiber Optic Cable

Three trenches of approximately 50 feet by 0.5 foot, 110 feet by 0.05 foot, and 5 feet by 2 feet, are associated with the installation of FOC. Trenching for the installation of FOC underground will result in approximately 90 sq. ft. of temporary impacts.

Table 4.
Anticipated Impact Summary Table

Type of Impact		Area Impacted (square feet)
Temporary	Total Anticipated Temporary Impacts to Sensitive Vegetation Communities (not including Disturbed, Agriculture, Bareground, and Landscape/Ornamental communities)	527,099
	Total Anticipated Temporary Impacts to Non-Sensitive Vegetation Communities (Disturbed, Agriculture, Bareground, and Landscape/Ornamental communities)	491,321
	Total Anticipated Temporary impacts	**1,018,420**
Permanent	Total Anticipated Permanent Impacts to Sensitive Vegetation Communities (not including Disturbed, Agriculture, Bareground, and Landscape/Ornamental communities)	1,520
	Total Anticipated Permanent Impacts to Non-Sensitive Vegetation Communities (Disturbed, Agriculture, Bareground, and Landscape/Ornamental communities)	2,306
	Total Anticipated Permanent Impacts	**3,826**

6.2. VEGETATION COMMUNITIES

6.2.1 Vegetation Impacts

The *SDG&E Subregional NCCP* allows for impacts to NCCP-covered species when incidental to otherwise lawful activities and when conducted in full compliance with the *SDG&E Subregional NCCP*. Compliance with the *SDG&E Subregional NCCP* is intended to avoid and minimize impacts. Vegetation mapping was based upon descriptions provided by Sawyer and Keeler-Wolf, *SDG&E Subregional NCCP* Section 3.1, and Holland. Impacts were calculated during the pre-activity surveys conducted for TL 637.

Consistent with the *SDG&E Subregional NCCP*, the TL 637 project has been designed to avoid sensitive habitat areas when possible, including not placing poles in drainage areas, using existing access roads to the greatest extent possible, and placing any new facilities, staging areas, or access roads outside habitats when feasible. Where avoidance of sensitive habitat areas is not possible, or where sensitive

habitat areas exist adjacent to TL 637 project work areas, implementation of the measures in Section 7.1 and 7.2 of the *SDG&E Subregional NCCP* will ensure these impacts remain less than significant.

The TL 637 project would permanently impact approximately 0.001 acre of Open Oak Woodland, 0.005 acre of Chaparral, 0.005 acre of Buckwheat Scrub, 0.010 acre of Coastal Sage Scrub/Chaparral Mix, 0.012 acre of Grassland, 0.001 acre of Landscape/Ornamental, 0.011 acre of Disturbed, 0.041 acre of Bareground, and 0.002 acre of Disturbed Wetland habitats. No permanent impacts to Riparian Forest, Agricultural, Coastal Sage Scrub, Freshwater Marsh, Open/Dense Engelmann Oak Woodland, or Coast Live Oak Forest habitat would occur.

The TL 637 project would also temporarily impact approximately 0.063 acre of Open/Dense Engelmann Oak Woodland, 0.044 acre of Open Oak Woodland, 0.003 acre of Coast Live Oak Forest, 0.366 acre of Chaparral, 0.132 acre of Coastal Sage Scrub, 0.953 acre of Buckwheat Scrub, 0.486 acre of Coastal Sage Scrub/Chaparral Mix, 0.002 acre of Meadow/Seep, 10.052 acres of Grassland, 0.118 acre of Landscape/Ornamental, 5.029 acres of Agriculture, 2.652 acres of Disturbed, 3.351 acres of Bareground, and 0.128 acre of Disturbed Wetland habitats. No temporary impacts to freshwater marsh or riparian forest habitat would occur.

Anticipated permanent and temporary impacts associated with the TL 637 pole replacement project were documented during a pre-activity survey on July 11 through 15, 2011. Vegetation communities were documented at each facility impact area and noted in the pre-activity survey report (PSR) habitat/ land use and mitigation table. Vegetation communities were also further identified during a 2010 focused plant survey conducted by Chambers Group botanists. Many of the vegetation communities from the PSR and the 2010 plant survey overlap. As noted during the focused plant survey in 2010, rare and listed species were identified, mapped, and marked with waypoints on handheld GPS units. Any sensitive plant species identified was included in the final CNF rare plant report. Rare plants identified on the ROW during the CNF plant survey were also noted in the PSR studies.

Table 5. Anticipated Impacts by Vegetation Community Type

Vegetation Community	Temporary		Permanent	
	Acres	Square Feet	Acres	Square Feet
Agricultural	5.029	219,073	0	0
Buckwheat Scrub	0.953	41,550	0.005	205
Chaparral	0.366	15,951	0.005	230
Bare Ground	3.351	145,972	0.041	1,797
Coastal Sage Scrub	0.132	5,762	0	10
Coastal Sage Scrub/Chaparral Mix	0.486	21,182	0.010	435
Disturbed	2.652	115,543	0.011	465
Disturbed Wetland	0.128	5,575	0.002	98
Freshwater Marsh	0	0	0	0
Meadow/Seep	0.002	88	0	0

Table 5. Anticipated Impacts by Vegetation Community Type

Vegetation Community	Temporary		Permanent	
	Acres	Square Feet	Acres	Square Feet
Grassland	10.052	437,844	0.012	503
Landscape/Ornamental	0.118	5,158	0.001	44
Open Oak Woodland	0.044	1,931	0.001	39
Riparian Forest	0	0	0	0
Open/Dense Engelmann Oak Woodland	0.063	2,768	0	0
Coast Live Oak Forest	0.003	111	0	0

6.3. SENSITIVE PLANT SPECIES

Construction activities could potentially impact sensitive plant species. Five sensitive plant species — San Diego milk-vetch, Orcutt's brodiaea, delicate clarkia, San Bernardino aster, and Parry's tetracoccus,— are known to be present within the TL 637 ROW, based on the 2010 rare plant surveys. However, these species were not identified within the construction impact area. SDG&E will implement all applicable *Operational Protocols* from the *SDG&E Subregional NCCP* to ensure that potential impacts to these species remain at less than significant.

No other sensitive plant species were found during the 2010 rare plant surveys. One additional sensitive plant species, San Diego gumplant, was determined to have a moderate potential to occur within the TL 637 project area due to having suitable habitat present within the ROW and historical occurrences recorded within 3 miles of the ROW; however, the species was not specifically surveyed for during the 2010 rare plant surveys. SDG&E will survey for this species during the Project-wide verification survey prior to construction activities to avoid potential impacts to this species.

Seventy-seven out of a total of 83 sensitive species were determined to be absent or have a low potential to occur within the TL 637 project area. None of these species were detected during the rare plant survey; therefore, no impacts to these species are expected to occur.

6.4. NATIVE TREE TRIMMING

A total of approximately 24 pole/site locations may require tree trimming to facilitate pole replacement and restringing activities. Thirteen pole/site locations were shown to need tree trimming, of which six are within the Preserve. In order to avoid and minimize impacts to NCCP-covered species, SDG&E will implement all applicable *Operational Protocols* from the *SDG&E Subregional NCCP*. These protocols include, but are not limited to, restricting vehicles to existing roads when feasible, conducting preconstruction surveys, staying within the designated footpaths, trimming trees within the identified trimming locations, and scheduling tree trimming in the non-sensitive times to the extent practical. In addition, a certified arborist will be available to direct tree trimming activities to reduce impacts to native trees where trimming is required for access or other project-related activities.

6.5. SENSITIVE WILDLIFE SPECIES

6.5.1 Sensitive Invertebrate Species

No sensitive invertebrate species have a moderate or high potential to occur in the project area.

San Diego Fairy Shrimp has a low potential to occur within the TL 637 ROW. CNDDB records 11 occurrences within 3 miles of the TL 637 ROW, the closest being approximately 1.3 miles west (outside the project ROW) in a pool southeast of 7th and Telford streets in Ramona, California. SDG&E will implement all applicable *Operational Protocols* from the *SDG&E Subregional NCCP* to avoid potential impacts to vernal pool habitats The TL 637 ROW was inspected for vernal pools and areas that could potentially support this species, including road ruts with clay soils. Low quality road ruts were observed outside the project ROW along Creelman Lane and outside of the Creelman Staging Yard; however, no vernal pools or claypan areas that would hold water for long durations after a rain event were identified within the project ROW. During Pre-Activity surveys conducted in 2012 for TL 637, low quality vernal pools were identified outside the fenced Creelman Staging Yard. These vernal pools will be completely avoided during the proposed construction activities. Therefore, this species is not expected to occur within the project ROW.

6.5.2 Sensitive Amphibian Species

No sensitive amphibian species have moderate or high potential to occur in the TL 637 ROW Survey Area. These species either lack historical occurrences within 3 miles of the project ROW or suitable habitat in the ROW was absent or sub-optimal quality. Field habitat assessments were conducted for sensitive amphibian species including the arroyo toad; however, no suitable breeding habitat was identified by qualified biologists. Therefore, as these species are not expected to occur in the project ROW, no impact to sensitive amphibian species is expected to occur.

6.5.3 Sensitive Reptile Species

Construction activities could potentially impact six sensitive reptile species. Three of the sensitive reptile species (coast horned lizard, Coronado Island skink, coastal rosy boa) are NCCP-covered species and were present in the TL 637 ROW Survey Area. One species (Belding's orange-throated whiptail, NCCP-covered) has a high potential to occur, and the remaining two species (northern red-diamond rattlesnake, San Diego ringneck snake – both NCCP-Covered) have a moderate potential to occur in the TL 637 ROW Survey Area.

Permanent impacts may include the loss of potential foraging and breeding habitat due to the installation of new poles. Approximately, 0.001 acres of open oak woodland, 0.005 acres of chaparral, 0.010 acres of mixed chaparral/coastal sage scrub, and 0.012 acres of grasslands are anticipated to be permanently impacted due to the proposed project. Temporary impacts such as disruption of foraging behavior due to instillation of new poles, staging yards and stringing site/helicopter landing sites may also occur. Approximately, 0.953 acres of buckwheat scrub, 0.044 acres of open oak woodland, 0.366 acres of chaparral, 0.132 acres of coastal sage scrub, 0.010 acres of mixed chaparral/coastal sage scrub, 0.063 open/dense Engelmann oak woodland, and 10.052 acres of grasslands are anticipated to be temporarily impacted due to the proposed project.

SDG&E will implement all applicable *Operational Protocols* from the *SDG&E Subregional NCCP* to prevent potential impacts to wildlife species. This includes a biological monitor onsite to avoid and minimize impacts to biological resources. Implementation of *SDG&E NCCP Operational Protocols* and NCCP guidelines would ensure potential impacts to sensitive reptile species remain less than significant.

6.5.4 Sensitive Avian Species and Nesting Birds

Proposed construction activities may cause both permanent and temporary impacts to foraging and/or nesting habitat for six sensitive avian species that have either been observed onsite or have a moderate or high potential to occur. Two of these species have been observed foraging and nesting onsite: CAGN (NCCP-covered) and purple martin. Three of these species have been observed foraging onsite and have a potential for nesting: white-tailed kite, Cooper's hawk (NCCP-covered), and rufous-crowned sparrow (NCCP-covered). The Cooper's hawk and rufous crowned sparrow have a high potential to nest on site. Low quality suitable nesting habitat for the white-tailed kite near the survey areas exists; therefore the potential for this species to nest within the survey area is low. One of these species, the golden eagle (NCCP-covered), has a high potential to forage onsite but can be considered absent for nesting due to the lack of suitable nesting habitat within the ROW. In addition, impacts to nesting habitat may affect nesting passerine and raptor species covered under the MBTA.

Project activities that could result in the permanent or temporary impacts due to loss of nesting and foraging habitat include the removal of wood poles (which support cavity nesters and raptors depending on the design of crossbeams) and the removal of vegetation, such as during the creation of staging and laydown yards for the construction, stringing sites, and installation of new poles. Temporary impacts to avian nesting and foraging may include a temporary increase in noise from construction equipment and vehicles.

These six species collectively nest and/or forage in the following habitat types which are present onsite: buckwheat scrub, chaparral, coast live oak forest, coastal sage scrub, coastal sage scrub/chaparral mix, open/dense Engelmann oak woodland, grassland, landscape/ornamental, meadow/seep, open oak woodlands, riparian forest, and disturbed wetland.

Approximately 0.005 acre of Buckwheat Scrub, 0.005 acre of Chaparral, 0.010 acre Coastal Sage Scrub/Chaparral Mix, 0.002 acre of Disturbed Wetland, Open 0.001 acre of Oak Woodland, 0.001 acre of Landscape/Ornamental, and 0.012 acre of Grassland are anticipated to be permanently impacted due to the proposed project.

Approximately 5.029 acres of Agricultural, 0.953 acre of Buckwheat Scrub, 0.366 acre of Chaparral, 0.132 acre of Coastal Sage Scrub, 0.486 acre of Coastal Sage Scrub/Chaparral Mix, 0.128 acre of Disturbed Wetland, 0.002 acre of Meadow/Seep, 0.044 acre of Open Oak Woodland, 0.063 acre of Open/Dense Engelmann Oak woodland, 0.003 acre of Coast Live Oak Forest, 0.118 acre Landscape/Ornamental, and 10.052 acres of Grassland are anticipated to be temporarily impacted due to the proposed project.

Specific temporary and permanent impacts for the CAGN were also assessed for locations where occupied gnatcatchers were identified. This species was observed nesting and foraging on the TL 637 ROW near poles P64 west to P52, P48 to P51, D44 to P43 to P47, and D46 during focused surveys conducted in 2010 (Chambers Group 2010). These CAGN occupied areas are outside the USFWS designated critical habitat. Based on the observed locations of this species in suitable habitat (Coastal

Sage Scrub/Chaparral Mix in the immediate area), approximately 122 sq. ft. (0.0028 acre) of Coastal Sage Scrub/Chaparral Mix is anticipated to be permanently impacted due to the proposed project. Approximately 759 sq. ft. (0.0493 acre) of Coastal Sage Scrub/Chaparral Mix and 425 sq. ft. (0.0097 acre) of Buckwheat Scrub in the immediate area are anticipated to be temporarily impacted due to the proposed project.

All six of the sensitive avian species listed above that have a potential to nest and/or forage onsite are covered by the NCCP except for the white-tailed kite and purple martin. In order to avoid and minimize impacts to sensitive and native avian species, SDG&E will implement all applicable *Operational Protocols* from the *SDG&E Subregional NCCP*. SDG&E will also remain in compliance with the MBTA. In order to avoid and minimize impacts to nesting raptors, large, existing stick nests that could support nesting raptors near sites P90, P95, R107, P129, P156, and P158 should be monitored for nesting raptors during the raptor breeding season (January 1 through July 31). Implementation of the *SDG&E NCCP Operational Protocols*, and compliance with the MBTA as described above, would ensure the impacts to nesting avian species remain less than significant.

Concerns regarding potential electrocution of wildlife species from power lines, which would be classified as a permanent impact to species protected under the MBTA, are primarily focused on avian species. Electrocution of avian species can occur from wing contact with two conductors, as avian species perching, landing, or taking off from a utility pole can complete the electrical circuit. Avian electrocutions can also occur through simultaneous contact with energized phase conductors and other equipment or simultaneous contact with an energized wire and a grounded wire. Electrocution of avian species poses a greater potential hazard to larger birds, such as raptors, because their body sizes and wing spans are large enough to bridge the distance between the conductor wires and, thus, complete the electrical circuit. The power line structures would be constructed in compliance with the Avian Power Line Interaction Committee's (APLIC) Suggested Practices for Avian Protection on Power Lines, in addition to SDG&E's current construction standard, which includes increased phase spacing and cover-ups to reduce avian mortality from electrocution. Therefore, the potential for wildlife electrocution would be reduced as a result of the proposed project.

6.5.5 Sensitive Mammal Species

Proposed construction activities may cause both permanent and temporary impacts to three sensitive mammal species that have a moderate or high potential to occur within the project ROW. These three mammal sensitive species are NCCP-covered species and include two rodent species: Dulzura (California) pocket mouse and San Diego desert woodrat; and one weasel species: American badger. All three species have a moderate potential to occur onsite.

Proposed construction activities, including removing and installing power poles and clearing vegetation during creation of work areas, stringing sites, staging and laydown areas, may cause both permanent and temporary impacts to the mammal species. Permanent impacts from these activities may include a reduction of foraging, burrowing, and nesting (woodrat) habitat from vegetation removal. Temporary impacts may result from construction noise and ground vibration, as mammals may be deterred from inhabiting or foraging in areas near such activities. The three sensitive mammal species described above collectively inhabit the following habitat types: buckwheat scrub, chaparral, coast live oak forest, coastal sage scrub, coastal sage scrub/chaparral mix, open/dense Engelmann oak woodland, grassland, open oak woodlands, and riparian forest.

Permanent impacts to approximately 0.005 acre of Buckwheat Scrub, 0.005 acre Chaparral, 0.010 acre Coastal Sage Scrub/Chaparral Mix, 0.002 acre Disturbed Wetland, 0.001 Open Oak Woodland, and 0.012 acre Grassland are anticipated for this project. Temporary impacts to approximately 0.953 acre Buckwheat Scrub, 0.366 acre Chaparral, 0.132 acre Coastal Sage Scrub, 0.486 acre Coastal Sage Scrub/Chaparral Mix, 0.128 acre Disturbed Wetland, 0.002 acre Meadow/Seep, 0.044 acre Open Oak Woodland, 0.063 acre Open/Dense Engelmann Oak woodland, 0.003 acre Coast Live Oak Forest, and 10.052 acres Grassland.

The NCCP covers all three sensitive mammals described above. SDG&E will implement all applicable *Operational Protocols* from the *SDG&E Subregional NCCP*. These protocols include, but are not limited to, restricting vehicles to existing roads when feasible, avoiding wildlife to the extent practicable, conducting pre-construction surveys, and wildlife being handled only by biologists or experts in handling wildlife. These protocols also include a biological monitor onsite to avoid and minimize impacts to biological resources. SDG&E will implement all applicable *Operational Protocols* from the *SDG&E Subregional NCCP* to ensure potential impacts to sensitive mammal species remain less than significant.

Power lines and other project-related structures provide potential perching opportunities for raptor species, which can increase the potential for predation of wildlife, including sensitive mammal species, by raptors. Because the proposed project involves the replacement of existing facilities and does not include an extension of the TL, the extent of predation on sensitive and common wildlife species is not anticipated to differ from existing conditions.

6.6. USFWS CRITICAL HABITAT AREAS

The USFWS designation of critical habitat for the CAGN specifically excluded areas within functioning HCPs, such as SDG&E's *SDG&E Subregional NCCP*. The CAGN habitat owned by SDG&E (and covered under the *SDG&E Subregional NCCP*) was determined to have greater benefits to CAGN than lands designated as critical habitat. Habitat, as well as designated critical habitat, for the CAGN is located in several locations along the project ROW. The following 10 poles are located within critical habitat for the CAGN: P96 to P106. No CAGN were identified during focused surveys in the USFWS designated critical habitat areas.

Permanent Impacts to approximately 0.001 acre of Buckwheat Scrub are anticipated for this project within the critical habitat area. Temporary impacts to approximately 0.056 acre Buckwheat Scrub and 0.009 acre of Chaparral within the critical habitat area are anticipated to result from construction activities. Temporary impacts to approximately 0.014 acre Coastal Sage Scrub within the critical habitat area are anticipated to result from construction activities. No permanent impacts to Coastal Sage Scrub are anticipated to result from construction activities.

6.7. WILDLIFE MOVEMENT CORRIDORS

It is not anticipated that the proposed project will have a significant effect on wildlife movement corridors. The new pole installations will be located within an existing ROW and are nearly immediately adjacent to existing poles in urban, developed, grazing pastures, grasslands, and hillsides. Several drainage features are adjacent to the proposed construction area that could potentially be used as a migration corridor for mammal species; therefore, the quality of the site as a wildlife movement corridor for terrestrial species is diminished on a temporary basis during construction. However, the proposed construction activities would not significantly impact or restrict general wildlife movement due to the

temporary and intermittent locations of construction activities. Wildlife would not be physically prevented from moving around project equipment in the project corridor. Wildlife movement would not be obstructed and could move around the poles. Because the proposed project involves the replacement of existing facilities and does not include an extension of the TL, the extent of obstruction or reduction of wildlife corridors is not anticipated to differ from existing conditions.

6.8. PRESERVE AREAS

SDG&E proposes to withdraw credit from the SDG&E mitigation bank for 412 sq. ft. of permanent impacts to sensitive vegetation communities located within the above mentioned Preserve areas at a ratio of 2:1 for a total of 824 sq. ft., and for a total of 23,313 sq. ft. of temporary impacts to sensitive vegetation communities located within the above mentioned Preserve areas at a ratio of 1:1 as a result of project-related activities. Therefore, SDG&E proposes to draw down a total of 24,137 sq. ft. (0.55 acre) of credit from the SDG&E mitigation bank impacts to sensitive habitat types located within Preserve areas. Please see the Anticipated Credit Withdrawal Summary Table 6 below.

Table 6.
Anticipated Credit Withdrawal Summary Table

Type of Mitigation		Area Impacted (square feet)
Temporary	Total Anticipated Credit Withdrawal for Temporary Impacts to Buckwheat Scrub, Coastal Sage Scrub, Coastal Sage Scrub/Chaparral Mix, Chaparral, Dense Engelmann Oak Woodlands, Grassland, Meadow Seep, Open Engelmann Oak Woodland, and Open Oak Woodland habitats Within a Preserve at a 1:1 Ratio	23,313
Permanent	Total Anticipated Credit Withdrawal for Permanent Impacts to Buckwheat Scrub, Coastal Sage Scrub, Coastal Sage Scrub/Chaparral Mix, Chaparral, Grassland, and Meadow Seep Habitats Within a Preserve at a 2:1 Ratio	824
TOTAL	Total Anticipated Credit Withdrawal for Impacts to Buckwheat Scrub, Coastal Sage Scrub, Coastal Sage Scrub/Chaparral Mix, Chaparral, Dense Engelmann Oak Woodlands, Grassland, Meadow Seep, Open Engelmann Oak Woodland, and Open Oak Woodland habitats Within Preserve Areas	**24,137**
Enhancement	Total Anticipated Enhancement (Active Enhancement) for Temporary Impacts to Buckwheat Scrub, Coastal Sage Scrub, and Open Engelmann Oak Woodland Habitats Within a Preserve at a 1:1 Ratio	6,600
Monitoring	Total Anticipated Enhancement (Monitoring) for Temporary Impacts to Grassland Habitats Within a Preserve at a 1:1 Ratio	53,000
ENHANCEMENT & MONITORING TOTAL	Total Anticipated Enhancement (Enhancement & Monitoring) for Impacts to Buckwheat Scrub, Coastal Sage Scrub, and Open Engelmann Oak Woodland Habitats Habitat Within Preserve Areas	**59,600**

In addition, SDG&E proposes to include 59,600 sq. ft. of anticipated temporary impacts to sensitive habitats located within Preserve areas in the SDG&E Enhancement and Monitoring Program. The Enhancement and Monitoring Program consists of two components: the active enhancement of areas containing sensitive vegetation located within Preserve areas that are temporarily impacted by project-related activities, and the monitoring of areas containing sensitive vegetation located within Preserve areas that are temporarily impacted by project-related activities which are expected to recover on their own. Six thousand and six hundred square feet of the above mentioned temporary impacts will be mitigated through active site enhancement. Fifty-three thousand square feet of the above mentioned temporary impacts will be mitigated through monitoring of the impacted habitat. Habitat that is expected to recover on its own consists of grassland, in which the majority of species are non-native in origin. Because SDG&E does not actively enhance non-native vegetation, and because this habitat type is generally considered resilient enough to completely regenerate to pre-activity levels without active enhancement measures, these areas will be monitored in order to determine whether or not they meet success criteria. If success criteria for both enhancement and monitoring areas are not met after 3 years, SDG&E proposes to withdraw the appropriate amount of credit for these areas from the SDG&E mitigation bank at a 1:1 ratio.

Work crews shall follow all appropriate *SDG&E NCCP Operational Protocols* to avoid and minimize impacts to resources as a result of project-related activities within the project area.

Impacts associated with the operations and maintenance of existing facilities are pre-mitigated for the term of the permit by SDG&E's agreement to restrict development other than SDG&E's activities on fee-owned ROWs which contain habitat, connect fragmented habitat areas, or contribute to the carrying capacities of the Preserve areas in the region. SDG&E agrees to limit its use of such ROWs to utility activities. Therefore, mitigation for operations and maintenance of existing facilities located outside the Preserve is not required. Please see Appendix G for photographic documentation of representative poles and vegetation communities to be replaced prior to construction and Appendix B for Figure 5; TL 637 Land Ownership Map.

6.9. AQUATIC RESOURCES

Sixty-seven drainages or features, potentially subject to USACE, CDFW and RWQCB jurisdiction are located within the proposed project area, however all but 17 have been avoided. Eleven poles, (P148, P149, P150, P103, P104, P105, P106, R107, P114, P152 and P129) are located within wet meadows that have been determined to be jurisdictional by the USACE and RWQCB. Six poles (R10, R169, R171, D167, R11, and R13) are located within an unvegetated streambed/waters of the U.S. (adjacent to Creelman Road) that has been determined to be jurisdictional by CDFW, USACE and the RWQCB.

Avoidance and Minimization of Jurisdictional Impacts

To minimize impacts to aquatic resources, an effort was made to relocate poles outside of jurisdictional areas whenever possible. However, being part of an existing TL limits placement of the new poles due to consistency in alignment. Several existing poles within TL 637 are proposed to be relocated outside of a jurisdictional area including poles P104, P105, P106, P114 and P129. Pole R107 is in a disturbed wetland feature and has been proposed to be eliminated from the line. Existing pole P103 is located within a wet meadow and the new pole location is still within a disturbed wetland (wet meadow), but it is now immediately adjacent to an existing dirt access road that will minimize wetland impacts during future maintenance activity.

Permanent Impacts

Replacement of existing poles P148, P149, P150 and P103 with new steel poles will occur within disturbed wetland areas (wet meadow). Access to the poles will occur off adjacent dirt roads. A total of 98 sq. ft. (0.002 acre) of permanent impacts to disturbed wetlands is anticipated for these poles.

Temporary Impacts

Temporary impacts associated with pole removal and replacement activities include access to the poles and work space around the poles. The replacement of poles and removal of pole butts will occur within the same workspace. As mentioned, temporary impacts associated with pole butt removals are anticipated. However, as stated in the avoidance and minimization measures provided in the RWQCB 401 certification application, if it is determined in the field that pole butt removal activities will cause a significant impact to a drainage feature, the poles will be cut at ground level and left in place. Steel plates and a temporary bridge are anticipated to be used to span over three jurisdictional areas to provide access during construction.

Permitting

USACE and RWQCB **-** Project activities in drainage and wetland feature areas will be carried out under non-notifying Nationwide Permit #12 issued by USACE, and a 401 Certification from RWQCB (Certification No. 11C-114; Categorical Exemption). Permanent impacts to USACE jurisdictional wetlands associated with the pole removals and replacement are 98-sq. ft. Temporary impacts to USACE jurisdictional wetlands are 0.13 acre, and the temporary impacts to streambed are 0.04 acre. Compensatory mitigation was not required due to the minimal permanent impacts.

The San Diego RWQCB determined that the project is categorically exempt from CEQA pursuant to CEQA Guidelines section 15301 (b). The exemption applies to the repair and maintenance of existing structures. Specifically, the replacement of the existing wood poles constitutes maintenance of existing facilities to provide electric power, as identified in section 15301 (b).

CDFW **-** The temporary impacts (0.04 acre) associated with the removal of six poles within CDFW jurisdiction will not substantially adversely affect an existing fish or wildlife resource; therefore, a Streambed Alteration Agreement notification was not submitted.

SECTION 7.0 – AVOIDANCE AND MINIMIZATION OF IMPACTS TO BIOLOGICAL RESOURCES

The proposed project has been designed to avoid sensitive habitat areas that may support special status species and sensitive biological resources when possible, including not placing poles in drainage areas, using existing access roads to the greatest extent possible, and placing staging areas, laydown areas, guard structures, and helicopter landing areas outside habitats when feasible. Where avoidance of sensitive habitat areas supporting special status wildlife is not possible, or where sensitive habitat areas exist adjacent to proposed project work areas, SDG&E would implement all applicable *SDG&E NCCP Operational Protocols* and NCCP guidelines to ensure these impacts remain less than significant. Additionally, required pre-activity surveys, pursuant to the *SDG&E Subregional NCCP,* would also confirm the absence of any other special status species not covered under the *SDG&E Subregional NCCP*. If any non-Covered special status species are identified during the surveys, compliance with Sections 7.1 and 7.2 of the *SDG&E Subregional NCCP* would provide avoidance and minimization of impacts, as applicable. The presence or potential presence of a non-Covered Species is expected to be limited to the the purple martin (present) and the white-tailed kite (present). The avoidance of any impacts to these species is expected through compliance measures in the *SDG&E Subregional NCCP*.

7.1. SDG&E OPERATIONAL PROTOCOLS (INCORPORATED INTO PROPOSED PROJECT DESIGN)

SDG&E has a long history of implementing the *SDG&E Subregional NCCP* and related operational protocols for projects such as the proposed project. The *SDG&E NCCP Operational Protocols* represent an environmentally sensitive approach to traditional utility construction, maintenance and repair activities recognizing that slight adjustments in construction techniques can yield major benefits for the environment. The appropriate *SDG&E NCCP Operational Protocols* for each individual project would be determined and documented by the Environmental Surveyor, which in the context of a wood to steel replacement project would be the lead natural resources representative from SDG&E in conjunction with the lead biological resources monitor from the private biological consulting firm contracted for the job.

Typical Operational Protocols for a wood to steel replacement project include, but are not limited to, the following; a pre-activity study report (PSR) for all impacts occurring in natural areas, biological monitoring of all activities occurring in natural areas, flagging of sensitive habitat for avoidance by the biological monitor, and the review and approval of the biological monitor for all activities occurring in sensitive areas where disturbance to habitat may be unavoidable. In addition, per the *SDG&E NCCP Implementing Agreement*, SDG&E is required to prepare and submit an annual report to the CDFW and the USFWS describing the amount and type of habitats impacted and the activities causing these impacts. In order to meet this requirement, SDG&E's biological consultant will prepare a post-construction report (PCR) detailing the actual impacts caused by the proposed project. This report will be used to determine the appropriate habitat enhancement and credit drawdown from the SDG&E mitigation bank after the proposed Project has been constructed.

SECTION 8.0 – REFERENCES

Ahlborn, G.
1990 Western Mastiff Bat. Life history accounts for species in the California Wildlife Habitat Relationships (CWHR) System were originally published in: Zeiner, D.C., W.F.Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. *California's Wildlife.* Vol. I-III. California Department of Fish and Wildlife, Sacramento, California. https://nrmsecure.dfg.**ca**.gov/FileHandler.ashx?DocumentVersionID=18101. Accessed February 4, 2011.

Anderson, A. and F. Sirchia
Personal Communication.

Bat Conservation International, Inc.
2010 Species Profile: *Lasiurus blossevilli*. http://www.batcon.org/index.php/all-about-bats/species-profiles.html?task=detail&species=1718&country=43&state=all&family=all&limitstart=0 Accessed December 22, 2010.

2011a Species Profile: *Antrozous pallidus*. http://www.batcon.org/index.php/all-about-bats/species-profiles.html?task=detail&species=2181&country=43&state=all&family=all&limitstart=0 Accessed February 4, 2011.

2011b Species Profile: *Corynorhinus townsendii*. http://www.batcon.org/index.php/all-about-bats/species-profiles.html?task=detail&species=2379&country=43&state=all&family=all&limitstart=0 Accessed February 4, 2011.

Bailey, V. and C.C. Sperry
1929 Life history and habits of the grasshopper mice, genus Onychomys. United States Department of Agriculture Technical Bulletin No. 145. 19pp.

Beauchamp, M.
1986 *A Flora of San Diego County, California*. Sweetwater River Press, National City, California.

Berkeley.edu
2011 California's Endangered Insects, website. Laguna Mountains Skipper. Accessed at: http://essig.berkeley.edu/endins/ruralis.htm

Bias, M.A. and R.J. Gutiérrez
1992 Habitat Associations of California Spotted Owls in the Central Sierra Nevada. *Journal of Wildlife Management* 56:584-595.

Black, S.H. and M. Vaughan
2011 Skippers: Laguna Mountians Skipper (*Pyrgus ruralis lagunae*). Xerces Society for Invertebrate Conservation. http://www.xerces.org/laguna-mountains-skipper/. Accessed April 11, 2011.

Bleich, V.C.
1973 *Ecology of rodents at the United States Naval Weapons Station Seal Beach, Fallbrook Annex, San Diego County, California*. M.A. Thesis, California State University, Long Beach, 102 pp.

Bond, Monica, Derek E. Lee, Rodney B. Siegel, and James P. Ward, Jr.
2009 Habitat Use and Selection by California Spotted Owls in a Postfire Landscape. *Journal of Wildlife Management* 73(7):1116–1124.

Bolger, D.T., A.C. Alberts, R.M. Sauvajot, P. Potenza, C. McCalvin, D. Tran, S. Mazzoni, and M.E. Soul
1997 Responses of rodents to habitat fragmentation in coastal southern California. *Ecological Applications* 7:552-563.

Bontrager, D.R.
1991. Habitat Requirements, Home Range and Breeding Biology of the California Gnatcatcher (*Polioptila californica*) in South Orange County, California. Prepared for Santa Margarita Company, Rancho Santa Margarita, California.

Bradford, D.F.
1989 Allopatric distribution of native frogs and introduced fishes in high Sierra Nevada lakes of California: implication of the negative effect of fish introductions. *Copeia* 1989:775–778.

Bradford, D.F., D.M. Graber, and F. Tabatabai
1993 Isolation of remaining populations of the native frog, *Rana muscosa*, by introduced fishes in Sequoia and Kings Canyon National Parks, California. *Conservation Biology* 7:882–888.

Brattstrom, B.H.
2000 The Range, Habitat Requirements, and Abundance of the Orange-throated Whiptail, *Cnemidophorus hyperythrus beldingi*. In *Bulletin of the Southern California Academy of Sciences* 99: 1-24.

Brown, B. T.
1993 Bell's Vireo (*Vireo bellii*). In *The Birds of North America*, No. 35 (A. Poole, P. Stettenheim, and F. Gill, Eds.). Philadelphia: The Academy of Natural Sciences; Washington, DC: The American Ornithologists' Union.

Buehler, D. A.
2000 Bald Eagle (*Haliaeetus leucocephalus*). *In The Birds of North America*, No. 506 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

Bury, R.B.
2008 Do urban areas favor invasive turtles in the Pacific Northwest. Pages 343-345 in *Urban Herpetology* (J. C. Mitchell, R. E. Jung Brown, and B. Bartholomew, editors). *Herpetological Conservation* 3:1-586.

Bury, R. B. and T. G. Balgooyen
1976 Temperature selectivity in the legless lizard, *Anniella pulchra*. *Copeia* 1976:152-155.

Calherps
2011 A guide to the Amphibians and Reptiles of California. Accessed on April 11 2011 from http://www.californiaherps.com/

2012 A guide to the Amphibians and Reptiles of California. Accessed on 2012 from http://www.californiaherps.com/

California Department of Fish and Wildlife (CDFW)
2005 *State and Federally Listed Endangered and Threatened Animals of California*. State of California Resources Agency. Sacramento, California. July.

2006 *Special Animals*. State of California Resources Agency. Sacramento, California. July.

2010 California Natural Diversity Database (CNDDB). RareFind Database Query. Wildlife and Habitat Data Analysis Branch. Version Dated March 2010.

2011 California Natural Diversity Database (CNDDB). RareFind Version 3.1.0. Database Query for the *Warner Ranch, Palomar Observatory, Pala, Santa Ysabel, Ramona, Cuyamaca Peak, Descanso, Mount Laguna, Cameron Corners, Live Oak Springs, Morena Reservoir, Barrett Lake, Viejas Mountain*, and *Julian* California, USGS 7.5-minute quadrangles. Wildlife and Habitat Data Analysis Branch. Version Dated March 1, 2010.

2011 *Special Animals*. State of California Resources Agency. Sacramento, California. January 2011.

2012 California Natural Diversity Database (CNDDB). RareFind Version 3.1.0. Database Query for the El Cajon Mountain, Julian, Ramona, San Pasqual, Santa Ysabel, and Warners Ranch, USGS 7.5-minute quadrangles. Wildlife and Habitat Data Analysis Branch. Accessed November 2012.

California Department of Fish and Wildlife and the California Interagency Wildlife Task Group (CDFW and CITG)
1990a Cave Myotis (*Myotis velifer*), California Interagency Wildlife Task Group, California Wildlife Habitat Relationships System.

1990b Yuma Myotis (*Myotis yumanensis*), California Interagency Wildlife Task Group, California Wildlife Habitat Relationships System.

1990c Pallid Bat (*Antrozous pallidus*), California Interagency Wildlife Task Group, California Wildlife Habitat Relationships System.

1990d California Wildlife Habitat Relationships System, Version 8.1 Personal Computer System. Sacramento, California.

Spotted Bat (*Euderma maculatum*), California Interagency Wildlife Task Group, California Wildlife Habitat Relationships System.

2005 Pallid Bat (*Antrozous pallidus*), California Interagency Wildlife Task Group, California Wildlife Habitat Relationships System.

California Native Plant Society Electronic Inventory (CNPSEI)

2001 Botanical Survey Guidelines of the California Native Plant Society (CNPS). *Fremontia* 29(3-4):64-65. Accessed online version February 2010 at http://cnps.org/cnps/rareplants/pdf/cnps_survey_guidelines.pdf.

2010 Inventory of Rare and Endangered Plants (online edition, v7-10c). California Native Plant Society. Sacramento, California. Accessed March 2010 from http://www.cnps.org/inventory.

2011 Inventory of Rare and Endangered Plants (online edition, v7-09a). Rare Plant Scientific Advisory Committee, California Native Plant Society, Sacramento, California. Accessed on January 2009 from http://www.cnps.org/inventory for the *Warner Ranch, Palomar Observatory, Pala, Santa Ysabel, Ramona, Cuyamaca Peak, Descanso, Mount Laguna, Cameron Corners, Live Oak Springs, Morena Reservoir, Barrett Lake, Viejas Mountain*, and *Julian* California, USGS 7.5-minute quadrangles.

2012 Inventory of Rare and Endangered Vascular Plants

California Reptiles and Amphibians

2009 Southern Pacific pond turtle (*Actinemys marmorata pallida*). http://www.californiaherps.com/turtles/pages/a.m.pallida.html. Accessed on September 9, 2009.

2011a California mountain kingsnake (*Lampropeltis zonata*). http://www.californiaherps.com/snakes/pages/l.zonata.html. Accessed on April 11, 2011.

2011b Coast patch-nosed Snake (*Salvadora hexalepis virgultea*). http://www.californiaherps.com/snakes/pages/s.h.virgultea.html. Accessed April 11, 2011.

2011c Large-blotched ensatina (*Ensatina eschscholtzii klauberi*). http://www.californiaherps.com/salamanders/pages/e.e.klauberi.html. Accessed on April 11, 2011.

2011d Northern red-diamond rattlesnake (*Crotalus ruber ruber*). http://www.dfg.ca.gov/wildlife/nongame/publications/docs/herp_ssc.pdf. Accessed on April 11, 2011.

2011e Rosy boa (*Lichanura trivirgata*). http://www.californiaherps.com/snakes/pages/l.t.roseofusca.html. Accessed April 18, 2011.

2012 Coronado skink (*Eumeces skiltonianus interparietalis*). http://www.californiaherps.com/lizards/pages/p.s. *interparietalis*.html. Accessed on April 18, 2012.

Call, Douglas R.

1990 Home-Range and Habitat Use by California Spotted Owls in the Central Sierra Nevada. Arcata: Humboldt State Univ.; 83 p. Thesis.

Chambers Group, Inc.

2009 *Final Biological Evaluation for Regional Forester's Sensitive Plant and Wildlife Species on the Cleveland National Forest for the Sunrise Powerlink Project*. July 2010

2009 Quino Checkerspot Butterfly (*Euphydryas editha quino*). *Focused Survey Report for the San Diego Gas & Electric Sunrise Powerlink Project*, San Diego, California.

2010 Quino Checkerspot Butterfly (*Euphydryas editha quino*). *Focused Survey Report for the San Diego Gas & Electric Sunrise Powerlink Project*, San Diego, California (not yet published).

2011a Arroyo Toad (*Anaxyrus californicus*). *Focused Survey Report for the San Diego Gas & Electric Cleveland National Forest Master Services Permit Project, San Diego County, CA*. Prepared for San Diego Gas & Electric Company.

2011b California Spotted Owl (*Strix occidentalis occidentalis*). *Habitat Assessment and Focused Survey Report for the San Diego Gas & Electric Cleveland National Forest Master Services Permit Project, San Diego County, CA*. Prepared for San Diego Gas & Electric Company.

2011c Coastal California Gnatcatcher (*Polioptila californica californica*). *Focused Survey Report for the San Diego Gas & Electric Company Cleveland National Forest Master Services Permit Project, San Diego County, CA*. Prepared for San Diego Gas & Electric.

2011d Hermes Copper Butterfly (*Hermelycaena* [*Lycaena*] *hermes*). *Focused Survey Report for the San Diego Gas & Electric Cleveland National Forest Project, San Diego County, CA*. Prepared for San Diego Gas & Electric Company.

2011e Quino Checkerspot Butterfly (*Euphydryas editha quino*). *Focused Survey Report for the San Diego Gas & Electric Cleveland National Forest Project, San Diego County, CA*. Prepared for San Diego Gas & Electric Company.

2011f Least Bell's Vireo (*Vireo bellii pusillus*). *Focused Survey Report for the San Diego Gas & Electric Cleveland National Forest Master Services Permit Project, San Diego County, CA*. Prepared for San Diego Gas & Electric Company.

2011g Stephens' Kangaroo Rat (*Dipodomys stephensi*). *Focused Survey Report for the San Diego Gas & Electric Cleveland National Forest Master Services Permit Project, San Diego County, CA.* Prepared for San Diego Gas & Electric Company.

2011h Southwestern Willow Flycatcher (*Empidonax traillii extimus*). *Focused Survey Report for the San Diego Gas & Electric Cleveland National Forest Master Services Permit Project, San Diego County, CA*. Prepared for San Diego Gas & Electric Company.

2011i *Herpetological Survey Report for the Sunrise Powerlink Project, San Diego County, CA.* Prepared for San Diego Gas & Electric Company.

2011j Southwestern Willow Flycatcher (*Empidonax traillii extimus*). *Focused Survey Report for the San Diego Gas & Electric Cleveland National Forest Master Services Permit Project, San Diego County, CA*. Prepared for San Diego Gas & Electric Company.

2011k *Rare Plant Survey Draft Report For The San Diego Gas and Electric Cleveland National Forest Master Services Permit Project San Diego County, CA*. Prepared for San Diego Gas & Electric Company.

County of Riverside Transportation and Land Management Agency (TLMA)

2006 Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area. Environmental Programs Department. 4-14-06.

DeHaven, R.W., F.T. Crase, and P.D. Woronecki

1975 Movements of Tricolored Blackbirds banded in the Central Valley of California. *Bird-Banding* 46:220-229.

Dobkin, D.S., I. Olivieri, and P. R. Ehrlich

1987 Rainfall and the interaction of microclimate with larval resources in the population dynamics of checkerspot butterflies (*Euphydryas editha*) inhabiting serpentine grassland. *Oecologia* 71:161166.

Dunk, J.R.

1995 White-tailed kite (*Elanus leucurus*). In *The Birds of North America*, No. 178 (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, and The American Ornithologists' Union, Washington, D.C.

Emmel, Thomas C.

1998 *Systematics of Western North American Butterflies*. Mariposa Press. Gainesville, FL.

Emmel, T. C. and J. F. Emmel

1973 *The Butterflies of Southern California*. Natural History Museum of Los Angeles County Science Series No. 26.

Ehrlich P.R., D.S. Dobkin, and D. Wheye

1988 *Birder's Handbook: A Field Guide to the Natural History of North American Birds*. Simon and Schuster Inc., New York.

Ehrlich, P.R., D.D. Murphy, M.C. Singer, C.B. Sherwood, R.R. White, and I.L. Brown

1980 Extinction, Reduction, Stability and Increase: the Responses of Checkerspot Butterfly (*Euphydryas*) Populations to the California Drought. *Oecologia* 46: 101-105.

Faulkner, D., M. Klein, and K. Osborne
2008 Hermes Copper (*Hermelycaena* [*Lycaena*] *hermes*) SDG&E Sunrise Powerlink Draft Survey Protocol.

Fisher, Robert N. and Ted J. Case
2011 A Field Guide to the Reptiles and Amphibians of Coastal Southern California. USGS website: http://www.werc.usgs.gov/Project.aspx?ProjectID=75 accessed 2011

Fitch, J., K. Shump., U. Shump
1981 Myotis velifer. The American Society of Mammalogists. Number 149, pp.1-5.

Ganey, J.L., W.M. Block, J.K. Dwyer, B.E. Strohmeyer, and J.S. Jenness
1998 Dispersal Movements and Survival Rates of Juvenile Mexican Spotted Owls in Northern Arizona. *Wilson Bulletin* 110:206-217.

Goldberg, S.R. and C.M. Miller
1985 Reproduction of the Silvery Legless Lizard, *Anniella pulchra pulchra* (Anniellidae), in Southern California. *The Southwestern Naturalist* 30:(4):617–619.

Goldwasser, S.
1981 *Habitat Requirements of the Least Bell's Vireo*. Final Report. California Department of Fish and Wildlife. Job IV-38.1.

Google
2012 Google Earth. US Department of State Geographer. Data SIO, U.S. Navy, NGA, GEBCO. earth.google.com/

Gray, M.V., and J.M. Greaves
1984 Riparian forest as habitat for the Least Bell's Vireo. pp. 605-611, *In:* R.E. Warner and K. M. Hendrix, (eds.), California riparian systems: Ecology, conservation, and productive management. Univ. California Press, Berkeley, California.

Gray, J. and D. Bramlet
1992 Habitat Classification System, Natural Resources, Geographic Information System (GIS) Project. County of Orange Environmental Management Agency, Santa Ana, California.

Grinnell, J.
1933 Review of the Recent Mammal Fauna of California. University of California Publications in *Zoology*, 40:71-234.

Grinnell, J. and A. H. Miller
1944 The Distribution of the Birds of California. *Pacific Coast Avifauna* No. 27, 608 pp.

Gruver, J.C. and D.A. Keinath
2006 *Townsend's Big-eared Bat* (Corynorhinus townsendii)*: A Technical Conservation Assessment*. Prepared for the USDA Forest Service, Rocky Mountain Region, Species Conservation Project. Report dated October 25, 2006.

Gutiérrez, R.J., J. Verner, K.S. McKelvey, B.R. Noon, G.N. Steger, D.R. Call, W.S. LaHaye, B.B. Bingham, and J.S. Senser

1992 *Habitat Relations of the California Spotted Owl*. USDA Forest Service Gen. Tech. Rep. PSW-GTR-133. 1992. pp. 79-98.

Gutiérrez, R.J., A.B. Franklin, and W.S. Lahaye

1995a Spotted Owl (*Strix occidentalis*). In *Birds of North America*, No. 179 (A Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, PA, and The American Ornithologists' Union, Washington, D.C. Retrieved from the Birds of North America Online: http://bna.birds.cornell.edu/bna/species/179. Accessed December 2010.

1995b Spotted Owl (*Strix occidentalis*), *The Birds of North America Online* (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: http://bna.birds.cornell.edu/bna/species/179. Accessed December 2010.

Gutiérrez, R.J. and J. Pritchard

1990 Distribution, Density, and Age Structures of Spotted Owls on Two Southern California Habitat Islands. *Condor* 92, pp.491-495

Hall, E.R.

1981 *The Mammals of North America.* Second Edition. John Wiley & Sons, New York, NY.

Hamilton, W.J.

2004 Tricolored Blackbird (*Agelaius tricolor*). The Riparian Bird Conservation Plan: A Strategy for Reversing the Decline of Riparian-associated Birds in California. *California Partners in Flight*. http://www.prbo.org/calpif/htmldocs/riparian_v-2.html. Accessed February 4, 2011.

Harris, J.

1987 Willow Flycatchers Surveys in the Sierra Nevada. *Western Birds* 18: 27–36.

1990a *Western Small-footed Myotis*. Life History Accounts for Species in the California Wildlife Habitat Relationships (CWHR) System were originally published in: Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. *California's Wildlife*. Vol. I-III. California Department of Fish and Wildlife, Sacramento, California. https://nrmsecure.dfg.**ca**.gov/FileHandler.ashx?DocumentVersionID=18115. Accessed February 4, 2011.

1990b *Long-eared Myotis*. Life history accounts for species in the California Wildlife Habitat Relationships (CWHR) System were originally published in: Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. *California's Wildlife*. Vol. I-III. California Department of Fish and Wildlife, Sacramento, California. nrm.dfg.**ca**.gov/FileHandler.ashx?DocumentVersionID=17829. Accessed February 4, 2011.

2000 *Life History Account for Pocketed Free-tailed Bat*. California Wildlife Habitat Relationship System. California Department of Fish and Wildlife, Sacramento, California. https://nrmsecure.dfg.ca.gov/FileHandler.ashx?DocumentVersionID=17933

Harris, J.H., S.D. Sanders, and M.A. Flett
1987 Willow Flycatchers Surveys in the Sierra Nevada. *Western Birds* 18: 27–36.

1988 The Status and Distribution of the Willow Flycatcher (*Empidonax traillii*) in the Sierra Nevada. California Department of Fish and Wildlife, Wildlife Management Branch Administrative Report 88-1

Hickman, J.C., ed.
1993 *The Jepson Manual: Higher Plants of California.* University of California Press, Berkeley and Los Angeles.

Hirshberg, J. and D. Clemons
2003 *Vascular Plants of the Cuyamaca and Laguna Mountains.* Second Edition. Jerilyn Hirshberg, Julian, California.

Holland, R.F.
1986 *Preliminary Descriptions of the Terrestrial Natural Communities of California*. State of California, The Resources Agency, Department of Fish and Wildlife, Natural Heritage Division, Sacramento, California.

Hollingsworth, B., K. Gray-Lovich, and R. Lovich
2010 *Bufo californicus,* Arroyo Toad. San Diego Natural History Museum. Online: http://www.sdnhm.org/fieldguide/herps/bufo-cal.html

Holloway, G.L. and M.R. Barclay
2001 Mammalian Species: *Myotis ciliolabrum*. *American Society of Mammalogists*. Number 670, pp. 1-5, 3 figures.

Hughes, J. M.
1999 Yellow-billed Cuckoo (*Coccyzus americanus*). In The Birds of North America, No. 418 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

Integrated Natural Resource Management Plan (INRMP)
2007 INRMP Marine Corps Base Camp Pendleton. March 2007.

Ingram, S.
2008 *Cacti, Agaves, and Yuccas of California and Nevada*. Cachuma Press, Los Olivos, California.

Jennings, M.R. and M.P. Hayes.
1994 *Amphibian and Reptile Species of Special Concern in California*. Report prepared for California Department of Fish and Wildlife, Rancho Cordova, California. 255 pp.

Klauber, L.M.
1931 A new subspecies of the California boa, with notes on the genus Lichanura. Tran. *San Diego Society of Natural History* 6:305-318.

Klute, D.S., L.W. Ayers, M.T. Green, W.H. Howe, S.L. Jones, J.A. Shaffer, S.R. Sheffield, and T.S. Zimmerman

2003 Status Assessment and Conservation Plan for the Western Burrowing Owl in the United States. United States Department of Interior, Fish and Wildlife Service, Biological Technical Publication FWS/BTP-R6001-2003, Washington D.C.

Kochert, M.N., K. Steenhof, C.L. McIntyre, and E.H. Craig

2002 Golden Eagle (*Aquila chrysaetos*) In *The Birds of North America*, No. 684 (A. Poole and F. Gills, eds.). The Birds of North America Inc., Philadelphia, PA.

Kus, B.E., P.P. Beck, and J.M. Wells

1999 *Status and Breeding Activities of the Southwestern Willow Flycatcher at the Cleveland National Forest in 1999.* U.S.G.S. Western Ecological Research Center San Diego Field Station, Department of Biology, San Diego State University, San Diego, CA 92182

Lackey, J.A.

1996 *Chaetodipus fallax*. *Mammalian Species* 517:1-6. Published by the American Society of Mammalogists.

1967 Biosystematics of Heermanni Group Kangaroo Rats in Southern California. Trans. *San Diego Soc. Nat. Hist.* 14:314-344.

LaHaye, W.S. and R.J. Gutiérrez

1988 *Ecology of the California Spotted Owl in the San Bernardino Mountains of California*. Progress Report No. 3. Submittted to San Bernardino National Forest and Snow Summit Ski Corporation. Humboldt State University Foundation. 12 pp. November 15, 1988.

1992 *Big Bear Spotted Owl Study, 1989*. Final report to the California Department of Fish and Wildlife, Contract FG7524 (FY 1987-88). State of California, The Resource Agency.

LaHaye, W.S., R J. Gutiérrez, and D.R. Call

1997 Nest-site Selection and Reproductive Success of California Spotted Owls. *Wilson Bulletin* 109:42-51.

Laymon, Stephen A.

1988 *The Ecology of the Spotted Owl in the Central Sierra Nevada*. California. Berkeley: Univ. of California; 285 p. Dissertation.

Lightner, J.

2006 *San Diego County Native Plants*. San Diego Flora, San Diego, California.

Lind, A.J.

1998 Region 5 USFS Sensitive Animal Species Evaluation and Documentation Form. Unpublished document. Cited in the San Diego Ring-necked Snake Species Account. Cleveland National Forest website. http://www.fs.fed.us/r5/scfpr/projects/lmp/docs/species-animals.pdf

Los Padres ForestWatch
2009 Bats: Chiroptera. http://www.lpfw.org/about/critters/bats.htm. Accessed February 4, 2011.

Manning, R.W. and J.K. Jones, Jr.
1989 Mammalian Species: *Myotis evotis*. *American Society of Mammalogists*. Number 329, pp. 1-5, 3 figures.

Marschalek, D.A. and M.W. Klein
2010 Distribution, Ecology, and Conservation of Hermes Copper (*Lycaenidae: Lycaena* [*Hermelycaena*] *hermes*). *Journal of Insect Conservation* 14:6, 721-730 Online publication date: 1-Dec-2010.

Mayer, K.E. and W.F. Laudenslayer, Jr.
1988 *A Guide to the Wildlife Habitats of California*. California Department of Forestry and Fire Protection, Sacramento.

McClenaghan, L.
1983 Notes on the population ecology of Perognathus-fallax Rodentia Heteromyidae in Southern California USA. *Southwestern Naturalist*, 28/4: 429-436.

Miller, A.H., and R.C. Stebbins
1964 The Lives of Desert Animals in Joshua Tree National Monument. University of California Press, Berkeley. 452pp.

Mock, P.J., B.L. Jones, and J. Konecny
1990 California Gnatcatcher Survey Guidelines. ERC Environmental and Energy Services Co.

Moen, C.A. and R. J. Gutiérrez
1997 California Spotted Owl Habitat Selection in the Central Sierra Nevada. In *Journal of Wildlife Management* 61(4):1281-1287.

Montgomery, S.J.
1990 Trapping and Habitat Mapping Survey for Stephens' Kangaroo Rats on the 235-acre Norco Hills Specific Plan, Tentative Tract 25779. Prepared for Windward Development Co., Newport Beach, California.

1991 Unpublished results of a preliminary trapping survey for Stephens' kangaroo rats on the Guejito Ranch property east of Escondido, San Diego County, California. Prepared for Pacific Southwest Biological Services, National City, Calif.

1992 Search for Stephens' Kangaroo Rats in the Anza Valley, Riverside County, California. (maps, without report). Prepared for Gary Pomeroy, Select Housing Associates, Newport Beach, Calif.

1998 31 August 1998 fax communication to the United States Fish and Wildlife Service.

2000 Final. Results of Field Surveys for Stephens' Kangaroo Rats (*Dipodomys stephensi*) along Caltrans Rights-of-Way in San Diego County, California. Prepared for San Diego State University Foundation and CalTrans, San Diego, California.

2005 Results of 2004 Field Surveys for Stephens' Kangaroo Rats (*Dipodomys stephensi*) at Rancho Guejito, San Diego County, California. Prepared for Helix Environmental Planning, La Mesa, California

2006 Results of Field Surveys for the Federally Endangered Stephens' Kangaroo Rat (*Dipodomys stephensi*) and Incidental Mammal Observations at the RTS Warner Springs Property, San Diego County, California. Prepared for Tierra Data Systems. Escondido, California.

2007 Stephens' Kangaroo Rat Survey Report. Sunrise Powerlink Proposed Northern Route. Prepared for Arcadis, Inc., San Diego, California.

2010 Stephens' Kangaroo Rat Survey Report. Sunrise Powerlink Proposed Southern Route. Prepared for Chambers Group, Irvine, California.

Montgomery, S.J., J. Sawasaki, and D. Mitchell

1996 Survey Report and Addendum for Stephens' Kangaroo Rat on Marine Corps Base, Camp Pendleton, California. Prepared by Tetra Tech, Inc., San Bernardino, California.

Moyle, P., R.M. Yoshiyama, J.E. Williams, and E.D. Wikramanayake

1995 Fish Species of Special Concern in California. The Resources Agency, Department of Fish and Wildlife. Final Report for Contract No. 2128IF.

Mullally, D.P. and J.D. Cunningham

1956 Ecological Relations of *Rana muscosa* at High Elevations in the Sierra Nevada. *Herpetologica* 12:189–198.

Murphy, D.D., and R.R. White

1984 Rainfall, Resources, and Dispersal in Southern Populations of *Euphydryas editha* (Lepidoptera: Nymphalidae). *Pan-Pac Entomol*. 60: 350-354.

Munz, P.

1974 *A California Flora and Supplement*. University of California Press, Berkeley, California.

National Park System

2006 Long-eared myotis- *Myotis evotis.* http://www.nps.gov/archive/wica/Long-eared_Myotis.htm. Accessed April 2012.*

NatureServe

2011 NatureServe Explorer: An Online Encyclopedia of Life website. Arlington,Virginia: NatureServe. Accessed at: http://www.natureserve.org/explorer/servlet/NatureServe

2012a *Euderma maculatum*- Spotted Bat. www.natureserve.org/explorer. NatureServe Explorer: an online encyclopedia of life (web application) Ver 7.1 NatureServe. Arlington, VA. Accessed April 2012.

2012b *Myotis occultus* – Occult Little Brown Bat www.natureserve.org/explorer. NatureServe Explorer: an online encyclopedia of life (web application) Ver 7.1 NatureServe. Arlington, VA. Accessed December 2012.

2012c *Myotis yumanesis* – Yuma Myotis www.natureserve.org/explorer. NatureServe Explorer: an online encyclopedia of life (web application) Ver 7.1 NatureServe. Arlington, VA. Accessed December 2012.*

North, M., G. Steger, R. Denton, G. Eberlein, T. Munton, and K. Johnson
2000 Association of Weather and Nest-site Structure with Reproductive Success in California Spotted Owls. In *Journal of* Wildlife Management 64(3):797-807.

O'Farrell, M.J.
1990 Stephens' Kangaroo Rat: Natural History, Distribution, and Current Status. Pp 78-84, In P.J. Bryant and J. Remington (eds.), *Memoirs of the Natural History Foundation of Orange County*; Vol. 3. Published by Natural History Foundation of Orange County.

O'Farrell, M.J. and C.E. Uptain
1987 Distribution and Aspects of the Natural History of Stephens' Kangaroo Rat (*Dipodomys stephensi*) on the Warner Ranch, San Diego County, California. *The Wasmann Journal*, 45:34-48.

1989 Assessment of Population and Habitat Status of the Stephens' Kangaroo Rat (*Dipodomys stephensi*). California Department of Fish and Wildlife, Non-game Bird and Mammal Section Report (July 1989).

O'Farrell, M.J., S.M. Juarez, and C.E. Uptain
1986 A New Addition to the Known Range of Stephens' Kangaroo Rat (*Dipodomys stephensi*) in San Diego County. *California Fish and Wildlife*, 72:187-189.

Ogden Environmental and Energy Services (Ogden)
1998 Stephens' Kangaroo Rat Study for the Ramona Airport Expansion Project, Ramona, California. Prepared for KEA Environmental and County of San Diego Department of Public Works. San Diego, California.

Opler, Paul A., Kelly Lotts, and Thomas Naberhaus, coordinators
2010 *Butterflies and Moths of North America*. Bozeman, MT: Big Sky Institute. http://www.butterfliesandmoths.org/ (Version 01/11/2011).

Orians, G.H.
1960 Autumnal Breeding in the Tricolored Blackbird. *Auk* 77:379-398.

Orsak, L.J.
1977 *The Butterflies of Orange County, California*. University of California, Irvine.

Osborne, K.H.
1998 *A Description of Arthropod Community Structure in Southern Californian Coastal Sage Scrub* (Chapter 4). Masters Thesis, Univ. of California, Riverside, CA.

2009 Personal Communication.

Osborne, K. H. and R. A. Redak
1998 Microhabitat Conditions Associated with the Distribution of Post-diapause Larvae of Euphydryas editha quino (Behr) (Lepidoptera: Nymphalidae). *Annals of the Entomological Society of America*. 93(1), 110-114.

Pacific Southwest Biological Services (PSBS).
1977 Results of a Field Survey of the Biological Resources on the Whelan Ranch Property. Prepared for RECON, San Diego, California.

Parmesan, C.
1996 Climate and Species Range. *Nature* 382(6594):765–766.

Pavlik, B., P.C. Muick, S.G. Johnson, and M. Popper
2006 *Oaks of California*. Cachuma Press, Los Olivos, California.

Pierson, E.D., and W.E. Rainey
1998 *Bat Distribution in the Forested Region of Northwestern California*. Report to California Department of Fish and Wildlife, Contract #FG-5123-WM. Sacramento, CA, 36 pp.

Polite, C. and J. Pratt
2008 *California Wildlife Habitat Relationships (CWHR) System*. Written for CDFW California Interagency Wildlife Task Group.

Pratt, G.F., E.W. Hein, and D.M. Krofta
2001 Newly Discovered Populations and Food Plants Extend the Range of the Endangered Quino Checkerspot Butterfly, *Euphydryas editha quino* (Nymphalidae) in Southern California. *Journal of the Lepidopterists' Society* 55: 176-178.

Pratt, G.F. and C.L. Pierce
2009 *A New Larval Food Plant,* Collinsia concolor*, for the Endangered Quino Checkerspot,* Euphydryas editha quino. *Journal of the Lepidopterists' Society* 64: 55-56.

Price, M.V. and P.R. Endo
1989 Estimating the Distribution and Abundance of a Cryptic Species, *Dipodomys stephensi* (Rodentia: Heteromyidae), and Implications for Management. *Conservation Biology,* 3:293-301.

Price, M.V. and P.A. Kelly
1992 *Monthly and Lifetime Movement Distances of Stephens' Kangaroo Rat* (Dipodomys stephensi Merriam). Final Report, Submitted to Riverside County Habitat Conservation Agency (January 15, 1992).

Rebman, J.P. and M.G. Simpson

2006 *Checklist of the Vascular Plants of San Diego County*, 4th Edition. San Diego. Natural History Museum, San Diego, California.

2008 *Changes to the Checklist of the Vascular Plants of San Diego County*, 4th Edition. San Diego Natural History Museum. Accessed in 2010 from http://www.sdnhm.org/research/botany/lists/ChecklistChangesDec08_2.pdf.

2008 *Additions to the Checklist of the Vascular Plants of San Diego County*, 4th Edition. San Diego Natural History Museum. Accessed in 2010 from http://www.sdnhm.org/research/botany/lists/ChecklistAdditionsDec08.pdf.

Reed, Jr., P. B. et al.

1988 National List of Plant Species That Occur in Wetlands: California (Region 0). U.S. Fish and Wildlife Service Biological Report 88 (26.10).

Reiser, C.H.

1994 Rare Plants of San Diego County. Accessed March 2010 from http://sandiego.sierraclub.org/rareplants/.

2001 Rare Plants of San Diego County. Imperial Beach, California: Aquafir Press.

Remsen, J. V., Jr.

1978 Bird species of special concern in California: an annotated list of declining or vulnerable bird species. Calif. Dept. Fish and Wildlife, Nongame Wildlife Investigation, Wildlife Management Branch, Administration Rep.No. 78-l.

Riverside County Habitat Conservation Agency (RCHCA)

1995 Habitat Conservation Plan for the Stephens' Kangaroo Rat in Western Riverside County, California. (February 1995)

Roberts, F.M.

1995 *Illustrated Guide to the Oaks of the Southern Californian Floristic Province: The Oaks of Coastal Southern California and Northwestern Baja California*. F.M. Roberts Publishing, Encinitas, California.

San Diego Gas & Electric Company

2009 Vegetation Community Descriptions for the Sunrise Powerlink Project.

San Diego Natural History Museum (SDNHM)

2010 Bird Atlas Project. Accessed January 2010. http://www.sdnhm.org/science/birds-and-mammals/projects/san-diego-county-bird-atlas/.

Santa Ana Watershed Association

2008 Sensitive Species of the Santa Ana Watershed: Western Spadefoot Toad. Accessed from *www.ocwd.com/fv-433.aspx on March 27, 2012.**

Sawyer, J.O., Jr., and T. Keeler-Wolf
1995 *A Manual of California Vegetation*. California Native Plant Society, Sacramento, California.

Scott, J.A.
1986 *The Butterflies of Northern California: A Natural History and Field Guide*. Stanford University Press, Stanford, California.

Sedgwick, J.A.
2000 Willow Flycatcher (*Empidonax traillii*). In *The Birds of North America*, No. 533 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, Pennsylvania.

Sherbrooke, Wade C.
2003 *Introduction to Horned Lizards of North America.* California Natural History Guides.

Shields, O.
1967 Hilltopping. An Ecological Study of Summit Congregation Behavior of Butterflies on a Southern California Hill. *Journal of Research on the Lepidoptera* 6(2): 69-178.

Shiraiwa, K.
2009 *The Butterflies of San Diego. Introduction and Identification Guide*. Self-published by Kojiro Shiraiwa.

SJM Biological Consultants (SJMBC)
2005 Results of a 2001-2002 Station-wide Survey for Stephens' Kangaroo Rats (*Dipodomys stephensi*) at Naval Weapons Station Seal Beach, Detachment Fallbrook. Fallbrook, California. Prepared for Robbie Knight, Conservation Manager, Naval Weapons Station Seal Beach, Detachment Fallbrook, California.

Sogge, M., R. Marshall, S. Sferra, and T. Tibbitts
1997 *A Southwestern Willow Flycatcher Natural History Summary and Survey Protocol*. USGS Biological Resources Division, Colorado Plateau Research Station, Northern Arizona University. 36 pp. Plus appendix.

Stapp, P.
1997 Habitat Selection by an Insectivorous Rodent: Patterns and Mechanisms Across Multiple Scales. *Journal of Mammalogy*, 78, 1128–1143.

Stebbins, R.C.
1985 *A Field Guide to Western Reptiles and Amphibians*. Second Edition. Houghton Mifflin Company, Boston, Massachusetts.

2003 *Western Reptiles and Amphibians*. Third Edition. Houghton Mifflin Company. New York, NY.

Stephenson, J.R., and G.M. Calcarone
1999 *Southern California Mountains and Foothills Assessment: Habitat and Species Conservation Issues*. Albany, California: Pacific Southwest ResearchStation, USDA Forest Service. General Technical Report PSW-GTR-172.

Sweet, S.S.
1991 *Ecology and Status of Arroyo Toad* (Bufo microscaphus californicus) *on the Los Padres National Forest of Southern California, with Management Recommendations*. Report to United States Department of Agriculture, Forest Service, Los Padres National Forest, Goleta, California, under Contract.

Technology Associates
2009 *Draft Species Accounts: Tricolored Blackbird* (Agelaius tricolor). Yolo Natural Heritage Program. Draft report dated April 20, 2009.

Texas Parks and Wildlife Department
1996 Pallid Bat (*Antrozous pallidus*)
http://www.tpwd.state.tx.us/huntwild/wild/species/pallid/. Accessed April 2012

Thomas, J.R.
1973 *Stephens' Kangaroo Rat Survey 1972-73*. California Department of Fish and Wildlife, Special Wildlife Investigations, Job II-54.6. (Final Report).

1975 *Distribution, Population Densities and Home Range Requirements of the Stephens' Kangaroo Rat* (Dipodomys stephensi). Unpublished M.A. Thesis, California State Polytechnic University of Pomona, California, 64pp.

Thorne, F.T.
1963 *The Distribution of an Endemic Butterfly*, Lycaena hermes. J. Res. Lepid. 2: 143-150.

Thorne, F.
1970 Habitat: *Euphydryas editha wrighti. Journal* of *Research on the Lepidoptera* 7:167-168.

Transportation and Land Management Agency (TLMA)
2006 Burrowing Owl Survey Instructions for the Western Riverside Multiple SpeciesHabitat Conservation Plan Area. Riverside, California.

Trulio, Lynne A.
1997 *Strategies for Protecting Western Burrowing Owls* ("Athene cunicularia hypugaea") *from Human Activities*. In: Duncan, James R.; Johnson, David H.; Nicholls, Thomas H., eds. *Biology and Conservation of Owls of the Northern Hemisphere*: 2nd International symposium. Gen. Tech. Rep. NC-190. St. Paul, MN: United States Deptartment of Agriculture, Forest Service, North Central Forest Experiment Station. 461-465.

United States Army Corps of Engineers (USACE)
1987 *U.S. Army Corps of Engineers Wetlands Delineation Manual*, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.

2008 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.*

United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS)

2010 Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Official Soil Series Descriptions [Online WWW]. Available URL: "http://soils.usda.gov/technical/classification/osd/index.html" [Accessed on August 10, 2011].

United States Department of Agriculture – National Resource Conservation Service (USDA-NRCS).

2011 List of Hydric Soils - National List; all states.

United States Fish and Wildlife Service (USFWS)

1986 Endangered and Threatened Wildlife and Plants: Determination of Endangered Status for the Least Bell's Vireo. Federal Register 51(85), May 2.

1992 Protocol for Surveying Proposed Management Activities that May Impact Northern Spotted Owls. Original Protocol March 7, 1991; Revised March 17, 1992.

1993 Stephens' Kangaroo Rat Study, Naval Weapons Station, Fallbrook Annex, San Diego County, California. Prepared for United States Navy, Southwestern Division, Naval Facilities Engineering Command, San Diego, California. (March 1993).

1994 Endangered and Threatened Wildlife and Plants: Designation of Critical habitat for the Least Bell's Vireo Final Rule. Federal Register 59(22), February 2.

1995 Endangered and Threatened Wildlife and Plants; Final Rule Determining Endangered Status for the Southwestern Willow Flycatcher. Federal Register 60: 10694-10715.

1997a DRAFT Recovery Plan for the Stephens' Kangaroo Rat (*Dipodomys stephensi*). Prepared by Region 1, USFWS. Portland, Oregon.

1997b Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Guidelines – February 28, 1997.

1997c Endangered and Threatened Wildlife and Plants; Final Determination of Critical Habitat for the Southwestern Willow Flycatcher. Federal Register 62: 39129-39147.

1997d *San Diego Fairy Shrimp,* Federal Register 62(22), February 3.

1998 Draft Recovery Plan for the Least Bell's Vireo. U.S. Fish and Wildlife Service, Portland, OR. 139pp.

1999 *Arroyo Toad* (Bufo californiucs) *Survey Protocol*. May 1999.

2000 *Southwestern Willow Flycatcher Protocol, Revision 2000*. California/Nevada Operations Office, Sacramento, California. Letter dated July 11, 2000. 4 pp.

2001 *Least Bell's Vireo Survey Guidelines.* Carlsbad Field Office, Carlsbad, California.

2002a *Quino Checkerspot Butterfly* (Euphydryas editha quino) *Survey Protocol Information.* February 2002.

2002b *Federal Designation of Critical Habitat for Quino Checkerspot Butterfly* (Euphydryas editha quino). Federal Register, 67:18355-18395.

2003 *Recovery Plan for the Quino Checkerspot Butterfly*. August 2003.

2003 Endangered and Threatened Wildlife and Plants; 12-month Finding for a Petition to List the California Spotted Owl (*Strix occidentalis occidentalis*) . 68 *Federal Register* Citation page 7580 to 7608.

2005a Endangered and Threatened Wildlife and Plants: Designation of Critical habitat for the Mountain Yellow-Legged Frog Final Rule. Federal Register 70(176), September 13.

2005 Quino Checkerspot Butterfly (*Euphydryas editha quino*) Recommended Quino Survey Areas map.

2005 *Quino Checkerspot Butterfly Monitoring Locations Map.* Online: http://www.fws.gov/carlsbad/Rules/QuinoDocuments/QuinoPics/Quino_pics_04/QCB%20monitoring%20sites.pdf

2006 12-month Finding for a Petition to List the California Spotted Owl (*Strix occidentalis occidentalis*) as Threatened or Endangered. 71 *Federal Register* Citation page 29886 to 29908

2006 Endangered and Threatened Wildlife and Plants; 90-Day Finding on a Petition to List Hermes Copper Butterfly as Threatened or Endangered. *Federal Register, Proposed Rules* 71(152), August 8.

2007 Proposed Low-Effect Quino Checkerspot Butterfly Habitat Conservation Plan for the San Diego Gas and Electric Company, San Diego, Riverside, and Orange Counties, CA. March 2007.

2008 *Quino Checkerspot Butterfly 2008 Monitored Reference Site Information.* Online: http://www.fws.gov/carlsbad/TEspecies/Documents/QuinoDocuments/Quino_htms/2008%20Quino%20monitoring%20info.htm

2008 *Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the Quino Checkerspot Butterfly* (Euphydryas editha quino). December 2008.

2009a U.S. Fish and Wildlife Service Biological Opinion FWS-2008B0423-2009F0097, Sunrise Powerlink Project 2009. January 2009.

2009b *Arroyo Toad* (Bufo californicus (=microscaphus) *5-Year Review: Summary and Evaluation* Online:

http://www.biologicaldiversity.org/species/amphibians/arroyo_toad/pdfs/5_year_review_5-21-10.pdf

2009c Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the Quino Checkerspot butterfly (*Euphydryas editha quino*); Final Rule. June 2009.

2010a Draft Revised Recovery Plan for the Northern Spotted Owl, *Strix occidentalis caurina*. U.S. Fish and Wildlife Service, Portland, Oregon. xii + 163 pp. September 8, 2010.

2010b *2010 Protocol for Surveying Proposed Management Activities that May Impact Northern Spotted Owls.* Original Protocol March 7, 1991; Revised March 17, 1992; Version 1.0 February 18, 2010.

2010c Endangered and Threatened Wildlife and Plants; 90-day Finding on a Petition to List Hermes Copper Butterfly as Threatened or Endangered. *Federal Register*, *Proposed Rules,* 75(85), May 4.

2010d USFWS Protocol Augment Request for AT. 2010.

2011a Endangered and Threatened Wildlife and Plants; 12-Month Finding on a Petition To List Thorne's Hairstreak Butterfly as Endangered. Carlsbad Fish and Wildlife Office, Carlsbad, California.

2011b National Wetlands Inventory Maps; http://www.fws.gov/wetlands/

United States Forest Service (USFS)

1991 Protocol for Surveying for Spotted Owls in Proposed Management Activity Areas and Habitat Conservation Areas. March 12, 1991, revised February 1993.

1993 California Spotted Owl Sierran Province Interim Guidelines. *Environmental Assessment*. U.S. Department of Agriculture. Pacific Southwest Region, San Francisco, CA. January 1993

2005 Southern California Forest Plan. Revised 2006. Includes Habitat Status Reports and Species Accounts-Plants and Animals. http://www.fs.fed.us/r5/scfpr/projects/lmp/read.htm

2009 CNF Sensitive Species Data. Provided to Chambers Group, by the Cleaveland National Forest.

United States Geological Survey (USGS)

2011 7.5 minute topographic quadrangle map for *Santa Ysabel and Ramona*, California.

Unitt, Philip

1984 *The Birds of San Diego County*. Memoir 13. San Diego Society of Natural History.

2008 San Diego Cactus Wren. In: *California Bird Species of Special Concern*. W.D. Shuford and T. Gardali, eds. *Studies of Western Birds No. 1*. Western Field Ornithologists/California Dept. of Fish and Wildlife.

University of California Davis
2010 Tricolored Blackbird Portal. http://tricolor.ice.ucdavis.edu/copyright. Accessed February 4, 2011.

Verner, Jared, K.S. McKelvey, B.R. Noon, R.J. Gutiérrez, G.I. Gould, Jr., and T.W. Beck, (tech. coords.)
1992a *The California Spotted Owl: A Technical Assessment of Its Current Status*. Gen. Tech. Rep. PSW-GTR-133. Albany, CA: Pacific Southwest Research Station, Forest Service, U.S. Department of Agriculture; 285 p.

Verner, J., R.J. Gutiérrez, and G.I. Gould, Jr.
1992b The California Spotted Owl: General Biology and Ecological Relations. P. 55–79 in *The California Spotted Owl: A Technical Assessment of Its Current Status*.

Weiss, S.B, R.R. White, D.D. Murphy, and P.R. Ehrlich
1987 Growth and Dispersal of Larvae of the Checkerspot Butterfly *Euphydryas editha*. *Oikos* 50: 161-166.

Weiss, S.B, D.D. Murphy, and R.R. White
1988 Sun, Slope, and Butterflies: Topographic Determinants of Habitat Quality for *Euphydryas editha. Ecology* 69:1486-1496.

Western Riverside County
2010 *Recent History and Current Status of the Tricolored Blackbird in Southern California*. Multiple Species Habitat Conservation Plan: Biological Monitoring Plan. July 20, 2010.

Westman, W.
1981a Diversity Relations and Succession in California Coastal Sage Scrub. *Ecology* 62:170-184.

1981b Factors Influencing the Distribution of Species of California Coastal Sage Scrub. *Ecology* 62:439-455.

White, R.R.
1974 Food Plant Defoliation and Larval Starvation of *Euphydryas editha*. *Oecologia* 14: 307-315.

Whitfield, M.J. and M. K. Sogge
1999 Range-wide Impact of Brown-headed Cowbird Parasitism on the Southwestern Willow Flycatcher (*Empidonax traillii extimus*). Studies in *Avian Biology* 18: 182–19

Willey, D.W.
1998 *Ecology of Mexican Spotted Owls* (Strix occidentalis lucida) *in National Parks on the Colorado Plateau*. Ph.D. Thesis, Northern Arizona University. Flagstaff, AZ. On file in the Resource Management Division, Southeast Utah Group NPS Headquarters. Moab, UT.

Winter, Kirsten
2011 Personal communication regarding CSOW. 2011.

Zabel, C.J., G.N. Steger, K.S. McKelvey, G.P. Eberlein, B.R. Noon, and J. Verner
1992 Home-range Size and Habitat-use Patterns of California Spotted Owls in the Sierra Nevada, in *A Technical Assessment for the California Spotted Owl*. (J. Verner, K. McKelvey, B. R. Noon, R. J. Gutiérrez, G. I. Gould, Jr., and T. W. Beck, eds.).U.S. Forest Service, Pacific Southwest Res.Sta. PSW-GTR-133.

Zeiner, D.C., W.F. Laudenslayer, Jr., and K.E. Mayer
1988 *California's Wildlife. Volume I. Amphibians and Reptiles*. California Statewide Wildlife Habitat Relationships System, California Department of Fish and Wildlife, Sacramento, California.

Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White
1990 *California's Wildlife: Volume III. Mammals*. California Department of Fish and Wildlife. Sacramento, California.

Zweifel, R.G.
1952 Pattern Variation and Evolution of the Mountain Kingsnake, *Lampropeltis zonata*. *Copeia*, 1952, 152-168.

APPENDIX A – WATER PERMITS

California Regional Water Quality Control Board, San Diego Region

May 16, 2012

In reply refer to:
775614: amonji

Alan Dusi
San Diego Gas & Electric
8315 Century Park Avenue, CP21E
San Diego, CA 92123

Dear Alan Dusi:

SUBJECT: ACTION ON REQUEST FOR CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION APPLICATION NO. 11C-114

Enclosed find Clean Water Act Section 401 Water Quality Certification for discharges to Waters of the U.S. and acknowledgment of enrollment under State Water Resources Control Board Order No. 2003-017-DWQ for the Wood to Steel Project—TL 637(Project).

Any petition for reconsideration of this Certification must be filed with the State Water Resources Control Board within 30 days of certification action (23 CCR § 3867). If no petition is received, it will be assumed that you have accepted and will comply with all the conditions of this Certification. Failure to comply with all conditions of this Certification may subject you to enforcement actions by the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board), including administrative enforcement orders requiring you to cease and desist from violations, or to clean up waste and abate existing or threatened conditions of pollution or nuisance; administrative civil liability in amounts of up to $10,000 per day per violation; referral to the State Attorney General for injunctive relief; and, referral to the District Attorney for criminal prosecution.

In the subject line of any response, please include the requested "In reply refer to:" information located in the heading of this letter.

Respectfully,

DAVID W. GIBSON
Executive Officer

California Regional Water Quality Control Board, San Diego Region

Action on Request for
Clean Water Act Section 401 Water Quality Certification
and Waste Discharge Requirements
for Discharge of Dredged and/or Fill Materials

PROJECT:

Project:	**Wood to Steel Project—TL 637**
Certification No:	**11C-114**
WDID:	**9 000002400**
Place ID:	**775614**

APPLICANT:

Representative:	**Alan Dusi**
Applicant:	**San Diego Gas & Electric**
Street Address	**8315 Century Park Avenue, CP21E**
City, State, ZIP:	**San Diego, CA 92123**

ACTION:

☑ Order for Low Impact Certification	☐ Order for Denial of Certification
☐ Order for Technically-conditioned Certification	☐ Waiver of Waste Discharge Requirements
☑ Enrollment in SWRCB GWDR Order No. 2003-017 DWQ	☐ Enrollment in Isolated Waters Order No. 2004-004 DWQ

PROJECT DESCRIPTION:

The applicant proposes to replace four existing poles with direct bury heavy steel poles or micropile poles. The new steel poles, which will provide continuous reliable electrical service, prevent service outages, and replace outdated equipment. Installation of steel poles will reduce damage to the utilities in the event of a fire, thereby increasing reliability. The remaining thirteen wood poles will be removed and the power lines rerouted to other existing poles.

TABLE OF CONTENTS

I. STANDARD CONDITIONS:

The following three standard conditions apply to all Certification actions, except as noted under Condition 3 for denials.

A. This Certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to section 13330 of the California Water Code and section 3867 of Title 23 of the California Code of Regulations (23 CCR).

B. This Certification action is not intended and must not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent Certification application was filed pursuant to 23 CCR subsection 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

C. The validity of any non-denial Certification action must be conditioned upon total payment of the full fee required under 23 CCR section 3833, unless otherwise stated in writing by the certifying agency.

II. ADDITIONAL CONDITIONS: GENERAL

A. This Clean Water Act Section 401 Water Quality Certification No. 11C-114 (Certification) is only valid if the project begins no later than 5 (five) years from the date of issuance. If the project has not begun within 5 years from the date of issuance, then this Certification expires.

B. San Diego Gas & Electric must notify the San Diego Water Board of any change in ownership or transfer of certification responsibilities associated with the project or mitigation areas. Notification of change in ownership or transfer of responsibilities must include, but not be limited to, a statement that San Diego Gas & Electric has provided the purchaser/transferee with a copy of the Section 401 Water Quality Certification and that the purchaser/transferee understands and accepts the certification requirements and acknowledges the obligation to implement them and be subject to liability for failure to do so. San Diego Gas & Electric and the purchaser/transferee must sign and date the notification and provide such notification to the Executive Officer of the San Diego Water Board within 10 days of the transfer. Upon properly noticed transfers of responsibility, the transferee assumes responsibility for compliance with this Certification and references in this Certification to San Diego Gas & Electric will be interpreted to refer to the transferee as appropriate. Transfer does not necessarily relieve San Diego Gas & Electric of responsibilities within this Certification in the event that a transferee fails to comply.

C. San Diego Gas & Electric must comply with the requirements of State Water Resources Control Board Water Quality Order No. 2003-0017-DWQ, *Statewide General Waste Discharge Requirements for Discharges of Dredged or Fill Material that have Received State Water Quality Certification.* These General Waste Discharge Requirements are accessible at: http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/generalorders/go_wdr401regulated_projects.pdf.

D. San Diego Gas & Electric must, at all times, fully comply with the engineering plans, specifications and technical reports submitted to the San Diego Water Board, to support this Certification. The conditions within this Certification must supersede conflicting provisions within such plans submitted prior to the Certification action. Any modifications thereto, would require notification to the San Diego Water Board and reevaluation for individual Waste Discharge Requirements and/or Certification amendment.

E. During construction, San Diego Gas & Electric must maintain a copy of this Certification at the project site so as to be available at all times to site personnel and agencies.

F. San Diego Gas & Electric must permit the San Diego Water Board or its authorized representative at all times, upon presentation of credentials:

1. Entry onto project premises, including all areas on which wetland fill or wetland mitigation is located or in which records are kept.

2. Access to copy any records required to be kept under the terms and conditions of this Certification.

3. Inspection of any treatment equipment, monitoring equipment, or monitoring method required by this Certification.

4. Sampling of any discharge or surface water covered by this Order.

G. In the event of any violation or threatened violation of the conditions of this Certification, the violation or threatened violation must be subject to any remedies, penalties, process or sanctions as provided for under State law. For purposes of section 401(d) of the Clean Water Act, the applicability of any State law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Certification.

H. In response to a suspected violation of any condition of this Certification, the San Diego Water Board may require the holder of any permit or license subject to this Certification to furnish, under penalty of perjury, any technical or monitoring reports the San Diego Water Board deems appropriate, provided that the burden, including costs, of the reports must bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.

I. In response to any violation of the conditions of this Certification, the San Diego Water Board may add to or modify the conditions of this Certification as appropriate to ensure compliance.

III. ADDITIONAL CONDITIONS: CONSTRUCTION BMPs

A. Prior to the start of the project, and annually thereafter, San Diego Gas & Electric must educate all personnel on the requirements in this Certification, pollution prevention measures, spill response, and Best Management Practices (BMPs) implementation and maintenance.

B. San Diego Gas & Electric must, at all times, maintain appropriate types and sufficient quantities of materials on-site to contain any spill or inadvertent release of materials that may cause a condition of pollution or nuisance if the materials reach waters of the United States and/or State.

C. If applicable, San Diego Gas & Electric must enroll in and comply with the requirements of State Water Resources Control Board Water Quality Order No. 2009-0009-DWQ, NPDES No. CAS000002, *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities*, and any subsequent reissuance as applicable.

D. If applicable, San Diego Gas & Electric must enroll in and comply with the requirements of San Diego Water Board Order No. 2008-0002, *General Waste Discharge Requirements and NPDES Permit for discharges from groundwater extraction waste to surface waters within the San Diego Region except for San Diego Bay*, and any subsequent reissuance as applicable.

E. The treatment, storage, and disposal of wastewater during the life of the project must be done in accordance with waste discharge requirements established by the San Diego Water Board pursuant to CWC § 13263.

F. Discharges of concentrated flow during construction or after completion must not cause downstream erosion or damage to properties or stream habitat.

G. Water containing mud, silt, or other pollutants from equipment washing or other activities, must not be discharged to waters of the United States and/or the State or placed in locations that may be subjected to storm flows. Pollutants discharged to areas within a stream diversion area must be removed at the end of each work day or sooner if rain is predicted.

H. All surface waters, including ponded waters, must be diverted away from areas undergoing grading, construction, excavation, vegetation removal, and/or any other activity that may result in a discharge to the receiving water. Diversion activities must not result in the degradation of beneficial uses or exceedance of water quality objectives of the receiving waters. Any temporary cofferdam or other artificial obstruction constructed must only be built from materials such as steel or fiberglass sheetpile which will cause little or no siltation. Normal flows must be restored to the affected stream immediately upon completion of work at that location. If storm discharges through the project area threaten to exceed the capacity of flow bypass systems to effectively manage the flow rate, San Diego Gas & Electric shall direct the removal of equipment, construction materials, and all suspendable debris from within the dewatered construction cofferdam area and stabilization of areas within and downstream of the cofferdam by laying a temporary geosynthetic discharge apron to avoid spillway scour of sediments. The project is to be constructed in the dry season to avoid high flow conditions, however, San Diego Gas & Electric shall prepare and maintain a contingency plan to address high flow conditions should they occur during construction.

I. All areas that will be left in a rough graded state must be stabilized no later than one week after completion of grading. San Diego Gas & Electric and subsequent owners, are responsible for implementing and maintaining BMPs to prevent erosion of the rough graded areas to prevent flow from this area from causing negative impacts to beneficial uses. After completion of grading, all areas must be revegetated with native species appropriate for the area. The revegetation palette must not contain any plants listed on the California Invasive Plant Council Invasive Plant Inventory, which can be found online at http://www.cal-ipc.org/ip/inventory/weedlist.php. Where riprap is replaced at the channel crest to stabilize areas around the abutments, care shall be taken so as not to discharge rip rap down the channel slopes to the channel floor.

J. Except as authorized by this certification, substances hazardous to aquatic life including, but not limited to, petroleum products, raw cement/concrete, asphalt, and coating materials, must be prevented from contaminating the soil and/or entering waters of the United States and/or State. BMPs must be implemented to prevent such discharges during each project activity involving hazardous materials.

K. Removal of vegetation must occur by hand, mechanically, or using United States Environmental Protection Agency approved herbicides deployed using applicable BMPs to prevent impacts to beneficial uses of waters of the United States and/or State. Use of aquatic pesticides must be done in accordance with State Water Resources Control Board Water Quality Order No. 2004-0009-DWQ, and any subsequent reissuance as applicable.

IV. ADDITIONAL CONDITIONS: POST-CONSTRUCTION BMPs

A. San Diego Gas & Electric is prohibited from allowing post-construction discharges to cause onsite or offsite erosion, damage to properties or damage to habitats in receiving waters that will receive post-construction discharges from the project site.

B. Any storm drain inlet structures within the project boundaries must be stamped and/or stenciled (or equivalent) with appropriate language prohibiting non-storm water discharges.

C. Any post-construction treatment BMPs, including those described in the project application, must be sized to comply with the following numeric sizing criteria and treat 100 percent of the impervious surfaces associated with the project:

1. Volume
Volume-based BMPs must be designed to mitigate (infiltrate, filter, or treat) either:

   a. The volume of runoff produced from a 24-hour 85th percentile storm event, as determined from the local historical rainfall record (e.g. 0.6 inch approximate average for the San Diego County area); or

   b. The volume of runoff, as determined from the local historical rainfall record, that achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the 85th percentile 24-hour runoff event; or

2. Flow
Flow-based BMPs must be designed to mitigate (infiltrate, filter, or treat) either:

   a. The maximum flow rate of runoff produced from a rainfall intensity of 0.2 inch of rainfall per hour; or

   b. The maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity, as determined from the local historical rainfall record, multiplied by a factor of two; or

   c. The maximum flow rate of runoff, as determined from the same reduction in pollutant loads and flows as achieved by mitigation of the 85th percentile hourly rainfall intensity multiplied by a factor of two.

D. Post-construction BMPs must be installed and functional prior to occupancy and/or planned use of development areas.

E. All post-construction treatment BMPs and storm water discharge points must:

1. Be regularly inspected and maintained for the life of the project per manufactures' specifications and industry standards;

2. Have all preventive and corrective maintenance performed;

3. Be inspected no less than one time per year, immediately prior to the commencement of the rainy season (October 1) and after every storm event exceeding 0.5 inches of precipitation; and

4. Be properly documented in a log containing all BMP inspections and maintenance activities.

V. ADDITIONAL CONDITIONS: COMPENSATORY MITIGATION

A. The mitigation for the project must fully comply with the latest habitat mitigation and monitoring plans, specifications, and technical reports submitted to the San Diego Water Board to support this Certification and all subsequent submittals required as part of this Certification. The conditions within this Certification must supersede conflicting provisions within such plans submitted prior to the Certification action. Any modifications thereto, would require notification to the San Diego Water Board and reevaluation for individual Waste Discharge Requirements and/or Certification amendment.

B. Mitigation shall consist of relocating several existing poles outside of a jurisdictional area including pole Z416648, Z416649, and Z416650. In addition, placing Pole Z416647 adjacent to an existing dirt access road will minimize wetland impacts during future maintenance activity.

C. Mitigation areas must be maintained free of perennial exotic plant species in perpetuity including, but not limited to, pampas grass, giant reed, tamarisk, sweet fennel, tree tobacco, castor bean, and pepper tree. Annual exotic plant species must not occupy more than 5 percent of the on-site restoration area(s).

D. For purposes of this Certification, establishment is defined as the creation of vegetated or unvegetated waters of the United States and/or State where the resource has never previously existed (e.g. conversion of nonnative grassland to a freshwater marsh). Restoration is divided into two activities, re-establishment and rehabilitation. Re-establishment is defined as the return of natural/historic functions to a site where vegetated or unvegetated waters of the United States and/or State previously existed (e.g., removal of fill material to restore a drainage). Rehabilitation is defined as the improvement of the general suite of functions of degraded vegetated or unvegetated waters of the United States and/or State (e.g., removal of a heavy infestation or monoculture of exotic plant species from jurisdictional areas and replacing with native species). Enhancement is defined as the improvement to one or two functions of existing vegetated or unvegetated waters of the United States and/or State (e.g., removal of small patches of exotic plant species from an area containing predominantly natural plant species). Preservation is defined as the acquisition and legal protection from future impacts in perpetuity of existing vegetated or unvegetated waters of the United States and/or State (e.g., conservation easement).

VI. NOTIFICATION REQUIREMENTS:

A. San Diego Gas & Electric must report to the San Diego Water Board any noncompliance that may endanger human health or the environment. Any information shall be provided orally within 24 hours from the time San Diego Gas & Electric becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time San Diego Gas & Electric becomes aware of the circumstances. The written submission shall contain a written description of the incident and its cause, the period of the noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The San Diego Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours.

B. San Diego Gas & Electric must notify the San Diego Water Board in writing **at least 5 days prior to** the actual commencement of dredge, fill, and discharge activities.

C. San Diego Gas & Electric must notify the San Diego Water Board in writing within **5 days** following the completion of mitigation.

D. San Diego Gas & Electric must submit a Final Project Report within **60 days** of completion of the project, including mitigation construction. The Final Project Report must include:

1. Stream photodocumentation in accordance with: http://www.waterboards.ca.gov/sandiego/water_issues/programs/401_certification/docs/StreamPhotoDocSOP.pdf

2. GIS shapefiles of the impacts/mitigation site.

3. A demonstration of project and mitigation completion.

4. Any mitigation site monitoring, including for success criteria, required under V.A. of this Certification.

VII. REPORTING REQUIREMENTS:

A. The submittal of information under this Certification is required pursuant to California Water Code (CWC) sections 13267 and 13283. Civil liability may be administratively imposed by the San Diego Water Board for failure to submit required information pursuant to CWC section 13268 or 13385.

B. All reports and information submitted to the San Diego Water Board must be submitted in both hardcopy and electronic format. The preferred electronic format for each report submission is one file in PDF format that is also Optical Character Recognition (OCR) capable.

C. All applications, reports, or information submitted to the San Diego Water Board must be signed and certified as follows:

1. For a corporation, by a responsible corporate officer of at least the level of vice president.

2. For a partnership or sole proprietorship, by a general partner or proprietor, respectively.

3. For a municipality, or a state, federal, or other public agency, by either a principal executive officer or ranking elected official.

4. A duly authorized representative may sign applications, reports, or information if:

   a. The authorization is made in writing by a person described above.

   b. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated activity.

   c. The written authorization is submitted to the San Diego Water Board Executive Officer.

D. All applications, reports, or information submitted to the San Diego Water Board must be signed and certified as follows:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

E. San Diego Gas & Electric must submit reports required under this Certification, or other information required by the San Diego Water Board, to:

Executive Officer
California Regional Water Quality Control Board
San Diego Region
Attn: 401 Certification No. 11C-114,
Place ID No. 775614
9174 Sky Park Court, Suite 100
San Diego, California 92123

VIII. CEQA FINDINGS:

A. The San Diego Water Board finds that the project is categorically exempt from CEQA pursuant to CEQA Guidelines section 15301 (b). The exemption applies to the repair and maintenance of existing structures. Specifically, the replacement of the existing wood poles constitutes maintenance of existing facilities to provide electric power, as identified in section 15301 (b).

IX. PUBLIC NOTIFICATION OF PROJECT APPLICATION:

A. The receipt of the project application was posted on the San Diego Water Board web site for a minimum of 21 days to serve as appropriate notification to the public. No public comments were received.

X. WATER QUALITY CERTIFICATION:

I hereby certify that the proposed discharge from the Rose Creek Bike Path and Pedestrian Bridge Project (Project No. 11C-114) will comply with the applicable provisions of sections 301 ("Effluent Limitations"), 302 ("Water Quality Related Effluent Limitations"), 303 ("Water Quality Standards and Implementation Plans"), 306 ("National Standards of Performance"), and 307 ("Toxic and Pretreatment Effluent Standards") of the Clean Water Act. This discharge is also regulated under State Water Board Order No. 2003-0017-DWQ, "*Statewide General Waste Discharge Requirements for Dredged or Fill Discharges that have Received State Water Quality Certification (General WDRs)*," which requires compliance with all conditions of this Water Quality Certification. Please note that enrollment under Order No. 2003-017-DWQ is conditional and, should new information come to our attention that indicates a water quality problem, the San Diego Water Board may issue individual waste discharge requirements at that time.

Except insofar as may be modified by any preceding conditions, all Certification actions are contingent on (a) the discharge being limited and all proposed mitigation being completed in strict compliance with the applicants' project description and/or on the attached Project Information Sheet, and (b) on compliance with all applicable requirements of the Water Quality Control Plan for the San Diego Basin Region (9) (Basin Plan).

David W. G 5-16-12

DAVID W. GIBSON Date
Executive Officer
Regional Water Quality Control Board

Electronic Distribution:

U.S. EPA:	R9-WTR8-Mailbox@epa.gov
State Water Board:	Stateboard401@waterboards.ca.gov
U.S. Army Corps of Engineers:	Peggy.j.bartels@usace.army.mil
CDFG:	kfisher@dfg.ca.gov
Consultant:	tspear@semprautilities.com

Tech Staff Info & Use	
File No.	11C-114
WDID	9 000002400
Reg. Measure ID	382787
Place ID	775614
Party ID	39618
Person ID	531097

Notice of CEQA Exemption

Form D

To: Office of Planning and Research
PO Box 3044, Room 212
Sacramento, CA 95812-3044

From: California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4340

Project Title: Wood to Steel Project – TL 637

Project Location: Creelman Road, Ramona.
Latitude: 33.09999, Longitude: -117.6733

Project Location - City: Ramona **Project Location – County:** San Diego

Description of Project: San Diego Gas & Electric (SDG&E) existing Transmission Line (TL) 637, of which poles Z416692, Z416693, Z416684, and Z416697 are a part of, is being upgraded to provide continued reliable service, prevent outages and replace outdated equipment. Existing wood poles will be replaced with direct bury heavy steel poles or micropile poles. Installation of the new steel poles will reduce damage to the utilities in the event of a fire, thereby increasing reliability. Permanent impacts associated with the four pole replacements is 98-square feet. As part of the project activity, seventeen poles (including the portion buried underground, referred to as "pole butts") will be removed. The temporary impacts associated with the pole removal activity is 0.17 acre. All work will occur within an existing utility easement and work will be scheduled to avoid rain events.

Name of Public Agency Approving Project: California Regional Water Quality Control Board, San Diego Region

Name of Person or Agency Carrying Out Project: San Diego Gas & Electric

Exempt Status:

- [ ] Ministerial (Sec. 21080(b)(1); 15268);
- [ ] Declared Emergency (Sec. 21080(b)(3); 15269(a));
- [ ] Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- [X] Categorical Exemption. State type and section number: *Class I, Section 15301(b) Existing Facilities*
- [ ] Statutory Exemptions. State code number:

Reason why project is exempt: Repair, or maintenance of an existing facility involving negligible or no expansion of an existing use. Replacement or reconstruction of existing utility systems and facilities involving negligible or no expansion of capacity.

Lead Agency: California Regional Water Quality Control Board – San Diego Region

Contact Person: Alan Monji **Telephone:** (858) 637-7140

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the projects? ☐ Yes ☐ No

Signature: David W. Gibson Date: 5-16-2012 Title: Executive Officer
DAVID W GIBSON

Date received for filing at OPR:_____

- [X] Signed by Lead Agency
- [ ] Signed by Applicant

California Regional Water Quality Control Board

San Diego Region

Over 50 Years Serving San Diego, Orange, and Riverside Counties

Recipient of the 2004 Environmental Award for Outstanding Achievement from USEPA

9174 Sky Park Court, Suite 100, San Diego, California 92123-4353
(858) 467-2952 • Fax (858) 571-6972
http:// www.waterboards.ca.gov/sandiego

APPLICATION FOR CLEAN WATER ACT §401 WATER QUALITY CERTIFICATION

All applicants **must** provide a complete and detailed response to all sections of the application or the application will be deemed incomplete. Responses should not refer reader to an attachment. Any responses by reference must indicate the specific document(s) and page number(s) (include copies of the entire document). Indicate by Not Applicable (NA) all sections that do not apply, **along** with an explanation of why the project is exempt from the section.

1. APPLICANT/AGENT INFORMATION	
Applicant's Name: San Diego Gas & Electric (SDG&E) Alan Dusi, Project Manager	Authorized Agent's Name and Title: Tamara Spear, Environmental Specialist SDG&E
Applicant's Address: 8315 Century Park Court, CP21E San Diego, CA 92123	Agent's Address: 8315 Century Park Court, CP21E San Diego, CA 92123
Applicant's Phone: (858)6365784	Agent's Phone: (858)637-3740
Applicant's Fax: (858)637-3700	Agent's Fax: (858)637-3700
Applicant's Email: adusi@semprautilities.com	Agent's Email: tspear@semprautilities.com

STATEMENT OF AUTHORIZATION

I hereby authorize _____ to act in my behalf as my agent in the processing of this application, and to furnish upon request, supplemental information in support of this permit application.

_____ _____

Applicant's Signature Date

(This **must** be signed by the applicant, **not** the authorized agent.)

2. PROJECT/ACTIVITY INFORMATION
PROJECT NAME OR TITLE
Wood to Steel Project - TL 637

LOCATION OF PROJECT (See instructions.)

Street Address: Creelman Road in Ramona; San Diego Country Estates and private property (Tulloch Ranch) in Santa Ysabel

County: San Diego City: Communities of San Diego Country Estates, Ramona & Santa Ysabel

Assessor's Parcel Number(s): See Table 1- Eight parcels

Hydrologic Unit, Area, and Subarea: San Dieguito HU and San Diego River HU

Provide latitude and longitude for the proposed project.

Latitude: See Table 1 Longitude: _____ (Center Reading)

Latitude: _____ Longitude: _____

Latitude: _____ Longitude: _____

Latitude: _____ Longitude: _____

Latitude: _____ Longitude: _____

DIRECTIONS TO PROJECT SITE (See instructions.)

From I-15, exit Scripps Poway Pkwy heading east. Turn left on to Highway 67, heading north through Ramona where Hwy 67 becomes Highway 78, past the Santa Ysabel Substation and enter a private dirt access road. (See Thomas Bros. pages 1153, 1154, and 1135)

OWNERSHIP

Does the applicant own the project site? Yes ☐ No ☑

If the project site is not owned by the applicant, provide the name(s), address(es), and phone number(s) for the property owner(s) as well as evidence that the applicant has the necessary approvals to construct the project at this location.

SDG&E has utility easements along the transmission line, and the work will occur entirely within the easements. Project activity will occur within eight different parcels. Seven of the parcels are owned by the Tulloch Family and one parcel is owned by Jeff Wood. For further information, see attached Table 1.

Tulloch Family
28223 Hwy 78
Ramona, CA 92065

Jeff Wood
9727 Castaic Ct.
Santee, CA 92071

Does the applicant plan on selling all or a portion of the site after receiving the necessary approvals?

Yes ☐ No ☑

Does the applicant plan on selling all or a portion of the site prior to starting construction?

Yes ☐ No ☑

If yes, provide the name(s), address(es), and phone number(s) of the future land owner(s).

Does the applicant plan on transferring the certification after receiving the necessary approvals and/or prior to starting construction?

Yes ☐ No ☑

If yes, provide the name(s), address(es), and phone number(s) of the future transferee(s).

AFFECTED WATER BODY(IES) (See instructions.)

List all affected water body(ies).

Unnamed tributary to Santa Maria Creek; wet meadow adjacent to San Vicente Creek; wet meadow adjacent to Dye Creek; unnamed tributary to San Diego River; wet meadow, adjacent to Witch Creek; wet meadow adjacent to an unnamed tributary to Santa Ysabel Creek.

List water velocities and shear for the 2, 5, 10, 50, and 100 storm water elevations for each water body.

N/A

Are any of the water body(ies) considered isolated per SWANCC or Rapanos? Yes ☐ No ☑

NEED FOR PROJECT (See instructions.)

Existing Transmission Tie-Line (TL) 637 is being upgraded to provide continued reliable electrical service, prevent service outages, and replace outdated equipment. Existing wood poles will be replaced with direct bury heavy steel poles or micropile poles. Installation of steel poles will reduce damage to the utililties in the event of a fire, thereby increasing reliablity.

DESCRIPTION OF ACTIVITY (See instructions.)

Replacement of poles existing Z416692, Z416693, Z416694 and Z416647with new steel poles. Temporary impacts are associated with the removal of 17 pole butts and placement of steel plates to provide access in three locations. (See attached Table 1)

Has any portion of the work been initiated? Yes ☐ No ☑

If yes, describe the initiated work and explain why it was initiated prior to obtaining a permit; indicate whether any enforcement action has been taken against the project.

AVOIDANCE OF IMPACTS (See instructions.)

Every effort is made to relocate poles outside of jurisdictional areas whenever possible. However, being part of an existing tie-line limits placement of the new poles because the poles have to stay in alignment.

Several existing poles within TL 637 have been relocated outside of a jurisdictional area including pole Z416648, Z416649, and Z416650.

Pole Z416651 has been eliminated.

Pole Z416647 - Existing Pole Z416647 is located within a wet meadow and accessing the pole for maintenance impacts wet meadow. The new pole location is still within a wetland, but it is now immediately adjacent to an existing dirt access road that will minimize wetland impacts during future maintenance activity.

MINIMIZATION OF IMPACTS (See instructions.)

Existing dirt and paved access roads will be used to access all pole locations.

To minimize access impacts when removing pole butts located within a wet meadow, only footpaths will be used, which does not require vegetation mowing or trimming. The pole butts will be removed using a helicopter or the poles will be cut into pieces by hand and carried out.

Although SDG&E's intent is to remove the 17 poles described in Table 1, if field conditions during construction indicate the pole butt can not be removed without causing a substantial impact, then the pole butt will be cut off at ground level and the base or "pole butt" will be left in place.

The hole remaining after removal of the pole butt will be filled with gravel and the last one to two feet will be clean fill dirt. The soil at the top of the filled hole will then be seeded with appropriate native vegetation.

PROTECTION OF WATER QUALITY – CONSTRUCTION (See instructions.)

Appropriate Best Management Practices(BMPs) will be used to prevent erosion and off-site sedimentation.

Before scheduling the project activity, the weather forecast will be monitored. Work will not be scheduled if a >40% chance of rain is forecasted during the time needed to complete the project activity. If rain does unexpectedly occur during the project activity, the will be secured (fiber rolls) to prevent erosion and sedimentation.

If project activities are conducted during bird nesting season (February 15-September 1), a qualified biologist shall conduct a nesting bird survey within 48 hours prior to commencement of vegetation clearing activities to determine if nesting birds are present and make sure that impacts are avoided.

A biological monitor with the authority to stop work if necessary, will be present on-site as needed to ensure the project description, and minimization measures described in this application and the 401 Certification are complied with.

Stockpiled material from digging the new pole holes will be placed on a water proof tarp. If left overnight, the stockpile will be covered and properly secured.

After replacing the new poles, the soil around the base of the pole will be compacted to avoid erosion.

PROTECTION OF WATER QUALITY – POST-CONSTRUCTION (See instructions.)

Any excess spoil generated by project activities will be removed from the project site and legally disposed of off-site.

All areas requiring vegetation trimming to provide access or work space will be allowed to re-establish.

Any vegetation that has been mowed or trimmed to provide access or work space will be removed and legally disposed of off-site.

Appropriate BMP measures will be installed after construction to prevent erosion and off-site sedimentation.

PROTECTION OF WATER QUALITY – IMPAIRED WATER BODY(IES). (See instructions.)

Are any of the water body(ies) within the project area, including impacted and preserved water body(ies), list as impaired on the Clean Water Act Section 303(d) list?

Yes ☐ No ☑

Are any of the water body(ies) within the project area a tributary to a Clean Water Act Section 303(d) water body(ies)?

Yes ☐ No ☑

Are any of the water body(ies) within the project area the subject of an adopted Total Maximum Daily Load (TMDL)?

Yes ☐ No ☑

If **yes** to any of the above, provide a detailed description of the actions that will be taken to ensure that the project does not contribute additional pollutants to the water body(ies). Include a discussion of the pollutants causing the impairment, potential sources of pollutants, and construction and post-construction BMPs.

STATE OR FEDERALLY THREATENED OR ENDANGERED SPECIES IMPACTED BY THIS PROJECT (See instructions.)

Are any state or federally threatened or endangered species potentially impacted by this project?

Yes ☐ No ☑

If yes, provide a list of the potentially impacted species (with common name).

FILL AND DREDGE INFORMATION (See instructions.)

Water Body Type	Permanent Impact		Temporary Impact	
	Acres	Linear Feet	Acres	Linear Feet
ACOE Jurisdictional Wetland	98 sq. ft.	n/a	0.13 acre	n/a
Streambed			0.04 acre	
Lake/Reservoir				
Ocean/Estuary/Bay				
Isolated Water (per SWANCC or Rapanos)				
CDFG Jurisdiction Only				

Provide the latitude and longitude for the proposed impacts.

Latitude See Table 1 Longitude _____ (Center Reading)

Latitude _____ Longitude _____

Latitude _____ Longitude _____

Latitude _____ Longitude _____

Latitude _____ Longitude _____

Does the project involve dredging? Yes ☑ No ☐

If yes, provide the required information (See Instructions.)

Digging holes to replace the poles at four locations. Permanent impacts are 98-square feet.

Provide the latitude and longitude of the proposed dredging area.

Latitude See attached Table 1 Longitude _____ (Center Reading)

Latitude _____ Longitude _____

Latitude _____ Longitude _____

Latitude _____ Longitude _____

Latitude _____ Longitude _____

DELINEATION INFORMATION (See instructions.)

Has the delineation been verified by the U.S. Army Corps? Yes ☐ No ☑

If yes, provide the date of verification. _____

Does the wetland delineation include the Arid West Region supplement? Yes ☑ No ☐

Provide the name, title, and affiliation of the person delineating the extent of Waters of the U.S. Also provide the date(s) of the wetland delineation.

N. Cervin and M. Mazon, Chambers Group, July 2011.

3. OTHER LICENSES/PERMITS/AGREEMENTS

OTHER APPROVALS (See instructions.)

Agency	Contact (Include phone number, email)	License/Permit/Agreement	File Number	Date Applied	Status
Army Corps of Engineers	Peggy Bartels (760)602-4832	Non-notifying NWP #12	n/a	n/a	Non-notifying
California Department of Fish and Game	Kelly Fisher (858)467-4207	Streambed Alteration Agreement 1602	n/a	n/a	Temporary impacts only- less than substantial

Does the project require a Federal Energy Regulatory Commission (FERC) license or amendment to a FERC license?

Yes ☐ No ☑

4. COMPENSATORY MITIGATION

Is compensatory mitigation proposed? Yes ☐ No ☑

(See instructions for definitions.)

Water body Type/Plant Community Type	Establishment (Acres, Linear Feet)	Restoration (Acres, Linear Feet)	Enhancement (Acres, Linear Feet)	Preservation (Acres, Linear Feet)

How many acres or linear feet of mitigation area are considered waters of the U.S.?

n/a

What is the range of depths to groundwater across the proposed mitigation area?

n/a

Is the mitigation site owned by the applicant? Yes ☐ No ☐

If no, provide the name(s), address(es), and phone number(s) of the land owner and evidence (e.g., agreements, contracts, etc.) that the applicant has the necessary approvals to implement mitigation at this location. If the land is to be purchased, provide the expected date that the purchase will be complete.

n/a

Provide the location of the Compensatory Mitigation.

Street Address _____

County _____ City _____

Assessor's Parcel Number(s) _____

Hydrologic Unit, Area, and Subarea _____

Latitude _____ Longitude _____ (Center Reading)

Latitude _____ Longitude _____

Latitude _____ Longitude _____

Latitude _____ Longitude _____

Latitude _____ Longitude _____

MITIGATION BANK/IN-LIEU FEE PROGRAM (If proposed, See instructions.)

Mitigation Bank/In-Lieu Fee Name: n/a

Name of Mitigation Bank/In-Lieu Fee Operator: n/a

Office Address of Operator/Phone Number: n/a

Mitigation Bank/In-Lieu Fee Location: Latitude: n/a Longitude: n/a

County: n/a City: n/a

Mitigation Bank/In-Lieu Fee Water Body type(s): n/a

Mitigation Area (acres or linear feet) and cost (dollar): n/a

5. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Document Type/Title: Notice of Exemption, Category 1

Lead Agency and Contact Information (name, address, phone number):

Name Regional Water Control Board

Address 9174 Sky Park Court, Suite 100

San Diego, CA 92123

Contact: Alan Monji

Phone Number (858) 637-7140

State Clearinghouse Number: n/a

Has the document been certified/approved and/or has a Notice of Exemption been filed?

Yes ☐ No ☑

(If yes, include a copy of the certification. If no, provide the expected approval date and document type.)

Is this project considered an "emergency" pursuant to CEQA? Yes ☐ No ☑

*Note: Section 401 certification will not be granted without a certified CEQA document.

6. ADDITIONAL IMFORMATION

PAST/FUTURE IMPACTS AND CUMULATIVE IMPACTS (See instructions.)

The utility easement associated with this project has been used for several decades. The proposed activity will not alter the existing situation, so no new cumulative impacts will occur in the future as a result of the proposed pole replacements.

7. APPLICATION FEE

FILING FEE

A fee deposit of $944.00 is required to be submitted with this application. Additional fees, based on the extent of impacts, may be due. A fee schedule and calculator can be found at: http://www.waterboards.ca.gov/water_issues/programs/cwa401/

Is check payable to the "State Water Resources Control Board" attached? Yes ☑ No ☐

Check No. 1130855 Amount 944.00

8. SIGNATURE

I herby certify under penalty of perjury that the information provided in this application and in any attachments are true and accurate to the best of my knowledge. I further certify that I possess the necessary authority to undertake work described in this application.

Applicant's Printed Name _____ Title _____

Applicant's Signature _____ Date _____

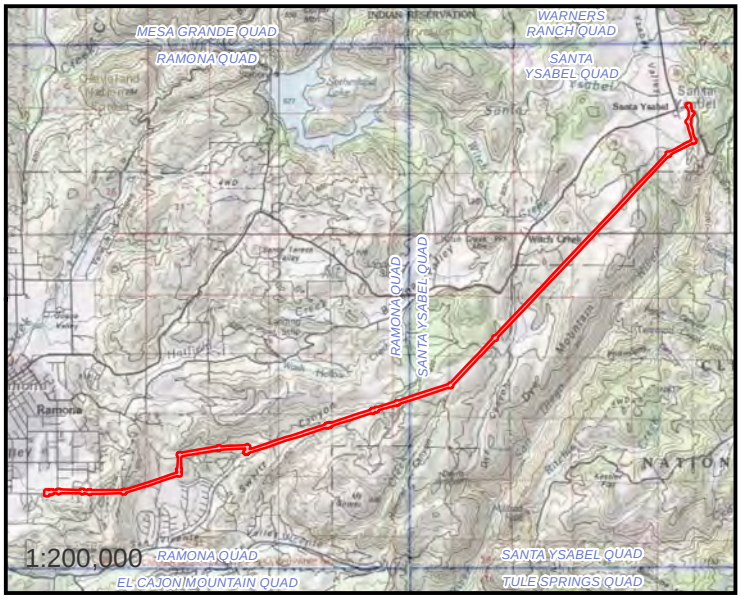
(This **must** be signed by the applicant, **not** the authorized agent)

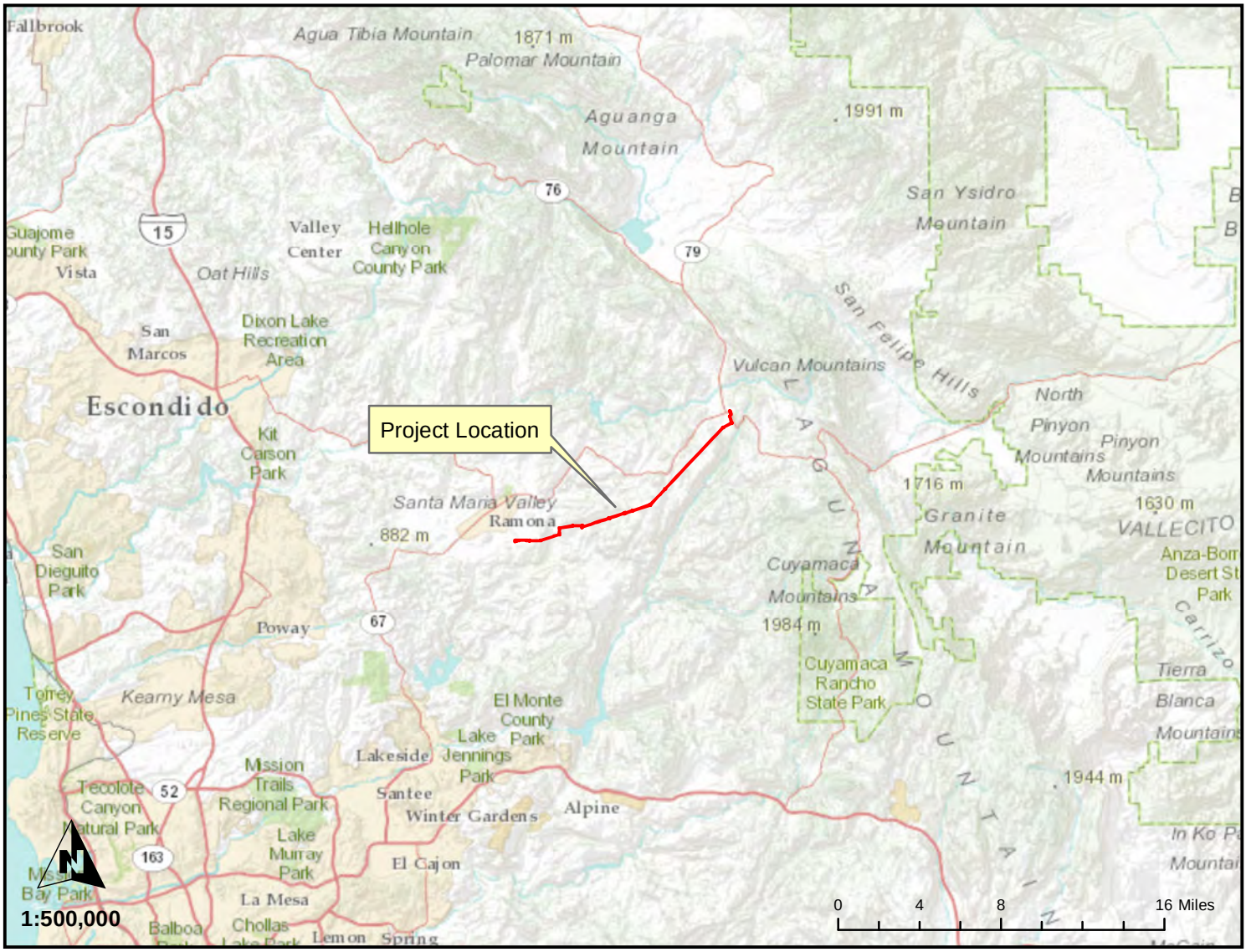
Attach the appropriate fee and any additional documents and submit this application to:

California Regional Water Quality Control Board, San Diego
Attn: 401 Water Quality Certification
9174 Sky Park Court, Suite 100
San Diego, CA 92123

APPENDIX B – FIGURES

APPENDIX B – FIGURE 1: TL 637 PROJECT LOCATION MAP





Project Boundary

CHAMBERS GROUP

Figure 1

TL-637
Project Location Map

Version Date: 11/15/2012

Y:\Projects\20549 TL-637 BTR\MXD\Figure 1 TL637 Project Location Map.mxd

APPENDIX B – FIGURE 2: TL 637 CNDDB AND CRITICAL HABITATS MAP

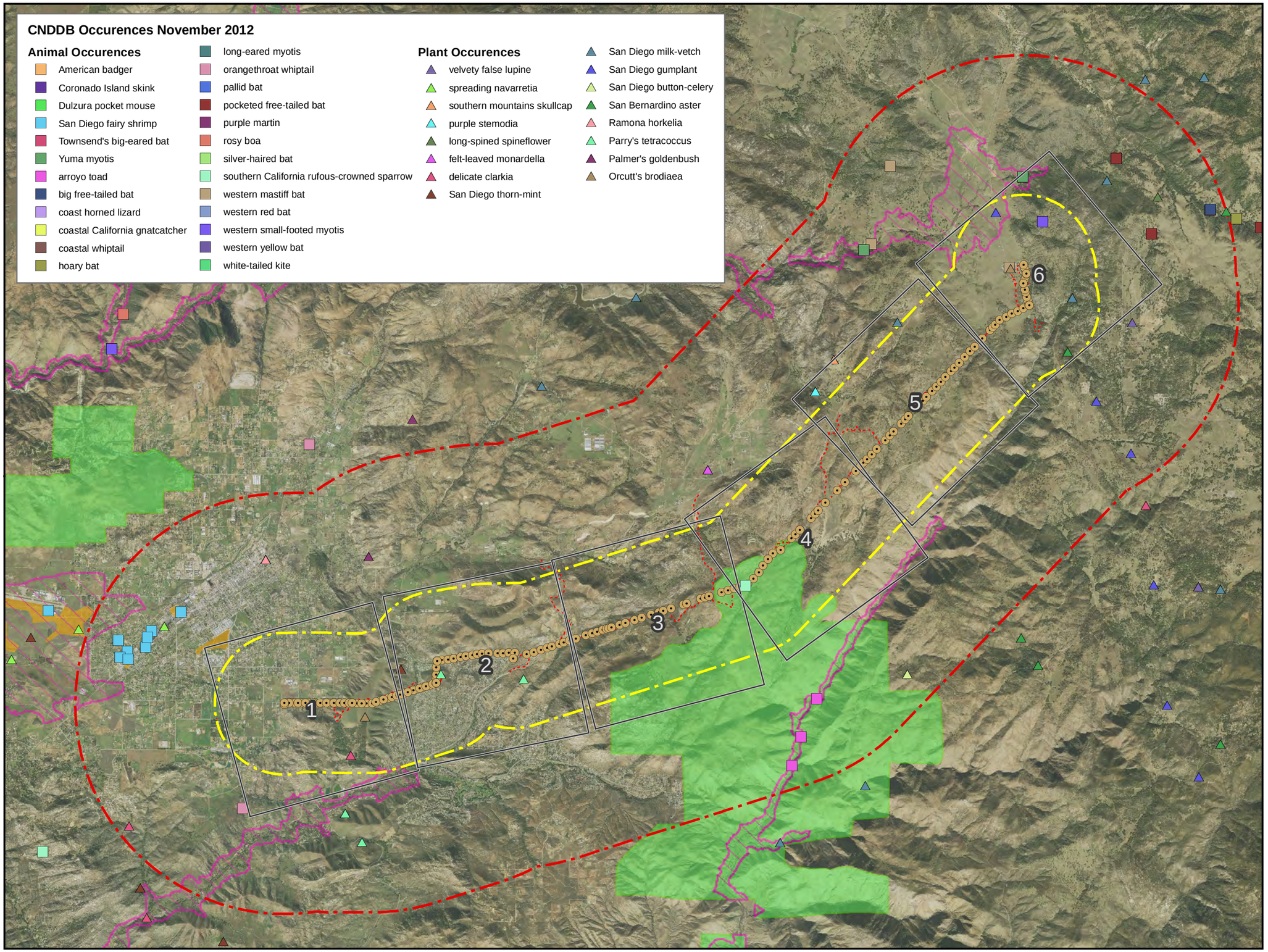


Figure 2
TL-637

CNDDB and Critical Habitats Map

Overview

Version Date: 1/10/2013

Map Page Index

Poles

Access

One-Mile Centerline Buffer

Three-Mile Centerline Buffer

FWS Critical Habitat

arroyo (=arroyo southwestern) toad

coastal California gnatcatcher

San Diego fairy shrimp

SCALE=1:85,000

0 2,450 4,900 9,800

Feet

CHAMBERS GROUP

20436 - Y:\Projects\20549 TL-637 BTR\MXD\Figure 2 TL637 CNDDB and Critical Habitats Overview.mxd

Figure 2
TL-637
CNDDB and Critical Habitats Map

Version Date: 1/10/2013

San Diego fairy shrimp

San Diego thorn-mint

coastal California gnatcatcher

Orcutt's brodiaea

white-tailed kite

Coronado Island skink

delicate clarkia

coastal California gnatcatcher

- Poles
- Access
- One-Mile Centerline Buffer
- Three-Mile Centerline Buffer
- Plant Occurences
- Animal Occurences

FWS Critical Habitat

- arroyo (=arroyo southwestern) toad
- coastal California gnatcatcher
- San Diego fairy shrimp

SCALE=1:15,000

0 435 870 1,740

Feet

CHAMBERS GROUP

Figure 2
TL-637
CNDDB and Critical Habitats Map

Page 2 of 6 Version Date: 1/10/2013

San Diego thorn-mint

Parry's tetracoccus

coast horned lizard

Parry's tetracoccus

- Poles
- Access
- One-Mile Centerline Buffer
- Three-Mile Centerline Buffer
- Plant Occurences
- Animal Occurences

FWS Critical Habitat

- arroyo (=arroyo southwestern) toad
- coastal California gnatcatcher
- San Diego fairy shrimp

N

SCALE=1:15,000

0 435 870 1,740

Feet

CHAMBERS GROUP

20436 - Y:\Projects\20549 TL-637 BTR\MXD\Figure 2 TL637 CNDDB and Critical Habitats Map.mxd

Figure 2
TL-637
CNDDB and Critical Habitats Map

Version Date: 1/10/2013

orangethroat whiptail

southern California rufous-crowned sparrow

southern California rufous-crowned sparrow

- Poles
- Access
- One-Mile Centerline Buffer
- Three-Mile Centerline Buffer
- Plant Occurences
- Animal Occurences

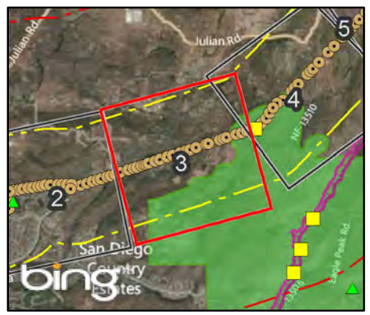
FWS Critical Habitat

- arroyo (=arroyo southwestern) toad
- coastal California gnatcatcher
- San Diego fairy shrimp

SCALE=1:15,000

0 435 870 1,740

Feet



CHAMBERS GROUP

20436 - Y:\Projects\20549 TL-637 BTR\MXD\Figure 2 TL637 CNDDB and Critical Habitats Map.mxd

Figure 2
TL-637
CNDDB and Critical Habitats Map

Version Date: 1/10/2013

San Diego milk-vetch

felt-leaved monardella

pallid bat

coast horned lizard

purple martin

southern California rufous-crowned sparrow

southern California rufous-crowned sparrow

southern California rufous-crowned sparrow

- Poles
- Access
- One-Mile Centerline Buffer
- Three-Mile Centerline Buffer
- Plant Occurences
- Animal Occurences

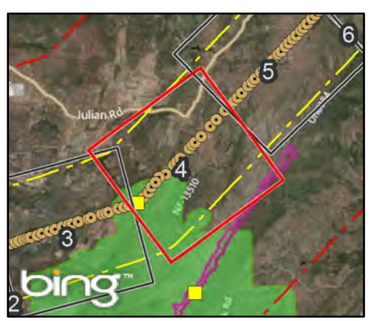
FWS Critical Habitat

- arroyo (=arroyo southwestern) toad
- coastal California gnatcatcher
- San Diego fairy shrimp

SCALE=1:15,000

0 435 870 1,740

Feet



CHAMBERS GROUP

20436 - Y:\Projects\20549 TL-637 BTR\MXD\Figure 2 TL637 CNDDB and Critical Habitats Map.mxd

Figure 2
TL-637
CNDDB and Critical Habitats Map

Version Date: 1/10/2013

San Diego milk-vetch

San Diego gumplant

Dulzura pocket mouse

southern mountains skullcap

American badger

purple stemodia

arroyo toad

coast horned lizard

- Poles
- Access
- One-Mile Centerline Buffer
- Three-Mile Centerline Buffer
- Plant Occurences
- Animal Occurences

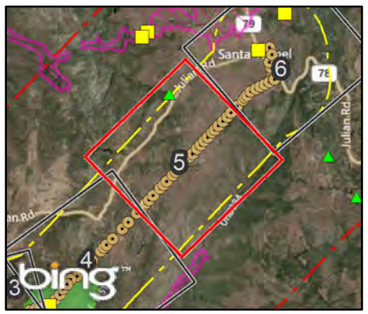
FWS Critical Habitat

- arroyo (=arroyo southwestern) toad
- coastal California gnatcatcher
- San Diego fairy shrimp

SCALE=1:15,000

0 435 870 1,740

Feet



CHAMBERS GROUP

20436 - Y:\Projects\20549 TL-637 BTR\MXD\Figure 2 TL637 CNDDB and Critical Habitats Map.mxd

Figure 2
TL-637
CNDDB and Critical Habitats Map

Version Date: 1/10/2013

San Diego gumplant

hoary bat

western small-footed myotis

hoary bat

western small-footed myotis

pallid bat

American badger

Dulzura pocket mouse

western mastiff bat

Orcutt's brodiaea

coast horned lizard

San Diego milk-vetch

velvety false lupine

pallid bat

San Bernardino aster

Poles
Access
One-Mile Centerline Buffer
Three-Mile Centerline Buffer
Plant Occurences
Animal Occurences

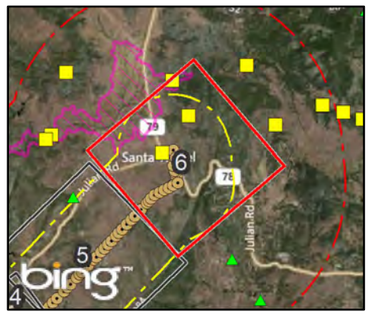
FWS Critical Habitat

arroyo (=arroyo southwestern) toad
coastal California gnatcatcher
San Diego fairy shrimp

SCALE=1:15,000

0 435 870 1,740

Feet



CHAMBERS GROUP

20436 - Y:\Projects\20549 TL-637 BTR\MXD\Figure 2 TL637 CNDDB and Critical Habitats Map.mxd

APPENDIX B – FIGURE 3: TL 637 CRITICAL HABITATS, PRESERVE AREAS, AND SENSITIVE SPECIES MAP

Figure 3
TL-637

Critical Habitats, Preserve Areas, and Sensitive Species Map

Overview

Version Date: 1/10/2013

SCALE=1:55,000

0 1,600 3,200 6,400

Feet

Map Page Index

TL - 637
- Poles
- Access

California Gnatcatcher Survey
- California Gantcatcher Pairs
- California Gantcatcher Survey Area

Focus Plant Survey
- Rare Plants
- Astragalus oocarpus
- Brodiaea orcuttii
- Symphyotrichum defoliatum
- Clarkia delicata
- Tetracoccus dioicus

Sensitive Observed Species
- Observed Wildlife

CNDDB Occurences
- Animal Occurences
- Plant Occurences

FWS Critical Habitat
- arroyo (=arroyo southwestern) toad
- coastal California gnatcatcher
- San Diego fairy shrimp

Preserve Areas
- Cleveland National Forest
- Mt. Gower Preserve
- Simon Preserve

CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 3 TL637 Sensitive Species and Critical Habitats Overview.mxd

Figure 3
TL-637
Critical Habitats, Preserve Areas, and Sensitive Species Map

 Version Date: 1/15/2013

SCALE=1:5,500

0 165 330 660

Feet

SS 1

SS 2

SS 3

SS 4

TL - 637

- Poles
- Access
- Survey Area
- Guard Structure
- Staging Yards
- String Sites

California Gnatcatcher Survey

- California Gantcatcher Pairs
- California Gantcatcher Survey Area

Focus Plant Survey

- Rare Plants
- Astragalus oocarpus
- Brodiaea orcuttii
- Clarkia delicata
- Symphyotrichum defoliatum
- Tetracoccus dioicus

Sensitive Observed Species

- Observed Wildlife

CNDDB Occurences

- Animal Occurences
- Plant Occurences

FWS Critical Habitat

- arroyo (=arroyo southwestern) toad
- coastal California gnatcatcher
- San Diego fairy shrimp

Preserve Areas

- Cleveland National Forest
- Mt. Gower Preserve
- Simon Preserve

CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 3 TL637 Critical Habitats, Preserve Areas, and Sensitive Species Map.mxd

Figure 3
TL-637
Critical Habitats, Preserve Areas, and Sensitive Species Map

 Version Date: 1/15/2013

SCALE=1:5,500
0 165 330 660
Feet

San Diego thorn-mint
coastal California gnatcatcher
Brodiaea orcuttii
Orcutt's brodiaea
SS 4
SS 5
GS1
GS2
GS3
GS4

TL - 637
- Poles
- Access
- Survey Area
- Guard Structure
- Staging Yards
- String Sites

California Gnatcatcher Survey
- California Gantcatcher Pairs
- California Gantcatcher Survey Area

Focus Plant Survey
- Rare Plants
- Astragalus oocarpus
- Brodiaea orcuttii
- Clarkia delicata
- Symphyotrichum defoliatum
- Tetracoccus dioicus

Sensitive Observed Species
- Observed Wildlife

CNDDB Occurences
- Animal Occurences
- Plant Occurences

FWS Critical Habitat
- arroyo (=arroyo southwestern) toad
- coastal California gnatcatcher
- San Diego fairy shrimp

Preserve Areas
- Cleveland National Forest
- Mt. Gower Preserve
- Simon Preserve

CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 3 TL637 Critical Habitats, Preserve Areas, and Sensitive Species Map.mxd

Figure 3
TL-637
Critical Habitats, Preserve Areas, and Sensitive Species Map

 Version Date: 1/15/2013

SCALE=1:5,500
0 165 330 660
Feet

coastal rosy boa
SS 8
GS6
GS5
Parry's tetracoccus
coastal California gnatcatcher
Tetracoccus dioicus
SS 7
SS 6
GS3
GS4
GS1
GS2
coast horned lizard

TL - 637
- Poles
- Access
- Survey Area
- Guard Structure
- Staging Yards
- String Sites

California Gnatcatcher Survey
- California Gantcatcher Pairs
- California Gantcatcher Survey Area

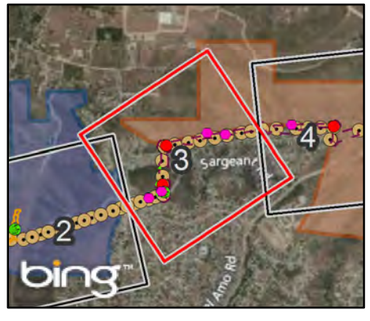
Focus Plant Survey
- Rare Plants
- Astragalus oocarpus
- Brodiaea orcuttii
- Clarkia delicata
- Symphyotrichum defoliatum
- Tetracoccus dioicus

Sensitive Observed Species
- Observed Wildlife

CNDDB Occurences
- Animal Occurences
- Plant Occurences

FWS Critical Habitat
- arroyo (=arroyo southwestern) toad
- coastal California gnatcatcher
- San Diego fairy shrimp

Preserve Areas
- Cleveland National Forest
- Mt. Gower Preserve
- Simon Preserve



CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 3 TL637 Critical Habitats, Preserve Areas, and Sensitive Species Map.mxd

Figure 3
TL-637
Critical Habitats, Preserve Areas, and Sensitive Species Map

 Version Date: 1/15/2013

SCALE=1:5,500

0 165 330 660

Feet

coastal California gnatcatcher

SS 9

SS 10

SS 11

Parry's tetracoccus

TL - 637
- Poles
- Access
- Survey Area
- Guard Structure
- Staging Yards
- String Sites

California Gnatcatcher Survey
- California Gantcatcher Pairs
- California Gantcatcher Survey Area

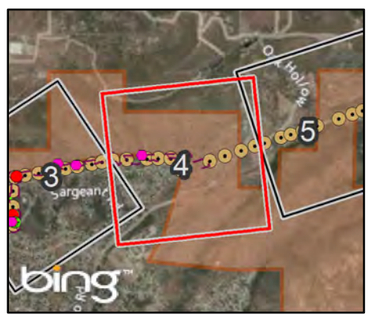
Focus Plant Survey
- Rare Plants
- Astragalus oocarpus
- Brodiaea orcuttii
- Clarkia delicata
- Symphyotrichum defoliatum
- Tetracoccus dioicus

Sensitive Observed Species
- Observed Wildlife

CNDDB Occurences
- Animal Occurences
- Plant Occurences

FWS Critical Habitat
- arroyo (=arroyo southwestern) toad
- coastal California gnatcatcher
- San Diego fairy shrimp

Preserve Areas
- Cleveland National Forest
- Mt. Gower Preserve
- Simon Preserve



CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 3 TL637 Critical Habitats, Preserve Areas, and Sensitive Species Map.mxd

Figure 3
TL-637
Critical Habitats, Preserve Areas, and Sensitive Species Map

 Version Date: 1/15/2013

SCALE=1:5,500

0 165 330 660

Feet

SS 12

TL - 637

- Poles
- Access
- Survey Area
- Guard Structure
- Staging Yards
- String Sites

California Gnatcatcher Survey

- California Gantcatcher Pairs
- California Gantcatcher Survey Area

Focus Plant Survey

- Rare Plants
- Astragalus oocarpus
- Brodiaea orcuttii
- Clarkia delicata
- Symphyotrichum defoliatum
- Tetracoccus dioicus

Sensitive Observed Species

- Observed Wildlife

CNDDB Occurences

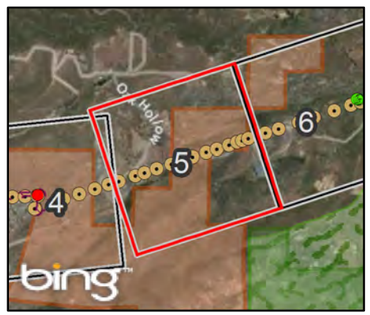
- Animal Occurences
- Plant Occurences

FWS Critical Habitat

- arroyo (=arroyo southwestern) toad
- coastal California gnatcatcher
- San Diego fairy shrimp

Preserve Areas

- Cleveland National Forest
- Mt. Gower Preserve
- Simon Preserve



CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 3 TL637 Critical Habitats, Preserve Areas, and Sensitive Species Map.mxd

Figure 3
TL-637

Critical Habitats, Preserve Areas, and Sensitive Species Map

 Version Date: 1/15/2013

SCALE=1:5,500

0 165 330 660

Feet

Clarkia delicata

Clarkia delicata

SS 13

SS 12

TL - 637

- Poles
- Access
- Survey Area
- Guard Structure
- Staging Yards
- String Sites

California Gnatcatcher Survey

- California Gantcatcher Pairs
- California Gantcatcher Survey Area

Focus Plant Survey

- Rare Plants
- Astragalus oocarpus
- Brodiaea orcuttii
- Clarkia delicata
- Symphyotrichum defoliatum
- Tetracoccus dioicus

Sensitive Observed Species

- Observed Wildlife

CNDDB Occurences

- Animal Occurences
- Plant Occurences

FWS Critical Habitat

- arroyo (=arroyo southwestern) toad
- coastal California gnatcatcher
- San Diego fairy shrimp

Preserve Areas

- Cleveland National Forest
- Mt. Gower Preserve
- Simon Preserve

CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 3 TL637 Critical Habitats, Preserve Areas, and Sensitive Species Map.mxd

Figure 3
TL-637
Critical Habitats, Preserve Areas, and Sensitive Species Map

 Version Date: 1/15/2013

TL - 637
- Poles
- Access
- Survey Area
- Guard Structure
- Staging Yards
- String Sites

California Gnatcatcher Survey
- California Gantcatcher Pairs
- California Gantcatcher Survey Area

Focus Plant Survey
- Rare Plants
- Astragalus oocarpus
- Brodiaea orcuttii
- Clarkia delicata
- Symphyotrichum defoliatum
- Tetracoccus dioicus

Sensitive Observed Species
- Observed Wildlife

CNDDB Occurences
- Animal Occurences
- Plant Occurences

FWS Critical Habitat
- arroyo (=arroyo southwestern) toad
- coastal California gnatcatcher
- San Diego fairy shrimp

Preserve Areas
- Cleveland National Forest
- Mt. Gower Preserve
- Simon Preserve

CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 3 TL637 Critical Habitats, Preserve Areas, and Sensitive Species Map.mxd

Figure 3
TL-637

Critical Habitats, Preserve Areas, and Sensitive Species Map

 Version Date: 1/15/2013

SCALE=1:5,500

0 165 330 660

Feet

southern California rufous-crowned sparrow

Coronado Island skink

SS 15

southern California rufous-crowned sparrow

SS 14

southern California rufous-crowned sparrow

TL - 637

- Poles
- Access
- Survey Area
- Guard Structure
- Staging Yards
- String Sites

California Gnatcatcher Survey

- California Gantcatcher Pairs
- California Gantcatcher Survey Area

Focus Plant Survey

- Rare Plants
- Astragalus oocarpus
- Brodiaea orcuttii
- Clarkia delicata
- Symphyotrichum defoliatum
- Tetracoccus dioicus

Sensitive Observed Species

- Observed Wildlife

CNDDB Occurences

- Animal Occurences
- Plant Occurences

FWS Critical Habitat

- arroyo (=arroyo southwestern) toad
- coastal California gnatcatcher
- San Diego fairy shrimp

Preserve Areas

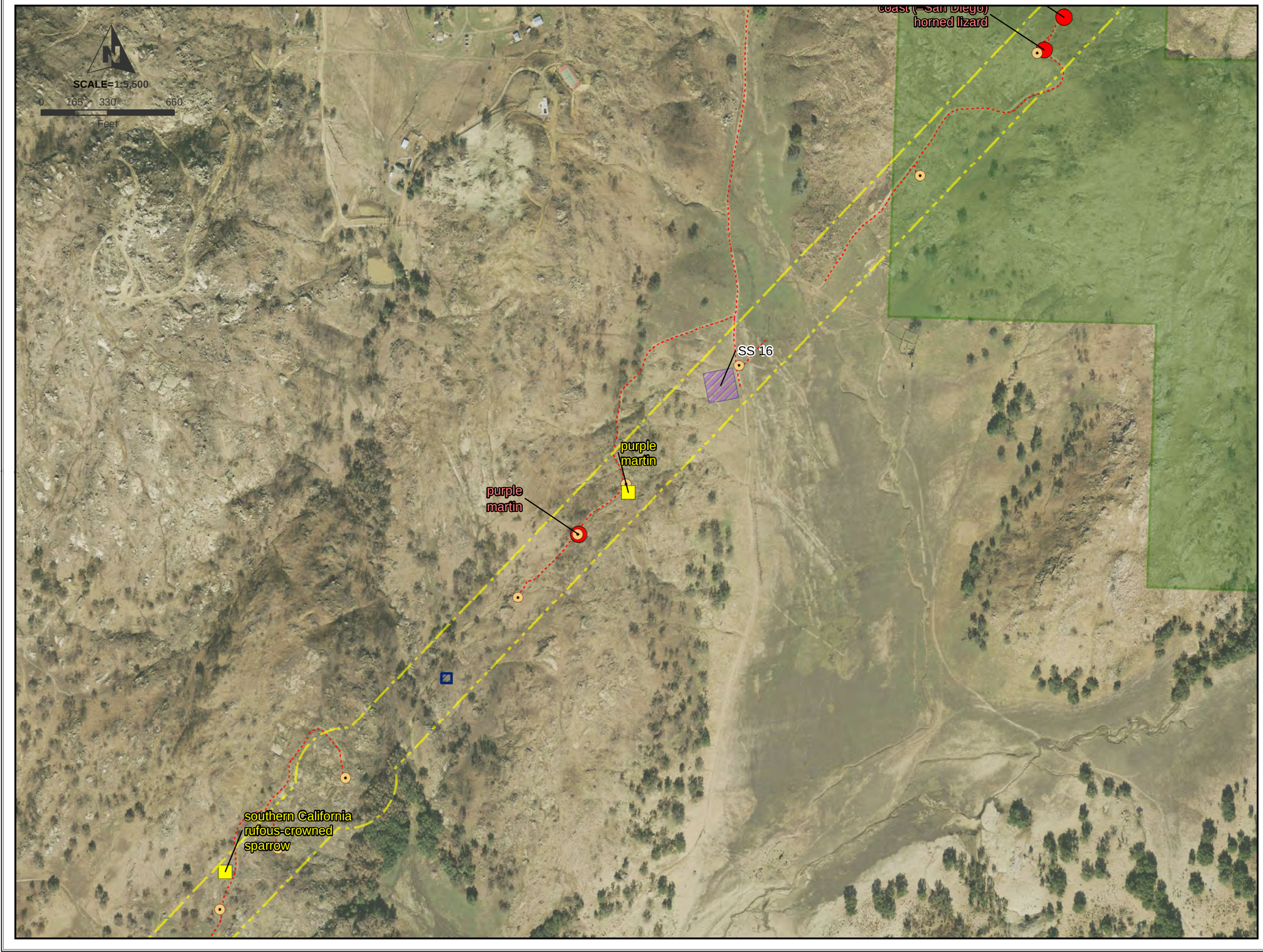
- Cleveland National Forest
- Mt. Gower Preserve
- Simon Preserve

CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 3 TL637 Critical Habitats, Preserve Areas, and Sensitive Species Map.mxd

Figure 3
TL-637
Critical Habitats, Preserve Areas, and Sensitive Species Map

 Version Date: 1/15/2013



TL - 637
- Poles
- Access
- Survey Area
- Guard Structure
- Staging Yards
- String Sites

California Gnatcatcher Survey
- California Gantcatcher Pairs
- California Gantcatcher Survey Area

Focus Plant Survey
- Rare Plants
- Astragalus oocarpus
- Brodiaea orcuttii
- Clarkia delicata
- Symphyotrichum defoliatum
- Tetracoccus dioicus

Sensitive Observed Species
- Observed Wildlife

CNDDB Occurences
- Animal Occurences
- Plant Occurences

FWS Critical Habitat
- arroyo (=arroyo southwestern) toad
- coastal California gnatcatcher
- San Diego fairy shrimp

Preserve Areas
- Cleveland National Forest
- Mt. Gower Preserve
- Simon Preserve

CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 3 TL637 Critical Habitats, Preserve Areas, and Sensitive Species Map.mxd

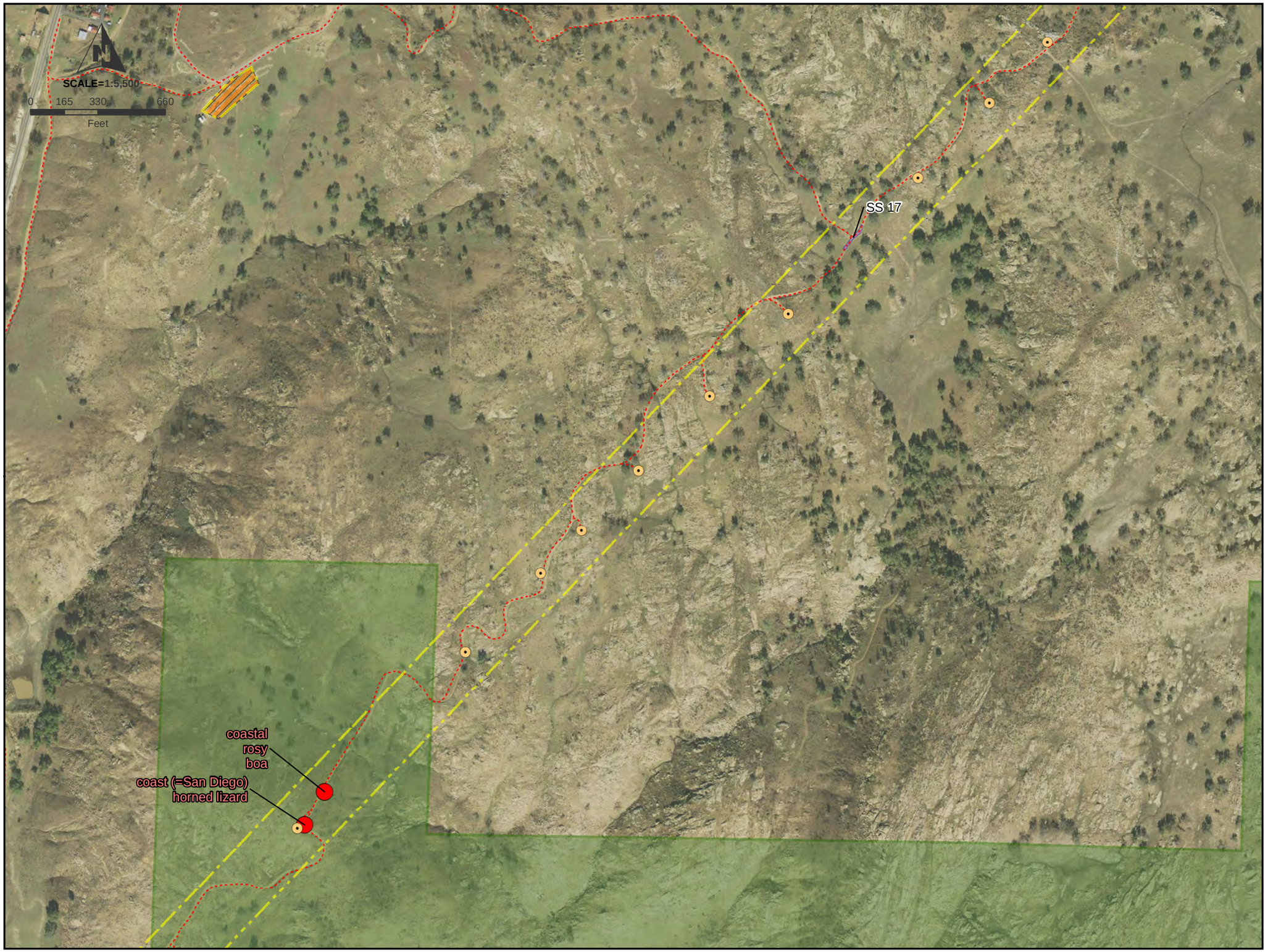


Figure 3
TL-637
Critical Habitats, Preserve Areas, and Sensitive Species Map

 Version Date: 1/15/2013

TL - 637
- Poles
- Access
- Survey Area
- Guard Structure
- Staging Yards
- String Sites

California Gnatcatcher Survey
- California Gantcatcher Pairs
- California Gantcatcher Survey Area

Focus Plant Survey
- Rare Plants
- Astragalus oocarpus
- Brodiaea orcuttii
- Clarkia delicata
- Symphyotrichum defoliatum
- Tetracoccus dioicus

Sensitive Observed Species
- Observed Wildlife

CNDDB Occurences
- Animal Occurences
- Plant Occurences

FWS Critical Habitat
- arroyo (=arroyo southwestern) toad
- coastal California gnatcatcher
- San Diego fairy shrimp

Preserve Areas
- Cleveland National Forest
- Mt. Gower Preserve
- Simon Preserve

CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 3 TL637 Critical Habitats, Preserve Areas, and Sensitive Species Map.mxd

SCALE=1:5,500

0 165 330 660

Feet

Figure 3
TL-637
Critical Habitats, Preserve Areas, and Sensitive Species Map

Page 11 of 14 Version Date: 1/15/2013

TL - 637

- Poles
- Access
- Survey Area
- Guard Structure
- Staging Yards
- String Sites

California Gnatcatcher Survey

- California Gantcatcher Pairs
- California Gantcatcher Survey Area

Focus Plant Survey

- Rare Plants
- Astragalus oocarpus
- Brodiaea orcuttii
- Clarkia delicata
- Symphyotrichum defoliatum
- Tetracoccus dioicus

Sensitive Observed Species

- Observed Wildlife

CNDDB Occurences

- Animal Occurences
- Plant Occurences

FWS Critical Habitat

- arroyo (=arroyo southwestern) toad
- coastal California gnatcatcher
- San Diego fairy shrimp

Preserve Areas

- Cleveland National Forest
- Mt. Gower Preserve
- Simon Preserve

CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 3 TL637 Critical Habitats, Preserve Areas, and Sensitive Species Map.mxd

Figure 3
TL-637
Critical Habitats, Preserve Areas, and Sensitive Species Map

 Version Date: 1/15/2013

TL - 637
- Poles
- Access
- Survey Area
- Guard Structure
- Staging Yards
- String Sites

California Gnatcatcher Survey
- California Gantcatcher Pairs
- California Gantcatcher Survey Area

Focus Plant Survey
- Rare Plants
- Astragalus oocarpus
- Brodiaea orcuttii
- Clarkia delicata
- Symphyotrichum defoliatum
- Tetracoccus dioicus

Sensitive Observed Species
- Observed Wildlife

CNDDB Occurences
- Animal Occurences
- Plant Occurences

FWS Critical Habitat
- arroyo (=arroyo southwestern) toad
- coastal California gnatcatcher
- San Diego fairy shrimp

Preserve Areas
- Cleveland National Forest
- Mt. Gower Preserve
- Simon Preserve

CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 3 TL637 Critical Habitats, Preserve Areas, and Sensitive Species Map.mxd

Figure 3
TL-637
Critical Habitats, Preserve Areas, and Sensitive Species Map

 Version Date: 1/15/2013

SCALE=1:5,500

0 165 330 660

Feet

SS 20

SS 21

SS 19

SS 18

Clarkia delicata

TL - 637

- Poles
- Access
- Survey Area
- Guard Structure
- Staging Yards
- String Sites

California Gnatcatcher Survey

- California Gantcatcher Pairs
- California Gantcatcher Survey Area

Focus Plant Survey

- Rare Plants
- Astragalus oocarpus
- Brodiaea orcuttii
- Clarkia delicata
- Symphyotrichum defoliatum
- Tetracoccus dioicus

Sensitive Observed Species

- Observed Wildlife

CNDDB Occurences

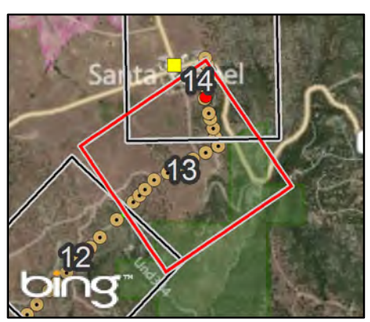
- Animal Occurences
- Plant Occurences

FWS Critical Habitat

- arroyo (=arroyo southwestern) toad
- coastal California gnatcatcher
- San Diego fairy shrimp

Preserve Areas

- Cleveland National Forest
- Mt. Gower Preserve
- Simon Preserve



CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 3 TL637 Critical Habitats, Preserve Areas, and Sensitive Species Map.mxd

Figure 3
TL-637
Critical Habitats, Preserve Areas, and Sensitive Species Map

 Version Date: 1/15/2013

SCALE=1:5,500

0 165 330 660

Feet

SS 22

western mastiff bat

American badger

pallid bat

coast horned lizard

Dulzura pocket mouse

GS10

GS9

white-tailed kite (nesting)

Cooper's hawk (nesting)

TL - 637

- Poles
- Access
- Survey Area
- Guard Structure
- Staging Yards
- String Sites

California Gnatcatcher Survey

- California Gantcatcher Pairs
- California Gantcatcher Survey Area

Focus Plant Survey

- Rare Plants
- Astragalus oocarpus
- Brodiaea orcuttii
- Clarkia delicata
- Symphyotrichum defoliatum
- Tetracoccus dioicus

Sensitive Observed Species

- Observed Wildlife

CNDDB Occurences

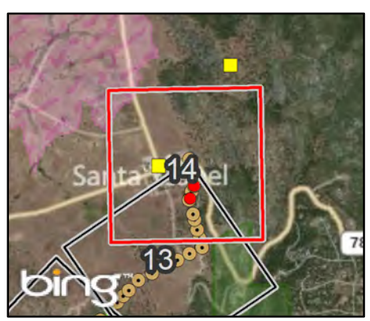
- Animal Occurences
- Plant Occurences

FWS Critical Habitat

- arroyo (=arroyo southwestern) toad
- coastal California gnatcatcher
- San Diego fairy shrimp

Preserve Areas

- Cleveland National Forest
- Mt. Gower Preserve
- Simon Preserve



CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 3 TL637 Critical Habitats, Preserve Areas, and Sensitive Species Map.mxd

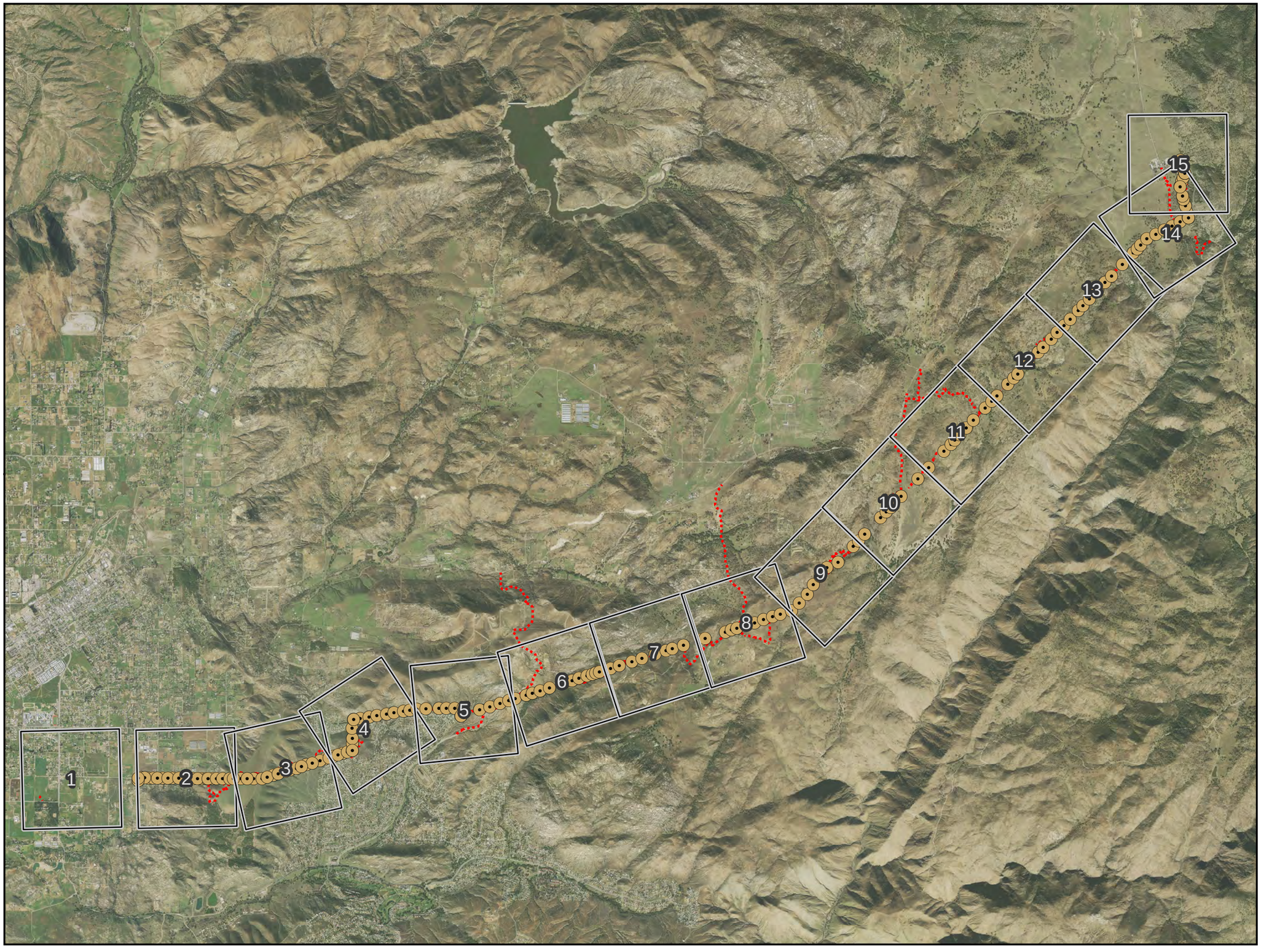
APPENDIX B – FIGURE 4: TL 637 VEGETATION COMMUNITIES MAP

Figure 4
TL-637

Vegetation Communities Map

Overview

Version Date: 1/17/2013



Map Page Index

Access

Poles

SCALE=1:60,000

0 1,700 3,400 6,800

Feet

CHAMBERS GROUP

20436 - Y:\Projects\20549 TL-637 BTR\MXD\Figure 4 TL637 Vegetation Communities Overview.mxd

Figure 4
TL-637

Vegetation Communities Map

 Version Date: 1/21/2013

SS 1 13

5
1

1
13

Poles
Access
Staging Yards
String Sites
Survey Area
Guard Structure

FWS National Wetland Inventory

Wetlands

Vegetation Community

1. Agriculture
2. Chaparral
3. Diegan Coastal Sage Scrub
4. Distubed Wetland
5. Disturbed
6. Freshwater Seep/Open Water
7. Grassland
8. Mixed Oak Woodland
9. Oak Savanna
10. Southern Mixed Chaparral
11. Southern Mixed Chaparral/Coastal Sage Scrub
12. Southern Riparian Forest
13. Urban and Developed/Ornamental Landscaping

Rare Plants

Rare Plant Points
Astragalus oocarpus
Brodiaea orcuttii
Clarkia delicata
Symphyotrichum defoliatum
Tetracoccus dioicus

CHAMBERS GROUP

20436 - Y:\Projects\20549 TL-637 BTR\MXD\Figure 4 TL637 Vegetation Communities Map.mxd

Figure 4
TL-637

Vegetation Communities Map

 Version Date: 1/21/2013

SS 1
SS 2
SS 3
SS 4
13
13
13
3
7

Poles
Access
Staging Yards
String Sites
Survey Area
Guard Structure

FWS National Wetland Inventory

Wetlands

Vegetation Community

1. Agriculture
2. Chaparral
3. Diegan Coastal Sage Scrub
4. Distubed Wetland
5. Disturbed
6. Freshwater Seep/Open Water
7. Grassland
8. Mixed Oak Woodland
9. Oak Savanna
10. Southern Mixed Chaparral
11. Southern Mixed Chaparral/Coastal Sage Scrub
12. Southern Riparian Forest
13. Urban and Developed/Ornamental Landscaping

Rare Plants

Rare Plant Points
Astragalus oocarpus
Brodiaea orcuttii
Clarkia delicata
Symphyotrichum defoliatum
Tetracoccus dioicus

CHAMBERS GROUP

20436 - Y:\Projects\20549 TL-637 BTR\MXD\Figure 4 TL637 Vegetation Communities Map.mxd

Figure 4
TL-637

Vegetation Communities Map

Version Date: 1/21/2013

Poles
Access
Staging Yards
String Sites
Survey Area
Guard Structure

FWS National Wetland Inventory

Wetlands

Vegetation Community

1. Agriculture
2. Chaparral
3. Diegan Coastal Sage Scrub
4. Distubed Wetland
5. Disturbed
6. Freshwater Seep/Open Water
7. Grassland
8. Mixed Oak Woodland
9. Oak Savanna
10. Southern Mixed Chaparral
11. Southern Mixed Chaparral/Coastal Sage Scrub
12. Southern Riparian Forest
13. Urban and Developed/Ornamental Landscaping

Rare Plants

Rare Plant Points
Astragalus oocarpus
Brodiaea orcuttii
Clarkia delicata
Symphyotrichum defoliatum
Tetracoccus dioicus

CHAMBERS GROUP

20436 - Y:\Projects\20549 TL-637 BTR\MXD\Figure 4 TL637 Vegetation Communities Map.mxd

Figure 4
TL-637

Vegetation Communities Map

 Version Date: 1/21/2013

SS 8
GS6
GS5
Tetracoccus dioicus
SS 7
SS 6
GS3
GS1
GS4
GS2

Poles
Access
Staging Yards
String Sites
Survey Area
Guard Structure

FWS National Wetland Inventory

Wetlands

Vegetation Community

1. Agriculture
2. Chaparral
3. Diegan Coastal Sage Scrub
4. Distubed Wetland
5. Disturbed
6. Freshwater Seep/Open Water
7. Grassland
8. Mixed Oak Woodland
9. Oak Savanna
10. Southern Mixed Chaparral
11. Southern Mixed Chaparral/Coastal Sage Scrub
12. Southern Riparian Forest
13. Urban and Developed/Ornamental Landscaping

Rare Plants

Rare Plant Points
Astragalus oocarpus
Brodiaea orcuttii
Clarkia delicata
Symphyotrichum defoliatum
Tetracoccus dioicus

CHAMBERS GROUP

20436 - Y:\Projects\20549 TL-637 BTR\MXD\Figure 4 TL637 Vegetation Communities Map.mxd

Figure 4
TL-637

Vegetation Communities Map

Version Date: 1/21/2013

SS 9

SS 10

SS 11

Poles
Access
Staging Yards
String Sites
Survey Area
Guard Structure

FWS National Wetland Inventory

Wetlands

Vegetation Community

1. Agriculture
2. Chaparral
3. Diegan Coastal Sage Scrub
4. Distubed Wetland
5. Disturbed
6. Freshwater Seep/Open Water
7. Grassland
8. Mixed Oak Woodland
9. Oak Savanna
10. Southern Mixed Chaparral
11. Southern Mixed Chaparral/Coastal Sage Scrub
12. Southern Riparian Forest
13. Urban and Developed/Ornamental Landscaping

Rare Plants

Rare Plant Points
Astragalus oocarpus
Brodiaea orcuttii
Clarkia delicata
Symphyotrichum defoliatum
Tetracoccus dioicus

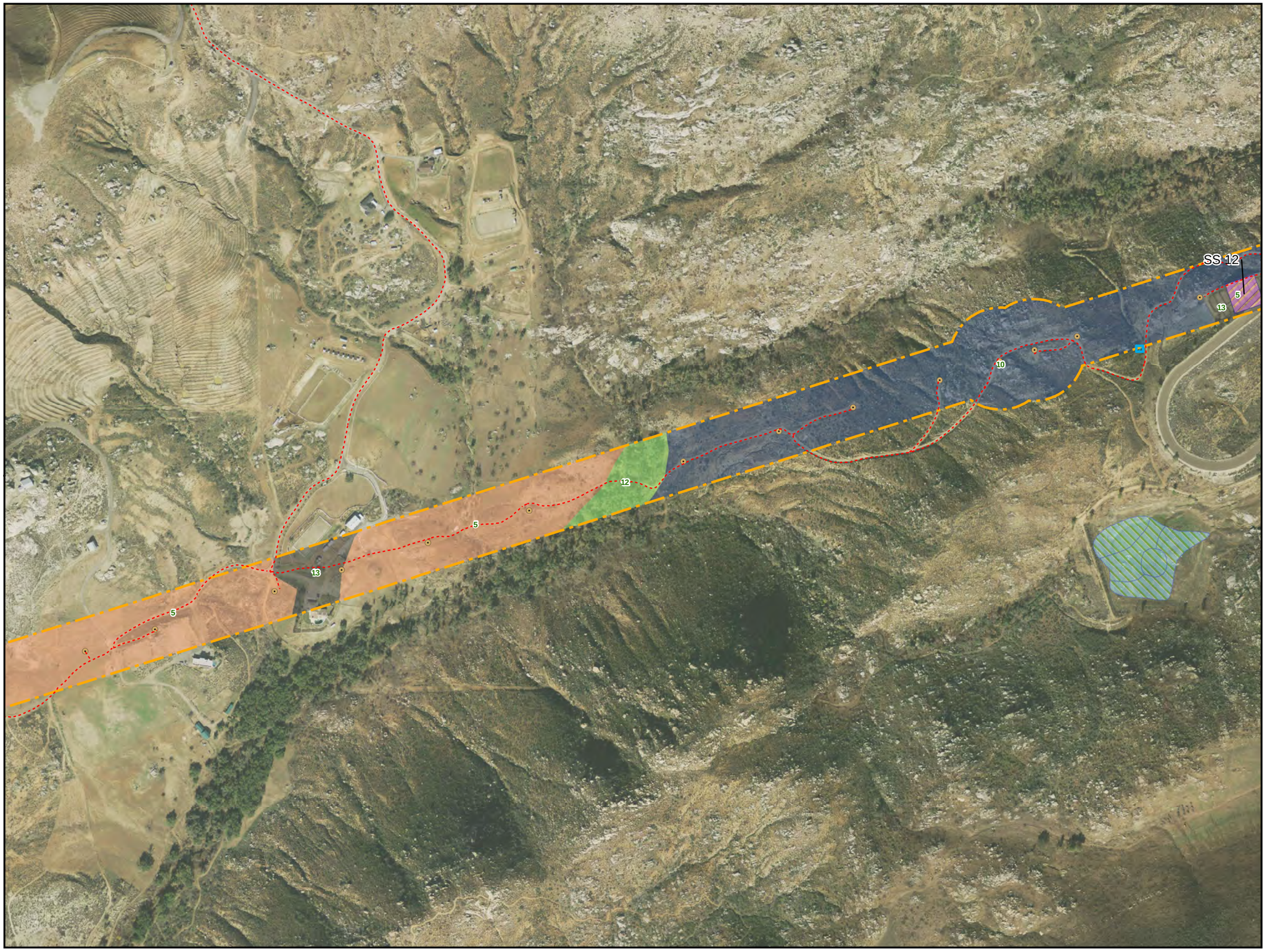
CHAMBERS GROUP

20436 - Y:\Projects\20549 TL-637 BTR\MXD\Figure 4 TL637 Vegetation Communities Map.mxd

Figure 4
TL-637

Vegetation Communities Map

Version Date: 1/21/2013



Poles
Access
Staging Yards
String Sites
Survey Area
Guard Structure

FWS National Wetland Inventory

Wetlands

Vegetation Community

1. Agriculture
2. Chaparral
3. Diegan Coastal Sage Scrub
4. Distubed Wetland
5. Disturbed
6. Freshwater Seep/Open Water
7. Grassland
8. Mixed Oak Woodland
9. Oak Savanna
10. Southern Mixed Chaparral
11. Southern Mixed Chaparral/Coastal Sage Scrub
12. Southern Riparian Forest
13. Urban and Developed/Ornamental Landscaping

Rare Plants

Rare Plant Points
Astragalus oocarpus
Brodiaea orcuttii
Clarkia delicata
Symphyotrichum defoliatum
Tetracoccus dioicus

CHAMBERS GROUP

Figure 4
TL-637

Vegetation Communities Map

 Version Date: 1/21/2013

Poles
Access
Staging Yards
String Sites
Survey Area
Guard Structure

FWS National Wetland Inventory

Wetlands

Vegetation Community

1. Agriculture
2. Chaparral
3. Diegan Coastal Sage Scrub
4. Distubed Wetland
5. Disturbed
6. Freshwater Seep/Open Water
7. Grassland
8. Mixed Oak Woodland
9. Oak Savanna
10. Southern Mixed Chaparral
11. Southern Mixed Chaparral/Coastal Sage Scrub
12. Southern Riparian Forest
13. Urban and Developed/Ornamental Landscaping

Rare Plants

Rare Plant Points
Astragalus oocarpus
Brodiaea orcuttii
Clarkia delicata
Symphyotrichum defoliatum
Tetracoccus dioicus

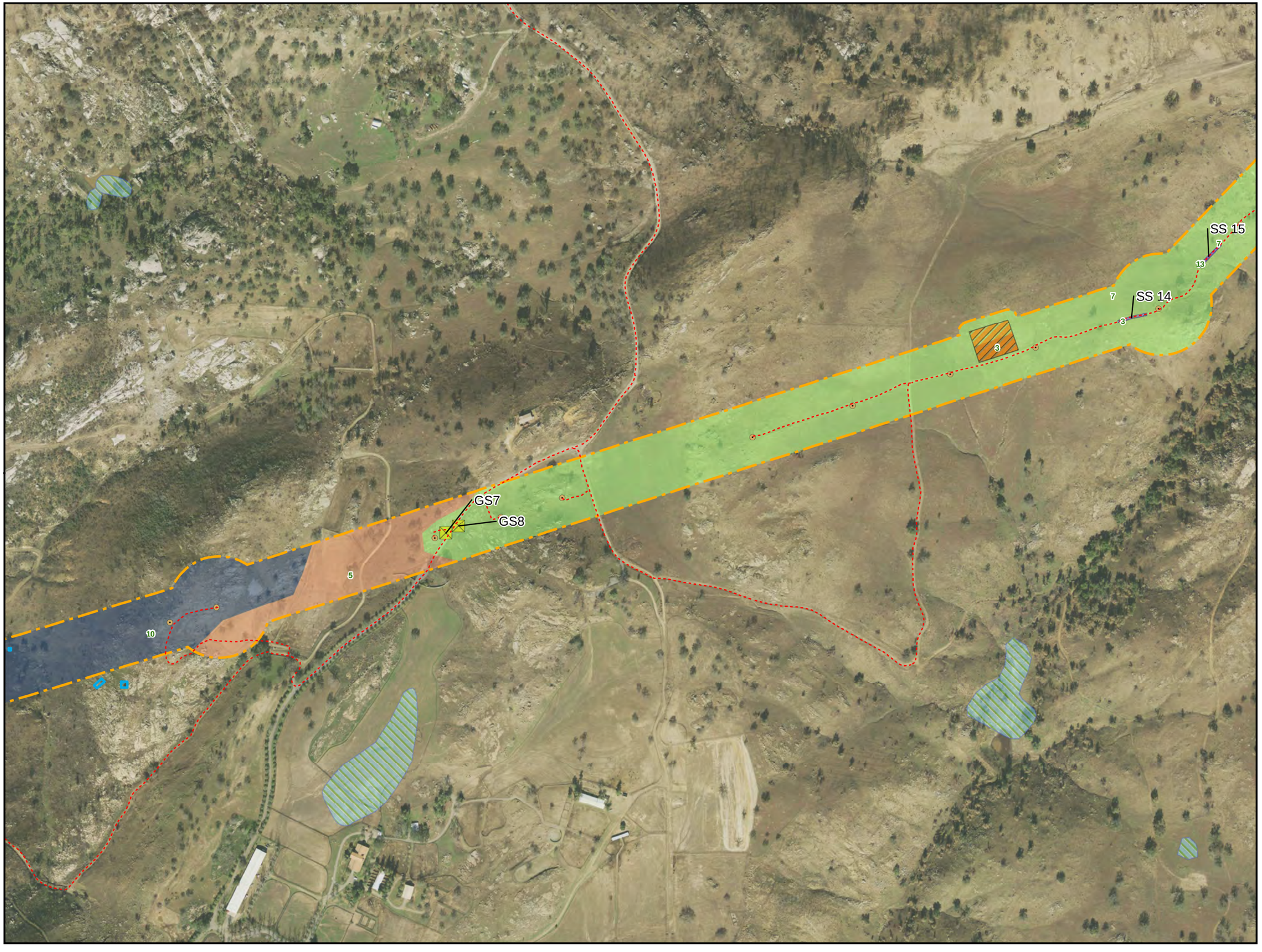
CHAMBERS GROUP

20436 - Y:\Projects\20549 TL-637 BTR\MXD\Figure 4 TL637 Vegetation Communities Map.mxd

Figure 4
TL-637

Vegetation Communities Map

 Version Date: 1/21/2013



Poles
Access
Staging Yards
String Sites
Survey Area
Guard Structure

FWS National Wetland Inventory

Wetlands

Vegetation Community

1. Agriculture
2. Chaparral
3. Diegan Coastal Sage Scrub
4. Distubed Wetland
5. Disturbed
6. Freshwater Seep/Open Water
7. Grassland
8. Mixed Oak Woodland
9. Oak Savanna
10. Southern Mixed Chaparral
11. Southern Mixed Chaparral/Coastal Sage Scrub
12. Southern Riparian Forest
13. Urban and Developed/Ornamental Landscaping

Rare Plants

Rare Plant Points
Astragalus oocarpus
Brodiaea orcuttii
Clarkia delicata
Symphyotrichum defoliatum
Tetracoccus dioicus

CHAMBERS GROUP

20436 - Y:\Projects\20549 TL-637 BTR\MXD\Figure 4 TL637 Vegetation Communities Map.mxd

Figure 4
TL-637

Vegetation Communities Map

 Version Date: 1/21/2013

SS 15

SS 14

Poles
Access
Staging Yards
String Sites
Survey Area
Guard Structure

FWS National Wetland Inventory

Wetlands

Vegetation Community

1. Agriculture
2. Chaparral
3. Diegan Coastal Sage Scrub
4. Distubed Wetland
5. Disturbed
6. Freshwater Seep/Open Water
7. Grassland
8. Mixed Oak Woodland
9. Oak Savanna
10. Southern Mixed Chaparral
11. Southern Mixed Chaparral/Coastal Sage Scrub
12. Southern Riparian Forest
13. Urban and Developed/Ornamental Landscaping

Rare Plants

Rare Plant Points
Astragalus oocarpus
Brodiaea orcuttii
Clarkia delicata
Symphyotrichum defoliatum
Tetracoccus dioicus

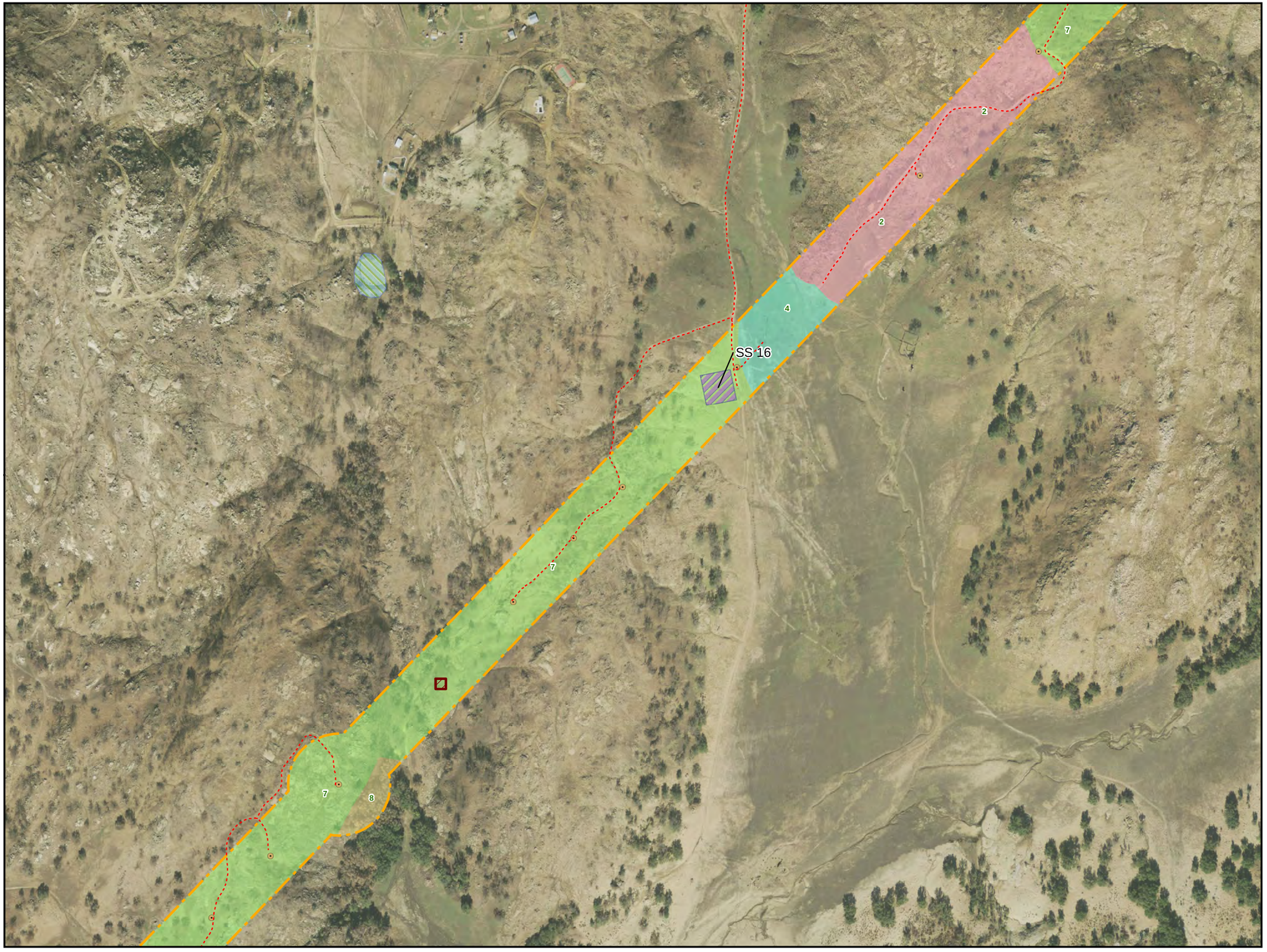
CHAMBERS GROUP

20436 - Y:\Projects\20549 TL-637 BTR\MXD\Figure 4 TL637 Vegetation Communities Map.mxd

Figure 4
TL-637

Vegetation Communities Map

 Version Date: 1/21/2013



Poles
Access
Staging Yards
String Sites
Survey Area
Guard Structure

FWS National Wetland Inventory

Wetlands

Vegetation Community

1. Agriculture
2. Chaparral
3. Diegan Coastal Sage Scrub
4. Distubed Wetland
5. Disturbed
6. Freshwater Seep/Open Water
7. Grassland
8. Mixed Oak Woodland
9. Oak Savanna
10. Southern Mixed Chaparral
11. Southern Mixed Chaparral/Coastal Sage Scrub
12. Southern Riparian Forest
13. Urban and Developed/Ornamental Landscaping

Rare Plants

Rare Plant Points
Astragalus oocarpus
Brodiaea orcuttii
Clarkia delicata
Symphyotrichum defoliatum
Tetracoccus dioicus

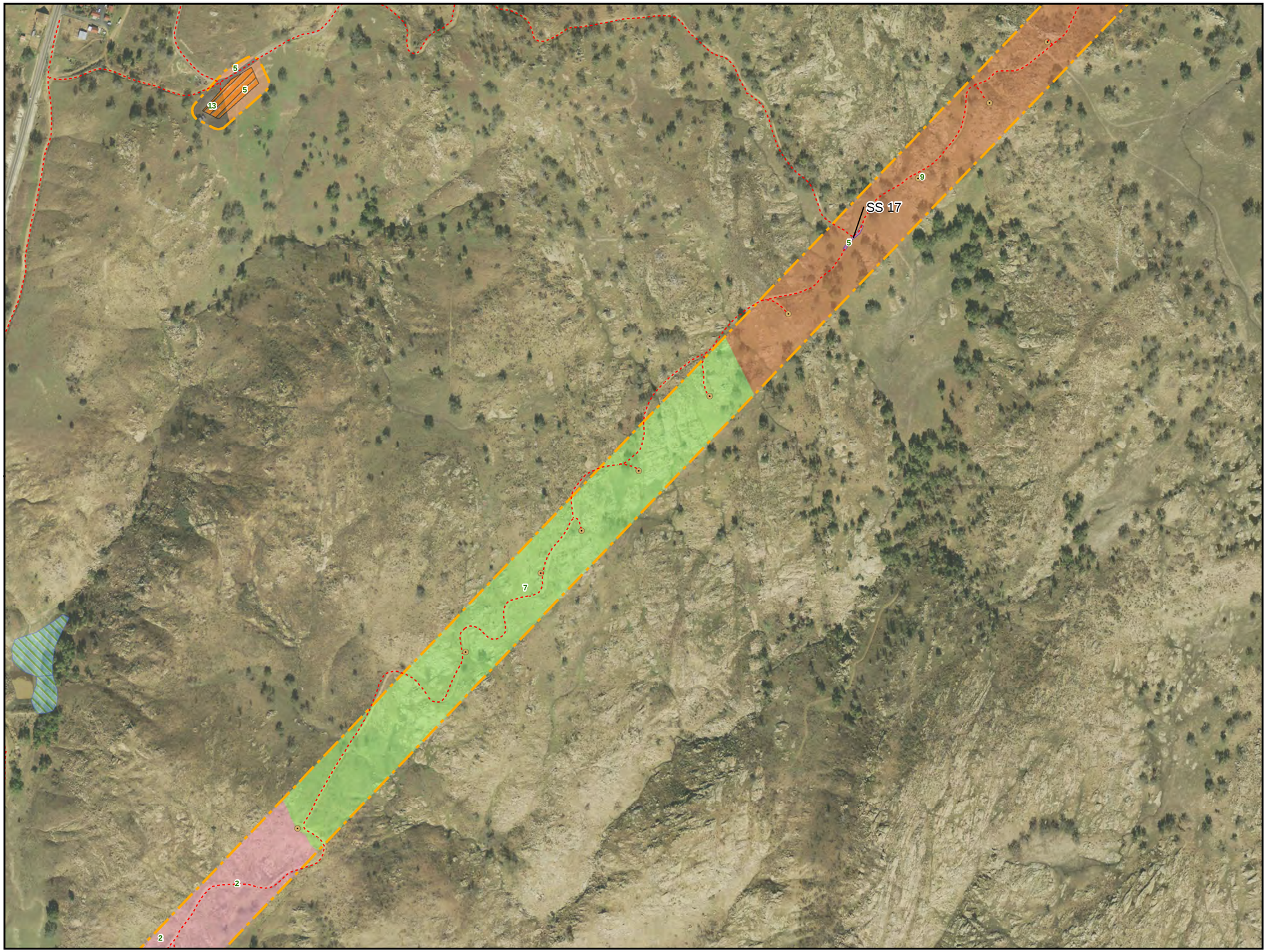
CHAMBERS GROUP

20436 - Y:\Projects\20549 TL-637 BTR\MXD\Figure 4 TL637 Vegetation Communities Map.mxd

Figure 4
TL-637

Vegetation Communities Map

 Version Date: 1/21/2013



Poles
Access
Staging Yards
String Sites
Survey Area
Guard Structure

FWS National Wetland Inventory

Wetlands

Vegetation Community

1. Agriculture
2. Chaparral
3. Diegan Coastal Sage Scrub
4. Distubed Wetland
5. Disturbed
6. Freshwater Seep/Open Water
7. Grassland
8. Mixed Oak Woodland
9. Oak Savanna
10. Southern Mixed Chaparral
11. Southern Mixed Chaparral/Coastal Sage Scrub
12. Southern Riparian Forest
13. Urban and Developed/Ornamental Landscaping

Rare Plants

Rare Plant Points
Astragalus oocarpus
Brodiaea orcuttii
Clarkia delicata
Symphyotrichum defoliatum
Tetracoccus dioicus

CHAMBERS GROUP

20436 - Y:\Projects\20549 TL-637 BTR\MXD\Figure 4 TL637 Vegetation Communities Map.mxd

Figure 4
TL-637

Vegetation Communities Map

 Version Date: 1/21/2013

Poles
Access
Staging Yards
String Sites
Survey Area
Guard Structure

FWS National Wetland Inventory

Wetlands

Vegetation Community

1. Agriculture
2. Chaparral
3. Diegan Coastal Sage Scrub
4. Distubed Wetland
5. Disturbed
6. Freshwater Seep/Open Water
7. Grassland
8. Mixed Oak Woodland
9. Oak Savanna
10. Southern Mixed Chaparral
11. Southern Mixed Chaparral/Coastal Sage Scrub
12. Southern Riparian Forest
13. Urban and Developed/Ornamental Landscaping

Rare Plants

Rare Plant Points
Astragalus oocarpus
Brodiaea orcuttii
Clarkia delicata
Symphyotrichum defoliatum
Tetracoccus dioicus

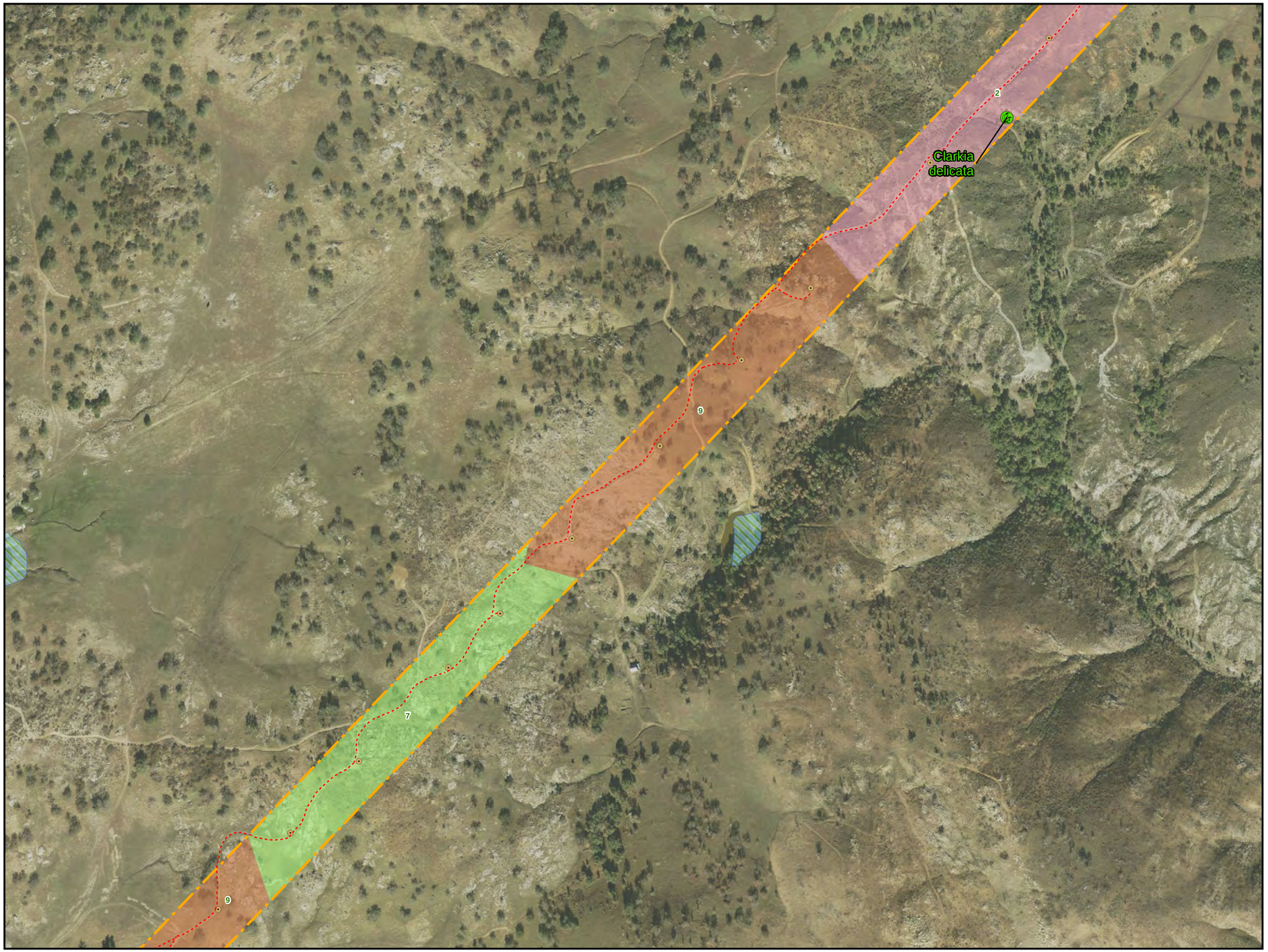
CHAMBERS GROUP

20436 - Y:\Projects\20549 TL-637 BTR\MXD\Figure 4 TL637 Vegetation Communities Map.mxd

Figure 4
TL-637

Vegetation Communities Map

 Version Date: 1/21/2013



Poles
Access
Staging Yards
String Sites
Survey Area
Guard Structure

FWS National Wetland Inventory

Wetlands

Vegetation Community

1. Agriculture
2. Chaparral
3. Diegan Coastal Sage Scrub
4. Distubed Wetland
5. Disturbed
6. Freshwater Seep/Open Water
7. Grassland
8. Mixed Oak Woodland
9. Oak Savanna
10. Southern Mixed Chaparral
11. Southern Mixed Chaparral/Coastal Sage Scrub
12. Southern Riparian Forest
13. Urban and Developed/Ornamental Landscaping

Rare Plants

Rare Plant Points
Astragalus oocarpus
Brodiaea orcuttii
Clarkia delicata
Symphyotrichum defoliatum
Tetracoccus dioicus

CHAMBERS GROUP

20436 - Y:\Projects\20549 TL-637 BTR\MXD\Figure 4 TL637 Vegetation Communities Map.mxd

Figure 4
TL-637

Vegetation Communities Map

 Version Date: 1/21/2013

SS 21
SS 20
SS 19
SS 18
Clarkia delicata

Poles
Access
Staging Yards
String Sites
Survey Area
Guard Structure

FWS National Wetland Inventory

Wetlands

Vegetation Community

1. Agriculture
2. Chaparral
3. Diegan Coastal Sage Scrub
4. Distubed Wetland
5. Disturbed
6. Freshwater Seep/Open Water
7. Grassland
8. Mixed Oak Woodland
9. Oak Savanna
10. Southern Mixed Chaparral
11. Southern Mixed Chaparral/Coastal Sage Scrub
12. Southern Riparian Forest
13. Urban and Developed/Ornamental Landscaping

Rare Plants

Rare Plant Points
Astragalus oocarpus
Brodiaea orcuttii
Clarkia delicata
Symphyotrichum defoliatum
Tetracoccus dioicus

CHAMBERS GROUP

20436 - Y:\Projects\20549 TL-637 BTR\MXD\Figure 4 TL637 Vegetation Communities Map.mxd

Figure 4
TL-637

Vegetation Communities Map

Version Date: 1/21/2013

SS 22

GS9

GS10

Poles
Access
Staging Yards
String Sites
Survey Area
Guard Structure

FWS National Wetland Inventory

Wetlands

Vegetation Community

1. Agriculture
2. Chaparral
3. Diegan Coastal Sage Scrub
4. Distubed Wetland
5. Disturbed
6. Freshwater Seep/Open Water
7. Grassland
8. Mixed Oak Woodland
9. Oak Savanna
10. Southern Mixed Chaparral
11. Southern Mixed Chaparral/Coastal Sage Scrub
12. Southern Riparian Forest
13. Urban and Developed/Ornamental Landscaping

Rare Plants

Rare Plant Points
Astragalus oocarpus
Brodiaea orcuttii
Clarkia delicata
Symphyotrichum defoliatum
Tetracoccus dioicus

CHAMBERS GROUP

20436 - Y:\Projects\20549 TL-637 BTR\MXD\Figure 4 TL637 Vegetation Communities Map.mxd

APPENDIX B – FIGURE 5: TL 637 LAND OWNERSHIP MAP

Figure 5
TL-637

Land Ownership Map

Version Date: 1/15/2013

Poles
Access
Survey Area
Staging Yards
String Sites

Preserve Areas

Mt. Gower Preserve
Simon Preserve

Land Ownership Agency

County of San Diego
Bureau of Land Management
United States Forest Service
Private

SCALE=1:55,000

0 1,600 3,200 6,400

Feet

CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 5 TL637 Land Ownership Map.mxd

APPENDIX B – FIGURE 6: TL 637 SOIL SURVEY MAP

Figure 6
TL-637
Soil Survey Map

Overview Version Date: 1/10/2013

Map Page Index
Poles
Access

SCALE=1:55,000

0 1,600 3,200 6,400

Feet

CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 6 TL637 Soils Survey Overview.mxd

SSURGO Soil Survey

Map Unit Symbol	Map Unit Name
AcG	Acid igneous rock land
AuF	Anderson very gravelly sandy loam, 9 to 45 percent slop es
CmE2	Cieneba rocky coarse sandy loam, 9 to 30 percent slopes , eroded
CmrG	Cieneba very rocky coarse sandy loam, 30 to 75 percent slopes
CnE2	Cieneba-Fallbrook rocky sandy loams, 9 to 30 percent sl opes, eroded
Co	Clayey alluvial land
CuE	Crouch rocky coarse sandy loam, 5 to 30 percent slopes
FaD2	Fallbrook sandy loam, 9 to 15 percent slopes, eroded
GrC	Greenfield sandy loam, 5 to 9 percent slopes
HmE	Holland fine sandy loam, 15 to 30 percent slopes
HmD	Holland fine sandy loam, 5 to 15 percent slopes
HoC	Holland fine sandy loam, deep, 2 to 9 percent slopes
HnG	Holland stony fine sandy loam, 30 to 60 percent slopes
HnE	Holland stony fine sandy loam, 5 to 30 percent slopes
LcE	La Posta rocky loamy coarse sand, 5 to 30 percent slope s
Lu	Loamy alluvial land
OhF	Olivenhain cobbly loam, 30 to 50 percent slopes
OhE	Olivenhain cobbly loam, 9 to 30 percent slopes
PeC	Placentia sandy loam, 2 to 9 percent slopes
RcD	Ramona gravelly sandy loam, 9 to 15 percent slopes
RaC	Ramona sandy loam, 5 to 9 percent slopes
RkA	Reiff fine sandy loam, 0 to 2 percent slopes
SpG2	Sheephead rocky fine sandy loam, 30 to 65 percent slope s, eroded
SpE2	Sheephead rocky fine sandy loam, 9 to 30 percent slopes , eroded
ToG	Tollhouse rocky coarse sandy loam, 30 to 65 percent slo pes
VaD	Visalia sandy loam, 9 to 15 percent slopes
VsD	Vista coarse sandy loam, 9 to 15 percent slopes
VvD	Vista rocky coarse sandy loam, 5 to 15 percent slopes

Y:\Projects\20549 TL-637 BTR\MXD\Figure 6 TL637 Soil Survey Map Index.mxd

Figure 6
TL-637
Soil Survey Map

 Version Date: 1/15/2013

Poles
Access
Staging Yards
String Sites

***SSURGO Soils Label = Map Unit Symbol**

SCALE=1:5,500

0 165 330 660

Feet

CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 6 TL637 Soil Survey Map.mxd

Figure 6
TL-637
Soil Survey Map

Version Date: 1/15/2013

FaC
OhF
OhE
OhF
VvD
OhE
FaD2
PeC
Co
AuF
PeA
PeC
CmE2
SS 4
SS 5

- Poles
- Access
- Staging Yards
- String Sites

***SSURGO Soils Label = Map Unit Symbol**

SCALE=1:5,500

0 165 330 660

Feet

CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 6 TL637 Soil Survey Map.mxd

Figure 6
TL-637
Soil Survey Map

Version Date: 1/15/2013

Poles
Access
Staging Yards
String Sites

***SSURGO Soils Label = Map Unit Symbol**

N

SCALE=1:5,500

0 165 330 660

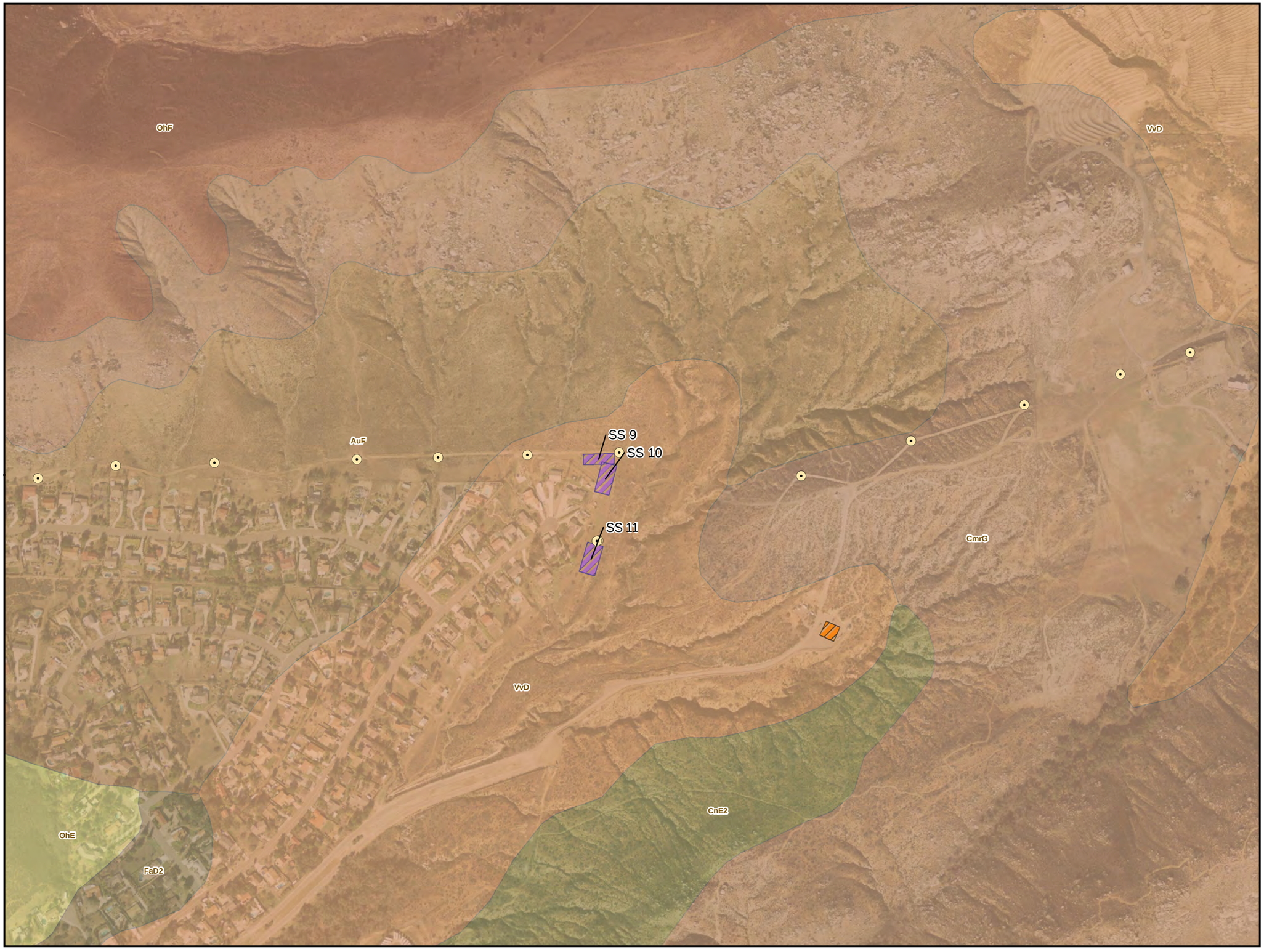
Feet

CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 6 TL637 Soil Survey Map.mxd

Figure 6
TL-637
Soil Survey Map

Version Date: 1/15/2013



- Poles
- Access
- Staging Yards
- String Sites

***SSURGO Soils Label = Map Unit Symbol**

N

SCALE=1:5,500

0 165 330 660

Feet

CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 6 TL637 Soil Survey Map.mxd

Figure 6
TL-637
Soil Survey Map

 Version Date: 1/15/2013

OhF

VvD

CmrG

CmE2

SS 12

Poles
Access
Staging Yards
String Sites

***SSURGO Soils Label**
= Map Unit Symbol

SCALE=1:5,500

0 165 330 660
Feet

CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 6 TL637 Soil Survey Map.mxd

Figure 6
TL-637
Soil Survey Map

 Version Date: 1/15/2013

FeC
CmE2
CmrG
SS 13
SS 12
CmE2
ToG
LcE
HnE
Lu
HmD
ToG

Poles
Access
Staging Yards
String Sites

***SSURGO Soils Label = Map Unit Symbol**

SCALE=1:5,500

0 165 330 660
Feet

CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 6 TL637 Soil Survey Map.mxd

Figure 6
TL-637
Soil Survey Map

 Version Date: 1/15/2013

CmE2
AcG
CnG2
Lu
CnE2
FeC
VvD
HoC
SS 15
SS 14
LcE
CmE2
HmD
HoC
VaD
CmrG
HnE
ToG
Lu
HmD
LcE
ToG
HmD
HoC

- Poles
- Access
- Staging Yards
- String Sites

***SSURGO Soils Label = Map Unit Symbol**

SCALE=1:5,500

0 165 330 660

Feet

CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 6 TL637 Soil Survey Map.mxd

Figure 6
TL-637
Soil Survey Map

Version Date: 1/15/2013

FeE
CnE2
CnG2
AcG
HoC
SS 15
SS 14
ToG
LcE
Lu
HmE
HnG
HnE
VaB

Poles
Access
Staging Yards
String Sites

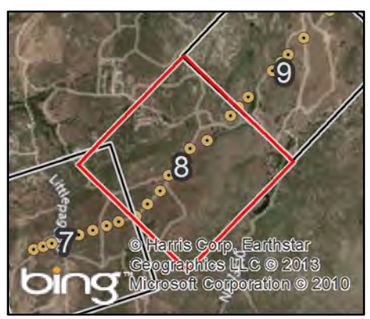
***SSURGO Soils Label = Map Unit Symbol**

N

SCALE=1:5,500

0 165 330 660

Feet



CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 6 TL637 Soil Survey Map.mxd

Figure 6
TL-637
Soil Survey Map

 Version Date: 1/15/2013

HnG
VaC
HmD
HnG
SS 16
HnE
AcG
HmE
HnG
RkA
ToG
Lu
HnE
Lu
LcE
HnE
Lu

- Poles
- Access
- Staging Yards
- String Sites

***SSURGO Soils Label = Map Unit Symbol**

SCALE=1:5,500

0 165 330 660

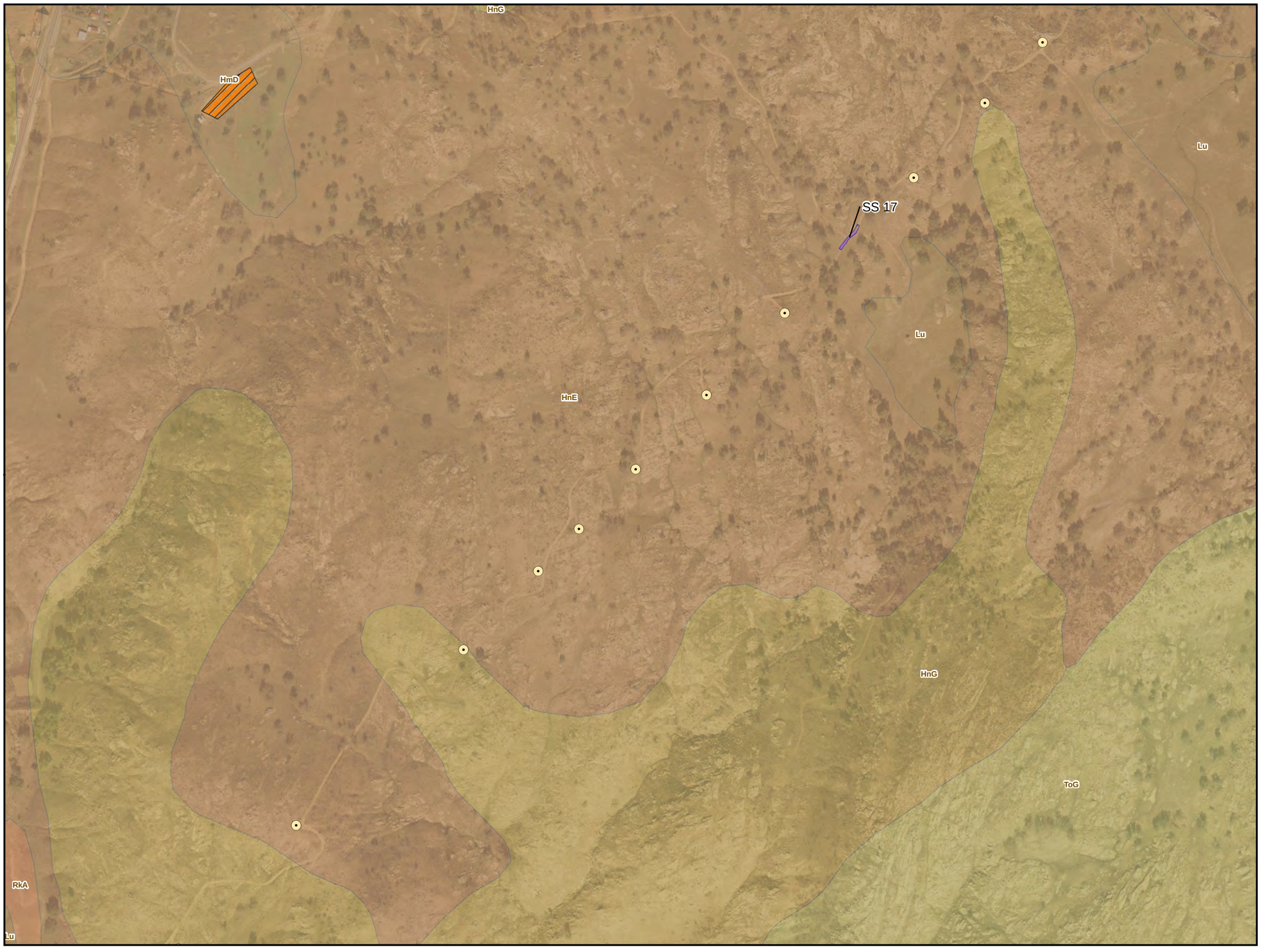
Feet

CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 6 TL637 Soil Survey Map.mxd

Figure 6
TL-637
Soil Survey Map

 Version Date: 1/15/2013



Poles
Access
Staging Yards
String Sites

***SSURGO Soils Label = Map Unit Symbol**

N

SCALE=1:5,500

0 165 330 660

Feet

CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 6 TL637 Soil Survey Map.mxd

Figure 6
TL-637
Soil Survey Map

 Version Date: 1/15/2013

- Poles
- Access
- Staging Yards
- String Sites

***SSURGO Soils Label**
= Map Unit Symbol

SCALE=1:5,500

0 165 330 660

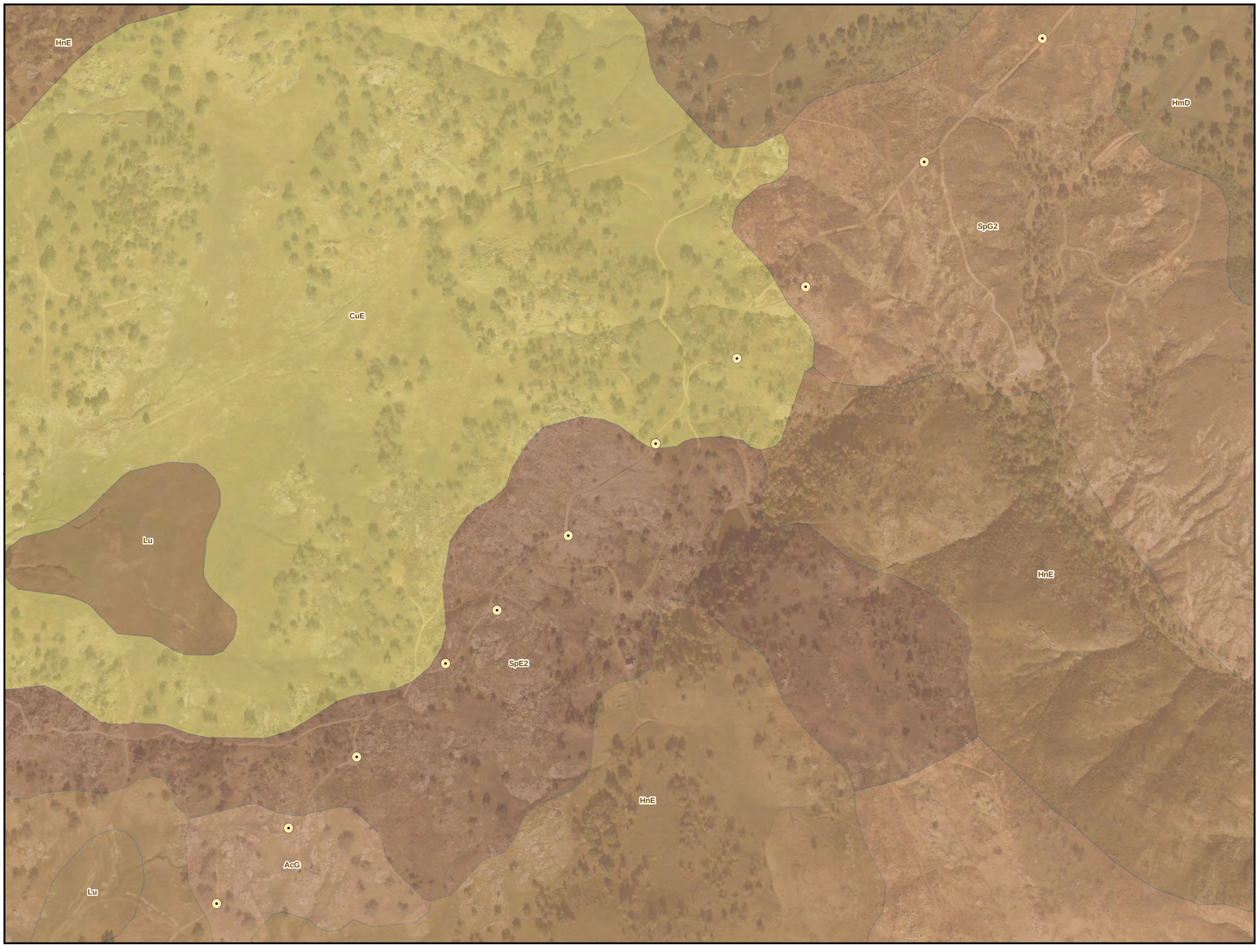
Feet

CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 6 TL637 Soil Survey Map.mxd

Figure 6
TL-637
Soil Survey Map

 Version Date: 1/15/2013



Poles
Access
Staging Yards
String Sites

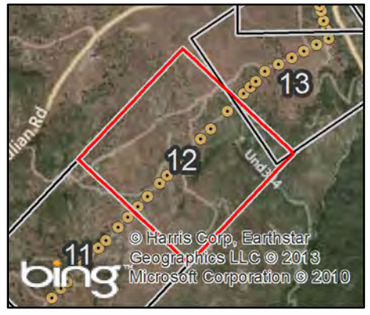
***SSURGO Soils Label = Map Unit Symbol**

N

SCALE=1:5,500

0 165 330 660

Feet

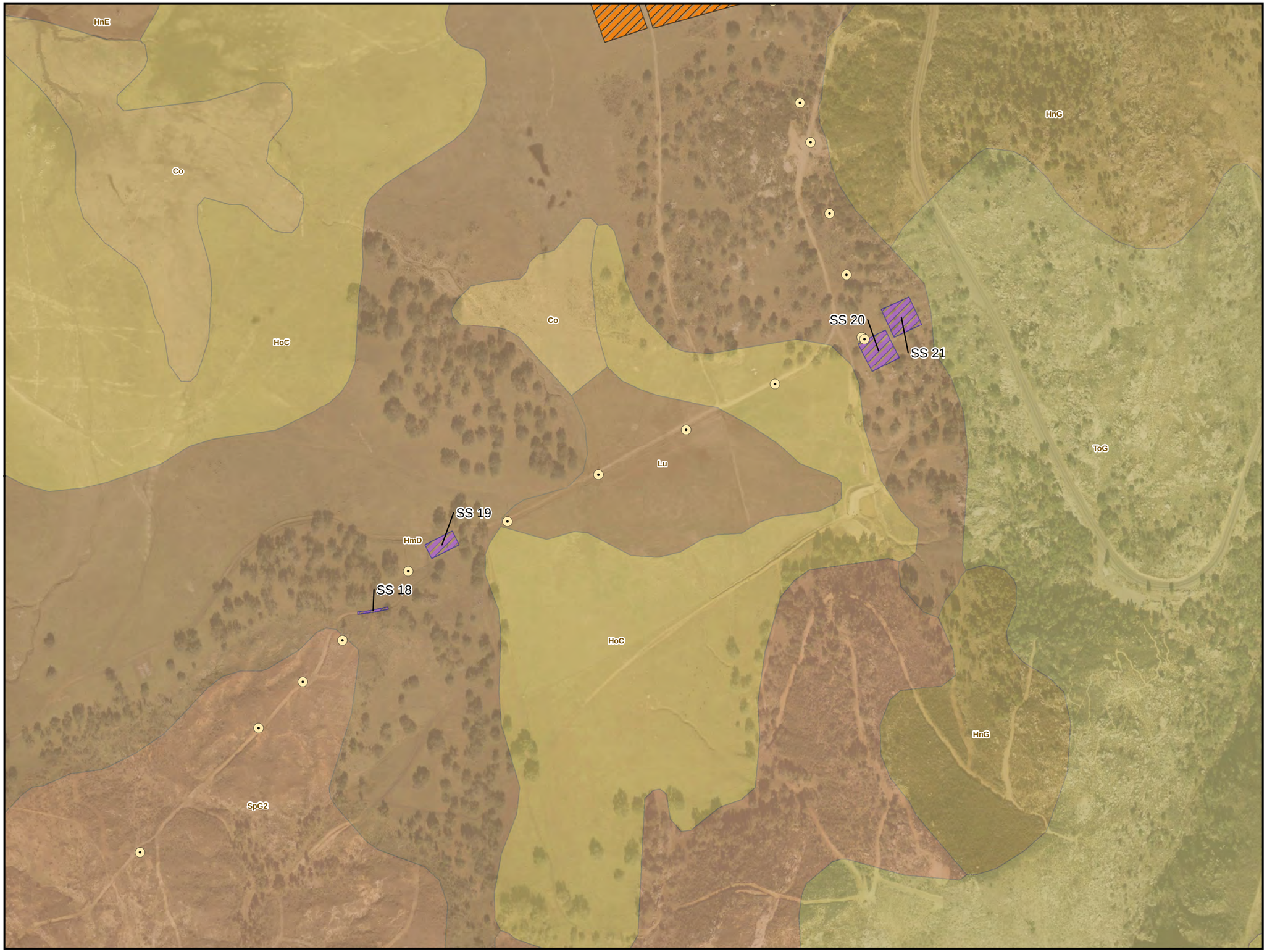


CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 6 TL637 Soil Survey Map.mxd

Figure 6
TL-637
Soil Survey Map

 Version Date: 1/15/2013



- Poles
- Access
- Staging Yards
- String Sites

***SSURGO Soils Label = Map Unit Symbol**

SCALE=1:5,500

0 165 330 660

Feet

CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 6 TL637 Soil Survey Map.mxd

Figure 6
TL-637
Soil Survey Map

Version Date: 1/15/2013

HnE
HnE
HnG
SS 22
HoC
HmD
Co
Co
ToG

Poles
Access
Staging Yards
String Sites

***SSURGO Soils Label**
= Map Unit Symbol

SCALE=1:5,500

0 165 330 660

Feet

CHAMBERS GROUP

Y:\Projects\20549 TL-637 BTR\MXD\Figure 6 TL637 Soil Survey Map.mxd

APPENDIX C –PLANT SPECIES OBSERVED LIST

TIE LINE 637 (RAMONA TO JULIAN) PLANT SPECIES OBSERVED LIST

Scientific Name	Common Name
FERNS AND FERN ALLIES	
DRYOPTERIDACEAE	**WOOD FERN FAMILY**
Athyrium filix-femina	lady fern
Dryopteris arguta	coastal wood fern
POLYPODIACEAE	**POLYPODY FAMILY**
Polypodium californicum	California polypody
PTERIDACEAE	**BRAKE FAMILY**
Cheilanthes clevelandii	Cleveland's lip fern
Cheilanthes covillei	Coville's lip fern
Cheilanthes newberryi	California cotton fern
Pellaea andromedifolia	coffee fern
Pellaea mucronata var. *mucronata*	bird's foot cliff-brake
Pentagramma triangularis	goldenback fern
Pentagramma triangularis ssp. *triangularis*	California goldenback fern
SELAGINELLACEAE	**SPIKE-MOSS FAMILY**
Selaginella bigelovii	Bigelow's spike-moss
GYMNOSPERMS	
CUPRESSACEAE	**CYPRESS FAMILY**
*Cupressus sempervirens**	Italian cypress
PINACEAE	**PINE FAMILY**
*Pinus halepensis**	aleppo pine
Pinus sp.	pine
ANGIOSPERMS (MONOCOTS)	
AGAVACEAE	**AGAVE FAMILY**
Hesperoyucca whipplei	Our Lord's candle
Yucca schidigera	Mojave yucca
ALLIACEAE	**ONION FAMILY**
Allium haematochiton	red-skinned onion
Allium peninsulare var. *peninsulare*	red-flower onion
Allium sp.	onion
CYPERACEAE	**SEDGE FAMILY**
Carex triquetra	triangular-fruited sedge
Eleocharis macrostachya	pale spike-rush
Eleocharis sp.	spike-rush
HYACINTHACEAE	**HYACINTH FAMILY**
Chlorogalum parviflorum	small-flowered amole
IRIDACEAE	**IRIS FAMILY**
Sisyrinchium bellum	blue-eyed grass
JUNCACEAE	**RUSH FAMILY**
Juncus acutus ssp. *leopoldii*	southwestern spiny rush

Scientific Name	Common Name
Juncus arcticus var. *mexicanus*	Mexican rush
Juncus bufonius	toad rush
Juncus sp.	rush
Juncus xiphioides	iris-leaved rush
LILIACEAE	**LILY FAMILY**
Calochortus concolor	mariposa lily
Calochortus splendens	lilac mariposa lily
POACEAE	**GRASS FAMILY**
Achnatherum coronatum	giant needlegrass
Aristida purpurea	purple three-awn
*Avena barbata**	slender wild oat
*Avena fatua**	wild oat
*Avena sativa**	cultivated oats
*Brachypodium distachyon**	false-brome
Briza minor	quaking grass
Bromus carinatus	California brome
*Bromus diandrus**	ripgut grass
*Bromus hordeaceus**	soft chess
*Bromus japonicus**	Japanese brome
Bromus madritensis ssp. *rubens**	foxtail chess
*Bromus tectorum**	cheat grass
*Cynodon dactylon**	Bermuda grass
*Dactylis glomerata**	orchard grass
Distichlis spicata	saltgrass
Elymus glaucus	blue wildrye
Elymus glaucus ssp. *glaucus*	blue wildrye
*Gastridium ventricosum**	nit grass
*Hordeum murinum**	foxtail barley
Hordeum murinum ssp. *gussoneanum**	Mediterranean barley
Hordeum sp.	barley
*Lamarckia aurea**	goldentop
Leymus triticoides	beardless wild rye
*Lolium multiflorum**	Italian ryegrass
*Lolium temulentum**	darnel
Melica imperfecta	coast range melic
Melinis repens ssp. *repens**	natal grass
Muhlenbergia microsperma	little-seed muhly
Muhlenbergia rigens	deergrass
Nassella cernua	nodding needlegrass
Nassella lepida	foothill needlegrass
Nassella pulchra	purple needlegrass

Scientific Name	Common Name
*Pennisetum setaceum**	fountain grass
Phalaris sp.	canary grass
*Piptatherum miliaceum**	smilo grass
Poa pratensis ssp. *pratensis**	Kentucky bluegrass
*Polypogon monspeliensis**	annual beard grass
*Schismus barbatus**	Mediterranean schismus
*Secale cereale**	common rye
*Vulpia myuros**	fescue
Vulpia myuros var. *myuros**	rat-tail fescue
THEMIDACEAE	**BRODIAEA FAMILY**
Bloomeria crocea var. *crocea*	common goldenstar
Brodiaea orcuttii	Orcutt's brodiaea
Brodiaea terrestris ssp. *kernensis*	dwarf brodiaea
Dichelostemma capitatum ssp. *capitatum*	blue dicks
Muilla maritima	common muilla
ANGIOSPERMS (EUDICOTS)	
ADOXACEAE	**ADOXA FAMILY**
Sambucus mexicana	blue elderberry
AIZOACEAE	**FIG-MARIGOLD FAMILY**
*Carpobrotus edulis**	hottentot-fig
*Mesembryanthemum crystallinum**	crystalline iceplant
*Mesembryanthemum nodiflorum**	slender-leaved iceplant
AMARANTHACEAE	**AMARANTH FAMILY**
Amaranthus albus	tumbling pigweed
*Amaranthus retroflexus**	rough pigweed
Amaranthus sp.	pigweed
*Chenopodium album**	lamb's quarters
Chenopodium californicum	California goosefoot
Chenopodium sp.	goosefoot
*Salsola tragus**	Russian-thistle
ANACARDIACEAE	**SUMAC OR CASHEW FAMILY**
Malosma laurina	laurel sumac
Rhus ovata	sugar bush
Rhus trilobata	skunkbush
*Schinus molle**	Peruvian pepper tree
Toxicodendron diversilobum	poison oak
APIACEAE	**CARROT FAMILY**
Apiastrum angustifolium	wild celery
Daucus pusillus	rattlesnake weed
Hydrocotyle umbellata	many-flower marsh-pennywort
Lomatium dasycarpum ssp. *dasycarpum*	woolly-fruit lomatium

Scientific Name	Common Name
Sanicula arguta	sharp-toothed sanicle
Sanicula bipinnata	poison sanicle
Sanicula bipinnatifida	purple sanicle
Sanicula crassicaulis	Pacific sanicle
Tauschia arguta	southern tauschia
APOCYNACEAE	**DOGBANE FAMILY**
Asclepias californica	California milkweed
Asclepias eriocarpa	Indian milkweed
*Nerium oleander**	oleander
ASTERACEAE	**SUNFLOWER FAMILY**
Achillea millefolium	California yarrow
Acourtia microcephala	sacapellote
Ambrosia psilostachya	western ragweed
*Anthemis cotula**	mayweed
Artemisia californica	California sagebrush
Artemisia douglasiana	Douglas mugwort
Artemisia ludoviciana ssp. *ludoviciana*	silver wormwood
Baccharis pilularis	coyote brush
Baccharis salicifolia	mule-fat
Baccharis sarothroides	broom baccharis
Brickellia californica	California brickellbush
*Carduus pycnocephalus**	Italian thistle
*Centaurea melitensis**	tocalote
Chaenactis artemisiifolia	white pincushion
Chaenactis glabriuscula	yellow pincushion
Chaenactis glabriuscula var. *glabriuscula*	yellow pincushion
*Chrysanthemum coronarium**	garland daisy
Cirsium occidentale var. *californicum*	California thistle
Cirsium occidentale	thistle
Cirsium scariosum	bird's-nest thistle
*Conyza bonariensis**	flax-leaf fleabane
Conyza canadensis	horseweed
Conyza sp.	horseweed
Corethrogyne filaginifolia	California sand-aster
Corethrogyne filaginifolia var. *filanginifolia*	common sand-aster
Coreopsis californica var. *californica*	California coreopsis
*Cotula australis**	Australian brass-buttons
*Cotula coronopifolia**	brass-buttons
Deinandra fasciculata	fascicled tarweed
*Dimorphotheca sinuata**	blue-eye cape-marigold
Erigeron foliosus var. *foliosus*	leafy daisy

Scientific Name	Common Name
Eriophyllum confertiflorum var. *confertiflorum*	long-stem golden-yarrow
Eriophyllum wallacei	Wallace's woolly daisy
Euryops sp.	euryops
Filago californica	California filago
*Filago gallica**	narrow-leaf filago
*Gazania linearis**	treasure flower
Gazania sp.*	African daisy
Gnaphalium californicum	California everlasting
Gnaphalium palustre	lowland cudweed
Gnaphalium stramineum	cotton-batting plant
Grindelia hirsutula var. *hallii*	San Diego gumplant
Gutierrezia californica	California matchweed
Gutierrezia sarothrae	broom matchweed
Hazardia squarrosa	southern saw-tooth goldenbush
Hazardia squarrosa var. *grindelioides*	southern saw-toothed goldenbush
*Hedypnois cretica**	Crete hedypnois
Helianthus gracilentus	slender sunflower
Heterotheca grandiflora	telegraph weed
*Hypochaeris glabra**	smooth cat's ear
*Lactuca serriola**	prickly lettuce
Lasthenia gracilis	common goldfields
Layia glandulosa	white tidy-tips
Machaeranthera juncea	rush chaparral-star
Madia elegans	elegant madia
Malacothrix clevelandii	Cleveland's malacothrix
*Matricaria matricarioides**	common pineapple-weed
Osmadenia tenella	southern rosinweed
Porophyllym gracile	odora
Psuedognaphalium biolettii	bicolor cudweed
Psuedognaphalium microcephalum	white everlasting
Rafinesquia californica	California chicory
Senecio californicus	California butterweed
*Senecio vulgaris**	common groundsel
Solidago californica	California goldenrod
Sonchus asper ssp. *asper**	prickly sow-thistle
*Sonchus oleraceus**	common sow-thistle
Stephanomeria exigua ssp. *exigua*	small wreath-plant
Stephanomeria sp.	wreath-plant
Stylocline gnaphaloides	everlasting nest-straw
*Taraxacum officinale**	common dandelion
Tetradymia comosa	hairy horsebrush

Scientific Name	Common Name
*Tragopogon porrifolius**	oyster plant
Uropappus lindleyi	silver puffs
Viguiera laciniata	San Diego County viguiera
Wyethia ovata	southern mule's ear
BETULACEAE	**BIRCH FAMILY**
Alnus rhombifolia	white alder
BORAGINACEAE	**BORAGE FAMILY**
Amsinckia menziesii	common fiddleneck
Amsinckia menziesii var. *intermedia*	rancher's fiddleneck
Cryptantha sp.	cryptantha
Cryptantha barbigera	bearded cryptantha
Cryptantha intermedia	nievitas cryptantha
Cryptantha micrantha	purple-root cryptantha
Pectocarya linearis ssp. *ferocula*	slender pectocarya
Pectocarya pencillata	winged pectocarya
Plagiobothrys collinus	popcornflower
Plagiobothrys sp.	popcornflower
BRASSICACEAE	**MUSTARD FAMILY**
Boechera sparsiflora	rock-cress
*Hirschfeldia incana**	shortpod mustard
Lepidium nitidum	shining peppergrass
Lepidium sp.	peppergrass
*Lobularia maritima**	sweet-alyssum
*Raphanus sativus**	radish
Rorippa nasturtium-aquaticum	water-cress
*Sisymbrium altissimum**	tumble mustard
*Sisymbrium irio**	London rocket
*Sisymbrium orientale**	hare's ear cabbage
Thysanocarpus curvipes	hairy fringe pod
Thysanocarpus laciniatus	narrow-leaved fringe pod
CACTACEAE	**CACTUS FAMILY**
*Opuntia ficus-indica**	Indian-fig
Opuntia littoralis	coast prickly-pear
Opuntia phaeacantha	desert prickly-pear
CAPRIFOLIACEAE	**HONEYSUCKLE FAMILY**
Lonicera subspicata var. *denudata*	Johnston's honeysuckle
CARYOPHYLLACEAE	**PINK FAMILY**
*Cerastium glomeratum**	mouse-ear chickweed
Loeflingia squarrosa	California loeflingia
Polycarpon sp.	polycarp
*Polycarpon tetraphyllum**	four-leaved allseed

Scientific Name	Common Name
Silene antirrhina	snapdragon catchfly
*Silene gallica**	common catchfly
Silene laciniata ssp. *laciniata*	southern pink
Silene multinervia	many-nerve catchfly
*Spergularia bocconi**	Boccone's sandspurrey
*Stellaria media**	common chickweed
CISTACEAE	**ROCK-ROSE FAMILY**
Helianthemum scoparium	peak rush-rose
CONVOLVULACEAE	**MORNING-GLORY FAMILY**
Calystegia macrostegia	western bindweed
Cuscuta californica	California dodder
Cuscuta sp.	dodder
CRASSULACEAE	**STONECROP FAMILY**
Crassula connata	pygmy-weed
Dudleya edulis	ladies-fingers
Dudleya lanceolata	lance-leaved dudleya
Dudleya pulverulenta	chalk dudleya
CUCURBITACEAE	**GOURD FAMILY**
Marah macrocarpus var. *macrocarpus*	manroot, wild-cucumber
DATISCACEAE	**DATISCA FAMILY**
Datisca glomerata	durango root
ERICACEAE	**HEATH FAMILY**
Arctostaphylos glandulosa ssp. *adamsii*	Laguna Mountain manzanita
Arctostaphylos glandulosa ssp. *zacaensis*	Zaca Lake manzanita
Arctostaphylos pungens	point leaf manzanita
Xylococcus bicolor	mission manzanita
EUPHORBIACEAE	**SPURGE FAMILY**
Chamaesyce albomarginata	white-margin sandmat
*Chamaesyce maculata**	spotted spurge
Croton setigerus	doveweed
FABACEAE	**LEGUME FAMILY**
*Acacia longifolia**	Sydney golden wattle
Astragalus gambelianus	Gambell's dwarf locoweed
Astragalus oocarpus	San Diego milkvetch
Lathyrus vestitus	wild sweet pea
Lathyrus vestitus var. *alefeldii*	San Diego sweet pea
Lotus argophyllus	silver-leaf lotus
Lotus hamatus	grab lotus
Lotus humistratus	foothill deervetch
Lotus purshianus var. *purshianus*	Spanish-clover
Lotus salsuginosus	lotus

Scientific Name	Common Name
Lotus scoparius var. *brevialatus*	short-wing deerweed
Lotus scoparius var. *scoparius*	coastal deerweed
Lotus strigosus	strigose lotus
Lupinus bicolor	miniature lupine
Lupinus concinnus	bajada lupine
Lupinus hirsutissimus	stinging lupine
Lupinus sparsiflorus	Coulter's lupine
Lupinus truncatus	collar lupine
*Medicago polymorpha**	California burclover
*Melilotus indicus**	Indian sweetclover
Robinia pseudoacacia	black locust
Trifolium albopurpureum	rancheria clover
Trifolium albopurpureum var. *albopurpureum*	rancheria clover
Trifolium bifidum var. *decipiens*	pinole clover
Trifolium ciliolatum	tree clover
Trifolium depauperatum	bladder clover
*Trifolium hirtum**	rose clover
Trifolium microcephalum	maiden clover
Trifolium obtusiflorum	creek clover
Trifolium sp.	clover
Trifolium variegatum	white tip clover
Trifolium willdenovii	valley clover
Vicia americana var. *americana*	American vetch
Vicia ludoviciana var. *ludoviciana*	deer pea vetch
Vicia sp.	vetch
*Vicia villosa**	winter vetch
FAGACEAE	**OAK FAMILY**
Quercus X *acutidens*	oak hybrid
Quercus agrifolia	coast live oak, encina
Quercus agrifolia var. *oxyadenia*	interior coast live oak
Quercus berberidifolia	scrub oak
Quercus engelmannii	Engelmann’s oak
GENTIANACEAE	**GENTIAN FAMILY**
Centaurium venustum	canchalagua
GERANIACEAE	**GERANIUM FAMILY**
*Erodium botrys**	long-beak filaree
*Erodium brachycarpum**	short-beak filaree
*Erodium cicutarium**	red-stem filaree
GROSSULARIACEAE	**GOOSEBERRY FAMILY**
Ribes indecorum	white-flower currant
HELIOTROPACEAE	**HELIOTROPE FAMILY**

Scientific Name	Common Name
Heliotropium curassavicum	salt heliotrope
HYDROPHYLLACEAE	**WATERLEAF FAMILY**
Emmenanthe penduliflora	whispering bells
Eriodictyon crassifolium	thick-leaved yerba santa
Eucrypta chrysanthemifolia	eucrypta
Eucrypta chrysanthemifolia var. *chrysanthemifolia*	common eucrypta
Nemophila menziesii	baby blue eyes
Nemophila menziesii var. *integrifolia*	small-flower baby blue eyes
Phacelia cicutaria var. *hispida*	caterpillar phacelia
Phacelia distans	wild-heliotrope
Phacelia parryi	Parry's phacelia
Phacelia ramosissima var. latifolia	branching phacelia
Phacelia ramosissima	phacelia
LAMIACEAE	**MINT FAMILY**
*Lamium amplexicaule**	henbit
*Marrubium vulgare**	horehound
Salvia apiana	white sage
Salvia clevelandii	fragrant sage
Salvia columbariae	chia
Salvia mellifera	black sage
Scutellaria tuberosa	Danny's skullcap
Stachys ajugoides var. *rigida*	rigid hedge-nettle
Trichostema lanatum	woolly bluecurls
Trichostema lanceolatum	vinegar weed
Trichostema parishii	mountain bluecurls
LYTHRACEAE	**LOOSESTRIFE FAMILY**
*Lythrum hyssopifolia**	grass poly
MALVACEAE	**MALLOW FAMILY**
*Alcea rosea**	hollychoke
*Brachychiton populneum**	bottle tree
Malacothamnus densiflorus	many-flowered mallow
Malacothamnus fasciculatus	chaparral bushmallow
*Malva parviflora**	cheeseweed
Sidalcea malviflora ssp. *sparsifolia*	checker-bloom
MYRTACEAE	**MYRTLE FAMILY**
Callistemon citrinus	crimson bottlebrush
*Eucalyptus globulus**	blue gum
NYCTAGINACEAE	**FOUR O'CLOCK FAMILY**
Mirabilis laevis	wishbone bush
Mirabilis laevis var. *crassifolia*	coastal wishbone plant
OLEACEAE	**OLIVE FAMILY**

Scientific Name	Common Name
*Olea europaea**	olive
ONAGRACEAE	**EVENING PRIMROSE FAMILY**
Camissonia bistorta	California sun cup
Camissonia californica	false-mustard
Camissonia hirtella	field sun cup
Camissonia strigulosa	sandysoil sun cup
Clarkia delicata	delicate/Campo clarkia
Clarkia epilobioides	canyon godetia
Clarkia purpurea	winecup clarkia
Clarkia purpurea ssp. *quadrivulnera*	four-spot clarkia
Clarkia rhomboidea	diamond clarkia
Epilobium canum ssp. *canum*	California fuschia, zauschneria
Epilobium cilatum ssp. *ciliatum*	willow herb
OROBANCHACEAE	**BROOM RAPE FAMILY**
Castilleja densiflora ssp. *gracilis*	Parish's owl's-clover
Castilleja exserta ssp. *exserta*	purple owl's-clover
Castilleja foliolosa	woolly Indian paintbrush
Castilleja minor ssp. *spiralis*	California thread-torch
Cordylanthus rigidus ssp. *setigerus*	dark-tip bird's beak
OXALIDACEAE	**OXALIS FAMILY**
Oxalis albicans ssp. *californica*	California wood-sorrel
Oxalis sp.	sorrel
PAEONIACEAE	**PEONY FAMILY**
Paeonia californica	California peony
PAPAVERACEAE	**POPPY FAMILY**
Dicentra chrysantha	golden ear-drops
Eschscholzia californica	California poppy
PHRYMACEAE	**HOPSEED FAMILY**
Mimulus aurantiacus	orange bush monkey flower
Mimulus aurantiacus var. *pubescens* X var. *puniceus*	San Diego monkey flower
Mimulus brevipes	slope semaphore
Mimulus fremontii	Fremont monkey flower
Mimulus palmeri	Palmer's monkey flower
Mimulus guttatus	seep monkey flower
PICRONDENDRACEAE	**PICRODENDRON FAMILY**
Tetracoccus dioicus	Parry's tetracoccus
PLANTAGINACEAE	**PLANTAIN FAMILY**
Antirrhinum coulterianum	Coulter's snapdragon
Antirrhinum nuttallianum	Nuttall's snapdragon
Antirrhinum nuttallianum ssp. *nuttallianum*	Nuttall's snapdragon

Scientific Name	Common Name
Collinsia concolor	southern Chinese houses
Collinsia heterophylla	Chinese houses
Keckiella antirrhinoides	chaparral beard-tongue
Keckiella cordifolia	climbing bush penstemon
Linaria canadensis	blue toadflax
Penstemon centranthifolius	scarlet bugler
Penstemon spectabilis ssp. *spectabilis*	showy penstemon
Penstemon spectabilis	royal penstemon
*Plantago lanceolata**	English plantain, rib-grass
Plantago patagonica	woolly plantain
PLATANACEAE	**SYCAMORE FAMILY**
Platanus racemosa	western sycamore
POLEMONIACEAE	**PHLOX FAMILY**
Allophyllum gilioides	straggling false-gilia
Eriastrum filifolium	thread-leaf woolly-star
Eriastrum sapphirinum ssp. *sapphirinum*	sapphire woolly-star
Gilia capitata ssp. *abrotanifolia*	ball gilia
Gilia diegensis	San Diego gilia
Gilia ochroleuca ssp. *exilis*	volcanic gilia
Leptosiphon liniflorus	Great Basin linanthus
Leptosiphon parviflorus	coast baby-star
Linanthus dianthiflorus	farinose ground-pink
Navarretia atractyloides	holly-leaf skunkweed
Navarretia capillaris	miniature gilia
Navarretia hamata ssp. *hamata*	hooked skunkweed
Navarretia hamata	hooked pincushion plant
Navarretia sp.	navarretia
Saltugilia australis	southern gilia
POLYGONACEAE	**BUCKWHEAT FAMILY**
Chorizanthe fimbriata	fringed spineflower
Chorizanthe fimbriata var. *fimbriata*	fringed spineflower
Chorizanthe procumbens	prostrate spineflower
Chorizanthe staticoides	turkish rugging
Eriogonum davidsonii	skeleton weed
Eriogonum fasciculatum var. *fasciculatum*	coast California buckwheat
Eriogonum fasciculatum var.*foliolosum*	inland California buckwheat
Eriogonum fasciculatum var. *polifolium*	mountain California buckwheat
Eriogonum gracile	slender buckwheat
*Polygonum arenastrum**	common knotweed
Polygonum lapathifolium	willow-weed
Polygonum sp.	knotweed

Scientific Name	Common Name
Pterostegia drymarioides	granny's hairnet
*Rumex conglomeratus**	whorled dock
*Rumex crispus**	curly dock
Rumex hymenosepalus	wild rhubarb
Rumex salicifolius	willow dock
Rumex salicifolius var. *salicifolius*	willow dock
PORTULACACEAE	**PURSLANE FAMILY**
Calandrinia ciliata	red maids
Claytonia exigua ssp. *exigua*	serpentine montia
Claytonia parviflora	miner's-lettuce
Claytonia perfoliata ssp. *mexicana*	Mexican miner's-lettuce
Claytonia perfoliata ssp. *perfoliata*	miner's-lettuce
*Portulaca oleracea**	common purslane
PRIMULACEAE	**PRIMROSE FAMILY**
*Anagallis arvensis**	scarlet pimpernel
Centunculus minimis	common chaffweed
PROTEACEAE	**PROTEA FAMILY**
*Grevillea robusta**	silk oak
RANUNCULACEAE	**BUTTERCUP FAMILY**
Clematis pauciflora	ropevine clematis
Delphinium cardinale	scarlet larkspur
Delphinium parryi ssp. *parryi*	Parry's Larkspur
Ranunculus aquatilus var. *capillaceus*	hair-leaf water buttercup
Ranunculus californicus	California buttercup
Thalictrum fendleri var. *polycarpum*	Fendler's meadow-rue
RHAMNACEAE	**BUCKTHORN FAMILY**
Ceanothus crassifolius	thick-leaf-lilac
Ceanothus leucodermis	chaparral whitethorn
Rhamnus ilicifolia	holly-leaf redberry
Rhamnus pilosa	hairy-leaf redberry, buckthorn
ROSACEAE	**ROSE FAMILY**
Adenostoma fasciculatum	chamise
Cercocarpus betuloides	birch-leaf mountain-mahogany
Heteromeles arbutifolia	toyon
Prunus ilicifolia ssp. *ilicifolia*	holly-leaf cherry
Prunus virginiana var. *demissa*	western choke cherry
RUBIACEAE	**MADDER FAMILY**
Galium angustifolium	narrow-leaved bedstraw
Galium aparine	goose grass
Galium nuttallii ssp. nuttalii	San Diego bedstraw
Galium parisiense	wall bedstraw

Scientific Name	Common Name
Galium porrigens var. *porrigens*	climbing/oval-leaf bedstraw
SALICACEAE	**WILLOW FAMILY**
Populus balsamifera ssp. *trichocarpa*	black cottonwood
Populus fremontii	western cottonwood
Salix gooddingii	Goodding's black willow
Salix laevigata	red willow
Salix lasiolepis	arroyo willow
SAXIFRAGACEAE	**SAXIFRAGE FAMILY**
Lithophragma affine	woodland star
SCROPHULARIACEAE	**FIGWORT FAMILY**
*Myoporum laetum**	myoporum
Scrophularia californica ssp. *floribunda*	California bee plant
SOLANACEAE	**NIGHTSHADE FAMILY**
*Datura wrightii**	western jimson weed
*Nicotiana glauca**	tree tobacco
Solanum americanum	small-flowered nightshade
Solanum douglasii	Douglas' nightshade
Solanum parishii	Parish's nightshade
TAMARICACEAE	**TAMARISK FAMILY**
*Tamarix ramosissima**	Mediterranean tamarisk
URTICACEAE	**NETTLE FAMILY**
Parietaria hespera var. *hespera*	western pellitory
Urtica dioica ssp. *holosericea*	hoary nettle
*Urtica urens**	dwarf nettle
VERBENACEAE	**VERVAIN FAMILY**
*Lantana montevidensis**	trailing lantana
Lantana sp.*	lantana
VIOLACEAE	**VIOLET FAMILY**
Viola douglasii	Douglas's violet
Viola pedunculata	johnny-jump-up
ZYGOPHYLLACEAE	**CALTROP FAMILY**
*Tribulus terrestris**	puncture vine
Note: * Indicates Non-Native Species	

APPENDIX D – CNDDB SENSITIVE PLANT SPECIES OCCURRENCE TABLE

Table 1
Criteria for Evaluating Sensitive Plant Species Potential for Occurrence (PFO)

PFO	Criteria
Absent:	Species is restricted to habitats or environmental conditions that do not occur within the project site.
Low:	Historical records for this species do not exist within the immediate vicinity (approximately 3 miles) of the project site, and/or habitats or environmental conditions needed to support the species are of poor quality.
Moderate:	Either a historical record exists of the species within the immediate vicinity of the project site (approximately 3 miles) and marginal habitat exists on the project site, or the habitat requirements or environmental conditions associated with the species occur within the project site, but no historical records exist within 5 miles of the project site.
High:	Both a historical record exists of the species within the project site or its immediate vicinity (approximately 3 miles), and the habitat requirements and environmental conditions associated with the species occur within the project site.
Present:	Species was detected within the project site at the time of the survey.

Table 2
CNDDB Sensitive Plant Species Occurrence Table

Scientific Name/ Common Name	Status		Habitat and Habit (Elevation)	Potential to Occur Onsite
Abronia villosa var. *aurita* chaparral sand-verbena	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.1 S2 G5T3T4 Not Covered Sensitive	This species favors sandy soils in chaparral, coastal scrub, and desert dune habitats. Elevations: 250 - 5,250 feet (75 - 1,600 m) amsl.	**Absent** Suitable habitat for this species is present within the ROW. No historical occurrences of this species have been recorded within 3 miles of the ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.
Acanthomintha ilicifolia San Diego thorn-mint	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	**THR** **END** 1B.1 S2 G2 Covered Sensitive	This species is found in clay, soils in openings in chaparral, coastal scrub, valley and foothill grassland, and vernal pools. Elevations: 30- 3,150 feet (9-960 m) amsl.	**Absent** Suitable habitat is present within the ROW and historical occurrences of this species have been recorded within 3 miles of the TL 637 ROW near poles P36, P37, and P35. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.
Allium munzii Munz's onion	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	**END** **THR** 1B.1 S1 G1 Not Covered Sensitive	This species favors mesic, clay soils in chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland, and valley and foothill grassland habitats. Elevations: 975-3,510 feet (297-1,070 m) amsl.	**Absent.** No suitable habitat for this species is present within the ROW and no historical occurrences of this species have been recorded within 3 miles of the TL ROW.
Ambrosia pumila San Diego ambrosia	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	**END** None 1B.1 S1 G1 Covered Sensitive	This species favors sandy loam or clay, often in disturbed alkaline soils in chaparral coastal scrub, valley and foothill grassland, and vernal pool habitats. Elevations: 65-1,360 feet (20-415 m) amsl.	**Absent.** Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.
Arctostaphylos otayensis Otay manzanita	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.2 S2.1 G2 Not Covered Sensitive	This species favors metavolcanic soils in chaparral and cismontane woodland. Elevations: 900-5,600 feet (275-1,700 m) amsl	**Absent.** Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Table 2
CNDDB Sensitive Plant Species Occurrence Table

Scientific Name/ Common Name	Status		Habitat and Habit (Elevation)	Potential to Occur Onsite
Astragalus deanei Dean's milk-vetch	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.1 S2.1 G2 Not Covered Sensitive	This species often grows in chaparral, cismontane woodland, coastal scrub, and riparian forest. Elevations: 250-2,200 feet (76-670 m) amsl.	**Absent.** Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.
Astragalus douglasii var. *perstrictus* Jacumba milk-vetch	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.2 S2.2 G5T2 Not Covered Sensitive	This species grows on rocky soils of chaparral, cismontane woodland, pinyon and juniper woodland, riparian scrub, and valley and foothill grassland. Elevations: 3,000-4,500 feet (914-1,371 m) amsl.	**Absent.** Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.
Astragalus oocarpus San Diego milk-vetch	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.2 S2.2 G2 Not Covered Sensitive	This species is found in openings in chaparral and cismontane woodland. Elevations: 1,000-5,000 feet (304-1,524 m) amsl.	**Present** A total of 83 individuals were observed within the TL 637 ROW near pole P107 during protocol-level focused plant surveys conducted during the 2010 blooming period.
Baccharis vanessae Encinitas baccharis	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	**THR** **END** 1B.1 S1 G1 Covered Sensitive	This species is found in sandstone soils in maritime chaparral and cismontane woodland. Elevations: 200-2,300 feet (60-720 m) amsl.	**Absent.** Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.
Berberis nevinii Nevin's barberry	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	**END** **END** 1B.1 S1 G1 Not Covered Sensitive	This species often grows in sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian scrub. Elevations: 900-2,700 feet (274- 825 m) amsl.	**Absent.** Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Table 2
CNDDB Sensitive Plant Species Occurrence Table

Scientific Name/ Common Name	Status		Habitat and Habit (Elevation)	Potential to Occur Onsite
Bloomeria clevelandii San Diego goldenstar	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.1 S2 G2 Not covered Sensitive	This species often grows in clay soils within chaparral, coastal scrub, valley and foothill grassland, and vernal pool habitats. Elevations: 160-1,525 feet (50-465 m) amsl.	**Absent.** Outside the elevation range found within the TL ROW. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW.
Brodiaea filifolia thread-leaved brodiaea	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	**THR** **END** 1B.1 S1 G1 Covered Sensitive	This species often grows in clay soils within openings in chaparral, cismontane woodland, coastal scrub, playa, valley and foothill grassland, and vernal pool habitats. Elevations: 80-3,675 feet (25-1,120 m) amsl.	**Low.** Suitable habitat for this species is present within the TL ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW.
Brodiaea orcuttii Orcutt's brodiaea	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.2 S1 G1 Covered Sensitive	This species often grows in the openings of chaparral, cismontane woodland, coastal scrub, playas, and valley and foothill grassland. Elevations: 100-5,550 feet (30-1,676 m) amsl.	**Present.** A total of 1,020 individuals was observed within the TL 637 ROW near poles D26 and D28 during protocol-level focused plant surveys conducted during the 2010 blooming period.
Calochortus dunnii Dunn's mariposa lily	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None **RARE** 1B.2 S2.1 G2 Not Covered Sensitive	This species often grows in gabbroic or metavolcanic soils and rocky, closed-cone, coniferous forest, chaparral, and valley and foothill grassland. Elevations: 600-6,000 feet (185-1,830 m) amsl.	**Absent.** Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.
Ceanothus cyaneus Lakeside ceanothus	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.2 S2.2 G2 Not Covered Sensitive	This species often grows in sandy or rocky openings of closed-cone coniferous forests and chaparral habitats. Elevations: 770 -2,550 feet (235-777 m) amsl.	**Absent.** Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Table 2
CNDDB Sensitive Plant Species Occurrence Table

Scientific Name/ Common Name	Status		Habitat and Habit (Elevation)	Potential to Occur Onsite
Chamaesyce platysperma flat-seeded spurge	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.2 S1 G3 Not covered Sensitive	This species often grows in sandy soils within Sonoran desert dune habitat. Elevations: 200-330 feet (60-100 m) amsl.	**Absent.** Outside the elevation found within the TL ROW. No suitable habitat for this species is present within the ROW, and historical occurrences of this species have not been recorded within 3 miles of the TL ROW.
Chorizanthe orcuttiana Orcutt's spineflower	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	END END 1B.1 S1 G1 Not Covered Sensitive	This species grows in sandy soils within openings of closed-cone coniferous forest, maritime chaparral, and coastal scrub habitats.	**Absent.** Outside the elevation found within the TL ROW. No suitable habitat for this species is present within the ROW, and historical occurrences of this species have not been recorded within 3 miles of the TL ROW.
Chorizanthe polygonoides var. *longispina* long-Spined Spineflower	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.2 S3 G5T3 Not Covered Sensitive	This species often grows in clay soils of chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, and vernal pools. Elevations: 100-5,020 feet (30-1,530 m) amsl.	**Absent.** Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.
Chorizanthe xanti var. *leucotheca* white-bracted spineflower	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.2 S2 G4T2 Not Covered Sensitive	This species often grows in sandy or gravelly alluvial fan soils within coastal scrub, Mojavean desert scrub, and pinyon and juniper woodland habitats. Elevations: 980-3,940 feet (300-1,200 m) amsl.	**Absent.** No suitable habitat for this species is present within the ROW, and historical occurrences of this species have not been recorded within 3 miles of the TL ROW.
Clarkia delicata delicate clarkia	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.2 S2.2 G2 Not Covered	This species often grows in gabbroic soils in chaparral and cismontane woodland. Elevations: 770-3,280 feet (234-999 m) amsl.	**Present** A total of 2,830 individuals was observed within the TL 637 ROW near poles P90, P91, P108, and P174 during protocol-level focused plant surveys conducted during the 2010 blooming period.

Table 2
CNDDB Sensitive Plant Species Occurrence Table

Scientific Name/ Common Name	Status		Habitat and Habit (Elevation)	Potential to Occur Onsite
Cryptantha gander Gander's cryptantha	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.1 S1 G1G2 Not Covered Sensitive	This species often grows in sandy soils of Sonoran desert dune habitat. Elevations: 520-1,315 feet (160-1,315 m) amsl.	**Absent.** Outside the elevation found within the TL ROW. No suitable habitat for this species is present within the ROW, and historical occurrences of this species have not been recorded within 3 miles of the TL ROW.
Cylindropuntia munzii Munz's cholla	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.3 S1 G3 Not Covered Sensitive	This species often grows in sandy soils of Sonoran desert scrub habitat. Elevations: 490-1,970 feet (150-600 m) amsl.	**Absent.** Outside the elevation found within the TL ROW. No suitable habitat for this species is present within the ROW, and historical occurrences of this species have not been recorded within 3 miles of the TL ROW.
Dienandra conjugens Otay tarplant	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	**THR** **END** 1B.1 S1 G1 Not Covered Sensitive	This species grows on clay soils within coastal scrub, and valley and foothill grassland habitats. Elevations: 80-980 feet (25-300 m) amsl.	**Absent.** Outside the elevation found within the TL ROW. No suitable habitat for this species is present within the ROW, and historical occurrences of this species have not been recorded within 3 miles of the TL ROW.
Dienandra floribunda Tecate tarplant	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.2 S2.2 G3 Not Covered Sensitive	This species grows in chaparral and coastal scrub habitats. Elevations: 230-4,000 feet (70-1,219 m) amsl.	**Absent.** Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.
Delphinium hesperium ssp. *cuyamacae* Cuyamaca larkspur	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None **RARE** 1B.2 S2.1 G4T2 Not Covered Sensitive	This species often grows in mesic soils of lower montane coniferous forest, meadows and seeps, and vernal pools. Elevations: 4,000-5,350 feet (1,219-1,630 m) amsl.	**Absent.** Outside elevation range. Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Table 2
CNDDB Sensitive Plant Species Occurrence Table

Scientific Name/ Common Name	Status		Habitat and Habit (Elevation)	Potential to Occur Onsite
Dudleya multicaulis many-stemmed dudleya	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.2 S2 G2 Not Covered Sensitive	This species grows in clay soils within chaparral, coastal scrub, valley and foothill grassland habitats. Elevations: 50-2,600 feet (15-790 m) amsl.	**Low.** Suitable habitat for this species is present within the TL ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW.
Dudleya variegata variegated dudleya	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.2 S2.2 G2 Not Covered Sensitive	This species is found in heavy clay soils within chaparral, cismontane woodland, coastal scrub, valley and foothill grassland, and vernal pool habitats. Elevations: 10-1,900 feet (3-580 m) amsl.	**Absent.** Outside the elevation found within the TL ROW. No suitable habitat for this species is present within the ROW, and historical occurrences of this species have not been recorded within 3 miles of the TL ROW.
Eriastrum harwoodii Harwood's eriastrum	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.2 S3 G3 Not Covered Sensitive	This species is found in sandy soils within desert dune habitats. Elevations: 410-3,000 feet (125-915 m) amsl.	**Absent.** No suitable habitat for this species is present within the ROW, and historical occurrences of this species have not been recorded within 3 miles of the TL ROW.
Ericameria palmeri var. *palmeri* Palmer's goldenbush	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.1 S2 G4T2T3 Not Covered Sensitive	This species is found in mesic soils within chaparral and coastal scrub habitats. Elevations: 98-1,970 feet (30-600 m) amsl.	**Absent.** Outside the elevation found within the TL ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.
Eryngium aristulatum var. *parishii* San Diego button-celery	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	**END** **END** 1B.1 S1 G5T1 Covered	This species can be found mesic soils of coastal scrub, valley and foothill grassland, and vernal pools. Elevations: 65-2,034 feet (20-620 m) amsl.	**Absent.** Outside the elevation found within the TL ROW.

Table 2
CNDDB Sensitive Plant Species Occurrence Table

Scientific Name/ Common Name	Status		Habitat and Habit (Elevation)	Potential to Occur Onsite
Fremontodendron mexicanum Mexican flannelbush	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	**END** **RARE** 1B.1 S1 G1 Not Covered Sensitive	This species often grows in gabbroic, metavolcanic, or serpentinite soils in closed-cone coniferous forest, chaparral, and cismontane woodland habitats. Elevations: 100-8,038 feet (30-2,449 m) amsl.	**Absent.** Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.
Grindelia hallii San Diego gumplant	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.2 S2.2 G2 Not Covered	This species is found in chaparral, lower montane coniferous forests, meadows and seeps, and valley and foothill grassland habitats. Elevations: 607- 7,525 feet (185- 2,300 m) amsl.	**Moderate Potential** Suitable habitat for this species is present within the ROW; historical occurrences of this species have been recorded within 3 miles of the ROW.
Hazardia orcuttii Orcutt's hazardia	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	**SC** **THR** 1B.1 S1 G1 Not Covered Sensitive	This species grows in clay soils in maritime chaparral, coastal scrub habitats. Elevations: 260-280 feet (80-85 m) amsl.	**Absent.** Outside the elevation found within the TL ROW. Suitable habitat for this species is present within the ROW. No historical occurrences of this species have been recorded within 3 miles of the TL ROW.
Hesperocyparis forbesii Tecate cypress	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.1 S1 G1 Not Covered Sensitive	This species often grows in clay, gabbroic, or metavolcanic soils in closed-cone coniferous forest and chaparral habitats. Elevations: 840-4,900 feet (256-1,493 m) amsl.	**Absent.** Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.
Heuchera brevistaminea Laguna Mountain alumroot	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.3 S2.3 G2 Not Covered Sensitive	This species grows in rocky soils in broadleaved upland forests, chaparral, cismontane woodlands, and riparian forests. Elevations: 4,495-6,562 feet (1,370 -2,000 m) amsl.	**Absent.** Outside the elevation found within the TL ROW. No historical occurrences of this species have been recorded within 3 miles of the TL ROW.

Table 2
CNDDB Sensitive Plant Species Occurrence Table

Scientific Name/ Common Name	Status		Habitat and Habit (Elevation)	Potential to Occur Onsite
Horkelia truncata Ramona horkelia	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.3 S2.3 G3 Not Covered Sensitive	This species grows in clay and gabbro soils in chapparal and cismontane woodland. Elevations: 1,312 -4,265 feet (400- 1,300 m) amsl.	**Absent.** Suitable habitat for this species is present within the ROW, and historical occurrences of this species have been recorded within 3 miles of the TL ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.
Lepechinia ganderi Gander's pitcher sage	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.3 S2.2 G2 Not Covered Sensitive	This species grows in gabrroic or metavolcanic soils in closed-cone coniferous forest and chaparral, coastal scrub, and valley and foothill grassland habitats. Elevations: 1,000-3,300 feet (305-1,005 m) amsl.	**Low.** Suitable habitat for this species is present within the TL ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW.
Lepidium flavum var. *felipense* Borrego Valley pepper-grass	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.2 S1.2 G5T1 Not Covered Sensitive	This species grows in sandy soils within pinyon and juniper woodland, and Sonoran desert scrub habitats. Elevations: 1,500 -2,750 feet (455- 840 m) amsl.	**Absent.** Outside the elevation found within the TL ROW. No historical occurrences of this species have been recorded within 3 miles of the TL ROW.
Lepidium virginicum var. *robinsonii* Robinson's pepper-grass	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.2 S3 G5T3 Not Covered Sensitive	This species grows in openings in coastal sage scrub and chaparral. Elevations: 1,600 feet (500 m) amsl.	**Absent.** Outside the elevation found within the TL ROW. No historical occurrences of this species have been recorded within 3 miles of the TL ROW.
Limnanthes gracilis ssp. *parishii* Parish's meadowfoam	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None **END** 1B.2 S2S3 G3T2T3 Not Covered Sensitive	This species often grows in mesic soils in lower montane coniferous forest, meadows and seeps, and vernal pool habitats. Elevations: 2,000-6,600 feet (609-2,011 m) amsl.	**Absent.** No suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Table 2
CNDDB Sensitive Plant Species Occurrence Table

Scientific Name/ Common Name	Status		Habitat and Habit (Elevation)	Potential to Occur Onsite
Linanthus maculatus Little San Bernardino Mountains linanthus	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.2 S2 G2 Not Covered Sensitive	This species in grows sandy soils within desert dune, Joshua tree woodland Mojavean desert scrub and Sonoran desert scrub habitats. Elevations: 640- 6,800 feet (195- 2075 m) amsl.	**Absent.** No suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.
Linanthus orcuttii Orcutt's linathus	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.3 S2 G4 Not Covered Sensitive	This species often grows in the openings of chaparral, lower montane coniferous forest, and pinyon and juniper woodland habitats. Elevations: 3,000-7,037 feet (914 -2,144 m) amsl.	**Absent.** No suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.
Lupinus excubitus var. *medius* Mountain Springs bush lupine	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.3 S2 G4T2T3 Not Covered Sensitive	This species grows on dry, sandy, gently sloping canyon washes, sandy soil pockets, and flats in steeper slopes and drainages in pinyon and juniper woodland, as well as Sonoran desert scrub Elevations: 1,394 -4,495 feet (125-1,370m) amsl.	**Absent.** No suitable habitat for this species is present within the TL ROW. No historical occurrences of this species have been recorded within 3 miles of the TL ROW.
Monardella hypoleuca ssp. *lanata* felt-leaved monardella	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.2 S2.2 G4T2 Not Covered	This species often grows in chaparral and cismontane woodland. Elevations: 580-5,170 feet (176-1,575 m) amsl.	**Absent.** Suitable habitat for this species is present within the ROW. Historical occurrences of this species have been recorded within 3 miles of the TL ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.
Monardella stoneana Jennifer's monardella	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.2 S1.2 G1 Not Covered Sensitive	This species grows in rocky intermittent streambeds within closed-cone coniferous forest, chaparral coastal scrub, and riparian scrub habitats. Elevations: 30-2,600 feet (10-90 m) amsl.	**Absent.** No suitable habitat for this species is present within the TL ROW. No historical occurrences of this species have been recorded within 3 miles of the TL ROW.

Table 2
CNDDB Sensitive Plant Species Occurrence Table

Scientific Name/ Common Name	Status		Habitat and Habit (Elevation)	Potential to Occur Onsite
Navarretia fossalis spreading navarretia	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	**THR** None 1B.1 S1 G1 Covered	This species can be found in chenopod scrub, freshwater marshes and swamps, playas, and vernal pools. Elevations: 98-2,149 feet (30-655 m) amsl.	**Absent.** Outside of the elevation range found within the TL ROW**.**
Nolina interrata Dehesa nolina	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None **END** 1B.1 S2 G2 Not Covered Sensitive	This species typically grows on rocky hillsides or ravines on ultramafic soils in chaparral habitats. Elevations: 591-2,805 feet (180-855 m) amsl.	**Absent.** Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.
Orcuttia californica California orcutt grass	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	**END** **END** 1B.1 S1 G1 Covered Sensitive	This species is found in mud flats in vernal pools. Elevations: 50-2,200 feet (15-670 m) amsl.	**Absent.** Outside the elevation found within the TL ROW. No suitable habitat for this species is present within the ROW. No historical occurrences of this species have been recorded within 3 miles of the TL ROW.
Packera gander Gander's ragwort	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None **RARE** 1B.2 S2.2 G2 Not Covered Sensitive	This species often grows in gabbro soils of chaparral, especially after a recent burn. Elevations: 1,300-4,000 feet (396-1,219 m) amsl.	**Absent.** Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.
Pogogyne nudiuscula Otay mesa mint	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	**END** **END** 1B.1 S1 G1 Not Covered Sensitive	This species often grows in clay soils within vernal pool habitats. Elevations: 295-820 feet (90-250 m) amsl.	**Absent.** Outside the elevation found within the TL ROW. No suitable habitat for this species is present within the ROW. No historical occurrences of this species have been recorded within 3 miles of the TL ROW.

Table 2
CNDDB Sensitive Plant Species Occurrence Table

Scientific Name/ Common Name	Status		Habitat and Habit (Elevation)	Potential to Occur Onsite
Ribes canthariforme Moreno currant	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.3 S1.3 G1 Not Covered Sensitive	This species often grows in chaparral and riparian scrub. Elevations: 1,113-3,937 feet (339-1,199 m) amsl.	**Absent.** Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.
Scutellaria bolander ssp. *austromontana* southern skullcap	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.2 S2 G4T2 Not Covered Sensitive	This species often grows in mesic soils in chaparral, cismontane woodland, and lower montane coniferous forest. Elevations: 1,400-6,560 feet (426-1,999 m) amsl.	**Absent.** Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.
Stemodia durantifolia *purple stemodia*	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 2.1 S2.1? G5 Not Covered	This species can be found in Sonoran desert scrub often on mesic, sandy soils. Elevations: 591-984 feet (180-300 m) amsl.	**Absent.** Outside the elevation found within the TL ROW. No suitable habitat for this species is present within the ROW. No historical occurrences of this species have been recorded within 3 miles of the TL ROW.
Streptanthus campestris southern jewelflower	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.3 S2.3 G2 Not Covered Sensitive	This species often grows in rocky soils of chaparral, lower montane coniferous forest, and pinyon and juniper woodland. Elevations: 2,950-7,550 feet (899-2,301 m) amsl.	**Absent.** Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Table 2
CNDDB Sensitive Plant Species Occurrence Table

Scientific Name/ Common Name	Status		Habitat and Habit (Elevation)	Potential to Occur Onsite
Symphyotrichum defoliatum San Bernardino aster	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.2 S2 G2 Not Covered Sensitive	This species often grows in vernally mesic soils in cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland, and near ditches, streams, and springs. Elevations: 0-6,700 feet (0-2,042 m) amsl.	**Present** A total of 100 individuals were observed within TL 637 ROW near pole P106 during protocol-level focused plant surveys conducted during the 2010 blooming period.
Tetracoccus dioicus Parry's tetracoccus	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.2 S2.2 G3 Covered Sensitive	This species often grows in chaparral and coastal scrub. Elevations: 540-3,280 feet (164-999 m) amsl.	**Present** A total of 181 individuals were observed within the TL 637 ROW near poles P48, P50, and D46 during protocol-level focused plant surveys conducted during the 2010 blooming period.
Thermopsis californica var. *semota* velvety false-lupine	FED: STATE: CRPR: S-Rank: G-Rank: NCCP: USFS: BLM:	None None 1B.2 S2.1 G3T2 Not Covered	This species often grows in cismontane woodland, lower montane coniferous forest, meadows and seeps, and valley and foothill grassland. Elevations: 3,280 -6,140 feet (999-1,871 m) amsl.	**Absent.** Suitable habitat for this species is present within the ROW; however, no historical occurrences of this species have been recorded within 3 miles of the TL ROW. Not observed during protocol-level focused plant surveys conducted during the 2010 blooming period.

Federal designations (Federal Endangered Species Act, USFWS):

END:	Federal-listed, endangered.
THR:	Federal-listed, threatened.
PTH:	Federal-listed, proposed-threatened
CAN:	Candidate species.
SC	Species of concern

State designations (California Endangered Species Act, CDFG):

END:	State-listed, endangered.
THR:	State-listed, threatened.
RARE:	State-listed as rare (Listed "Rare" animals have been re-designated as threatened, but Rare plants have retained the Rare designation.)

California Native Plant Society , California Rare Plant Rank)(CNPS) (CRPR) designations (Note: According to CNPS [Skinner and Pavlik 1994], plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10 of the California Fish and Game Code. This interpretation is inconsistent with other definitions.):

Table 2
CNDDB Sensitive Plant Species Occurrence Table

Scientific Name/ Common Name	Status	Habitat and Habit (Elevation)	Potential to Occur Onsite
List 1A:	Plants presumed extinct in California.		
List 1B:	Plants rare and endangered in California and throughout their range.		
List 2:	Plants rare, threatened, or endangered in California but more common elsewhere in their range.		
List 3:	Plants about which we need more information; a review list.		
List 4:	Plants of limited distribution; a watch list.		
List Extension 0.1:	Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat).		
List Extension 0.2:	Fairly endangered in California (20-80% occurrences threatened).		
List Extension 0.3:	Not very endangered in California (<20% of occurrences threatened).		
California Natural Diversity Database (CNDDB) Global (G) and State (S) ranking designations:			
G1:	Less than 6 viable element occurrences (EOs) OR less than 1,000 individuals OR less than 2,000 acres.		
G2:	6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres.		
G3:	21-80 EOs OR 3,000-10,000 individuals OR 10,000-50,000 acres.		
G4:	Apparently secure; this rank is clearly lower than G3 but factors exist to cause some concern; (i.e., there is some threat, or somewhat narrow habitat).		
G5:	Population or stand demonstrably secure to ineradicable due to being commonly found in the world.		
GH:	All sites are historical; the element has not been seen for at least 20 years, but suitable habitat still exists (SH = All California sites are historical).		
GX:	All sites are extirpated; this element is extinct in the wild (SX = All California sites are extirpated).		
GXC:	Extinct in the wild; exists in cultivation.		
G1Q:	The element is very rare, but there are taxonomic questions associated with it.		
T:	Applies to a subspecies or variety.		
S1:	Less than 6 EOs OR less than 1,000 individuals OR less than 2,000 acres.		
S2:	6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres.		
S3:	21-80 EOs OR 3,000-10,000 individuals OR 10,000-50,000 acres.		
S4:	Apparently secure within California; this rank is clearly lower than S3 but factors exist to cause some concern; i.e. there is some threat, or somewhat narrow habitat. No threat to rank.		
S5:	Demonstrably secure to ineradicable in California. No threat to rank.		
Extension 0.1:	Very threatened.		
Extension 0.2:	Threatened.		
Extension 0.3:	No current threats known.		

Source: California Natural Diversity Data Base (CNDDB 2012) and California Native Plant Society Electronic Inventory (CNPSEI 2012) for *Ramona and Santa Ysabel* California 7.5 minute USGS quadrangles.

APPENDIX E – CNDDB SENSITIVE WILDLIFE SPECIES OCCURRANCE TABLE

Table 1
Criteria for Evaluating Sensitive Wildlife Species Potential for Occurrence (PFO)

PFO	Criteria
Absent:	Species is restricted to habitats or environmental conditions that do not occur within the project site.
Low:	Historical records for this species do not exist within the immediate vicinity (approximately 3 miles) of the project site, and/or habitats or environmental conditions needed to support the species are of poor quality.
Moderate:	Either a historical record exists of the species within the immediate vicinity of the project site (approximately 3 miles) and marginal habitat exists on the project site, or the habitat requirements or environmental conditions associated with the species occur within the project site, but no historical records exist within 3 miles of the project site.
High:	Both a historical record exists of the species within the project site or its immediate vicinity (approximately 3 miles), and the habitat requirements and environmental conditions associated with the species occur within the project site.
Present:	Species was detected within the project site at the time of the survey.

Table 2
CNDDB Sensitive Wildlife Species Occurrence Table

Scientific Name	Common Name	Listing Status	Potential for Occurrence	Comments
CLASS BRANCHIOPODA	**BRANCHIOPODS**			
BRANCHINECTIDAE	**BRANCHINECTID BRINE SHRIMP**			
Branchinecta sandiegonensis	San Diego fairy shrimp	**FE** NCCP-Covered	L	CNDDB lists 11 records of occurrence within 3 miles of the TL ROW, the closest being approximately 1.3 miles away in a pool southeast of 7th and Telford streets in Ramona, California. In addition the project ROW contains suitable habitat to support this species.
CLASS INSECTA	**INSECTS**			
NYMPHALIDAE	**BRUSH-FOOTED BUTTERFLIES**			
Euphydryas editha quino	Quino checkerspot butterfly	**FE,** NCCP Covered	A	Although suitable habitat is present within the TL ROW, CNDDB lists no records of occurrence within 3 miles of the TL ROW, and no Quino checkerspot butterflies were found during focused surveys conducted on the ROW in 2010 (Chambers Group 2011e).
LYCAENIDAE	**GOSSAMER-WINGED BUTTERFLIES**			
Lycaena hermes	Hermes copper butterfly	**FC,** NCCP-Not Covered	A	CNDDB lists no records of occurrence within 3 miles of the TL ROW, and no suitable habitat for Hermes copper larvae was identified during a Hermes copper habitat assessment conducted in 2010 (Chambers Group 2011d).

Table 2
CNDDB Sensitive Wildlife Species Occurrence Table

Scientific Name	Common Name	Listing Status	Potential for Occurrence	Comments
HESPERIIDAE	**SKIPPERS**			
Pyrgus ruralis lagunae	Laguna Mountains skipper	**FE,** NCCP-Not Covered	A	The Laguna mountains skipper can be considered absent from the TL ROW. CNDDB lists no records of occurrence within 3 miles of the TL ROW and no suitable habitat within the ROW.
CLASS OSTEICHTHYES	**BONY FISH**			
CYPRINIDAE	**MINNOWS AND CARPS**			
Gila orcuttii	arroyo chub	SSC, NCCP-Not Covered	L	Although CNDDB lists no records of occurrence within 3 miles of the TL ROW, the ROW contains low quality suitable habitat to support this species.
CLASS AMPHIBIA	**AMPHIBIANS**			
RANIDAE	**TRUE FROGS**			
Rana muscosa	mountain yellow-legged frog	**FE**, SSC, NCCP-Not Covered	A	CNDDB lists no records of occurrence within 3 miles of the TL ROW, and the ROW lacks suitable habitat to support this species.
SCAPHIOPODIDAE	**SPADEFOOT TOADS**			
Spea [=Scaphiopus] hammondii	western spadefoot	SSC, BLM Sensitive, NCCP-Covered	L	Although CNDDB lists no records of occurrence within 3 miles of the TL ROW, the ROW contains fair to moderate quality habitat and vernal pools that may support breeding are present adjacent to the ROW.
BUFONIDAE	**TRUE TOADS**			
Anaxyrus californicus	arroyo toad	**FE**, SSC, NCCP-Covered	A	Although CNDDB lists several records of occurrence and Critical Habitat areas are located within 3 miles of the TL ROW, no suitable breeding habitat is present within the ROW; and this species was not found during focused surveys conducted by Chambers Group in 2010. Pasture grazing and development has removed potential habitat for this species from the TL ROW.
SALAMANDRIDAE	**NEWTS**			

Table 2
CNDDB Sensitive Wildlife Species Occurrence Table

Scientific Name	Common Name	Listing Status	Potential for Occurrence	Comments
Taricha torosa torosa	coast range newt	SSC, NCCP-Not Covered	L	Although CNDDB lists no records of occurrence within 3 miles of the TL ROW, low quality suitable habitat to support this species is present within the ROW.
PLETHODONTIDAE	**LUNGLESS SALAMANDERS**			
Ensatina klauberi	large-blotched salamander	SSC, NCCP-Not Covered	L	Although CNDDB lists no records of occurrence within 3 miles of the TL ROW, habitat moderately suitable to support this species is present within the ROW.
CLASS REPTILIA	**REPTILES**			
EMYDIDAE	**BOX AND WATER TURTLES**			
Emys marmorata (*Actinemys marmorata pallida*)	southwestern pond turtle	SSC, BLM and USFS Sensitive, NCCP-Covered	L	Although CNDDB lists no records of occurrence within 3 miles of the TL ROW, the ROW contains some low quality suitable habitat to support this species.
ANNIELLIDAE	**LEGLESS LIZARDS**			
Anniella pulchra	California legless lizard	SSC, NCCP-Not Covered	L	Although CNDDB lists no records of occurrence within 3 miles of the TL ROW, the ROW contains habitat moderately suitable to support this species.
IGUANIDAE	**IGUANID LIZARDS**			
Phrynosoma coronatum blainvillii	coast (=San Diego) horned lizard	SSC, BLM and USFS Sensitive, NCCP-Covered	P	CNDDB lists six records of occurrence for this species within 3 miles of the TL ROW, the ROW contains good quality habitat, and this species was observed on the TL 637 ROW near pole P116.
TEIIDAE	**WHIPTAIL LIZARDS**			
Aspidoscelis hyperythra beldingi	Belding's orange-throated whiptail	SSC, NCCP-Covered	H	CNDDB lists four records of occurrence within 3 miles of the ROW, the closest occurrence being approximately 0.7 mile away, approximately 1.1 miles south of Ballena Valley at Highway 78, 6 miles east of Ramona. In addition, the TL 637 ROW contains good quality habitat to support this species.

Table 2
CNDDB Sensitive Wildlife Species Occurrence Table

Scientific Name	Common Name	Listing Status	Potential for Occurrence	Comments
SCINCIDAE	**SKINKS**			
Plestiodon [=Eumeces] skiltonianus interparietalis	Coronado Island skink	SSC, BLM Sensitive, NCCP-Covered	P	CNDDB lists a single record of occurrence for this species within 1 mile of the TL ROW, and this species was observed on the TL 637 ROW near pole R107. In addition, the TL ROW contains good quality suitable habitat to support this species.
VIPERIDAE	**VIPERS**			
Crotalus ruber ruber	northern red-diamond rattlesnake	SSC, NCCP-Covered	M	Although CNDDB lists no records of occurrence within 3 miles of the TL ROW, the ROW contains good quality suitable habitat.
BOIDAE	**BOAS**			
Charina trivirgata roseofusca (*Lichanura trivirgata roseofusca*)	coastal rosy boa	SA, USFS Sensitive, NCCP-Covered	P	CNDDB records lists 2 records of occurrence for this species within 3 miles of the TL ROW, and the ROW contains good quality suitable habitat. In addition, this species was observed on the TL 637 ROW near poles P51 and P116.
COLUBRIDAE	**COLUBRID SNAKES**			
Lampropeltis zonata pulchra	San Diego mountain kingsnake	SSC, BLM and USFS Sensitive, NCCP-Not Covered	L	Although CNDDB lists no records of occurrence within 3 miles of the TL ROW, the ROW contains low quality suitable habitat.
Diadophis punctatus similis	San Diego ringneck snake	SA, USFS Sensitive, NCCP-Covered	M	Although CNDDB lists no records of occurrence within 3 miles of the TL ROW, the ROW contains good quality suitable habitat.
Thamnophis hammondii	two-striped garter snake	SSC, BLM and USFS Sensitive, NCCP-Covered	L	Although CNDDB lists no records of occurrence within 3 miles of the TL ROW, the ROW contains moderate quality suitable habitat.
Thamnophis sirtalis ssp.	south coast garter snake	SSC, NCCP-Not Covered	L	Although CNDDB lists no records of occurrence within 3 miles of the TL ROW, the ROW contains moderate quality suitable habitat.
Salvadora hexalepis virgultea	coast patch-nosed snake	SSC, NCCP-Covered	L	Although CNDDB lists no records of occurrence within 3 miles of the TL ROW, the ROW contains moderate quality suitable habitat.

Table 2
CNDDB Sensitive Wildlife Species Occurrence Table

Scientific Name	Common Name	Listing Status	Potential for Occurrence	Comments
CLASS AVES	**BIRDS**			
ACCIPITRIDAE	**HAWKS**			
Aquila chrysaetos	golden eagle (nesting and wintering)	WL, FPS, BLM Sensitive, NCCP-Covered	H (foraging) A (nesting)	Although CNDDB lists no records of occurrence within 3 miles of the TL ROW, a historic golden eagle nesting location was identified within 5 miles southeast of the TL 637 ROW in an area known as the Mt. Gower Open Space in the Cleveland National Forest. According to the Raptor Management page on the USDA Forest Service website (http://www.fs.usda.gov/detail/cleveland/ landmanagement/resourcemanagement), this nest was not active in 2012. This species was not identified during the Sunrise Powerlink surveys for eagles. Therefore, this species is considered to have a high potential to forage but is not considered to have a potential to nest within the TL 637 ROW.
Elanus leucurus	white-tailed kite (nesting)	FPS, BLM Sensitive, NCCP-Not Covered	H (foraging) L (nesting)	CNDDB lists 1 record of occurrence for this species within 1 mile of the TL ROW, and this species was observed on the TL 637 ROW near pole P158. In addition, the ROW contains high quality suitable habitat.
Accipiter cooperii	Cooper's hawk (nesting)	WL, NCCP-Covered	P (foraging) H (nesting)	Although CNDDB lists no records of occurrence within 3 miles of the TL ROW, the ROW contains good quality suitable habitat, and this species was observed on the TL 637 ROW near pole P156.
STRIGIDAE	**TRUE OWLS**			
Athene cunicularia	burrowing owl (burrow sites and some wintering sites)	SSC, BLM Sensitive NCCP-Not Covered	L (foraging) L (burrow sites and wintering)	Although CNDDB lists no records of occurrence within 3 miles of the TL ROW, the ROW contains low quality suitable habitat to support the species.
Strix occidentalis occidentalis	California spotted owl	SSC, BLM and USFS Sensitive, NCCP-Not Covered	L	Although CNDDB lists no records of occurrence within 3 miles of the TL ROW, the TL 637 ROW contains low quality suitable habitat to support the species.

Table 2
CNDDB Sensitive Wildlife Species Occurrence Table

Scientific Name	Common Name	Listing Status	Potential for Occurrence	Comments
TYRANNIDAE	**TYRANT FLYCATCHERS**			
Empidonax traillii / Empidonax traillii extimus	willow flycatcher/ southwestern willow flycatcher (nesting)	**FE/SE,** NCCP-Covered	L (foraging) A (nesting)	The TL ROW contains low quality suitable habitat; the southwestern willow flycatcher has a low potential to forage within this habitat. However, since CNDDB lists no records of occurrence within 3 miles of the TL ROW, and the southwestern willow flycatcher has high site fidelity and is not known to breed outside historic locations, this species can be considered absent for nesting within the TL 637 ROW.
HIRUNDINIDAE	**SWALLOWS**			
Progne subis	purple martin (nesting)	SSC, NCCP-Not Covered	P (foraging) P (nesting)	CNDDB lists a record of occurrence in 2007 for this species nesting in a wood power pole east of Little Page Road, and 0.5 mile south of Highway 78, at Collier Flat. In addition, a purple martin pair was observed nesting during TL 637 construction at pole P113.
VIREONIDAE	**VIREOS**			
Vireo bellii pusillus	least Bell's vireo (nesting)	**FE/SE,** NCCP-Covered	L (foraging) L (nesting)	Although CNDDB lists no records of occurrence within 3 miles of the TL ROW, the ROW contains low quality suitable habitat to support this species.
TROGLODYTIDAE	**WRENS**			
Campylorhynchus brunneicapillus sandiegensis	San Diego coastal cactus wren	SSC, NCCP-Covered	L	Although CNDDB lists no records of occurrence within 3 miles of the TL ROW, the ROW contains low quality suitable habitat to support this species.
SYLVIIDAE	**GNATCATCHERS**			
Polioptila californica californica	coastal California gnatcatcher	**FT**/SSC, NCCP-Covered	P (foraging) P (nesting)	CNDDB lists 2 records of occurrence of this species within 2 miles of the TL ROW. In addition, the ROW contains good quality suitable habitat, and this species was observed nesting on the ROW near poles P64 and P48 during focused surveys conducted in 2010.

Table 2
CNDDB Sensitive Wildlife Species Occurrence Table

Scientific Name	Common Name	Listing Status	Potential for Occurrence	Comments
EMBERIZIDAE	**PASSERINES**			
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	WL, NCCP-Covered	P (foraging) H (nesting)	CNDDB lists 3 records of occurrence within 3 miles of the TL ROW. This species was observed foraging in several locations along the TL ROW, and the ROW contains good quality suitable habitat.
ICTERIDAE	**BLACKBIRDS**			
Agelaius tricolor	tricolored blackbird (nesting colony)	SSC, BLM Sensitive, NCCP-Covered	L (foraging) L (nesting)	Although CNDDB lists no records of occurrence within 3 miles of the TL ROW, the ROW contains suitable foraging habitat to support this species. However, no large stands of cattails to support colonial nesting occurs within the project ROW.
PARULIDAE	**WOOD-WARBLERS**			
Dendroica petechia	yellow warbler (nesting)	SSC, NCCP-Not Covered	L (foraging) L (nesting)	Although CNDDB lists no records of occurrence within 3 miles of the TL ROW, the ROW contains low to moderate quality suitable habitat to support this species.
CLASS MAMMALIA	**MAMMALS**			
PHYLLOSTOMIDAE	**LEAF-NOSED BATS**			
Macrotus californicus	California leaf-nosed bat	SSC, BLM Sensitive, NCCP-Not Covered	L	CNDDB lists no records of occurrence within 3 miles of the TL ROW. The ROW contains low to moderate quality suitable habitat to support this species.
VESPERTILIONIDAE	**EVENING BATS**			
Antrozous pallidus	pallid bat	SSC, BLM and USFS Sensitive NCCP-Not Covered	L	CNDDB lists 6 records of occurrence within 3 miles of the TL ROW, the closest being approximately 0.6 mile from the TL 637 ROW. In addition, the ROW contains low quality roosting habitat to support this species.
Corynorhinus townsendii	Townsend's big-eared bat	SSC, BLM and USFS Sensitive, NCCP-Not Covered	L	CNDDB lists 3 records of occurrence within 3 miles of the TL ROW, and the ROW contains low to moderate quality suitable habitat.
Lasionycteris noctivigans	silver-haired bat	WBWG-M, NCCP-Not Covered	L	CNDDB lists 1 record (1982) of occurrence within 3 miles of the TL ROW, and the ROW contains low quality roosting habitat to support this species.

Table 2
CNDDB Sensitive Wildlife Species Occurrence Table

Scientific Name	Common Name	Listing Status	Potential for Occurrence	Comments
Lasiurus blossevillii	western red bat	SSC, NCCP-Not Covered	L	CNDDB lists 3 records of occurrence within 3 miles of the TL ROW, and the ROW contains low quality roosting habitat to support this species.
Lasiurus cinereus	hoary bat	WBWG-M, NCCP-Not Covered	L	CNDDB lists 5 records of occurrence within 3 miles of the TL ROW, and the ROW contains low quality roosting habitat to support this species.
Lasiurus xanthinus	western yellow bat	SSC, NCCP-Not Covered	L	CNDDB lists 2 records of occurrence within 3 miles of the TL ROW, and the ROW contains low quality suitable habitat.
Myotis ciliolabrum	western small-footed myotis	WBWG-M, BLM Sensitive, NCCP-Not Covered	L	CNDDB lists 7 records of occurrence within 3 miles of the TL ROW, and the ROW contains low quality roosting habitat to support this species.
Myotis evotis	long-eared myotis	WBWG-M, BLM Sensitive, NCCP-Not Covered	L	CNDDB lists 3 records of occurrence within 3 miles of the TL ROW, and the ROW contains low quality roosting habitat to support this species.
Myotis yumanensis	Yuma myotis	WBWG-M, BLM Sensitive, NCCP-Not Covered	L	CNDDB lists 6 records of occurrence within 3 miles of the TL ROW, and the ROW contains low quality suitable habitat to support this species.
MOLOSSIDAE	**FREE-TAILED BATS**			
Eumops perotis	western mastiff bat	SSC, BLM Sensitive, NCCP-Not Covered	L	CNDDB lists 7 records of occurrence within 3 miles of the TL ROW, and the ROW contains low quality roosting habitat to support this species.
Nyctinomops femorosaccus	pocketed free-tailed bat	SSC, NCCP-Not Covered	L	CNDDB lists 6 records of occurrence within 3 miles of the TL ROW, the ROW contains low quality roosting habitat to support this species.
Nyctinomops macrotis	big free-tailed bat	SSC, NCCP-Not Covered	L	CNDDB lists 2 records of occurrence within 3 miles of the TL ROW, and the ROW contains low quality roosting habitat to support this species.
LEPORIDAE	**RABBITS**			
Lepus californicus bennetti	San Diego black-tailed jackrabbit	SSC, NCCP-Covered	L	Although CNDDB lists no records of occurrence within 3 miles of the TL ROW, the ROW contains low to moderate quality suitable habitat.

Table 2
CNDDB Sensitive Wildlife Species Occurrence Table

Scientific Name	Common Name	Listing Status	Potential for Occurrence	Comments
HETEROMYIDAE	**KANGAROO RATS, POCKET MICE, & KANGAROO MICE)**			
Chaetodipus californicus femoralis	Dulzura (California) pocket mouse	SSC, NCCP-Covered	M	CNDDB lists 3 records of occurrence within 3 miles of the TL ROW, and the ROW contains moderate quality suitable habitat.
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	SSC, NCCP-Covered	L	Although CNDDB lists no records of occurrence within 3 miles of the TL ROW, the ROW contains low to moderate quality habitat to support this species.
Chaetodipus fallax pallidus	pallid San Diego pocket mouse	SSC, NCCP-Covered	A	CNDDB lists no records of occurrence within 3 miles of the TL ROW, and the ROW lacks suitable habitat to support this species.
Dipodomys stephensi	Stephens' kangaroo rat	SSC, FE, ST, NCCP-Covered	A	Although suitable habitat exists within the ROW, CNDDB lists no records of occurrence within 3 miles of the TL ROW, and this species was not found during focused surveys conducted by Chambers Group in 2010. No populations of Stephens' kangaroo rat have been reported for the southern parts of San Diego County south of the area of Ramona (Chambers Group 2011).
MURIDAE	**MICE, RATS, AND VOLES**			
Neotoma lepida intermedia	San Diego desert woodrat	SSC, NCCP-Covered	M	Although CNDDB lists no records of occurrence within 3 miles of the TL ROW, the ROW contains moderate quality suitable habitat to support this species.
Onychomys torridus ramona	southern grasshopper mouse	SSC, NCCP-Covered	L	Although CNDDB lists no records of occurrence within 3 miles of the TL ROW, the ROW contains low quality suitable habitat to support this species.
MUSTELIDAE	**WEASELS AND RELATIVES**			

Table 2
CNDDB Sensitive Wildlife Species Occurrence Table

Scientific Name	Common Name	Listing Status	Potential for Occurrence	Comments
Taxidea taxus	American badger	SSC, NCCP-Covered	M	CNDDB lists 3 records of occurrence within 3 miles of the TL ROW, the closest being approximately 0.5 mile from the ROW. In addition, the ROW contains moderate quality suitable habitat to support this species.

Status Codes

Federal (FED)
FE = Federally listed; Endangered
FT = Federally listed, Threatened
FPE = Federally Proposed for Listing as Endangered
FPT = Federally Proposed for Listing as Threatened
FC = Federal Candidate Species
BLM = BLM Sensitive
USFS= USFS Sensitive

State
ST = State listed; Threatened
SE = State listed; Endangered
SSC = California Species of Special Concern
SA = Special Animals List (CDFW)
WBWG Western Bat Working Group, has no special CDFG provisions
FPS = California Fully Protected Species
WL = CDFW Watch List

Definitions of Occurrence Probability:

- A – Absent from TL 637 – Species is concluded to be absent from the TL area based on failure to detect the species during focused surveys, or habitat requirements are not present.
- L – Low Potential for Occurrence – Historical records for this species do not exist within the immediate vicinity (approximately 3 miles) of the project site, and/or habitats or environmental conditions needed to support the species are of poor quality.
- M – Moderate Potential for Occurrence – Either a historical record exists of the species within the immediate vicinity of the project site (approximately 3 miles) and marginal habitat exists on the project site, or the habitat requirements or environmental conditions associated with the species occur within the project site, but no historical records exist within 3 miles of the project site.
- H – High Potential for Occurrence – Both a historical record exists of the species within the project site or its immediate vicinity (approximately 3 miles), and the habitat requirements and environmental conditions associated with the species occur within the project site.
- P – Species Present – The species was observed in the TL area at the time of the survey.

Source: California Natural Diversity Data Base (CNDDB 2012), Ramona and Santa Ysabel, California (USGS 7.5-minute quads).

APPENDIX F – WILDLIFE SPECIES OBSERVED LIST

Appendix F: Wildlife Species Observed List

Scientific Name	Common Name
CLASS INSECTA	**INSECTS**
NYMPHALIDAE	**BRUSH-FOOTED BUTTERFLIES**
Junonia coenia	common buckeye
PIERIDAE	**WHITES AND SULFURS**
Pieris brassicae	common white
CLASS REPTILIA	**REPTILES**
PHRYNOSOMATIDAE	**SPINY LIZARDS**
Sceloporus orcutti	granite spiny lizard
Sceloporus occidentalis	western fence lizard
Phrynosoma coronatum blainvillii	San Diego coast horned lizard
SCINCIDAE	**SKINKS**
Plestiodon skiltonianus interparietalis	Coronado Island skink
VIPERIDAE	**VIPERS**
Crotalus mitchellii pyrrhus	southwestern speckled rattlesnake
COLUBRIDAE	**COLUBRID SNAKES**
Lampropeltis sp.	unidentified kingsnake
BOIDAE	**BOAS**
Charina trivirgata roseofusca (*Lichanura trivirgata roseofusca)*	coastal rosy boa
CLASS AVES	**BIRDS**
ANATIDAE	**DUCKS AND GEESE**
Anas platyrhynchos	mallard
ODONTOPHORIDAE	**NEW WORLD QUAIL**
Callipepla californica	California quail
PHASIANIDAE	**PHEASANTS AND GROUSE**
Meleagris gallopavo	wild turkey
PODICIPEDIDAE	**GREBES**
Podilymbus podiceps	pied-billed grebe
CATHARTIDAE	**NEW WORLD VULTURES**
Cathartes aura	turkey vulture
ACCIPITRIDAE	**HAWKS, KITES, EAGLES**
Elanus leucurus	white-tailed kite
Accipiter cooperii	Cooper's hawk
Buteo lineatus	red-shouldered hawk
Buteo jamaicensis	red-tailed hawk
FALCONIDAE	**FALCONS**
Falco sparverius	American kestrel
COLUMBIDAE	**PIGEONS & DOVES**
Columba livia	rock pigeon
Streptopelia decaocto	Eurasian collared dove

Appendix F: Wildlife Species Observed List

Scientific Name	Common Name
Zenaida macroura	mourning dove
CUCULIDAE	**CUCKOOS & ROADRUNNERS**
Geococcyx californianus	greater roadrunner
TYTONIDAE	**BARN OWLS, MASKED OWLS, AND BAY OWLS**
Tyto alba	barn owl
STRIGIDAE	**TRUE OWLS**
Bubo virginianus	great horned owl
APODIDAE	**SWIFTS**
Aeronautes saxatalis	white-throated swift
TROCHILIDAE	**HUMMINGBIRDS**
Calypte anna	Anna’s hummingbird
Calypte costae	Costa's hummingbird
Trochilidae sp.	unidentified hummingbird sp.
PICIDAE	**WOODPECKERS**
Melanerpes formicivorus	acorn woodpecker
Picoides nuttallii	Nuttall's woodpecker
Colaptes auratus	northern flicker
TYRANNIDAE	**TYRANT FLYCATCHERS**
Contopus sordidulus	western wood-pewee
Empidonax sp.	Empidonax sp.
Sayornis nigricans	black phoebe
Sayornis saya	Say’s phoebe
Myiarchus cinerascens	ash-throated flycatcher
Tyrannus vociferans	Cassin's kingbird
Tyrannus verticalis	western kingbird
Tyrannus sp. (yellow-bellied)	yellow-bellied kingbird sp.
VIREONIDAE	**VIREOS**
Vireo huttoni	Hutton's vireo
CORVIDAE	**CROWS**
Corvus corax	common raven
Corvus brachyrhynchos	American crow
Aphelocoma californica	western scrub-jay
HIRUNDINIDAE	**SWALLOWS**
Progne subis	purple martin
Tachycineta bicolor	tree swallow
Tachycineta thalassina	violet-green swallow
Petrochelidon pyrrhonota	cliff swallow
Hirundinidae sp.	swallow sp.
PARIDAE	**CHICKADEES AND TITMICE**
Baeolophus inornatus	oak titmouse

Appendix F: Wildlife Species Observed List

Scientific Name	Common Name
AEGITHALIDAE	**BUSHTITS**
Psaltriparus minimus	bushtit
SITTIDAE	**NUTHATCHES**
Sitta carolinensis	white-breasted nuthatch
TROGLODYTIDAE	**WRENS**
Salpinctes obsoletus	rock wren
Catherpes mexicanus	canyon wren
Thryomanes bewickii	Bewick's wren
Troglodytes aedon	house wren
POLIOPTILIDAE	**OLD WORLD WARBLERS, GNATCATCHERS**
Polioptila californica californica	coastal California gnatcatcher
SILVIIDAE	**OLD WORLD WARBLERS**
Chamaea fasciata	wrentit
TURDIDAE	**THRUSHES**
Salia mexicana	western bluebird
Sialia currucoides	mountain bluebird
MIMIDAE	**MOCKINGBIRDS**
Mimus polyglottos	northern mockingbird
Toxostoma redivivum	California thrasher
STURNIDAE	**STARLINGS**
Sturnus vulgaris	European starling
PTILOGONATIDAE	**SILKY FLYCATCHERS**
Phainopepla nitens	phainopepla
EMBERIZIDAE	**PASSERINES**
Pipilo maculatus	spotted towhee
Aimophila ruficeps canescens	southern California rufous-crowned sparrow
Melozone crissalis	California towhee
Spizella atrogularis	black-chinned sparrow
Chondestes grammacus	lark sparrow
Junco hyemalis	dark-eyed junco
CARDINALIDAE	**CARDINALS**
Pheucticus melanocephalus	black-headed grosbeak
Passerina caerulea	blue grosbeak
Passerina amoena	Lazuli bunting
ICTERIDAE	**BLACKBIRDS & ORIOLES**
Agelaius phoeniceus	red-winged blackbird
Sturnella neglecta	western meadowlark
Euphagus cyanocephalus	Brewer's blackbird
Molothrus ater	brown-headed cowbird
Icterus cucullatus	hooded oriole

Appendix F: Wildlife Species Observed List

Scientific Name	Common Name
Icterus bullockii	Bullock's oriole
Icteridae sp.	blackbird sp.
FRINGILLIDAE	**FINCHES**
Carpodacus mexicanus	house finch
Carduelis psaltria	lesser goldfinch
PASSERIDAE	**OLD WORLD SPARROWS**
Passer domesticus	house sparrow
CLASS MAMMALIA	**MAMMALS**
SCIURIDAE	**SQUIRRELS**
Xerospermophilus beecheyi	California ground squirrel
CANIDAE	**DOGS**
Canis latrans	coyote
CERVIDAE	**DEER**
Odocoileus hemionus fuliginatatus	southern mule deer

APPENDIX G – SITE PHOTOGRAPHS

APPENDIX G – SITE PHOTOGRAPHS

	Illustration 1. Creelman Substation facing west.
	Illustration 2. Pole D28 facing north.
	Illustration 3. Pole D31 facing northwest.

	Illustration 4. Pole P66 facing southeast.
	Illustration 5. Pole P103 facing east.
	Illustration 6. Pole P128 facing east.

	Illustration 7. Pole P157 facing south.
	Illustration 8. Pole P162 facing north.
	Illustration 9. Mt. Gower Helicopter Landing Site facing northeast.

	Illustration 10. Santa Ysabel Staging Yard facing east.
	Illustration 11. View of Creelman Lane facing east.
	Illustration 12. View of San Diego Country Estates facing east.

	Illustration 13. View of TL 637 facing east.
	Illustration 14. View of TL 637 facing north.
	Illustration 15. View of surrounding hillsides on TL 637 facing south.