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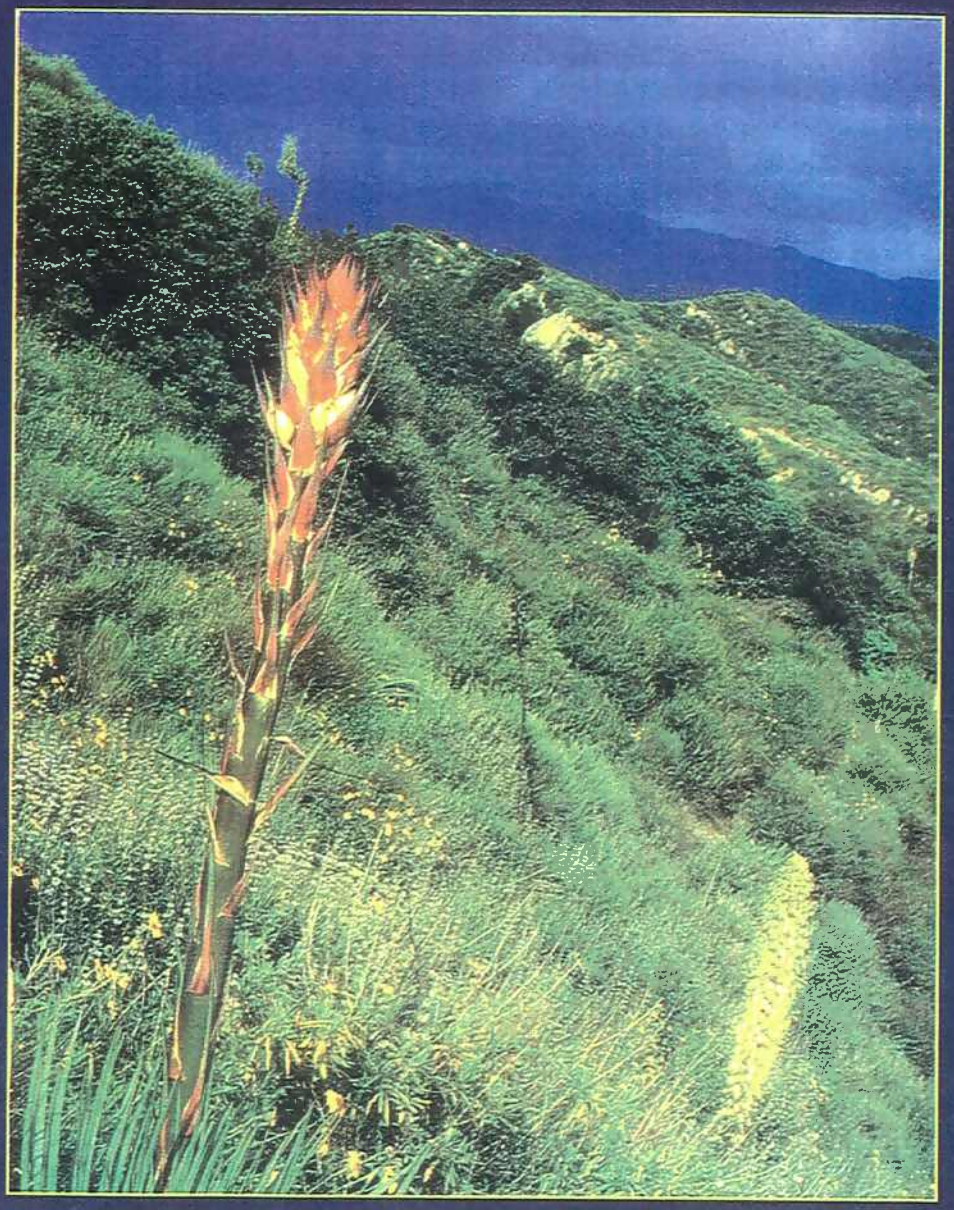
Subregional Natural Community Conservation Plan



REAL ESTATE OPERATIONS NATURAL RESOURCE GROUP

San Diego Gas & Electric Company

Subregional Natural Community Conservation Plan

Prepared By:
San Diego Gas & Electric
Real Estate Operations Department
Last Edited: December 15, 1995

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Subregional Natural Community Conservation Plan

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SDGE San Diego Gas & Electric
P.O. BOX 1831 • SAN DIEGO, CA 92112-4150 • 619 / 696-2000

October 1995

FILE NO.

TO: READERS OF THIS DOCUMENT

There are many things that make San Diego a unique and desirable place to live: the weather, the topography, its proximity to Mexico, the beaches, the ocean, and its diverse environmental resources. Each of these things contribute to a quality of life that draws people to this region. SDG&E shares the belief with many San Diegans that growth should not result in destruction of the very qualities that make this community a desirable place to live. SDG&E also believes that our quality of life can be preserved while still providing opportunities for economic growth.

In recent years, protection of this region's environmental quality has become a major planning issue stimulating ballot initiatives, open space/preservation plans, and protective species "listings" under the State and Federal Endangered Species Acts. It has become apparent that environmental protection is a major public concern and will be with us for some time. SDG&E has recognized the importance of Environmental Protection and Enhancement by weighing it equally in our Corporate Goals to Quality Customer Service. The Company is standing behind our Environmental Protection and Enhancement goal by changing our maintenance and construction methods, by participating directly on all of the NCCP plans in the region, by making financial contributions to said plans, and by preparing this Subregional Plan that not only provides up front mitigation for future activities, but also allows the use of SDG&E's network of rights-of-way and other lands for conservation and preservation.

The primary purpose and ultimate objective of this Subregional Plan is not just to reduce regulatory hurdles, but to make a positive contribution toward the preservation and enhancement of San Diego's natural resources. This plan should be reviewed and evaluated by you, the reader, with that stated purpose and objective in mind. We, at the Company, feel that this Subregional Plan can fulfill our environmental objectives and still be good for business.

Sincerely,
San Diego Gas & Electric

Don L. Rose
Project Manager
Real Estate Management and Planning Section

EXECUTIVE SUMMARY

Background

With the proposed listing of the California Gnatcatcher, as a threatened species, the Endangered Species Act (ESA) suddenly became a significant constraint to all forms of development in southern California including the development of energy infrastructure. The State responded by using the recently legislated Natural Community Conservation Planning (NCCP) program as a tool to work with local communities to develop habitat conservation strategies to protect a wide variety of plants and animals which included the Gnatcatcher's coastal sage scrub habitat. One of the goals of the NCCP is to eliminate the need for future listings. The NCCP also allows for localized administration of the federal ESA and the California ESA (CESA) if certain steps are followed including the preparation of habitat conservation plans pursuant to the ESA and the NCCP.

San Diego Gas & Electric (SDG&E) saw the potential benefits offered by the NCCP to the region's resources and to the Company's ability to reduce regulatory processes typically involved with the maintenance and expansion of a gas and electric energy system. Therefore, the Company launched into preparation of its subregional habitat conservation plan also known as the 50-Year Permit. When approved, the Plan will provide for 25 years of ESA & CESA approvals with renewals to 50 years and possibly beyond.

Provision of the Plan

The Plan covers the following activities, as well as, estimates and defines the mitigation which may be required for the biological impacts of the installation, use, maintenance, and repair of the existing gas and electric system and typical expansions to that system. These activities are required to provide adequate, reliable, and safe service to existing customers and to meet the demands of new growth. The Plan does not cover extraordinary expansions to SDG&E's gas and electric system. The Plan also covers biological impacts (within the boundaries of the Plan area only), associated with new electric transmission lines including interconnections that do not project more that 30 miles outside of SDG&E's service territory, Rainbow to Santee natural gas transmission pipeline, new gas transmission lines under 30" in diameter and less than 20 miles in length, new substations and regulator stations with habitat impacts under 20 acres, and new natural gas compressor stations with habitat impacts under 10 acres. Projects not covered by the Plan will be evaluated on a case-by-case basis, but will be evaluated by the standards set forth in this plan.

Since the future cannot be accurately predicted, the Plan allows for up to 400 acres of impacts in natural areas before requiring a Plan amendment. However, based on current technology, construction methods and standards, population forecasts, and local agency General Plans, the Plan anticipates only 124 acres of grading impacts in natural areas as a result of typical expansion and maintenance activities over the next 25 years (areas which are "natural" are not paved and do

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not contain ornamental landscaping or otherwise urbanized uses). Impacted areas may be home to one or more of the 110 species covered by this Plan. To mitigate these impacts, the Plan provides the following forms of mitigation:

- The most important mitigation measure is avoidance of impacts whenever possible. To accomplish this, new Operational Protocols for working in the field were developed. There are 61 protocols, all listed in Chapter 7 of the Plan. In addition, field crews attend a series of on-going classes on how to behave and operate construction and maintenance equipment in environmentally sensitive areas.

- Certain fee-owned rights-of-way will be available for use as wildlife corridors in order to connect the region's conservation areas. SDG&E will also allow the use of certain rights-of-way held in easements for such corridors with the consent of the underlying land owner.

- Mitigation Credits of approximately 240 acres will be established upon commencement of the Subregional Plan. The bank will be debited to mitigate for actual impacts as projects are realized. The wildlife agencies will determine the extent and quality of any impact. If needed, the Mitigation Credits will be replenished.

- Restoration and enhancement are also available as mitigation measures, sometimes instead of debits to the Mitigation Credits, and other times in addition to such debits. Restoration will be used in some cases regardless of other forms of mitigation.

The benefits to SDG&E are that the permit processing typically required by the ESA & CESA will not be required. However, the wildlife agencies will still monitor projects, evaluate impacts, and prescribe mitigation in a much more time-efficient process. The Plan sets up a framework for the wildlife agencies to fulfill their regulatory responsibilities in an efficient manner and provides SDG&E with certainty over required mitigation.

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Purpose of this Agreement is to Clarify the Vernal Pool Mitigation Measures of the Subregional Plan

SDG&E Subregional Plan – Clarification Document

1. Add to existing page vii of **Executive Summary**, before the section entitled Not Provided For:

A. In 2004, SDG&E amended its NCCP/HCP, which was originally approved in 1995, to incorporate minor modifications reflecting the Company's evolving approaches to resource management policy changes and the Company's many years of experience implementing the plan and permit. These changes are summarized as follows:

SDG&E and the Wildlife Agencies have developed a "vernal pool clarification" for provisions of the NCCP/HCP which provides a basis for SDG&E to carry out a range of utility activities without delay or disruption. This protocol addresses vernal pool resources located both on and off SDG&E access roads and establishes clear standards for avoidance, minimization, and mitigation of permanent and temporary impacts. As a result of these protocols, SDG&E and the Wildlife Agencies anticipate that SDG&E operations and maintenance activities, and the use of existing access roads associated with system expansion, development of new projects, and emergency repairs can be undertaken without the need for case-by-case analysis by, or negotiations with, the Service and/or the Department.

DEFINITIONS

Vernal Pool: A Vernal Pool is defined herein as consisting of both (1) the vernal pool basin, or ponding area, which provides the maximum area of ponded water (i.e., the inundation area when the pool is full), plus (2) the vernal pool watershed, which is the area surrounding the basin that provides sufficient hydrology to allow complete filling of the vernal pool basin in an average rainfall year.

Vernal Pool Basin (Ponding Area): The maximum area of vernal pool inundation, extending to and including the uppermost margins of the pool area that holds water when a pool is full (i.e., the ponding area itself exclusive of the surrounding watershed).

Vernal Pool Watershed: The area surrounding a vernal pool basin that provides sufficient hydrology, including adequate surface area and micro-topography, to enable complete filling of a vernal pool basin in an average rainfall year.

Vernal Pool Management Plan: A plan that provides a practical framework with specific management measures for restoring, enhancing, protecting, and maintaining vernal pool

resources. The management plan shall include goals/objectives; methodology; success criteria and standards, including the control of invasive species which could threaten long-term persistence of the vernal pools; timelines; a minimum five year monitoring component (not to exceed seven years with at least one year in which the pool completely fills) to document the stability of populations and judge the success of restoration actions and the effectiveness of management practices; and a process and funding mechanism for managing adaptively, and in perpetuity, vernal pool habitat.

KEY ELEMENTS

The protocol set forth in this clarification document reinforces SDG&E's commitment to avoid permanent impacts to all vernal pools during construction of new facilities and confirms the assurance of the Wildlife Agencies that impacts to on – and off-road vernal pools associated with SDG&E operations and maintenance activities will be authorized. Furthermore, the Wildlife Agencies deem that the mitigation measures described in this protocol are consistent with the Subregional Plan.

- Under the SDG&E Subregional Plan impacts to vernal pools will be avoided during construction of new facilities, and new access roads, throughout the area covered by the Plan. Impacts to vernal pools related to other covered activities are authorized, including operations and maintenance activities occurring within and outside the footprint of existing access roads; use of existing access roads to support system expansion; and emergency repairs. In such cases, SDG&E will:

  1. Avoid impacts to the maximum extent practicable, including rerouting existing access roads when feasible.
  2. If avoidance of all impacts to vernal pools is not practicable, SDG&E will minimize impacts by implementing the measures described in this Clarification Document (Section 7.1.11).

- During operations and maintenance activities occurring outside the footprint of existing access roads, permanent and temporary impacts may occur. Permanent and temporary impacts to those vernal pools will be minimized and mitigated.

- Vernal pool surveys to determine if covered species are present or absent will not be conducted. During operations and maintenance activities occurring within and outside the footprint of existing access roads, permanent impacts will be mitigated at a 3:1 ratio. At SDG&E's discretion, some access roads containing road rut vernal pools will be graded on an as needed basis; other roads will be maintained on a regularly scheduled basis.

- Mitigation may be satisfied through either on-site restoration of vernal pools or the use of areas pre-approved by the Wildlife Agencies. Mitigation credits, as approved by the Wildlife Agencies, may be accumulated and used through advance creation, restoration, and enhancement of vernal pool basin area. The areas pre-approved by the Wildlife Agencies for creation, restoration, and/or enhancement of vernal pool basin area will be of high quality (e.g., Carmel Mesa and Otay Mesa) and will support species covered by the Plan. Pre-approved vernal pool mitigation areas must be managed and monitored pursuant to a Management Plan approved by the Wildlife Agencies.

2. Add the words "VERNAL POOLS" to the descriptive text in the bottom sketch in Figure 4. Add new drawings to Figure 4 that assist SDG&E in avoiding impacts to the pools. *SDG&E to provide.*

IX. Vernal Pools

This vernal pool protocol reinforces SDG&E's commitment to avoid permanent impacts to all vernal pools during construction of new facilities and new access roads, and confirms the assurance by the Wildlife Agencies that impacts to all vernal pools associated with SDG&E operations and maintenance activities are authorized under the Subregional Plan. Furthermore, the Wildlife Agencies deem that the mitigation measures described in this protocol are consistent with the Subregional Plan.

SDG&E intends to avoid impacts to vernal pools during new construction. During operations and maintenance activities occurring outside the footprint of existing access roads, permanent and temporary impacts may occur provided that they are mitigated consistent with this clarification document. Temporary and permanent impacts will be minimized. During operations and maintenance activities occurring within existing access roads, which may include grading and/or crowning of those roads, permanent impacts may occur. At SDG&E's discretion, some access roads containing vernal pools will be graded on an as needed basis; other roads will be maintained on a regularly scheduled basis.

Other than pre-activity surveys, no vernal pool surveys will be conducted to determine presence or absence of covered species. Mitigation for permanent impacts will be fixed at a 3:1 ratio for all impacts.

When required, mitigation may be satisfied through either on-site restoration of vernal pools or the use of areas pre-approved by the Wildlife Agencies. Mitigation credits, as approved by the Wildlife Agencies, may be accumulated and used through advance creation, restoration, and enhancement of vernal pool basin area. The areas pre-approved by the Wildlife Agencies for creation, restoration, and/or enhancement of vernal pool basin area will be of high quality (e.g., Carmel Mesa and Otay Mesa) and will support

species covered by the Plan. Pre-approved vernal pool mitigation areas must be managed and monitored pursuant to a Management Plan approved by the Wildlife Agencies.

In the event that SDG&E Activities impact vernal pools, the following mitigation measures will be implemented:

Temporary Impacts

Off Road

SDG&E Activities, such as but not limited to, placement of structures, insetting poles, poles anchors and stubs, and underground facility access may have temporary impacts on off road vernal pools (Chapter 2, Proposed Activities, provides a complete list of SDG&E Activities). In those cases, SDG&E will restore those pools pursuant to the following protocols:

1. Seed from vernal pool indicator plants shall be collected from the pools that will be impacted when the plants have dried and before the seed disperses, and scattered in the affected vernal pool when the SDG&E Activity is completed. Seed collection may not be possible when precluded by weather or physical constraints, such as the Activity occurring at a time of year when no seed is present. If SDG&E needs to work in vernal pool areas under wet conditions, vehicular and foot traffic will be directed away from the pools. If vehicular and foot traffic cannot be directed away from the pools due to construction requirements, other impact minimization measures shall be used, such as the installation of steel plates or fabric mats. A qualified biologist will be present to ensure that all minimization measures are implemented.

2. Vernal pool *inoculum* shall be collected only when it is dry to avoid damaging or destroying fairy shrimp cysts. A hand trowel or similar instrument should be used to collect the sediment. Soil should be collected in chunks. Once the Activity is completed, the sediment will be replaced in the bottom of the disturbed pool.

3. If seed has been scattered and/or *inoculum* sediment has been replaced, a qualified biologist will monitor the vernal pool for successful restoration, for two subsequent wet seasons. Successful restoration will be determined/defined as the continued presence of vernal pool species (or threatened/endangered species if present) roughly comparable to the pre-disturbance condition. Furthermore, covered species identified in the pre-activity survey must be observed to fully mature, with fairy shrimp producing cysts and plant species producing seed. Unsuccessful restoration will be considered a permanent impact and will be mitigated at a 3:1 ratio at a pre-approved vernal pool mitigation area. If measures 1 and 2 above cannot be implemented, mitigation will occur at the pre-approved vernal pool mitigation area at a 3:1 ratio.

Within Road

During new construction activities, if vehicular traffic cannot be directed away from vernal pools due to construction requirements, impact minimization measures shall be used, such as the installation of steel plates or fabric mats. A qualified biologist will be present to ensure that all minimization measures are implemented.

Permanent Impacts

SDG&E Activities, such as, but not limited to road maintenance may have unavoidable permanent impacts on vernal pools (Chapter 2, Proposed Activities, provides a complete list of SDG&E Activities). To mitigate for those impacts, SDG&E will undertake the following measures:

1. Restoration Reporting[1] - If SDG&E does not mitigate at a pre-approved vernal pool restoration area, then Wildlife Agencies' concurrence on an acceptable mitigation site is required prior to any impacts to vernal pools. Recognizing that restoration efforts may vary somewhat, SDG&E shall prepare a vernal pool restoration plan for each Activity based on a generalized approach for vernal pool restoration, with which the Wildlife Agencies have previously concurred (Refer to Attachment 1). If further refinements to this generalized approach are necessary on a case-by-case basis, the Wildlife Agencies will respond to the restoration plan within 30 days. If the Wildlife Agencies do not comment within 30 days, SDG&E will proceed with its proposed Activities.

2. Mitigation Ratio – Impacts to vernal pools, with or without Covered Species present, will be mitigated at a 3:1 ratio for all impacts. Mitigation may occur onsite provided that a sufficient number of degraded pools exist in the vicinity and have been approved by the Wildlife Agencies for restoration and /or enhancement. Otherwise, mitigation will be implemented offsite at the pre-approved vernal pool restoration area. Mitigation credits, as approved by the Wildlife Agencies, may be accumulated and used through advance creation, restoration, and enhancement of vernal pool basin area. The areas pre-approved by the Wildlife Agencies for creation, restoration, and/or enhancement of vernal pool basin area will be of high quality (e.g., Carmel Mesa and Otay Mesa) and will support species covered by the Plan. Pre-approved vernal pool mitigation areas must be managed and monitored pursuant to a Management Plan approved by the Wildlife Agencies.

SDG&E may relocate an existing access road to minimize potential impacts to vernal pools. This rerouting would only be done if it was possible without compromising operational integrity and safety. The mitigation value of the rerouted road would be at

---

[1]Restoration of degraded vernal pools on a pre-approved restoration area is considered appropriate as mitigation for permanent impacts. Steps will be implemented to ensure that hydrologic function is not significantly impaired.

1:1 level.[2] Under such circumstances, the mitigation requirement for impacts to vernal pools, with or without Covered Species present, will be the net of the total new impacts to vernal pools or pool complexes less the vernal pools or complexes being avoided within the existing roadway. The net impact will be mitigated at the pre-approved vernal pool mitigation area at a 2:1 ratio at least 1:1 ratio of which is creation.

Impacts to vernal pools with or without Covered Species present that occur on military lands will be mitigated at a pre-approved vernal pool mitigation area at a 3:1 ratio.

Monitoring and Reporting

Restoration of temporary impacts to vernal pools shall be accomplished by a qualified ecologist/biologist and managed (including monitoring) for two subsequent wet seasons.

Restoration for permanent impacts to vernal pools shall be accomplished by a qualified ecologist/biologist and managed and monitored for a minimum of five years, but not to exceed seven years with at least one year in which the pool completely fills.

SDG&E's Subregional Plan Annual Report will include a vernal pool section that tracks and reports the amount and type (temporary or permanent) of impacts to vernal pools, and reports the status of restoration/enhancement efforts.

4. Add new Avoidance and Minimization protocols to Chapter 7.1 as a new Section 7.1.11 Vernal Pool Complexes:

Avoidance and Minimization Measures:

62. SDG&E will avoid permanent impacts to vernal pools in the construction of all new Facilities, including new access roads, throughout the area covered by this Plan.

63. If the Wildlife Agencies recommend relocation of an access road that bisects a vernal pool area, SDG&E will take into account cost and operational considerations and determine within 30 days whether to relocate the road. When roads are relocated to avoid vernal pools, the realigned road will be clearly demarcated and barriers will be placed to prevent vehicle access on the old road.

64. For all construction activities occurring adjacent to vernal pools, SDG&E will work with a qualified biologist having local experience with vernal pool resources, to site roads or facilities in a manner that avoids potential impacts to vernal pools. (See Figure 4.) All vernal pools adjacent to the project footprint, plus a five-foot buffer (where feasible), will be fenced with orange safety fencing to ensure no people or equipment impact the vernal pools during construction activities. A silt fence will be installed along the base of the roadway to prevent

[2] This language is consistent with and replaces paragraph 2 of Article IX Vernal Pools of the Subregional Plan.

increased erosion or sedimentation during construction in vernal pool areas. Gravel bags will be placed along the bottom of the fence to minimize erosion or sedimentation into vernal pools, and removed upon completion of construction.

65. During operations and maintenance activities occurring within the footprint of existing access roads, which may include grading and/or crowning of those roads, permanent impacts to vernal pools may occur. To prevent water from ponding on existing access roads, SDG&E will grade and crown roads using a grader. Other mechanisms may be employed that achieve the same result. Thereafter, the roads will be maintained on a regular basis as determined by SDG&E, to prevent future ponding, thereby minimizing native plant and animal species from becoming established. Roads in vernal pool complex areas within MCAS Miramar and the Torrey Hills, Otay Mesa, Carmel Mesa, Del Mar Mesa, and Tierrasanta communities in the City of San Diego may be less frequently graded to preserve habitat value, but will be graded as needed to preserve safe and reliable access to SDG&E facilities.

66. During modifications and maintenance of existing access roads, or the creation of new access roads adjacent to vernal pools, a qualified biological monitor, having local experience with vernal pool resources, shall oversee and monitor all such activities occurring adjacent to vernal pools. The biological monitor shall:

    - Hold a pre-construction meeting to brief the crew on the location of sensitive resources and construction boundaries.
    - Direct installation of protective fencing to prevent encroachment of people or equipment into vernal pools during construction activities and to ensure that no fence posts are placed within vernal pools.
    - If it is not feasible to place protective fencing without impacting vernal pools, during the dry season sandbags will be placed along the perimeter of the vernal pool and removed post-construction (or prior to the on-set of the wet season).

    An environmental surveyor will ensure that fencing to protect vernal pools is appropriately placed and is maintained in good condition for the duration of the project. (See Figure 4.)

67. When vernal pools are located above gas lines and repair work is necessary, work areas will be minimized and soil will be stockpiled for replacement after repairs.

68. During construction of new facilities, including access roads adjacent to vernal pools, a biological monitor will document all accidental or unanticipated impacts to vernal pools. The impacts will be provided to the Wildlife Agencies in a post-construction report with 30 days of project completion.

69. To the extent feasible, all construction equipment shall be fueled and maintained at least 100 feet from the nearest vernal pools.

SDG&E NCCP/HCP SUBREGIONAL PLAN

VERNAL POOL CLARIFICATION

This signature page is attached to the Final Vernal Pool Clarification document to identify that the Vernal Pool Clarification approved on May 26, 2004 by the United States Fish & Wildlife Service and California Department of Fish and Game shall be applied to SDG&E projects that have the potential to impact vernal pools within the Subregional Plan Area.

Date 7/26/04
Therese O'Rourke, Assistant Field Supervisor
U.S. Fish & Wildlife Service
Carlsbad Fish & Wildlife Office

Date 7/23/04
Gail Presley, Conservation Planning Program Manager
California Department of Fish and Game

Date 7/21/2004
Donald E. Haines
SDG&E
Manager, Land Planning & Natural Resources

Not Provided For

Projects which are currently subject to permits from the California Public Utility Commission (CPUC), Coastal Commission, Energy Commission, State Lands Commission and several other state and federal agencies will continue to be. Therefore, many projects will be subject to the California Environmental Quality Act & National Environmental Policy Act reviews. It is intended that the subsequent environmental reviews use this Plan to evaluate the impacts to covered species and their habitats.

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1 Introduction

San Diego Gas & Electric Company (SDG&E) is a California public utility providing natural gas, electric, and other services to customers within its service territory, which includes San Diego County and portions of Orange and Riverside Counties. SDG&E's ability to provide these services depends upon the installation, operation, maintenance and repair of an evolving array of public utility facilities located throughout its service territory and, to a limited extent, beyond. For example, SDG&E's electric and natural gas service is provided by means of two essentially separate systems. The electric system includes steam electric generating plants, electric transmission lines, electric substations, and an electric distribution network (See Figure 1). The natural gas system includes compressor stations, transmission pipelines, regulator stations and distribution pipelines (See Figure 2). Regular maintenance and repair of these systems is performed to prolong their useful life and to ensure adequate, safe, and reliable service. The location and type of new Facilities is dependent upon the service demands of SDG&E's customers load centers while existing Facilities are not. However, both are subject to the regulatory authority and requirements of the California Public Utilities Commission (CPUC), the California Energy Commission (CEC), and various other federal and state agencies.

Over the past several years, the natural lands and wildlife habitats in San Diego County, Orange County, and Riverside County (Moreno Compressor Station only), have been subjected to increasing pressures from various land development activities. The Natural Community Conservation Planning Act (NCCP), authorizing comprehensive management and conservation of habitat and multiple wildlife species, is California's response to the ever increasing numbers of species protected and being considered for protection under the state and federal endangered species acts. In recognizing the need to develop a comprehensive management plan for the sensitive biological resources of the region, agency wildlife biologists, consulting and research biologists, landowners,

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businesses, and representatives of conservation groups have proposed a conservation strategy which includes the establishment of a habitat preserve system intended to ensure long-term habitat survival and individual species viability.

SDG&E's Activities may impact certain sensitive plant and animal species or their habitat which may include species listed as threatened or endangered by the United States Endangered Species Act (ESA) or the California Endangered Species Act (CESA). To ensure implementation of appropriate avoidance, minimization, or mitigation measures for these potential impacts, SDG&E has prepared this Subregional Plan following the multiple species and habitat conservation planning approach authorized by ESA and the California NCCP. The intent of this Subregional Plan is to identify SDG&E's existing and prospective Activities as a public utility which may have an impact upon Covered Species or their habitat and to define those measures SDG&E will employ to avoid, minimize or mitigate any such impacts. SDG&E's plan is a significant part of the overall regional conservation planning strategy for two reasons: 1) It will provide a net improvement in habitat values by providing foundational resources for the establishment of connecting corridors between habitat preserves; and 2) It can be used for other regional public service providers as a model.

Over the last several years, a number of local governments have been working to develop comprehensive habitat and multi-species conservation plans within the boundaries of their respective jurisdictions, generally referred to as "Habitat Conservation Plans." Ultimately, a network of such plans will be implemented throughout much of the area which is or which may be affected by SDG&E's operations and covered by SDG&E's Subregional Plan (See Figure 3). Both SDG&E's Subregional Plan and the Habitat Conservation Plans will maximize the protection and conservation of wildlife and habitat by utilizing the comprehensive multi-species and habitat conservation approach. However, unlike the Subregional Plan, Habitat Conservation Plans otherwise address the unique municipal concerns of local government: local government's interest in local land development and other land use activities with federal and state wildlife conservation mandates.

In contrast, SDG&E's public utility operations and service span the jurisdictional boundaries of a large number of local governments and provide benefits to the State as a whole. SDG&E's operations as a public utility are, therefore, matters of statewide concern. To ensure uniform, adequate, safe, and reliable operations for the benefit of the State's citizens, SDG&E's operations are regulated at the state level primarily by the CPUC but also by various other state agencies, rather than at the local level. Accordingly, this Subregional Plan balances SDG&E's Activities necessary to meet the continuing and growing demands of its customers for electric and gas service with federal and state wildlife conservation mandates.

The applicability of Habitat Conservation Plans will be triggered by local permit applications filed by persons seeking to pursue projects falling within the regulatory authority of such local governments. However, because SDG&E's projects do not fall within the regulatory authority of local governments, none of the underlying Habitat Conservation Plans will be suitable to address the particular and unique issues raised by

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public utilities. SDG&E has resolved this problem by developing this Subregional Plan in coordination with the United States Fish and Wildlife Service (USFWS) and California Department of Fish & Game (CDFG) addressing SDG&E's activities and their potential impact upon Covered Species or their habitat throughout the area of its operations.

This Subregional Plan will cover all of SDG&E's Activities conducted within the area described in Figure 3 (Subregional Plan Area), and will function independently of the Habitat Conservation Plans of local governments, which may also cover any part of the Subregional Plan Area. This Subregional Plan takes into consideration the objectives of such local Habitat Conservation Plans and coordinates the implementation of this Subregional Plan with the proper functioning of such local Habitat Conservation Plans, as they become effective, to maximize the benefits to Covered Species and their habitat. This Subregional Plan will describe SDG&E's Activities that have the potential to impact Covered Species or their habitat and which will be subject to the provisions of this Subregional Plan. The nature and extent of such potential impacts will be identified together with those protective and conservation measures SDG&E will undertake to avoid such impacts and, where impacts are unavoidable, to minimize and mitigate the same. Protective and conservation measures will include (a) the implementation of Operational Protocols established in coordination with USFWS and CDFG, (b) assisting USFWS and CDFG to establish wildlife corridors which interconnect one habitat preserve or wildlife conservation area to another utilizing certain rights-of-way, and (c) by causing the conveyance of valuable habitat land to a wildlife management agency for conservation purposes.

SDG&E, USFWS, and CDFG have, concurrent with the effective date of this Subregional Plan, entered into a long term Implementing Agreement which describes the legal rights and obligations of such parties regarding the implementation and maintenance of this Subregional Plan. The Implementing Agreement authorizes SDG&E to conduct its Activities within the Subregional Plan Area provided the same are performed in conformity with this Subregional Plan. Such authorizations are memorialized in permits issued by USFWS and CDFG, pursuant to ESA, CESA and NCCP. Such permits authorize SDG&E Activities and any resulting Incidental Take of Covered Species or impact to their habitat. The Subregional Plan and the Implementing Agreement can be amended to permit the addition of areas within which SDG&E conducts its operations and which are not yet covered by the Subregional Plan, such as the desert regions. Finally, the Implementing Agreement will provide assurances by USFWS and CDFG that, absent Unforeseen Circumstances, the terms and conditions of SDG&E's Activities authorization and Permits including, but not limited to, the required mitigation measures, will not change during the term of the Implementing Agreement. The long term duration and constancy of the Implementing Agreement and, therefore, of this Subregional Plan benefit SDG&E both by streamlining the permit process, enabling the early and efficient planning of avoidance and mitigation measures in project design, and by implementing a more cost-effective approach to wildlife conservation. Covered Species and their habitat will derive long term benefits from the implementation of the Subregional Plan.

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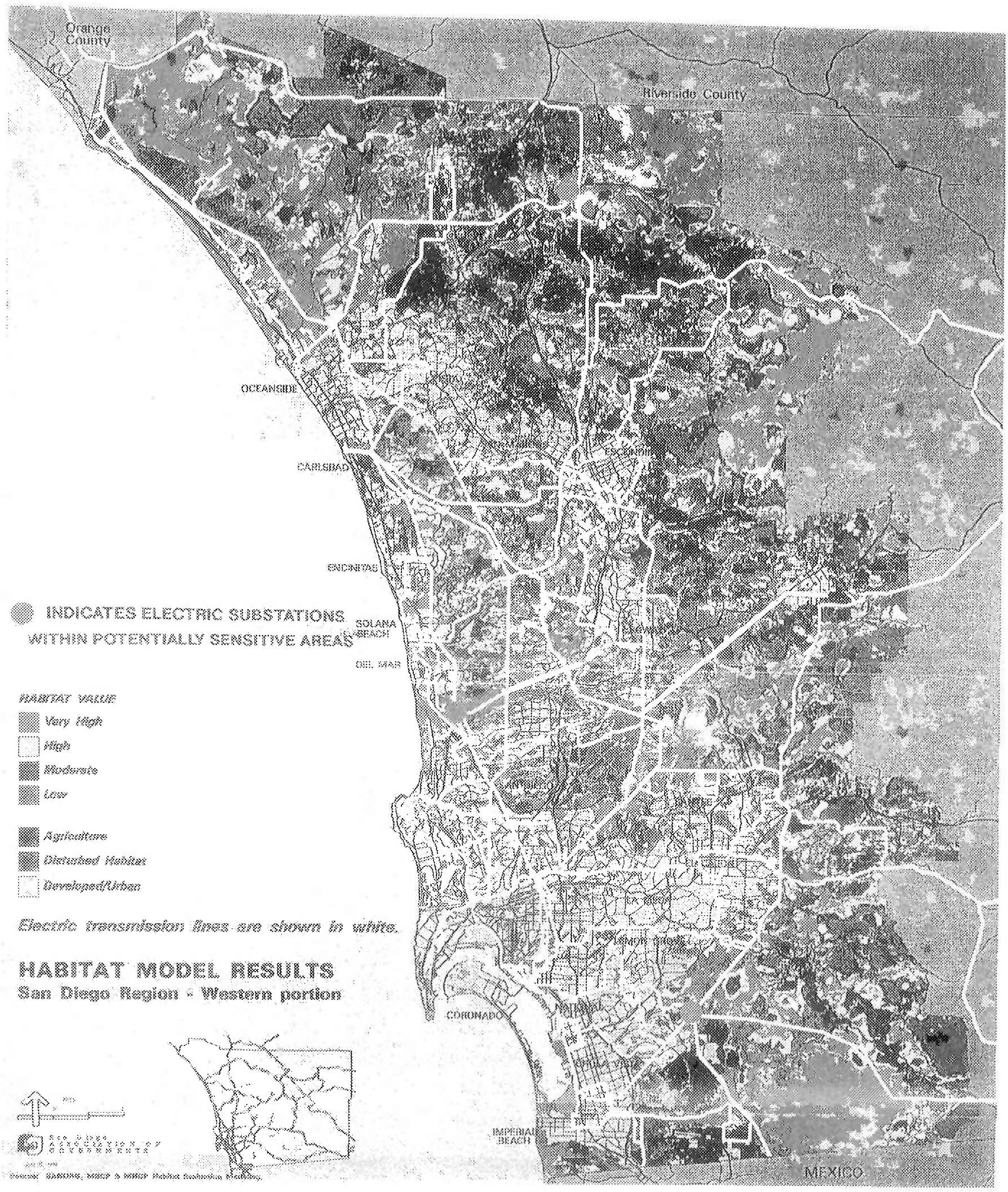
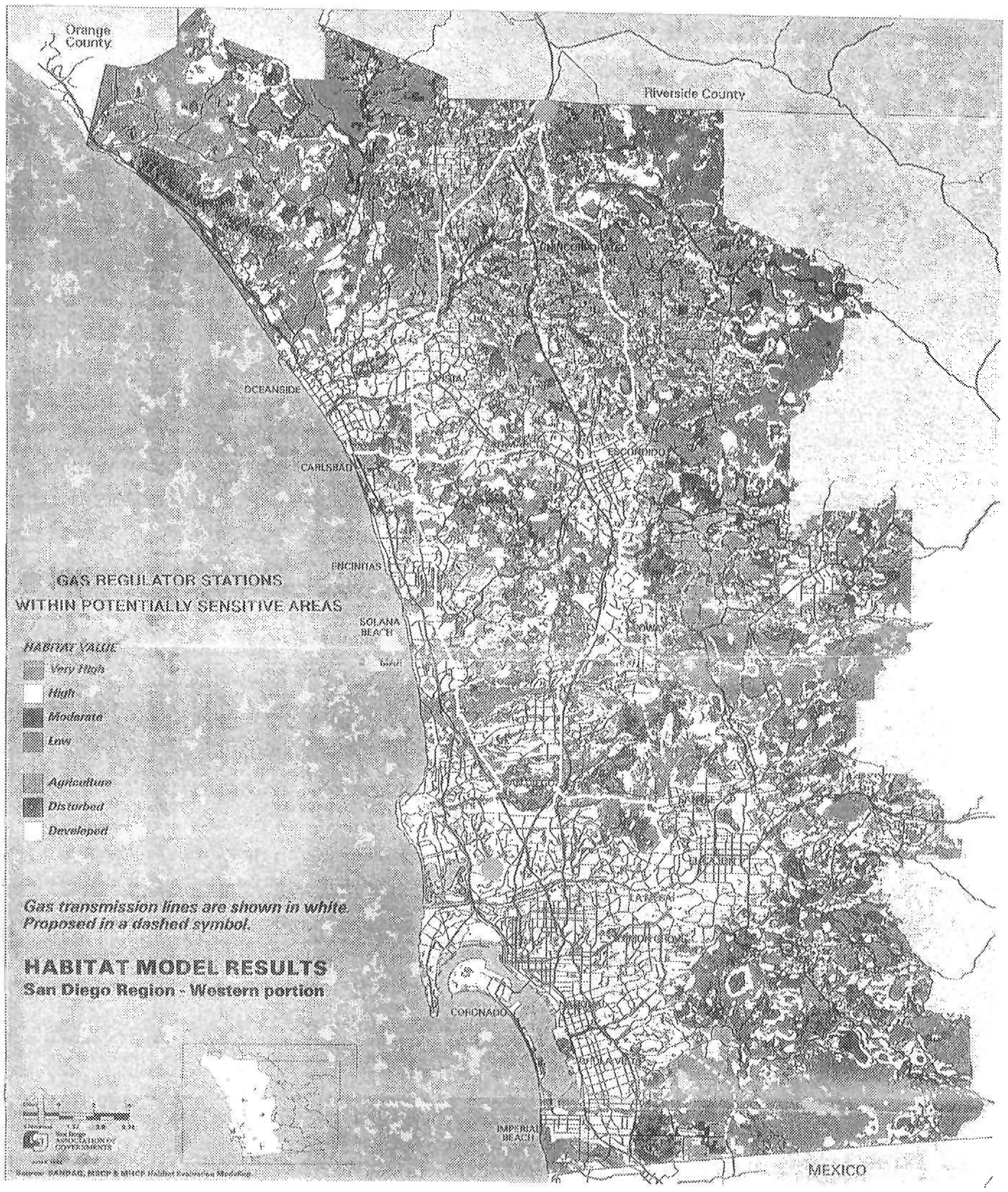


SDG&E ELECTRIC FACILITIES IN ORANGE COUNTY ARE SHOWN ON FIGURE 9

SDG&E Electric Transmission System

FIGURE 1



SDG&E GAS FACILITIES IN RIVERSIDE COUNTY ARE SHOWN ON FIGURE 10

SDG&E Natural Gas Transmission System

FIGURE 2

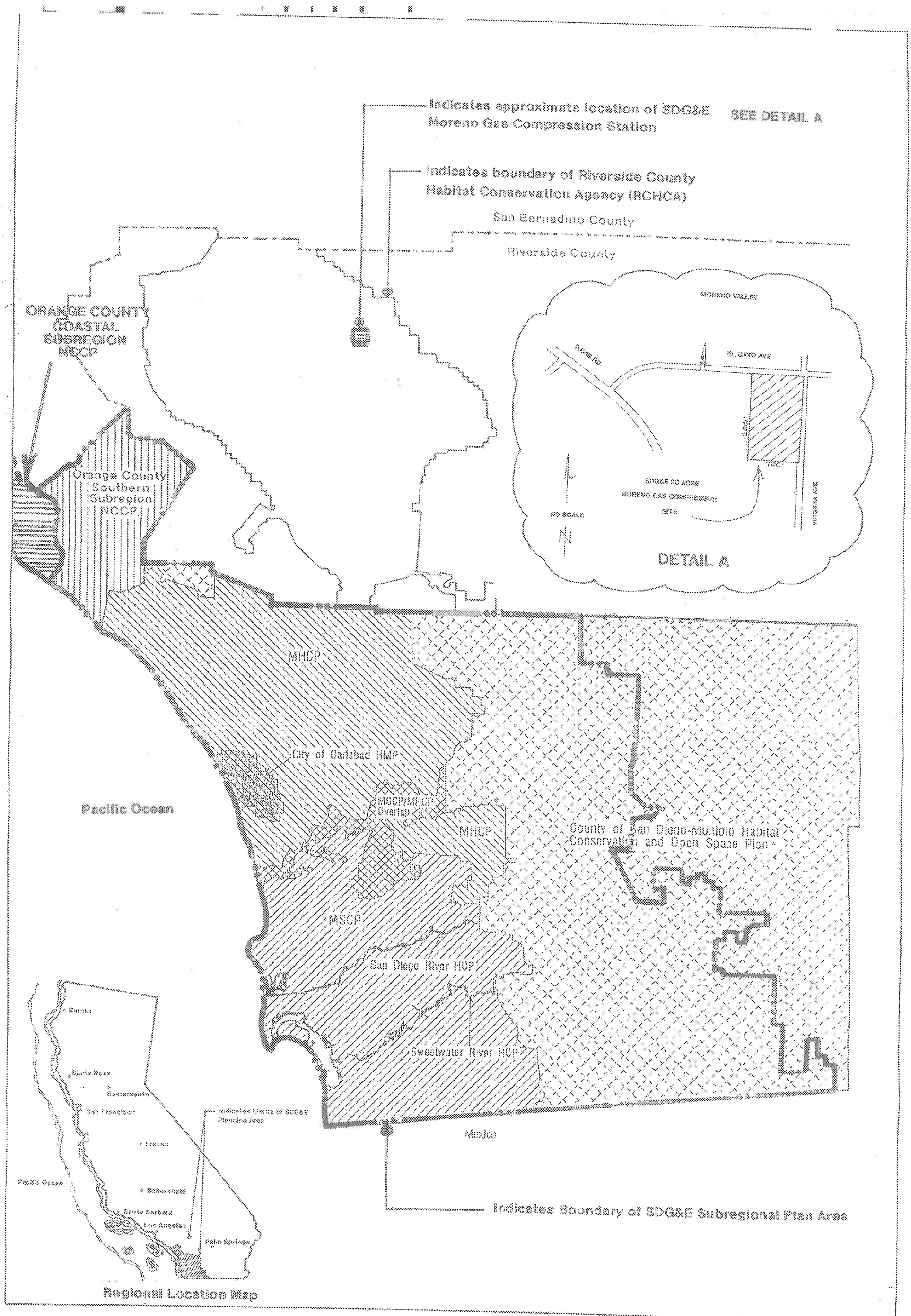


FIGURE 3

SDG&E Subregional Plan Area

Military Lands Contained Within This NCCP Are Treated Separately From NCCP Management Plans

1.1 Purpose

The purpose of this Subregional Plan is to establish and implement a long term agreement between SDG&E, USFWS and CDFG for the preservation and conservation of Covered Species and their habitat, while allowing SDG&E to develop, install, maintain, operate, and repair its Facilities which are or become necessary to provide electric, natural gas and other Services to the customers served by SDG&E within the Subregional Plan Area.

Because of the evolving and continuing nature of SDG&E's operations within the Subregional Plan Area, SDG&E, USFWS and CDFG have determined that a comprehensive multiple species and habitat conservation plan under ESA Section 10(a) and NCCP will most effectively preserve and enhance Covered Species and their native habitats. The long term multi species and habitat planning approach avoids the less effective, less efficient and more costly process of obtaining federal and state Incidental Take permits on a species-by-species, project-by-project basis.

This Subregional Plan is intended to meet the legal prerequisites of USFWS and CDFG for their issuance of ESA and CESA Incidental Take permits for all Covered Species and their habitat. Specifically, this Subregional Plan (a) authorizes the incidental take of listed and other covered species, such take being incidental to the otherwise lawful Activities of SDG&E, (b) minimizes and mitigates the impacts of such incidental take to the maximum extent possible, (c) assures adequate funding for the implementation of this Subregional Plan, (d) authorizes incidental take will not appreciably reduce the likelihood of the survival or recovery of any listed species or candidate species in the wild, (e) imposes measures to be implemented by SDG&E as requirements for or conditions of the authorization and permits granted herein which will be met by

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SDG&E, (f) generally satisfies and fulfills all measures required by USFWS as being necessary or appropriate for the purposes of this Subregional Plan, including any measures determined to be necessary by the parties to deal with unforeseen circumstances, (g) will provide for the conservation and protection of Covered Species and their habitat within the Subregional Plan Area, as if each of the species, subspecies, or populations were listed under ESA, and (h) satisfies all legal requirements necessary for CDFG to issue a Management Authorization for Covered Species under Fish & Game Code Sections 2081 and 2835, and NCCP Section 2825.

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1.2 Issues

Natural Resource Issues

Impact to Covered Species and their habitat is one of SDG&E's primary environmental concerns associated with its utility operations. The area of Southern California which includes the Subregional Plan Area contains the highest diversity of plant and animal life in the continental United States. As a result of the rapid pace of urbanization in the last half of the twentieth century, SDG&E's Subregional Plan Area also has the highest number of plants and animals in the continental United States which have become protected or are proposed for protection under ESA or CESA.

In the absence of multi-species and habitat conservation guidelines, continued urbanization and other land uses pose significant risks of extirpation or extinction of Covered Species. SDG&E's implementation of standard operating procedures to avoid or minimize impacts to natural resources is a major focus of this plan.

Land Use Issues

Several profound differences exist between the nature and extent of impacts to Covered Species or their habitat which may be caused by agricultural and typical urban development from those which may be caused by the operation of a gas and electric public utility like SDG&E. Agricultural and urban development usually occur on established parcels of land with generally permanent impacts to Covered Species and their habitat as the same are replaced with the project. Agricultural and urban

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development occurs in checkerboard fashion over the available land. With some limited exceptions (e.g., the infrequent installation of electrical substations or natural gas regulator stations), most utility projects are linear in nature requiring limited grading; therefore, impacts upon Covered Species and their habitats caused by the operations of an electric and gas public utility like SDG&E are avoided entirely or are only minimal or temporary. The potential exists, however, for slight habitat fragmentation by virtue of the presence of the utility and its access roads which may facilitate unapproved intrusion into an ecosystem.

In addition to San Diego County, southern Orange and Riverside Counties continue to experience strong socio-economic growth pressures, causing equally strong pressures to be exerted on the regional ecosystem's long term viability. Consequently, the following land use and operational issues were examined within the Subregional Plan Area in the preparation of this document:

- Impacts of adjacent land uses, particularly real estate development, on the Covered Species and their habitat which exist in SDG&E's easements and fee-owned rights-of-way and other land holdings.

- Existing conditions in SDG&E's easements and fee-owned rights-of-way and other land-holdings of natural resources and degree of habitat protection and conservation.

- Land use compatibility.

- Coordination with Habitat Conservation Plans.

- SDG&E's Subregional Plan strategies which include avoidance, minimization, mitigation, and plan implementation strategies.

- Impacts to Covered Species from operation & maintenance activities.

- Impacts to Covered Species from new construction.

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1.3 Approach

Neither CESA nor ESA had been enacted when much of the SDG&E public utility Facilities were planned and constructed. In 1993, SDG&E cooperated with USFWS and CDFG to develop and implement Operational Protocols designed to avoid impacts to specified species and their habitat. However, certain installation, maintenance, operation and repair Activities could not be modified to avoid an Incidental Take of Listed Species. For these Activities, Incidental Take permits were either sought by SDG&E from USFWS and CDFG through either ESA Section 7 and CESA Section 2090 consultation procedures where the appropriate federal or state nexus occurred, or through the ESA Section 10 or CESA Sections 2081/2084 process.

The protection, preservation and conservation of endangered, threatened, candidate species, and other sensitive species and their habitats under ESA, CESA, NCCP and other wildlife acts on a species-by-species basis has resulted in limited success. For SDG&E, such an approach is far too cumbersome and incomplete to adequately identify and conserve the biological and physical resources upon which each such species is dependent. In fact, the implementation of specific protective measures for one species, in the species-by-species/project-by-project approach, may actually cause deleterious conditions to another species. Habitat Conservation Plans, such as the SDG&E Subregional Plan which incorporates comprehensive protection or conservation measures needed for multiple species and their habitat, will most closely approximate an ecosystem conservation approach. It is intended that the biological and physical resources comprising sensitive habitats (ecosystems) be preserved intact to the greatest extent possible. All species within managed habitats will be afforded greater protections than before.

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1.4 Scoping

Applicable Law

Federal

The federal Endangered Species Act (ESA), 15 U.S.C. Section 1531 et seq., provides for the protection and conservation of fish, wildlife and plants which have been listed as threatened or endangered. Activities otherwise prohibited by ESA Section 9 and subject to the civil and criminal enforcement provisions of ESA Section 11 may be authorized for appropriate federal agency action pursuant to ESA Section 7 and for other non-federal actions pursuant to ESA Section 10.

Other federal laws enacted with the intent to protect and conserve Listed Species of fish, wildlife, plants, and their habitats include, but are not limited to, the following:

- The Migratory Bird Treaty Act (including the protective provisions for game and wild birds), The Migratory Bird Conservation Act, and the Migratory Bird Hunting Stamp Act, 16 U.S.C. Section 701 et seq., are intended to protect birds and restore their necessary habitat. Otherwise unlawful activities which may impact such birds or their habitat may be authorized in accordance with applicable regulation, by permit or other entitlement, as appropriate.

- The National Environmental Policy Act, 42 U.S.C. Section 4321 et seq., mandates that federal agencies consider the environmental impacts of their actions, with the intent of avoiding or minimizing any

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such impact prior to conducting federal projects (including the authorization of private projects).

- The Federal Water Pollution Control Act, 33 U.S.C. Section 1251 et seq., provides for certain protections to wildlife relating to the discharges of pollutants into the waters of the United States.

State

Similarly, the California Endangered Species Act (CESA), California Fish and Game Code, Section 2050 et seq., provides for the protection and conservation of fish, wildlife and plants which have been listed by the State of California as threatened, endangered, or as candidate species. Activities prohibited by Section 2080 and subject to the civil and criminal enforcement provisions of Section 12000 et seq., may be authorized for appropriate state actions pursuant to CESA Section 2090 et seq. and for other persons pursuant to CESA Sections 2081 and 2084.

Other state laws enacted with the intent of protecting and conserving fish, wildlife, plants, and their habitats include, but are not limited to, the following:

- Fish and Wildlife Protection and Conservation, California Fish and Game Code, Section 1600 et seq., requires that state agencies, public utilities, and other persons notify CDFG before conducting any project which may adversely affect aquatic habitats of fish or wildlife.

- Native Plant Protection Act (NPPA), California Fish and Game Code, Section 1900 et seq., is intended to preserve, protect and enhance endangered or rare native plants.

- Natural Community Conservation Planning Act (NCCP), California Fish and Game Code Section 2800 et seq. authorizes agreements between CDFG and any person for the comprehensive management and conservation of habitat and multiple wildlife species and permit, as appropriate, as a part of such plan, the Incidental Taking of Listed Species and candidate species under Sections 2830 and 2835.

- California Environmental Quality Act (CEQA), California Public Resources Code Section 21000 et seq., is intended to require state agencies to consider environmental qualitative factors, including the conservation of fish, wildlife and plant species and the preservation of representations of all plant and animal communities for future generations prior to conducting any project.

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Pursuant to ESA Section 10(a), USFWS may issue permits, under such terms and conditions as the Secretary may prescribe, for acts otherwise in violation of ESA Section 9 to enhance the propagation or survival of any affected species or for the taking of any species incidental to an otherwise lawful activity. Further, for threatened species, the Secretary may issue such regulations as necessary to provide for the conservation of such species under ESA Section 4(d). Similarly, CESA Section 2081 enables CDFG to grant management authorization for the take of threatened, endangered or candidate species subject to such terms and conditions as it may prescribe. NCCP authorizes CDFG to enter into agreements with any person to develop and implement a natural community conservation plan to provide comprehensive management and conservation of multiple wildlife species and their habitat. Any such plan may authorize the taking of candidate, threatened or endangered species whose protection and conservation is provided for in any such plan pursuant to NCCP Sections 2830 and 2835.

1.4.2 Coordination

As a result of urbanization, agriculture and other development, the amount of habitat remaining to support Covered Species is rapidly dwindling. The effective protection, preservation and conservation of Covered Species is dependent upon the implementation of effective and properly functioning conservation plans for the habitats and ecosystems essential to the survivability of such species.

Habitat Conservation Plans are now being prepared by various local governments or government entities within the Subregional Plan Area such as the City of San Diego's Multiple Species Conservation Program, San Diego Association of Governments' Multiple Habitat Conservation Program, the County of San Diego's Multiple Habitat Conservation and Open Space Plan, and the South Orange County NCCP Subregional Plan.

Local land development is regulated by local government through enactments of land use, zoning and permitting ordinances pursuant to their police powers derived from the California Constitution. Local Habitat Conservation Plans will be adopted, implemented and enforced pursuant to these same laws. Persons whose development activities fall within the jurisdiction of these local governments will then be authorized to take species/habitats caused by their activities. Local government authority to take species/habitat comes from the issuance of take authorization issued by USFWS and CDFG, pursuant to the State and Federal ESA and the NCCP. Developer compliance will be supervised by local government, USFWS, and CDFG.

SDG&E's land use Activities, the regulation of such Activities, and its Subregional Plan, are unique. The California Constitution, through Article

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XII, created and empowered the CPUC with the exclusive jurisdiction to regulate the affairs and operations of public utilities. Pursuant to Section 8 of Article XII, the enactments of local governments which attempt to regulate public utility operations, in matters over which the CPUC has the power to regulate, are invalid.

The CPUC's exclusive jurisdiction to regulate public utilities recognizes the statewide interest in preserving for the benefit of the State's citizens uniform, safe, and reliable utility service. Were the converse true, and if local governments were allowed to regulate the activities of public utilities, public utilities would be subject to a mosaic of divergent local requirements from as many local governments as there are in the Subregional Plan Area. SDG&E serves a statewide interest.

This Subregional Plan and the Habitat Conservation Plans govern different activities and different persons, often in the same area. The identified Activities in the Subregional Plan are regulated by various state agencies, primarily the CPUC, while the activities identified in the Habitat Conservation Plan are subject to local regulation. In effect the Subregional Plan, governing Activities serving a statewide interests, acts as an overlay across areas also covered by Habitat Conservation Plans, thereby governing activities of municipal concern. As a result of the cooperative efforts of various local governments and public bodies within San Diego, Orange, and Riverside Counties, a reserve of habitat is being established which includes reserve core areas, narrow endemic reserves, and connecting corridors. These reserve areas would be managed primarily for listed plants and animals, with a varying goal of maintaining at least 60 - 90% of the natural lands as high quality habitat, depending on the subregional plan and jurisdiction. The corridors are designed to maintain connections between the primary reserves and to support supplemental populations between reserves. This Subregional Plan is designed to be consistent with the local habitat conservation plans and the overall preserve planning effort.

1.4.3 Activities Covered by Plan and Those Requiring Further CEQA/NEPA Coverage

There are two broad categories of activities covered in the Plan: Operation and Maintenance (O&M) and new construction. O&M pertains to existing facilities and does not require permits; therefore, CEQA/NEPA review is also not required. The Plan recognizes that O&M activities can, at times, have impacts. To mitigate for O&M impacts the Plan contains an extensive list of field protocols designed to minimize disturbance to habitat. The company has also committed to allow use of selected transmission rights-of-way for wildlife corridors. This use of rights-of-way for corridors is specifically intended to mitigate O&M activities and nothing else.

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New construction may be subject to CEQA pursuant to the Public Utilities Commission (PUC) rules, in particular the new General Order 131-d. This Plan is intended to cover typical expansions of the system needed to serve new load, insure reliability, modernize older less efficient facilities, underground existing overhead lines, and to comply with new safety, air, and water quality standards, as well as other retrofits imposed by new government regulations. Those aforementioned activities that would normally be addressed by CEQA will still be subject to CEQA.

This Plan is not intended to exempt such projects from CEQA or NEPA, should the State or Federal Act pertain.

The Plan covers the following activities, as well as, estimates and defines the mitigation which may be required for the biological impacts of the installation, use, maintenance, and repair of the existing gas and electric system and typical expansions to that system. These activities are required to provide adequate, reliable, and safe service to existing customers and to meet the demands of new growth. The Plan does not cover extraordinary expansions to SDG&E's gas and electric system. The Plan also covers biological impacts (within the boundaries of the Plan area only), associated with new electric transmission lines including interconnections that do not project more that 30 miles outside of SDG&E's service territory (200 kV and less), Rainbow to Santee natural gas transmission pipeline, new gas transmission lines under 30" in diameter and less than 20 miles in length, new substations and regulator stations with habitat impacts under 20 acres, and new natural gas compressor stations with habitat impacts under 10 acres. Projects not covered by the Plan will be evaluated on a case-by-case basis, but will be evaluated by the standards set forth in this plan.

Since the future cannot be accurately predicted, the Plan allows for up to 400 acres of impacts in natural areas before requiring a Plan amendment. However, based on current technology, construction methods and standards, population forecasts, and local agency General Plans, the Plan anticipates only 124 acres of grading impacts in natural areas as a result of typical expansion and maintenance activities over the next 25 years (areas which are "natural" are not paved and do not contain ornamental landscaping or otherwise urbanized uses). Impacted areas may be home to one or more of the 110 species covered by this Plan. To mitigate these impacts, the Plan provides the following forms of mitigation:

- The most important mitigation measure is avoidance of impacts whenever possible. To accomplish this, new Operational Protocols for working in the field were developed. There are 61 protocols, all listed in Chapter 7 of the Plan. In addition, field crews attend a series of on-going classes on how to behave and operate construction and maintenance equipment in environmentally sensitive areas.

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- Certain fee-owned rights-of-way will be available for use as wildlife corridors in order to connect the region's conservation areas. SDG&E will also allow the use of certain rights-of-way held in easements for such corridors with the consent of the underlying land owner.

- Mitigation Credits of approximately 240 acres will be established upon commencement of the Subregional Plan. The credits will be debited to mitigate for actual impacts as projects are realized. The wildlife agencies will determine the extent and quality of any impact. If needed, the Mitigation Credits will be replenished by additional land conveyance.

- Restoration and enhancement are also available as mitigation measures, sometimes instead of debits to the Mitigation Credits, and other times in addition to such debits. Restoration will be used in some cases regardless of other forms of mitigation.

1.4.4 Term of Plan

The Plan covers a term of 25 years with options for renewal. Involved parties agreed that 25 years should be the maximum term because of possible major changes in technology, development patterns, and projections and legislation affecting land use and the environment. After 25 years, the Plan will be reevaluated, and, if appropriate, extended. The Mitigation Credits will be replenished as needed.

The program anticipates approximately 124 acres of Covered Species habitat will be temporarily or permanently impacted under this program. A maximum of 400 acres of Covered Species habitat could be temporarily or permanently impacted under the 10(a) permit for this program.

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2 Proposed Actions

2.1 Maintenance and Construction Activities

SDG&E constructs new utility infrastructure on an ongoing basis to maintain uniform, adequate, safe, and reliable electric and gas service. SDG&E also conducts maintenance and repair activities on existing Facilities. Typical construction, maintenance and repair activities for each type of Facility are described in this section. Operational Protocols to be used by SDG&E field personnel to avoid and minimize the potential impacts of installation, maintenance and repairs for each type of facility are contained in Section 7.1[2]

2.1.1 Overhead Facilities

Overhead Facilities are utilized in the transmission and distribution of electricity. Generally, overhead conductors (wires) are supported by wood or steel poles, or by steel lattice towers.

2.1.1.1 New Overhead Facility Alignment

New overhead facilities will, to the extent possible, be designed to minimize habitat fragmentation and disruption of wildlife movement and breeding areas. This will be accomplished by avoiding siting of Facilities in habitat and by utilizing dead-end/spur roads rather than linking facilities tangentially, to the extent possible[3]. When

[2] Extensions of SDG&E gas and electric transmission and distribution facilities provided to serve a particular customer constitute a project of that customer and are not subject to this Subregional Plan, the Implementing Agreement, or the Permits.
[3] "to the extent possible" means without violating CPUC standards or jeopardizing the structural and operational integrity of the facility

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facilities must be sited in undisturbed or habitat areas, they will, to the extent possible, be sited in lower quality habitat (See Figure 4).

2.1.1.2 Placement of Structures

Steel lattice towers are installed using concrete foundations. Wood poles are installed using direct burial or concrete foundations. Maintenance will be performed and repairs may be required to restore structural integrity or inadequacies in a foundation or transmission structure caused by erosion or other occurrences.

2.1.1.3 Placement of Electrical Equipment on Structures

Towers and poles support a variety of electrical equipment including insulators and conductors. Insulators are attached directly to poles, or to arms mounted on the structures. The insulators are installed by workers who climb the structure or access the structure in bucket trucks. Once the insulators are installed, a helicopter is often used to install a small rope. The small rope is used to pull in a bigger rope or cable which is then used to pull in the conductor.

2.1.1.4 Insetting Poles

"Pole insetting" places poles in-line between existing structures. The new poles provide additional strength to support new or heavier conductors. The new poles are also used to achieve necessary wire clearances. Insetting is an effective method of fully utilizing existing electric line structures and alignments which often defers the need for new structures, lines and alignments.

2.1.1.5 Equipment Repair and Replacement

Poles or towers may support a variety of equipment such as conductors, insulators, switches, transformers, lightning arresters, line junctions, and other electrical equipment. This type of equipment may need to be added, repaired, or replaced in order to maintain uniform, adequate, safe, and reliable service. Due to damage, changes in conductor size, or the like, an existing transmission structure will be removed and replaced with a larger/stronger structure at the same or nearby location.

2.1.1.6 Pole Anchors and Stubs

Anchors, guy wires, and stubs are used to support poles. Generally one end of a guy wire attaches to the upper portion of a wood pole. The other end attaches to the top of a stub or to an anchor buried in the ground. These anchors

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can be in or out of alignment with the pole line. In order to maintain pole stability, new anchors or stubs, replacement anchors or stubs may be needed. Stubs can either be made of wood or steel and sometimes require concrete foundations.

2.1.1.7 Insulator Washing

In some areas prone to atmospheric moisture, condensation combines with dust on porcelain insulators can create an electrical discharge. This discharge, known as "arcing", poses a significant risk of service outages. This risk can be substantially reduced by periodic washing of the insulators. The process of washing insulators involves driving a water truck to within 60 feet of the facility. A high pressure hose is used to spray water at the insulator.

2.1.1.8 Tree Trimming

Tree trimming plays a critical role in maintaining reliable electrical power. Tree limb contact with electrical lines is a potential cause of power outages and is also a source of possible ignition and as such a potential fire hazard. Constant vigilance in tree trimming practices, regardless of habitat type, is necessary to maintain proper line clearances.

2.1.1.9 Use of Helicopters

Helicopters are used in the visual inspection of overhead facilities. Each electric transmission line is inspected several times a year via helicopter. Helicopters are also occasionally used to deliver equipment, position poles and towers, string lines and position aerial markers as required by Federal Aviation Administration regulations.

2.1.2 Underground Facilities

Underground Facilities are primarily utilized in the transmission and distribution of natural gas. Conduit containing electrical conductor may also be placed underground. New electric distribution lines are almost always placed underground in public streets.

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2.1.2.1 New Underground Facility Alignment

New underground facilities will be designed to minimize habitat fragmentation and disruption of wildlife movement and breeding areas by avoiding siting facilities in habitat and by utilizing dead-end/spur roads to the extent possible. When facilities must be sited in undisturbed areas, they will, to the extent possible, be sited in lower quality habitat.

2.1.2.2 Underground Facility Access

Underground Facilities are regularly inspected visually and mechanically for any conditions which can potentially impair their function. Inspections involve driving along the top of/or parallel to the underground Facility. Access roads from public streets are utilized to reach the underground alignment. Access road maintenance is therefore a key component in installing, maintaining and inspecting underground Facilities.

2.1.2.3 Protection of Underground Facilities in Waterways

Underground infrastructure may cross a variety of shallow waterways ranging from blue-line streams designated on United States Geological Service maps to agricultural irrigation ditches. When the integrity of the Facility is threatened due to scouring, measures to protect the Facility and to minimize future erosion must be taken. Typical maintenance activities utilized to protect the underground Facilities include grading, addition of fill material to repair erosion damage, repair of adjacent slopes with placement of rip-rap or concrete, compaction of soil, vegetation control of species with invasive root structures, and other activities as necessary. These measures may be accomplished by hand or by equipment or machinery. Vegetation is allowed to grow over the underground Facility where it will reduce erosion by wind and water, and stabilize the soil.

2.1.2.4 Trenching

Trenching is required in order to install, replace, reposition, or repair underground Facilities. The width of the trench is dependent on the depth of the underground Facility and the stability of the side slopes. Underground Facilities are typically buried 3' to 5' deep. Facilities which are buried over 5' deep require side slopes of 1:1 or the use of shoring.

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2.1.2.5 Line Markers

Underground infrastructure installed on private property or out of the public right-of-way is marked above the ground through a variety of methods, including "Transmission Line Markers" (paddle-shaped markers attached at eye level to steel posts). In addition to marking the location of the underground facilities, the markers contain safety warning messages for digging contractors and the general public. Underground alignment occasionally runs perpendicular to a waterway or other terrain which prevents walking or driving along the alignment for inspection purposes. In these instances, a line-of-site free from vegetation from marker to marker must be maintained for visual inspections at a distance.

2.1.2.6 Use of Helicopters and/or Fixed Wing Aircraft for Visual Inspection

Gas transmission lines are inspected by ground patrol or from the air.

2.1.3 Other Ground Disturbance

Many types of ground disturbance are necessary in order to install, protect, maintain and repair Facilities. These types of disturbances generally occur in, but are not limited to, the utility rights-of-way and existing access roads.

2.1.3.1 Access Roads

Access roads comprise part of SDG&E's Facilities. Cost-effective and efficient installation, maintenance, and repair of its Facilities depend upon the availability of adequate access roads. Most gas and electric transmission facilities, and some distribution facilities, require access roads. New access roads will, to the extent possible, be designed to minimize habitat fragmentation and disruption of wildlife movement and breeding areas through the utilization of dead-end/spur roads rather than linking facilities tangentially. When new access roads must be sited in undisturbed areas, they will, to the extent possible, be sited in lower quality habitat (See Figure 5).

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2.1.3.2 Access Roads Crossing Waterways

Access roads may cross a variety of shallow water ways ranging from blue-line streams designated on United States Geological Service maps to agricultural irrigation ditches. Culverts may be added when utilization of an unculverted access road would alter the natural flow of a waterway. When the integrity of the access road is threatened, the culverts will be kept clear of vegetation, sediment, and debris to protect the access road. Sediment deposited in the area will be removed by hand or through the use of earth moving equipment. Other construction and activities include bank stabilization and repair of subsidence damage. These activities may be accomplished through the placement of rip-rap and through the use of earth moving equipment within the access road area.

NOTE: A Streambed Alteration Agreement is still required from CDF&G, however, no additional biological mitigation other than what is defined by this Plan shall be required for Covered Species. Refer to Implementing Agreement and clearance by ACOE/404 permit.

2.1.3.3 Slopes

Cut and fill slopes are constructed to create pads/foundations for utility structures or access roads. Slopes may require erosion repair.

2.1.3.4 Staging & Other Work Areas

Staging areas are for the temporary storage of large construction equipment and materials used in construction, maintenance, and repair activities. They can also serve as equipment turn-around areas, wire pulling sites, equipment parking areas, component assembly areas, equipment laydown areas, equipment and material storage sites, and temporary soil stockpile sites.

2.1.3.5 Geotechnical Remediation

Geotechnical remediation is necessary when geotechnical failure which may threaten the integrity of a Facility such as an electrical structure or a pipeline is imminent or has occurred.

2.1.3.6 Geotechnical Testing

Geotechnical tests are conducted to determine soil stability, depth of water table, engineering design values, and for the presence of hazardous waste. Testing may involve sample drilling, monitoring wells, excavation pits, or trenches.

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Access roads are required for this equipment over existing or potential project sites.

2.1.3.7 Pest Control

Pest control at electric and gas facilities is necessary to ensure system integrity. Facilities requiring pest control are electric substations, gas regulator stations, gas valve boxes, and utility equipment yards (pest control is not necessary within electric transmission rights-of-way). Non-native rats, mice, and other rodents have been known to cause electrical shorts within substation transformers, eat through gas metering equipment, and eliminate the effectiveness of gas valve boxes. Fortunately, SDG&E facilities are not normally attractive to these pests. Therefore, a limited program of pest control is able to keep the rodent population down. Pest control is more common to facilities located adjacent to urbanized areas where food is more plentiful. When necessary, pest control measures will be used in accordance with the written recommendation of a licensed, registered Pest Control Advisor. Pesticides will only be applied by a licensed applicator in accordance with label precautions and applicable law in a manner that does not harm native plants or animals.

2.1.3.8 Fire Control Areas

A clearing of 10 feet in any direction, measured horizontally, from the outer circumference of any pole or tower is needed for construction and is required by law to be maintained for fire protection after construction. This clearing forms an imaginary cylindrical space surrounding each pole or tower. At ground level, all flammable materials that will propagate fire are removed. Within such 10' radius and to height of to 8' from the ground, dead or dying trees or foliage, or the dead, diseased, or dying limbs or foliage are removed. Where such trimming results in the removal of more than 50% of any such tree or foliage to meet fire safety requirements, such tree or foliage is entirely removed. These fire control measures can aid in the prevention of fire caused by arcing and can protect the Facilities from failure due to a fire in a surrounding area. Areas cleared of vegetation are also required around gas line valve complexes and cathodic test stations for fire protection.

2.1.3.9 Vegetation Control

Vegetation must be controlled on access roads, road shoulders, drainage structures, around transformers,

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buildings, fuel tanks, switch and transformer yards, substations, regulator stations, and other Facilities. Vegetation is controlled to facilitate the construction and use of roads, to allow inspection and maintenance of infrastructure and Facilities, to expose hazards such as ruts to drivers, eliminate noxious weeds, prevent fires, and to provide safe working areas.

2.1.3.9.1 ***Mechanical Removal***

The simplest method of removing vegetation is by hand, such as the removal of isolated large shrubs or trees growing in areas where the roots could damage Facilities or where vegetation size restricts visual inspection. Raking is a means of removal usually used only to gather debris in preparation for disposal. Mowing will be used to control vegetation where low vegetation is desirable for erosion control. Clearing an area of vegetation by grading will also be used where no other means are appropriate.

2.1.3.9.2 ***Herbicide Spraying***

Herbicide spraying, although not commonly employed by SDG&E, may be used around buildings and where bare ground is required for fire control. Herbicide spraying will not be conducted where it will damage known populations of Covered Species of plants. The typical regimen for herbicide use includes the application of pre-emergent herbicides during the fall and winter and spot application of contact herbicides during the growing season. All herbicides will be applied by a registered applicator in accordance with label precautions and applicable law.

2.1.4 Substations and Regulator Stations

Electric Substations connect the electrical transmission system to the electric distribution system, and reduce the electrical voltage to the distribution system in order to maintain safe reliable electric service. Substations are designed and operated to meet the safety standards required in the CPUC General Order 131-D for electrical systems. Regulator stations connect the natural gas transmission system to the natural gas distribution system, and regulate the

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supply of gas to that distribution system in order to maintain safe, reliable natural gas service. Regulator stations are designed and operated to meet the safety standards required in the CPUC General Order 112-D for natural gas systems. This Plan mitigates up to 20 acres of habitat impacts associated with new substations and regulator stations.

2.1.4.1 Substation and Regulator Siting

To the extent possible, new substations and regulator stations will be sited to avoid natural areas in order to minimize habitat fragmentation and disruption of wildlife movement and breeding areas. When natural areas must be disturbed, facilities will, to the extent possible, be sited in lowest quality habitat. When facilities must be sited in a preserve area they will, to the extent possible, be sited at the outer boundary of the preserve rather than in the center (See Figure 6).

2.1.4.2 Staging and Other Work Areas

The disturbed areas within the property line of a substation or regulator station may be used as a staging area for the temporary storage of large construction equipment used in construction and maintenance activities. This property may also serve as equipment turn-around areas, wire pulling sites, equipment parking, assembly, and storage sites. Staging areas are used for equipment lay-down areas and pads for equipment positioning during construction. This utilization is intended to be temporary.

2.1.4.3 Fire Control Areas

Brush management around substations and regulator stations consisting of a 30'-wide fire break free from natural vegetation is desirable. Fire-control clearances are maintained on a yearly basis.

2.1.4.4 Geotechnical Failure Protection and Remediation

Geotechnical remediation is necessary when geotechnical failure is eminent or has occurred, and threatens the integrity of a Facility such as a substation or a regulator station. Preventative maintenance includes slope reconstruction and the repair or addition of drainage structures and retaining walls. Access is needed to various sites proposed for electrical substations and gas regulator stations for the purpose of obtaining engineering design information on the soils.

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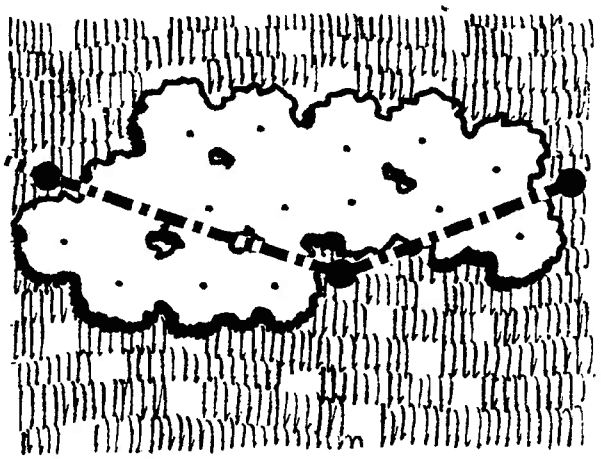

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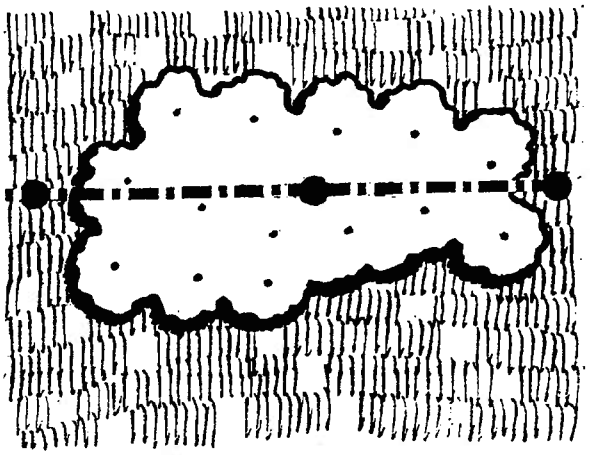

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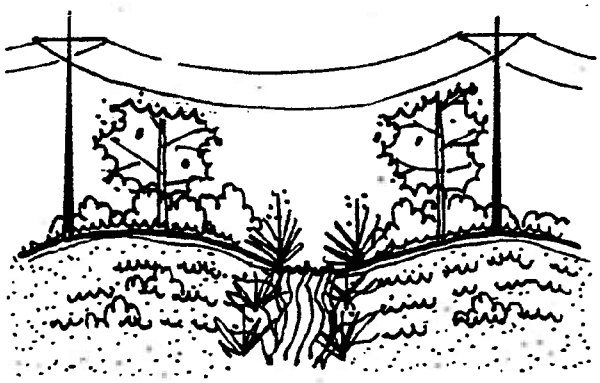
PLACEMENT OF OVERHEAD POLES SHOULD AVOID HABITAT AREAS



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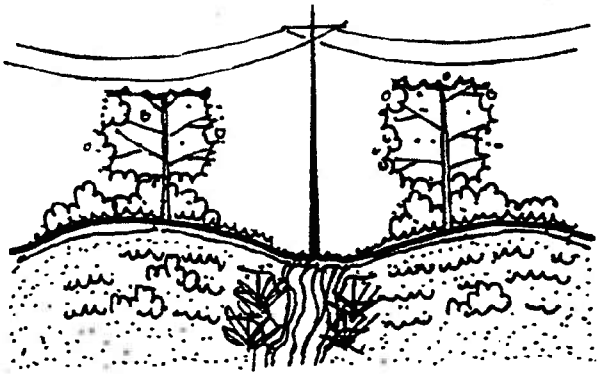

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OVERHEAD POLES SHOULD NOT BE PLACED IN RIVERS, STREAMS, OR CREEKS

FIGURE 4

Operational Protocol Diagrams

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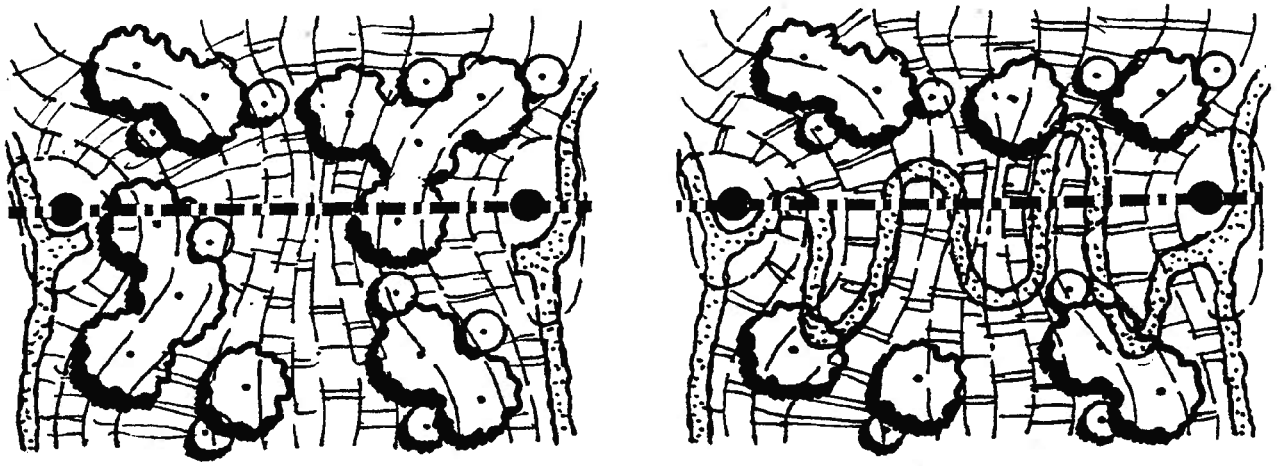

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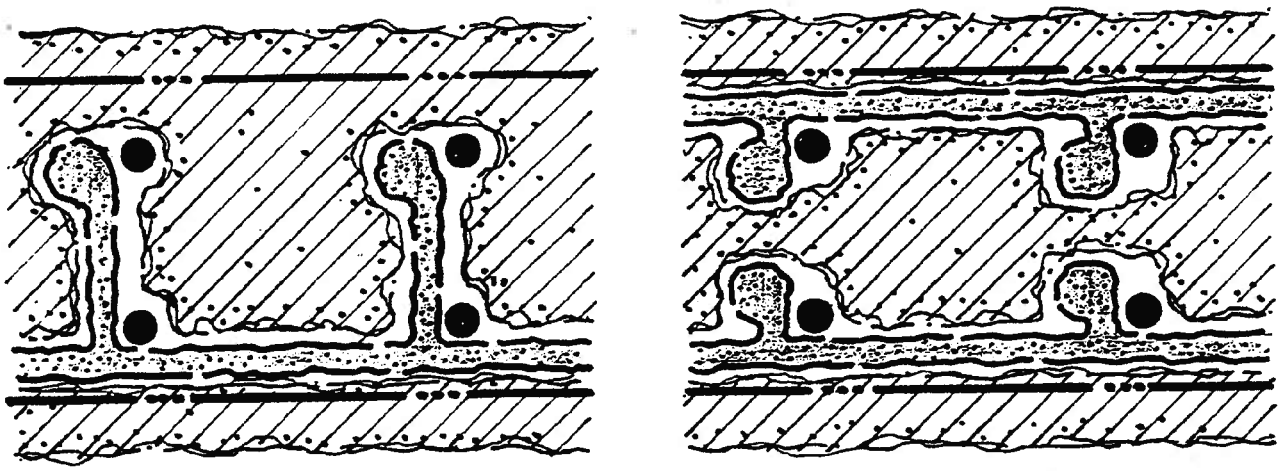
NEW ACCESS ROADS SHOULD AVOID SENSITIVE AND CANYON AREAS



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STUBS FROM EXISTING ACCESS ROADS SHOULD BE USED TO REACH NEW LINES

FIGURE 5

Operational Protocol Diagrams

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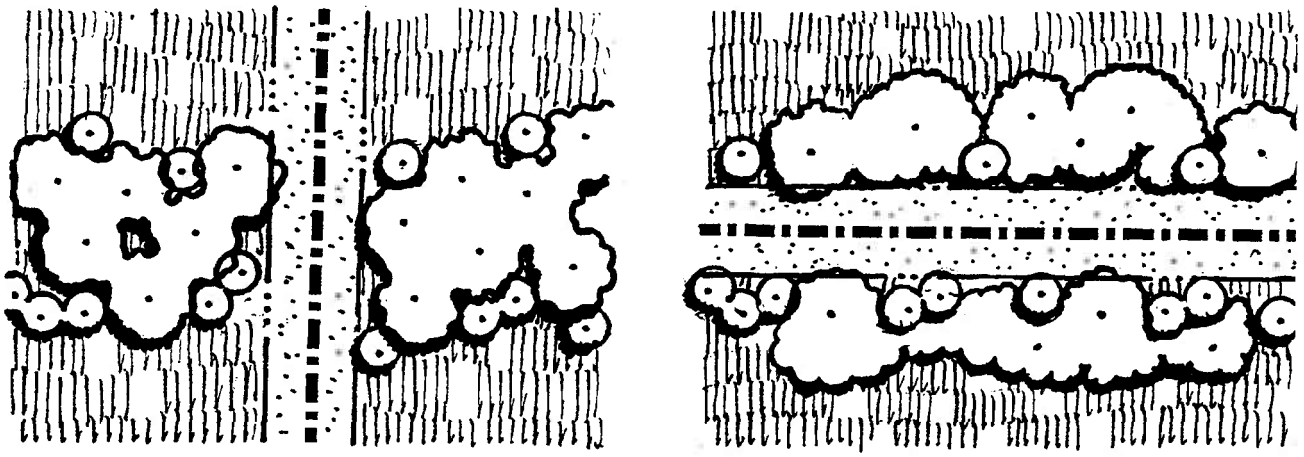
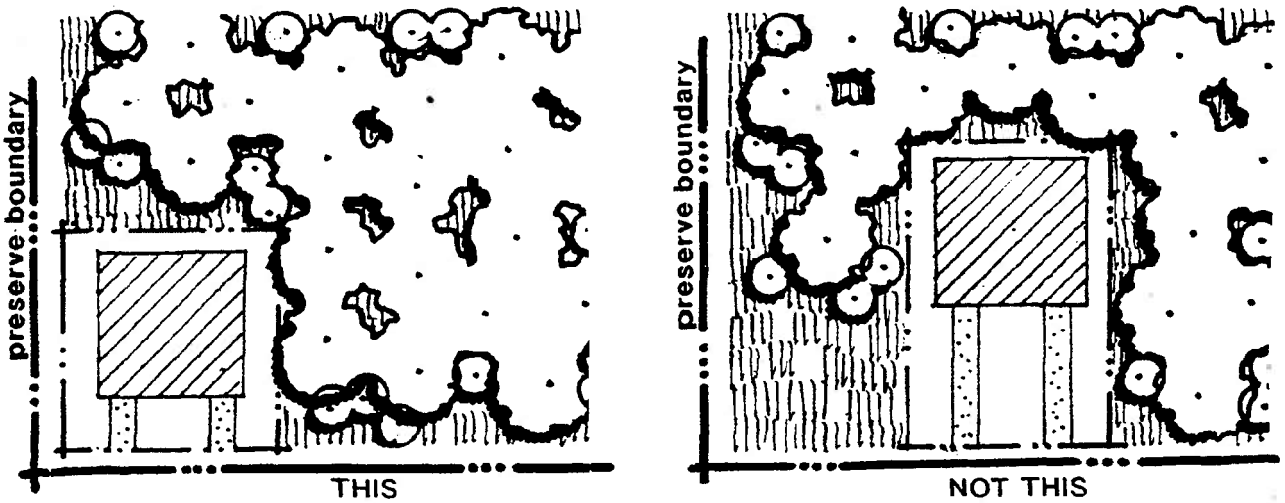


UTILITY LINES SHOULD MAKE PERPENDICULAR CROSSINGS THROUGH HABITAT AREAS



SUBSTATIONS SHOULD BE SITED AT THE EDGES OF HABITAT PRESERVES

FIGURE 6

Operational Protocol Diagrams

2.2 Emergencies

As a result of natural disaster, stochastic factors or vandalism, emergency repairs to Facilities may be warranted. Emergency repairs may also be required to prevent the occurrence of a Facility failure. Conditions in this category are those that potentially or immediately threaten the integrity of the SDG&E system including: broken/leaking pipes, downed lines/poles, slumps, slides, surface fault ruptures, erosion, major subsidence, or other natural disaster. Emergency repairs will be taken immediately as required. As a result, in considering potential impact to Covered Species or their habitat, adjustments for time of day or seasonal constraints may not be possible in the interest of system integrity and public health and safety.

Emergency work will be performed by SDG&E crews and/or contract crews under the direction of SDG&E and in accordance with the Operational Protocols and mitigation contained in Section 7.

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3 Biology

This section describes the biological information used to assess potential impacts of this Subregional Plan. It identifies the habitats that are the subject of the Subregional Plan and provides a description of potential impacts to Covered Species or their habitat caused by Activities.

The biological data utilized in the development of the Subregional Plan are derived from a variety of sources, including a number of conservation programs being prepared by local governments in Southern California. The sources of SDG&E's biological data and information are set forth in Section 3.1.

Table 3.1 lists the species and habitats for which this Subregional Plan is intended to provide protective and conservation measures over the term of the Implementing Agreement.

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3.1 Data Base References

The data bases for the regional conservation programs covering all of San Diego County and parts of Riverside and Orange Counties provide the biological basis for this Subregional Plan. Vegetation and habitat evaluation maps were used to provide the basis for decision-making on potential preserve boundaries. The three habitat conservation planning areas in San Diego are shown on Figure 7.

For the purposes of this Subregional Plan, the term Covered Species is as defined in the Implementing Agreement. Covered Species which are not listed are included because in most cases they will benefit from the habitat conservation actions to protect Listed Species. Furthermore, if any of the unlisted species are listed in the future, they will be protected as a function of the Implementing Agreement associated with the Subregional Plan.

Covered Species are listed in Table 3.1 Figures 3.1a - 3.1i follow Table 3.1 and indicate the approximate locations of selected sensitive species near SDG&E rights-of-way. These figures are to provide a rough indication of potential areas of impact for workers conducting preactivity surveys consistent with the Operational Protocols (see also § 7.1). These maps will be periodically revised as the quality of data improves.

3.1.1 Multiple Species Conservation Program (MSCP)

The biological data base and information which comprise the scientific basis for the City of San Diego's Multiple Species Conservation Program (MSCP) were developed over six years, beginning in 1989. It will be

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updated periodically as the research and monitoring programs which accompany the implementation of the MSCP are carried out. The MSCP covers about 581,000 acres in southwestern San Diego County. The MSCP biological data base was developed by Ogden Environmental in cooperation with the USFWS, CDFG, local jurisdictions in the San Diego, and various consulting and academic biologists. It also relies in part on the California Natural Diversity Data Base and other records of survey. The Subregional Plan is based in part upon this data base. A map of the draft preserve plan area is attached as Figure 8a. The vegetation map is attached as Figure 8b.

3.1.2 Multiple Habitat Conservation Program (MHCP)

This data base was developed under a similar process to the MSCP data base. The study area covers approximately 658,000 acres in the northwestern portion of San Diego County. The vegetation map is attached as Figure 8c.

3.1.3 San Diego County Multi-Habitat Conservation and Open Space Plan (MHCOS)

This data base remains under development, though basic biological information has been gathered on habitat types and other baseline information. This data base is being developed under a similar process to the MSCP data base. It covers the central mountainous section of San Diego County west of the desert. The vegetation map is attached as Figure 8d.

3.1.4 South Orange County NCCP Subregional Data Base

This data base was also developed under a similar process as the MSCP data base. It covers the southern section of Orange County, largely comprising the Rancho Santa Margarita Company property and adjacent conservation lands, and adjoining the Camp Pendleton Marine Corps Base west of Riverside County. A map of the draft plan area is attached as Figure 9.

3.1.5 Riverside County Habitat Conservation Plan (RCHCP)

This database was developed to address the recovery plan for the Stephen's Kangaroo Rat. A small portion of SDG&E's system is in this Plan area. The RCHCP intends to expand its scope into a multi-species program. A map of the draft plan area is attached as Figure 10.

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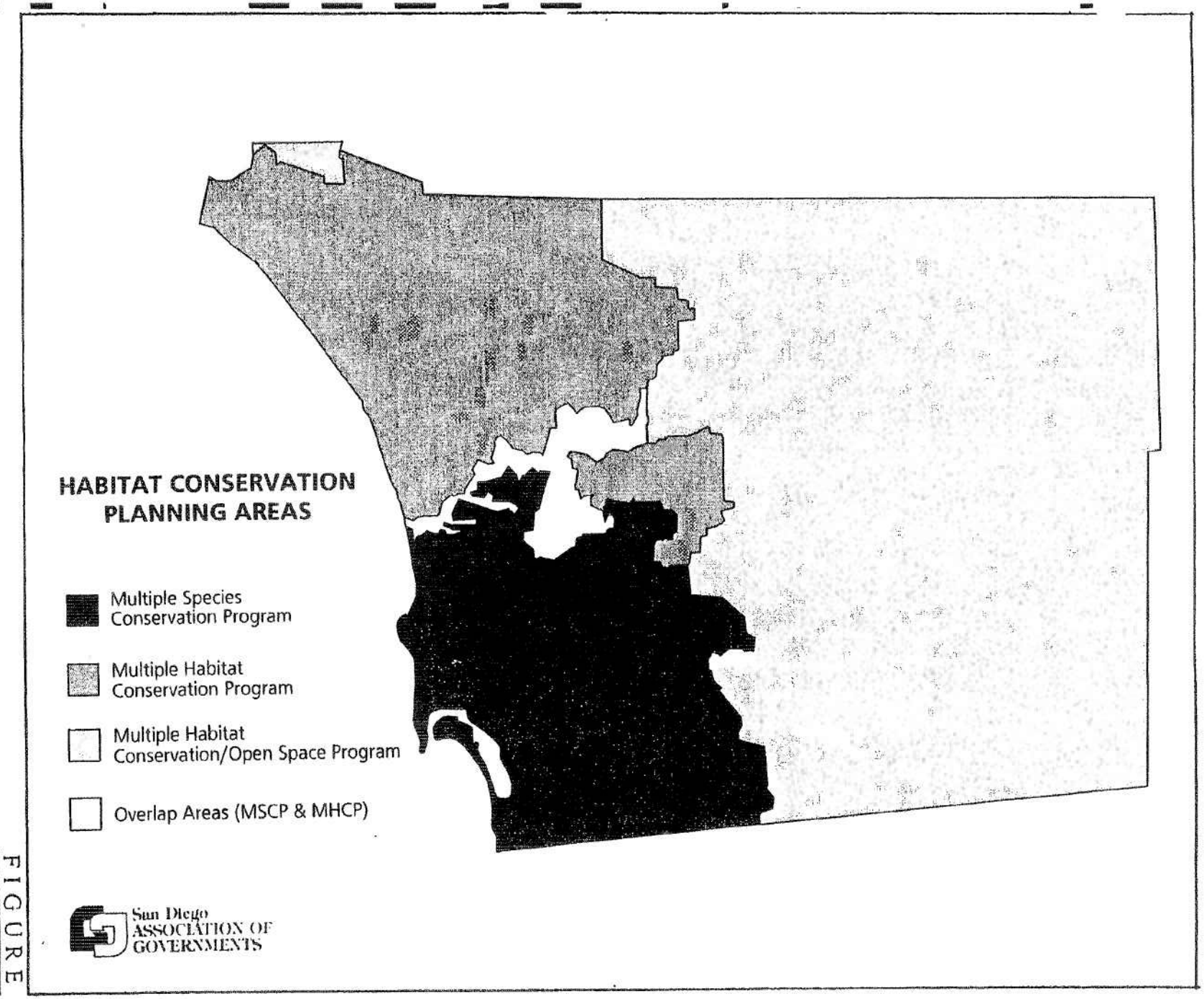
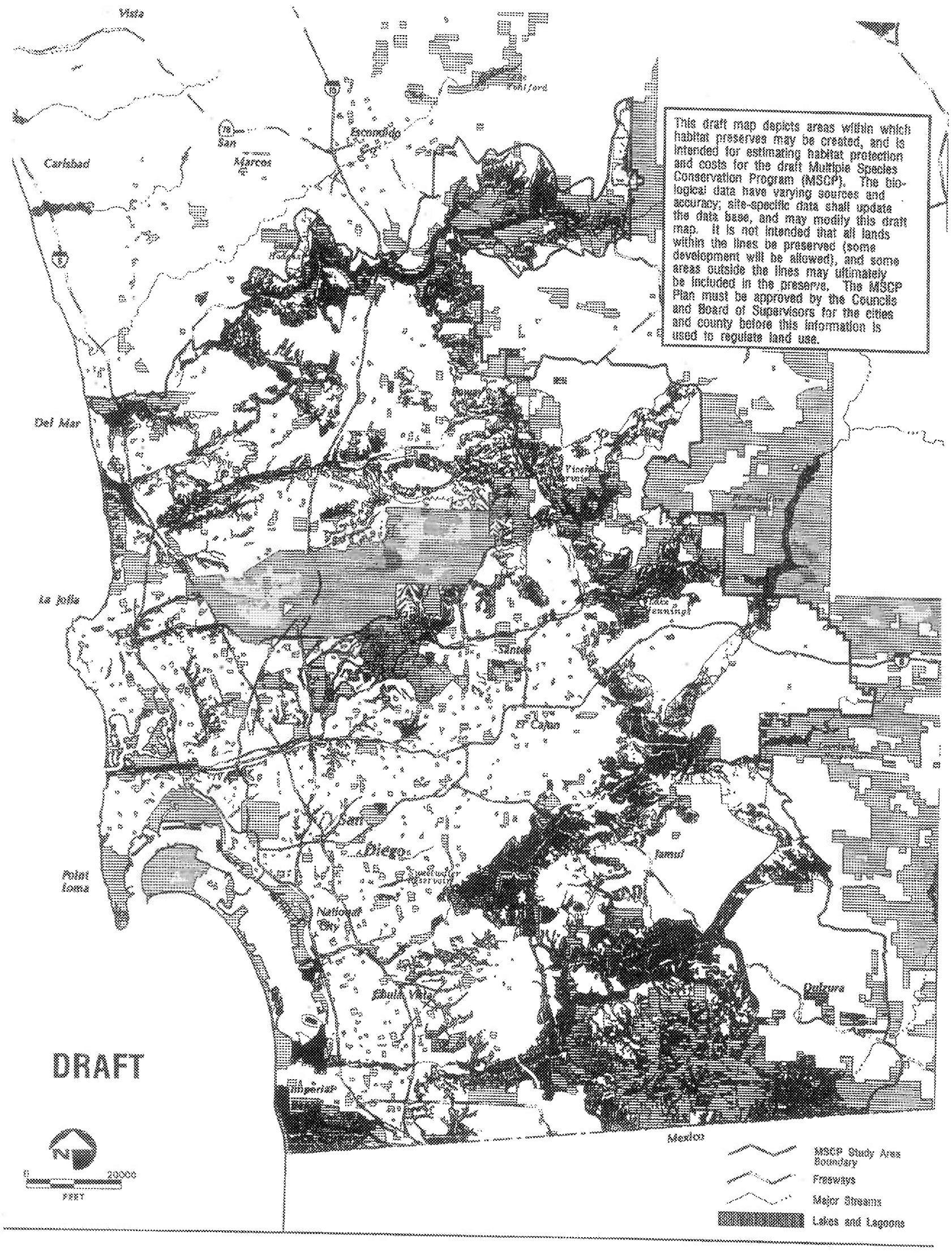


FIGURE 7

SDGE Subregional Natural Community Conservation Program



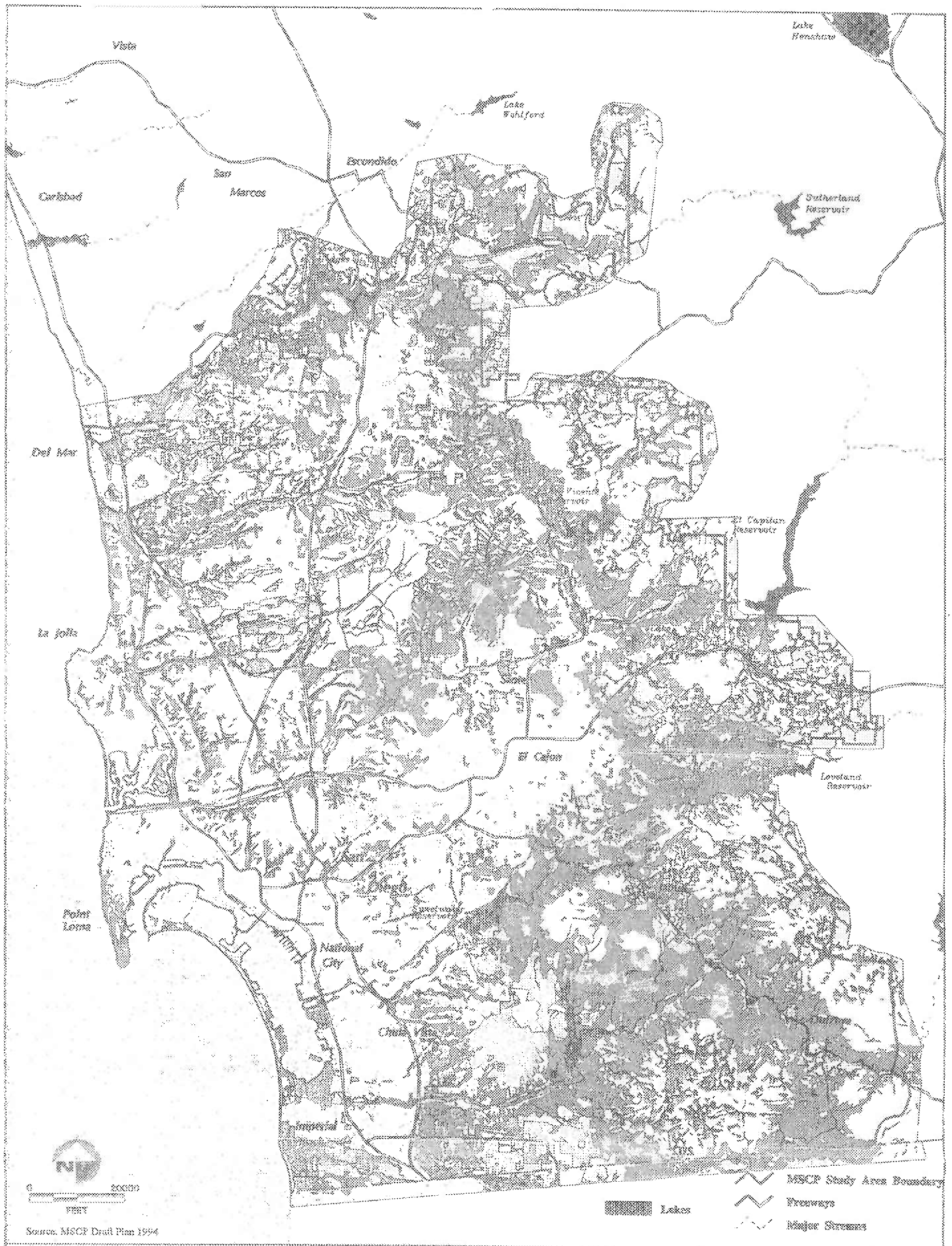
OGDEN

Multiple Habitat Planning Area (MHPA) For The MSCP

FIGURE 8a

SDGE

Subregional Natural Community Conservation Plan



Source: MSCP Draft Plan 1994

Coastal Sage Scrub	Grassland	Coniferous Forest	Developed
Chaparral	Riparian/Wetlands	Beach/Foredunes	Agriculture
Coastal Sage Scrub Chaparral	Oak Woodland	Disturbed Habitat	

Vegetation Communities for MSCP Study Area

FIGURE 8b

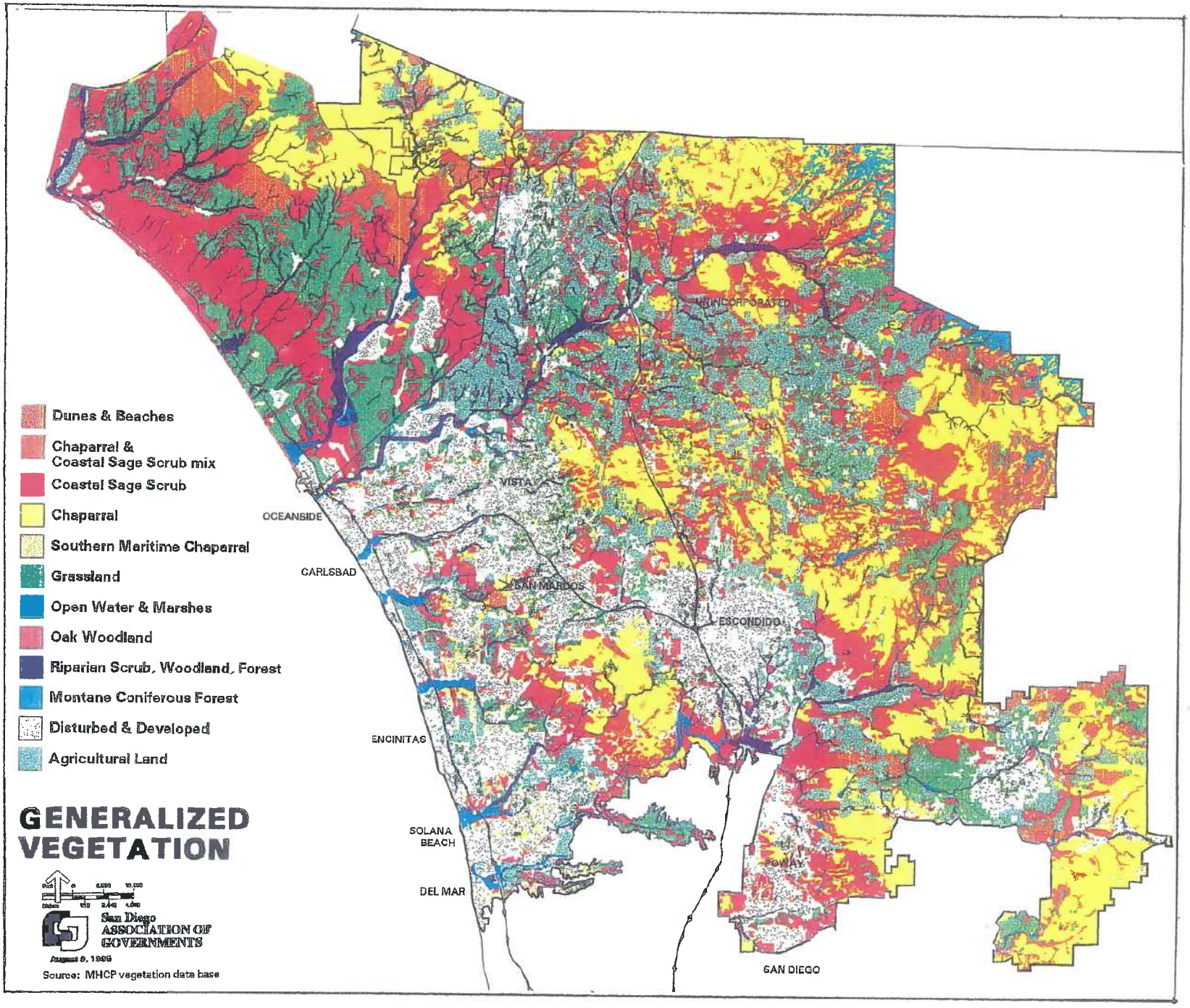
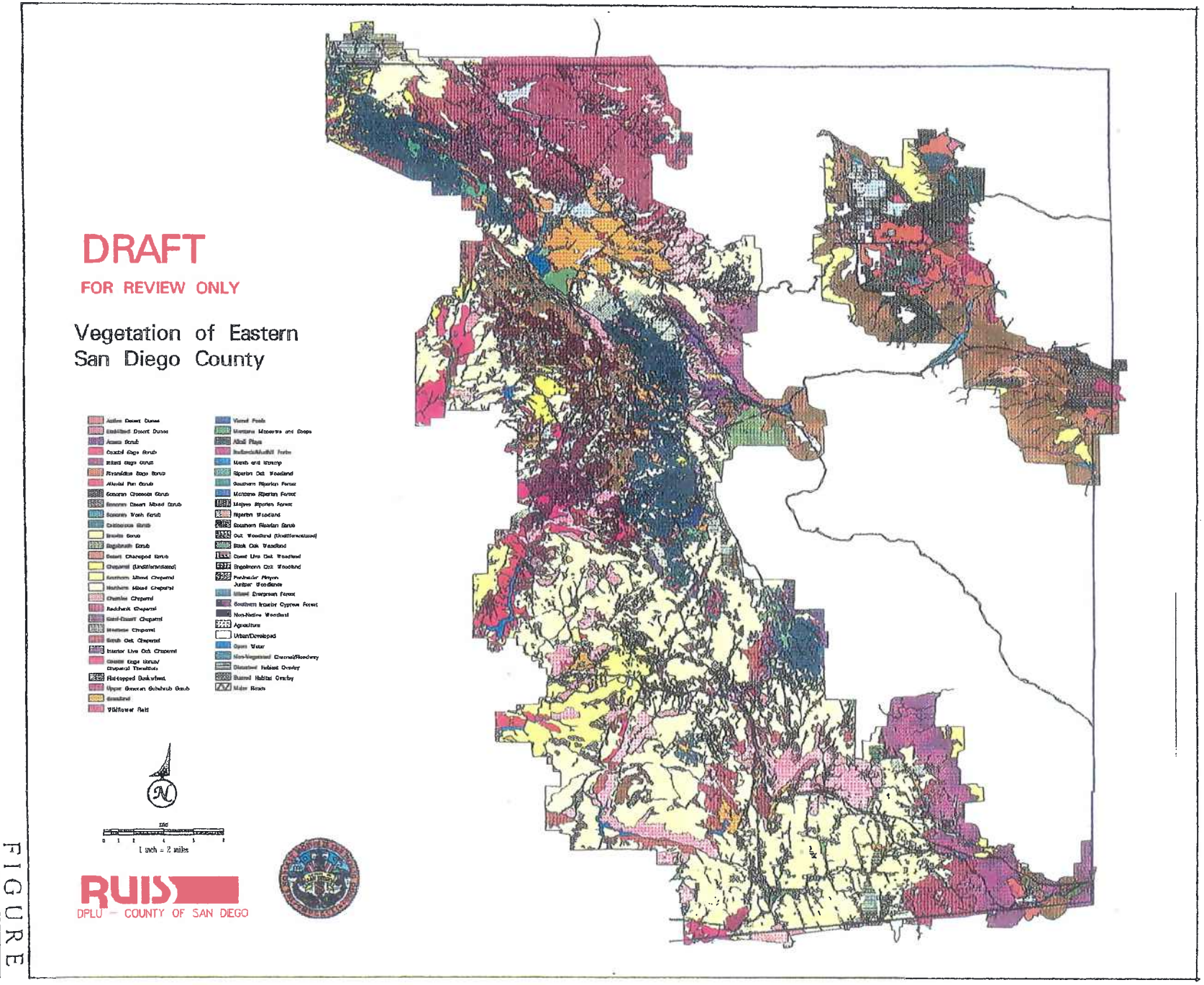


FIGURE 8c

Multiple Habitat Conservation Program MHCP

SDGE Subregional Natural Community Conservation Plan



FIGURE

8d

Multiple Habitat Conservation and Open Space Program MHCOS

SDGE Subregional Natural Community Conservation Plan

ELECTRIC SUBSTATIONS WITHIN POTENTIALLY SENSITIVE AREAS

LEGEND

- Dunes
- Scrub
- Chaparral
- Grassland
- Vernal Pools
- Marsh
- Riparian
- Woodland
- Forest
- Cliff and Rock
- Marine and Coastal
- Lake and Reservoir
- Watercourse
- Agriculture
- Developed
- Disturbed

Gnatcatcher

Cactus Wren

Existing Arterials

Planned Arterials

Cleveland National Forest Boundary

SAN DIEGO FREEWAY

PACIFIC OCEAN

INDICATES EXISTING SDG&E ELECTRIC TRANSMISSION RIGHT-OF-WAY

Source: Orange County Southern Subregional NCCP Database

SCALE IN FEET

1 INCH = 8400 FEET

Orange County Southern Subregion NCCP

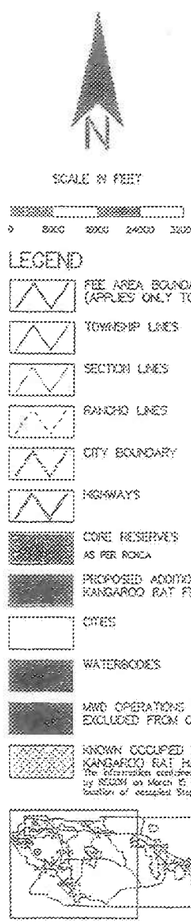
FIGURE 9

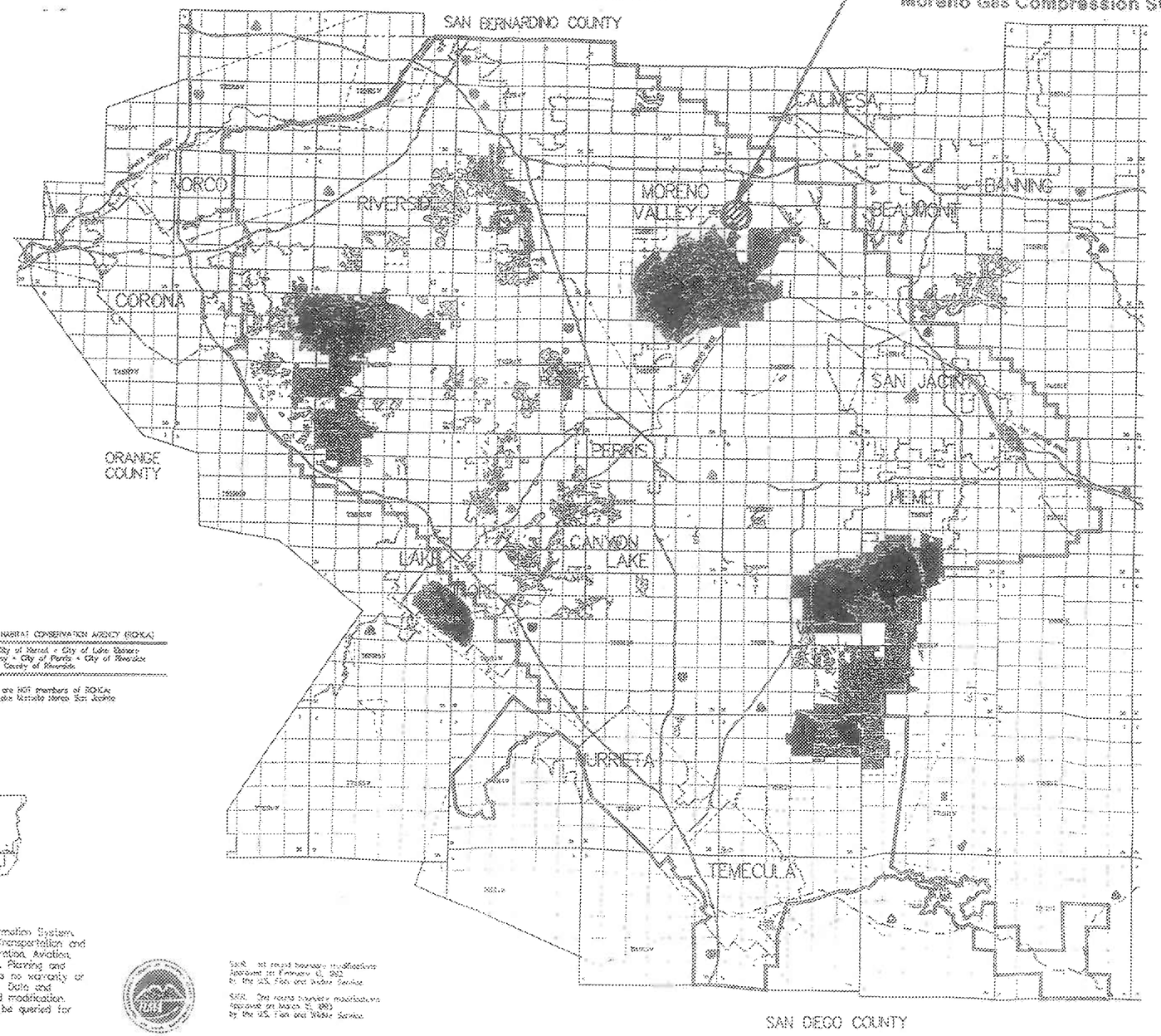
SDGE

Subregional Natural Community Conservation Plan

RIVERSIDE COUNTY HABITAT CONSERVATION AGENCY

FEE AREA – CORE RESERVES





June 02, 1994

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SAR: 50 mapped boundary modifications approved on February 0, 1992 by the US Fish and Wildlife Service

SAR: 250 more boundary modifications approved on March 31, 1993 by the US Fish and Wildlife Service

FIGURE 10

Riverside County Habitat Conservation Plan

Subregional Natural Community Conservation Plan

SDGE

TYPES OF HABITAT WITHIN SUBREGIONAL PLAN AREA

- *Southern Foredunes*
- *Southern Coastal Bluff Scrub*
- *Maritime Succulent Scrub*
- *Coastal Sage Scrub*
- *Alluvial Fan Scrub*
- *Chaparral*
- *Southern Maritime Chaparral*
- *Coastal Sage/Chaparral Mix*
- *Grassland*
- *Meadow/Seep*
- *Southern Coastal Salt Marsh*
- *Alkali Marsh*
- *Freshwater Marsh*
- *Coast Live Oak Riparian Forest*
- *Riparian Forest*
- *Riparian Woodland*
- *Riparian Scrub*
- *Open Oak Woodland*
- *Open Engelmann Oak Woodland*
- *Dense Engelmann Oak Woodland*
- *Coast Live Oak Forest*
- *Black Oak Forest*
- *Torrey Pine Forest*
- *Mountain Conifer Forest*
- *Coulter Pine Forest*
- *Big Cone Spruce*
- *Jeffrey Pine*
- *Eucalyptus Forest*

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- ***Tecate Cypress Forest***
- ***Inland Water***
- ***Shallow Bays***
- ***Disturbed Wetlands***
- ***Non-Vegetated Floodchannel***
- ***Beach-Saltpan***
- ***Disturbed Habitat***
- ***Agricultural***

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MITIGATION

I. Scrub & Chaparral Species

See Protocols (Section 7.1) and Habitat Enhancement Measures (Section 7.2)

II. Grassland Species

Native grasslands: Over gas lines, same as vernal pool, except remove bunch grasses and replant, otherwise span with distribution and transmission lines.

Non-native grasslands: See Protocols (Section 7.1) and Habitat Enhancement Measures (Section 7.2).

III. Beach, Marsh, and Wetland Species

Construction in marsh areas, soft sand, or open water in most cases will be accomplished through the use of helicopters for the delivery of materials, poles, personnel, and platforms. Roads should be avoided to the extent feasible.

IV. Narrow Endemic Species

Take of certain narrow endemic Covered Species is to be avoided. Take authorizations for these species will be limited to emergencies and unavoidable impacts from repairs to existing facilities. The first priority is avoidance, if impact is unavoidable, then state-of-the-art conservation practices will be utilized to determine best mitigation method consistent with Operational Protocols. For repairs to existing facilities which could result in an impact, a biologist would be called in. Take of the "species to be avoided" may not occur for non-emergency repair work without first conferring with the USFWS and CDFG. For new projects, kill or injury of such animal species or destruction of such plants or their supporting habitat would not be covered by the Plan and Implementing Agreement.

V. Riparian Species

See Protocols (Section 7.1, especially 7.1.7)

VI. Forest Species

See Protocols, same as Riparian (Section 7.1, especially 7.1.7)

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VII. Open Water Species

When working in open water: Typically, a wooden platform is fabricated on dry land then delivered by helicopter. The platform, in two pieces, has a 1/2 circle for the pole cut into the edge of each. The platform has "feet" to keep it above the water. The platform would have other holes to prevent suction during removal. Personnel, materials, tools, and replacement poles would also be delivered to the platform by air.

Temporary disturbances in the work area would be limited to a 10' radius around the pole hole.

VIII. Raptor Species

SDG&E will coordinate with wildlife agencies when new or expanded facilities are planned in significant bird movement corridors. The following methods will be considered for implementation on a case by case basis for use in the protection of raptors from electrocution associated with perching/nesting activities on distribution and transmission structures: Pole mounted bird perches, inverted "V" raptor guards, Bird-be-Gone™, saw-toothed metal bird guards, insulated jumpers, or others. These methods will be employed on select structures in areas known to be inhabited by sensitive raptor species when the likelihood of electrocution is high or has been historically documented. Where nests interfere with safe operation of transmission system, avoid removal in months January - June.

<u>Wood Poles</u>
Pole Mounted Bird Perch

- Construction from 2" x 6" treated lumber, attached to the top of wood pole carrying voltages from 12kV - 138kV (PacifiCorp EV 101)

Inverted "V" Raptor Guard

- Constructed of poly pipe and attached to cross arm between insulators with galvanized steel clamps

<u>Wood or Steel Poles</u>
Bird-be-Gone

- 4' long rows of plastic spikes attached to cross arms

Sticky Solution

- Sticky solution on cross arms or wires, birds don't like the feel

<u>Steel Lattice Towers</u>
Metal Bird Guard

- Saw-toothed bird guard, of 22-gauge sheet metal, attached to the cross arms of terminal, tangent, and angle towers, carrying voltages of 69kV and above

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IX. Vernal Pools

SDG&E will avoid vernal pools and their watersheds in the construction of new facilities, including roads. When pools are located above gas lines and repair work is necessary, work areas should be minimized and soil should be stockpiled for replacement after repairs. For new gas lines, avoid through routing changes. For access roads, stay within existing footprint, no new roads through vernal pool areas.

Under certain circumstances, SDG&E is prepared to consider rerouting an existing access road which passes through a vernal pool area as potential mitigation for the impacts of utility Activities on vernal pools that cannot be otherwise avoided pursuant to the Operational Protocols in the Plan, such as in an emergency. This rerouting would only be done if it was possible without compromising operational integrity and safety. The mitigation value of the rerouted road would be at 1:1 level.

X. Stephens' Kangaroo Rat

Take of the Stephens' Kangaroo Rat (SKR) is only permitted for SDG&E in the Multiple Habitat Conservation Program (MHCP) planning area in northern San Diego County for operation and maintenance activities until the MHCP is approved. After that time, and provided that SKR is conserved within MHCP, Take for new construction Activities will be permitted under the terms of this Plan. This condition only applies to the SKR populations in San Diego County; Riverside County has an approved Take process and mitigation protocol. Furthermore, SDG&E's facilities in Riverside County already exist, and no new impacts are expected.

Note: Operational Protocols (Section 7.1) and Habitat Enhancement Measures (Section 7.2) are generally applicable to all of the habitat.

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TABLE 3.1 COVERED SPECIES LIST

#	SPECIES NAME & STATUS	HABITAT TYPES	RANGEWIDE AND LOCAL DISTRIBUTION OF SPECIES	DEGREE OF EXISTING PROTECTION	CONSERVATION PLANNING IMPLICATIONS	MITIGATION
	PLANTS					
1	San Diego thornmint (*Acanthomintha ilicifolia*) C1/PE/List 1B, R-E-D 2-3-2	Clay soils in chaparral, coastal sage scrub, valley and foothill grasslands, and vernal pools.	San Diego County and Baja California, Mexico. Known currently from approximately 30 populations that are typically small and endangered by urban pressures.	CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I, IV, IX
2	Shaw's agave (*Agave shawii*) Regionally sensitive species/List 2, R-E-D 3-3-1	Coastal bluff scrub and coastal sage scrub.	San Diego County and Baja California, Mexico. Only three, small, disjunct populations occur naturally in the U.S. Has been introduced to other localities.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs.	I, IV
3	San Diego ambrosia (*Ambrosia pumila*) Regionally sensitive species/List 1B, R-E-D 3-3-2	Chaparral, coastal sage scrub, valley and foothill grasslands, and vernal pools. Often in disturbed areas.	Riverside and San Diego counties and Baja California, Mexico. In San Diego County, currently known from 4 scattered populations.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I, II, IV, IX
4	Aphanisma (*Aphanisma blitoides*) Regionally sensitive species/List 1B, R-E-D 2-2-2	Sandy areas in coastal bluff scrub and coastal sage scrub.	Central California coast to Baja California, Mexico. May be extirpated in San Diego County and severely declining throughout its mainland U.S. range.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts to San Diego County populations will be avoided unless deemed necessary for emergencies or repairs.	I, IV
5	Otay manzanita (*Arctostaphylos otayenis*) Regionally sensitive species/List 1B, R-E-D 3-2-3	Volcanic soils in chaparral and cismontane woodland.	Scattered populations occur on Otay, San Miguel, and Jamul, mountains in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I, VII
6	Del Mar manzanita (*Arctostaphylos glandulosa* var. *crassifolia*) PE/List 1B, R-E-D 3-3-2	Southern maritime chaparral.	Infrequent in coastal San Diego County from Del Mar to Carlsbad.	FESA (assuming federal action associated with take), CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves populations and habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I
7	Coastal dunes milk-vetch (*Astragalus tener* var. *titi*) C1/PE/List 1B, R-E-D 3-3-3	Coastal bluff scrub and coastal dunes.	Historically occurred in San Diego, Monterey, and Los Angeles counties. Presumed extirpated in San Diego and Los Angeles counties.	CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs.	III, IV
8	Encinitas baccharis (*Baccharis vanessae*) PE/CE/List 1B, R-E-D 2-3-3	Sandstone soils in chaparral.	San Diego County endemic. Restricted to approximately 13 known localities.	FESA (assuming federal action associated with take), CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs.	I, IV
9	Nevin's barberry (*Berberis nevinii*) C1/PE/List 1B, R-E-D 3-3-3	Sandy or gravelly soils in chaparral, cismontane woodland, coastal sage scrub, and riparian scrub.	Los Angeles County south to Riverside, San Bernardino, and San Diego counties. Populations are relatively stable although few in number. No extant native populations are known in San Diego County.	CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I, IV, VI
10	Thread-leaved brodiaea (*Brodiaea filifolia*) PT/CE/List 1B, R-E-D 3-3-3	Clay soils in coastal sage scrub, cismontane woodland, valley and foothill grasslands, and vernal pools.	Interior valley regions of Riverside and San Diego counties. Fifteen populations are known from San Diego County, 6 from Riverside County, 2 from San Bernardino County, and 1 each from Los Angeles and Orange counties.	FESA (assuming federal action associated with take), CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves populations and habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species. Vernal pool populations will be adequately conserved by the Plan because impacts to vernal pools will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I, II, VI, IX

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TABLE 3.1 COVERED SPECIES LIST

#	SPECIES NAME & STATUS	HABITAT TYPES	RANGEWIDE AND LOCAL DISTRIBUTION OF SPECIES	DEGREE OF EXISTING PROTECTION	CONSERVATION PLANNING IMPLICATIONS	MITIGATION
	PLANTS					
11	Orcutt's brodiaea (*Brodiaea orcuttii*) Regionally sensitive species/List 1B, R-E-D 1-3-2	Clay soils in close-coned coniferous forests, chaparral, cismontane woodlands, meadows, valley and foothill grasslands, and vernal pools.	Riverside and San Bernardino counties to Baja California, Mexico. Found in numerous localities in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species. Vernal pool populations will be adequately conserved by the Plan because impacts to vernal pools will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I, VI, IX
12	Dense reed grass (*Calamogrostis koelerioides*) Regionally sensitive species	Chaparral.	Orange and San Diego counties. Known from approximately 25 localities in San Diego County and approximately 3 localities in Orange County.	Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitat. The Plan also preserves habitat to maximum extent practicable and preserves corridors connecting habitat thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitat that may include the species.	I
13	Dunn's mariposa lily (*Calochortus dunnii*) CR/List 1B, R-E-D 2-2-2	Gabbroic and metavolcanic soils in close-coned coniferous forests and chaparral.	Southern Peninsular Range of San Diego County and adjacent Baja, California, Mexico. Known from approximately 8 localities in San Diego County.	CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves populations and habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I, VI
14	Payson's jewelflower (*Caulanthus simulans*) Regionally sensitive species/List 4, R-E-D 1-2-3	Sandy, granitic soils in chaparral and coastal sage scrub.	Riverside and San Diego counties. Known from approximately 19 localities in San Diego County and 4 localities in Riverside County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I
15	Slender-pod jewelflower (*Caulanthus stenocarpus*) CR	Chaparral, especially on burns.	San Diego County to northern Baja California, Mexico. Widespread but sporadic distribution.	CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves populations and habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I
16	Lakeside ceanothus (*Ceanothus cyaneus*) Regionally sensitive species/List 1B, R-E-D 3-2-2	Acid igneous rockland in close-coned coniferous forests and chaparral.	Western San Diego County to Baja California, Mexico. Restricted to Crest and El Cajon Mountain region in San Diego County. Specimen collected from Baja California, Mexico may be a hybrid.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I, VI
17	Wart-stemmed ceanothus (*Ceanothus verrucosus*) Regionally sensitive species/List 2, R-E-D 1-2-1	Chaparral.	San Diego County and Baja California, Mexico. Currently known from approximately 17 localities in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitat. The Plan also preserves habitat to maximum extent practicable and preserves corridors connecting habitat thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitat that may include the species.	I
18	Orcutt's spineflower (*Chorizanthe orcuttiana*) PE/CE/List 1B, R-E-D 3-3-3	Chaparral, close-coned coniferous forests, and coastal sage scrub.	Endemic to San Diego County. Only one site known to be extant: Oak Crest Park in Encinitas.	FESA (assuming federal action associated with take), CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs.	I, IV, VI

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	PLANTS					
19	Orange County Turkish rugging (*Chorizanthe staticoides* ssp. *chrysacantha*) Regionally sensitive species	Ocean bluffs, coastal sage scrub.	San Diego and Orange counties. Two known localities in San Diego County and 11 known in Orange County.	Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I
20	Salt marsh bird's-beak (*Cordylanthus maritimus* spp. *maritimus*) FE/CE/List 1B, R-E-D 2-2-2	Coastal dunes and coastal salt marshes.	San Luis Obispo County south to Baja California, Mexico. Restricted to 2 extant populations in San Diego County and possibly 2 in Orange County.	FESA (assuming federal action associated with take), CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III, IV
21	Orcutt's bird's-beak (*Cordylanthus orcuttianus*) Regionally sensitive species/List 2, R-E-D 3-3-1	Coastal sage scrub.	Endemic to San Diego County and Baja California, Mexico. Restricted to a few localities in southwestern San Diego County. Otay River populations are only vigorous, extant U.S. populations.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitat. The Plan also preserves habitat to maximum extent practicable and preserves corridors connecting habitat thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitat that may include the species.	I
22	Tecate cypress (*Cupressus forbesii*) Regionally sensitive species/List 1B, R-E-D 3-2-2	Close-coned coniferous forests and chaparral.	Orange County, San Diego County, and Baja California, Mexico. Known from 6 localities in San Diego County and 6 localities in Orange County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	VI
23	Short-leaved dudleya (*Dudleya blochmaniae* ssp. *brevifolia*) PE/CE/List 1B, R-E-D 3-3-3	Torrey sandstone in chaparral and coastal sage scrub.	Between La Jolla and Del Mar in San Diego County. Known from approximately 6 but not more than 8 localities.	FESA (assuming federal action associated with take), CESA,NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs.	I, IV
24	Many-stemmed dudleya (*Dudleya multicaulis*) Regionally sensitive species/List 1B, R-E-D 1-2-3	Often clay soils in chaparral, coastal sage scrub, and valley and foothill grasslands.	Los Angeles, Orange, Riverside, San Bernardino, and San Diego counties. Known only from Marine Corps Base Camp Pendleton in San Diego County, numerous localities in Orange County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I, II
25	Variegated dudleya (*Dudleya variegata*) Regionally sensitive species/List 1B, R-E-D 2-2-2	Chaparral, cismontane woodlands, coastal sage scrub, valley and foothill grasslands, and vernal pools.	Southern San Diego County and northwestern Baja California, Mexico. Known from approximately 60 localities in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species. Vernal pool populations will be adequately conserved by the Plan because impacts to vernal pools will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I, II, VI, IX
26	Sticky dudleya (*Dudleya viscida*) C1/List 1B, R-E-D 3-2-3	Rocky areas in coastal bluff scrub, chaparral, and coastal sage scrub.	San Diego, Orange, and Riverside counties. Known from 10 populations in San Diego County, 4 localities in Orange County, and 1 location in southwestern Riverside County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I

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	PLANTS					
27	Palmer's ericameria (*Ericameria palmeri* ssp. *palmeri*) Regionally sensitive species/List 2, R-E-D 2-2-1	Coastal sage scrub.	Southern San Diego County and Baja California, Mexico. Known from 10 populations in San Diego County.	Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs.	I, IV
28	San Diego button-celery (*Eryngium aristulatum* var. *parishii*) FE/CE/List 1B, R-E-D 2-3-2	Coastal sage scrub, valley and foothill grasslands, and vernal pools.	San Diego and Riverside counties and Baja California, Mexico. Known from 65 localities in San Diego County; many of these are remnants of once larger populations.	FESA (assuming federal action associated with take), CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves populations and habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species. Vernal pool populations will be adequately conserved by the Plan because impacts to vernal pools will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I, II, IX
29	Coast wallflower (*Erysimum ammophilum*) Regionally sensitive species/List 1B, R-E-D 2-2-3	Coastal dunes.	San Diego County, Santa Rosa Island, Santa Cruz and Monterey counties. Known from approximately 7 localities in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs.	III, IV
30	San Diego barrel cactus (*Ferocactus viridescens*) Regionally sensitive species/List 2, R-E-D 1-3-1	Chaparral, coastal sage scrub, maritime succulent scrub, and valley and foothill grasslands.	San Diego County and Baja California. Persists in numerous, fragmented populations in San Diego County. Its highest densities occur on Otay Mesa, particularly northeast of Brown Field and at the east end of Wruck Canyon.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I, II
31	Palmer's grapplinghook (*Harpagonella palmeri*) Regionally sensitive species/List 2, R-E-D 1-2-1	Clay soils in chaparral, coastal sage scrub, and valley and foothill grasslands.	Los Angeles, Orange, Riverside, and San Diego counties, on San Clemente Island, in Arizona, Baja California, and Sonora, Mexico. In San Diego County several thousand individuals grow on the slopes of Table Mountain near Jacumba. Otherwise most populations are small and scattered along the coast.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I, II
32	Otay tar plant (*Hemizonia conjugens*) PE/CE/List 1B, R-E-D 3-3-2	Clay soils in coastal sage scrub and valley and foothill grasslands.	Southern San Diego County and northwestern Baja California, Mexico. Most U.S. localities for this species occur in the vicinity of Chula Vista.	CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves populations and habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I, II
33	Heart-leaved pitcher sage (*Lepechinia cardiophylla*) Regionally sensitive species/List 1B, R-E-D 3-2-2	Close-coned coniferous forests, chaparral, and cismontane woodlands.	Orange, Riverside, San Diego counties and Baja California, Mexico. Restricted to one population on Iron Mountain in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I, VI
34	Gander's pitcher sage (*Lepechinia ganderi*) Regionally sensitive species/List 1B, R-E-D 3-1-2	Close-coned coniferous forests, chaparral, coastal sage scrub, and valley and foothill grasslands.	San Diego County and Baja, California, Mexico. Known from four localities in San Diego County (Otay Mountain, the Jamul Mountains, San Miguel Mountain, and Donohoe Mountain).	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species. Three of the 4 populations are currently in designated open space.	I, II, VI

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	PLANTS					
35	Del Mar Mesa sand aster (*Corethrogyne filaginifolia* var. *linifolia*) PT/List 1B, R-E-D 3-2-3	Chaparral and coastal sage scrub.	San Diego County. Restricted to a few, disjunct populations between Los Penasquitos Canyon and Encinitas (possibly Carlsbad).	FESA (assuming federal action associated with take) and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves populations and habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I
36	Nuttall's lotus (*Lotus nuttallianus*) Regionally sensitive species/List 1B, R-E-D 3-3-2	Coastal dunes and coastal sage scrub.	Southern San Diego County to northern Baja California, Mexico. Restricted to approximately 6 localities along the immediate coast in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I, III
37	Felt-leaved monardella (*Monardella hypoleuca* ssp. *lanata*) Regionally sensitive species/List 1B, R-E-D 2-2-2	Chaparral and cismontane woodland.	Orange and San Diego counties to Baja California, Mexico. Known from approximately 30 localities in San Diego County and possibly 1 locality in Orange County.	Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I, VI
38	Willowy monardella (*Monardella linoides* ssp. *viminea*) PE/CE/List 1B, R-E-D 2-3-2	Close-coned coniferous forests, chaparral, riparian forests, riparian scrub, and riparian woodland.	San Diego County to Baja California, Mexico. Known from approximately 16 localities in San Diego County.	CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I, IV, V, VI
39	San Diego golden star (*Muilla clevelandii*) Regionally sensitive species/List 1B, R-E-D 2-2-2	Chaparral, coastal sage scrub, valley and foothill grasslands, and vernal pools.	San Diego County to Baja California, Mexico. Known from approximately 112 localities in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitat that may include the species. Vernal pool populations will be adequately conserved by the Plan because impacts to vernal pools will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I, II, IX
40	Little mousetail (*Myosurus minimus* ssp. *apus*) Regionally sensitive species/List 3, R-E-D 2-3-2	Vernal pools (alkaline).	Riverside, San Bernardino, San Diego, Butte, Alameda, Contra Costa, Colusa, Solano, Stanislaus, and Kern counties; Oregon; Baja California, Mexico. Restricted to several vernal pool complexes on the mesas north of San Diego and on Otay Mesa in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts to vernal pools will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	IX
41	Prostrate navarretia (*Navarretia fossalis*) PT/List 1B, R-E-D 2-3-2	Vernal pools.	Riverside, San Diego counties to Baja California, Mexico. Restricted to populations on Otay Mesa, Camp Pendleton, and Ramona in San Diego County.	FESA (assuming federal action associated with take) and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts to vernal pools will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	IX

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TABLE 3.1 COVERED SPECIES LIST

#	SPECIES NAME & STATUS	HABITAT TYPES	RANGEWIDE AND LOCAL DISTRIBUTION OF SPECIES	DEGREE OF EXISTING PROTECTION	CONSERVATION PLANNING IMPLICATIONS	MITIGATION
	PLANTS					
42	Snake cholla (*Opuntia parryi* var. *serpentina*) Regionally sensitive species/List 1B, R-E-D 3-3-2	Chaparral, coastal sage scrub, and maritime succulent scrub.	Southwestern San Diego County into northwestern Baja California, Mexico. In San Diego County is known from approximately 14 localities.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs.	I, IV
43	California Orcutt grass (*Orcuttia californica*) FE/CE/List 1B, R-E-D 3-3-2	Vernal pools.	Riverside and San Diego counties and in Baja California, Mexico. Known from approximately 10 localities in San Diego County and approximately 3 localities in Riverside County.	FESA (assuming federal action associated with take), CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts to vernal pools will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	IIX
44	Torrey pine (*Pinus torreyana*) Regionally sensitive species/List 1B, R-E-D 3-2-3	Sandstone in close-coned coniferous forests and chaparral.	Along the coast near Del Mar in San Diego County and on Santa Rosa Island. Known only from these two localities as natives.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I
45	San Diego mesa mint (*Pogogyne abramsii*) FE/CE/List 1B, R-E-D 2-3-3	Vernal pools.	San Diego County (Los Peñasquitos Canyon, Miramar, and San Diego). Restricted to these vernal pool complexes.	FESA (assuming federal action associated with take), CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts to vernal pools will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	IX
46	Otay mesa mint (*Pogogyne nudiuscula*) FE/CE/List 1B, R-E-D 3-3-2	Vernal pools.	Southwestern San Diego County and Baja California, Mexico. Restricted to 3 to 5 vernal pool complexes on Otay Mesa in San Diego County.	FESA (assuming federal action associated with take), CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	IV, IX
47	Small-leaved rose (*Rosa minutifolia*) CE/List 2, R-E-D 3-3-1	Chaparral.	San Diego County to Baja California, Mexico. In San Diego County, restricted to 1 thicket on northwestern Otay Mesa.	CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves populations and habitat to maximum extent practicable and preserves corridors connecting habitat thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitat that may include the species.	I
48	Dehesa beargrass (*Nolina interrata*) PT/CE/List 1B, R-E-D 3-3-2	Chaparral (gabbroic and serpentinite)	San Diego County to Baja California, Mexico. Known from approximately 9 localities in San Diego County.	CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves populations and habitat to maximum extent practicable and preserves corridors connecting habitat thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitat that may include the species.	I

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	PLANTS					
49	San Miguel savory (*Satureja chandleri*) Regionally sensitive species/List 4, R-E-D 1-2-2	Chaparral, cismontane woodland, coastal sage scrub, riparian woodland, and valley and foothill grasslands.	Northern Baja California, Mexico; San Diego County; and adjacent Orange and western Riverside counties. An extremely rare shrub with very few recent reports.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I, II, V, VI
50	Gander's butterweed (*Senecio ganderi*) CR/List 1B, R-E-D 3-2-3	Chaparral (burned areas, gabbroic outcrops).	San Diego and Riverside counties. Known from approximately 11 localities in San Diego County.	CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves populations and habitat to maximum extent practicable and preserves corridors connecting habitat thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitat that may include the species.	I
51	Narrow-leaved nightshade (*Solanum tenuilobatum*) Regionally sensitive species	Chaparral.	Southern San Diego County to Baja California, Mexico. Otay Mountain is a focus for populations of this species. Known from approximately 30 localities in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitat. The Plan also preserves habitat to maximum extent practicable and preserves corridors connecting habitat thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitat that may include the species.	I
52	Parry's tetracoccus (*Tetracoccus dioicus*) Regionally sensitive species/List 1B, R-E-D 3-2-2	Chaparral and coastal sage scrub.	San Diego and Riverside counties and Baja California, Mexico. Approximately 32 known localities but rare in the southern portions of San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I

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	ANIMALS					
1	Cooper's hawk (*Accipiter cooperii*) SSC	Riparian woodlands.	Throughout the continental U.S. excluding Alaska, parts of Montana, and parts of the Dakotas. Winters south to Mexico and Honduras. Uncommon migrant, winter visitor, and summer resident in San Diego County. Breeds in San Diego County.	CEQA and MBTA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan are discountable because the species has such a widespread distribution. Also, the Plan preserves its habitats to the maximum extent practicable. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	VIII
2	Tricolored blackbird (*Agelaius tricolor*) SSC	Croplands, edges of fields, and edges of ponds.	California's Central Valley, west of the Sierra Nevada Mountains from San Diego County north to Lake County. Breeding populations in California in Siskiyou and Modoc counties and in southern Oregon. Very common to abundant, but localized, resident in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III
3	Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*) SSC	Coastal sage scrub and chaparral.	Ventura County southeast through Los Angeles, Orange, Riverside and San Diego counties to northwestern Baja California, Mexico. Uncommon to fairly common, but localized, resident in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I
4	Grasshopper sparrow (*Ammodramus savannarum*) Regionally sensitive species	Grasslands.	Southern Canada to the southern U.S., West Indies, and Mexico to Ecuador. Uncommon and localized summer resident; may be very rare in winter.	Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, the species has a somewhat broad distribution, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	II
5	Golden eagle (*Aquila chrysaetos*) BEPA/SSC	Rolling foothills, mountains, sage-juniper flats, and desert.	Mountain regions of the Northern Hemisphere. Throughout California except the center of the Central Valley. Uncommon resident in San Diego County. As of 1981, the number of breeding pairs(38) within the western half of the County had decreased by 33% from 1928 levels.	BEPA and CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan are discountable because the species is an uncommon resident in San Diego County, and any impacts would be extremely small relative to the large range of the species. Also, the Plan preserves its habitats to the maximum extent practicable.	VIII
6	Canada goose (*Branta canadensis*) Regionally sensitive species	Fresh, emergent wetlands, moist grasslands, croplands, pastures, and meadows.	Alaska, Canada, northern U.S. Winters to northern Mexico. Central Valley, Salton Sea, and northeastern California. Abundant but localized winter visitor. Wintering populations have declined in San Diego County due to wetland habitat loss.	MBTA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, the species has a somewhat broad distribution, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	II, III
7	Ferruginous hawk (*Buteo regalis*) SSC	Grasslands, sagebrush flats, desert scrub, low foothills surrounding valleys, and pinyon-juniper habitats.	Southwestern Canada and the western U.S. Winters in the southwestern U.S. and northern Mexico. Uncommon winter visitor.	CEQA and MBTA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan are discountable because the species is an uncommon winter visitor in San Diego County, and any impacts would be extremely small relative to the large range of the species. Also, the Plan preserves its habitats to the maximum extent practicable.	VIII

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	ANIMALS					
8	Swainson's hawk (*Buteo swainsoni*) CT	Juniper-sage flats, riparian areas, oak savannah, and grasslands.	Northwestern North America to northern Mexico. Winters to Argentina. Spring and fall transient in southern California. Uncommon breeding resident in northeastern California and the Central Valley. Uncommon spring migrant; very rare fall migrant.	CESA, CEQA, and MBTA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan are discountable because the species is an uncommon spring migrant and very rare fall migrant in San Diego County, and any impacts would be extremely small relative to the large range of the species. Also, the Plan preserves individuals and habitats to the maximum extent practicable. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	VIII
9	Coastal cactus wren (*Campylorhynchus brunneicapillus*) SSC	Coastal sage scrub and maritime succulent scrub.	Southern Orange County south through San Diego County into northwestern Baja California, Mexico. San Diego County population estimated to be less than 300 pairs with highly disjunct distribution and small, fragmented populations.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided; no direct killing or injury to individuals will occur unless deemed necessary for emergencies or repairs.	I, IV
10	Western snowy plover (coastal) (*Charadrius alexandrinus nivosus*) FT/SSC	Sandy marine and estuarine shores.	Breeds throughout the western U.S.; Baja California, Mexico; the coastal southeastern U.S.; and the Bahamas. In winter, migrates to coastal areas and south to Central and South America. Common migrant, winter visitor, and localized breeding resident in San Diego County.	FESA, CEQA, and MBTA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves individuals and habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III, VII
11	Mountain plover (*Charadrius montanus*) SSC	Grasslands and plowed fields.	Breeds in the U.S. west of 95° W longitude in the Great Plains and Rocky Mountain states. Winters from the southwestern U.S. to Mexico, including the Baja California, Mexico. Common to very common, but extremely localized, winter visitor.	CEQA and MBTA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, the species has a somewhat broad distribution, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	II
12	Northern harrier (*Circus cyaneus*) SSC	Meadows, grasslands, open rangelands, desert sinks, and fresh and saltwater emergent wetlands.	Widespread throughout the temperate regions of North America and Eurasia. Uncommon to fairly common migrant and winter visitor, rare and local summer resident in San Diego County.	CEQA and MBTA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan are discountable because the species is an uncommon to fairly common migrant and winter visitor but a rare and local summer resident in San Diego County. Any impacts would be extremely small relative to the large range of the species. Also, the Plan preserves its habitats to the maximum extent practicable. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	VIII
13	Reddish egret (*Egretta rufescens*) Regionally sensitive species	Brackish marshes, shallow, coastal habitats, and mangroves.	Breeds on southeast coast of the U.S.; east and west coasts of Baja California, Mexico; other parts of Mexico; and on some Carribean islands. Winters throughout its breeding range, but extends its range south to include Central America to El Salvador. A few reddish egrets (1-4 individuals) are typically found along the southern San Diego County coast. Most occurrences are in fall and winter. There are no breeding records for the County.	CEQA and MBTA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan are discountable because the species is found in very small numbers (1-4 individuals) in the fall and winter in San Diego County. Also, the Plan preserves its habitats to the maximum extent practicable. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III
14	Southwestern willow flycatcher (*Empidonax traillii extimus*) FE/CE	Breeds in thickets of willows or other riparian understory, along streams, ponds or lakes, or in canyon drainage bottoms. Migrants may be located among any of the larger trees or shrubs in the County of San Diego but seem to prefer damp areas.	U.S. breeding range is so. California, Arizona, Utah, Nevada, New Mexico, and Texas. Small, breeding populations persist in major river valleys in San Diego County.	FESA, CESA, CEQA, and MBTA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves individuals and habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	V
15	American peregrine falcon (*Falco peregrinus anatum*) FE/CE	Open grasslands and scrublands, cliffs and steep terrain, sometimes urban areas. Often found along the coast or near lagoons and ponds where waterfowl gather.	Southern California as a rare visitor, primarily along the coast. Only one pair has bred in San Diego County since the 1950s. In winter, occurs along coastal areas and at reservoirs in the County.	FESA, CESA, CEQA, and MBTA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan are discountable because the species is a rare visitor along the coast in San Diego County, and any impacts would be extremely small relative to the large range of the species. Also, the Plan preserves individuals and habitats to the maximum extent practicable. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	VIII

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	ANIMALS					
16	Bald eagle (*Haliaeetus leucocephalus*) (BEPA) FE/CE	Coasts, rivers, large lakes, mountains, and open country.	Alaska, Canada to southern U.S. Inland waters in winter in southern California. Uncommon winter visitor to San Diego County.	BEPA, FESA, CESA, CEQA, and MBTA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan are discountable because the species is an uncommon winter visitor in San Diego County. Also, the Plan preserves individuals and habitats to the maximum extent practicable. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	VIII
17	Long-billed curlew (*Numenius americanus*) SSC	Rangeland, cultivated land, tideflats, beaches, and salt marshes.	Southwestern Canada, western U.S. Winters to Guatemala. Common migrant and winter visitor to San Diego County; no breeding records.	CEQA and MBTA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, the species has a somewhat broad distribution, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III
18	Belding's savannah sparrow (*Passerculus sandwichensis beldingi*) CE	Restricted to salt marshes around coastal lagoons that are dominated by pickleweed (*Salicornia* spp.)	Santa Barbara County south to El Rosario, Baja California, Mexico. Localized, permanent resident in San Diego County.	CESA and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves individuals and habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III
19	Large-billed savannah sparrow (*Passerculus sandwichensis rostratus*) SSC	Open fields, meadows, salt marshes, dunes, and shores.	Alaska, Canada to Guatemala. Winters to Honduras, West Indies. Scarce along the southern California coast.	CEQA and MBTA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan are discountable because the species is scarce along the southern California coast. Also, the Plan preserves its habitats to the maximum extent practicable. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III
20	California brown pelican (*Pelecanus occidentalis californicus*) FE/CE	Open salt water, bays, and beaches.	West coast of the U.S. and Baja California, Mexico. Common to very common non-breeding visitor to San Diego County.	FESA, CESA, CEQA, and MBTA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves individuals and habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III, VII
21	White-faced ibis (*Plegadis chihi*) SSC	Freshwater marshes, irrigated land.	Western U.S. to Argentina. In San Diego County, uncommon migrant and winter visitor; rare in summer.	CEQA and MBTA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan are discountable because the species is an uncommon migrant and winter visitor and is rare in summer in San Diego County. Also, the Plan preserves its habitats to the maximum extent practicable. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III
22	Coastal California gnatcatcher (*Polioptila californica californica*) FT/SSC	Coastal sage scrub.	Southern Los Angeles, Orange, western Riverside, and San Diego counties south into Baja California, Mexico. In 1990, Atwood estimated that approximately 1,819 to 2,262 pairs occurred in southern California.	FESA and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves individuals and habitat to maximum extent practicable and preserves corridors connecting habitat. It may also restore and reclaim habitat that may include the species.	I
23	Light-footed clapper rail (*Rallus longirostris levipes*) FE/CE	Saltwater and brackish marshes.	Central and southern California; Baja California, Mexico; and the Gulf of California. The total California population was estimated to be 235 pairs in 1991.	FESA, CESA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves individuals and habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III
24	Western bluebird (*Sialia mexicana*) Regionally sensitive species	Scattered trees; open, coniferous forests; and farms. In winter, brush and deserts.	Southern British Columbia and western U.S. to the mountains of central Mexico. Common to very common resident and winter visitor in San Diego County.	Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, the species has a somewhat broad distribution, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	VI

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TABLE 3.1 COVERED SPECIES LIST

#	SPECIES NAME & STATUS	HABITAT TYPES	RANGEWIDE AND LOCAL DISTRIBUTION OF SPECIES	DEGREE OF EXISTING PROTECTION	CONSERVATION PLANNING IMPLICATIONS	MITIGATION
	ANIMALS					
25	Western burrowing owl (*Speotyto cunicularia hypogea*) SSC	Open grasslands, prairies, farmlands, and airfields.	Southwestern Canada, western U.S. Uncommon and rapidly declining in California.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided; no direct killing or injury to individuals will occur unless deemed necessary for emergencies or repairs.	II, IV
26	California least tern (*Sterna antillarum browni*) FE/CE	Sea beaches, bays, large rivers, bars.	Temperate and tropical oceans. Winters south of the U.S. In San Diego County the number of nesting pairs was 500 in 1991.	FESA, CESA, CEQA, and MBTA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves individuals and habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III
27	Elegant tern (*Sterna elegans*) SSC	Shallow ocean waters, bays, and lagoons. Strictly associated with salt water.	Breeds on islands off Baja California, Mexico and near San Diego. Winters from Peru to Chile. Irregularly wanders north to San Francisco Bay. Abundant summer resident in the single nesting colony at the south end of the San Diego Bay.	CEQA and MBTA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III
28	Least Bell's vireo (*Vireo bellii pusillus*) FE/CE	Riparian woodlands.	Formerly common and widespread in California and northwestern Baja California, Mexico. Known to winter only in southern Baja California, Mexico. Over 460 breeding pairs or territorial males were documented in San Diego County in 1991.	FESA, CESA, CEQA, and MBTA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves individuals and habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	V
29	Thorne's hairstreak butterfly (*Mitoura thornei*) Regionally sensitive species	Closed-cone pine forest.	Restricted to the same distribution of the larval food plant, Tecate cypress (*Cupressus forbesii*). in three locations in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitat. The Plan also preserves habitat to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitat that may include the species.	VII
30	San Diego fairy shrimp (*Branchinecta sandiegoensis*) PE	Seasonally astatic pools which occur in tectonic swales or earth slump basins in patches of grassland and agriculture interspersed in coastal sage scrub and southern mixed chaparral vegetation.	Occurs throughout San Diego County.	FESA and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts to vernal pools will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	IX
31	Salt marsh skipper (*Panoquina errans*) Regionally sensitive species	Tidelands and estuaries.	Santa Barbara County to the southern tip of Baja California, Mexico. Associated with nearly every coastal lagoon in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided; no direct killing or injury to individuals will occur unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III, IV
32	Riverside fairy shrimp (*Streptocephalus woottoni*) FE	Seasonally astatic pools occurring in tectonic swales or earth slump basins in patches of grassland and agriculture interspersed in coastal sage scrub.	Known only from five vernal pools in western Riverside County in the vicinity of Temecula and Rancho California, from one pool on Otay Mesa in San Diego County, and from one pool at an undisclosed location in northern Baja California, Mexico.	FESA and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts to vernal pools will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	IX
33	Coronado skink (*Eumeces skiltonianus interparietalis*) SSC	Grasslands, coastal sage scrub, open chaparral, pine oak woodland, and coniferous forests.	Southwestern California from Los Angeles County south into northwestern Baja California, Mexico. Also occurs on several islands off the Pacific coast including Los Coronados Islands. Relatively limited distribution.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I

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#	SPECIES NAME & STATUS	HABITAT TYPES	RANGEWIDE AND LOCAL DISTRIBUTION OF SPECIES	DEGREE OF EXISTING PROTECTION	CONSERVATION PLANNING IMPLICATIONS	MITIGATION
	ANIMALS					
34	Stephens' kangaroo rat (*Dipodomys stephensi*) FE/CT	Grasslands, coastal sage scrub or sagebrush with sparse canopy cover, and disturbed areas.	Around San Jacinto Valley from Riverside County south to the vicinity of Vista in San Diego County. Geographic range is estimated to encompass 708,641 acres, which is unusually small for rodents, particularly kangaroo rats.	FESA, CESA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided; no direct killing or injury to individuals will occur unless deemed necessary for emergencies or repairs.	X
35	San Diego desert woodrat (*Neotoma lepida intermedia*) SSC	Favors xeric habitats. Coastal habitats include open chaparral and coastal sage scrub.	Restricted to the coastal slope of southern California, from San Luis Obispo County south into northwestern Baja California, Mexico. Population information lacking.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I
36	Pacific little pocket mouse (*Perognathus longimembris pacificus*) FE/SSC	Near the ocean where the substrate consists of fine, alluvial sands, and the dominant vegetation is coastal sage scrub or weeds.	Historically recorded from Marina del Rey/El Segundo south along the coast to the Tijuana River Valley north of the international border in San Diego County. May occur at other localities. Only three currently recorded localities remain out of eight historic localities: Dana Point, Orange County and Marine Corps Base Camp Pendleton, San Diego County.	FESA and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided; no direct killing or injury to individuals will occur unless deemed necessary for emergencies or repairs.	I, IV
37	Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*) SSC	Coastal sage scrub and weedy growth, often on sandy substrates.	Southwestern San Bernardino, western Riverside, eastern Los Angeles, and San Diego counties south into Baja California, Mexico. Population information lacking.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I
38	Pallid San Diego pocket mouse (*Chaetodipus fallax pallidus*) SSC	Chamise-redshank and mixed chaparrals, sagebrush, desert wash, desert scrub, pinyon-juniper, and annual grassland .	Eastern Los Angeles, southwestern San Bernardino, central Riverside, eastern San Diego, and western Imperial Counties. Population information lacking.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I, II
39	Dulzura pocket mouse (*Chaetodipus californicus femoralis*) SSC	Primarily associated with mature chaparral and is less common in open stands of this vegetation. Has been trapped in mulefat scrub.	Santa Margarita River south to northern Baja California, Mexico. Population information lacking.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I, V
40	Southern grasshopper mouse (*Onychomys torridus ramona*) SSC	Wide variety including various scrublands. May be associated with clumps of cactus or yucca.	Northern Los Angeles County along the coastal slope to extreme northwestern Baja California, Mexico. Population information lacking.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I
41	Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) SSC	Coastal sage scrub and sagebrush.	Los Angeles, southwestern San Bernardino, and western Riverside counties. Population information lacking.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I
42	Jacumba pocket mouse (*Perognathus longimembris internationalis*) SSC	Sagebrush.	San Diego County. Population information lacking.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitat. The Plan also preserves habitat to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitat that may include the species.	I
43	San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) SSC	Coastal sage scrub, chaparral, grasslands, croplands, and open, disturbed areas provided there is at least some scrub cover present.	Southern Santa Barbara County, south on the coastal slope to the vicinity of San Quintin, Baja California, Mexico. Localities on the eastern edge of its range include Jacumba and San Felipe Valley in San Diego County. Relatively common in open areas in coastal southern California.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I, II

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#	SPECIES NAME & STATUS	HABITAT TYPES	RANGEWIDE AND LOCAL DISTRIBUTION OF SPECIES	DEGREE OF EXISTING PROTECTION	CONSERVATION PLANNING IMPLICATIONS	MITIGATION
	ANIMALS					
44	Mountain lion (*Felis concolor*) Regionally sensitive species	Nearly all habitats.	In California, sea level to alpine meadows, except xeric regions of the Mojave and Colorado deserts not supporting mule deer (*Odocoileus hemionus*) populations. Relatively common and most abundant in riparian areas and brushy stages of most habitats.	Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	None
45	Southern mule deer (*Odocoileus hemionus fuliginata*) Game species	Coastal sage scrub, riparian and mountain forests, chaparral, grasslands, croplands, and open, disturbed areas provided there is at least some scrub cover present.	Southern Riverside County (Tahquitz Valley), south on the coastal slope to the vicinity of San Quintin, Baja California, Mexico. Relatively common along the coastal foothills of southern California.	Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	None
46	American badger (*Taxidea taxus*) SSC	Drier, open stages of most shrub, forest, and herbaceous habitats with friable soils.	Central and southwestern North America. Throughout most of California except the North Coast area. Widespread but thought to be declining in California.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	II
47	Arroyo southwestern toad (*Bufo microscaphus californicus*) FE/SSC	Restricted to rivers with shallow, gravelly pools adjacent to sandy terraces.	Formerly distributed from southern California to the northwestern coastal region of Baja California, Mexico. Most remaining populations occur within, or adjacent to, the Cleveland National Forest. Only 6 of the 22 extant populations south of Ventura are known to contain more than a dozen adults.	FESA and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves individuals and habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	V
48	Western spadefoot toad (*Scaphiopus hammondi*) SSC	Occurs primarily in grassland situations, but occasional populations occur in valley-foothill hardwood woodlands.	In California, throughout the Central Valley and adjacent foothills from Santa Barbara County south to the Mexican border. Usually quite common where it occurs.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I
49	Southwestern pond turtle (*Clemmys marmorata pallida*) SSC	Wetland habitats including freshwater marshes, creeks, ponds, and reservoirs.	Vicinity of Monterey south into northwestern Baja California, Mexico. Primarily west of the major mountain ranges in southern California, but there is a population along the Mojave River in San Bernardino County. Very few viable populations left south of Santa Barbara County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	V
50	Orangethroat whiptail (*Cnemidophorus hyperythrus beldingi*) SSC	Coastal sage scrub, chaparral, edges of riparian woodlands, and washes; and in weedy, disturbed areas adjacent to these habitats.	Southern Orange County and southern San Bernardino County (Colton), south to the cape of Baja California, Mexico. Locally common.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I
51	San Diego banded gecko (*Coleonyx variegatus abboti*) Regionally sensitive species	Chaparral and coastal sage scrub in areas with rock outcrops.	Southern slopes of the San Gabriel Mountains of Los Angeles County, south throughout cismontane and coastal southern California into northwestern Baja California, Mexico. Also found on Cedros Island off the Pacific coast of Baja California, Mexico. Population information lacking.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I

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	ANIMALS					
52	Northern red rattlesnake (*Crotalus ruber ruber*) SSC	Chaparral, woodland, and arid habitats in rocky areas and dense vegetation.	Extreme southeastern Los Angeles County (Diamond Bar) into southern San Bernardino County and south into southern Baja California, Mexico. Relatively common in the foothill zone and on the desert slopes.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I
53	San Diego ringneck snake (*Diadophis punctatus similis*) Regionally sensitive species	Oak woodlands and canyon bottoms. Sometimes encountered in grassland, chaparral, and coastal sage scrub.	Southwestern San Bernardino County south along the coastal slope into northwestern Baja California, Mexico. Population information lacking.	CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I
54	Coastal rosy boa (*Lichanura trivirgata roseofusca*) Regionally sensitive species	In or near rocky areas in coastal sage scrub, chaparral, and desert scrub.	Transverse Ranges in Los Angeles and San Bernardino counties south into northwestern Baja California, Mexico. It also ranges east to the lower desert slope. Population information lacking.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I
55	San Diego horned lizard (*Phrynosoma coronatum blainvillei*) SSC	Coastal sage scrub, chaparral, open oak woodlands and open coniferous forests in the mountains.	Southern California, west of the deserts, and ranges south into northern Baja California, Mexico. Relatively common in foothill areas that contain large expanses of good habitat.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I
56	California red-legged frog (*Rana aurora draytonii*) PE/SSC	Dense shrubby, emergent riparian vegetation closely associated with deep, still, or slow moving water.	Central and southern California. Has been extirpated from 75% of its former range.	FESA and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided; no direct killing or injury to individuals will occur unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	IV, V
57	Coast patch-nosed snake (*Salvadora hexalepis virgultea*) SSC	Primarily chaparral, but also coastal sage scrub and areas of grassland mixed with scrub.	Santa Barbara County south to northwestern Baja California, Mexico. Population information lacking.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I
58	Two-striped garter snake (*Thamnophis hammondii*) Regionally sensitive species	Along permanent creeks, streams, vernal pools and along intermittent creeks. Occasionally found in chaparral or other habitats relatively far from permanent water.	Monterey County south through the coastal ranges into northwestern Baja California, Mexico. Rare or extirpated from many areas where it was formerly common.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I

STATUS

SSC = CDFG Species of special concern
CE = California endangered
CT = California threatened
CR = California rare
FE = Federally listed endangered
FT = Federally listed threatened
PE = Federally proposed endangered
PT = Federally proposed threatened
C1 = Enough data to support federal listing

List 1B = Rare and endangered in California and elsewhere
List 2 = Rare and endangered in California but more common elsewhere
List 3 = More information needed
List 4 = Limited distribution (a watch list)

R (Rarity)
1 = Rare but found in sufficient numbers and distributed widely enough that potential for extinction or extirpation is low at this time.
2 = Occurrence confined to several populations or one extended population.
3 = Occurrence limited to 1 or a few highly restricted populations or present in such small numbers that it is seldom reported.

E (Endangerment)
1 = Not endangered
2 = Endangered in a portion of its range
3 = Endangered throughout its range

D (Distribution)
1 = More or less widespread outside of California
2 = Rare outside California
3 = Endemic to California

ABBREVIATIONS

ACOE = U.S. Army Corps of Engineers
BEPA = Bald Eagle Protection Act
CDFG = California Department of Fish and Game
CEQA = California Environmental Quality Act
CESA = California Endangered Species Act
FESA = Federal Endangered Species Act
MBTA = Migratory Bird Treaty Act
NPPA = Native Plant Protection Act

MITIGATION

I. Scrub and chaparral species
II. Grassland species
III. Beach, marsh, and wetland species
IV. Narrow endemic plant and animal species
V. Riparian species
VI. Forest (woodland) species
VII. Open water species
VIII. Raptor species
IX. Vernal pool species
X. Stephens' kangaroo rat

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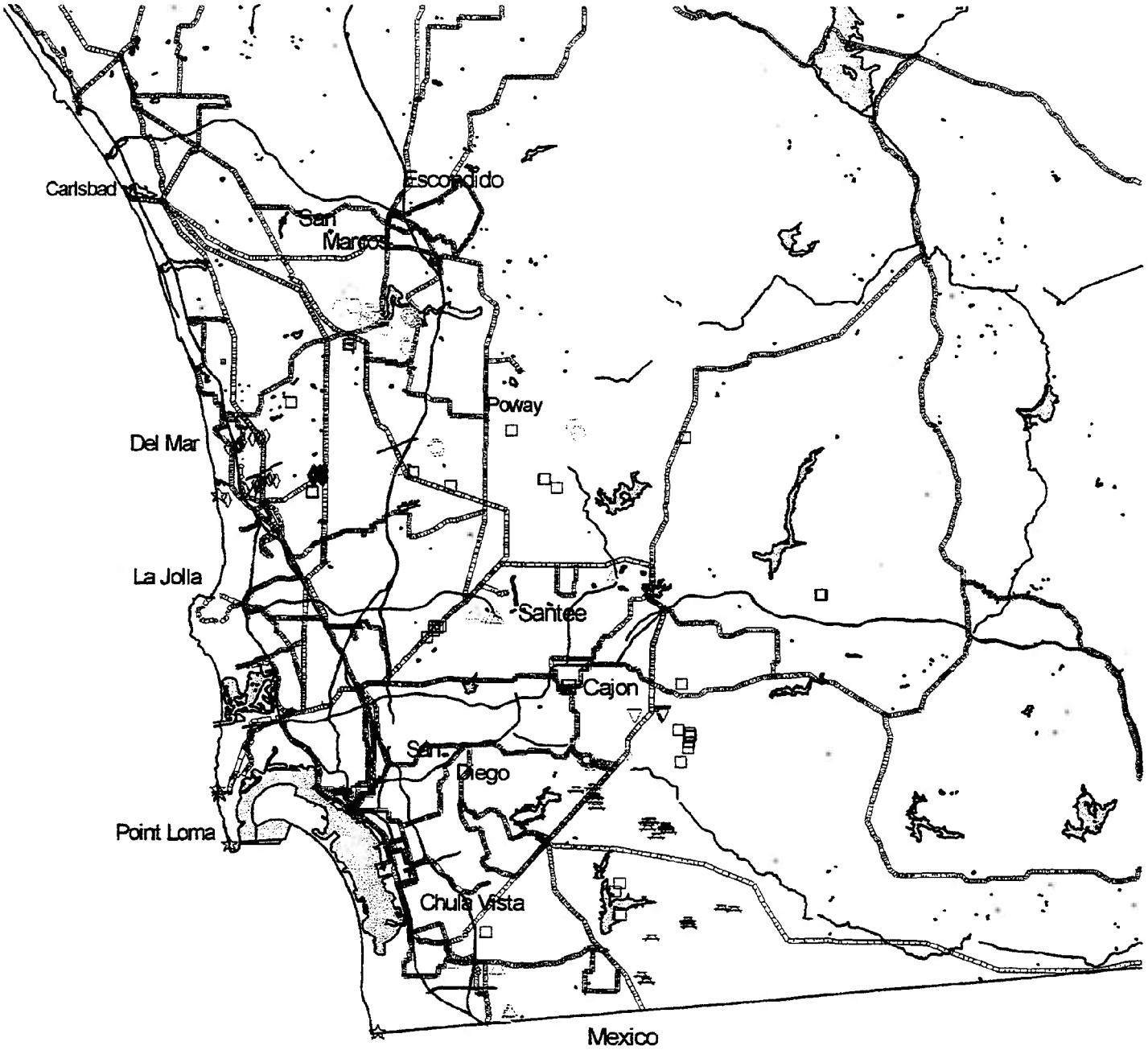
SDG&E Subregional NCCP



MSCP Selected Sensitive Plants (Figure 3.1a)
- San Diego Thorn-Mint
- Shaw's Agave
- San Diego Ambrosia
- Del Mar Manzanita
- Otay Manzanita
- Dean's Milk Vetch
- Encinitas Baccharis
- SDG&E Major Transmission Lines
- Lakes
- Freeways
- San Diego County

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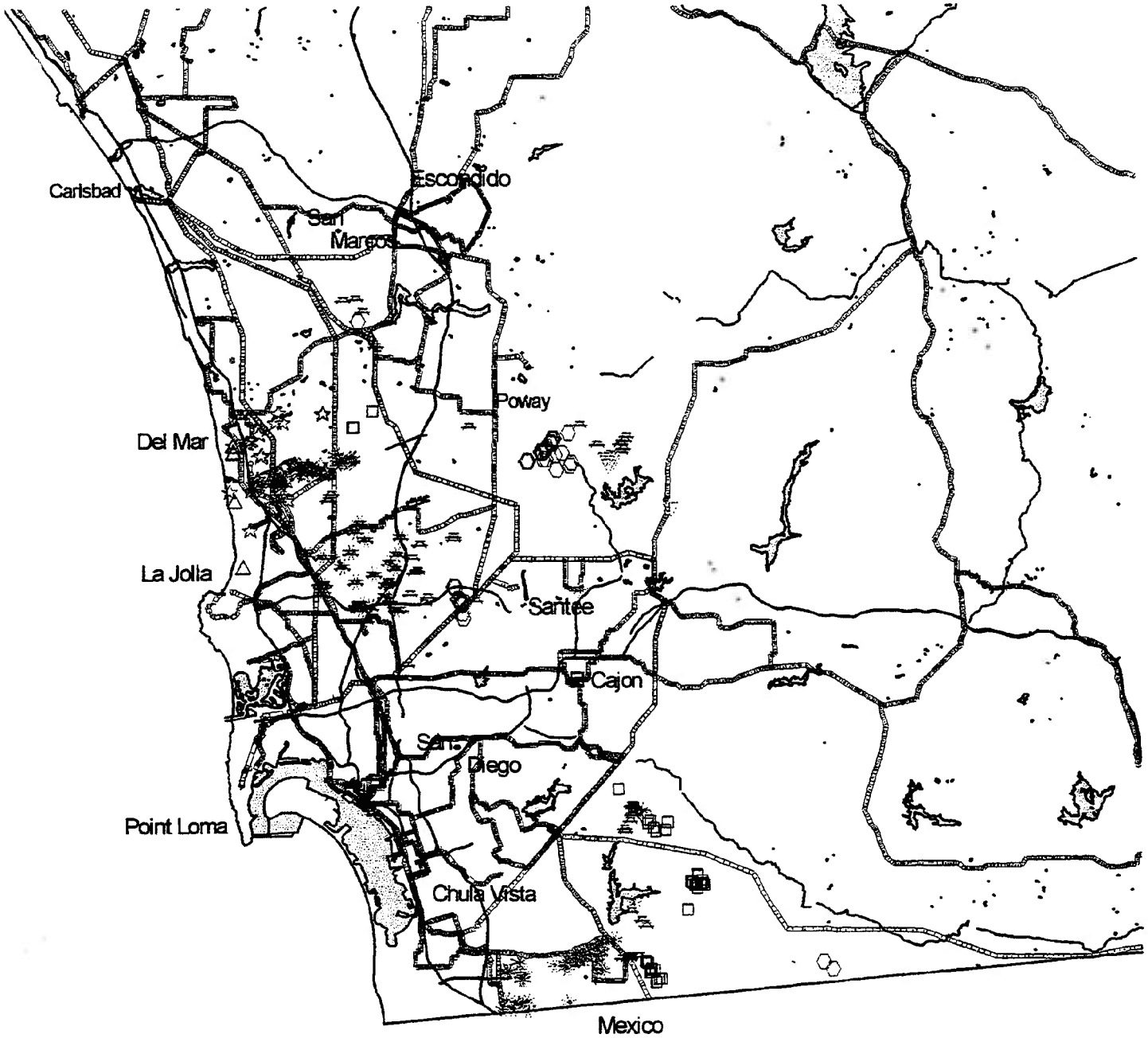
N

FIGURE
3.1a

SDGE Subregional Natural Community Conservation Plan

SDG&E Subregional NCCP



10 0 Miles

MSCP Selected Sensitive Plants (Figure 3.1b)
- Orcutt's Brodiaea
- Dunn's Mariposa Lily
- Slendor-Pod Jewelflower
- Lakeside Ceanothus
- Del Mar Mesa Sand Aster
- Short-Leaved Dudleya
- Sticky Dudleya
- San Diego Button-Celery
- SDG&E Major Transmission Lines
- Lakes
- Freeways
- San Diego County

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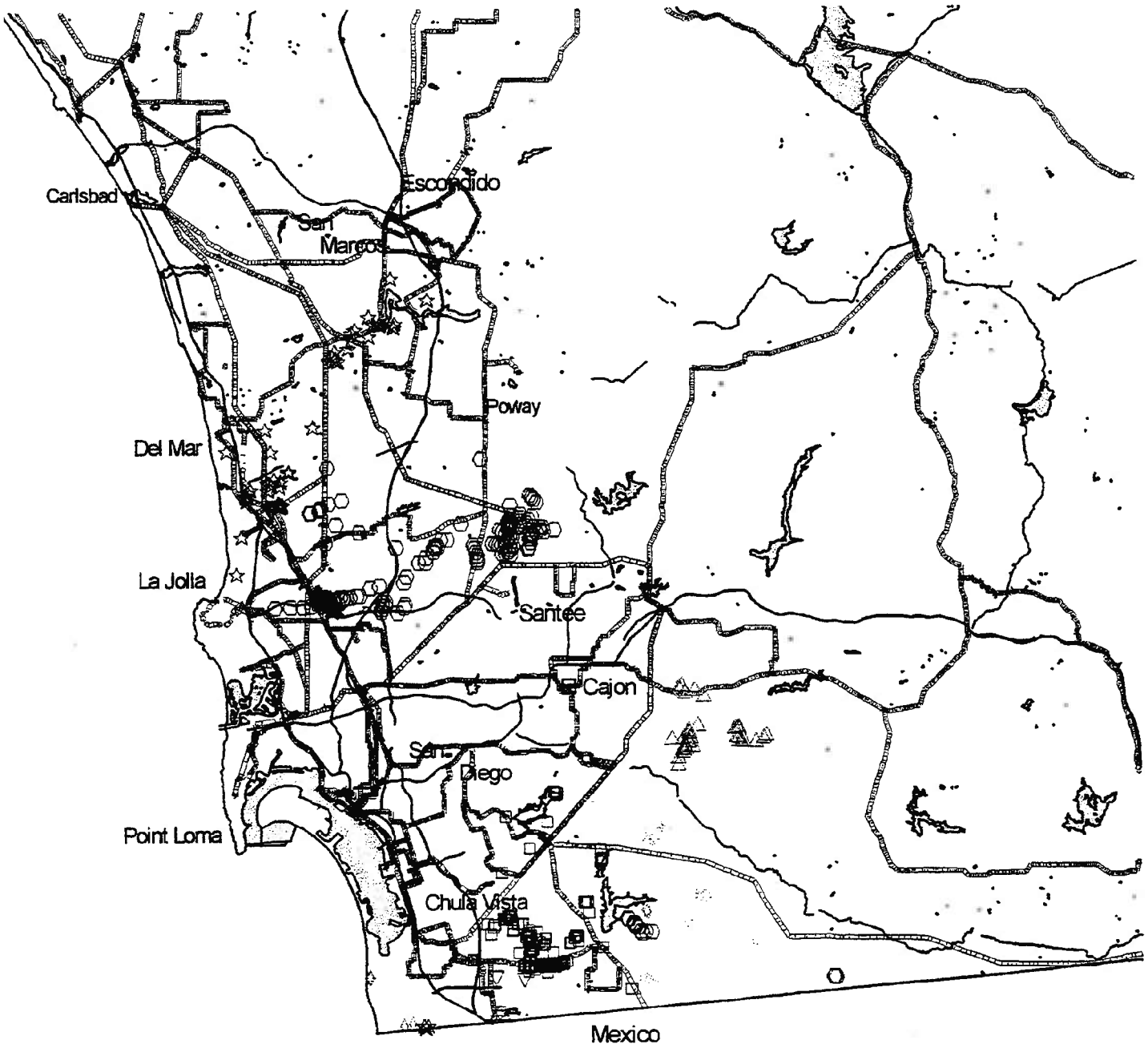
N

FIGURE 3.1b

SDGE Subregional Natural Community Conservation Plan

SDG&E Subregional NCCP



10 0 Miles

MSCP Selected Sensitive Plants (Figure 3.1c)
- Wart-Stemmed Ceanothus
- Orcutt's Bird's-Beak
- Otay Tarplant
- Gander's Pitcher Sage
- Willowy Monardella
- Dehesa Bear Grass
- California Orcutt Grass
- Small-Leaved Rose
- SDG&E Major Transmission Lines
- Lakes
- Freeways
- San Diego County

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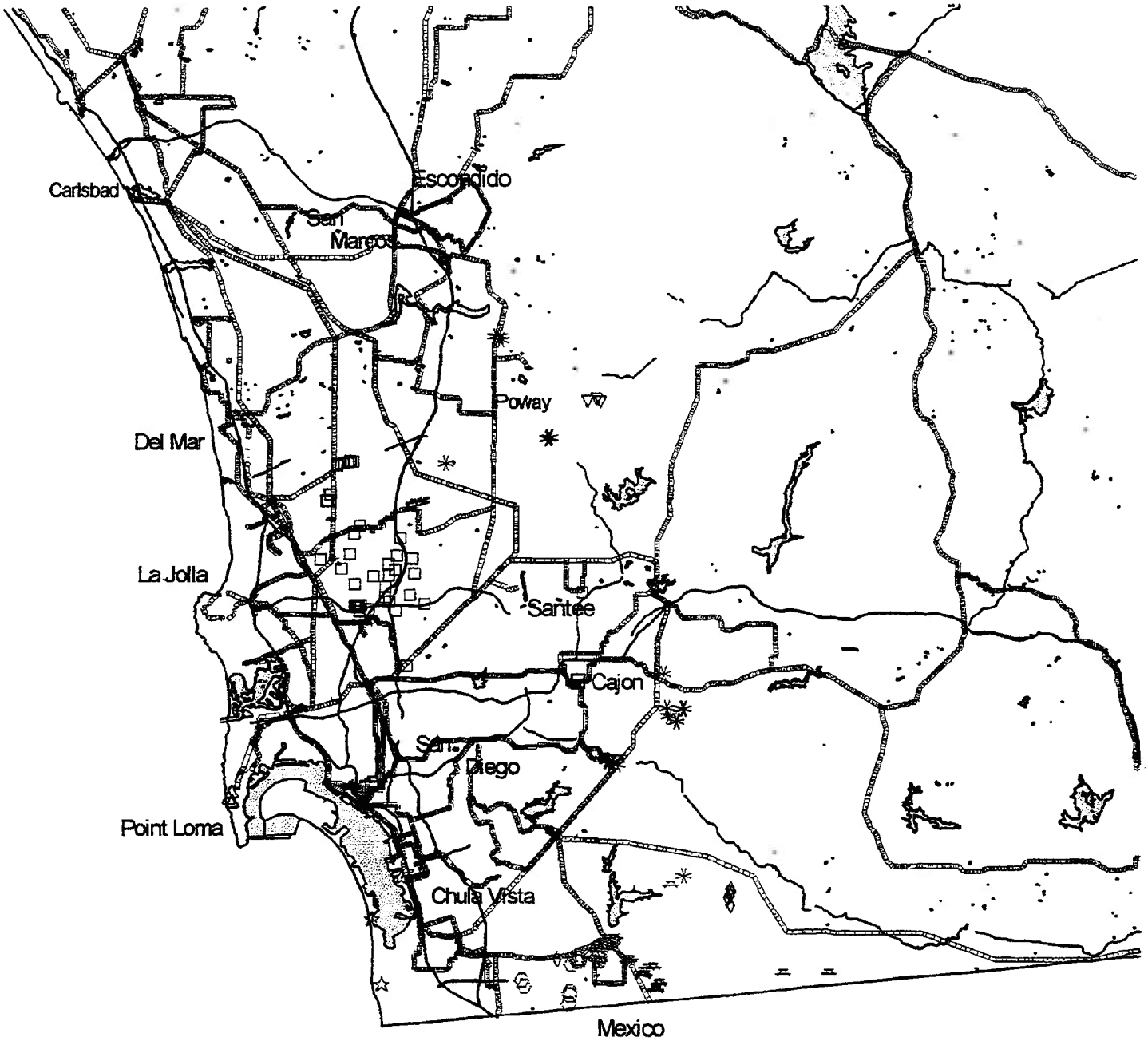
N

FIGURE
3.1c

SDGE

Subregional Natural Community Conservation Plan

SDG&E Subregional NCCP



MSCP Selected Sensitive Plants (Figure 3.1d)
- San Diego Mesa Mint
- Otay Mesa Mint
- Coast Wallflower
- Mexican Flannelbush
- Tecate Cypress
- Heart-Leaved Pitcher Sage
- Salt Marsh Bird's-Beak
- Palmer's Ericameria
- SDG&E Major Transmission Lines
- Lakes
- Freeways
- San Diego County

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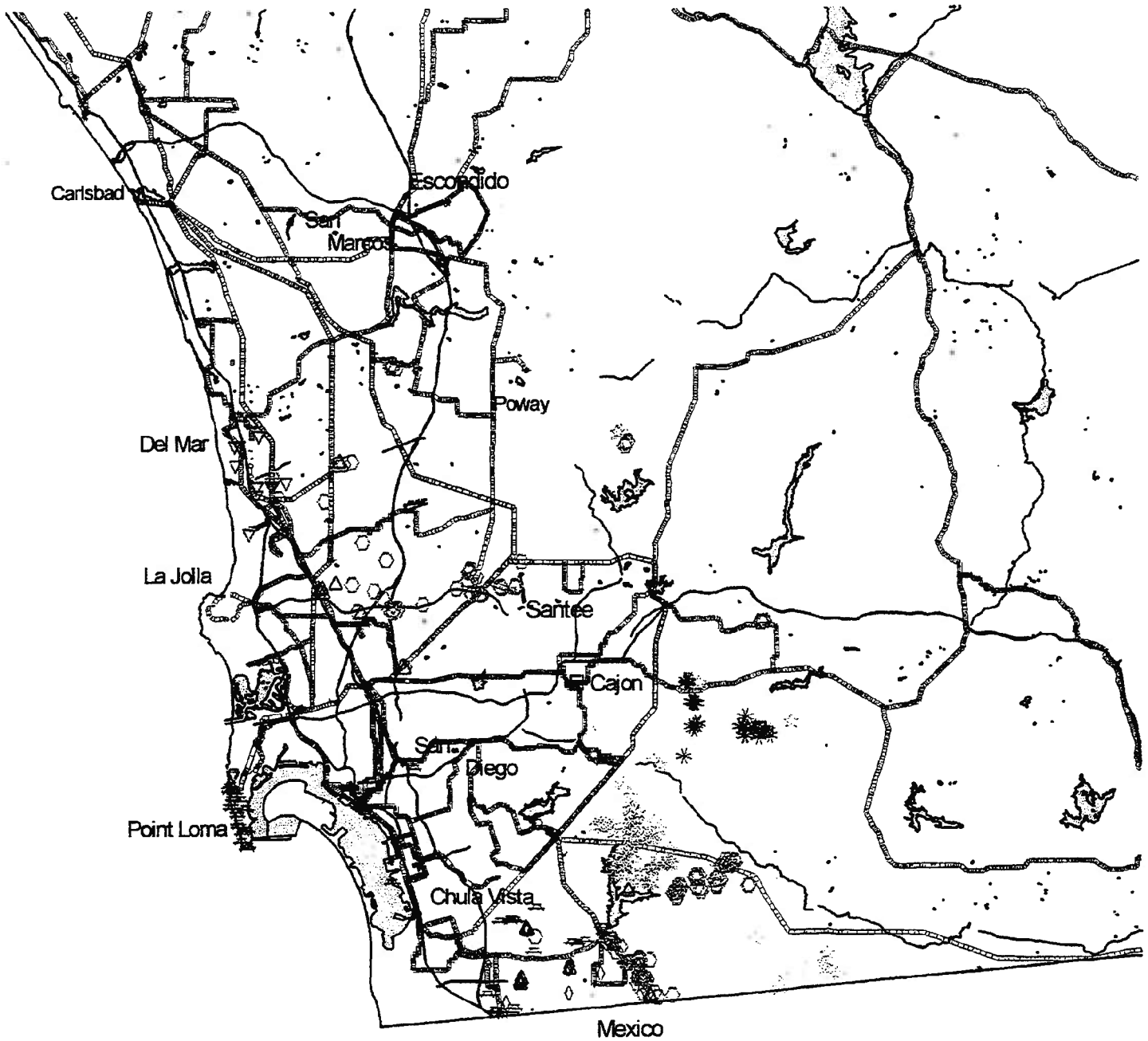
N

FIGURE
3.1d

SDGE Subregional Natural Community Conservation Plan

SDG&E Subregional NCCP



MSCP Selected Sensitive Plants (Figure 3.1e)
- Gander's Butterweed
- San Diego Goldenstar
- Little Mousetail
- Prostrate Navarretia
- Snake Cholla
- Torrey Pine
- Narrow-Leaved Nightshade
- Parry's Tetracoccus
- SDG&E Major Transmission Lines
- Lakes
- Freeways
- San Diego County

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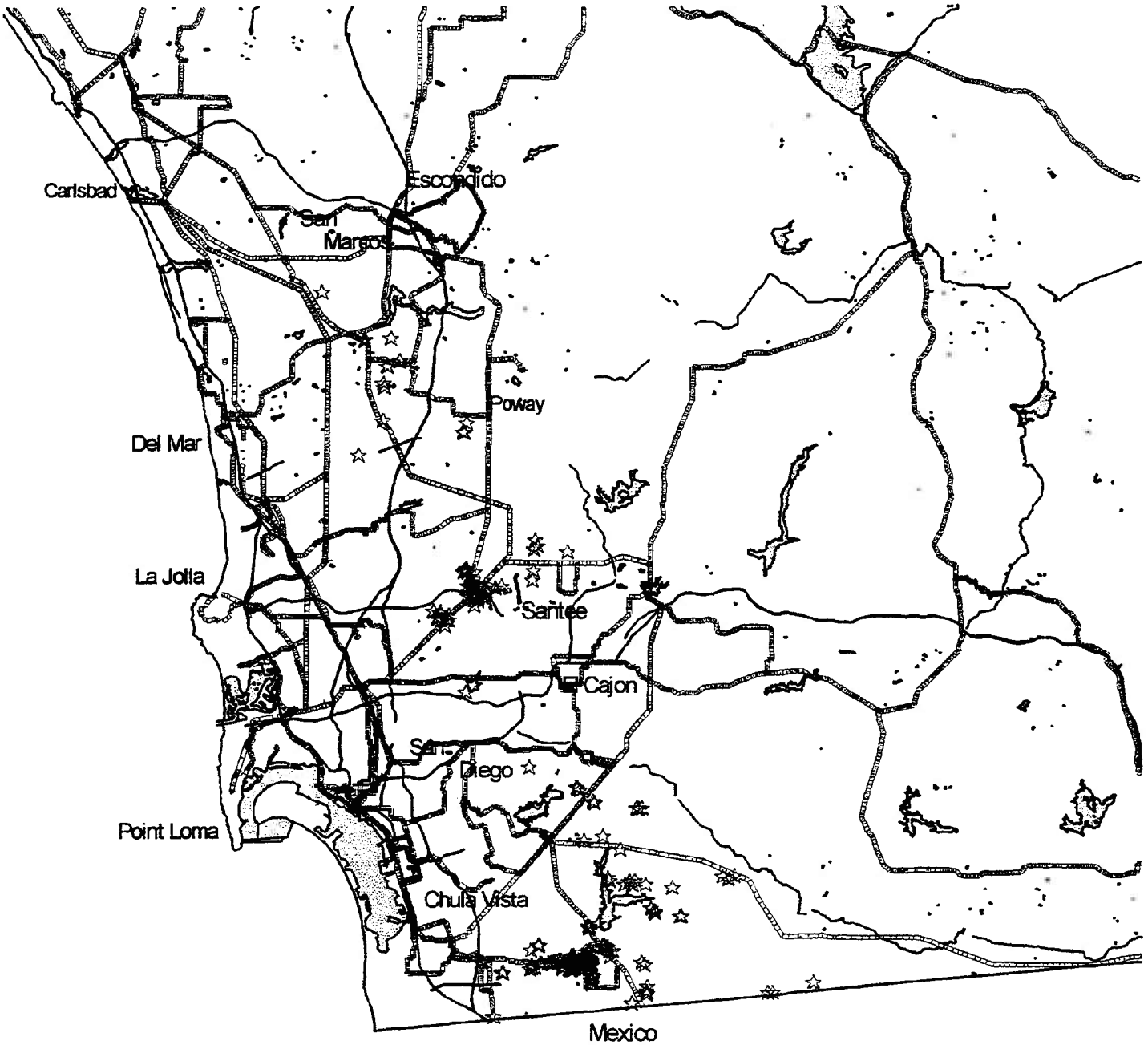
N

FIGURE
3.1e

SDGE Subregional Natural Community Conservation Plan

SDG&E Subregional NCCP



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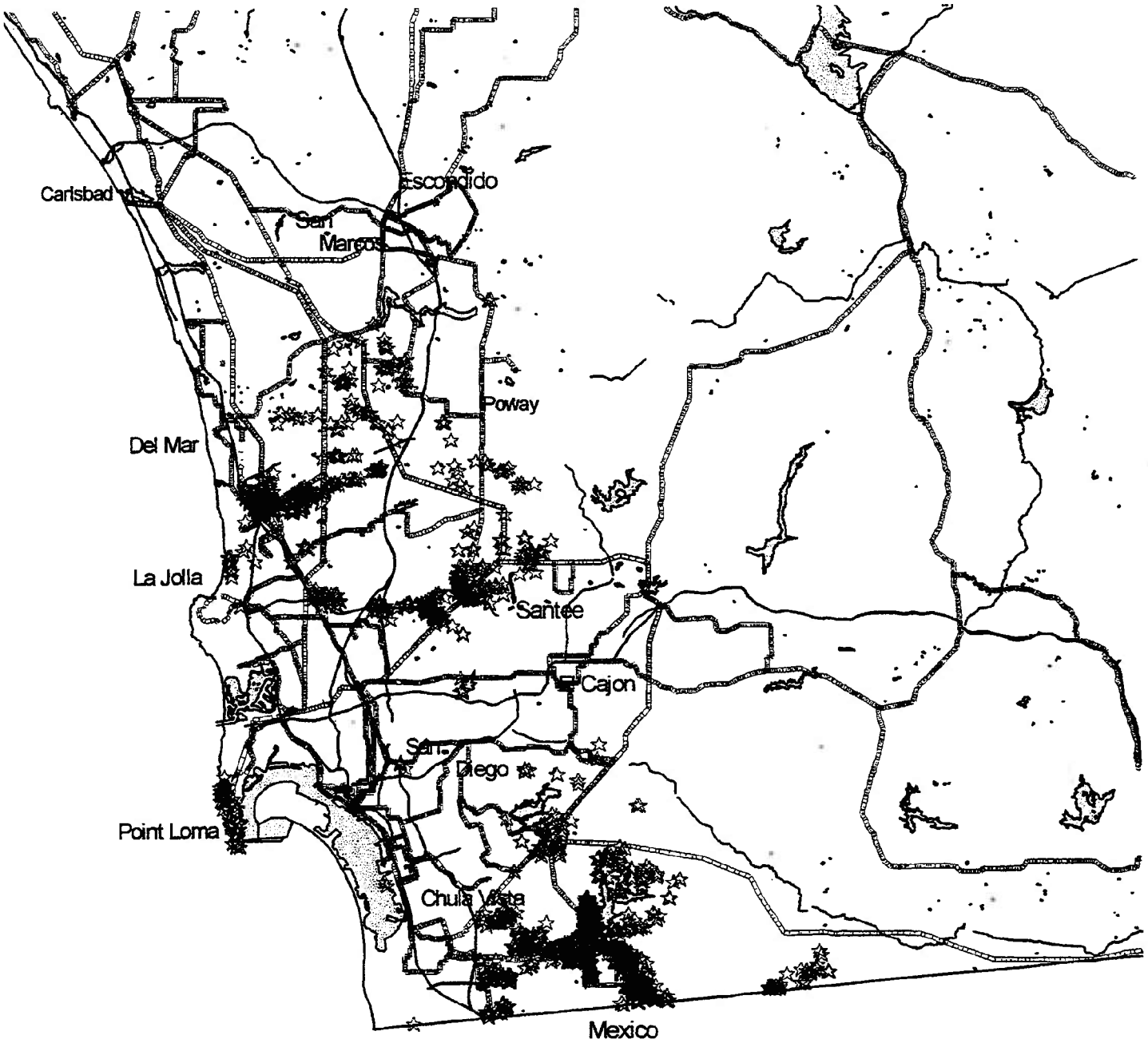
N

MSCP Selected Sensitive Plants (Figure 3.1f)
- Variegated Dudleya
- SDG&E Major Transmission Lines
- Lakes
- Freeways
- San Diego County

FIGURE
3.1f

SDGE Subregional Natural Community Conservation Plan

SDG&E Subregional NCCP



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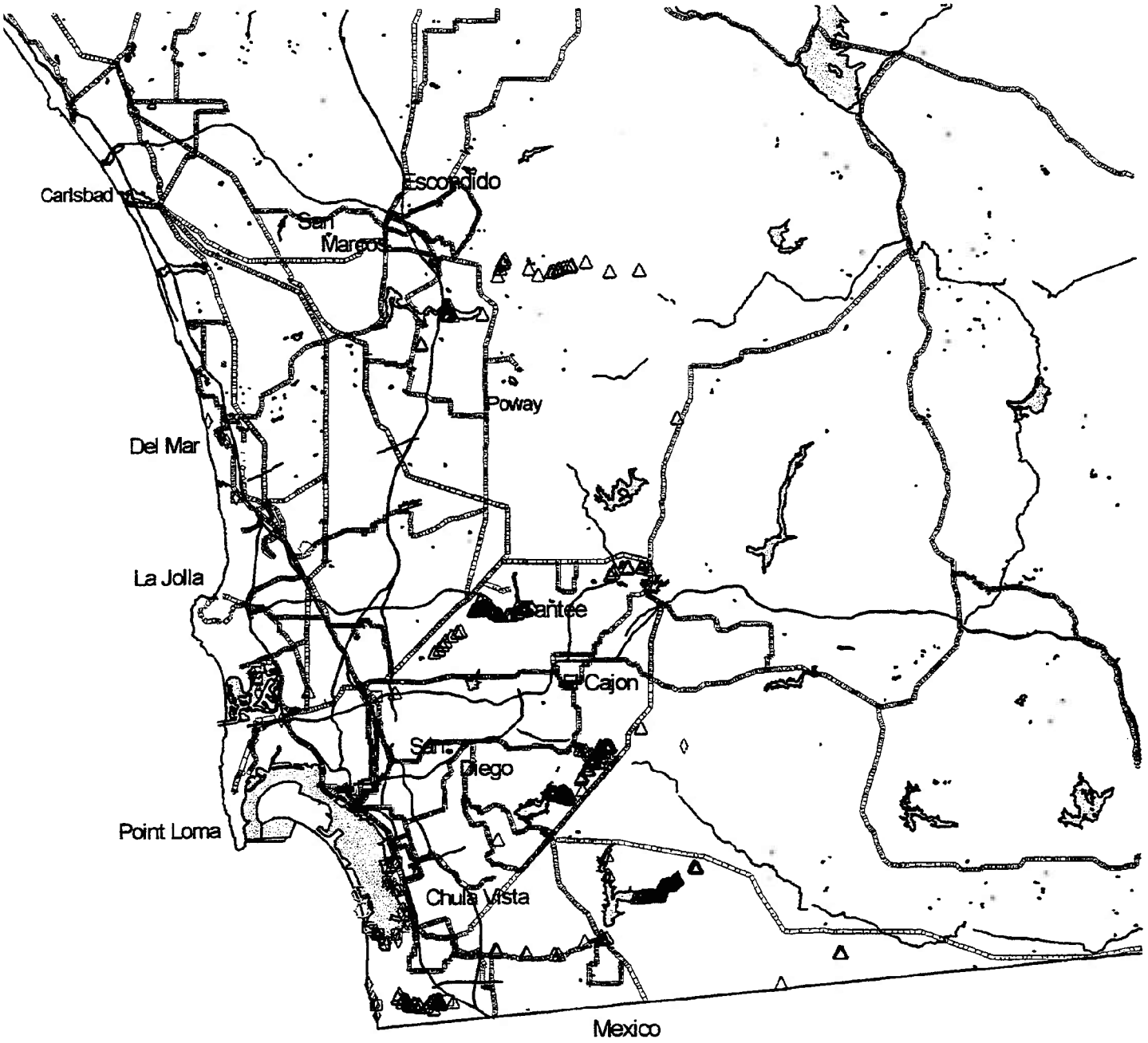
N

MSCP Selected Sensitive Plants (Figure 3.1g)
- San Diego Barrel Cactus
- SDG&E Major Transmission Lines
- Lakes
- Freeways
- San Diego County

FIGURE
3.1g

SDGE Subregional Natural Community Conservation Plan

SDG&E Subregional NCCP



10 0 Miles

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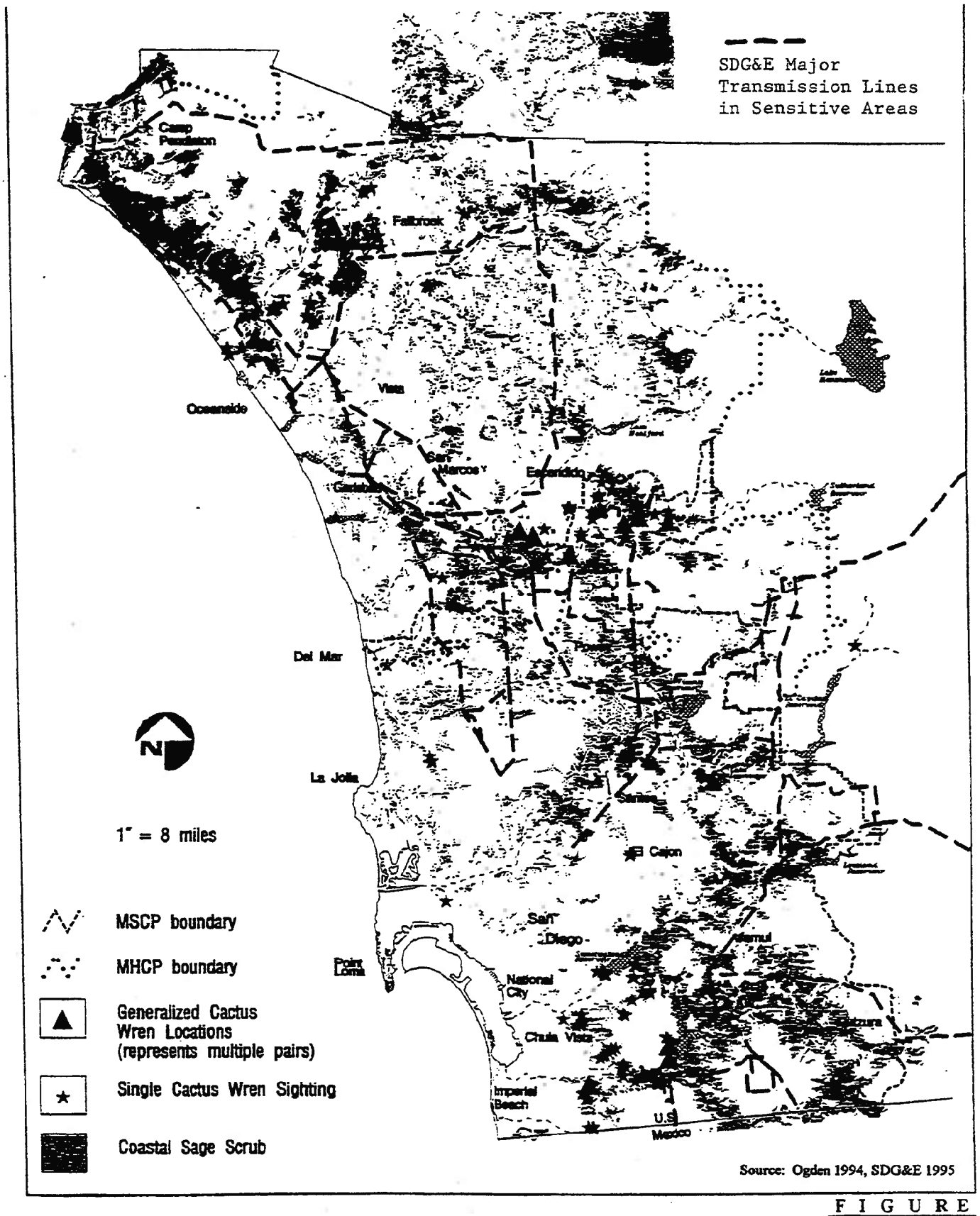
MSCP Selected Sensitive (Figure 3.1h)
- Light-Footed Clapper Rail
- Western Snowy Plover
- Least Bell's Vireo
- Belding's Savannah Sparrow
- SDG&E Major Transmission Lines
- Lakes
- Freeways
- San Diego County

N

FIGURE 3.1h

SDGE Subregional Natural Community Conservation Plan



Source: Ogden 1994, SDG&E 1995

FIGURE

3.1i

Known Distribution of Coastal Cactus Wren in San Diego County

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3.2 Impact Assessment

As a regional energy provider SDG&E has several roles. One of the roles is to be a developer. SDG&E must develop and maintain a region-wide network of gas and electric transmission, distribution and resource facilities. From the standpoint of capital investment, SDG&E is probably the largest developer in the SDG&E service territory.

Energy development, like all development, has impacts. However, it is important when reviewing this document that the reader does not confuse the impacts of energy development with typical commercial, industrial, and residential development. Typical development permanently removes large areas of native vegetation, changes the topography, and covers much of the developed area with impervious surfaces. Most of SDG&E's previous and future energy development occurs above or below the earth's surface with very small areas of permanent disturbance. Impacts from energy development include: narrow and unpaved access roads, habitat that continues to exist and grow in rights-of-way, energy facilities (except for generators) that are unoccupied and generate very little traffic, and little or no contribution to edge effects due to predatory pets or extensive human activity. Negative impacts which may occur are habitat fragmentation and provision of human access to remote areas leading to potential exotic species invasion and destruction of habitat.

Construction impacts associated with the development of energy facilities also have less impact than those of typical developments because (1) construction projects associated with development of energy facilities normally are completed over a period of days rather than months or years as with other development projects, and (2) construction activities

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themselves have less impact, for example, equipment and materials are often delivered by air, thereby minimizing ground disturbances.

Another significant difference between the development of energy facilities and typical development is that there is a greater degree of flexibility in siting and design when developing energy facilities. It is not to SDG&E's benefit to site and develop facilities in an environmentally insensitive manner. Doing so would not result in a measurable increase to company profits. Therefore, it is in the best interest of SDG&E, its rate payers, and shareholders for the company to adopt development and maintenance policies designed toward environmental protection and enhancement. SDG&E is also a resident of the service territory (has been for well over a century) and would like to continue to be a welcome one.

3.2.1 Take of Covered Species

SDG&E's Activities will likely result in the Take of Covered Species and impact their habitat when incidental to otherwise lawful activities and when conducted in full compliance with the terms and conditions of this Subregional Plan.

However, this Subregional Plan is intended to avoid incidents resulting in the Take of Covered Species whenever possible and to implement measures to minimize and mitigate any Take of Covered Species to the maximum extent possible. Events of Take occurring within the terms and conditions of this Subregional Plan will not appreciably reduce the likelihood of the survival and recovery of any Covered Species.

Take of certain Covered Species is to be avoided. (These species are indicated in the Covered Species Table 3.1.) Take authorizations for these so called narrow endemic species will be limited to emergencies and unavoidable impacts from repairs to existing facilities. For new projects, kill or injury of such animal species or destruction of such plants or their supporting habitat would not be covered by the Plan and Implementing Agreement.

3.2.2 Types of Take of Covered Species

3.2.1.1 Impacts to Individual Animals

The Take of protected individuals and impacts to other Covered Species will likely occur as a result of SDG&E's Activities. SDG&E's Activities, including its installation, use, maintenance and repair of its Facilities, are more fully described in Section 2. The Take of these individuals may occur in the form of harassment, death, or displacement.

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Of the aforementioned forms of Take of Covered Species and impacts to Covered Species, harassment may be the most common. Harassment of individuals of such species will occur as an unavoidable and unintentional consequence of conducting certain Activities and mitigation measures, such as human activity, the operation of machinery and equipment, and associated noise. Direct killing of or injury to individuals may result from their being struck by vehicles or equipment, or being crushed or trapped in their burrows. Displacement may occur when individual animals move away from long-term maintenance operations to surrounding areas and are forced to compete with animals in these areas for food and living space. Take of Covered Species due to these impacts will be eliminated, minimized or mitigated to the maximum extent possible utilizing the mitigation measures described in Section 7 of the Subregional Plan.

In certain situations, Take of certain species is authorized only under the rubric of operation and maintenance Activities. These situations typically involve potential impacts from Activities on endemic species having narrow ranges in areas *without* an approved regional conservation plan.

For example, Take of the Stephens' Kangaroo Rat (SKR) is only permitted for SDG&E in the Multiple Habitat Conservation Program (MHCP) planning area in northern San Diego County for operation and maintenance activities until the MHCP is approved. After that time, and provided that SKR is conserved within MHCP, Take for new construction Activities will be permitted under the terms of this Plan. This condition only applies to the SKR populations in San Diego County; Riverside County has an approved Take process and mitigation protocol. Furthermore, SDG&E's facilities in Riverside County already exist, and no new impacts are expected.

3.2.1.2 Impacts to Individual Plants

Areas known to contain Covered Species of plants have been delineated in preliminary sruveys for MSCP and MHCP and will be flagged to eliminate or reduce impacts during Activities in these areas. Impacts to individual plants will primarily result from urgent or emergency repair Activities. This Subregional Plan prescribes the implementation of mitigation measures such as specific restoration or reclamation. Unknown populations of Covered Species plants, naturally occurring or intentionally introduced, are expected to exist with the Subregional Plan Area and may also be impacted by SDG&E's Activities. Pre-activity

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surveys for Covered Species of plants will identify areas of potential impact, and implementation of the provisions for avoidance and/or revegetation as set forth in Section 7 of this Subregional Plan will reduce these impacts.

SDG&E's Geographic Information System (GIS) will contain sensitive species and habitat data to demonstrate sensitive working areas. The Environmental Surveyor will continue to add new data to GIS based on preactivity surveys.

Expansion of Miguel Substation:

SDG&E owns land within the boundaries of its Miguel Substation property adjacent to the Sweetwater Reservoir on which significant populations of Otay Tarplant *"Hemizonia conjugens"* are found. Expansion plans for the substation could threaten about 1,000 - 2,000 of the approximately 12,000 individuals of the Tarplant population on the SDG&E property. Due to the rapidly changing nature of the electric industry, it is impossible to predict with complete certainty how the substation will be expanded, or even if it will become necessary. SDG&E has committed that impacts to sensitive species like the Tarplant, however, will be avoided to the extent possible.

Figure 10a shows the existing footprint of the substation development areas, with the biological resources indicated adjacent to the substation pads. Also outlined is one expansion scenario, the configuration of which is largely determined by the geometry of the existing equipment. Any impacts to the Tarplant populations due to an expansion would be minimized to the extent possible. Should impacts be necessitated, they would be mitigated with the set aside of a nearby area of Tarplant within the Miguel Substation property at a ratio of 2:1. The remaining Tarplant would be retained for mitigation use at a later date.

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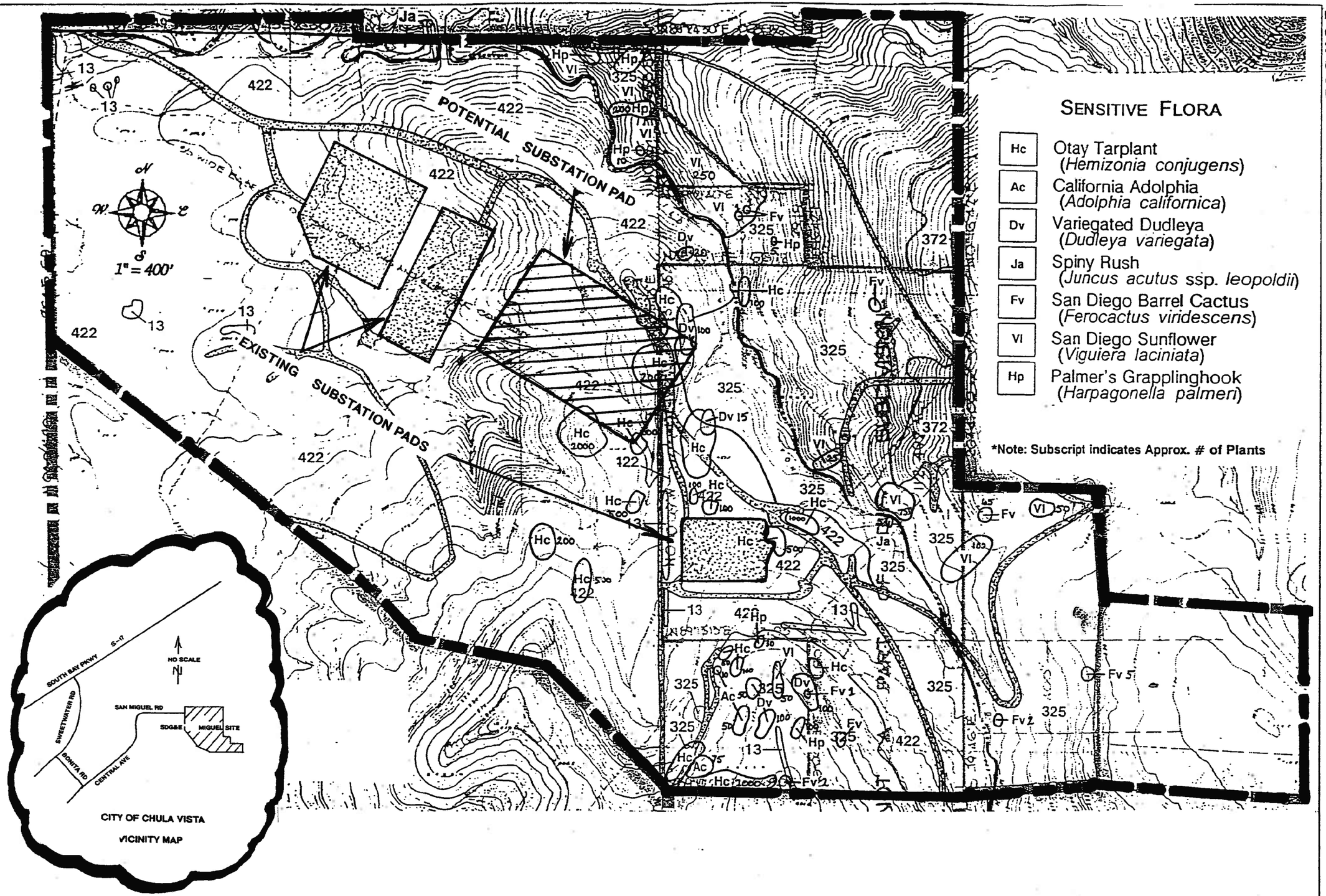

FIGURE 10a

SDG&E MIGUEL SUBSTATION SITE

Subregional Natural Community Conservation Plan

SDGE

3.2.2.2 Impacts to Habitat

SDG&E's Activities will likely result in some impacts to the habitats of Covered Species. Destruction of habitat, including blading or scraping, excavation, and erosion, along with fragmentation and human access to restricted areas, will likely occur in some areas as a result of SDG&E's Activities. Modification of habitat may reduce the prey base or other biological resources for Covered Species and thereby affect an individual's ability to survive. Implementation of the mitigation measures in Section 7.1 will avoid or reduce these impacts to the maximum extent possible.

3.2.2.3 Duration and Intensity of Impacts

The duration and intensity of impacts to Covered Species will vary depending on the location and type of Activity being conducted. Some Activities will result in occasional harassment to individuals while others may result in greater impacts such as the killing of individuals or permanent habitat loss within the Subregional Plan Area. These impacts may be expected to occur throughout the year and may occur within any or all of the Subregional Plan Area.

For example, Activities such as the installation, use, maintenance or repair of Facilities may cause temporary harassment of individuals, while grading and clearing of electric substation pads, gas facilities, or access roads may result in permanent disturbance. Most Activities will allow a majority of Covered Species to re-occupy habitat after the completion of installation, maintenance and repair of a Facility and during its use (e.g. transmission line).

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4 Land Use

This section of the Subregional Plan discusses existing and proposed land use activities and policies guiding SDG&E Activities within the Subregional Plan Area.

4.1 Existing Land Use Activities

Existing Land Uses
Existing land use activities on SDG&E owned property, easements, and rights-of-way include installation, operation, maintenance and repair of SDG&E Facilities.

Although a good portion of SDG&E's easements are located within urbanized areas, many large easement corridors cross through and connect biologically sensitive and diverse areas. In addition, a number of substation and gas regulator sites adjoin or contain valuable native habitats. This Subregional Plan addresses only property owned by SDG&E, SDG&E easements and rights-of-way, and Activities within biologically sensitive areas.

4.1.1 Electric Distribution Easement Corridors

These easements are typically 12' in width or narrower. Facilities consists of power poles located in the center of the easement with attachments such as guy anchors, circuit switches, stub and anchors, wires and communication cables. The total percentage of the above ground improvements in the easement area is less than 1% over an easement 200' in length. Access routes to these Facilities are not usually maintained, enabling the habitat to recover.

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4.1.2 Electric Transmission Easement Corridors

These easements are typically 20' in width or greater. Facilities may consist of power poles, two-pole structures, steel poles or lattice steel towers. 20'-wide corridors contain a single pole line, while corridors greater than 100' in width could contain as many as five individual transmission lines. Due to the greater span distance between structures, above ground improvements are approximately less than 5% of the easement area. Access to these improvements is normally provided via access roads.

4.1.3 Gas Transmission Easement Corridors

These easements are normally 40' in width or narrower. Above ground improvements are minor and consist of valve boxes, cathodic stations, pipeline identification markers and leak detection devices. Above ground improvements are approximately less than 1% of the easement area. Access to these improvements is provided via access roads.

4.1.4 Electric Substations and Gas Regulator Stations.

These Facilities are located along or at the terminus of transmission easement corridors and are usually surrounded by landscaped areas or as open space areas. It is essential for safe and reliable service that access roads be maintained in a condition which assures that these Facilities can be operated, as necessary, on a 24-hour basis.

4.2 Proposed Land Uses

Forecasting the need, location and exact nature of future energy projects is accomplished by interpreting the projected growth plans from the various local and regional agencies. SDG&E identifies future "load centers" based on the locations, densities, and types of growth indicated in general plans and population forecasts. The current system design of SDG&E's energy network is a response to those plans and forecasts. Many rights-of-way and substations were purchased with space for expansion in the interest of serving future "load centers" that could be predicted from agency plans.

Major preservation plans, currently being prepared under NCCP legislation, will affect the existing growth forecasts to the extent that significant shifts in load center size and location are expected. The results will dictate a reevaluation of the system design needed to serve this region. Some rights-of-way and substations that were intended for expansion may be fully utilized. Existing urban areas may now need to be served with additional utility improvements to accommodate development intensification.

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Therefore, SDG&E will not be able to accurately predict the extent of these "load center" shifts until the various preservation plans are completed and agencies modify their growth plans to reflect new patterns of growth and preservation. This Subregional Plan assumes that San Diego will continue to grow, but does not assume where the growth will occur. However, the plan does assume that growth will mean expansion of the energy system. The predictions pertaining to miles of gas and electric transmission lines, number of substations, and amounts of other energy facilities have been based on historical data.

Each new SDG&E project will be subject to CEQA and, if there is federal involvement, NEPA. Exact impacts and mitigation will be determined at that time. At this time, the plan only estimates disturbances to habitat based on past experiences. However, those preparing this plan have estimated that more mitigation than is necessary is being provided to prevent a shortfall as projects are needed.

This Subregional Plan may be amended by SDG&E when General Plans in the region are updated. At that time, the company can better predict what kinds of facilities will be needed and where to serve future growth areas.

In a limited number of cases, there are existing transmission corridors capable of accommodating additional electric and gas transmission facilities. These transmission corridors are shown in fluorescent green on Figure 11a. The vacant positions in Orange County are attached as Figure 11b.

4.3 Projected Grading Disturbances

SDG&E has estimated a total of 124 acres of both temporary and permanent grading disturbances over the next 25 years. Section 4.4 discusses how this calculation was made. It is important to note that not all of this acreage disturbance would occur within habitats considered native, sensitive, or slated for protection. Nevertheless, this estimate should be considered valid because it covers both native and disturbed areas, and as a result reflects the worst case scenario. Specific estimates of native habitat disturbances can only be quantified through individual review of each SDG&E Activity just prior to its occurrence.

4.4 Methodology for Estimating Grading Disturbance

The estimate for total grading disturbances was based on projecting 7 typical SDG&E activities over the course of 25 years. Estimates of individual grading disturbances were based on previous experiences by SDG&E.

4.4.1 New Substations

Approximately 8 acres of permanent grading disturbances may result from the construction of four new electric distribution substations. Of the

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estimates provided, this is the only one in which grading disturbance over native habitat is probable. Individually, each substation could impact 2 acres of habitat.

The typical substation site is 4.5 acres in size. Of this amount, up to 2 acres accommodate improvements for substation transformers, control house racks, fencing, roads, and transmission feed structures. The remaining land is devoted to setbacks, landscaping, open space access, and fire breaks where required. Figure 12 depicts the typical layout for each substation.

4.4.2 New Electric Transmission Lines Requiring New Rights-of-Way

Approximately 35 acres of grading disturbances may result from the construction of 7 new transmission lines. This acreage amount is the result of each new line requiring an entirely new right-of-way corridor and associated access road system. The above figure represents the aggregate of two different types of new transmission lines. Each type is described as follows:

- New electric transmission, steel: 3 new transmission lines would be supported by either steel lattice towers or steel poles. Each new line would typically require a new right-of-way 100' in width and 4 miles in length. Each would begin and terminate at different substations or at existing transmission lines. Typical ground disturbances for each line would include grading 18 structure sites (25' x 100' each), 2.4 miles of 12' wide access road and 2 temporary wire pulling pads (50'x 200' each). Figure 13 depicts this configuration.

- New electric transmission, wood: 4 new transmission lines would be supported by wood poles. Each new line would typically require a new right-of-way 100' in width and 4 miles in length. Each would begin and terminate at different substations or at existing transmission lines. Typical ground disturbances for each line would include grading 60 structure sites (20' x 20'), 2.4 miles of 12' wide access roads and 4 temporary wire pulling pads (50' x 200' each). Figure 14 depicts this configuration.

  Note: New access roads do not typically traverse the entire right-of-way because of impassable terrain and the use of existing access roads.

4.4.3 New Electric Transmission Lines Within Existing Rights-of-Way

Approximately 23 acres of grading disturbances may result from the construction of 10 new transmission lines placed within existing rights-of-way. This acreage amount is the result of each new line be able to utilize existing access road infrastructure. The above figure represents the

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aggregate of two different types of new transmission lines placed within existing rights-of-way. Each type is described as follows:

- New electric transmission, steel: 4 new transmission lines would be supported by either steel lattice towers or steel poles. Each new line would typically utilize an existing right of way that is 100' in width and 4 miles in length. Each would begin and terminate at different substations or at existing transmission lines. Typical ground disturbances for each line would require the grading of 18 structure sites (25' x 100' each), .57 miles of 12' access roads and 2 temporary wire pulling pads (50' x 200' each). Figure 15 depicts this configuration.

- New electric transmission, wood: 6 new transmission lines would be supported by wood poles. Each new line would utilize an existing right-of-way that is 100' in width and 4 miles in length. Each would begin and terminate at different substations or at existing transmission lines. Typical ground disturbances for each line would include grading 60 poles sites (20' x 20' each), .57 miles of 12' wide access roads and 4 temporary wire pulling pads (50' x 200'). Figure 16 depicts this configuration.

  Note: New access roads do not typically traverse the entire right-of-way because of impassable terrain and the use of existing access roads.

4.4.4 Transmission Line Reconductoring

Approximately 11 acres of grading disturbances may result from the reconductoring (replacement of wire) of 16 existing transmission lines. Most of this disturbance is the result of creating pulling pads for wire spool trucks. The above figure represents the aggregate of two different types of transmission lines. Each type is described as follows:

- Transmission Line Reconductoring, steel: 8 transmission lines supported by steel lattice towers or steel poles may be reconductored. Each line would typically be within an existing right-of-way 100' in width and 4 miles in length. Each would begin and terminate at different substations or existing transmission lines. No new access roads or tower sites would be required. Typical ground disturbances for each line would be limited to temporary establishment of 2 wire pulling sites (50' x 200' each). Figure 17 depicts this configuration.

- Transmission Line Reconductoring, wood: 8 transmission lines supported by wood poles may be reconductored. Each line would be within an existing rights-of-way 100' in width and 4 miles in length.

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Each would begin and terminate at different substations or at existing transmission lines. No new access roads or poles sites would be required. Typical ground disturbances for each line would include establishment of 4 wire pulling (50' x 200' each). Figure 18 depicts this configuration.

4.4.5 Individual Minor Repairs, Overhead Electric Transmission or Distribution

Approximately 20 acres of grading disturbances may result from 240 various minor operational construction and maintenance repairs. Generally, these activities will occur within existing rights-of-way that contain both electric distribution and transmission facilities.

A typical example of an incident might be the replacement of a wooden power pole knocked over by high winds. Repair requirements would require grading to accommodate a new access road (150' x 12') to the site and temporary construction pad (40' x 40') for repair and installation of the replacement pole. Figure 19 depicts the typical configuration of an individual repair incident.

4.4.6 Gas Line Repairs

Approximately 19 acres of grading disturbances may result from 3 types of gas line repairs involving leaks, erosion and relocations. The above acreage is an aggregate of 3 types of repairs described as follows:

- Gas Line Leak Repair: 5 leak repair incidents are projected. Construction crews would excavate an area around the pipe so that a sleeve could be placed over the leak. The typical trench would be 10' x 100' and would be surrounded by a temporary construction area of 50' x 200'. Figure 20 depicts the typical configuration of an individual leak repair incident.

- Pipeline Relocation: 2 relocations are projected. Relocations due to pipeline failure are rare. A new pipeline alignment and necessary construction equipment would require a temporary construction area of 50' x 300'. Figure 21 depicts the typical configuration of an individual pipeline relocation.

- Gas Line Erosion Repair: 25 repair incidents are projected. These repairs are usually the result of streams eroding the earth from around pipelines and leaving them dangerously exposed. Typical improvements require an area of 50' x 100' so that unwanted fill material can be removed and replaced with recompacted material, erosion control blankets and or protective rip rap rock. An additional

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temporary construction area of 150' x 200' would surround the improvement area and would be used for grading equipment, trenching machines, cranes, crew trucks and storage. Figure 22 depicts the typical configuration of an individual gas line erosion repair.

4.4.7 New Gas Transmission

Approximately 8 acres of grading disturbances may result from the construction of one or more new gas transmission lines. This acreage amount is the result of the need for entirely new right-of-way corridor and associated road system.

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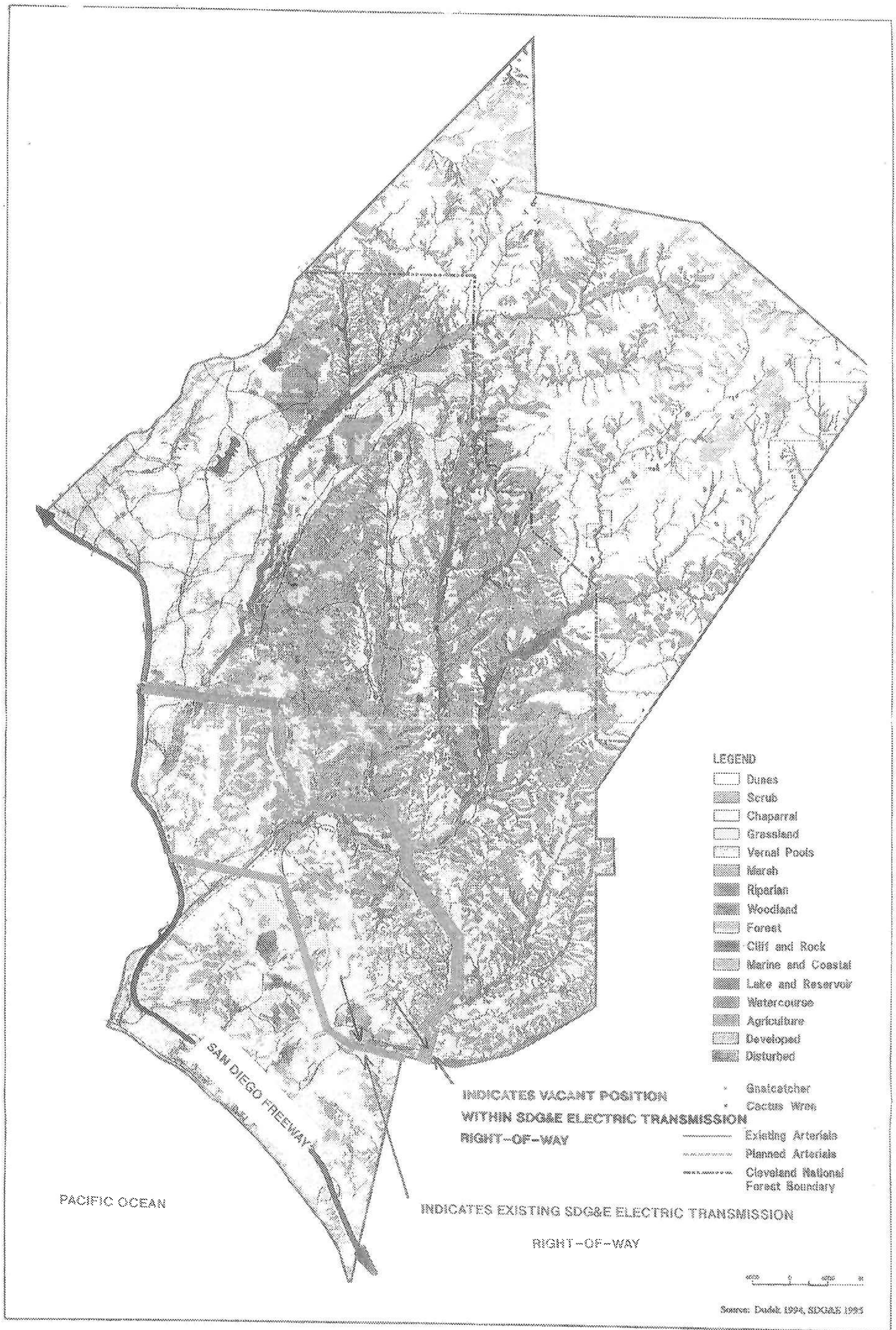
SDG&E Electric Transmssion System Vacant Positions in Transmission Corridors

Green Lines Are Vacant Positions

FIGURE 11a



SDG&E Electric Transmission System Vacant Positions in Transmission Corridors (Orange County)

FIGURE 11b

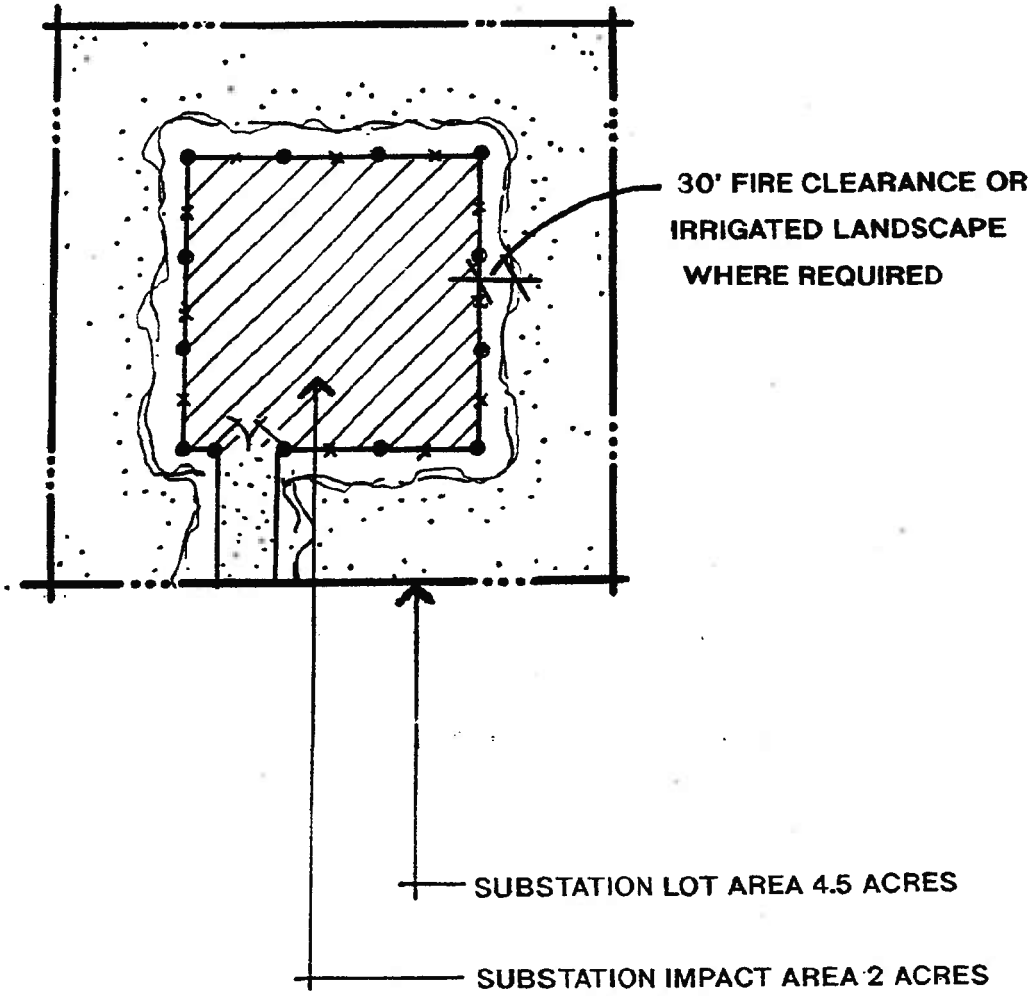


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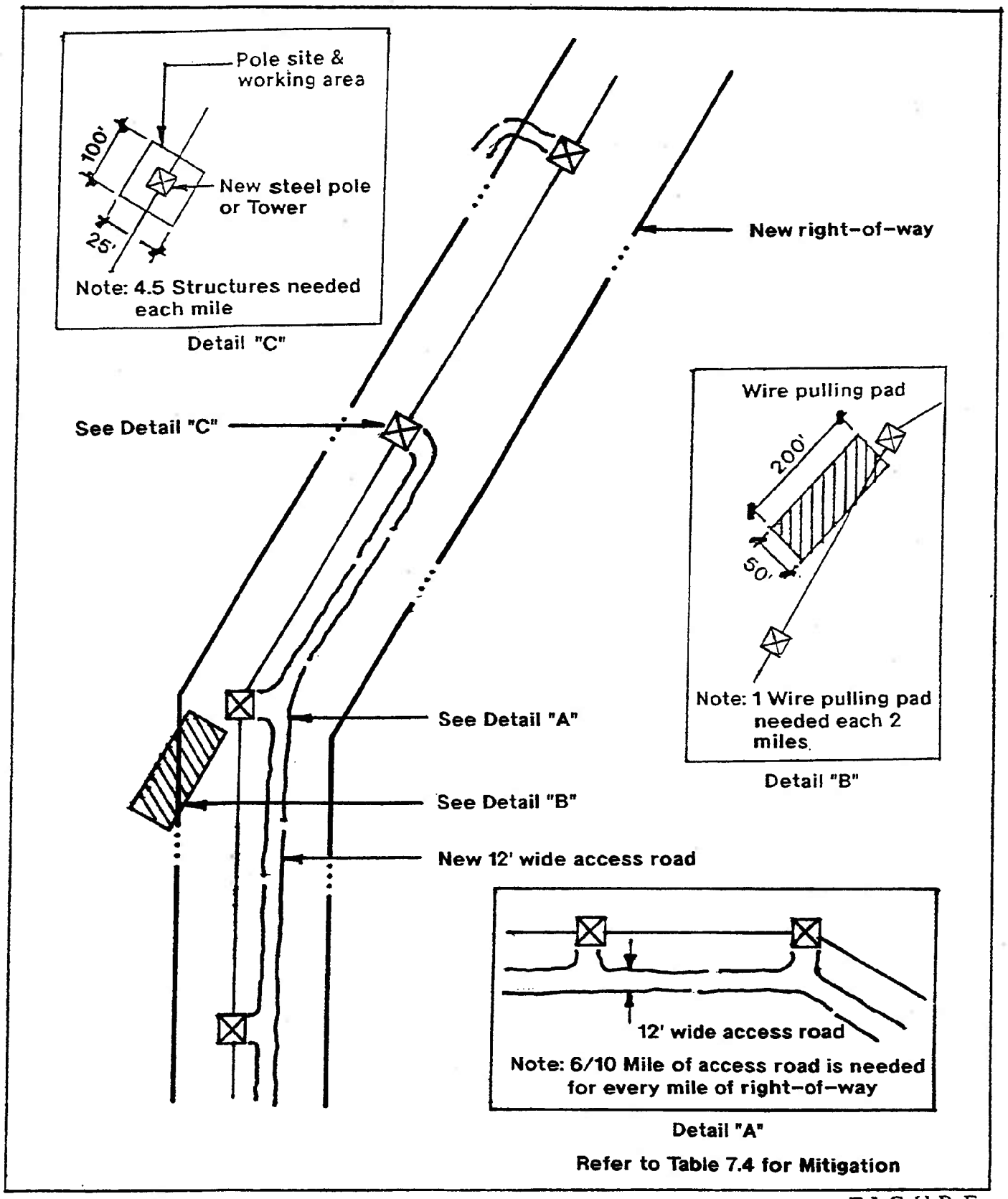
FIGURE

Typical Substation Impact Diagram

12



Typical New Electric Transmission Line Requiring New R/W (Steel) Impact Diagram

FIGURE 13

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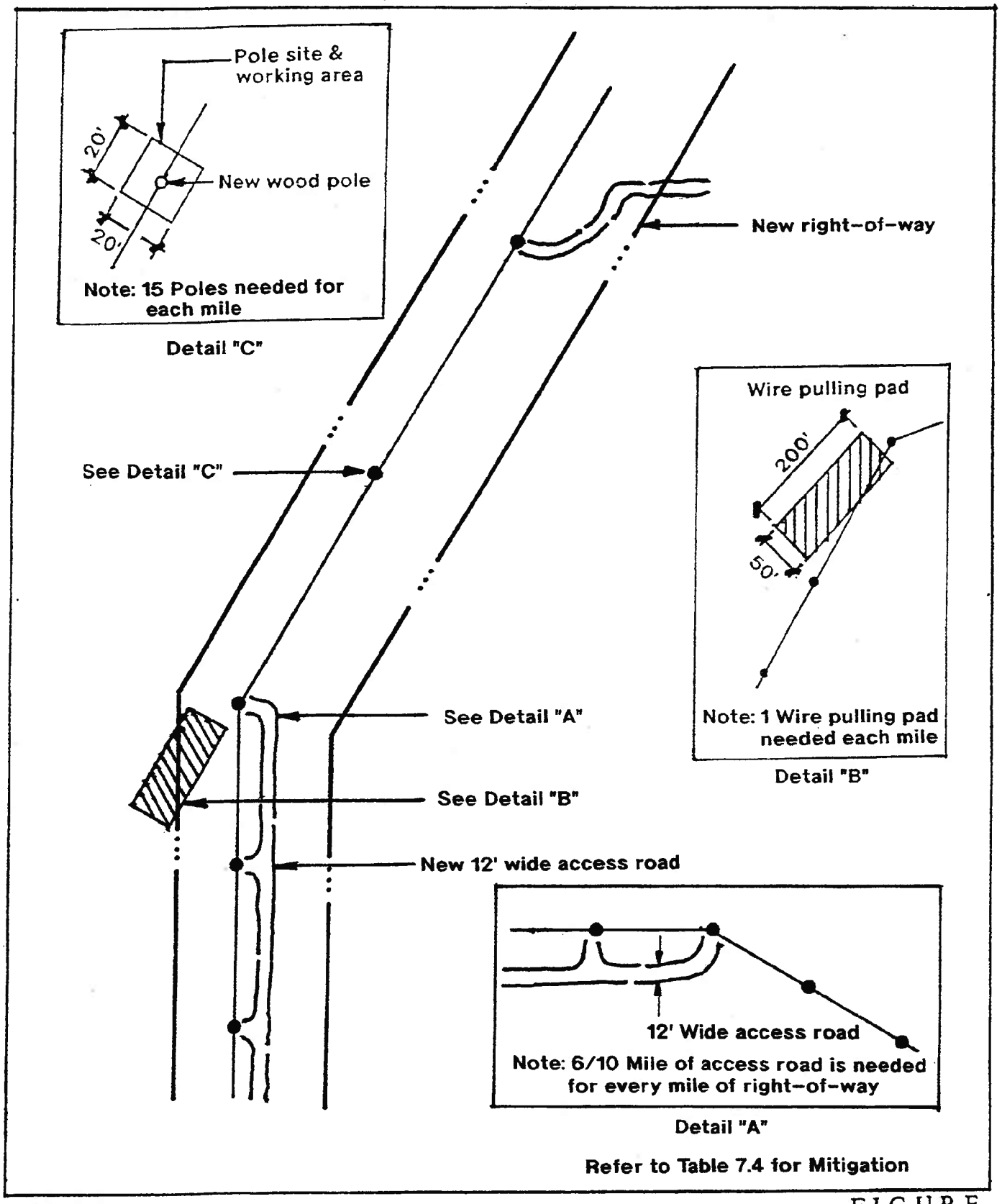

Typical New Electric Transmission Line Requiring New R/W (Wood) Impact Diagram

FIGURE 14

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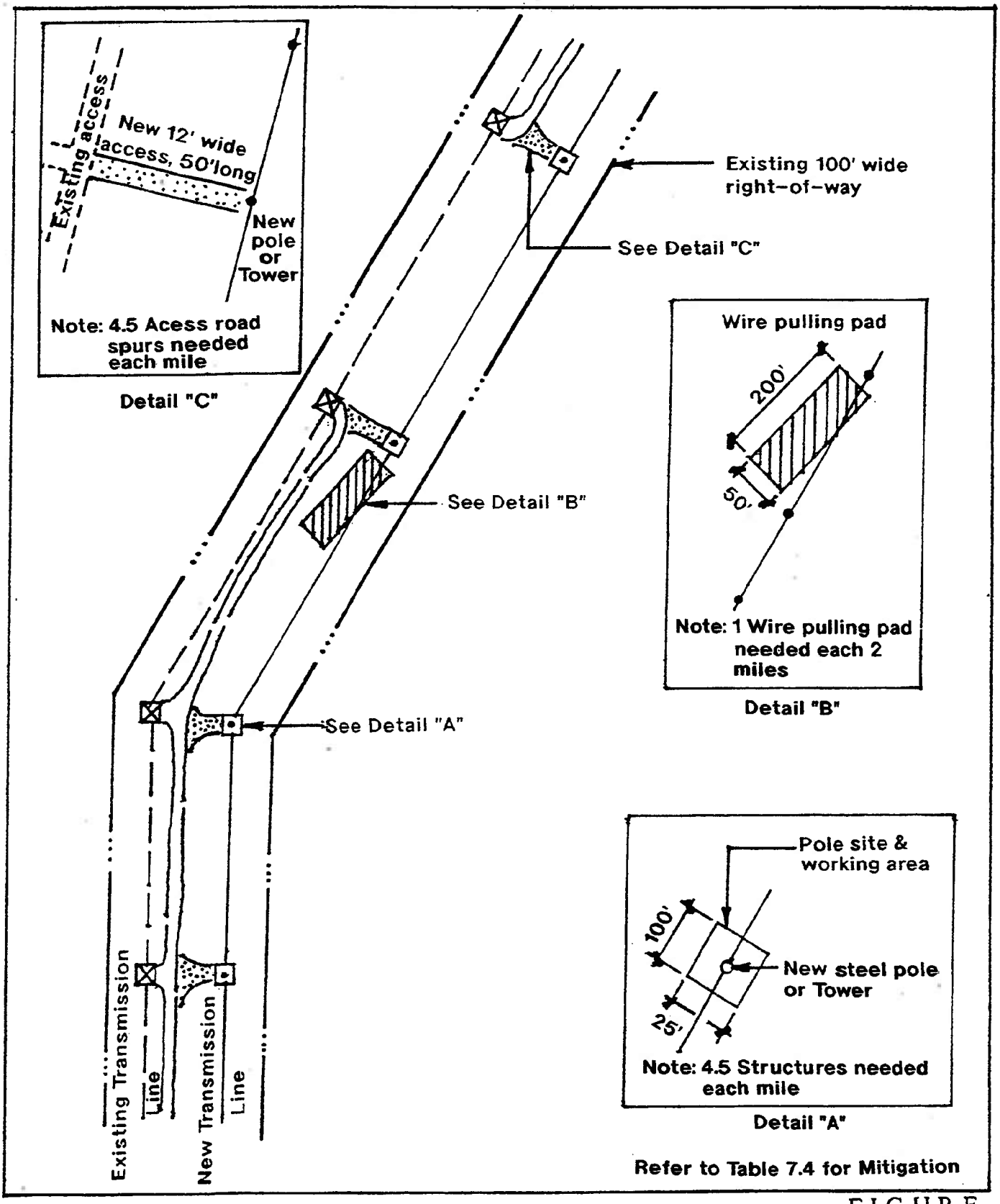

Typical New Electric Transmission Line in Existing R/W (Steel) Impact Diagram

FIGURE 15

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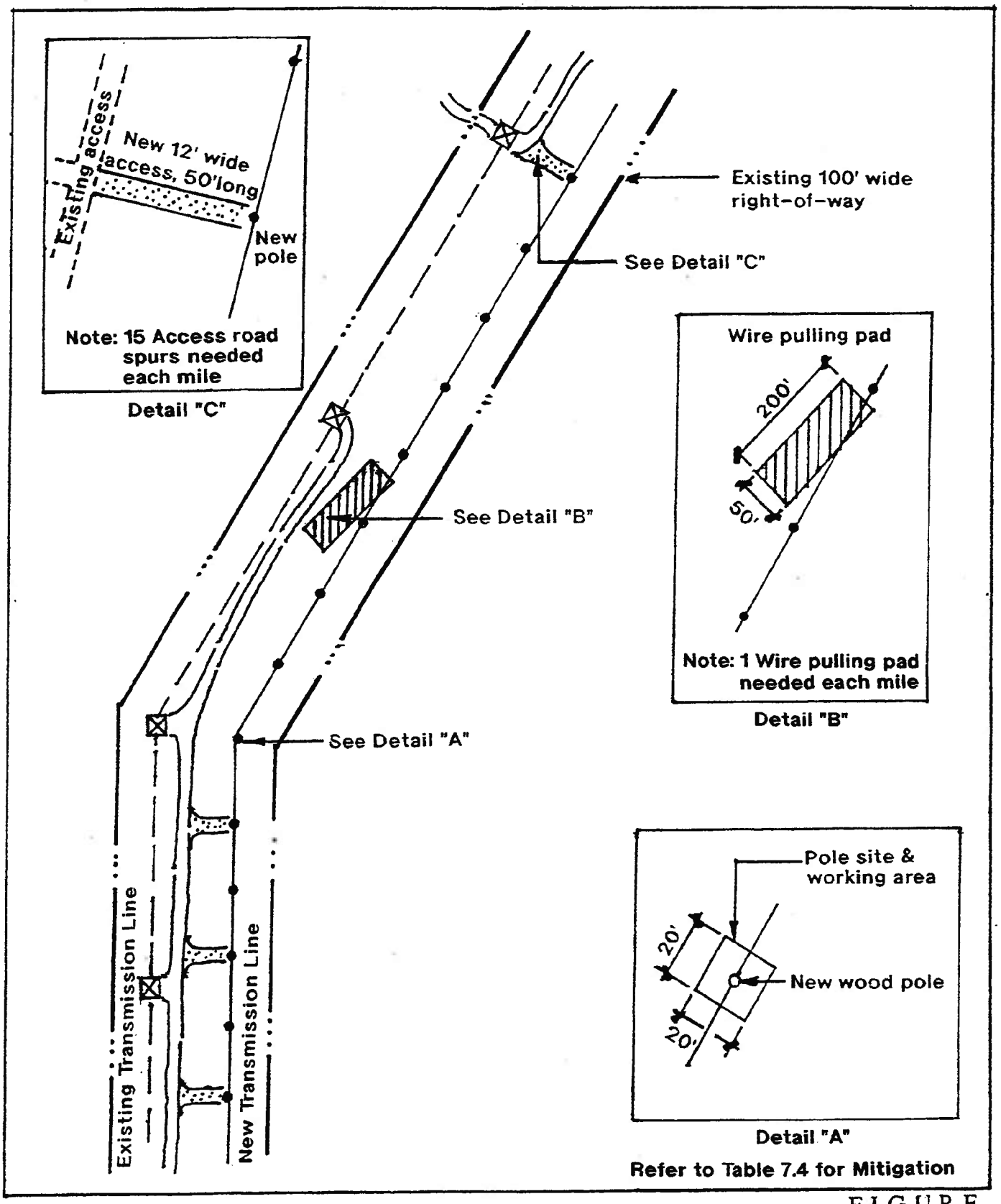

Typical New Electric Transmission Line in Existing R/W (Wood)

Impact Diagram

FIGURE

16

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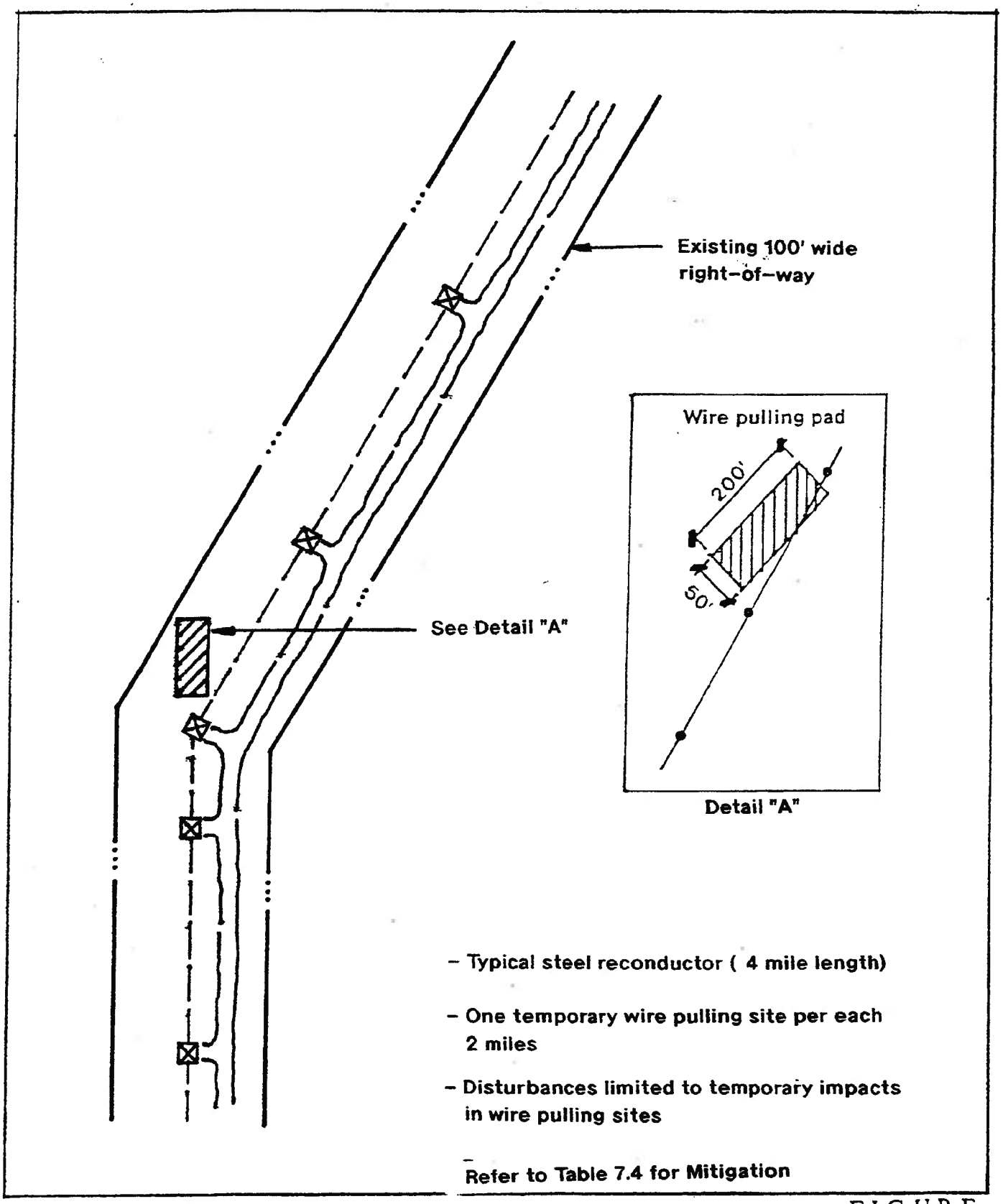

Typical Electric Transmission Reconductor in Existing R/W (Steel)
Impact Diagram

FIGURE 17

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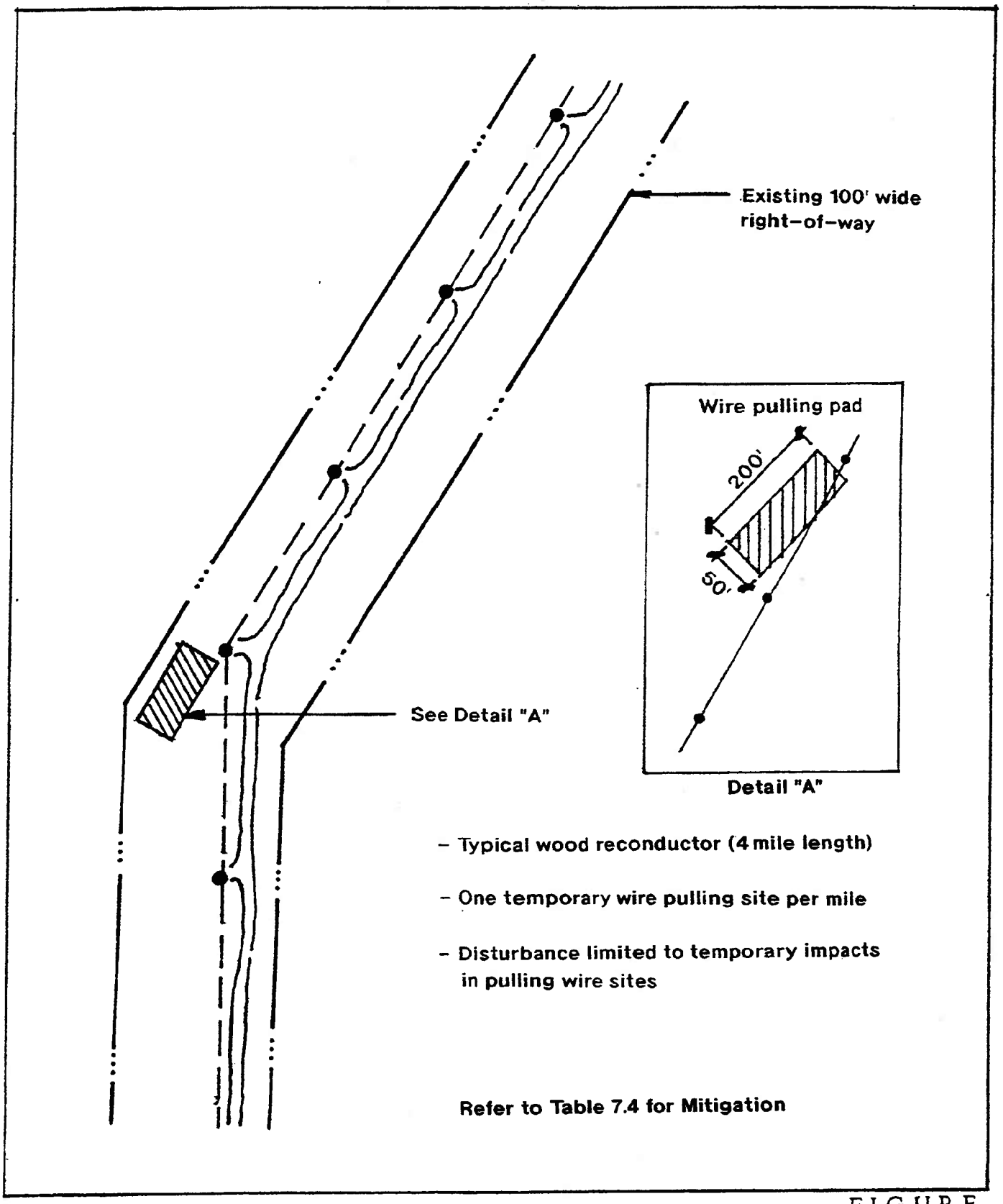

FIGURE 18

Typical Electric Transmission Reconductor in Existing R/W (Wood) Impact Diagram

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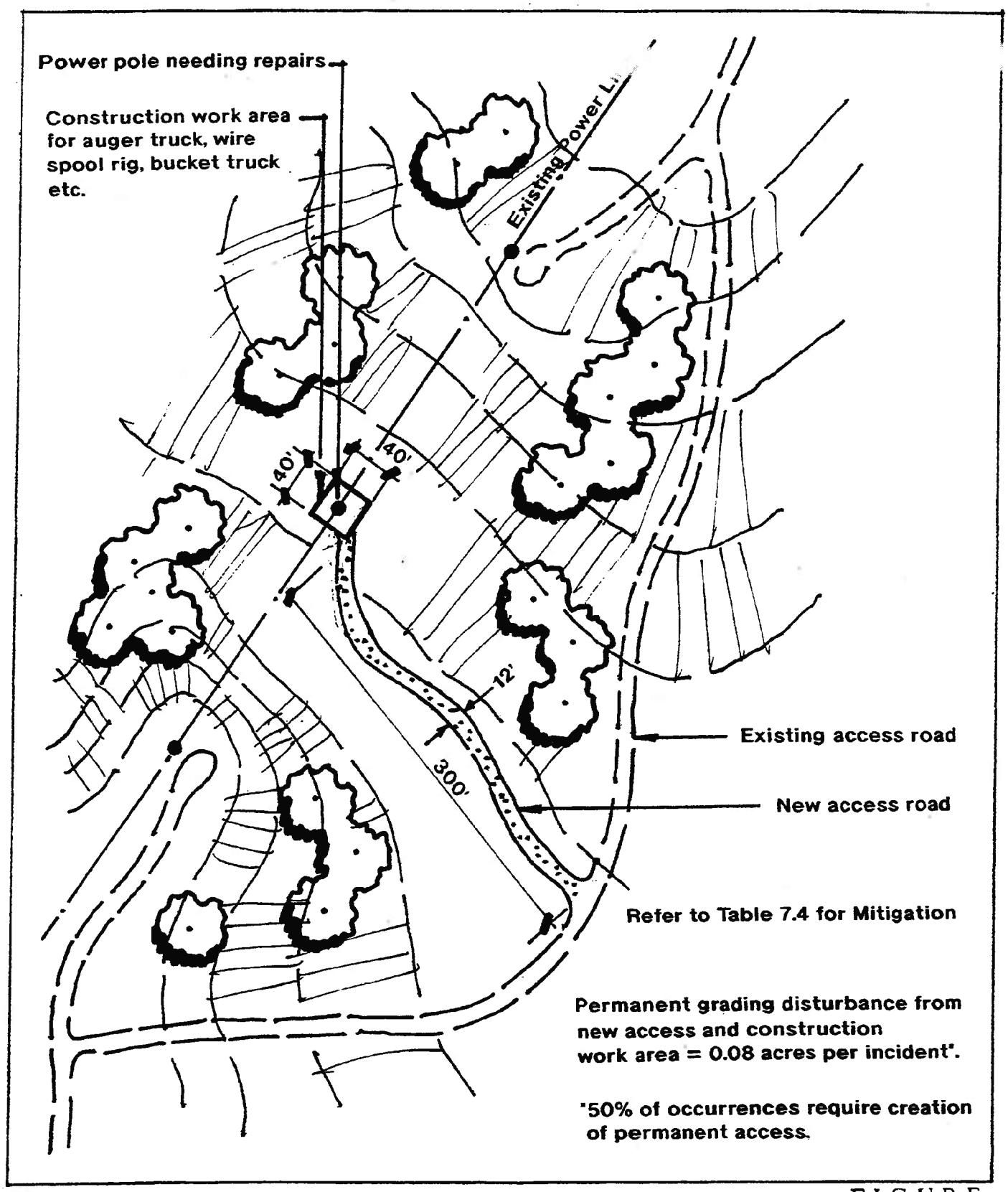

FIGURE

Typical Electrical Transmission or Distribution Repairs Impact Diagram

19

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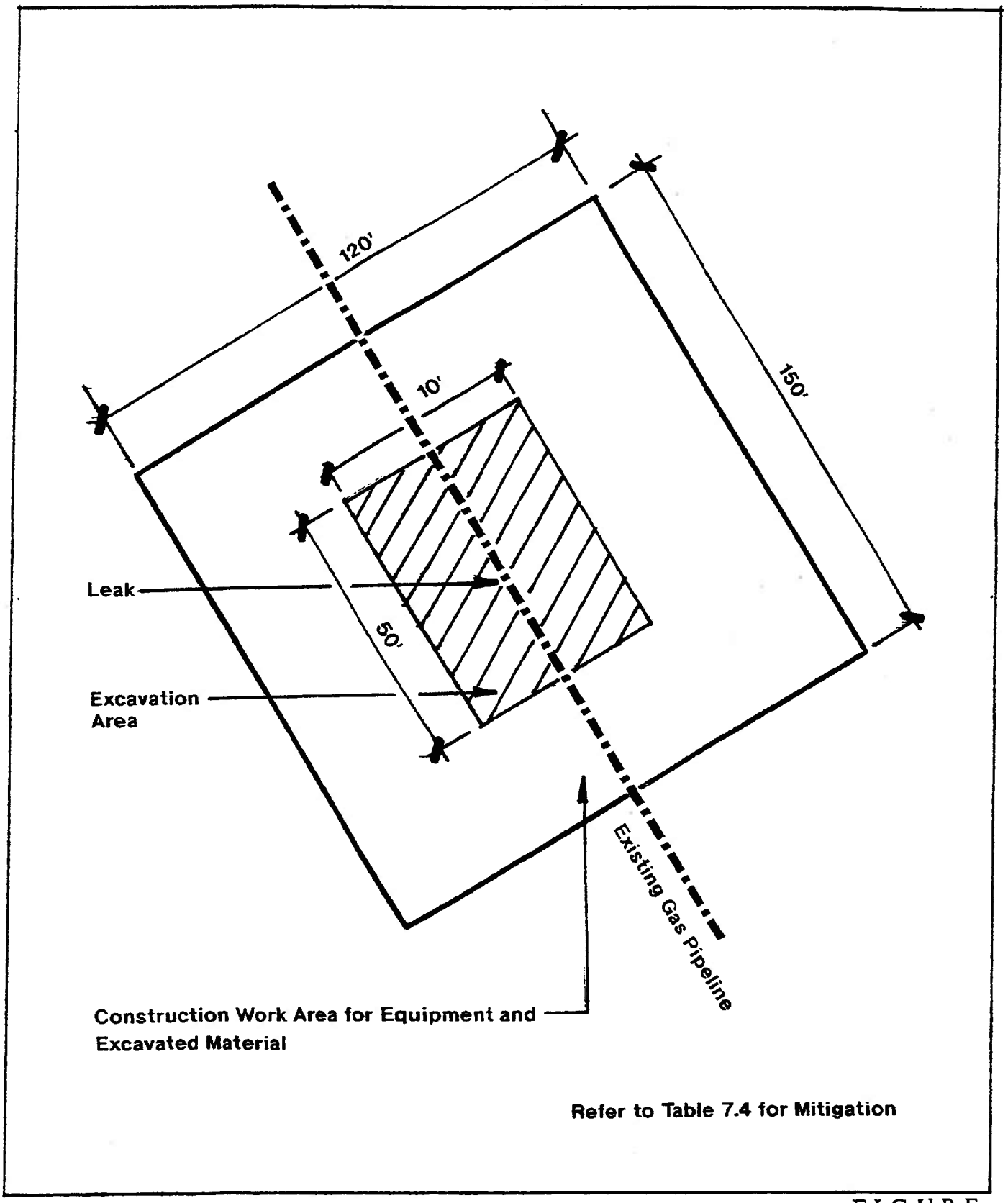

FIGURE

Typical Corrective Action to Repair Gas Pipeline Leak Impact Diagram

20

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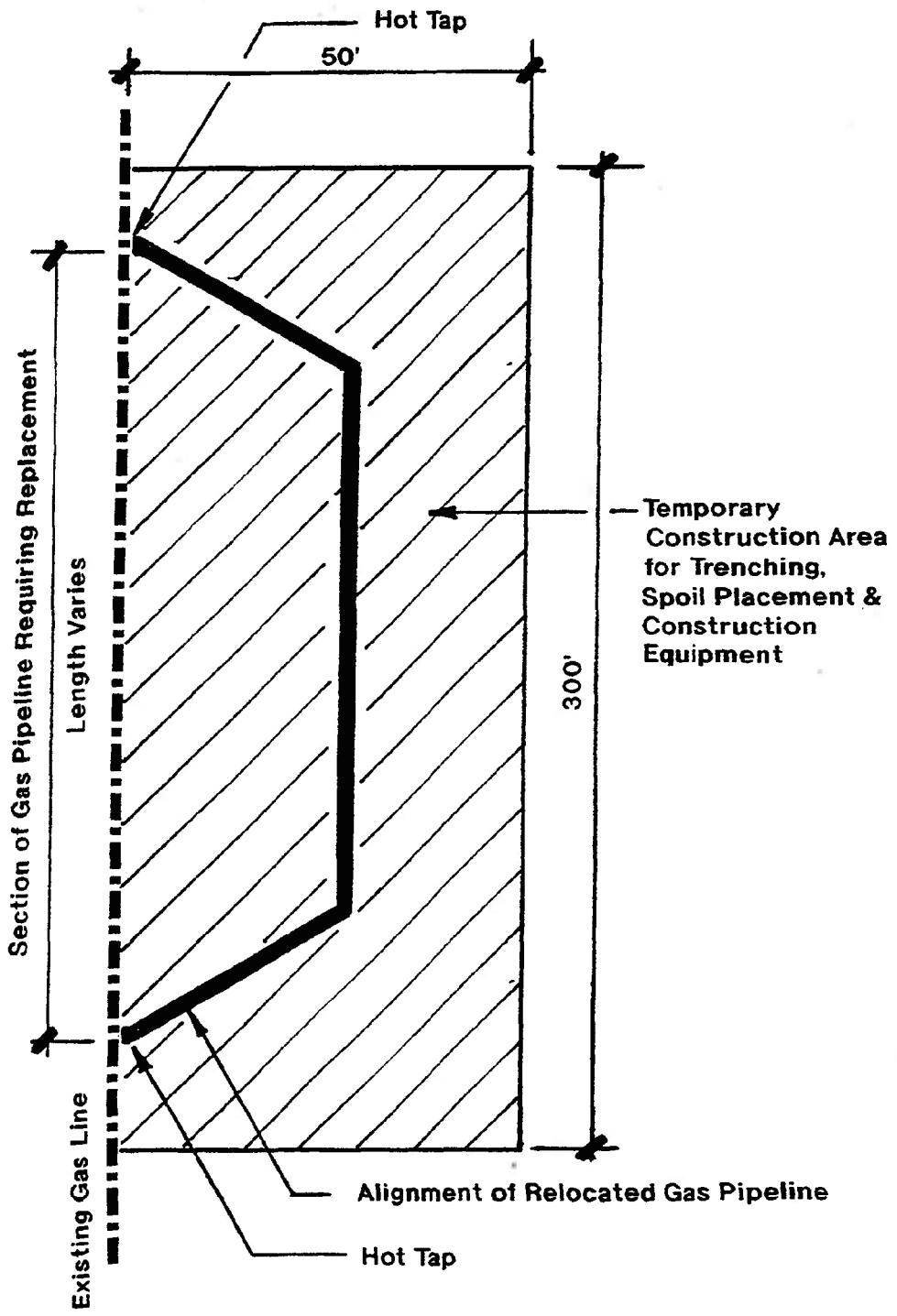

Refer to Table 7.4 for Mitigation

FIGURE

Typical Gas Pipeline Relocation Impact Diagram

21

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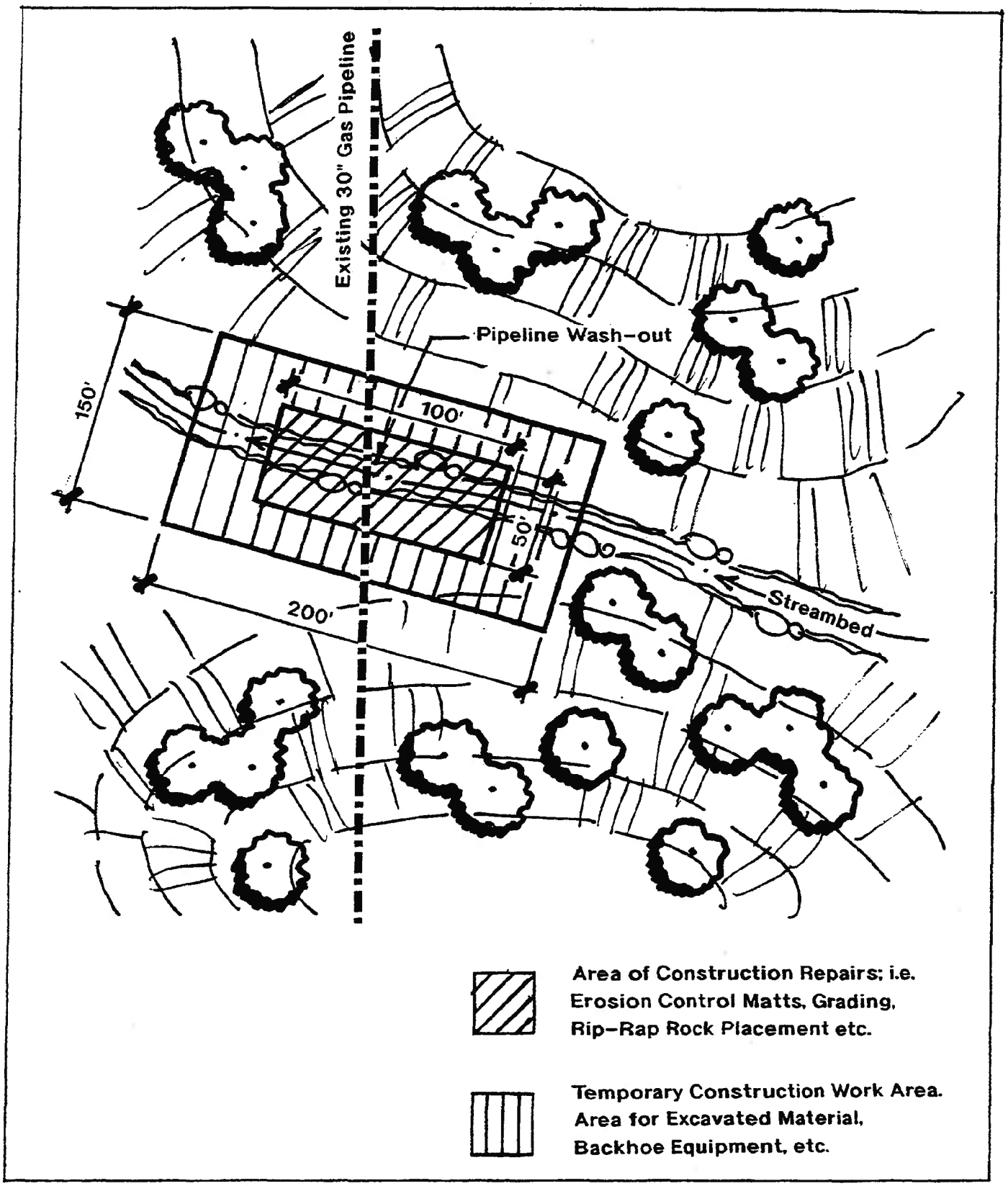

Typical Corrective Streambed Repair to Protect Gas Pipeline Impact Diagram

FIGURE 22

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5 Relation to Other Regional Habitat Conservation Plans

As of early 1995, a number of subregional and subarea comprehensive habitat and multiple species conservation plans proposed in southern California by various local governments, local bodies, and private entities are nearing the implementation phase of their plans. Included among these plans are the Multiple Species Conservation Plan generated as a part of San Diego's Clean Water Program, San Diego Association of Governments (SANDAG's) Multiple Habitat Conservation Program, the South Orange County NCCP Subregional Plan, the Riverside County Habitat Conservation Plan, and the County of San Diego's Multiple-Habitat Conservation and Open Space Plan. With limited exceptions relating to Preserve Areas in such plans, as described in Section 6, and certain threatened or endangered species with highly restricted habitat as described in Section 3, this Subregional Plan will be fully implemented independent of such other plans.

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6 SDG&E Activities Within Habitat Conservation Plan Preserves

Activities Within Preserve Areas

As generally described in Section 2 of this Subregional Plan, SDG&E Activities will include the maintenance, repair, and replacement of existing Facilities as well as the installation, maintenance, repair, and replacement of new Facilities. Existing Facilities are and new Facilities may be expected to be, in part, located within established Preserve Areas of Habitat Conservation Plans (HCPs), state, federal, or local preserve areas including public and private lands or other areas set aside for the protection of plants and animals. SDG&E's Activities, particularly those related to new Facilities, are responsive to the growth and service needs of SDG&E customers within the Subregional Plan Area. However, SDG&E is not able to predict with any reasonable degree of certainty what the growth and service needs of its customers will be during the term of this Subregional Plan or what Facilities will be needed to meet those needs.

As a part of its efforts to coordinate the implementation of this Subregional Plan with any effective HCP which may be affected by SDG&E Activities, the following agreements will be adhered to for Activities occurring or proposed to occur in preserve areas.

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6.1 Maintenance, Repair, and Replacement of Existing Facilities

Without further authorization from USFWS or CDFG, SDG&E may conduct all necessary maintenance, repair, and replacement Activities with respect to all existing Facilities which are now or may hereafter be located within a Preserve Area of an HCP, if conducted in accordance with the provisions of this Subregional Plan.

6.2 Installation, Maintenance, Repair, and Replacement of New Facilities

6.2.1 New Gas and Electric Transmission Facilities

As a result of the extensive, rapid, and continuing development within the Subregional Plan Area, existing and proposed Preserve Areas are or will be dispersed among and in some cases surrounded by developed areas. USFWS and CDFG recognize that as a public utility SDG&E is obligated to provide safe, reliable, efficient, and cost-effective electric and gas service throughout the developed area of its service territory in compliance with the Public Utilities Code and subject to the jurisdiction of the California Public Utilities Commission. Unavoidably, therefore, the construction of new electric and gas transmission Facilities through or within Preserve Areas will be necessary in certain circumstances to meet the service requirements of developing areas. Where SDG&E determines that new electric or gas transmission Facilities are necessary within part of a Preserve Area, it will coordinate with USFWS and CDFG in accordance with the procedure set forth below to plan and construct such new Facilities in a manner which avoids or minimizes any impacts to Covered Species and their habitat, to the extent possible, while not impairing SDG&E's ability to meet the service demands of its customers in accordance with its responsibilities as a public utility.

Whenever SDG&E determines that it is necessary to install a new electric transmission line, or electric substation, or to install a new gas transmission line, or gas regulator station in any part of a Preserve Area, SDG&E shall provide USFWS and CDFG with written notice of its intent to install such Facilities which shall contain a detailed description of such Facilities and of their location, along with a map of the area. At a minimum, the information contained on the pre-activity survey form is required. USFWS and CDFG may request a tour of the proposed site and a staff meeting to discuss it. Within twenty (20) working days of its receipt of SDG&E's notice, USFWS and CDFG shall provide SDG&E with their written response setting forth any objections to and alternatives to the location of the Facilities within the Preserve

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Area. Within ten (10) working days of receiving the objections of USFWS of CDFG, or both, SDG&E shall provide USFWS and CDFG with its written reply to their response. Within ten (10) working days of receiving the SDG&E reply, USFWS and CDFG shall approve or deny SDG&E's proposed location for the Facilities within the Preserve Area. If no objections are received by SDG&E from USFWS or CDFG within twenty (20) working days of SDG&E's notice, USFWS and/or CDFG shall be deemed to have concurred with the Activity described in SDG&E's original notice. If USFWS and CDFG denies the location, SDG&E may, within ten (10) working days of receiving such denial appeal to a review panel consisting of Regional Director, USFWS, Director, CDFG, and SDG&E, whose decision shall be final for purposes of this Subregional Plan. The appeal conference must be held within twenty (20) working days.

6.2.2 New Gas and Electric Distribution Facilities

The project proponent, other than SDG&E, that is requesting the extension of distribution facilities to serve his/her project shall obtain approval of said extension of facilities as part of their overall project approval.

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7 Mitigation

The basic formula for addressing the impacts of SDG&E Activities in sensitive resource areas is first to attempt to avoid impacts to Covered Species and their habitats, second to minimize necessary impacts to Covered Species to the extent feasible, and third to mitigate for those unavoidable impacts. The biological mitigation for anticipated impacts of SDG&E Activities takes three forms:

- SDG&E agrees to conduct Activities in an environmentally sensitive manner in accordance with adopted Operational Protocols.

  SDG&E's Operational Protocols are behavioral and construction techniques which, when employed in the field, represent an environmentally sensitive approach to construction and maintenance. The protocols are primarily based upon impact avoidance and minimization and recognize that often minor adjustments during planning, construction, or maintenance activities can yield major benefits to the environment. Operational Protocols are discussed in detail in Section 7.1.

- SDG&E agrees to allow certain fee-owned rights-of-way to be used for wildlife and habitat preservation.

  SDG&E will restrict the use and development of certain land owned by SDG&E underlying specific electric transmission facilities and otherwise comprising a part of SDG&E electric transmission rights-of-way, which contain habitat, connect fragmented habitat areas, or which may contribute to the habitat carrying capacity of Preserve Areas managed as a part of other conservation plans. SDG&E will restrict the use and development of such land to SDG&E's utility activities as described in this Subregional Plan through a prohibitory easement granted in favor of USFWS and

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CDFG, as more fully described in Section 7.3 of this Subregional Plan and subject to the terms and conditions of the Implementing Agreement.

- SDG&E agrees to cause the conveyance of certain high quality habitat land to USFWS, CDFG, or their designee, as further mitigation measure for unavoidable impacts to Covered Species or their habitat as a result of Activities covered by the Subregional Plan. These lands will comprise the SDG&E Mitigation Credits. Mitigation Credits will be reduced as they are used for mitigation in accordance with the ratios set forth in Section 7.4. The amount of Mitigation Credit to be conveyed has been predicted for the initial term of this Subregional Plan (25 years) based upon the expected impacts to habitat which will result from the Activities covered by the Subregional Plan, as more fully described in Section 4. The use of Mitigation Credits will not be necessary where habitat enhancement measures have been successful as a mitigation measure.

  Mitigation Credits which are unused at the expiration or termination of the Subregional Plan shall remain available for utilization, as appropriate, as mitigation for any project or action which may be required under CEQA, NEPA, or other environmental or natural resource law, as more fully described in the Implementing Agreement.

As more fully described in the Implementing Agreement, USFWS, CDFG, and SDG&E agree that, absent Unforeseen Circumstances, the mitigation measures provided in this Subregional Plan constitute the only mitigation measures that shall be required for any activity covered by the Subregional Plan where it results in an impact to a Covered Species or its habitat.

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7.1 Operational Protocols

Operational protocols represent an environmentally sensitive approach to traditional utility construction, maintenance and repair Activities recognizing that slight adjustments in construction techniques can yield major benefits for the environment. The appropriate Operational Protocols for each individual project will be determined and documented by the Environmental Surveyor. The information regarding the qualifications and responsibilities of the environmental surveyor is contained in Appendix B. The following mitigation measures shall be adhered to by SDG&E.

7.1.1 General Behavior for All Field Personnel

1. Vehicles must be kept on access roads. A 15 mile-per-hour speed limit shall be observed on dirt access roads to allow reptile species to disperse. Vehicles must be turned around in established or designated areas only.

2. No wildlife, including rattlesnakes, may be harmed, except to protect life and limb.

3. Firearms shall be prohibited on the rights-of-way except for those used by security personnel.

4. Feeding of wildlife is not allowed.

5. SDG&E personnel are not allowed to bring pets on the rights-of-way in order to minimize harassment or killing of wildlife and to prevent the introduction of destructive domestic animal diseases to native wildlife populations.

6. Parking or driving underneath oak trees is not allowed in order to protect root structures except in established traffic areas.

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7. Plant or wildlife species may not be collected for pets or any other reason.

8. Littering is not allowed. SDG&E shall not deposit or leave any food or waste on the rights-of-way or adjacent property.

9. Wild Fires shall be prevented or minimized by exercising care when driving and by not parking vehicles where catalytic converters can ignite dry vegetation. In times of high fire hazard, it may be necessary for trucks to carry water and shovels, or fire extinguishers in the field. The use of shields, protective mats, or other fire prevention methods shall be used during grinding and welding to prevent or minimize the potential for fire. Care should be exhibited when smoking in natural habitats.

10. Field crews shall refer environmental issues including wildlife relocation, dead or sick wildlife, hazardous waste, or questions about avoiding environmental impacts to the Environmental Surveyor. Biologists or experts in wildlife handling may need to be brought in by Environmental Surveyor for assistance with wildlife relocations.

7.1.2 Training

11. All SDG&E personnel working within the project area shall participate in an employee training program conducted by SDG&E, with annual updates. The program will consist of a brief discussion of endangered species biology and the legal protections afforded to Covered Species; a discussion of the biology of the Covered Species protected under this Subregional Plan; the habitat requirements of these Covered Species; their status under the Endangered Species Acts; measures being taken for the protection of Covered Species and their habitats under this Subregional Plan; and a review of the Operational Protocols. A fact sheet conveying this information will also be distributed to all employees working in the project area.

12. Designated SDG&E staff will conduct selected reviews of SDG&E operations. Any proposed modifications to Operational Protocols, procedures or conditions will be promptly provided to CDFG and USFWS for their review and input for required permit or Subregional Plan amendments.

7.1.3 Preactivity Studies

13. The Environmental Surveyor shall conduct preactivity studies for all activities occurring off of access roads in natural areas. The scope of these studies is included in Appendix A. The Environmental Surveyor will complete a preactivity study form contained in Appendix A, including recommendations for review by a biologist and construction monitoring as appropriate. Biologists should be called in when there is the potential for unavoidable impacts to Covered Species. The forms are for information only, and will not require CDFG or USFWS approval. These forms shall be faxed to CDFG and USFWS, along with phone notification, who will reply within 5 working days, indicating if they would like to review the project and/or suggest recommendations for post project monitoring. If a biologist is required, he/she will be contacted concurrent to notification to CDFG and USFWS. SDG&E's project may proceed during this time if necessary, in compliance with the recommendations of the biologist (For narrow endemic species see mitigation IV following Table 3.1). USFWS survey protocols performed by qualified biologists will be required for new projects which are defined as projects requiring CEQA review.

In those situations where the Environmental Surveyor cannot make a definitive species

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identification, an on-call biologist will be brought in. When the biologist is called, he or she will be contacted concurrently with CDFG and USFWS. The biologist will make the determination of the species in question and recommend avoidance or mitigation approaches to the Environmental Surveyor and a decision will be made. In those situations where more than one visit may be necessary to identify a given species, such as certain birds, no more than three site visits shall be required. It is expected that the typical USFWS search protocols will not be utilized in most situations due to the Plan's avoidance priority. Background information necessary to complete the annual report shall be collected on the preactivity study form and used by SDG&E to prepare the annual report.

14. In order to ensure that habitats are not inadvertently impacted, the Environmental Surveyor shall determine the extent of habitat and flag boundaries of habitats which must be avoided. When necessary, the Environmental Surveyor should also demark appropriate equipment laydown areas, vehicle turn around areas, and pads for placement of large construction equipment such as cranes, bucket trucks, augers, etc. When appropriate, the Environmental Surveyor shall make office and/or field presentations to field staff to review and become familiar with natural resources to be protected on a project specific basis.

15. SDG&E will maintain a library of rare plant locations known to SDG&E occurring within easements and fee owned properties. "Known" means a verified population, either extant or documented using record data. Information on known sites may come from a variety of record data sources including local agency Habitat Conservation Plans, pre-activity surveys, or biological surveys conducted for environmental compliance on a project site (e.g. initial study), but there is no requirement for development of original biological data. Plant inventories shall be consulted as part of pre-activity survey procedures.

7.1.4 Maintenance, Repair and Construction of Facilities

16. Maintenance, repair and construction Activities shall be designed and implemented to minimize new disturbance, erosion on manufactured and other slopes, and off-site degradation from accelerated sedimentation, and to reduce maintenance and repair costs.

17. Routine maintenance of all Facilities includes visual inspections on a regular basis, conducted from vehicles driven on the access roads where possible. If it is necessary to inspect areas which cannot be seen from the roads, the inspection shall be done on foot, or from the air.

18. When the view of a gas transmission line marker becomes obscured by vegetation on a regular basis requiring repeated habitat removal, consideration shall be given to the replacement of markers with taller versions.

19. Erosion will be minimized on access roads and other locations primarily with water bars. The water bars are mounds of soil shaped to direct flow and prevent erosion.

20. Hydrologic impacts will be minimized through the use of state-of-the-art technical design and construction techniques to minimize ponding, eliminate flood hazards, and avoid erosion and siltation into any creeks, streams, rivers, or bodies of water by use of Best Management Practices.

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21. When siting new facilities, every effort will be made to cross the wetland habitat perpendicular to the watercourse, spanning the watercourse to minimize the amount of disturbance to riparian areas (See Figure 4).

22. Gas and other facilities cross streambeds and require maintenance and repair. During such times water may be temporarily diverted as long as after disturbance natural drainage patterns are restored to minimize the impact of the disturbance and help to reestablish or enhance the native habitat. Erosion control during construction in the form of intermittent check dams and culverts should also be considered to prevent alteration to natural drainage patterns and prevent siltation.

23. Impacts to wetlands shall be minimized by avoiding pushing soil or brush into washes or ravines.

24. During work on facilities, all trucks, tools, and equipment should be kept on existing access roads or cleared areas, to the extent possible.

25. Environmental Surveyor must approve of activity prior to working in sensitive areas where disturbance to habitat may be unavoidable.

26. Insulator washing is allowed from access roads if other applicable protocols are followed.

27. Brush clearing around facilities for fire protection shall not be conducted from March through August without prior approval by the Environmental Surveyor. The Environmental Surveyor will make sure that the habitat contains no active nests, burrows, or dens prior to clearing.

28. In the event SDG&E identifies a covered species of plant within a 10' radius around power poles, which is the area required to be cleared for fire protection purposes, SDG&E shall notify USFWS (for ESA listed plants), and CDFG (for CESA listed plants), in writing, of the plant's identity and location and of the proposed Activity, which will result in a Take of such plant. Notification will occur ten (10) working days prior to such Activity, during which time USFWS or CDFG may remove such plant(s). If neither USFWS or CDFG have removed such plant(s) within the ten (10) working days following the notice, SDG&E may proceed to complete its fire clearing and cause a Take of such plant(s).

    When fire clearing is necessary in instances other than around power poles, and the potential for impacts to Covered Species exists, SDG&E will follow the preactivity study and notification procedures in Operational Protocol number 13.

29. Wire stringing is allowed year round in sensitive habitats if conductor is not allowed to drag on ground or in brush and vehicles remain on access roads.

30. Maintenance of cut and fill slopes shall consist primarily of erosion repair. In situations where revegetation would improve the success of erosion control, planting or seeding with native hydroseed mix may be done on slopes.

31. Spoils created during maintenance operations shall be disposed of only on previously disturbed areas designated by the Environmental Surveyor or used immediately to fill eroded areas. Cleared vegetation shall be hauled off the rights-of-way to a permitted disposal location.

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32. Within 6 months of Plan approval, environmentally sensitive tree trimming locations will be identified in the tree trim computer data base system utilized by tree trim contractors. (This data base also tracks the date of each tree trim, type of tree, where threatening dogs reside, etc.). The Environmental Surveyor should be contacted to perform a preactivity survey when trimming is planned in environmentally sensitive areas. Whenever possible, trees in environmentally sensitive areas (determined by CDFG and SDG&E) will be scheduled for trimming in the non-sensitive times.

33. No new Facilities and Activities shall be planned which disturb vernal pools, their watersheds, or impact their natural regeneration. Continued historic maintenance of existing infrastructure utilizing existing access roads is allowed to continue in areas containing vernal pool habitat. New construction of overhead infrastructure which spans vernal pool habitats is allowed as long as the placement of facilities or the associated construction activities in no way impact the vernal pools.

34. If any previously unidentified dens, burrows, or plants are located on any project site after the preactivity survey, the Environmental Surveyor shall be contacted. Environmental Surveyor will determine how to best avoid or minimize impacting the resource by considering such methods as project or work plan redevelopment, equipment placement or construction method modification, seasonal/time of day limitations, etc...

35. The Environmental Surveyor shall conduct monitoring as recommended in the preactivity survey report. At completion of work, the Environmental Surveyor shall check to verify compliance, including observing that flagged areas have been avoided and that reclamation has been properly implemented. Also at completion of work, the Environmental Surveyor is responsible for removing all habitat flagging from the construction site.

36. The Environmental Surveyor shall conduct checks on mowing procedures, to ensure that mowing is limited to a 12-foot wide area on straight portions of the road (slightly wider on radius turns), and that the mowing height is no less than 4 inches.

37. Supplies or equipment where wildlife could hide (e.g., pipes, culverts, pole holes) shall be inspected prior to moving or working on them to reduce the potential for injury to wildlife. Supplies or equipment that cannot be inspected or from which animals could not be removed shall be capped or otherwise covered at the end of each work day. Old piping or other supplies that have been left open, shall not be capped until inspected and any species found in it allowed to escape. Ramping shall be provided in open trenches when necessary. If an animal is found entrapped in supplies or equipment, such as a pipe section, the supplies or equipment shall be avoided and the animal(s) left to leave on its own accord, except as otherwise authorized by CDFG.

38. All steep-walled trenches or excavations used during construction shall be inspected twice daily (early morning and evening) to protect against wildlife entrapment. If wildlife are located in the trench or excavation, the Environmental Surveyor shall be called immediately to remove them if they cannot escape unimpeded.

39. Large amounts of fugitive dust could interfere with photosynthesis. Fugitive dust created during clearing, grading, earth-moving, excavation or other construction activities will be controlled by regular watering. At all times, fugitive dust emissions will be controlled by limiting on-site vehicle speed to 15 miles per hour.

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40. Before using pesticides in areas where burrowing owls may be found, a pre-activity survey will be conducted.

7.1.5 Maintenance of access roads shall consist of:

41. Repair of erosion by grading, addition of fill, and compacting. In each case of repair, the total area of disturbance shall be minimized by careful access and use of appropriately sized equipment. Repairs shall be done after preactivity surveys conducted by the Environmental Surveyor and in accordance with the recommendations regarding construction monitoring and relevant protocols. Consideration should be given to source of erosion problem, when source is within control of SDG&E.

42. Vegetation control through grading should be used only where the vegetation obscures the inspection of facilities, access may be entirely lost, or the threat of Facility failure or fire hazard exists. The graded access road area should not exceed 12'-wide on straight portions (radius turns may be slightly wider) (See Figure 23).

43. Mowing habitat can be an effective method for protecting the vegetative understory while at the same time creating access to a work area. Mowing should be used when permanent access is not required since, with time, total revegetation is expected. If mowing is in response to a permanent access need, but the alternative of grading is undesirable because of downstream siltation potential, it should be recognized that periodic mowing will be necessary to maintain permanent access.

44. Maintenance work on access roads should not expand the existing road bed (See Figure 23).

45. Material for filling in road ruts should never be obtained from the sides of the road which contain habitat without approval from Environmental Surveyor..

7.1.6 Construction of new access roads shall comply with the following:

46. SDG&E access roads will be designed and constructed according to the SDG&E *Guide for Encroachment on Transmission Rights-of-Way (4/91).*

47. Access roads will be made available to managers of the regional preserve system subject to coordination with SDG&E.

48. New access roads shall be designed to be placed in previously disturbed areas and areas which require the least amount of grading in sensitive areas during construction whenever possible (See Figure 5). Preference shall be given to the use of stub roads rather than linking facilities tangentially.

49. SDG&E will consider providing access control on access roads leading into the regional preserve system where such control provides benefit to sensitive resources.

50. New access road construction is allowed year round. Every effort shall be made to avoid constructing roads during the nesting season. During the nesting season, the presence or absence of nesting species shall be determined by a biologist and appropriate avoidance and minimization recommendations followed.

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7.1.7 Construction and Maintenance of Access Roads Through Streambeds

51. Construction of new access roads through streambeds requires a Streambed Alteration Agreement from CDFG and/or consultation with the Army Corps of Engineers.

52. Maintenance or construction vehicle access through shallow creeks or streams is allowed. However, no filling for access purposes in waterways is allowed without the installation of appropriately sized culverts. The use of geotextile matting should be considered when it would protect wetland species.

53. Staging/storage areas for equipment and materials shall be located outside of riparian areas. (See Figure 23).

7.1.8 Survey Work

54. Brush clearing for foot paths or line-of-sight cutting is not allowed from March through August in sensitive habitats without prior approval from the Environmental Surveyor, who will ensure that activity does not adversely affect a sensitive species.

55. SDG&E survey personnel must keep vehicles on existing access roads. No clearing of brush for panel point placement is allowed from March through August without prior approval from the Environmental Surveyor.

56. Hiking off roads or paths for survey data collection is allowed year round so long as other protocols are met.

7.1.9 Emergency Repairs

57. During a system emergency, unnecessary carelessness which results in environmental damage is prohibited.

58. Emergency repair of facilities is required in situations which potentially or immediately threaten the integrity of the SDG&E system, such as pipe leaks, or downed lines, slumps, slides, major subsidence, etc. During emergency repairs the Operational Protocols contained in this Subregional Plan shall continued to be followed to fullest extent possible.

59. Once the emergency has stabilized, any unavoidable environmental damage will be reported to the Environmental Surveyor by the foreman. The Environmental Surveyor will develop a mitigation plan and ensure its implementation is consistent with this Subregional Plan.

7.1.10 Activities of Underlying Fee Owners

60. Most SDG&E rights-of-way are held in easement only. The activities of underlying fee owners cannot be controlled by SDG&E and are not covered by this Subregional Plan.

61. When sensitive habitat exists on either side of a utility right-of-way, SDG&E will not oppose underlying fee owners dedicating said property to conservation purposes. Underlying fee owners are expected to comply with applicable federal, state, and local regulations.

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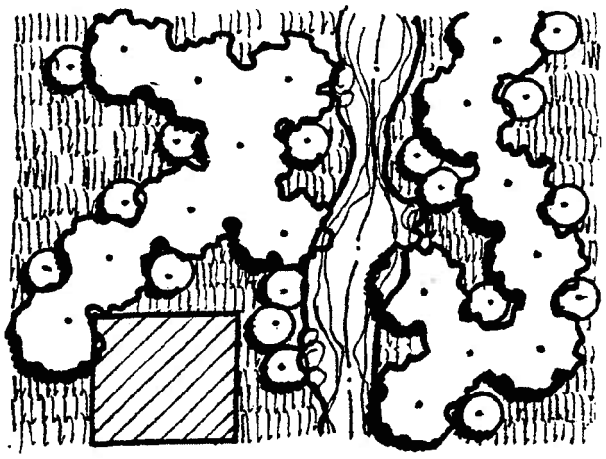

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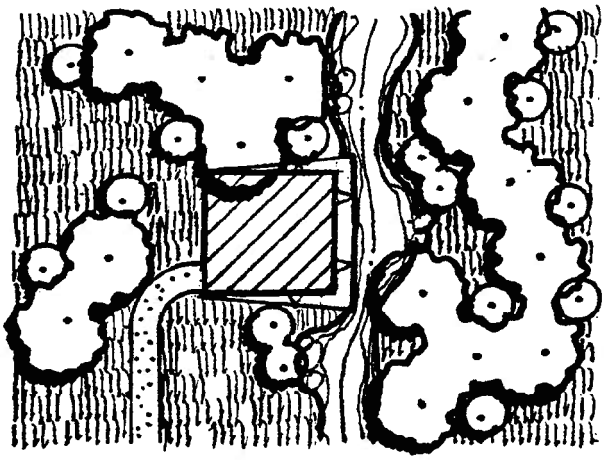

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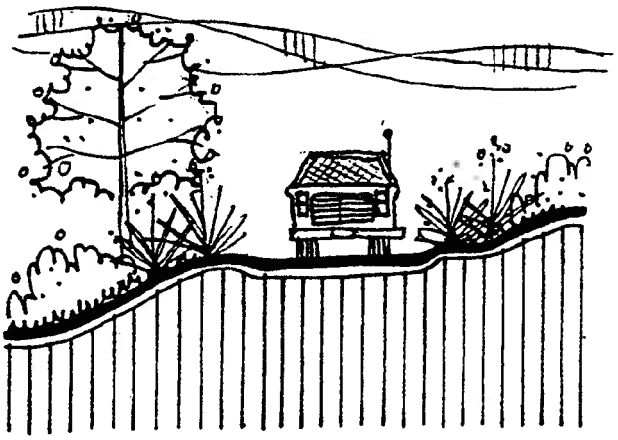
CONSTRUCTION STAGING/STORAGE AREAS SHOULD BE LOCATED OUTSIDE OF STREAMS



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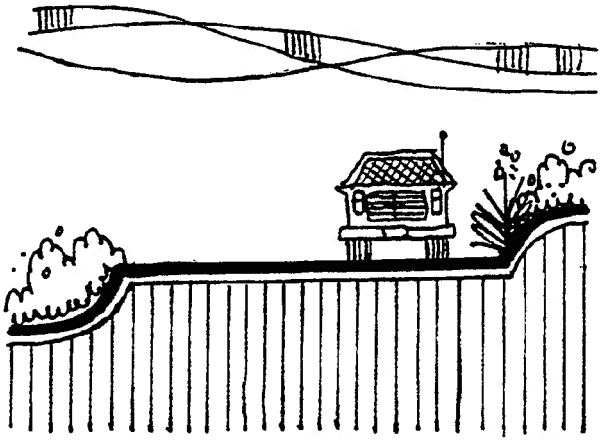

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ACCESS ROAD MAINTENANCE SHOULD NOT EXPAND THE EXISTING ROAD BED

FIGURE

Operational Protocol Diagrams

23

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7.2 Habitat Enhancement Measures

The purpose of this section is to describe the techniques and permit the substitution of habitat enhancement measures when it is more beneficial than the use of mitigation credits. Habitat enhancement increases the value of biological resources in an impacted area, thereby improving the value of that habitat for Covered Species. Habitat enhancement activities shall occur under the direction of a Habitat Restoration Specialist. All disturbed areas, whether inside or outside of preserves, and which do not need to be maintained in a cleared state, shall be enhanced, either through vegetation restoration, habitat reclamation, or a combination of the two. Vegetation restoration entails a range of techniques.

For SDG&E Activities occurring within the Preserve, and for SDG&E Activities affecting riparian/wetland areas, the particular enhancement methodology will be proposed by SDG&E, with USFWS and CDFG concurring prior to implementation. For all other areas outside of the Preserve, SDG&E has discretion over the enhancement method selected, although it is expected that a standard coastal sage scrub seed mix will be used for reseeding many disturbed areas. For impacts both within and outside Preserve, if habitat enhancement is not selected, or is not successful according to the criteria specified in the mitigation flow chart (Figure 24), then a deduction from the SDG&E Mitigation Credits shall be made in accordance with ratios contained in Section 7.4. For all temporary impacts greater than 500 square feet, acreage not meeting success criteria shall be deducted from SDG&E mitigation credits at a 1:1 ratio. For areas of less than 500 square feet, success criteria will not be required to be met. In such areas, refer to erosion control measures contained in Section 7.1.

7.2.1 Vegetation Restoration

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The Habitat Restoration Specialist has a range of vegetation restoration techniques from which to choose:

Hydroseeding

Vegetation restoration will typically be done using a native seed mix obtained from a commercial seed provider and shall be applied by hydroseeding. For hydroseeding inside the Preserve areas, seed will be obtained from the local gene-pool and similar composition to the reference site.

Vegetation restoration shall be conducted from mid-November through mid-January to take advantage of rainy season precipitation, and should not be artificially irrigated.

Seed mix specifications and application techniques shall be provided by the Habitat Restoration Specialist, who will be an acknowledged specialist in native habitat restoration or a plant ecologist with experience developing native restoration plans in Southern California. The Habitat Restoration Specialist will be responsible for restoration plans within the Preserve.

If restoration lands contain areas used for temporary roads, staging areas, or other intensive activities, the soil may become so compacted that revegetation is difficult. In cases such as this, disking and plowing the compacted soil will loosen it and improve the success of hydroseed revegetation. Disking may also foster weed growth and should only be used where an influx of weeds would not adversely affect adjacent native plant communities.

Consideration shall be given to supplemental planting of species of concern in areas where it is desirable to expand existing colonies. For example, supplemental planting may be highly desirable in areas containing chollas or prickly pear cactus. Supplemental planting and plant relocation should only be done in disturbed areas that are thought to be suitable. Habitat conversion and impacts to extant native vegetation should be avoided.

Hand-Seeding

Seed may be applied by hand and raked into the top inch of soil. This method is best suited for small areas and areas that are inaccessible to a hydroseed truck.

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Imprinting

Imprinting is the mechanical formation of smooth-walled V-shaped furrows in the soil surface, application of seed and injection of beneficial mycorrhizal fungi into the soil surface. This method is best suited for areas that are accessible by bulldozer and where there is a potential problem with weeds.

Soil and Plant Salvage

Native vegetation from the area to be impacted should be removed, mulched and stockpiled separately. Top soil should also be removed and stockpiled separately. Following construction activities, the top soil should be replaced and covered with the mulch. The top soil and mulch both have native propagules and the mulch reduces the erosion potential. This method is well suited for temporary roads, staging areas, or other intensive activities.

Quality Assurance

Monitoring, involving visual inspection, shall be conducted on restoration sites after one year. A second application may be made. If, after one more year, restoration is deemed unsuccessful, the wildlife agencies, in cooperation with SDG&E, will determine whether the remaining loss shall be mitigated through a deduction from the SDG&E Mitigation Credits, or a third application would better achieve the intended purpose.

Coverage standards will be based on comparisons with established stands of the target vegetation, or another reference area. The means of determining success should be based on estimates of cover by native species, cover of exotic species, and diversity of native species. The cover of native species should increase and the cover of weed species should decrease, eventually approximating the reference area. The reference areas should be a nearby stand of vegetation that the restoration is attempting to emulate. It should have a similar aspect, slope, and soil type.

Cover for the restoration and references areas should be estimated using repeatable cover classes. One tested system is as follows:

Cover Class	**1**	**2**	**3**	**4**	**5**	**6**
% Cover	0-5	5-25	25-50	50-75	75-95	95-100
Mean Cover	2.5	15	37.5	62.5	85	97.5

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SUCCESS CRITERIA MILESTONES

Criteria*	Year 1	Year 2
Cover by Exotic Species**	140%	130%
Cover by Native Species (trees shrubs and herbaceous species)	60%	70%

*Values are relative to reference area
**Percent total cover

7.2.2 Habitat Reclamation

Habitat reclamation techniques should be considered when re-seeding would be an ineffective habitat enhancement due to the presence of stronger and more prolific exotic vegetation in the proximity.

Habitat reclamation involves the elimination of existing exotic vegetation (weed abatement) to facilitate the natural re-colonization of a native habitat. An example of where habitat reclamation would be appropriate is in wetland areas containing tamarisk or giant reed.

In order to avoid net loss of wetland and riparian habitat, exotic species should be removed at a 2:1 ratio. Exotics should be removed from the site and disposed of off-site. Soil should be prepared for new native growth to occur. In areas larger than 500 square feet, reseeding will supplement the recovery of native vegetation

Reclamation shall be limited to initial removal and one-time removal of new growth within one year if necessary. In certain cases, such as with Arundo removal, it may be necessary to clear invasive vegetation a third time. Once weeds are controlled, if extensive reclamation is undertaken, supplemental planting may be necessary to keep weeds out.

The habitat reclamation shall be done under the direction of the Habitat Restoration Specialist who will determine the abatement technique to be used and the area in the vicinity of the project site on which abatement would be most effective in facilitating reclamation on the project site.

7.2.3 Procedure

(Refer to Figure 24).Figure 24 -- Mitigation Flow Diagram

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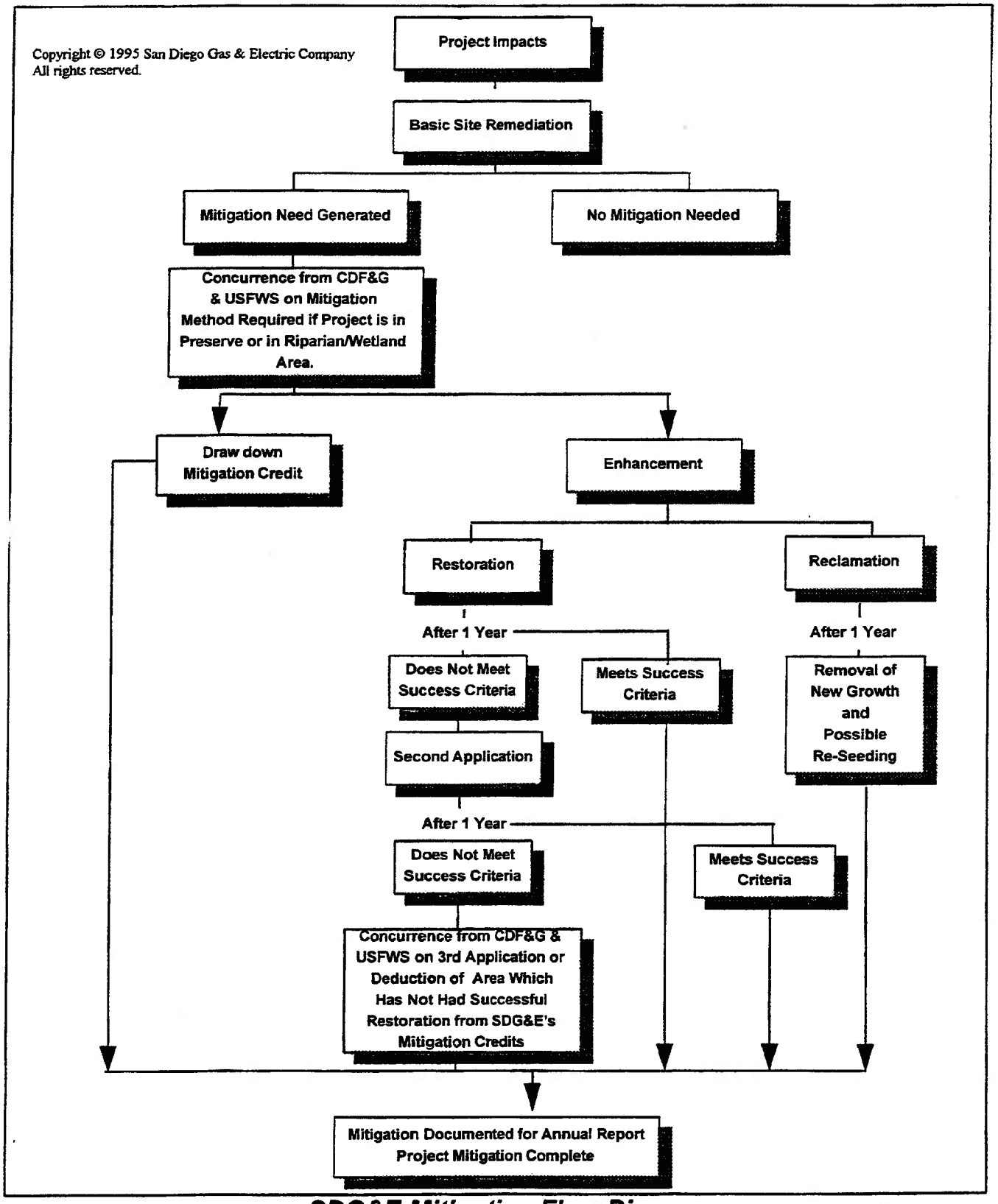

SDG&E Mitigation Flow Diagram
(For Temporary Disturbances)

FIGURE
24

SDGE

Subregional Natural Community Conservation Plan

7.3 Fee-Owned Rights-of-Way

Certain of SDG&E's electric transmission rights-of-way consist of real property owned in fee by SDG&E. Such fee owned rights-of-way are of various widths and cover a variety of habitat types. Some of the fee-owned rights-of-way may serve as the foundation for the creation by USFWS and CDFG of valuable wildlife corridors between Preserve Areas. The fee-owned rights-of-way subject to this subsection are identified on Figure 25a and 25b.

As a further mitigation measure, SDG&E will restrict the use and development of such lands to those SDG&E activities covered by this Subregional Plan. Subject to the terms and conditions of the Implementing Agreement, SDG&E shall effect such use and development restriction by granting a prohibitory easement in favor of USFWS and CDFG, or their designee, to be recorded in County Recorder's Office for the County in which such land is located.

To assist in the creation of these corridors, SDG&E agrees that it will not, and that it will not allow any other person, to use such rights-of-way for any purpose other than for SDG&E Activities conducted in accordance with this Agreement, the Permits and the Subregional Plan. SDG&E's agreement to limit its use of such rights-of-way shall remain effective for so long as USFWS and CDFG continuously uses such rights-of-way in combination with other real property rights acquired by USFWS and CDFG in adjoining property, the use of which is subject to similar limited or restricted uses, to establish functional and effective corridors for Covered Species between separated Habitat and Preserve Areas, and, for so long as such corridors are properly functioning and necessary

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for the conservation of Covered Species. SDG&E's agreement to limit the use of such rights-of-way will be memorialized in a negative or open space easement in favor of USFWS and CDFG, or their designee, and recorded in the County Recorder's Office for the county in which such rights-of-way are located. Such easement shall be substantially in the form of the easement attached hereto. However, in the event that any of such rights-of-way shall cease to be an essential element of a properly functioning, effective and necessary corridor, all easement rights conveyed by SDG&E affecting any such right-of-way shall terminate and revert back to SDG&E without limitation or reservation.

To the extent SDG&E rights-of-way extend over land in which it does not hold an undivided fee ownership interest, SDG&E agrees to approve of and when appropriate, encourage the conveyance, grant or dedication of such land by the fee owner to any relevant Habitat Conservation Planning Management entity for wildlife conservation purposes; provided, however, any such conveyance, grant or dedication shall be subject to the authorizations and Permitted Activities granted by USFWS and CDFG to SDG&E herein and to the rights of SDG&E to use such property for public utility purposes to the extent SDG&E held such rights, in law or in equity, at the time of such conveyance, grant or dedication. SDG&E further agrees, where the company's land rights allow, to prevent the underlying land owner from removing habitat within rights-of-way of significant habitat value to the extent feasible.

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Fee Owned Rights-of-Way are Designated with Pink Lines Within Black Circles - Typical

Orange County

Riverside County

OCEANSIDE

CARLSBAD

ENCINITAS

SOLANA BEACH

DEL MAR

CORONADO

IMPERIAL BEACH

MEXICO

HABITAT VALUE

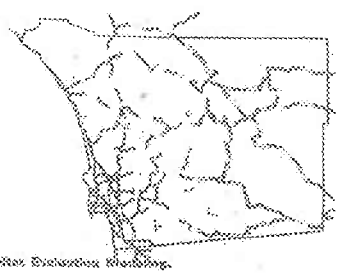
- Very High
- High
- Moderate
- Low

- Agriculture
- Disturbed Habitat
- Developed/Urban

Electric transmission lines are shown in white.

HABITAT MODEL RESULTS

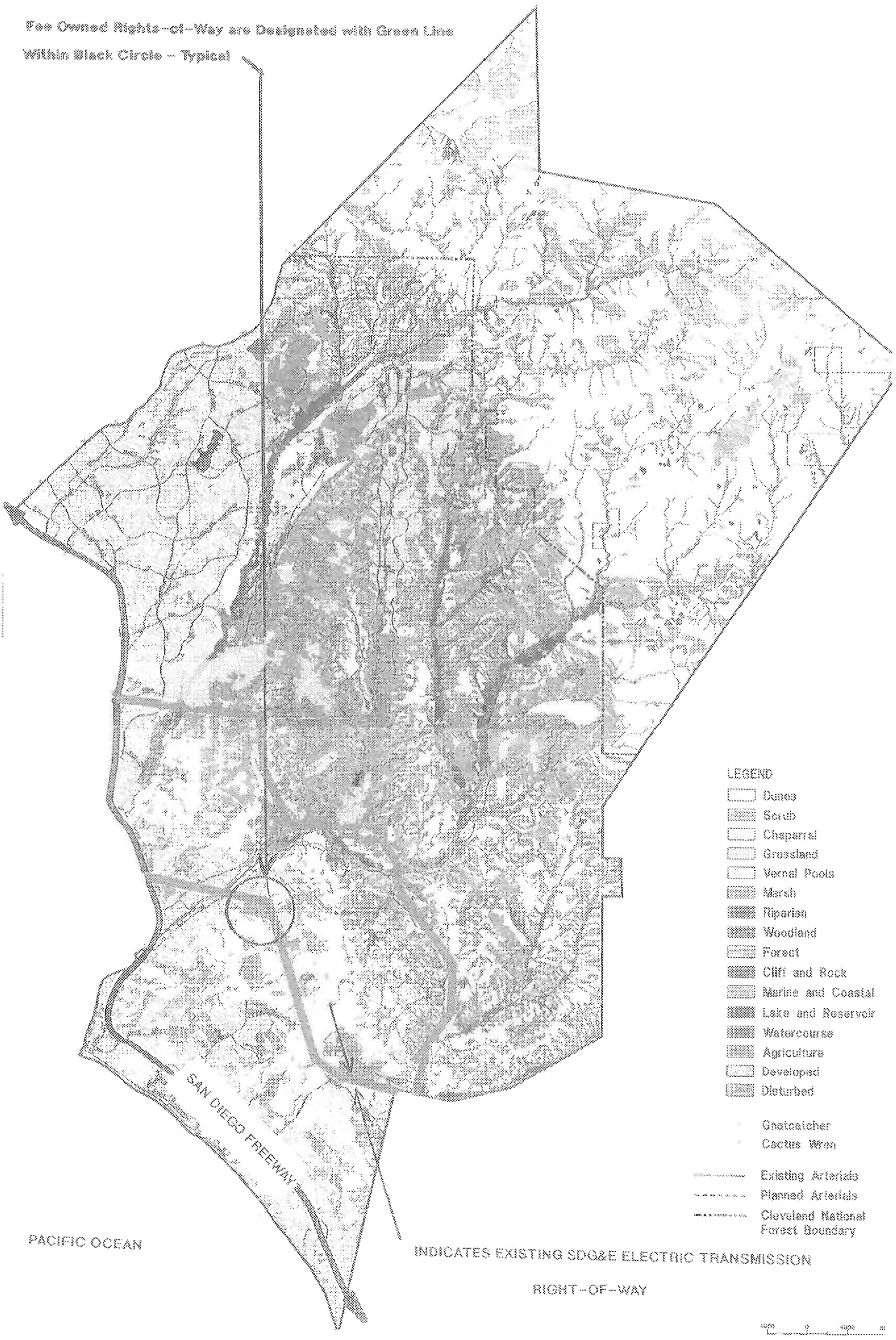
San Diego Region - Western portion



FIGURE

25a

SDG&E Electric Transmission System Fee Owned Rights-of-Way



SDG&E Electric Transmission System Fee Owned Rights-of-Way

FIGURE 25b

7.4 Mitigation Credits

SDG&E will provide the USFWS and the CDFG with funds to enable the procurement of approximately 240 acres of high quality habitat land. The provision of such funds will create a conservation bank in favor of SDG&E in which SDG&E will hold approximately 240 acres of Mitigation Credits for impacts to covered species or their habitats which result from SDG&E Activities. Mitigation Credits associated with the SDG&E Subregional Plan will be drawn upon and deducted from available Mitigation Credits to mitigate for unavoidable impacts associated with SDG&E Activities. Habitat enhancement opportunities may be available and pursued prior to such deductions being taken from the SDG&E Mitigation Credits as discussed in Section 7.2.

The habitat associated with the SDG&E Mitigation Credits is of very high value. The location and configuration of the land will play a critical role in meeting region-wide conservation goals. As such, the Mitigation Credits serve as mitigation for both in-kind and out-of-kind covered species and habitat impacts, without regard to the type of habitat and the biological value of the habitat impacted, except with regard to wetlands falling within the jurisdiction of the Army Corps of Engineers pursuant to Section 10 of the Rivers and Harbors Act and Sections 403 and 404 of the Clean Water Act.

In the Annual Report which will be prepared as a condition of this Plan, the general condition of the habitat assoicated with the Mitigation Credits will be discussed, with special attention paid to changes in the habitat such as from stochastic events like fires and drought. The Report will also include a table showing how many credits were used from the Mitigation Credits (expressed in acres) and how many are left.

Also in the Annual Report will be an analysis jointly prepared by SDG&E, CDFG and USFWS on the performance of the management entity who are overseeing the day-to-day

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operations of the habitat associated with the Mitigation Credits. It may be necessary based on the outcome of that reporting to transfer control to CDFG or USFWS, if all of the parties agree.

The ratio between impacts from Activities and corresponding deductions from the Mitigation Credits are as follows:

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Table 7.4

ACTIVITY	LOCATION	DURATION	RATIO
New Facilities	Inside Preserve*	Permanent	2:1
	Inside Preserve	Temporary	(a)(c)
	Outside Preserve	Permanent	1:1
	Outside Preserve	Temporary	(a)
Maintenance of Existing Facilities	Inside Preserve	Permanent	2:1
		Temporary	(a) (b)
	Outside Preserve	N/A	(b)

(a) Temporary impacts are mitigated through basic site remediation which, includes native hydroseed for erosion control. However, if roots are not grubbed during temporary impacts, the hydroseeding may not be necessary. This applies to areas greater than 500 square feet, and only where grubbing occurred. For all temporary impacts greater than 500 square feet, acreage not meeting success criteria shall be deducted from SDG&E mitigatión credits at a 1:1 ratio.

(b) Impacts associated with maintenance of existing facilities are mitigated for the term of the permit by SDG&E's agreement to restrict development other than SDG&E activities on fee-owned rights-of-way which contain habitat, connect fragmented habitat areas, or contribute to the habitat carrying capacity of the Preserve Areas in the region. SDG&E agrees to limit its use of such rights-of-way to utility activities.

(c) Same as (a), except that any portion of the temporarily impacted area which does not revegetate in accordance with Section 7.2 and the Mitigation Flow Chart attached as Figure 24, then acreage not meeting success criteria shall be deducted from the SDG&E Mitigation Credits.

*The term "Preserve" in Table 7.4 means the area encompassed by the MSCP's Multi-Habitat Planning Area (MHPA) map (as currently defined or ultimately adopted), the equivalent maps for the MHCP and MHCOS programs in San Diego County, the South Orange County NCCP Subregional Plan reserve area, and the Riverside County Conservation Agency Core reserve areas. If no preserve areas are formally delineated, those areas which are designated moderate, high, and very high quality habitat on habitat on evaluation maps prepared for the respective planning areas are considered the "Preserve."

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8 Alternatives

Within its service territory, the demands of customers for electric power and natural gas are met by SDG&E. As a public utility, SDG&E is required by Public Utilities Code Section 451 to provide these utility services in a safe and reliable manner. The CPUC has the authority under Public Utilities Code Sections 701, 761 and 762 to require public utilities to establish and maintain the facilities and property rights which are necessary to provide safe and reliable service. In addition, SDG&E sets corporate goals in an effort to attain the highest quality and dependability of service at the lowest rates it can achieve.

These customer demands, legislative mandates, regulatory controls and corporate goals require that SDG&E install new facilities necessary to meet the growing demands of its customers, and that such new facilities and all existing facilities be adequately maintained and repaired to ensure safety and reliability. This Subregional Plan addresses such installation, operation, maintenance, and repair Activities and their potential to impact Covered species or their habitat.

The curtailment of any aspect of the SDG&E Activities would render SDG&E's public utility services, to a greater or lesser extent, inadequate to meet demand, inefficient, unsafe, and unreliable.

An alternative to this Subregional Plan is to do no conservation plan at all. The no plan alternative would mean that the SDG&E Activities described in the Subregional Plan would remain subject to "take" prohibitions of ESA and CESA. Incidental Take permits would be required for such Activities on a project by project and species by species basis. The case by case process of permitting is cumbersome. It has the potential to miss or to inadequately examine protective and conservation issues and measures, which may be too

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ill defined, unrecognized or vague to enable a clean and meaningful impact analysis or to articulate needed mitigation measures. This Subregional Plan addresses such issues from an ecosystem or habitat basis, wherein such protections or conservation measures are affected, whether or not defined, as a functioning aspect or part of the protected and covered ecosystem or habitat. Because this Subregional Plan provides comprehensive multiple species and habitat conservation, and is not limited to listed species, it provides a net benefit to the environment in that it protects and conserves species in a manner which may prevent any future listing of such species. In addition, the Subregional Plan provides SDG&E with long term predictability concerning the nature of its operations for which in takings are permitted, avoiding cumbersome procedures and potential facility compromising delays.

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9 Funding

Funding requirements must be guaranteed in order for this Plan to be implemented. Therefore, SDG&E must be solvent enough to provide the financial confidence that will constitute such a guarantee. SDG&E has served the San Diego area for over 114 years. The Company's evident stability is reflected in an A+ Standard & Poor's bond rating, an A1 bond rating by Moody's, and by the historical fact that SDG&E has not missed a dividend in 84 years. In 1994, SDG&E's operating revenues exceeded operating expenses by $321,916,000.00. The fiscal health is such that SDG&E was able to declare a dividend of $1.52 for each of its 116,484,000 shares of common stock for a 9.1% return on common equity. These figures, along with the Company's financial history should provide adequate assurance that SDG&E has the fiscal soundness to fulfill its financial commitments with regard to the implementation of this Plan.

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10 Acknowledgments

This plan was prepared over a two-year period by San Diego Gas & Electric staff and consultants, with support from several outside entities. Any omission of names is not intentional.

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DATA BASE SUPPORT

Timothy J. Hurley, GIS Project Manager, SDG&E
Ogden Environmental & Energy Services Company (MSCP & MHCP biological data)
Dudek & Associates (MHCP & South Orange County biological data)
RECON (Riverside County biological data)
County of San Diego (MHCOS biological data)
San Diego Association of Governments (GIS support)

WILDLIFE AGENCIES

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Theresa Stewart, California Department of Fish & Game
Sherry Barrett, United States Fish & Wildlife Service
Jacalyn Fleming, United States Fish & Wildlife Service

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Appendix A
Scope of Preactivity Study

The purpose of the preactivity study is to determine the presence or absence of sensitive resources on or in the vicinity of a project area. Preactivity studies may be appropriate for any type of SDG&E field operation in a natural area. Prior to activities off of access roads in natural areas , the Environmental Surveyor conducts a preactivity study and records the findings of the study on the Preactivity Study Form (See Figure 26, pages 1 and 2). The preactivity study documents information such as:

- Type, location, and size of project
- Date, time, weather, and surrounding land uses
- Evaluation of type and quality of habitat
- Work description and methods which will be used to avoid or minimize ground disturbance, including biological monitoring during construction
- Anticipated impacts (if any) and proposed mitigation, i.e., enhancement or deduction from mitigation credits
- Map of location of work area

This Environmental Surveyor's recommendations regarding how to complete the project while avoiding or minimizing disturbance to environmental resources is detailed verbally to field personnel and followed by written documentation. The preactivity study will be conducted no earlier than 30 days before the surface disturbing activity. If surface disturbance has not commenced within 30 days, the Environmental Surveyor will conduct a verification study. The Environmental Surveyor's verbal and written recommendations will be submitted to the field crew within 1 week of conducting the study and prior to the activity.

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The Preactivity Study Form is also faxed to CDFG and USFWS, along with telephone notification who will reply within 5 working days, indicating if they would like to review the project. When a project can be completed avoiding impacts to natural resources, notification of CDFG and USFWS is for information only, and will not require approval, SDG&E's project may proceed during this time if necessary.

However, when the project cannot be completed without impacts, thus necessitating mitigation, CDFG and USFWS concurrence is required on the need for post-project site enhancement and on the enhancement method. For all new Facilities and related Activities, if Habitat cannot be avoided, a qualified biologist shall be called in to perform surveys following methodologies accepted by the Service. Upon receipt of the Preactivity Study Form, CDFG and USFWS has 15 working days to concur with the enhancement method. If CDFG and USFWS concurrence is not conveyed within 15 working days, the need for post-project enhancement and the enhancement method will be conducted in accordance with the enhancement method specified in the notice.

In both cases, the data recorded on the Preactivity Study Form is then entered into a SDG&E computer data base which is used to develop SDG&E's annual report to the CDFG and USFWS.

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Preactivity Survey Form

LPPM Field ID #: _____

Date Request Rcvd: _____

Project Name: _____

Address/Location: _____

Project Type: _____

Originating Dept: _____

Requestor: _____

Requestor Phone #: _____

LPPM Field Rvwr: _____

LPPM Fld Rvwr Phone #: _____

Project Budget #: _____

Const #/Work Order: _____

Account #: _____

Function Code: _____

Date of Field Survey: _____

Weather Conditions: _____

Site Elevation: _____

Thomas Bros Ref #: _____

APN: _____

Field Survey Start Time: _____

Field Survey Stop Time: _____

Hours Spent in Field: _____

Linear Feet: _____

Square Feet: _____

Biologist Required?: _____

Total Hours Spent on This Request: _____

Preactivity Survey Form (sheet 2 of 2)

Project Name_____

Field ID#_____

Surrounding Land Use/Habitat

North_____

South_____

East_____

West_____

Proposed Work Description

_____

_____

_____

_____

_____

_____

Habitat Evaluation

_____

_____

_____

_____

_____

_____

_____

Reviewer Recommendation

_____

_____

_____

_____

_____

_____

Appendix B
SDG&E Environmental Surveyor Program Certification

GOAL

SDG&E shall implement and comply with the terms of the NCCP Subregional Plan (Plan) by utilizing a professional staff familiar with land use planning and environmental protection techniques.

DEFINITION OF STAFF

SDG&E staff is defined as employees of SDG&E or its independent agents, contractors, consultants practicing land use planning, biology, or similar profession and capable of implementing the terms and goals of the Plan.

BIOLOGICAL RESOURCES TRAINING PROGRAM

To ensure adequate training, staff shall be trained and tested by a recognized independent environmental consultant with experience in environmental biology. Specific focus shall be to ensure that all of the species of plants and animals covered by the Plan can be identified and protected during operation, maintenance, and new construction activities. The consultant shall provide a certification for "Environmental Surveyor" to staff members successfully fulfilling the requirements of the training program.

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Specifically, training for SDG&E staff shall consist of a 10-week, 40-hour course called the "Comprehensive Biological Resource Training Program." The Program's curriculum, goals, and objectives are attached as "Exhibit A." From time to time in consultation with the wildlife agencies, the program curriculum will be revised and updated.

TESTING

SDG&E shall test and will continue to test its staff periodically for competency in relevant environmental science and field work expertise.

STAFF SKILLS REQUIREMENTS

SDG&E staff shall be capable of implementing the following:

A) Prior to maintenance activity, SDG&E operations, or project construction:

- Conducting preliminary site visits to determine the extent and location of native vegetation communities and native wildlife within each project area.
- Assess the potential for the presence of sensitive habitats, plants or wildlife species on the site; especially species listed as threatened or endangered at the state or federal level.
- Review existing databases and general references to compile known records of sensitive species in the vicinity of the site.
- Determine the need for further biological assessment by expert biologists.

B) In cases where no further analysis (by expert biologists) is required:

- Document the existing vegetation communities and representative wildlife species.
- Determine the extent and location of project impacts.
- Advise field crews on methods for proceeding, which avoid impacts to sensitive areas, and implement other Operational Protocols as appropriate.
- Recommend specific mitigation measures to offset unavoidable impacts.
- Monitor construction or maintenance activities to avoid impacts to sensitive areas.
- Prepare follow-up reports describing the work completed and effect of project on biological resources.

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C) In cases where further analysis is required by biological experts:

- Work with expert biologist to ensure comprehensive analysis is completed.

STAFF CERTIFICATION

SDG&E shall provide an updated list of qualified staff and copies of the Environmental Certification during the month of January each year to CDF&G and USFWS for review and record keeping. Copies of classroom work and testing shall only be submitted at the first certification of each qualified staff member. Thereafter, only copies of their Environmental Surveyor certification shall be provided on a yearly basis. Additional qualified staff members may be added to the list during the year by submitting copies of their class work, testing results and Environmental Certification.

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EXHIBIT "A"

SAN DIEGO GAS & ELECTRIC COMPANY
ENVIRONMENTAL TRAINING PROGRAM
CURRICULUM /
GOALS AND OBJECTIVES

1) *Establish a broad overview of ecology, ecosystems, and the science of conservation biology.*

   a) Describe the flow of energy, nutrients, and water through an ecosystem including role of autotrophs, heterotrophs, nitrogen fixation, photosynthesis, and energy break down. Identify examples of these basic processes in southern California ecosystems.

   b) Describe the basic components of an ecosystem (primary producer, consumer, tertiary consumers, etc.) Identify examples of these trophic levels in southern California's ecosystems.

   c) Describe the general effects of development on natural ecosystems including removal of native diversity, disruption of natural systems (eutrophication), and the benefits of habitat restoration.

   d) Define the physical and biological factors that make southern California an unusual region.

2) *Use standard biological references and field guides to identify vegetation communities, and plant and wildlife species common to southern California ecosystems.*

   a) Identify the dominant indicator plant species for common vegetation communities with southern California.

   b) Identify the common reptile, bird, and mammal species in southern California's ecosystems.

   c) Be able to prepare detailed vegetation map of a particular area and identify dominant plants in each community,

   d) Understand how to use dichotomous keys for identifying common plants of coastal sage scrub, chaparral, and riparian habitats.

   e) Create a library of natural history field guides including standards guides for plants, reptiles, birds, and mammals.

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f) Create a matrices of habitats and key indicator species.

3) *Use range maps, species accounts, existing biological resources assessments, and data bases to determine the general biological setting and determine the potential for a particular area to support sensitive habitat, plants, or wildlife.*

a) Define what habitats and sensitive species may occur in a particular area of interest before initiating a field survey.

b) Determine the appropriate references for acquiring additional information on specific biological resources.

4) *Identify typical habitat types for federally listed and State listed wildlife species throughout southern California with a focus on the coastal California gnatcatcher, lease Bell's vireo, southern willow flycatcher, southwestern arroyo toad, and Pacific pocket mouse.*

a) Understand basic biology of the coastal California gnatcatcher, lease Bell's vireo, southern willow flycatcher, arroyo toad, and Pacific Pocket mouse, including biology, habitat requirements, and potential impacts to these species associated with SDG&E's activities.

b) Be familiar with the diversity of sensitive species throughout the region (Species of Concern) with emphasis on those plants and wildlife species typically encountered in coastal sage scrub habitats.

c) Determine the appropriate season for sensitive species surveys.

d) Determine the need for professional biologists to conduct focused surveys.

5) *Understand basic principles of conservation biology focusing on the viability of populations and the process of local extinction.*

a) Compare and contrast the genetic, stochastic, demographic, and environmental factors affecting the stability of a population.

b) Define the effects of habitat fragmentation and the importance of wildlife movement corridors to maintaining stable populations.

c) Describe Soule's "extinction vortex" and how it may apply to small and fragmented populations in southern California.

d) Identify wildlife movement corridors by topography, vegetation, and surrounding urbanization.

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6) *Understand the history of state and federal laws affecting wildlife management with a focus on Sections 4, 7, 9, and 10 of the federal Endangered Species Act and the Natural Community Conservation Plan. Understand how the Endangered Species Act works in conjunction with CEQA, NEPA, and the Fish and Game Code (including CESA).*

a) Describe the evolution of and need for wildlife management laws from the Lacey Act, Migratory Bird Treaty Act, and Endangered Species Act.

b) Describe basic components of the federal Endangered Species Act.

c) Describe "take" as it pertains to southern California with reference to harassment, removal of potentially occupied habitats, and direct removal of occupied habitats.

d) Describe the listing process and Candidate system and why this system is currently under review.

e) Compare and contrast the Section 7 and Section 10 processes.

f) Describe the components of a Biological Assessment and Habitat Conservation Plan.

g) Describe the NCCP and how habitat-based conservation plans differ from the single species conservation.

h) Describe pertinent projects, decisions, and controversies surrounding the federal Endangered Species Act.

7) *Understand the basic component of Section 404 of the Clean Water Act and Section 1600 of the Fish and Game Code with emphasis on determining the need for professional delineation of wetlands and stream courses through an area. Identify wetland versus upland vegetation, hydric soil types, and "unusual" wetlands such as vernal pools and ephemeral streams.*

a) Define the basic component of Section 404 and Section 1600.

b) Create a checklist for wetlands, including soils, hydrology, and vegetation.

c) Identify common wetland indicator species.

d) Use the basic methods and reference material pertaining to official wetland delineations.

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e) Understand need for professional advice on determining full extent of "wetlands" in xeric habitats.

8) *Incorporate the various methods of habitat restoration and revegetation in coastal sage scrub and wetland habitats into biological mitigation programs.*

a) Compare and contrast the basic methods of coastal sage scrub revegetation, including hydroseeding, native regrowth, and container planting.

b) Compare the contrast the basic methods of wetland restoration for southern California's riparian ecosystems with emphasis on mulefat scrub and willow scrub habitats.

c) Determine the projects requiring irrigation and those that may function well without irrigation.

d) Understand ecological benefits of erosion, control measures, removal of weeds (especially giant reed grass), cowbird trapping, controlled human access, fencing, interpretive signs, and other mitigation measures.

e) Describe mitigation banking and site-specific measures and how these methods can work together.

9) *Establish the forms, methods, and review system for Preactivity Survey and conduct a Preactivity Survey.*

a) Create a field survey form identifying all pertinent aspects of the biological setting requiring review during a Preactivity Survey.

b) Conduct a Preactivity Survey to determine the extent and location of native vegetation communities and the potential for the area to support sensitive biological resources, including sensitive habitats, corridors, plants, and wildlife.

c) Determine the need for further biological assessments by a professional biologist.

d) Incorporate photodocumentation into report preparation.

e) Prepare an annual report pertaining to all areas surveyed under the program.

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