# Restoration Plan for Special Status Plants* 

## Submitted to:

California Public Utilities Commission
U.S. Department of Interior Bureau of Land Management
U.S. Fish and Wildlife Service

California Department of Fish and Game U.S. Department of Agriculture Forest Service

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## Abbreviations and Acronyms

| BLM | Bureau of Land Management, U.S. Department of Interior |
| ---: | :--- |
| BMP | Best Management Practice(s) |
| BO | Biological Opinion |
| Cal-IPC | California Invasive Plant Council |
| CDFG | California Department of Fish and Game |
| CNDDB | California Natural Diversity Database |
| CNF | Cleveland National Forest |
| CPUC | California Public Utilities Commission |
| Final EIR/EIS | Final Environmental Impact Report \& Environmental Impact Statement |
| HAP/HMP | Habitat Acquisition Plan and Habitat Management Plan |
| HMMP | Habitat Mitigation and Monitoring Plan |
| MMCRP | Mitigation Monitoring Compliance, and Reporting Plan |
| MP | Mile Post |
| NTRP | Native Tree Restoration Plan |
| ROD | Record of Decision |
| ROW | Right-of-Way |
| RPSP | Restoration Plan for Special Status Plants |
| RPSV | Restoration Plan for Sensitive Vegetation Communities in Temporary Impact Areas |$\quad$| San Diego Gas and Electric Company |
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## 1. INTRODUCTION

This section describes the purpose of this Restoration Plan for Special Status Plants (RPSP) and its relationship to other mitigation plans for San Diego Gas and Electric Company's (SDG\&E's) Sunrise Powerlink Project (Project). In this RPSP, the term 'Project' means the configuration and components of the transmission line and its ancillary facilities as identified in the May 2010 Project Modification Report (PMR).

### 1.1 Purpose

The primary purpose of this is RPSP to identify how SDG\&E will comply with the restoration and related mitigation requirements that apply to the Project's effects on the 14 special status plant species identified in Table 1.

Table 1. Species Covered by the RPSP*

| Scientific Name | Common Name | Sensitivity Code |
| :--- | :--- | :---: |
| Astragalus douglasii var. perstrictus | Jacumba milk-vetch | CNPS 1B.2, BLM SS, CNF SS |
| Caulanthus simulans | Payson's caulanthus | CNF SS (CNPS 4.2) |
| Ceanothus cyaneus | Lakeside ceanothus | CNPS 1B.2, CNF SS |
| Clarkia delicata | Delicate clarkia | CNPS 1B.2, CNF SS |
| Deinandra floribunda | Tecate tarplant | CNPS 1B.2, BLM SS, CNF SS |
| Geraea viscida | Sticky geraea | CNPS 2.3 |
| Grindelia hirsutula var. hallii | San Diego gumplant | CNPS 1B.2 |
| Linanthus bellus | Desert beauty | CNPS 2.3 |
| Lotus haydonii | Haydon's lotus | CNPS 2.3 |
| Mentzelia hirsutissima | Hairy stickleaf | CNPS 1B.2, CNF SS |
| Monardella hypoleuca ssp. lanata | Felt-leaved monardella | CNPS 1B.1 |
| Quercus dumosa | Nuttall's scrub oak | CNPS 1B.3, BLM SS, CNF SS |
| Ribes canthariforme | Moreno currant | CNPS 2.2 |
| Senecio aphanactis | Rayless ragwort |  |

Sensitivity Codes
CNPS 1B.1: Rare, threatened, or endangered in California and elsewhere, seriously endangered in California
CNPS 1B.2: Rare, threatened, or endangered in California and elsewhere, fairly endangered in California
CNPS 2.3: Rare, threatened, or endangered in California, not very endangered in California
CNPS 4.2: Limited distribution [Watch List], fairly endangered in California
BLM SS: BLM sensitive species
CNF SS: Cleveland National Forest sensitive species, as identified by the USFS.

## Note

* The 14 species identified in this table are among 26 special status plant species considered in the 2009 and/or $\underline{2010}$ rare plant surveys conducted for the Project, as summarized in Table 3 of the 2010 rare plant survey report (RECON 2010a). The other 12 species include:
- San Diego thornmint (Acanthomintha ilicifolia)
- Dean's milk-vetch (Astragalus deanei)
- Descanso milk-vetch (Astragalus oocarpus)
- Palmer's goldenbush (Ericameria palmeri var. palmeri)
- San Diego button-celery (Eryngium aristulatum var. parishii)
- San Diego barrel cactus (Ferocactus viridescens)
- Ramona horkelia (Horkelia truncata)
- Mexican hulsea (Hulsea californica)
- Slender-leaved ipomopsis (Ipomopsis tenuifolia)
- Mountain Springs bush lupine (Lupinus excubitus var. medius)
- San Diego golden star (Muilla [Bloomeria] clevelandii)
- San Bernardino aster (Symphyotrichum defoliatum)

None of these other 12 species occur within Project impact areas (based on the May 2010 PMR footprint and the 2009 and 2010 surveys). See the RECON reports on the 2009 and 2010 surveys (RECON 2009 and 2010a) for information about the occurrence or absence of these species in relation to earlier configurations of the Project and the May 2010 PMR.

The mitigation requirements addressed in this RPSP are those specified in:

- The Final Environmental Impact Report and Environmental Impact Statement (Final EIR/EIS) for the Project, which was prepared and approved by the California Public Utilities Commission (CPUC) and U.S. Department of Interior Bureau of Land Management (BLM) as lead agencies;
- The Mitigation Monitoring, Compliance, and Reporting Program (MMCRP) for the Project (a component of the Final EIR/EIS), specifically measure B-5a;
- The Records of Decision (RODs) issued by the BLM and U.S. Department of Agriculture Forest Service (USFS) for the Final EIR/EIS; and
- The Biological Opinion (BO) issued by the U.S. Department of Interior Fish and Wildlife Service (USFWS) pursuant to Section 7 of the federal Endangered Species Act (FESA).

As worded in the MMCRP and repeated in the RODs and BO:

- Unavoidable impacts to listed plants must be mitigated through salvage and relocation and/or offsite conservation at a 2:1 ratio;
- Unavoidable impacts to California Native Plant Society (CNPS) List 1 and 2, BLM sensitive species, and USFS sensitive species [as identified by USFS for CNF] must be mitigated through reseeding or relocation to temporary impact areas; offsite mitigation lands also may be used to mitigate impacts to these plant species.
- Where reseeding or relocation is required, a habitat restoration plan must be prepared and implemented by a qualified habitat restoration specialist; and the restoration plan must be approved prior to impacting the plant resources.
- Restoration sites must be maintained and monitored for five years or until the established success criteria are met.

In addition, the following clarifications regarding the requirements that apply to non-listed special status plants were made in a conference call on November 23, 2009 between CPUC consultant HELIX Environmental Consulting, Inc., SDG\&E, and SDG\&E's biological consultants:

1. The intent of measure B-5a was to mitigate CNPS List 1 and 2 plant species by reseeding and/or relocating impacted plants to temporarily disturbed areas within the project footprint.
2. If plants are to be reseeded or relocated, a restoration plan would need to be prepared and submitted to the agencies. Once approved, the reseeded and/or relocated plants would be monitored for five years or until success criteria are met.
3. Measure B-5a does not require a conservation easement for temporary impact areas. Therefore, once the reseeded and/or relocated plants have met the required success criteria, SDG\&E would have fulfilled the mitigation requirements for those particular species.
4. CNPS List 1 and 2 plant species do not have to be relocated or reseeded to one of the project's mitigation parcels, although this is an acceptable option.
5. Purchase of mitigation parcels containing CNPS List 1 and List 2 plant species may be considered acceptable mitigation for impacts to List 1 and 2 species. If off-site acquisition and preservation of List 1 and 2 species is proposed, SDG\&E shall justify why mitigation parcels are commensurate for the project's impacts (e.g., explain the number of locations impacted, the estimated size of the impacted population(s), the estimated population on the mitigation parcels, etc). A minimum 1:1 ratio is expected to be necessary if off site mitigation purchase is proposed to mitigate CNPS List 1 and List 2 species.

This RPSP addresses the requirements above as they apply to the 14 non-listed CNPS List 1 and 2, BLM sensitive, and USFS sensitive species that occur within Project impact areas. As determined in rare plant surveys conducted in 2009 and 2010, the Project will not affected any currently listed plant species or any plant species currently proposed for listing. Therefore, the provisions above regarding listed plant species do not apply.

### 1.2 Relationship to Other Project Mitigation Plans

In addition to the RPSP, there are other required mitigation plans for the Project that address restoration requirements and/or mitigation for impacts to plants. These include:

- Restoration Plan for Sensitive Vegetation Communities in Temporary Impact Areas (RPSV)
- Weed Control Plan (WCP)
- Storm Water Pollution Prevention Plans (SWPPPs)
- Habitat Acquisition Plan and Habitat Management Plan (HAP/HMP)
- Cleveland National Forest (CNF) HAP/HMP
- Habitat Mitigation and Monitoring Program (HMMP)

Table 2 provides a brief description of each plan and relationship of the RPSP to each.

Table 2. Relationship of the RPSP to Other Project Mitigation Plans

| Document | Description | Relationship of the RPSP |
| :---: | :---: | :---: |
| Restoration <br> Plan for <br> Sensitive <br> Vegetation <br> Communities <br> in Temporary <br> Impact Area <br> (RPSV) | The RPSV covers the restoration of 21 sensitive vegetation communities (types and subtypes) in areas where the Project will have temporary impacts. It identifies the process, methods, and success criteria for restoring vegetation to pre-construction conditions within temporary work areas around structure pads, construction yards, wire stringing areas, guard areas, and designated access roads. The sensitive vegetation types include chaparrals, coastal and montane scrubs, desert scrubs, herbaceous wetlands, riparian forests and woodlands, and woodlands and forests. The measures for temporary impacts to riparian/wetland types in the RPSV are from the HMMP. | Restoration of special status plants within temporary impact areas will be planned and implemented in coordination with the restoration of sensitive vegetation communities in the same impact areas. The site-specific plans prepared under the RSPV will specify how and where the plants will be restored and how the restored population will be maintained and monitored. |
| Habitat <br> Acquisition <br> Plan and <br> Habitat <br> Management <br> Plan <br> (HAP/HMP) | The HAP/HMP addresses offsite the mitigation requirements for the Project's impacts on sensitive vegetation communities and listed species outside of Cleveland National Forest. The impacts are those identified in the Project Modification Report (PMR) dated May 2010. The HAP/HMP identifies nine properties that will be conserved and managed through funding provided by SDG\&E and includes a management plan for each property. Each management plan identifies the mitigation function of the property, the proposed land manager and owner, management tasks necessary to conserve the property's mitigation values, funding required for initial and ongoing management, and the current status of the land acquisition. Under the HAP/HMP, approximately 8,940 acres will be acquired, and approximately $\$ 17,072,416$ will be provided for management. | Offsite conservation of special status plants will occur on properties included in the HAP/HMP. The HAP/HMP provides for the acquisition, permanent preservation, and ongoing management of lands where one or more special status plant species occur. |
| Cleveland <br> National <br> Forest <br> HAP/HMP | The CNF HAP/HAP will identify the offsite mitigation lands for Project impacts to sensitive vegetation and species in CNF and will include a management plan for those properties. USFS has provided SDG\&E with a list of potential mitigation properties and has indicated that, based on the requirements specified in the USFS ROD, at least 185.56 acres are needed as mitigation for the Project's construction impacts. | If offsite conservation is required for impacts to USFS sensitive plant species in CNF, the CNF HAP/HMP will identify where the conservation will occur and provide for the ongoing management of those lands. |


| Document | Description | Relationship of the RPSP |
| :---: | :---: | :---: |
| Weed Control Plan (WCP) | The WCP covers the identification and control of noxious weeds within the Project right-of-way (ROW) and impact areas for the life of the Project. Requirements include a pre-construction inventory of noxious weeds in the Project area, annual surveys during construction and for two years after construction, surveys every two years after construction, implementation treatment and preventive measures during operations and maintenance as well as construction. | The WCP measures apply to the temporary impact areas during construction and restoration and to the Project ROW. WCP measures will be coordinated with RPSV and RPSP weed control measures in the temporary impact areas until the RPSV and RPSP success criteria are met. The WCP measures will be coordinated with the RSPS measures for any plant restoration within the ROW and will continue in the ROW after the RPSP success criteria are met. |
| Storm Water <br> Pollution <br> Prevention <br> Plans (SWWPs) | SWPPPs are plans required under the Project's National Pollution Discharge Elimination System (NPDES) and General Construction Permit Each SWPPP includes site map(s), an identification of construction/contractor activities that could cause pollutants in the storm water, and a description of measures or practices to control these pollutants. Among other issues, the SWPPPs address erosion and sediment controls during and after construction at each Project impact area. | The SWPPP measures at temporary impact areas will be planned and implemented with the RPSP (and RPSV) restoration requirements in mind, and vice versa. The RPSV site-specific restoration plans, including all provisions for special status plants, will be SWPPP revegetation program for the location. |
| Habitat <br> Mitigation and Monitoring Plan (HMMP) | The HMMP identifies the offsite properties where jurisdictional waters and wetland/riparian resources will be preserved, enhanced, and/or restored as a condition of the Project's 401/404 permits and Streambed Alteration Agreement (SAA). The HMMP indicates where the HMMP measures will be implemented, what success criteria will apply, the cost of those measures, and the source of assured funding for those measures. Temporary as well as permanent impacts to dry washes and riparian/wet-land habitats are covered by the HMMP. After the HMMP success criteria are met, long-term management of the offsite property is guided by the HAP/HMP. | One of the plant species (Tecate tarplant) covered by the RPSP occurs in dry washes that are jurisdictional waters. The RPSP proposed conservation of Tecate tarplant on offsite mitigation lands identified in the HMMP and the HAP/HMP. |

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## 2. RPSP SPECIES AND MEASURES

This section provides information about the characteristics and occurrence of the 14 special status plants and identifies the RPSP measures that will be implemented for each species. Guidelines for implementing the RPSP measures are provided in section 3.

### 2.1 Overview

### 2.1.1 Species Occurrence and Estimated Impacts

Table 3 summarizes the occurrence of the 14 plant species within Project impact areas and undisturbed portions of the Project right-of-way (ROW) and indicates the restoration, conservation, and/or other measures that will be implemented for each species. Species occurrence is based on the results of rare plant surveys conducted by RECON Environmental Consultants. Chambers Consulting Group, and others in 2009 and 2010. These surveys covered all Project impact areas identified in the May 2010 PMR. Project impact areas are grouped in three categories: permanent, temporary, and road use. Table 4 indicates the types and dimensions of areas included in each category. Appendix A includes a comprehensive table of species' occurrence along the Project alignment by Project milepost, structure, and source of impact, together with individual tables indicating occurrence of each species. Appendix B (bound separately) is a mapbook depicting the information in Appendix A on aerial imagery with a landownership overlay. The table in Appendix A and the maps in Appendix B present the results of the 2009 and 2010 surveys for the 14 species covered by the RPSP. Information about other special status plants that were identified outside of Project impact areas is included in the RECON reports on the rare plant surveys (see RECON 2009 and RECON 2010a).

### 2.1.2 RPSP Measures

Impacts to the 14 species will be mitigated through the following RPSP measures:

1. Restoration within the temporary impact areas (TIAs);
2. For species restored within TIAs, enhancement and monitoring of existing populations within the undisturbed portion of the ROW during the TIA restoration period;
3. Conservation (i.e., permanent preservation and ongoing management) of known populations of the species on one or more of the mitigation sites acquired for the Project; and
4. Where restoration within TIAs or offsite conservation is not an option, restoration within undisturbed portions of the ROW or other appropriate location.

For each of the 14 species, the goal is to restore and/or conserve at least as many plants as will be affected by the Project and contribute to the persistence of the species along the Project alignment. Additional details regarding these measures follow Table 4.

Table 3. Summary of Special Status Plant Occurrence and RPSP Measures

| Species | Number Affected by Construction Activities |  |  |  | Number in Undisturbed ROW | RPSP Measures |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Permanent Impact Area | Temporary Impact Area | Use of Existing Access Road | TOTAL IMPACT |  |  |
| Jacumba Milk-vetch ${ }^{1}$ | 57 | 958 | 263 | 1278 | 406 | R-TIA and E-ROW |
| Payson's Caulanthus ${ }^{1}$ | 86 | 188 | 0 | 274 | 36 | R-TIA and E-ROW |
| Lakeside Ceanothus | 7 | 0 | 0 | 7 | 33 | OC-El Capitan ( $\sim 227$ plants) |
| Delicate Clarkia | 2 | 40 | 360 | 402 | 3590 | OC- Chocolate Canyon ( $\sim 25$ plants) OC-Lightner (~1247 plants) |
| Tecate Tarplant | 53 | 1355 | 801 | 2209 | 637 | OC-Long Potrero ( $\sim 76,865$ plants) |
| Sticky Geraea ${ }^{1}$ | 291 | 312 | 70 | 673 | 812 | R-TIA and E-ROW |
| San Diego Gumplant ${ }^{2}$ | 0 | 0 | 1 | 1 | 0 | Restoration on road shoulder, if impact is unavoidable |
| Desert Beauty | 798 | 2860 | 0 | 3658 | 2556 | R-TIA and E-ROW, and/or OCSuckle option |
| Haydon's Lotus | 0 | 3 | 0 | 3 | 16 | R-TIA and E-ROW or OC-Suckle option |
| Hairy Stickleaf | 6 | 0 | 0 | 6 | 59 | R- and E-ROW or OC-Suckle option |
| Felt-leaved Monardella | 55 | 0 | 0 | 55 | 0 | OC-Lightner (~1058 plants) |
| Nuttall's Scrub Oak | 17 | 0 | 0 | 17 | 49 | R- and E-ROW |
| Moreno Currant ${ }^{2}$ | 2 | 0 | 0 | 2 | 3 | R-ROW or OC-Long Potrero option, if impact is unavoidable |
| Rayless Ragwort ${ }^{1}$ | 0 | 13 | 0 | 13 | 0 | R-TIA |
| TOTAL | 1374 | 5729 | 1495 | 8598 | 8197 | -- |

## Note and Codes

1 This species occurs in impact areas in CNF; mitigation measures for the CNF impacts are being developed in cooperation with and are subject to approval by the USFS.

2 Subject to field verification, it may be possible to avoid the identified impact to this species. See discussion of occurrence and impacts in RPSP sections 2.8 and 2.14.

E = Enhancement $\quad$ OC-name (~\#) = Offsite Conservation-Mitigation Site (approximate number conserved)
R $=$ Restoration
ROW = Right-of=Wa
TIA = Temporary Impact Area

Table 4. Type of Project Impact Areas Where the Special Status Plants Occur

| Type | Description |
| :---: | :---: |
| Permanent Impact Areas |  |
| Structure Site (or Pad) | $100 \mathrm{ft} \times 100 \mathrm{ft}$ area that will be cleared during construction for the installation of the transmission line towers. The tower foundation will be placed within the site area. Construction activities are anticipated to occur over three to six weeks at most structure sites. Afterwards, the area around the tower will be restored as specified in the applicable SWPPP. |
| Maintenance Pad | $75 \mathrm{ft} \times 35 \mathrm{ft}$ area adjacent to or overlapping structure pad area at sites constructed by conventional methods. Used for storage and to provide access during O\&M. |
| Tower Staging Area Pad (TSAP) | 100-ft diameter equipment loading/work staging area for structures constructed by helicopters. Will be used during construction and O\&M (less frequently for the latter). |
| Grading | These are areas where grading that is necessary to Project construction will occur outside the footprint of the other permanent impact areas. |
| New Access Road | Typically constructed to have 14-foot-wide sections at straight portions of the road and 16to 20 -foot-wide sections to facilitate safe movement of equipment and vehicles. Permanent access roads will be used during construction and O\&M. |
| Improved Access Road | Some existing access roads will be modified within the existing width of the road to facilitate safe movement of equipment and vehicles. Improved roads will be used during construction and $O \& M$. |
| Temporary Impact Areas (TIAs) |  |
| Construction Yards | Construction yards will have multiple uses that are anticipated to extend over one year at most sites, and over two years at yards where field offices will be established (Alpine, Rough Acres). These activities include tower steel and construction materials (soil, rock, concrete) storage, contractor vehicle and heavy equipment parking, helicopter landing, vehicle wash stations, etc. Afterwards, the work areas will be restored to pre-construction conditions. |
| Stringing Sites | Stringing sites will be used after tower construction is completed and during wire pulling and installation. Wire stringing activities are anticipated to occur for approximately four weeks at each pull site. Afterwards, the sites will be restored to pre-construction conditions. |
| Work Areas | Temporary work areas will be used to complete conventional tower assembly and erection and store and maintain equipment for tower assembly. These areas will receive heavy foot traffic as well as a variety of heavy equipment, steel, tools, and other construction materials. Construction activities are anticipated to occur over three to six weeks at most tower sites. Afterwards, the work areas will be restored to pre-construction conditions. |
| New Access Road | Temporary access roads will be constructed or improved to provide access to structure sites. These roads will be in place for approximately six to eight weeks duration to accommodate the construction process. Afterwards, the road area will be restored to pre-construction conditions. |
| Improved Access Road | Some existing access roads that will not be used after construction will be improved. These roads will be in place for approximately six to eight weeks duration to accommodate the construction process and will be restored pre-construction conditions afterwards. |
| Existing Access Roads |  |
| Use of Existing Roads | Some existing roads that provide access to permanent and temporary impact areas include areas of vegetation that will be crushed or heavily disturbed by vehicle traffic and transport of heavy equipment. |

### 2.1.2.1 Restoration in tias

Restoration in TIAs is the primary form of mitigation for impacts to five of the RPSP species: Jacumba milk-vetch, Payson's caulanthus, sticky geraea, desert beauty, and rayless ragwort.

- For Jacumba milk-vetch and sticky geraea, restoration will occur at TIAs where ten or more of plants of either species have been identified (see tables in Appendix A), provided that the 1:1 restoration goal can be achieved at the selected TIAs. For impacts within CNF, some or all of the restoration may occur at other locations designated by USFS.
- For desert beauty, restoration will occur at the TIAs where the plant occurs; offsite conservation remains an option and may replace some or all restoration within TIAs.
- For Payson's caulanthus and rayless ragwort, restoration will occur within TIAs where these plants occur. For impacts within CNF, some or all of the restoration may occur at other locations designated by USFS.

All plant restoration measures within TIAs will be planned in conjunction with and implemented as part of the site-specific vegetation restoration plans under the RPSV (see section 3). Additionally, in planning restoration for these plants priority will be given to TIAs that occur on lands where the restoration site will not be subject to future disturbance.

### 2.1.2.2 Offsite Conservation on Project Mitigation Lands

Offsite conservation on one or more of the mitigation lands acquired for the Project is the primary mitigation for impacts to four RPSP species: Lakeside ceanothus, delicate clarkia, Tecate tarplant, and felt-leaved monardella. Implementation of this RPSP measure for these species will occur as part of the implementation of the HAP/HMP. The HAP/HMP provides for the acquisition, preservation, and ongoing management of the biological resources on the Project mitigation sites, including but not limited to four sites with populations of RPSP species. These sites are: Chocolate Canyon (delicate clarkia), El Capitan (Lakeside ceanothus), Lightner (delicate clarkia and felt-leaved monardella), and Long Potrero (Tecate tarplant). Appendix C includes maps of these four sites showing where the RPSP plants were observed in past surveys conducted for the Project, together with tables that summarize information about the resources on each site and the management arrangements and funding provided under the HAP/HMP. The justification for use of offsite conservation as mitigation for impacts to the special status plants is addressed in the description of the RPSP measures for each of the four species (see subsections 2.4. 2.5, 2.6, and 2.12).

Offsite conservation also is reserved as a mitigation option for four species: desert beauty, Haydon's lotus, hairy stickleaf, and Moreno currant. The Suckle mitigation site (see Appendix C for information about the site) has habitat suitable for desert beauty, Haydon's lotus, and hairy stickleaf but has not been surveyed for these species. Moreno currant potentially occurs on the Long Potrero but has not been identified in surveys to date. SDG\&E will arrange for the surveys to be conducted in 2011. As described in section 3 of this RPSP, if one or more of the species are found on the properties, SDG\&E will submit a written report documenting occurrence and indicating the number of plants conserved as
mitigation for impacts. All or part of any restoration proposed for the species would be replaced by the offsite conservation, depending on the numbers being conserved. The justification for use of offsite conservation is addressed in the description of the RPSP measures for each of the four species (see subsections 2.9. 2.10, 2.11, and 2.14). Pending the results of the 2011 surveys, seed collection, and topsoil salvaging for these species will be planned and implemented as specified in this RPSP.

### 2.1.2.3 Restoration in Right-of-Way or Other Location

Restoration outside TIAs will be limited to areas within the ROW and other locations where there are past or current records of species occurrence and where restoration can be implemented with minimal ground disturbance and low or no probability of future disturbance.

For three species (San Diego gumplant, hairy stickleaf, and Nuttall's scrub oak) restoration in the ROW or other location is the proposed because there are not impacts to the species within TIAs and, except for the possible occurrence on hairy stickleaf on Suckle, the plants are not known to occur on offsite conservation sites. If impacts to San Diego gumplant cannot be avoided, restoration is proposed for the shoulder of the existing road where the one plant was found. If hairy stickleaf is not found on Suckle, restoration will occur in the ROW near EP277-1 or EP279-1. Nuttall's scrub oak will be restored in the ROW near CP8-2 or at a the San Diego County Sycamore Canyon open space preserve (where this plant occurs). The Plant Restoration Program Manager will prepare site-specific restoration plans for Nuttall's scrub oak and, if necessary, for San Diego gumplant and hairy stickleaf (see section 3).

Where restoration occurs within the ROW, O\&M activities will be conducted to avoid and minimize impacts to the restored plant population(s). Where restoration is proposed for a location outside impact areas, the ROW, or project mitigation lands, priority will be given to selecting a location(s) where the restoration site will not be subject to future disturbance.

### 2.1.2.4 Enhancement and Monitoring in Right-of-Way

For the RPSP species that will be restored (see Table 3), an additional mitigation measure will be implemented during the restoration period. The additional measure is the enhancement and monitoring of existing populations of the restored plant species at locations in the Project ROW where those species occur. The purpose of this measure is to promote the persistence of these species along the alignment and to maintain options for remedial measures in the event restoration in a given location is not successful. Enhancement measures will focus on weed management and may include some seeding. Weed management will be planned and implemented in close coordination with the Weed Control Plan. Where seeding is proposed, only minimal ground disturbance (such as loosening the soil) will be allowed. Monitoring will entail site visits at least every other year for the duration of the restoration period for each species (i.e., until the restoration success criteria for the species are met at the restoration sites for that species). The Plant Restoration Program Manager will prepare an enhancement and monitoring plan that identifies the location, methods, and timing of all weeding, seeding, and maintenance/monitoring measures that will be implemented in the ROW for RPSP species. Locations selected for enhancement will include but not be limited to (1) areas adjacent to TIAs where
one more plant species are being restored and (2) areas where there are Project impacts to one or more RPSP species but no TIAs.

For other RPSP species that occur in the ROW (i.e., species that will be conserved offsite), the RPSP does not propose special measures for enhancement and monitoring. However, the impact avoidance and weed control measures that apply to the ROW during and after construction will benefit those species and likewise promote their persistence along the alignment.

### 2.2 Jacumba Milk-Vetch

### 2.2.1 Species Profile

Jacumba milk-vetch is a perennial herb in the legume family (Fabaceae) with stout, erect stems that can grow up to 3 feet ( 1 meter) in height. This species flowers from April to June and ranges from Imperial and San Diego counties to Baja California (CNPS 2010). This species grows in stony or sandy places in La Posta loam soils (Reiser 2001). The habitat for Jacumba milk-vetch includes southern oak woodland, open chaparrals, and grasslands from 3,000 feet to 4,500 feet ( 915 to 1,375 m) in elevation (CNPS 2010, Munz 1974).

Jacumba milk-vetch is a CNPS List 1B.2, BLM sensitive species, and CNF sensitive species.

### 2.2.2 OCCURRENCE AND Estimated Impacts

Jacumba milk-vetch occurs in permanent and temporary impact areas, on existing access roads, and in undisturbed portions of the ROW. Most impacts will occur in connection with establishment of a construction yard and use of existing roads (Table 5). There are approximately 406 plants in undisturbed portions of the ROW.

Table 5. Estimated Impacts to Jacumba Milk-Vetch (number)

| Impact Area Type | \# in Permanent Impact Area | \# in Temporary Impact Area | \# Affected by Use of Existing Roads | Total \# Affected |
| :---: | :---: | :---: | :---: | :---: |
| Construction Yard |  | 836 |  | 836 |
| Grading | 9 | 2 |  | 11 |
| Improved Road | 10 |  |  | 10 |
| Maintenance Pad | 1 |  |  | 1 |
| New Road | 14 | 14 |  | 28 |
| String Site Area |  | 31 |  | 31 |
| Structure Pad | 23 |  |  | 23 |
| Work Area |  | 75 |  | 75 |
| Use of Existing Roads |  |  | 263 | 263 |
| Total | 57 | 958 | 263 | 1278 |

### 2.2.3 RPSP Measures

Impacts to Jacumba milk-vetch will be mitigation through restoration at TIAs and enhancement and monitoring within undisturbed portions of the ROW.

Restoration will occur primarily at the Rough Acres construction yard, where the largest number of Jacumba milk-vetch will be affected. Restoration also will occur within other TIAs where 10 or more plants of this species have been identified (See Appendix A Table A-2). Restoration will be planned in conjunction with and implemented as part of the site-specific vegetation restoration plans prepared for Rough Acres and the designated TIAs under the RPSV. Methods for obtaining materials for Jacumba milk-vetch restoration include, but are not limited to, collection of seed within permanent and temporary impact locations, collection of seed within the Project ROW, collection of topsoil where Jacumba milk-vetch is present within permanent and temporary impact locations, salvage whole plants within permanent and temporary impact locations, and limit grading activities within temporary impact areas leaving the underground storage organ intact for re-sprouting.

In addition to restoration in TIAs, populations of this species within the undisturbed portion of the ROW will be enhanced, maintained, and monitored at locations identified by the Plant Restoration Program Manager. The enhancement measures will focus on the removal and control of weeds; depending on the supply of seed available after TIA restoration has been planned, some seeding in the ROW also may occur. Maintenance and monitoring of enhancement sites will continue until the success criteria at the TIA restoration sites for Jacumba milk-vetch are met.

### 2.3 Payson’s Caulanthus

### 2.3.1 SpeCies Profile

Payson's caulanthus is an annual herb in the mustard family (Brassicaceae). It is generally bristly and branched above with cut to dentate leaves (Hickman 1993). Payson's caulanthus has small yellow flowers, blooms generally from March through May and is found in chaparral and coastal scrub habitats in San Diego and Riverside Counties, California (CNPS 2010). This species is locally common in the Thing Valley and La Posta Road areas along the Project ROW.

Payson's caulanthus is CNF sensitive species and is covered by the RPSP where impacts occur to it within CNF. It also is a CNPS List 4.2 species. Outside CNF, restoration and/or offsite conservation is not required under the MMCRP for this plant.

### 2.3.2 Occurrence and Estimated Impacts

Payson's caulanthus occurs within permanent and temporary impact areas and within the Project ROW. Most impacts to this plant will occur in connection with the establishment and use of a construction yard (Table 6). This species does not occur on existing access roads. There are approximately 36 plants within undisturbed portions of the ROW.

Table 6. Estimated Impacts to Payson's Caulanthus (number)

| Impact Area Type | \# in Permanent <br> Impact Area | \# in Temporary <br> Impact Area | \# Affected by Use of <br> Existing Roads | Total \# Affected |
| :---: | :---: | :---: | :---: | :---: |
| Construction Yard |  | 188 |  | 188 |
| Structure Pad | 86 |  |  | 86 |
|  | Total | 86 | 188 |  |

### 2.3.3 RPSP Measures

Restoration of this species will occur within the Thing Valley construction yard and/or at other locations in CNF designated by USFS. Site-specific restoration measures for the yard will be planned in conjunction with an implemented as part of the vegetation restoration plan for the yard. Restoration outside the yard (if any) will be planned and implemented as a separate activity under a plan prepared by the Plant Restoration Program Manager and approved by USFS.

In addition to restoration in TIAs and subject to USFS approval, populations of this species within the undisturbed portion of the ROW near milepost 61 will be enhanced, maintained, and monitored. The enhancement measures will focus on the removal and control of weeds; depending on the supply of seed available after restoration has been planned, some seeding in the ROW also may occur. Maintenance and monitoring of the enhancement site will continue until the success criteria at the restoration sites for Payson's caulanthus are met.

### 2.4 Lakeside Ceanothus

### 2.4.1 Species Profile

Lakeside ceanothus is an evergreen shrub and member of the buckthorn family (Rhamnaceae) that reaches up to 15 feet ( 4.6 m ) in height. Lakeside ceanothus produces bright blue flowers from April to June (Munz 1974). This species inhabits dry, shrubby slopes within dense chaparral communities at elevations less than 2,500 feet ( 765 m ) in elevation (CDFG 2009). Lakeside ceanothus is endemic to San Diego County and northern Baja California, Mexico. In San Diego County it is found from Crest to the Lakeside foothills, including Ramona, Lakeside, and Alpine. This species has been recorded on acid igneous rock land and Cieneba very rocky coarse sandy loam soils. Although Lakeside ceanothus is restricted in range, it may cover hundreds of acres when present (Reiser 2001).

Lakeside ceanothus is a CNPS List 1B. 2 species, a BLM sensitive species, and a CNF sensitive species.

### 2.4.2 Occurrence and Estimated Impacts

Lakeside ceanothus occurs within the permanent impact areas of two structure sites (Table 7). This plant does not occur in any of the Project's TIAs or on existing access roads. Approximately 33 occur in undisturbed portions of the Project ROW.

Table 7. Estimated Impacts to Lakeside Ceanothus (number)

| Impact Area Type | \# in Permanent <br> Impact Area | \# in Temporary <br> Impact Area | \# Affected by Use of <br> Existing Roads | Total \# Affected |
| :---: | :---: | :---: | :---: | :---: |
| Structure Pad | 7 |  |  | 7 |
|  | 7 |  |  | 7 |

### 2.4.3 RPSP Measures

Impacts to approximately 7 plants at the two structure sites will be mitigated by offsite conservation of approximately 227 plants on the El Capitan mitigation site. See Figure 1 and Table C-1 in Appendix C. The HAP/HMP provides for the permanent preservation and management of the El Capitan site.

Offsite conservation is appropriate mitigation for the Project's impacts to Lakeside ceanothus because the El Capitan site is the same general vicinity of the two impact areas and approximately 227 plants will be permanently conserved for the 7 affected by the Project. Total impacts are mitigated at a ratio of approximately 32:1. In addition, conservation will precede impacts to this plant.

### 2.5 Delicate Clarkia

### 2.5.1 Species Profile

Delicate clarkia is an annual in the evening-primrose family (Onagraceae) that grows up to 3 feet ( 0.9 meter [ m ]) in height and produces rose-lavender to pale pink flowers in May and June. Delicate clarkia is found only in San Diego County and Baja California, Mexico. It grows on dry slopes in oak woodlands and chaparral below 4,000 feet ( $1,220 \mathrm{~m}$ ) (Munz 1974), preferring sites that are partially shaded with soils wet during the spring. Delicate clarkia is inconspicuous when not in flower but readily recognizable by its spoon-shaped rose-colored petals and bright orange-tipped anthers (Reiser 2001).

Delicate clarkia is a is a CNPS List 1B. 2 and a CNF sensitive species.

### 2.5.2 Occurrence and Estimated Impacts

Delicate clarkia occurs mainly on existing access roads and in one work area (Table 8). More than 3500 plants of this species occur within undisturbed portions of the Project ROW.

Table 8. Estimated Impacts to Delicate Clarkia (number)

| Impact Area Type | \# in Permanent <br> Impact Area | \# in Temporary <br> Impact Area | \# Affected by Use of <br> Existing Roads | Total \# Affected |
| :---: | :---: | :---: | :---: | :---: |
| Improved Road | 1 |  |  | 1 |
| Structure Pad | 1 |  |  | 1 |
| Work Area |  | 40 |  | 40 |
| Use of Existing Roads |  |  | 360 | 360 |
|  | 2 | 40 | 360 | 402 |

### 2.5.3 RPSP Measures

Impacts to approximately 402 plants will be mitigated by offsite conservation of approximately plants on two mitigation sites - Chocolate Canyon (approximately 25 plants) and Lightner (approximately 1,247 plants). See Figures 2 and 3 and Tables 2 and 3 in Appendix C. The HAP/HMP provides for the permanent preservation and management of both mitigation sites.

Offsite conservation is appropriate mitigation for the impacts to delicate clarkia because the work area impacts occur in the Project ROW that crosses (but is excluded from ) the Chocolate Canyon mitigation site and there are no TIAs with this plant in the vicinity of existing roads where most impact will occur. The Lightner site compensates for the road-related as well as other impacts by preserving large numbers of this plant within one of the largest area of contiguous woodlands in San Diego County. Total impacts are mitigated at a ratio of approximately $3: 1$. In addition, conservation will precede impacts to this plant (the two sites have already been acquired).

### 2.6 Tecate Tarplant

### 2.6.1 Species Profile

Tecate tarplant is an annual herb in the sunflower family (Asteraceae) that grows up to 3.5 feet ( 1 m ) in height and blooms between August and October (CNPS 2010, Hickman 1994, and Reiser 2001). This species ranges from San Diego County into Baja California and occurs in Coastal Sage Scrub and Chaparral habitats between 230 and 4,000 feet ( 70 to 1,220 m) in elevation. Habitat for this species is characterized as primarily dry valleys and foothills, within sandy washes in the high desert. Reiser (2001) reports that this species favors sandy washes and is often found growing in Carrizo very gravelly loam soil series. This species may be distinguished from other tarplant species found in the region by having 13 to 20 ray flowers, which appear in late summer and fall.

Tecate tarplant is a CNPS List 1B. 2 species, a BLM sensitive species, and a CNF sensitive species.

### 2.6.2 Occurrence and Estimated Impacts

Tecate tarplant occurs in permanent and temporary impact areas, on existing access roads, and in undisturbed portions of the Project ROW. Project impacts will occur in connection with grading, a string site, maintenance pad, and work area for one structure (EP67) and from use of existing roads (Table 9). Approximately 637 occur within undisturbed portions of the ROW.

Table 9. Estimated Impacts to Tecate Tarplant (number)

| Impact Area Type | \# in Permanent <br> Impact Area | \# in Temporary <br> Impact Area | \# Affected by Use of <br> Existing Roads | Total \# Affected |
| :---: | :---: | :---: | :---: | :---: |
| Grading |  | 242 |  | 242 |
| Maintenance Pad | 53 |  |  | 53 |
| String Site Area |  | 953 |  | 953 |
| Work Area |  | 160 |  | 160 |
| Use of Existing Roads |  |  | 801 | 8 |
|  | 53 | 1355 | 801 | 2209 |

### 2.6.3 RPSP Measures

Impacts to 2209 plants will be mitigated through the offsite conservation of approximately 76,865 plants at the Long Potrero mitigation site. See Figure 4 and Table C-4 in Appendix C. The HAP/HMP provides for the permanent preservation and management of the Long Potrero site. Tecate tarplant also will likely benefit from the wash restoration and enhancement measures at Long Potrero under the HMMP.

Offsite conservation is appropriate mitigation for the impacts to Tecate tarplant because the impacts related to EP67 occur in a area that encompassed by the northern boundaries but excluded from the Long Potrero site and because there are no TIAs within this plant in the vicinity of the existing roads where most impacts will occur. Total impacts are mitigated at a ratio of approximately 34:1. In addition, conservation will precede impacts to this plant (the site has already been acquired).

### 2.7 Sticky Geraea

### 2.7.1 Species Profile

Sticky geraea is a short-lived perennial in the sunflower family (Asteraceae) that produces yellow flowers between May and June (CNPS 2010). This species grows from an underground caudex (Hickman 1993). Sticky geraea occurs in southeastern San Diego and southwestern Imperial Counties and Baja California (CNPS 2010). This species can be found on dry chaparral slopes between 2,000 to 4,000 feet (600 to $1,220 \mathrm{~m}$ ) in elevation, most commonly associated with chamise (Adenostoma fasciculatum) as the dominant shrub. Sticky geraea often occurs in dry, sandy areas, and is sometimes found in disturbed areas. Reiser (2001) reports that sticky geraea occurs on Tollhouse rocky coarse sandy loam soils.

Sticky geraea is a CNPS List 2.3 species.

### 2.7.2 Occurrence and Estimated Impacts

Sticky geraea occurs in permanent and temporary impact areas, on existing access roads, and in undisturbed portions of the Project ROW. Most impacts will occur in connection with construction of new permanent access roads and the establishment of use of temporary stringing and work areas (Table 10). Approximately 812 occur in the ROW.

Table 10. Estimated Impacts to Sticky Geraea (number)

| Impact Area Type | \# in Permanent <br> Impact Area | \# in Temporary <br> Impact Area | \# Affected by Use of <br> Existing Roads | Total \# Affected |
| :---: | :---: | :---: | :---: | :---: |
| New Road | 219 | 24 |  | 243 |
| Construction Yard |  | 20 |  | 20 |
| Grading | 14 | 15 |  | 29 |
| Maintenance Pad | 24 |  |  | 24 |
| String Site Area |  | 96 |  | 96 |
| Structure Pad | 34 |  |  | 34 |
| Work Area |  | 157 |  | 157 |
| Use of Existing Roads |  |  | 70 | 70 |
| Total | 291 | 312 | 70 | 673 |

### 2.7.3 RPSP Measures

Impacts to sticky geraea will be mitigation through restoration at TIAs and enhancement and monitoring within undisturbed portions of the ROW.

Restoration will occur at the TIAs where 10 or more plants of this species have been identified, which are mainly a construction yard, work areas, and string sites (See Appendix A Table A-7). Restoration will be planned in conjunction with and implemented as part of the site-specific vegetation restoration plans prepared for the designated TIAs under the RPSV. Methods for obtaining materials for sticky geraea restoration include, but are not limited to, collection of seed within permanent and temporary impact locations, collection of seed within the Project ROW, collection of topsoil where sticky geraea is present within permanent and temporary impact locations, salvage whole plants within permanent and temporary impact locations, and limit grading activities within temporary impact areas leaving the underground storage organ intact for re-sprouting.

In addition to restoration in TIAs, populations of this species within the undisturbed portion of the ROW will be enhanced, maintained, and monitored at locations identified by the Plant Restoration Program Manager. The enhancement measures will focus on the removal and control of weeds; depending on the supply of seed available after TIA restoration has been planned, some seeding in the ROW also may occur. Maintenance and monitoring of enhancement sites will continue until the success criteria at the TIA restoration sites for sticky geraea are met.

### 2.8 SAN Diego Gumplant

### 2.8.1 Species Profile

San Diego gumplant is a perennial herb in the sunflower family (Asteraceae) that produces yellow flowers between July and October and is endemic to San Diego County (CNPS 2010). This species is found in meadows and dry slopes between 2,600 to 5,600 feet ( 800 to 1,700 meters) in elevation (Hickman 1993).

San Diego gumplant is a CNPS List 1B. 2 species.

### 2.8.2 Occurrence and Estimated Impacts

One plant has been found within one existing dirt access road that will be used for the Project (Table 11). This plant has not been observed in permanent and temporary impact areas or in the Project ROW.

Table 11. Estimated impacts to San Diego Gumplant (number)

| Impact Area Type | \# in Permanent <br> Impact Area | \# in Temporary <br> Impact Area | \# Affected by Use of <br> Existing Roads | Total \# Affected |
| :---: | :---: | :---: | :---: | :---: |
| Use of Existing Roads |  |  | 1 | 1 |
| Total |  |  |  |  |
|  |  |  | 1 | 1 |

### 2.8.3 RPSP Measures

The Plant Restoration Program Manager will conduct a site visit to further evaluate the feasibility of avoiding impacts to this plant from vehicle traffic. If the impact is unavoidable, restoration on the shoulder of the road will be considered. Restoration would occur using purchased seed and would require preparation of a site-specific plan as per section 3 of this RPSP.

### 2.9 Desert Beauty

### 2.9.1 Species Profile

Desert beauty is an annual wildflower in the phlox family (Polemoniaceae) that grows to approximately 4 inches ( 10 cm ) in height. This species blooms in April and May (CNPS 2010) and has flowers that range from lilac to pink, with a yellow throat dotted with purple spots. Desert beauty is found only in southeastern San Diego County and adjacent Baja California (Munz 1974, CNPS 2010). It grows in open sandy sites in Semi-Desert Chaparral between 3,000 and 4,500 feet ( 915 to 1,375 m) in elevation (Hickman 1993 and CNPS 2010).

Desert beauty is a CNPS List 2.3 species.

### 2.9.2 Occurrence and Estimated Impacts

Desert beauty occurs within permanent and temporary impact areas and within undisturbed portions of the Project ROW. It was not observed within existing access roads. Most impacts will occur in connection with new access roads, grading, structure pads, and stringing sites associated with three towers and a TSAP (Table 12). Approximately 2556 occur in the ROW.

Table 12. Estimated Impacts to Desert Beauty (number)

| Impact Area Type | \# in Permanent <br> Impact Area | \# in Temporary <br> Impact Area | \# Affected by Use of <br> Existing Roads | Total \# Affected |
| :---: | :---: | :---: | :---: | :---: |
| New Road | 361 | 530 |  | 891 |
| Construction Yard |  | 25 |  | 25 |
| Grading |  | 410 |  | 410 |
| String Site Area | 152 |  |  | 1895 |
| Structure Pad | 285 |  |  | 152 |
| TSAP | 798 | 2860 |  | 285 |
| Total |  |  | 3658 |  |

### 2.9.3 RPSP Measures

Impacts to desert beauty will be mitigated through restoration in TIAs and enhancement/monitoring of populations within the ROW.

Restoration will occur in the TIAs associated EP220-1, EP221-1, and EP204-4 and the construction yard serving EP178 (see Appendix A Table A-9). The two TIAs (grading areas) where fewer than 10 plants
occur will not be treated as RPSP restoration sites but desert beauty seed will be included in the vegetation restoration palette. Site-specific restoration measures will be identified the site-specific restoration plans prepared for the TIAs under the RPSV. Enhancement and monitoring measures will focus on monitoring for the incursion of invasive plants; depending on the availability of seed, some seeding in the ROW also may occur. The enhancement/monitoring measures will continue until the success criteria for the desert beauty restoration sites are met.

SDG\&E will have the option to substitute offsite conservation for some or all restoration within TIAs. Surveys for desert beauty will be conducted at the Suckle site in April or May of 2011 to determine if this species is present and, if so, in what numbers. Section 3 of this RPSP identifies the process for confirming offsite conservation as a substitute for all or some restoration of desert beauty.

### 2.10 HAYDON's Lotus

### 2.10.1 Species Profile

Haydon's lotus is a subshrub in the pea family (Fabaceae) (Hickman 1993) that produces small orange colored flowers from January through June (CNPS 2010). This species can be found in elevations ranging from 1,900 and 4,000 feet ( 600 to 1,200 m) in elevation in San Diego and Imperial counties and Baja California, Mexico in creosote bush scrub and juniper woodland (Hickman 1993 and CNPS 2010).

Haydon's lotus is a CNPS List 1 b .3 species.

### 2.10.2 Occurrence and Estimated Impacts

Haydon's lotus occurs within the temporary work area for one structure (Table 13). It does not occur in permanent impact areas or on existing access roads. Approximately 16 plants occur in the Project ROW near EP247.

Table 13. Estimated Impacts to Haydon's Lotus (number)

| Impact Area Type | \# in Permanent <br> Impact Area | \# in Temporary <br> Impact Area | \# Affected by Use of <br> Existing Roads | Total \# Affected |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Work Area |  | 3 |  | 3 |  |  |  |  |  |
| Total |  |  |  |  |  |  | 3 |  | 3 |

### 2.10.3 RPSP Measures

Restoration of Haydon's lotus will occur within the one TIA. Seed will salvaged and/or topsoil collected prior to impact and sown after construction in the TIA. Site specific restoration measures will be identified in the site-specific plan prepared for the TIA under the RPSV. Enhancement and monitoring measures also will be implemented in the ROW until the success criteria for the restoration site are met. Within the ROW, the focus will be on monitoring for continued plant occurrence.

SDG\&E also will have the option to substitute offsite conservation for restoration within the TIA if this plant if found on the Suckle mitigation site. Surveys for Haydon's lotus will be conducted at the Suckle site in January and June of 2011 to determine if this species is present and, if so, in what numbers. Section 3 of this RPSP identifies the process for confirming offsite conservation as a substitute for restoration.

### 2.11 HAIRy Stickleaf

### 2.11.1 Species Profile

Hairy stickleaf is an annual in the loasa family (Loasaceae) that grows up to approximately 12 inches ( 31 centimeters) in height (Hickman 1993). This species generally blooms from March through May (CNPS 2010) and produces pale yellow flowers (Hickman 1993). Hairy stickleaf is found within San Diego and Imperial counties as well as Baja California, Mexico within Sonoran desert scrub (CNPS 2010).

Hairy stickleaf is a CNPS List 2.3 species.

### 2.11.2 Occurrence and Estimated Impacts

Hairy stickleaf occurs in the permanent impact areas of two structure sites (Table 14). Approximately 59 plants occur in the ROW in the vicinity of those structures. This plant does not occur in TIAs or on existing access roads.

Table 14. Estimated Impacts to Hairy Stickleaf (number)

| Impact Area Type | \# in Permanent <br> Impact Area | \# in Temporary <br> Impact Area | \# Affected by Use of <br> Existing Roads | Total \# Affected |
| :---: | :---: | :---: | :---: | :---: |
| Structure Pad | 6 |  |  | 6 |
|  | Total | 6 |  |  |

### 2.11.3 RPSP Measures

Restoration of hairy stickleaf will occur on the periphery of the plants in the ROW, near the structure pads for EP279-1 and/or EP277-1. Restoration will be accomplished by salvage of seed and/or topsoil collected prior to impact. Enhancement and monitoring measures also will applied to the existing population in this ROW until the success criteria for the restoration site(s) are met. For the existing population, the focus will be on monitoring for continued occurrence.

SDG\&E also will have the option to substitute offsite conservation for restoration if this plant is found on the Suckle mitigation site. Surveys for Haydon's lotus will be conducted at the Suckle site between March and May of 2011 to determine if this species is present and, if so, in what numbers. Section 3 of this RPSP identifies the process for confirming offsite conservation as a substitute for restoration.

### 2.12 Felt-Leaved Monardella

### 2.12.1 Species Profile

Felt-leaved monardella is an herbaceous perennial in the mint family (Lamiaceae) that grows from a creeping rootstock (rhizome) to approximately 2 feet ( 0.6 m ) in height. This species flowers between June and July. Its range occurs from Orange County to San Diego County and Baja California, Mexico. Felt-leaved monardella is found on dry slopes in chaparral below 4,500 feet (1,375 m) (Munz 1974), typically growing beneath chamise on undeveloped peaks and mountainous ridges. Felt-leaved monardella has been known to grow alongside Indian warrior (Pedicularis densiflora) within soils such as San Miguel-Exchequer rocky silt loam or acid igneous rock lands (Reiser 2001).

Felt-leaved monardella is a CNPS List 1B. 2 and a CNF sensitive species.

### 2.12.2 OCCURRENCE AND Estimated IMPACTS

Felt-leaved monardella occurs in the impact area for a new permanent access road (Table 15). It was not observed in TIAs, on existing access roads, or in undisturbed portions of the Project ROW.

Table 15. Estimated Impacts to Felt-Leaved Monardella (number)

| Impact Area Type | \# in Permanent <br> Impact Area | \# in Temporary <br> Impact Area | \# Affected by Use of <br> Existing Roads | Total \# Affected |
| :---: | :---: | :---: | :---: | :---: |
| New Road | 55 |  |  | 55 |
|  | 55 |  |  | 55 |

### 2.12.3 RPSP Measures

Impacts to approximately 55 plants will be mitigated through conservation of 857 plants at the Lightner mitigation site. The HAP/HMP provides for the permanent preservation and management of the Lightner site.

Offsite conservation is appropriate mitigation for the impacts to felt-leaved monardella because the impacts just outside the boundaries of the Lighter mitigation site and there are no TIAs with this plant where restoration could occur. The Lightner site compensates for the road-related impacts by preserving large numbers of this plant within a large block of chaparral and woodlands. Total impacts are mitigated at a ratio of approximately 19:1. In addition, conservation will precede impacts to this plant (the site has already been acquired).

### 2.13 Nuttall’s Scrub Oak

### 2.13.1 Species Profile

Nuttall's scrub oak is an evergreen shrub in the oak family (Fagaceae) that grows up to 10 feet ( 3 m ) in height (Hickman 1993) and blooms from February to April (CNPS 2010). Nuttall's scrub oak is found near the coast in Santa Barbara, Orange, and San Diego counties and in Baja California, Mexico, at elevations below 1,300 feet ( 400 m). Nuttall's scrub oak grows in Chaparral, Coastal Sage Scrub, and Closed-Cone Coniferous Forest habitats (CNPS 2010), preferring Coastal Chaparral with a relatively open canopy in flat areas, but growing in dense stands on north-facing slopes (Reiser 2001). In San Diego County, this species is known to grow as far inland as Camp Elliott and Otay Mesa (Reiser 2001), being replaced by the similar scrub oak (Quercus berberidifolia) in higher, drier locations (Hickman 1993). The undersides of the leaves have soft felt-like hairs and spiny margins (Pavlik et al. 2006).

This plant is a CNPS List 1 B .2 species.

### 2.13.2 Occurrence and Estimated Impacts

Nuttall's scrub oak occurs in the permanent impact areas associated with two structure sites (Table 16). Approximately 17 occur in undisturbed portions of the ROW near two structures. It does not occur in TIAs or on existing access roads. All recorded locations are on lands within MCAS Miramar.

Table 16. Estimated Impacts to Nuttall's Scrub Oak (number)

| Impact Area Type | \# in Permanent <br> Impact Area | \# in Temporary <br> Impact Area | \# Affected by Use of <br> Existing Roads | Total \# Affected |
| :---: | :---: | :---: | :---: | :---: |
| Grading | 5 |  |  | 5 |
| Maintenance Pad | 8 |  |  | 8 |
| New Road | 3 |  |  | 3 |
| Structure Pad | 1 |  |  | 1 |
|  | 17 |  |  | 17 |

### 2.13.3 RPSP Measures

Subject to MCAS Miramar approval, restoration of Nuttall's scrub oak will occur within the Project ROW adjacent to the impact areas. If an alternate site for restoration is required, SDG\&E will seek authorization from the County of San Diego to restore Nuttall's scrub oak within the County's Sycamore Canyon Open Space Preserve. Restoration will be accomplished by salvage of whole shrubs and immediate transplantation into receptor sites and/or acorns collected and propagated prior to impact and planted after construction is completed. Site-specific measures will be identified in a site-specific plan prepared as described in section 3 of this RPSP.

In addition to restoration, enhancement and monitoring measures will be applied to the Nuttall's scrub oak in the ROW. The measures will focus on understory weed removal and controls and will continue until the success criteria for the Nuttall's scrub oak restoration site(s) are met.

### 2.14 Moreno Currant

### 2.14.1 Species Profile

Moreno currant is a deciduous shrub in the gooseberry family (Grossulariaceae) that grows up to six feet (2 meters) in height (Hickman 1993). This species blooms from February through April (CNPS 2010) and produces purple colored flowers (Hickman 1993). Moreno currant is endemic to San Diego county is found within chaparral and riparian scrubs between 1,100 and 3,900 feet ( 340 to 1,200 meters) in elevation.

Moreno current is a CNPS List 1B.3, BLM sensitive, and CNF sensitive species.

### 2.14.2 Occurrence and Estimated Impacts

Two plants were identified in road-related permanent impact areas associated with EP40-1 (see Appendix A Table A-15). This plant was not observed in temporary impact areas or on existing roads. Three plants were identified in the ROW in the vicinity of EP40-1.

Table 17. Estimated Impacts to Moreno Current (number)

| Impact Area Type | \# in Permanent <br> Impact Area | \# in Temporary <br> Impact Area | \# Affected by Use of <br> Existing Road | Total \# Affected |
| :---: | :---: | :---: | :---: | :---: |
| Grading | 1 |  |  | 1 |
| New Road | 1 |  |  | 1 |
|  | 2 |  |  | 2 |

### 2.14.3 RPSP MeAsures

When the final design plans for the road and grading area for EP40-1 are available, the Plant Restoration Program Manager will make a determination as to whether impacts are avoidable. If unavoidable, the impacts will be mitigated through restoration in the ROW near EP40-1 and enhancement/monitoring of the Moreno currant in the ROW. Enhancement/monitoring will likely occur in the same location as the restoration and will focus on monitoring for continued occurrence of the plants. Monitoring of the restoration site and the existing population in the ROW will continue until the restoration success criteria are met. Site-specific restoration measures will be identified in a restoration plan prepared in accordance with section 3 of the RPSP.

SDG\&E also will have the option to substitute offsite conservation for restoration if this plant is found on the Long Potrero mitigation site. Surveys will also be conducted at the Long Potrero mitigation property between February and April of 2011 to determine if this species is present within the property. Section 3 of this RPSP identifies the process for confirming offsite conservation as a substitute for restoration.

### 2.15 Rayless Ragwort

### 2.15.1 Species Profile

Rayless ragwort is an annual in the sunflower family (Asteraceae) that produces small inconspicuous yellow flowers between January and April (CNPS 2010 and Hickman 1993). This species grows from a slender taproot and ranges in height from 2 to 8 inches ( 5 to 20 centimeters) and can be found in central and southern California as well as Baja California, Mexico (Hickman 1993). This species can be found in chaparral, cismontane woodland and coastal scrub (CNPS 2010) between 33 to 1,800 feet (10 to 550 m ) in elevation (Hickman 1993).

Rayless ragwort is a CNPS List 2.2 species.

### 2.15.2 Occurrence and Estimated Impacts

Rayless ragwort occurs in the Thing Valley construction yard in CNF. It does not occur in permanent impact areas, on existing roads, or in the ROW. (See Table 18.)

Table 18. Estimated Impacts to Rayless Ragwort (number)

| Impact Area Type | \# in Permanent <br> Impact Area | \# in Temporary <br> Impact Area | \# Affected by Use of <br> Existing Roads | Total \# Affected |
| :---: | :---: | :---: | :---: | :---: |
| Construction Yard |  | 13 |  | 13 |
|  | Total |  | 13 |  |

### 2.15.3 RPSP Measures

Restoration of rayless ragwort will occur in the Thing Valley yard and/or at other locations in CNF designated by USFS. Site-specific restoration measures will be identified within the RPSV for the Thing Valley yard and/or site-specific restoration plans prepared for other sites designated by USFS.

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## 3. IMPLEMENTATION GUIDELINES

### 3.1 Roles and Responsibilities

Roles and responsibilities for planning and implementing the measures identified in this RPSP are as follows:

1. SDG\&E will fund the restoration, enhancement/monitoring, and conservation measures and is responsible for successful implementation of the measures as mitigation for Project impacts.
2. SDG\&E will retain a Plant Restoration Program Manager to oversee RPSP implementation. The Program Manager's responsibilities include but are not limited to:
a. Maintaining and managing the schedule of RPSP activities;
b. Coordinating with the Program Manager for the RPSV and Weed Control Plan;
c. Directing the preparation and implementation of site-specific restoration measures for inclusion in the site-specific vegetation restoration plans for TIAs;
d. Directing the preparation and implementation of an enhancement and monitoring plan for populations of RPSP species that will be restored in TIAs or other locations and also occur in the ROW;
e. Preparing the documentation for offsite conservation in place of restoration in TIAs, the ROW, or other location;
f. Overseeing the work all contractors retained for RPSP tasks;
g. Preparing reports on RPSP implementation;
h. Maintaining communications with the Project Biological Monitor appointed by the CPUC and BLM; and
i. Ensuring that RPSP activities occur according to schedule and within the requirements of all applicable Project permits.

### 3.2 RPSP Component of Vegetation Restoration Plans for TIAs

The plant restoration component of site-specific vegetation restoration plans for TIAs will prepared under the direction of the Plant Restoration Program Manager in close coordination with the Restoration Specialists for the RPSV. For each TIA where RPSP restoration measures will be
implemented, the RPSP component of the site-specific restoration plan will include but not be limited to the following items:

1. Map and summary description of pre-impact conditions for the RPSP species, including records of occurrence and distribution of suitable habitat for the species in the TIA.
2. Specifications for the amount and source of seed required for restoration in the TIA.
3. Priority methods for clearing site for construction uses, including specifications for retaining top soil and root systems and/or salvaging and storing plants and top soil;
4. Site preparation requirements when construction activities in the TIA are concluded;
5. Maps delineating the plant restoration area(s) within the restoration site;
6. Specifications regarding the seeding, maintenance, and monitoring of the plant restoration area(s), with the measures described in the same level of detail as the corresponding measures for restored vegetation;
7. Performance standards and success criteria for the plant restoration sites, by species and location; and
8. Adaptive management/remedial measures for responding to problems and changed circumstances.

Using the data collected on the impact areas, the Plant Restoration Program Manager will work with the Restoration Specialists and the wildlife agencies to select appropriate reference sites that will be used for judging the performance of each plant restoration area. The plant reference sites will be selected at the same time and in the same way that vegetation reference sites are selected; they also will be marked and monitored in the same way (see RPSV).

Performance standards and success criteria for the plant restoration sites also will be developed by the Plant Restoration Program Manager and Restoration Specialists in coordination with USFWS, CDFG, the CPUC Biological Monitor, BLM, and - for restoration within CNF - USFS. Development of the standards and criteria will begin when data on the impact areas has been compiled and the reference areas have been identified. Key issues to be considered include but are not limited to:

- Whether the species is a perennial or annual;
- The dependence of the species on rainfall patterns;
- The characteristics of the vegetation community in which the species occurs and is being restored;
- Appropriate performance standards for restoration sites that will not include irrigation systems; and
- Short- term and long-term standards for determining if a restored site is self-sustaining.

Maintenance and monitoring of the plant restoration sites will be closely coordinated with that of the restored vegetation. Where possible given the bloom periods of the restored plants, monitoring of vegetation and plant restoration sites will be conducted concurrently.

The reporting requirements for the plant restoration sites will be the same as for the vegetation restoration within the TIA (see RPSV). The reports will be prepared under the direction of the Plant Restoration Program Manager and submitted with the report on vegetation restoration in the TIA.

All plant restoration activities will comply the impact avoidance and mitigation measures identified in the Final EIR/EIS, MMRCP, the BO, and other applicable Project documents and determinations. All plant restoration plans and activities for lands in CNF are subject to approval by the USFS.

### 3.3 RPSP Restoration in the ROW Or Other Location

Where restoration is proposed in the Project ROW or other location, the Plant Restoration Program Manager shall prepare a site-specific plan that includes but is not limited to the following information:

1. Map and description of existing conditions at the location where the RPSP species occurs.
2. Specifications for the amount and source of seed required for restoration at the location.
3. Site preparation methods, including steps to minimize ground disturbance;
4. Specifications regarding the seeding, maintenance, and monitoring of the plant restoration area(s);
5. Reporting requirements and schedule;
6. Performance standards and success criteria for the plant restoration sites, by species and location; and
7. Adaptive management/remedial measures for responding to problems and changed circumstances.

Reference sites, performance standards, and success criteria will be identified concurrent with those for restoration within TIAs.

Maintenance and monitoring of the plant restoration sites will be closely coordinated with implementation of the Weed Control Plan, maintenance and monitoring of restoration within nearby TIAs, and RPSP enhancement/monitoring measures in the ROW. Maintenance and monitoring will occur
for five years or until the success criteria for the restoration area are met. All plant restoration activities will comply the impact avoidance and mitigation measures identified in the Final EIR/EIS, MMRCP, the BO, and other applicable Project documents and determinations. All plant restoration plans and activities for lands in CNF are subject to approval by the USFS.

The review and approval process for the site-specific plans will be the same as that for the vegetation restoration plans (see RPSV).

### 3.4 ROW Enhancement and Monitoring Plan

Concurrent with the preparation of the site-specific plans for restoration within TIAs, the ROW, or other locations, the Plant Restoration Program Manager will prepare a RPSP ROW Enhancement and Monitoring Plan. The plan will include but not be limited to the following information:

1. A map and description of the locations where RPSP enhancement/monitoring measures will be implemented for RPSP species that are being restored;
2. An assessment of current conditions and opportunities for weed management and/or seeding;
3. Enhancement and monitoring methods to be implemented at the locations; and
4. Reporting requirements and schedule.

The review and approval process for the ROW enhancement/monitoring plan will be the same as for the site-specific restoration plans (see section 3.4), except as follows. Enhancement/monitoring in Quino habitat will require USFWS written approval only if the activities entail ground disturbance.

### 3.5 SUBSTITUTING OfFSITE CONSERVATION FOR RESTORATION

To exercise the offsite mitigation options identified in this RPSP for desert beauty, Haydon's lotus, hairy stickleaf, or Moreno's currant, SDG\&E will submit a written request to substitute offsite conservation for some or all of the restoration requirements for the species. The request will be submitted to the CPUC and, if the change is to the mitigation for a BLM or CNF sensitive species, to BLM and/or USFS for approval. The request will be accompanied by a report that documents occurrence of the species on the mitigation site, explains why the substitution is appropriate, and confirms that the HMP and endowment for the property cover management of the conserved population(s). Approval of the substitution will be provided in writing to SDG\&E by the CPUC and BLM and/or USFS as appropriate.

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## APPENDIX A: SPECIES OCCURRENCE AND ESTIMATED IMPACTS BY LOCATION ALONG THE PROJECT ALIGNMENT

Table A-1. Species Occurrence and Estimated Impacts by Location along Project Alignment (number)

| Map Book Sheet | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area | Impact from Road Use | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MS-01 | MP-24 | EP277-1 | Hairy Stickleaf | ROW |  |  |  | 9 | 9 |
|  |  |  |  | Structure Impact Area | 3 |  |  |  | 3 |
|  |  | EP279-1 | Hairy Stickleaf | ROW |  |  |  | 50 | 50 |
|  |  |  |  | Structure Impact Area | 3 |  |  |  | 3 |
| MS-02 | MP-32 | EP247 | Haydon's lotus | ROW |  |  |  | 6 | 6 |
|  |  |  |  | Work Area |  | 3 |  |  | 3 |
|  |  | EP248 | Jacumba milk-vetch | ROW |  |  |  | 1 | 1 |
|  | MP-33 | EP244 | Sticky geraea | Access Road Existing |  |  | 4 |  | 4 |
|  |  |  |  | ROW |  |  |  | 17 | 17 |
|  |  | EP245-1 | Sticky geraea | Access Road | 5 |  |  |  | 5 |
|  |  |  |  | Row |  |  |  | 61 | 61 |
|  |  | EP247 | Haydon's lotus | ROW |  |  |  | 10 | 10 |
| MS-03 | MP-37 | EP228 | Sticky geraea | Access Road Existing |  |  | 2 |  | 2 |
|  |  |  |  | Row |  |  |  | 1 | 1 |
| MS-04 | MP-39 | EP219-1 | Sticky geraea | ROW |  |  |  | 1 | 1 |
|  |  | EP220-1 | Desert beauty | Access Road | 339 | 530 |  |  | 869 |
|  |  |  |  | grading |  | 397 |  |  | 397 |
|  |  |  |  | ROW |  |  |  | 226 | 226 |
|  |  |  |  | String Site Area |  | 1661 |  |  | 1661 |
|  |  |  |  | Structure Impact Area | 7 |  |  |  | 7 |
|  |  |  | Jacumba milk-vetch | ROW |  |  |  | 8 | 8 |
|  |  |  |  | String Site Area |  | 4 |  |  | 4 |
|  |  |  | Sticky geraea | Access Road | 18 |  |  |  | 18 |
|  |  |  |  | grading | 7 |  |  |  | 7 |
|  |  |  |  | String Site Area |  | 12 |  |  | 12 |



| Map Book Sheet | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area | Impact from <br> Road Use | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | ROW |  |  |  | 1 | 1 |
|  |  |  | Sticky geraea | ROW |  |  |  | 30 | 30 |
|  |  |  | mba | Access Road Existing |  |  | 13 |  | 13 |
|  |  |  | Jacumba mik-vetch | Work Area |  | 1 |  |  | 1 |
|  |  |  |  | Access Road Existing |  |  | 1 |  | 1 |
|  |  |  |  | Row |  | - |  | 47 | 47 |
|  |  |  | geraea | Structure Impact Area | 3 |  |  |  | 3 |
|  |  |  |  | Work Area |  | 35 |  |  | 35 |
|  | MP-41 | EP208 | Jacumba milk-vetch | ROW |  |  |  | 5 | 5 |
|  |  |  |  | Construction Yard |  | 5 |  |  | 5 |
|  |  | EP206-1 | Jacumba milk-vetch | Row |  |  |  | 7 | 7 |
|  |  | EP207 | Jacumba milk-vetch | Row |  |  |  | 3 | 3 |
| MS-07 |  |  |  | Access Road | 3 |  |  |  | 3 |
|  | MP-42 |  |  | Maintenance Pad | 1 |  |  |  | 1 |
|  |  | EP208 | Jacumba milk-vetch | ROW |  |  |  | 26 | 26 |
|  |  |  |  | Structure Impact Area | 18 |  |  |  | 18 |
|  |  |  |  | Work Area |  | 24 |  |  | 24 |
| MS-08 | MP-42 | EP204-3 | Jacumba milk-vetch | Construction Yard |  | 647 |  |  | 647 |
|  |  |  |  | ROW |  |  |  | 1 | 1 |
|  |  |  | Sticky geraea | Construction Yard |  | 1 |  |  | 1 |
|  |  | EP205-2 | Jacumba milk-vetch | Access Road Existing |  |  | 3 |  | 3 |
|  |  |  |  | Construction Yard |  | 89 |  |  | 89 |
|  |  |  | Sticky geraea | Construction Yard |  | 19 |  |  | 19 |
|  |  | EP206-1 | Jacumba milk-vetch | Construction Yard |  | 60 |  |  | 60 |
|  |  |  |  | ROW |  |  |  | 26 | 26 |
|  |  |  |  | Structure Impact Area | 2 |  |  |  | 2 |
|  |  |  |  | Work Area |  | 7 |  |  | 7 |



| $\begin{aligned} & \text { Map } \\ & \text { Book } \\ & \text { Sheet } \\ & \hline \end{aligned}$ | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area | Impact from Road Use | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | EP203-3 | Jacumba milk-vetch | ROW |  |  |  | 4 | 4 |
|  |  | EP203-3 | Sticky geraea | Row |  |  |  | 3 | 3 |
|  | MP-44 | EP200-3 | Sticky geraea | String Site Area |  | 1 |  |  | 1 |
|  | MP-44 | EP200A-1 | Sticky geraea | ROW |  |  |  | 9 | 9 |
| MS-10 | MP-44 | EP196-1 | Jacumba milk-vetch | Access Road Existing |  |  | 4 |  | 4 |
|  |  | EP197-2 | Jacumba milk-vetch | Access Road Existing |  | - | 31 |  | 31 |
|  |  |  |  | Work Area |  | 5 |  |  | 5 |
|  |  | EP198-3 | Jacumba milk-vetch | Access Road Existing |  |  | 13 |  | 13 |
|  |  |  |  | Row |  |  |  | 43 | 43 |
|  |  |  | Sticky geraea | Row |  |  |  | 8 | 8 |
|  |  | EP199-3 | Jacumba milk-vetch | Row |  |  |  | 46 | 46 |
|  |  |  | Sticky geraea | Row |  |  |  | 29 | 29 |
|  |  |  |  | Work Area |  | 2 |  |  | 2 |
|  |  | EP200-3 | Jacumba milk-vetch | Access Road | 1 |  |  |  | 1 |
|  |  |  |  | ROW |  |  |  | 3 | 3 |
|  |  |  |  | String Site Area |  | 17 |  |  | 17 |
|  | MP-45 | EP195-1 | Jacumba milk-vetch | Access Road Existing |  |  | 21 |  | 21 |
| MS-11 | MP-45 | EP192-1 | Jacumba milk-vetch | Access Road Existing |  |  | 8 |  | 8 |
|  |  | EP193-1 | Jacumba milk-vetch | Access Road Existing |  |  | 5 |  | 5 |
|  |  |  |  | ROW |  |  |  | 1 | 1 |
|  |  | EP194-2 | Jacumba milk-vetch | Access Road Existing |  |  | 60 |  | 60 |
|  |  | EP195-1 | Jacumba milk-vetch | Access Road Existing |  |  | 10 |  | 10 |
| MS-12 | MP-45 | EP191-1 | Sticky geraea | ROW |  |  |  | 2 | 2 |
|  | MP-46 | EP190-2 | Desert beauty | ROW |  |  |  | 2 | 2 |
|  |  | EP191-1 | Jacumba milk-vetch | Access Road | 3 |  |  |  | 3 |
|  |  |  |  | Access Road Existing |  |  | 25 |  | 25 |
|  |  |  | Sticky geraea | Access Road Existing |  |  | 2 |  | 2 |



| Map Book Sheet | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area | Impact from Road Use | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MS-15 | MP-48 | EP179 | Desert beauty | ROW |  |  |  | 3 | 3 |
|  |  | EP180 | Desert beauty | Access Road | 12 |  |  |  | 12 |
|  |  |  |  | ROW |  |  |  | 7 | 7 |
|  |  |  | Jacumba milk-vetch | Row |  |  |  | 5 | 5 |
|  |  | EP180 Total |  |  | 12 |  |  | 12 | 24 |
|  | MP-48 Total |  |  |  | 12 | - |  | 15 | 27 |
|  | MP-49 | EP178 | Desert beauty | Construction Yard |  | 25 |  |  | 25 |
|  |  |  | Jacumba milk-vetch | Access Road Existing |  |  | 1 |  | 1 |
|  |  |  |  | Construction Yard |  | 34 |  |  | 34 |
|  |  |  |  | ROW |  |  |  | 1 | 1 |
|  |  |  |  | String Site Area |  | 2 |  |  | 2 |
|  |  |  |  | Work Area |  | 2 |  |  | 2 |
|  |  | EP179 | Jacumba milk-vetch | Access Road | 2 |  |  |  | 2 |
|  |  |  |  | Access Road Existing |  |  | 3 |  | 3 |
|  |  |  |  | Construction Yard |  | 1 |  |  | 1 |
|  |  |  |  | ROW |  |  |  | 27 | 27 |
| MS-16 | MP-54 | EP140 | Sticky geraea | Row |  |  |  | 2 | 2 |
|  |  | EP141 | Sticky geraea | String Site Area |  | 1 |  |  | 1 |
|  |  | EP142-1 | Sticky geraea | ROW |  |  |  | 6 | 6 |
| MS-17 | MP-55 | EP136 | Payson's caulanthus | Structure Impact Area | 15 |  |  |  | 15 |
| MS-18 | MP-56 | EP130-1 | Payson's caulanthus | Construction Yard |  | 188 |  |  | 188 |
|  |  |  | Rayless Ragwort | Construction Yard |  | 13 |  |  | 13 |
|  |  |  | Sticky geraea | ROW |  |  |  | 18 | 18 |
|  | MP-57 | EP128 | Payson's caulanthus | Structure Impact Area | 2 |  |  |  | 2 |
|  |  | EP129 | Jacumba milk-vetch | Access Road Existing | 3 |  |  |  | 3 |
|  |  |  |  | grading | 4 |  |  |  | 4 |
|  |  |  | Sticky geraea | Access Road Existing |  |  | 15 |  | 15 |


| Map Book Sheet | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area | Impact from Road Use | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MS-19 | MP-61 | EP109-1 | Payson's caulanthus | ROW |  |  |  | 36 | 36 |
|  |  |  |  | Structure Impact Area | 69 |  |  |  | 69 |
| MS-20 | MP-64 | EP95 | Sticky geraea | Access Road Existing |  |  | 6 |  | 6 |
|  | MP-65 | EP89-1 | Sticky geraea | Access Road |  | 16 |  |  | 16 |
|  |  |  |  | Maintenance Pad | 1 |  |  |  | 1 |
|  |  |  |  | String Site Area |  | 1 |  |  | 1 |
|  |  |  |  | Structure Impact Area | 15 |  |  |  | 15 |
|  |  |  |  | Work Area |  | 22 |  |  | 22 |
|  |  | EP91 | Sticky geraea | String Site Area |  | 13 |  |  | 13 |
|  |  | EP94 | Sticky geraea | Access Road | 4 |  |  |  | 4 |
|  | MP-66 | EP89-1 | Sticky geraea | String Site Area |  | 2 |  |  | 2 |
| MS-21 | MP-67 | EP82 | Sticky geraea | ROW |  |  |  | 1 | 1 |
|  |  |  |  | Structure Impact Area | 1 |  |  |  | 1 |
|  |  | EP83 | Sticky geraea | Access Road | 7 |  |  |  | 7 |
|  |  |  |  | grading | 4 | 14 |  |  | 18 |
|  |  |  |  | String Site Area |  | 30 |  |  | 30 |
|  |  | EP84 | Sticky geraea | Access Road | 22 |  |  |  | 22 |
|  |  |  |  | grading | 3 |  |  |  | 3 |
| MS-22 | MP-68 | EP78 | Sticky geraea | ROW |  |  |  | 2 | 2 |
|  |  |  |  | Structure Impact Area | 4 |  |  |  | 4 |
| MS-23 | MP-70 | EP69 | Tecate tarplant | Access Road Existing |  |  | 16 |  | 16 |
|  |  | EP70 | Tecate tarplant | Access Road Existing |  |  | 78 |  | 78 |
|  |  | EP73 | Tecate tarplant | Access Road Existing |  |  | 150 |  | 150 |
|  |  | EP69 | Tecate tarplant | Access Road Existing |  |  | 135 |  | 135 |
|  | MP-71 |  |  | Work Area |  | 1 |  |  | 1 |
| MS-24 | MP-71 | EP66 | Tecate tarplant | Access Road Existing |  |  | 36 |  | 36 |
|  |  | EP67 | Tecate tarplant | grading |  | 242 |  |  | 242 |


| Map <br> Book <br> Sheet | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area | Impact from Road Use | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Maintenance Pad | 53 |  |  |  | 53 |
|  |  |  |  | String Site Area |  | 953 |  |  | 953 |
|  |  |  |  | Work Area |  | 159 |  |  | 159 |
|  |  | EP68 | Tecate tarplant | Access Road Existing |  |  | 72 |  | 72 |
|  |  | EP69 | Tecate tarplant | Access Road Existing |  |  | 27 |  | 27 |
|  | MP-72 | EP64 | Tecate tarplant | Access Road Existing |  |  | 1 |  | 1 |
|  |  | EP65-1 | Tecate tarplant | Access Road Existing |  |  | 20 |  | 20 |
| MS-27 | MP-72 | EP63 | Tecate tarplant | Access Road Existing |  |  | 40 |  | 40 |
|  |  |  |  | ROW |  |  |  | 86 | 86 |
|  |  | EP64 | Tecate tarplant | Access Road Existing |  |  | 104 |  | 104 |
|  | MP-73 | EP58-2 | Tecate tarplant | Access Road Existing |  |  | 11 |  | 11 |
| MS-28 | MP-74 | EP51-1 | Tecate tarplant | Access Road Existing |  |  | 20 |  | 20 |
|  |  | EP52-1 | Delicate clarkia | ROW |  |  |  | 10 | 10 |
|  |  |  | Tecate tarplant | Access Road Existing |  |  | 4 |  | 4 |
|  |  |  |  | ROW |  |  |  | 284 | 284 |
|  | MP-75 | EP51-1 | Tecate tarplant | ROW |  |  |  | 33 | 33 |
| MS-29 | MP-74 | EP51-1 | Tecate tarplant | Access Road Existing |  |  | 55 |  | 55 |
|  |  | EP52-1 | Tecate tarplant | Access Road Existing |  |  | 1 |  | 1 |
| MS-30 | MP-75 | EP49 | San Diego gumplant | Access Road Existing |  |  | 1 |  | 1 |
|  |  |  | Tecate tarplant | Access Road Existing |  |  | 27 |  | 27 |
|  |  | EP50 | Tecate tarplant | Access Road Existing |  |  | 4 |  | 4 |
|  |  |  |  | ROW |  |  |  | 234 | 234 |
| MS-31 | MP-78 | EP40-1 | Moreno currant | Access Road | 1 |  |  |  | 1 |
|  |  |  |  | grading | 1 |  |  |  | 1 |
|  |  |  |  | ROW |  |  |  | 3 | 3 |
| MS-32 | MP-82 | EP27-1 | Sticky geraea | Access Road |  | 1 |  |  | 1 |
| MS-33 | MP-89 | SSDE2 | Felt-leaved monardella | Access Road | 55 |  |  |  | 55 |


| Map Book Sheet | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area | Impact from Road Use | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MS-34 | MP-98 | CP87-1 | Delicate clarkia | ROW |  |  |  | 1100 | 1100 |
|  |  |  |  | Work Area |  | 40 |  |  | 40 |
| MS-35 | MP-99 | CP81-1 | Delicate clarkia | Access Road Existing |  |  | 40 |  | 40 |
|  |  | CP82-1 | Delicate clarkia | Access Road Existing |  |  | 150 |  | 150 |
|  |  |  |  | ROW |  |  |  | 420 | 420 |
|  |  | CP83 | Delicate clarkia | ROW |  |  |  | 300 | 300 |
| MS-36 | MP-100 | CP74-2 | Delicate clarkia | Access Road Existing |  |  | 170 |  | 170 |
|  |  |  |  | ROW |  |  |  | 365 | 365 |
|  | MP-101 | CP72-2 | Delicate clarkia | ROW |  |  |  | 20 | 20 |
| MS-37 | MP-101 | CP71 | Delicate clarkia | ROW |  |  |  | 1110 | 1110 |
|  | MP-102 | CP69-2 | Delicate clarkia | Access Road Existing | 1 |  |  |  | 1 |
| MS-38 | MP-104 | CP61-1 | Delicate clarkia | Structure Impact Area | 1 |  |  |  | 1 |
| MS-39 | MP-107 | CP47-2 | Delicate clarkia | ROW |  |  |  | 235 | 235 |
|  |  |  | Lakeside ceanothus | ROW |  |  |  | 20 | 20 |
|  |  |  |  | Structure Impact Area | 2 |  |  |  | 2 |
|  |  | CP48-2 | Delicate clarkia | Row |  |  |  | 30 | 30 |
|  |  |  | Lakeside ceanothus | ROW |  |  |  | 13 | 13 |
|  |  |  |  | Structure Impact Area | 5 |  |  |  | 5 |
| MS-40 | MP-116 | CP10 | Nuttall's scrub oak | Access Road | 3 |  |  |  | 3 |
|  |  |  |  | grading | 4 |  |  |  | 4 |
|  |  |  |  | Maintenance Pad | 6 |  |  |  | 6 |
|  |  |  |  | Row |  |  |  | 8 | 8 |
|  |  |  |  | Structure Impact Area | 1 |  |  |  | 1 |
|  |  | CP11-1 | Nuttall's scrub oak | grading | 1 |  |  |  | 1 |
|  |  |  |  | Maintenance Pad | 2 |  |  |  | 2 |
|  |  | CP8-2 | Nuttall's scrub oak | ROW |  |  |  | 41 | 41 |
| TOTAL |  |  |  |  | 1374 | 5729 | 1495 | 8197 | 16,795 |

Table A-2. Jacumba Milk-Vetch Occurrence and Estimated Impacts by Location along Project Alignment (number)

| Map Book Sheet | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area | Impact from Road Use | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MS-02 | MP-32 | EP248 | Jacumba milk-vetch | ROW |  |  |  | 1 | 1 |
| MS-04 | MP-39 | EP220-1 | Jacumba milk-vetch | ROW |  |  |  | 8 | 8 |
|  |  |  |  | String Site Area |  | 4 |  |  | 4 |
|  |  | EP221-2 | Jacumba milk-vetch | Row |  |  |  | 2 | 2 |
| MS-05 | MP-40 | EP214 | Jacumba milk-vetch | ROW |  |  |  | 2 | 2 |
|  |  |  |  | Work Area |  | 18 |  |  | 18 |
|  |  | EP215 | Jacumba milk-vetch | Row |  |  |  | 2 | 2 |
|  |  | EP217-1 | Jacumba milk-vetch | Row |  |  |  | 12 | 12 |
| MS-06 | MP-40 | EP214 | Jacumba milk-vetch | ROW |  |  |  | 2 | 2 |
|  | MP-41 | EP210 | Jacumba milk-vetch | Row |  |  |  | 102 | 102 |
|  |  |  |  | Work Area |  | 1 |  |  | 1 |
|  |  | EP211 | Jacumba milk-vetch | Access Road Existing |  |  | 9 |  | 9 |
|  |  |  |  | Row |  |  |  | 1 | 1 |
|  |  | EP213 | Jacumba milk-vetch | Access Road Existing |  |  | 13 |  | 13 |
|  |  |  |  | Work Area |  | 1 |  |  | 1 |
| MS-07 | MP-41 | EP208 | Jacumba milk-vetch | Row |  |  |  | 5 | 5 |
|  | MP-42 | EP206-1 | Jacumba milk-vetch | Construction Yard |  | 5 |  |  | 5 |
|  |  |  |  | ROW |  |  |  | 7 | 7 |
|  |  | EP207 | Jacumba milk-vetch | ROW |  |  |  | 3 | 3 |
|  |  | EP208 | Jacumba milk-vetch | Access Road | 3 |  |  |  | 3 |
|  |  |  |  | Maintenance Pad | 1 |  |  |  | 1 |
|  |  |  |  | Row |  |  |  | 26 | 26 |
|  |  |  |  | Structure Impact Area | 18 |  |  |  | 18 |
|  |  |  |  | Work Area |  | 24 |  |  | 24 |


| Map <br> Book <br> Sheet | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area | Impact from Road Use | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MS-08 | MP-42 | EP204-3 | Jacumba milk-vetch | Construction Yard |  | 647 |  |  | 647 |
|  |  |  |  | ROW |  |  |  | 1 | 1 |
|  |  | EP205-2 | Jacumba milk-vetch | Access Road Existing |  |  | 3 |  | 3 |
|  |  |  |  | Construction Yard |  | 89 |  |  | 89 |
|  |  | EP206-1 | Jacumba milk-vetch | Construction Yard |  | 60 |  |  | 60 |
|  |  |  |  | ROW |  |  |  | 26 | 26 |
|  |  |  |  | Structure Impact Area | 2 |  |  |  | 2 |
|  |  |  |  | Work Area |  | 7 |  |  | 7 |
|  | MP-43 | EP204-3 | Jacumba milk-vetch | Access Road |  | 7 |  |  | 7 |
|  |  |  |  | grading |  | 1 |  |  | 1 |
|  |  |  |  | String Site Area |  | 5 |  |  | 5 |
| MS-09 | MP-43 | EP200A-1 | Jacumba milk-vetch | Access Road | 1 |  |  |  | 1 |
|  |  |  |  | Access Road Existing |  |  | 11 |  | 11 |
|  |  |  |  | grading |  | 1 |  |  | 1 |
|  |  |  |  | Row |  |  |  | 3 | 3 |
|  |  |  |  | Structure Impact Area | 3 |  |  |  | 3 |
|  |  |  |  | Work Area |  | 14 |  |  | 14 |
|  |  | EP201-3 | Jacumba milk-vetch | Access Road Existing |  |  | 3 |  | 3 |
|  |  |  |  | grading | 5 |  |  |  | 5 |
|  |  |  |  | Row |  |  |  | 8 | 8 |
|  |  |  |  | Work Area |  | 3 |  |  | 3 |
|  |  | EP202-3 | Jacumba milk-vetch | Access Road Existing |  |  | 2 |  | 2 |
|  |  | EP203-3 | Jacumba milk-vetch | ROW |  |  |  | 4 | 4 |
| MS-10 | MP-44 | EP196-1 | Jacumba milk-vetch | Access Road Existing |  |  | 4 |  | 4 |
|  |  | EP197-2 | Jacumba milk-vetch | Access Road Existing |  |  | 31 |  | 31 |
|  |  |  |  | Work Area |  | 5 |  |  | 5 |
|  |  | EP198-3 | Jacumba milk-vetch | Access Road Existing |  |  | 13 |  | 13 |


| Map Book Sheet | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area | Impact from <br> Road Use | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | ROW |  |  |  | 43 | 43 |
|  |  | EP199-3 | Jacumba milk-vetch | ROW |  |  |  | 46 | 46 |
|  |  |  |  | Access Road | 1 |  |  |  | 1 |
|  |  | EP200-3 | Jacumba milk-vetch | ROW |  |  |  | 3 | 3 |
|  |  |  |  | String Site Area |  | 17 |  |  | 17 |
|  | MP-45 | EP195-1 | Jacumba milk-vetch | Access Road Existing |  |  | 21 |  | 21 |
|  |  | EP192-1 | Jacumba milk-vetch | Access Road Existing |  |  | 8 |  | 8 |
|  |  | EP193 | Jac | Access Road Existing |  |  | 5 |  | 5 |
| MS-11 | MP-45 | EP193-1 | cumba milk-vetch | ROW |  |  |  | 1 | 1 |
|  |  | EP194-2 | Jacumba milk-vetch | Access Road Existing |  |  | 60 |  | 60 |
|  |  | EP195-1 | Jacumba milk-vetch | Access Road Existing |  |  | 10 |  | 10 |
|  |  | EP191-1 | Jacumba milk-vetch | Access Road | 3 |  |  |  | 3 |
| MS-12 | MP-46 | EP191-1 | Jacumba mik-vetch | Access Road Existing |  |  | 25 |  | 25 |
| MS-13 | MP-46 | EP187-2 | Jacumba milk-vetch | Access Road |  | 7 |  |  | 7 |
|  |  |  |  | Access Road Existing |  |  | 2 |  | 2 |
|  |  |  |  | String Site Area |  | 3 |  |  | 3 |
|  |  | EP188-1 | Jacumba milk-vetch | Access Road Existing |  |  | 8 |  | 8 |
|  | MP-47 | EP185-1 | Jacumba milk-vetch | Access Road Existing |  |  | 1 |  | 1 |
|  |  |  |  | Access Road Existing |  |  | 27 |  | 27 |
|  |  | EP186-1 | Jacumba milk-vetch | ROW |  |  |  | 11 | 11 |
|  |  | EP187-2 | Jacumba milk-vetch | Access Road | 1 |  |  |  | 1 |
|  |  |  |  | Access Road Existing |  |  | 1 |  | 1 |
|  |  |  |  | ROW |  |  |  | 1 | 1 |


| $\begin{aligned} & \text { Map } \\ & \text { Book } \\ & \text { Sheet } \\ & \hline \end{aligned}$ | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area | Impact from <br> Road Use | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MS-14 | MP-47 | EP184-1 | Jacumba milk-vetch | Access Road | 3 |  |  |  | 3 |
|  |  |  |  | Access Road Existing | 4 |  | 2 |  | 6 |
|  |  |  |  | ROW |  |  |  | 50 | 50 |
|  |  | EP185-1 | Jacumba milk-vetch | Access Road Existing | 3 |  |  |  | 3 |
|  |  |  |  | ROW |  |  |  | 3 | 3 |
| MS-15 | MP-48 | EP180 | Jacumba milk-vetch | ROW |  |  |  | 5 | 5 |
|  | MP-49 | EP178 | Jacumba milk-vetch | Access Road Existing |  |  | 1 |  | 1 |
|  |  |  |  | Construction Yard |  | 34 |  |  | 34 |
|  |  |  |  | ROW |  |  |  | 1 | 1 |
|  |  |  |  | String Site Area |  | 2 |  |  | 2 |
|  |  |  |  | Work Area |  | 2 |  |  | 2 |
|  |  | EP179 | Jacumba milk-vetch | Access Road | 2 |  |  |  | 2 |
|  |  |  |  | Access Road Existing |  |  | 3 |  | 3 |
|  |  |  |  | Construction Yard |  | 1 |  |  | 1 |
|  |  |  |  | ROW |  |  |  | 27 | 27 |
| MS-18 | MP-57 | EP129 | Jacumba milk-vetch | Access Road Existing | 3 |  |  |  | 3 |
|  |  |  |  | grading | 4 |  |  |  | 4 |
|  |  |  |  | TOTAL | 57 | 958 | 263 | 406 | 1684 |

Table A-3. Payson's Caulanthus Occurrence and Estimated Impacts by Location along Project Alignment (number)

| Map <br> Book <br> Sheet | Milepost | Structure \# | Species | Location | Permanent <br> Impact Area | Temporary Impact Area | Impact from Road Use | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MS-17 | MP-55 | EP136 | Payson's caulanthus | Structure Impact Area | 15 |  |  |  | 15 |
| MS-18 | MP-56 | EP130-1 | Payson's caulanthus | Construction Yard |  | 188 |  |  | 188 |
|  | MP-57 | EP128 | Payson's caulanthus | Structure Impact Area | 2 |  |  |  | 2 |
| MS-19 | MP-61 | EP109-1 | Payson's caulanthus | ROW |  |  |  | 36 | 36 |
|  |  |  |  | Structure Impact Area | 69 |  |  |  | 69 |
|  |  |  |  | TOTAL | 86 | 188 |  | 36 | 310 |

Table A-4. Lakeside Ceanothus Occurrence and Estimated Impacts by Location along Project Alignment (number)

| Map Book Sheet | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area | Impact from <br> Road Use | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MS-39 | MP-107 | CP47-2 | Lakeside Ceanothus | ROW |  |  |  | 20 | 20 |
|  |  |  |  | Structure Impact Area | 2 |  |  |  | 2 |
|  |  | CP48-2 | Lakeside Ceanothus | ROW |  |  |  | 13 | 13 |
|  |  |  |  | Structure Impact Area | 5 |  |  |  | 5 |
| TOTAL |  |  |  |  | 7 |  |  | 33 | 40 |

Table A-5. Delicate Clarkia Occurrence and Estimated Impacts by Location along Project Alignment (number)

| Map <br> Book Sheet | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area | Impact from Road Use | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MS-28 | MP-74 | EP52-1 | Delicate clarkia | ROW |  |  |  | 10 | 10 |
| MS-34 | MP-98 | CP87-1 | Delicate clarkia | ROW |  |  |  | 1100 | 1100 |
|  |  |  |  | Work Area |  | 40 |  |  | 40 |
| MS-35 | MP-99 | CP81-1 | Delicate clarkia | Access Road Existing |  |  | 40 |  | 40 |
|  |  | CP82-1 | Delicate clarkia | Access Road Existing |  |  | 150 |  | 150 |
|  |  |  |  | ROW |  |  |  | 420 | 420 |
|  |  | CP83 | Delicate clarkia | ROW |  |  |  | 300 | 300 |
| MS-36 | MP-100 | CP74-2 | Delicate clarkia | Access Road Existing |  |  | 170 |  | 170 |
|  |  |  |  | ROW |  |  |  | 365 | 365 |
|  | MP-101 | CP72-2 | Delicate clarkia | ROW |  |  |  | 20 | 20 |
| MS-37 | MP-101 | CP71 | Delicate clarkia | ROW |  |  |  | 1110 | 1110 |
|  | MP-102 | CP69-2 | Delicate clarkia | Access Road Existing | 1 |  |  |  | 1 |
| MS-38 | MP-104 | CP61-1 | Delicate clarkia | Structure Impact Area | 1 |  |  |  | 1 |
| MS-39 | MP-107 | CP47-2 | Delicate clarkia | ROW |  |  |  | 235 | 235 |
|  |  | CP48-2 | Delicate clarkia | ROW |  |  |  | 30 | 30 |
| TOTAL |  |  |  |  | 2 | 40 | 360 | 3590 | 3992 |

Table A-6. Tecate Tarplant Occurrence and Estimated Impacts by Location along Project Alignment (number)

| Map <br> Book <br> Sheet | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area | Impact from Road Use | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MS-23 | MP-70 | EP69 | Tecate tarplant | Access Road Existing |  |  | 16 |  | 16 |
|  |  | EP70 | Tecate tarplant | Access Road Existing |  |  | 78 |  | 78 |
|  |  | EP73 | Tecate tarplant | Access Road Existing |  |  | 150 |  | 150 |
|  | MP-71 | EP69 | Tecate tarplant | Access Road Existing |  |  | 135 |  | 135 |
|  |  |  |  | Work Area |  | 1 |  |  | 1 |
| MS-24 | MP-71 | EP66 | Tecate tarplant | Access Road Existing |  |  | 36 |  | 36 |
|  |  | EP67 | Tecate tarplant | Grading |  | 242 |  |  | 242 |
|  |  |  |  | Maintenance Pad | 53 |  |  |  | 53 |
|  |  |  |  | String Site Area |  | 953 |  |  | 953 |
|  |  |  |  | Work Area |  | 159 |  |  | 159 |
|  |  | EP68 | Tecate tarplant | Access Road Existing |  |  | 72 |  | 72 |
|  |  | EP69 | Tecate tarplant | Access Road Existing |  |  | 27 |  | 27 |
|  | MP-72 | EP64 | Tecate tarplant | Access Road Existing |  |  | 1 |  | 1 |
|  |  | EP65-1 | Tecate tarplant | Access Road Existing |  |  | 20 |  | 20 |
| MS-27 | MP-72 | EP63 | Tecate tarplant | Access Road Existing |  |  | 40 |  | 40 |
|  |  |  |  | ROW |  |  |  | 86 | 86 |
|  |  | EP64 | Tecate tarplant | Access Road Existing |  |  | 104 |  | 104 |
|  | MP-73 | EP58-2 | Tecate tarplant | Access Road Existing |  |  | 11 |  | 11 |
| MS-28 | MP-74 | EP51-1 | Tecate tarplant | Access Road Existing |  |  | 20 |  | 20 |
|  |  | EP52-1 | Tecate tarplant | Access Road Existing |  |  | 4 |  | 4 |
|  |  |  |  | ROW |  |  |  | 284 | 284 |
|  | MP-75 | EP51-1 | Tecate tarplant | ROW |  |  |  | 33 | 33 |
| MS-29 | MP-74 | EP51-1 | Tecate tarplant | Access Road Existing |  |  | 55 |  | 55 |
|  |  | EP52-1 | Tecate tarplant | Access Road Existing |  |  | 1 |  | 1 |


| Map Book Sheet | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area | Impact from Road Use | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MS-30 | MP-75 | EP49 | Tecate tarplant | Access Road Existing |  |  | 27 |  | 27 |
|  |  | EP50 | Tecate tarplant | Access Road Existing |  |  | 4 |  | 4 |
|  |  |  |  | Row |  |  |  | 234 | 234 |
| TOTAL |  |  |  |  | 53 | 1355 | 801 | 637 | 2846 |

Table A-7. Sticky Geraea Occurrence and Estimated Impacts by Location along Project Alignment (number)

| Map <br> Book <br> Sheet | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area | Impact from Road Use | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MS-02 | MP-33 | EP244 | Sticky geraea | Access Road Existing |  |  | 4 |  | 4 |
|  |  |  |  | Row |  |  |  | 17 | 17 |
|  |  | EP245-1 | Sticky geraea | Access Road | 5 |  |  |  | 5 |
|  |  |  |  | Row |  |  |  | 61 | 61 |
| MS-03 | MP-37 | EP228 | Sticky geraea | Access Road Existing |  |  | 2 |  | 2 |
|  |  |  |  | ROW |  |  |  | 1 | 1 |
| MS-04 | MP-39 | EP219-1 | Sticky geraea | Row |  |  |  | 1 | 1 |
|  |  | EP220-1 | Sticky geraea | Access Road | 18 |  |  |  | 18 |
|  |  |  |  | Grading | 7 |  |  |  | 7 |
|  |  |  |  | String Site Area |  | 12 |  |  | 12 |
|  |  | EP221-2 | Sticky geraea | ROW |  |  |  | 22 | 22 |
|  |  |  |  | Structure Impact Area | 4 |  |  |  | 4 |
| MS-05 | MP-40 | EP214 | Sticky geraea | ROW |  |  |  | 1 | 1 |
|  |  | EP215 | Sticky geraea | Access Road | 1 |  |  |  | 1 |
|  |  |  |  | Access Road Existing |  |  | 3 |  | 3 |
|  |  |  |  | Row |  |  |  | 2 | 2 |


| Map Book Sheet | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area |  | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Work Area |  | 5 |  |  | 5 |
| MS-06 | MP-41 | EP210 | Sticky geraea | Access Road | 2 |  |  |  | 2 |
|  |  |  |  | Access Road Existing |  |  | 16 |  | 16 |
|  |  |  |  | Row |  |  |  | 11 | 11 |
|  |  |  |  | Structure Impact Area | 3 |  |  |  | 3 |
|  |  |  |  | Work Area |  | 11 |  |  | 11 |
|  |  | EP211 | Sticky geraea | ROW |  |  |  | 30 | 30 |
|  |  | EP213 | Sticky geraea | Access Road Existing |  |  | 1 |  | 1 |
|  |  |  |  | Row |  |  |  | 47 | 47 |
|  |  |  |  | Structure Impact Area | 3 |  |  |  | 3 |
|  |  |  |  | Work Area |  | 35 |  |  | 35 |
| MS-08 | MP-42 | EP204-3 | Sticky geraea | Construction Yard |  | 1 |  |  | 1 |
|  |  | EP205-2 | Sticky geraea | Construction Yard |  | 19 |  |  | 19 |
|  | MP-43 | EP203-3 | Sticky geraea | Grading |  | 1 |  |  | 1 |
|  |  |  |  | String Site Area |  | 4 |  |  | 4 |
|  |  | EP204-3 | Sticky geraea | Access Road |  | 1 |  |  | 1 |
| MS-09 | MP-43 | EP200A-1 | Sticky geraea | Access Road | 137 |  |  |  | 137 |
|  |  |  |  | Maintenance Pad | 23 |  |  |  | 23 |
|  |  |  |  | ROW |  |  |  | 165 | 165 |
|  |  |  |  | Structure Impact Area | 4 |  |  |  | 4 |
|  |  |  |  | Work Area |  | 80 |  |  | 80 |
|  |  | EP201-3 | Sticky geraea | ROW |  |  |  | 19 | 19 |
|  |  | EP202-3 | Sticky geraea | Work Area |  | 2 |  |  | 2 |
|  |  | EP203-3 | Sticky geraea | ROW |  |  |  | 3 | 3 |
|  | MP-44 | EP200-3 | Sticky geraea | String Site Area |  | 1 |  |  | 1 |
|  |  | EP200A-1 | Sticky geraea | ROW |  |  |  | 9 | 9 |


| Map Book Sheet | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area | Impact from <br> Road Use | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MS-10 | MP-44 | EP198-3 | Sticky geraea | ROW |  |  |  | 8 | 8 |
|  |  | EP199-3 | Sticky geraea | Row |  |  |  | 29 | 29 |
|  |  |  |  | Work Area |  | 2 |  |  | 2 |
| MS-12 | MP-45 | EP191-1 | Sticky geraea | ROW |  |  |  | 2 | 2 |
|  | MP-46 | EP191-1 | Sticky geraea | Access Road Existing |  |  | 2 |  | 2 |
| MS-13 | MP-46 | EP187-2 | Sticky geraea | Access Road |  | 6 |  |  | 6 |
|  | MP-47 | EP185-1 | Sticky geraea | Access Road Existing |  |  | 5 |  | 5 |
|  |  | EP186-1 | Sticky geraea | Access Road | 23 |  |  |  | 23 |
|  |  |  |  | Access Road Existing |  |  | 9 |  | 9 |
|  |  |  |  | ROW |  |  |  | 303 | 303 |
|  |  | EP187-2 | Sticky geraea | Access Road Existing |  |  | 7 |  | 7 |
|  |  |  |  | Row |  |  |  | 12 | 12 |
|  |  |  |  | String Site Area |  | 32 |  |  | 32 |
| MS-14 | MP-47 | EP185-1 | Sticky geraea | ROW |  |  |  | 7 | 7 |
|  |  | EP186-1 | Sticky geraea | ROW |  |  |  | 33 | 33 |
| MS-16 | MP-54 | EP140 | Sticky geraea | ROW |  |  |  | 2 | 2 |
|  |  | EP141 | Sticky geraea | String Site Area |  | 1 |  |  | 1 |
|  |  | EP142-1 | Sticky geraea | ROW |  |  |  | 6 | 6 |
| MS-18 | MP-56 | EP130-1 | Sticky geraea | ROW |  |  |  | 18 | 18 |
|  | MP-57 | EP129 | Sticky geraea | Access Road Existing |  |  | 15 |  | 15 |
| MS-20 | MP-64 | EP95 | Sticky geraea | Access Road Existing |  |  | 6 |  | 6 |
|  | MP-65 | EP89-1 | Sticky geraea | Access Road |  | 16 |  |  | 16 |
|  |  |  |  | Maintenance Pad | 1 |  |  |  | 1 |
|  |  |  |  | String Site Area |  | 1 |  |  | 1 |
|  |  |  |  | Structure Impact Area | 15 |  |  |  | 15 |
|  |  |  |  | Work Area |  | 22 |  |  | 22 |
|  |  | EP91 | Sticky geraea | String Site Area |  | 13 |  |  | 13 |


| Map <br> Book Sheet | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area | Impact from Road Use | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | EP94 | Sticky geraea | Access Road | 4 |  |  |  | 4 |
|  | MP-66 | EP89-1 | Sticky geraea | String Site Area |  | 2 |  |  | 2 |
| MS-21 | MP-67 | EP82 | Sticky geraea | ROW |  |  |  | 1 | 1 |
|  |  |  |  | Structure Impact Area | 1 |  |  |  | 1 |
|  |  | EP83 | Sticky geraea | Access Road | 7 |  |  |  | 7 |
|  |  |  |  | Grading | 4 | 14 |  |  | 18 |
|  |  |  |  | String Site Area |  | 30 |  |  | 30 |
|  |  | EP84 | Sticky geraea | Access Road | 22 |  |  |  | 22 |
|  |  |  |  | Grading | 3 |  |  |  | 3 |
| MS-22 | MP-68 | EP78 | Sticky geraea | ROW |  |  |  | 2 | 2 |
|  |  |  |  | Structure Impact Area | 4 |  |  |  | 4 |
| MS-32 | MP-82 | EP27-1 | Sticky geraea | Access Road |  | 1 |  |  | 1 |
| TOTAL |  |  |  |  | 291 | 312 | 70 | 812 | 1485 |

Table A-8. San Diego Gumplant Occurrence and Estimated Impacts by Location along Project Alignment (number)

| Map Book Sheet | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area | Impact from Road Use | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MS-30 | MP-75 | EP49 | San Diego Gumplant | Access Road Existing |  |  | 1 |  | 1 |
|  |  |  |  |  |  |  |  |  |  |

Table A-9. Desert Beauty Occurrence and Estimated Impacts by Location along Project Alignment (number)

| $\begin{aligned} & \hline \text { Map } \\ & \text { Book } \\ & \text { Sheet } \\ & \hline \end{aligned}$ | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area | Impact from Road Use | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MS-04 | MP-39 | EP220-1 | Desert beauty | Access Road | 339 | 530 |  |  | 869 |
|  |  |  |  | Grading |  | 397 |  |  | 397 |
|  |  |  |  | ROW |  |  |  | 226 | 226 |
|  |  |  |  | String Site Area |  | 1661 |  |  | 1661 |
|  |  |  |  | Structure Impact Area | 7 |  |  |  | 7 |
|  |  | EP221-2 | Desert beauty | Grading |  | 5 |  |  | 5 |
|  |  |  |  | ROW |  |  |  | 2002 | 2002 |
|  |  |  |  | String Site Area |  | 45 |  |  | 45 |
|  |  |  |  | Structure Impact Area | 145 |  |  |  | 145 |
|  |  | EP221A | Desert beauty | ROW |  |  |  | 280 | 280 |
|  |  |  |  | TSAP | 285 |  |  |  | 285 |
| MS-08 | MP-43 | EP204-3 | Desert beauty | grading |  | 8 |  |  | 8 |
|  |  |  |  | String Site Area |  | 189 |  |  | 189 |
| MS-09 | MP-43 | EP201-3 | Desert beauty | ROW |  |  |  | 30 | 30 |
| MS-12 | MP-46 | EP190-2 | Desert beauty | ROW |  |  |  | 2 | 2 |
| MS-14 | MP-48 | EP181 | Desert beauty | Access Road | 10 |  |  |  | 10 |
|  |  |  |  | Row |  |  |  | 6 | 6 |
| MS-15 | MP-48 | EP179 | Desert beauty | Row |  |  |  | 3 | 3 |
|  |  | EP180 | Desert beauty | Access Road | 12 |  |  |  | 12 |
|  |  |  |  | ROW |  |  |  | 7 | 7 |
|  | MP-49 | EP178 | Desert beauty | Construction Yard |  | 25 |  |  | 25 |
| TOTAL |  |  |  |  | 798 | 2860 | 2556 |  | 6214 |

Table A-10. Haydon's Lotus Occurrence and Estimated Impacts by Location along Project Alignment (number)

| Map <br> Book <br> Sheet | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area | ```Impact from Road Use``` | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MS-02 | MP-32 | EP247 | Haydon's Lotus | ROW |  |  |  | 6 | 6 |
|  |  |  |  | Work Area |  | 3 |  |  | 3 |
|  | MP-33 | EP247 | Haydon's Lotus | Row |  |  |  | 10 | 10 |
|  |  |  |  |  |  | 3 |  | 16 | 19 |

Table A-11. Hairy Stickleaf Occurrence and Estimated Impacts by Location along Project Alignment (number)

| $\begin{aligned} & \text { Map } \\ & \text { Book } \\ & \text { Sheet } \end{aligned}$ | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area | ```Impact from Road Use``` | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MS-01 | MP-24 | EP277-1 | Hairy Stickleaf | Row |  |  |  | 9 | 9 |
|  |  |  |  | Structure Impact Area | 3 |  |  |  | 3 |
|  |  | EP279-1 | Hairy Stickleaf | ROW |  |  |  | 50 | 50 |
|  |  |  |  | Structure Impact Area | 3 |  |  |  | 3 |
| TOTAL |  |  |  |  | 6 |  |  | 59 | 65 |

Table A-12. Felt-Leaved Monardella Occurrence and Estimated Impacts by Location along Project Alignment (number)

| Map <br> Book <br> Sheet | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area | Impact from Road Use | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MS-33 | MP-89 | $\begin{aligned} & \hline \text { Suncrest } \\ & \text { (SSDE2) } \end{aligned}$ | Felt-leaved Monardella | Access Road | 55 |  |  |  | 55 |
| TOTAL |  |  |  |  | 55 |  |  |  | 55 |

Table A-13. Nuttall's Scrub Oak Occurrence and Estimated Impacts by Location along Project Alignment (number)

| Map Book Sheet | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area | Impact from Road Use | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MS-40 | MP-116 | CP10 | Nuttall's Scrub Oak | Access Road | 3 |  |  |  | 3 |
|  |  |  |  | Grading | 4 |  |  |  | 4 |
|  |  |  |  | Maintenance Pad | 5 |  |  |  | 5 |
|  |  |  |  | ROW |  |  |  | 8 | 8 |
|  |  |  |  | Structure Impact Area | 1 |  |  |  | 1 |
|  |  | CP11-2 | Nuttall's Scrub Oak | Grading | 1 |  |  |  | 1 |
|  |  |  |  | Maintenance Pad | 2 |  |  |  | 2 |
|  |  | CP8-2 | Nuttall's Scrub Oak | ROW |  |  |  | 41 | 41 |
| TOTAL |  |  |  |  | 17 |  |  | 49 | 66 |

Table A-14. Moreno Currant Occurrence and Estimated Impacts by Location along Project Alignment (number)

| Map <br> Book <br> Sheet | Milepost | Structure \# | Species | Location | Permanent <br> Impact <br> Area | Temporary <br> Impact <br> Area | Impact <br> from <br> Road Use | In ROW |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: | | Total |
| :---: |

Table A-15. Rayless Ragwort Occurrence and Estimated Impacts by Location along Project Alignment (number)

| Map <br> Book <br> Sheet | Milepost | Structure \# | Species | Location | Permanent Impact Area | Temporary Impact Area | ```Impact from Road Use``` | In ROW | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MS-18 | MP-56 | EP130-1 | Rayless Ragwort | Construction Yard |  | 13 |  |  | 13 |
| TOTAL |  |  |  |  |  | 13 |  |  | 13 |

SUNRISE POWERLINK ${ }^{\text {Sw }}$

## APPENDIX B: RPSP MAPBOOK

Bound Separately Because of Size



Sempra Energy utility ${ }^{\text {e }}$
SUNRISE POWERLINK ${ }^{\text {sw }}$

## APPENDIX C: OFFSITE MITIGATION LANDS

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Table C-1. El Capitan

| ACRES | 381.40 |
| ---: | :--- |
| Local Jurisdiction | San Diego County El Capitan Open Space Preserve, CNF |
| Crossed by Project row | No |
| Conserved as Mitigation for Project Impacts to | Sensitive Vegetation Communities |
| Incidental Biological Values | Nesting Golden Eagles |
| Also a Mitigation Site for Project Impacts to |  |
| JURisdictional Waters | No |
| Sensitive PLants | Yes (Lakeside ceanothus) |
| Native Trees | No |
| Other | MSCP considerations; golden eagle conservation. |
| AdJacent Conserved/Public LANDS | CNF, San Diego County El Capitan Open Space Preserve |
| Proposed Land Manager/Owner | County of San Diego or San Diego River Conservancy |
| Estimated Start-up Management Costs | \$235,817 |
| Estimated Endowment for Ongoing Management | \$1,440,192 |
| AcQuisition Status | Acquired by SDG\&E |

Table C-2. Chocolate Canyon

| ACRES | 76.14 |
| ---: | :--- |
| Local Jurisdiction | County of San Diego |
| Crossed by Project row | Yes |
| Incidental Biological Values | Southwestern Willow Flycatcher, Least Bell's Vireo |
| Also a Mitigation Site for Project Impacts to |  |
| Jurisdictional Waters | Yes |
| Sensitive Plants | No |
| Native Trees | Yes (via oak woodland conservation) |
| Other | MSCP considerations |
| Adjacent Conserved/Public Lands | City of San Diego Cornerstone Lands, |
| Proposed Land Manager/Owner | City of San Diego |
| Estimated Start-up Management Costs | \$107,233 |
| Estimated Endowment for Ongoing Management | \$598,088 |
| Acquisition Status | Acquired by SDG\&E |

Table C-3. Lightner

| Acres | 705.86 |
| :---: | :---: |
| Local Jurisdiction | County of San Diego |
| Crossed by Project row | Yes (also Substation Site) |
| Conserved as Mitigation for Project Impacts to | Sensitive Vegetation Communities |
| Incidental Biological Values | Hermes Copper Habitat and Potential Quino Habitat |
| Also a Mitigation Site for Project Impacts to |  |
| Jurisdictional Waters | Yes |
| Sensitive Plants | Yes (Felt-leaved Monardella) |
| Native Trees | Yes (via oak woodland conservation) |
| Other | None |
| Adjacent Conserved/Public Lands | CNF |
| Proposed Land Manager/Owner | Conservancy |
| Estimated Start-up Management Costs | \$364,446 |
| Estimated Endowment for Ongoing Management | \$1,479,648 |
| Acquisition Status | Acquired by SDG\&E |

Table C- 4. Long Potrero

| Acres | 1212.27 |
| ---: | :--- |
| Local Jurisdiction | County of San Diego |
| Crossed by Project row | Yes |
| Conserved as Mitigation for Project Impacts to | Sensitive Vegetation, Quino, Arroyo Toad |
| Incidental Biological Values | Sensitive Plants |
| Also a Mitigation Site for Project Impacts to |  |
| Jurisdiction Waters | Yes |
| Sensitive Plants | Tecate Tarplant, possibly Moreno currant |
| Native Trees | Yes (via oak woodland conservation) |
| Other | None |
| Adjacent Conserved/Public Lands | CNF, BLM, Hauser Wilderness Area |
| Proposed Land Manager/Owner | Conservancy |
| Estimated Start-up Management Costs | \$527,356 |
| Estimated Endowment for Ongoing Management | \$3,279,064 |
| AcQuisition Status | Acquired by SDG\&E |


| ACRES | 199.39 |
| ---: | :--- |
| Local Jurisdiction | County of Imperial |
| Crossed by Project row | No |
| Conserved as Mitigation for Project Impacts to | Sensitive Vegetation and Barefoot Banded Gecko |
| Incidental Biological Values | Palm Oasis, Peninsular Bighorn Sheep Habitat |
| Also a Mitigation Site for Project Impacts to |  |
| Jurisdiction Waters | Yes |
| Sensitive Plants | Possibly desert beauty, Haydon's lotus, and hairy stickleaf |
| Native Trees | No |
| Other | None |
| Adjacent to existing conserved/public Lands: | BLM, Caltrans, San Diego County Park (across county <br> border), Anza-Borrego Desert State Park (in SD County) |
| Proposed Land Manager/Owner | State Parks |
| Estimated Start-up Management Costs | \$148,922 |
| Estimated Endowment for Ongoing Management | $\$ 970,596$ |
| Acquisition Status | Acquired by SDG\&E |








[^0]:    * This plan also addresses the conservation of special status plants on offsite mitigation lands.

