SAN DIEGO GAS & ELECTRIC COMPANY

SOUTH BAY SUBSTATION RELOCATION PROJECT
NOXIOUS WEEDS AND INVASIVE SPECIES CONTROL PLAN

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TABLE OF CONTENTS

LIST OF ATTACHMENTS

1 – INTRODUCTION

This Noxious Weeds and Invasive Species Control Plan (Plan) describes the measures and best management practices (BMPs) that will be implemented by San Diego Gas & Electric Company (SDG&E) and its contractors to avoid and minimize the establishment and spread of noxious and invasive plant species during construction of the South Bay Substation Relocation Project (Project). For the purpose of this document, noxious weeds and invasive plant species, collectively referred to as "weeds," are invasive, non-native plant species that have been identified by the California Invasive Plant Council (Cal-IPC). Attachment A: Non-Native Species Observed on Site Prior to Construction and Invasiveness Ratings includes a list of non-native plant species known to occur within the Project limits.

The relocation of the existing South Bay Substation to the Bay Boulevard Substation site involves the following Project components:

- construction of a new 230/69/12 kilovolt (kV) Bay Boulevard Substation;
- construction of a 230 kV loop-in, including underground and overhead interconnections;
- relocation of six 69 kV overhead transmission lines and associated communication cables;
- extension of a 138 kV transmission line via overhead and underground configurations;
- demolition of the existing South Bay Substation once the Bay Boulevard Substation is operational; and
- restoration activities at the D Street Fill Site.

The Project is located in the City of Chula Vista, California, in the southwestern portion of San Diego County. The Project site lies within an industrial area on disturbed land that was previously used as a liquefied natural gas plant site, and contains habitat dominated by non-native vegetation. This Plan was prepared in accordance with Mitigation Measure (MM) BIO-4 of the Mitigation Monitoring, Compliance, and Reporting Program (MMCRP) and Special Condition 8 (CDP-08) of the California Coastal Commission (CCC) Coastal Development Permit for the Project. The Plan also incorporates requirements of SDG&E's Subregional Natural Community Conservation Plan (NCCP).

2 – OBJECTIVES

The purpose of this Plan is to avoid and minimize the direct or indirect effect of the establishment and spread of invasive plant species during construction that were not present prior to construction. Additionally, the purpose of this Plan is to establish a noxious weed management program that will be used to monitor and control the spread of weed populations that were not present along the construction access and transmission line right-of-way (ROW). The Plan provides specific information for implementing MM BIO-4 and CDP-08. The BMPs/protective measures and weed management procedures in this Plan are intended to accomplish the following objectives:

- during construction, avoid and minimize the direct or indirect effect of the establishment and spread of invasive plant species that were not present prior to construction;

- control the spread of weed populations that were not present along the construction access and transmission line ROW; and
- prevent establishment and limit the spread of localized invasive plant species.

3 – MITIGATION MEASURES AND PERMIT CONDITIONS

MM BIO-4 states the following:

> "Prepare and implement a Noxious Weeds and Invasive Species Control Plan. A Noxious Weeds and Invasive Species Control Plan shall be prepared and reviewed by the California Department of Fish and Game and California Public Utilities Commission. The plan shall be submitted to the CPUC at least 30 days prior to ground-disturbance activities. The plan shall be implemented during all phases of project construction. The plan shall include best management practices (BMPs) to avoid and minimize the direct or indirect effect of the establishment and spread of invasive plant species during construction that were not present prior to construction. Implementation of specific BMPs/protective measures shall be required during construction, such as using weed-free imported soil/material and restricting vegetation removal. Development and implementation of weed management procedures shall be used to monitor and control the spread of weed populations that were not present along the construction access and transmission line rights-of-way. Noxious weed management shall be conducted annually for 2 years to limit the spread of localized invasive plant species. This shall include weed abatement efforts targeted at plants listed as invasive exotics by the California Invasive Plant Council in its most recent 'A' or 'Red Alert' list. Pesticide/herbicide use shall be limited to pre-emergent pesticides and shall only be applied in accordance with label and application permit directions and restrictions for terrestrial and aquatic applications."

CDP-08 states the following:

> "Prior to the start of construction, SDG&E shall submit a Noxious Weeds and Invasive Species Control Plan to the Executive Director for review and approval. The plan shall be implemented during all phases of project construction and operation. The plan shall include best management practices (BMPs) to avoid and minimize the direct or indirect effect of the establishment and spread of invasive plant species during construction that were not present prior to construction. Implementation of specific BMPs/protective measures shall be required during construction, such as cleaning vehicles prior to off-road use, using weed-free imported soil/material, restricting vegetation removal, and requiring topsoil storage. Development and implementation of weed management procedures shall be used to monitor and control the spread of weed populations that were not present along the construction access and transmission line rights-of-way. Vehicles used during construction shall be cleaned prior to operation off maintained roads. Existing vegetation shall be cleared only from areas scheduled for immediate construction work and only for the width needed for active construction activities. Noxious weed management shall be conducted annually for 2 years to prevent establishment and limit the spread of localized invasive plant species. This effort shall include weed abatement efforts targeted at plants listed as invasive exotics by the California Exotic Plant Pest Council in its most recent 'A' or 'Red Alert' list.

Pesticide/herbicide use shall be limited to pre-emergent non-persistent pesticides and shall only be applied in accordance with label and application permit directions and restrictions for terrestrial and aquatic applications."[1]

4 – PLAN IMPLEMENTATION

SDG&E and its contractors will take all reasonable measures to control the spread of noxious and invasive plants during Project construction. SDG&E and its contractors will adhere to the requirements of the MMCRP and the CCC Coastal Development Permit for the Project and will implement the measures within the Plan.

4.0 PRE-CONSTRUCTION DOCUMENTATION

During special-status plant species surveys conducted in 2011 and 2013 for the Project, 90 non-native species were observed. Of the 90 non-native species observed, 35 have been rated on the most recent Cal-IPC California Invasive Plant Inventory.[2] Of the 35 Cal-IPC-rated species, five have a rating of "High," 12 have a rating of "Moderate," and 18 have a rating of "Limited." In addition to the ratings, two of the non-native species have received a Cal-IPC "Alert" designation.[3] Attachment A: Non-Native Species Observed on Site Prior to Construction and Invasiveness Ratings provides a table of all the non-native species observed during the 2011 and 2013 special-status plant species surveys, and their respective Cal-IPC ratings, if applicable. This Plan focuses on the prevention of the introduction of weed species that do not currently occur within the Project area.

4.1 FLAGGING AND SIGNAGE

Prior to conducting any ground-disturbing activities, survey crews and/or construction personnel will mark approved work limits. In order to minimize disturbance and the potential to spread weed species, construction crews will limit construction activities to the approved work limits, including parking of vehicles and staging equipment. Prior to construction, SDG&E's designated representatives will use lath, signage, ribbon, and/or fencing to delineate the limits of work.

[1] The Cal-IPC was previously the California Exotic Plant Pest Council, and the "A" and "RED Alert" lists no longer exist. This Plan uses the most recent Cal-IPC California Invasive Plant Inventory rating system to categorize weed species.

[2] Cal-IPC Rating:

- High: These species have severe ecological impacts on plant and animal communities. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment.
- Moderate: These species have substantial—but generally not severe—ecological impacts on plant and animal communities. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance.
- Limited: These species are invasive, but their ecological impacts are minor on a statewide level, or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness.

[3] Specific combinations of section scores that indicate significant potential for invading new ecosystems triggers a Cal-IPC Alert designation based on Calflora's Alert Status.

4.2 CLEARING AND GRADING

Project facilities can be divided into five main components, as described in Section 1 – Introduction. The majority of Project clearing and grading activities in areas containing noxious weeds will occur at the Bay Boulevard Substation site. Topsoil stockpiling as part of clearing and grading activities will not occur at the substation. However, equipment used during brush removal or grading of the uppermost soil horizons will be cleaned as described in Section 4.3 Best Management Practices/Protective Measures. In work areas along the transmission lines where grading and clearing will occur and where weeds are present, cleared vegetation and the topsoil will be stockpiled adjacent to the area from which it was removed to reduce the transport of soil that may contain noxious weed seeds, roots, rhizomes, or other propagules.[4] Existing vegetation will only be cleared from areas along the transmission lines that are scheduled for immediate construction work, and only for the width needed for active construction activities. These areas will be delineated in the field with flagging. If the soil is to be hauled off site, the beds of the haul trucks will be covered to prevent seed dispersal during transport to approved disposal facilities.

4.3 BEST MANAGEMENT PRACTICES/PROTECTIVE MEASURES

Equipment Cleaning

In order to control the introduction of invasive plant species, all construction equipment will be clean and free of soil and vegetative material prior to mobilizing to off-road use. Prior to entering the Project area, equipment will be inspected by SDG&E to verify that it is free of soil, mud, or vegetative materials. Documentation will be maintained demonstrating that all heavy equipment arriving to the Project is clean and free of vegetative material.

In order to reduce the threat of spreading invasive plant species, all heavy equipment used for clearing or grading will be cleaned prior to demobilizing from the Project. The cleaning process will involve manually removing potential seed-containing soil and debris with hand tools and/or compressed air. Cleaning of equipment will occur at a designated location within the Project limits in accordance with the Project's Storm Water Pollution Prevention Plan (SWPPP) and applicable SDG&E BMPs (Attachment B: Applicable Sections of SDG&E's NCCP). In addition, SDG&E or its designated representative will ensure that this equipment is cleaned prior to moving to uninfested areas. If equipment cannot be adequately cleaned on site (e.g., it is mud-covered), SDG&E or its designated representative will direct the Construction Contractor to remove as much excess mud as possible from the tires and body of the equipment with hand tools, and then clean the equipment at a commercial off-site equipment washing facility. If this method is used, the outside (including underneath the vehicle) will be washed. This washing will be done before taking the equipment onto any other work sites.

Once a noxious and invasive plant control area has been cleared, and the topsoil has been stockpiled and contained in accordance with the Project's SWPPP or removed from the site, subsequent work and travel within the area can be conducted without cleaning.

[4] Topsoil is equivalent to the A-horizon, which is anticipated to be less than four inches.

Weed-Free Products

All imported soil and material will be weed-free. Prior to using the imported materials, the Construction Contractor will ensure that straw wattles, gravel, mulch, and soil are free of weeds.[5] SDG&E or its designated representative will collect documentation from the Construction Contractor and maintain a file through completion of Project construction that confirms the material is weed-free. Upon request by the regulatory agencies, SDG&E will provide documentation demonstrating that straw wattles, gravel, mulch and soil are free of weeds.

Operation and Maintenance Activities

The CDP requires that this plan be implemented during all phases of Project construction and operation. Once the Project components become energized, operation and maintenance activities will be conducted in accordance with SDG&E's NCCP. The applicable sections of the NCCP have been included in Attachment B: Applicable Sections of SDG&E's NCCP.[6] SDG&E conducts routine vegetation control on access roads and permanent work areas to minimize weed species. Control consists of manual removal or herbicide spraying, if it is not harmful to sensitive species. When necessary, herbicides will be applied by a licensed or certified applicator in accordance with the product label and applicable law. Consistent with MM BIO-4 and CDP-08, pesticide/herbicide use will be limited to pre-emergent pesticides and will only be applied in accordance with label and application permit directions and restrictions for terrestrial and aquatic applications. Attachment A: Non-Native Species Observed on Site Prior to Construction and Invasiveness Ratings provides additional details regarding the procedures that will be implemented for the use of pesticides. In addition, Operational Protocols have been developed within the NCCP and are implemented on operation and maintenance projects. Some of these protocols include the following:

- environmental review for any ground-disturbing activities within natural vegetation communities,
- agency review and oversight,
- delineation of work space to minimize disturbance,
- minimization of off-road vehicle activities, and
- utilization of existing cleared work areas or access roads during patrols and inspection activities.

5 – ONGOING NOXIOUS WEED MANAGEMENT

For two years, noxious weed management will be conducted annually in areas that were analyzed for temporary disturbance (i.e., grading) during construction. SDG&E will monitor and control weeds to prevent establishment and limit the spread of localized invasive plant species that were not present prior to construction. Noxious weed management will include abatement efforts within the Project area, and a 0-percent establishment criterion will be implemented for

[5] Wattles must be certified weed-free by the manufacturer.

[6] Refer to Section 2.1.3.9 of the NCCP, as provided in Attachment B: Applicable Sections of SDG&E's NCCP, for specific vegetation control techniques that will be utilized during operation and maintenance activities. Section 7.1 describes the operational protocols to be implemented during operation and maintenance.

species with a Cal-IPC Alert status or "A" rating that were not known to occur within the Project site prior to construction.

5.0 WEED MANAGEMENT PROCEDURES

5.0.0 Weed Abatement and Remedial Measures

SDG&E will designate a Habitat Restoration Specialist (HRS) to conduct noxious weed management annually for two years. The HRS will also be responsible for assessing the success of control methods implemented to prevent the spread of weed species. If new (not previously documented) Cal-IPC Alert status or "A" rated species are present at the end of two years, then weed abatement will continue until these species have been eliminated from the Project site.

Weed control methods will consist of manual removal and/or application of a pre-emergent herbicide. If chemical weed abatement methods are determined to be required, the application of these methods will be conducted in a manner that minimizes potential impacts to sensitive plant and wildlife species, such as the timing of implementation, the application rate for chemical controls, and the utilization of site-specific measures. In addition, pesticide/herbicide use will be limited to pre-emergent, non-persistent pesticides, and will be applied in accordance with label and application permit directions for terrestrial applications. Any weed control measures that require pesticide/herbicide use will be applied by a licensed or certified applicator, under the recommendation of a licensed pest control advisor.

6 – REFERENCES

Cal-IPC. 2006 (updated in 2007 and 2008). California Invasive Plant Council. Berkeley, California. California Invasive Plant Inventory Database. Online. http://www.cal-ipc.org/paf/. Site visited May 8, 2014.

Insignia. 2011. Rare Plant Survey Report for the South Bay Substation Relocation Project. May.

Insignia. 2013. Rare Plant Survey Report for the South Bay Substation Relocation Project. July.

SDG&E. 1995. *Subregional Natural Community Conservation Plan*.

SDG&E. 2011. SDG&E BMPs Manual for Water Quality Construction. July 2011.

SDG&E. 2014. South Bay Substation Relocation Project, Storm Water Pollution Prevention Plan. July 2014.

ATTACHMENT A: NON-NATIVE SPECIES OBSERVED ON SITE PRIOR TO CONSTRUCTION AND INVASIVENESS RATINGS

Attachment A: Non-Native Species Observed on Site Prior to Construction and Invasiveness Ratings

Species Name[1]	Cal-IPC Rating[2]	Cal-IPC Scores[3]		
		Impacts	Invasive	Distribution
Acacia redolens (bank catclaw)	Not Listed	Not Applicable (NA)	NA	NA
Acacia sp. (acacia)	NA	NA	NA	NA
Amaranthus albus (tumbleweed)	Not Listed	NA	NA	NA
Amblyopappus pusillus (pineapple weed)	Not Listed	NA	NA	NA
Anagallis arvensis (scarlet pimpernel)	Not Listed	NA	NA	NA
Apium graveolens (wild celery)	Not Listed	NA	NA	NA
Aptenia cordifolia (baby sun rose)	Not Listed	NA	NA	NA

[1] A red diamond next to the species name indicates whether this species has an Alert Status according to Calflora.

[2] California Invasive Plant Council (Cal-IPC) Rating:

- High: These species have severe ecological impacts on plant and animal communities. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment.
- Moderate: These species have substantial—but generally not severe—ecological impacts on plant and animal communities. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance.
- Limited: These species are invasive, but their ecological impacts are minor on a statewide level, or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness.

[3] Cal-IPC Impact, Invasive, and Distribution Scores: Cal-IPC evaluates the ecological impacts, invasive potential, and ecological distribution of invasive weed species and assigns a score of A (severe) to D (no impact).

Species Name[1]	Cal-IPC Rating[2]	Cal-IPC Scores[3]		
		Impacts	Invasive	Distribution
Atriplex lindleyi (Lindley's saltbush)	Not Listed	NA	NA	NA
A. semibaccata (Australian saltbush)	Moderate	B	B	B
Avena barbata (slender wild oat)	Moderate	B	B	A
Bassia hyssopifolia (five-hook bassia)	Limited	C	C	B
Bromus diandrus (ripgut brome)	Moderate	B	B	A
Bromus hordeaceus (Soft chess brome)	Limited	B	C	A
Bromus madritensis ssp. *rubens* (foxtail grass)	High	A	B	A
Callistemon viminalis (bottlebrush)	Not Listed	NA	NA	NA
Carissa macrocarpa (natal plum)	Not Listed	NA	NA	NA
Centaurea melitensis (tocalote)	Moderate	B	B	B
Chenopodium murale (nettle-leaf goosefoot)	Not Listed	NA	NA	NA
Cortaderia selloana (pampas grass)	High	A	A	A

Species Name[1]	Cal-IPC Rating[2]	Cal-IPC Scores[3]		
		Impacts	Invasive	Distribution
Cotula coronopifolia (African brass-buttons)	Limited	C	C	B
Cynara cardunculus (artichoke thistle)	Moderate	B	B	B
Cynodon dactylon (Bermuda grass)	Moderate	B	B	B
Dittrichia graveolens (stinkwort) ♦	Moderate	B	A	C
Erigeron bonariensis (flax-leaf fleabane)	Not Listed	NA	NA	NA
Erodium botrys (long-beak filaree)	Not Listed	NA	NA	NA
E. cicutarium (redstem filaree)	Limited	C	C	A
E. moschatum (white-stemmed filaree)	Not Listed	NA	NA	NA
Eucalyptus globulus (Tasmanian blue gum)	Moderate	B	B	B
Eucalyptus sp. (eucalyptus)	NA	NA	NA	NA
Euphorbia maculata (spotted spurge)	Not Listed	NA	NA	NA
Festuca myuros (hairy rat-tail fescue)	Not Listed	NA	NA	NA

Species Name[1]	Cal-IPC Rating[2]	Cal-IPC Scores[3]		
		Impacts	Invasive	Distribution
F. perennis (Italian ryegrass)	Not Listed	NA	NA	NA
Ficus sp. (fig)	NA	NA	NA	NA
Foeniculum vulgare (fennel)	High	A	B	A
Gaura drummondii (Drummond's gaura)	Not Listed	NA	NA	NA
Glebionis coronaria (crown daisy)	Not Listed	NA	NA	NA
Hedera helix (English ivy)	High	A	A	A
Hedypnois cretica (Crete hedypnois)	Not Listed	NA	NA	NA
Helminthotheca echioides (bristly ox-tongue)	Not Listed	NA	NA	NA
Hordeum murinum ssp. *leporinum* (foxtail barley)	Not Listed	NA	NA	NA
Hordeum spp.	NA	NA	NA	NA
Hypochaeris glabra (smooth cat's-ear)	Limited	C	B	B
Lactuca serriola (prickly lettuce)	Not Listed	NA	NA	NA

Species Name[1]	Cal-IPC Rating[2]	Cal-IPC Scores[3]		
		Impacts	Invasive	Distribution
Lamarckia aurea (golden-top)	Not Listed	NA	NA	NA
Lamium amplexicaule (henbit)	Not Listed	NA	NA	NA
Lantana montevidensis (trailing lantana)	Not Listed	NA	NA	NA
Limonium perezii (Perez's marsh-rosemary)	Not Listed	NA	NA	NA
Limonium sp. (limonium)	NA	NA	NA	NA
Lythrum hyssopifolia (grass poly)	Limited	C	B	B
Malva parviflora (cheeseweed)	Not Listed	NA	NA	NA
Melaleuca linariifolia (snow in summer)	Not Listed	NA	NA	NA
M. quinquenervia broad-leafed paperbark	Not Listed	NA	NA	NA
Melilotus albus (white sweetclover)	Not Listed	NA	NA	NA
M. indicus (Indian sweetclover)	NA	NA	NA	NA
Mesembryanthemum crystallinum (crystalline ice plant) ♦	Moderate	B	B	C

Species Name[1]	Cal-IPC Rating[2]	Cal-IPC Scores[3]		
		Impacts	Invasive	Distribution
M. nodiflorum (slender-leaved ice plant)	Not Listed	NA	NA	NA
Myoporum laetum (myoporum)	Moderate	B	B	B
Nerium oleander (oleander)	Not Listed	NA	NA	NA
Nicotiana glauca (tree tobacco)	Moderate	B	B	B
Olea europea (common olive)	Limited	C	B	B
Paspalum dilatum (dallis grass)	Not Listed	NA	NA	NA
Pelargonium x hortorum (zonal geranium)	Not Listed	NA	NA	NA
Pennisetum setaceum (fountain grass)	Not Listed	NA	NA	NA
Phalaris paradoxa (paradox canary grass)	Not Listed	NA	NA	NA
Phoenix canariensis (Canary Island date palm)	Limited	C	B	D
Phytolacca americana var. *americana* (pokeweed)	Limited	NA	NA	NA
Plantago lanceolata (English plantain)	Limited	C	C	B

Species Name[1]	Cal-IPC Rating[2]	Cal-IPC Scores[3]		
		Impacts	Invasive	Distribution
Polycarpon tetraphyllum var. *tetraphyllum* (four-leaf allseed)	Not Listed	NA	NA	NA
Polygonum arenastrum (common knotweed)	Not Listed	NA	NA	NA
Polypogon monspeliensis (annual beard grass)	Limited	C	C	B
Prunus sp. (unidentified ornamental)	NA	NA	NA	NA
Raphanus sativa (wild radish)	Limited	C	C	B
Ricinus communis (castor-bean)	Limited	C	B	B
Rumex crispus (curly dock)	Limited	C	C	A
Salsola tragus (Russian thistle)	Limited	C	B	B
Schinus molle (Peruvian pepper tree)	Limited	C	B	B
S. terbinthifolius (Brazilian pepper tree)	Limited	C	B	C
Schismus bartabus (Common Mediterranean grass)	Limited	B	C	A
Senecio vulgaris (common groundsel)	Not Listed	NA	NA	NA

Species Name[1]	Cal-IPC Rating[2]	Cal-IPC Scores[3]		
		Impacts	Invasive	Distribution
Setaria viridis (green bristlegrass)	Not Listed	NA	NA	NA
Sisymbrium irio (London rocket)	Moderate	B	B	A
Solanum americanum (white nightshade)	Not Listed	NA	NA	NA
S. nigrum (black nightshade)	Not Listed	NA	NA	NA
Sonchus asper (spiny sowthistle)	Not Listed	D	B	B
S. oleraceus (common sow thistle)	Not Listed	NA	NA	NA
Stipa miliacea (smilo grass)	Not Listed	NA	NA	NA
Tamarix parviflora (small-flower tamarisk)	High	A	A	B
Thlaspi arvense (field penny-cress)	Not Listed	NA	NA	NA
Ulmus parviflora (Chinese elm)	Not Listed	NA	NA	NA
Urtica urens (dwarf nettle)	Not Listed	NA	NA	NA

ATTACHMENT B: APPLICABLE SECTIONS OF SDG&E'S NCCP

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

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

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.

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.

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).

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.

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,

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

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

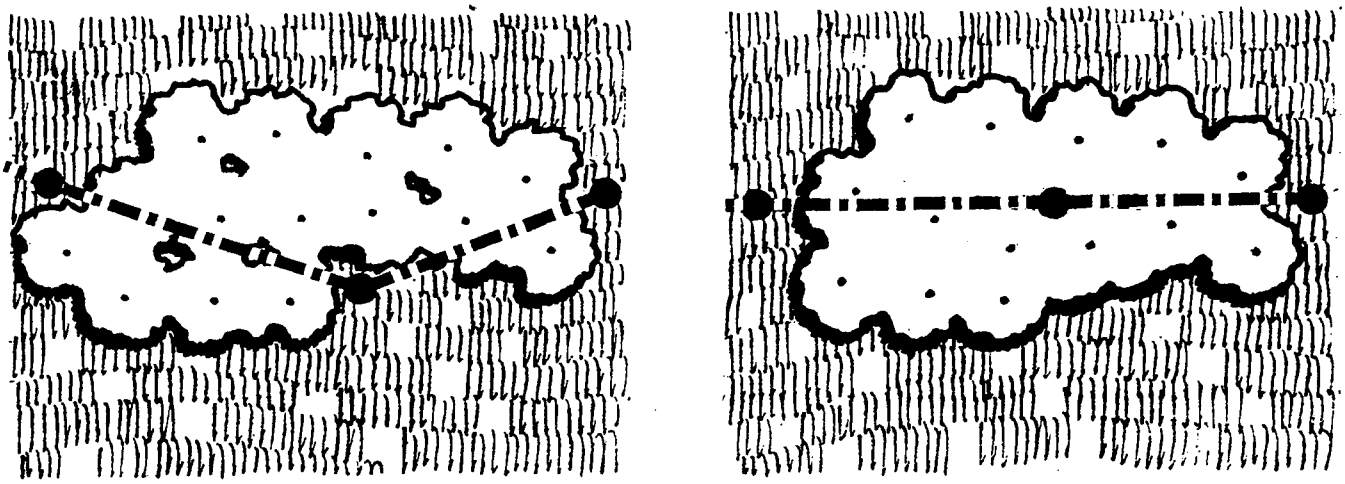
The disturbed areas within the property line of a substation or regulator station may be used as a staging area for the temporary storage of large construction equipment used in construction and maintenance activities. This property may also serve as equipment turn-around areas, wire pulling sites, equipment 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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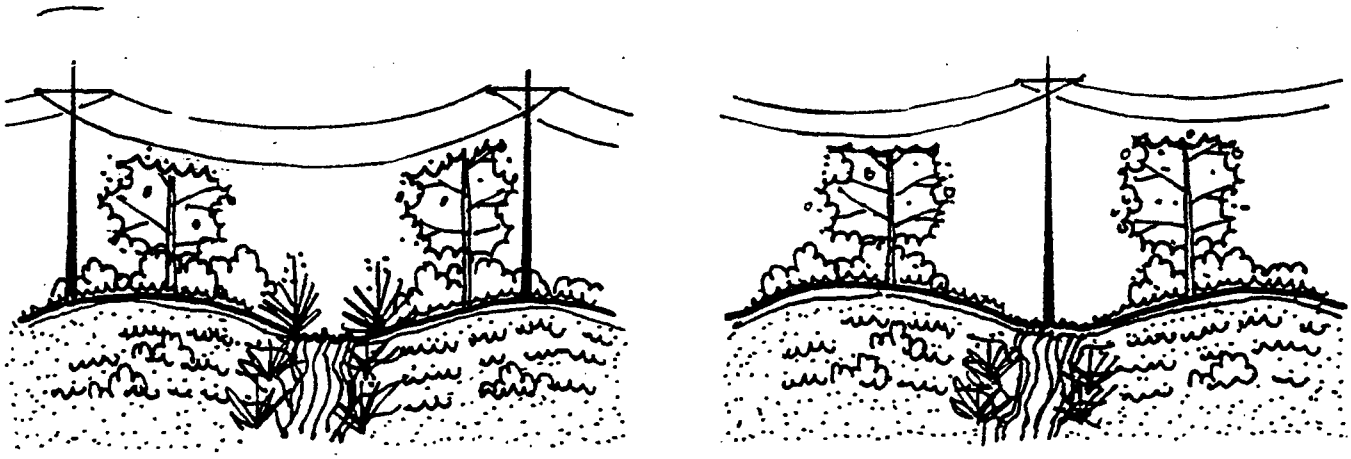
PLACEMENT OF OVERHEAD POLES SHOULD AVOID HABITAT AREAS



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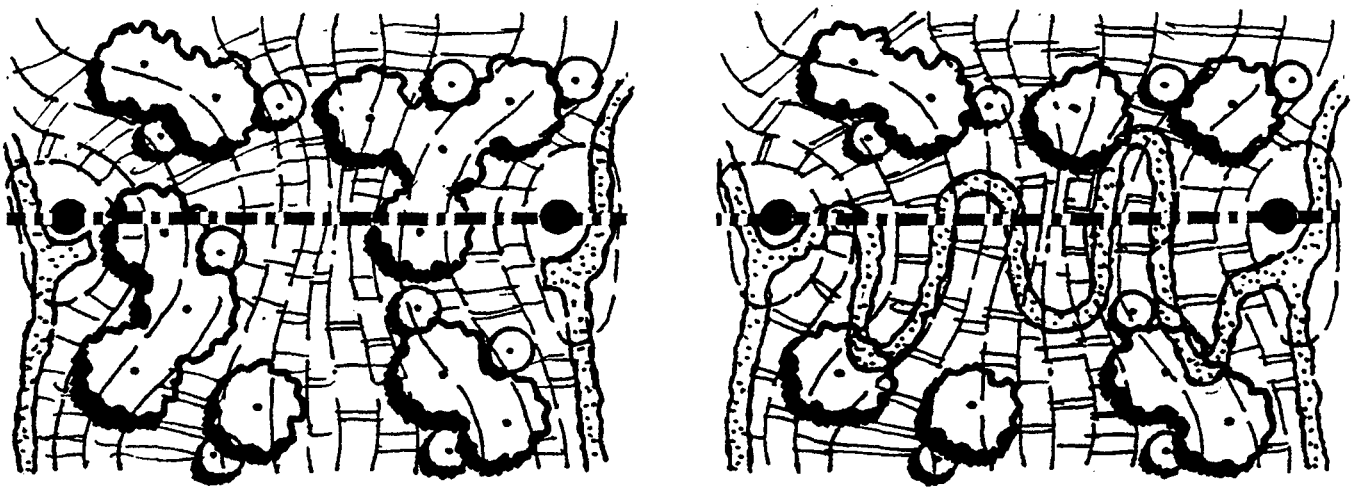
OVERHEAD POLES SHOULD NOT BE PLACED IN RIVERS, STREAMS, OR CREEKS

FIGURE

Operational Protocol Diagrams

4



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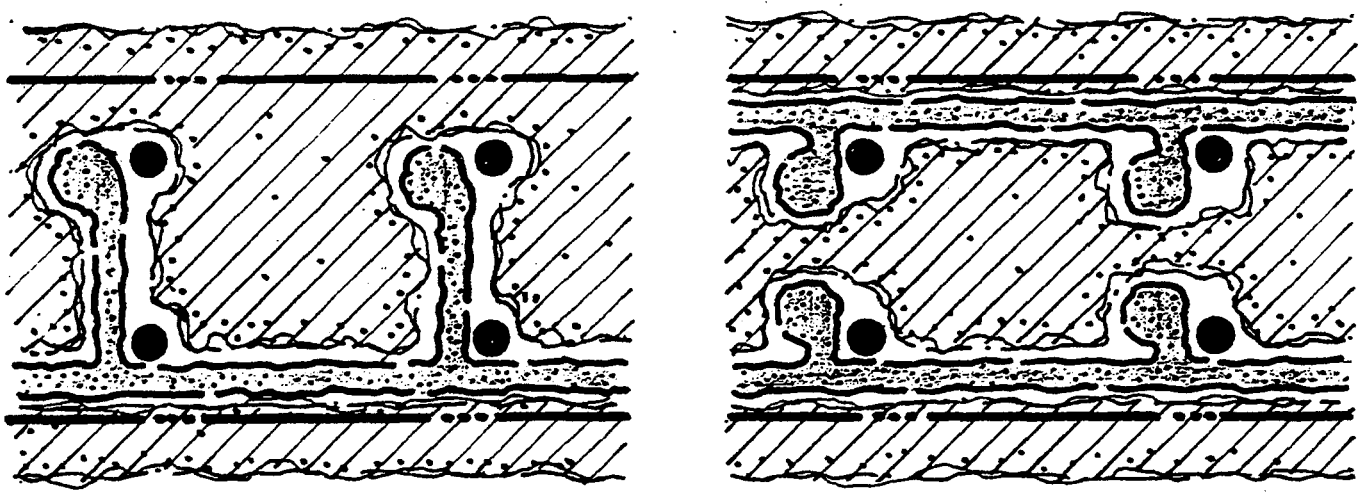
NEW ACCESS ROADS SHOULD AVOID SENSITIVE AND CANYON AREAS



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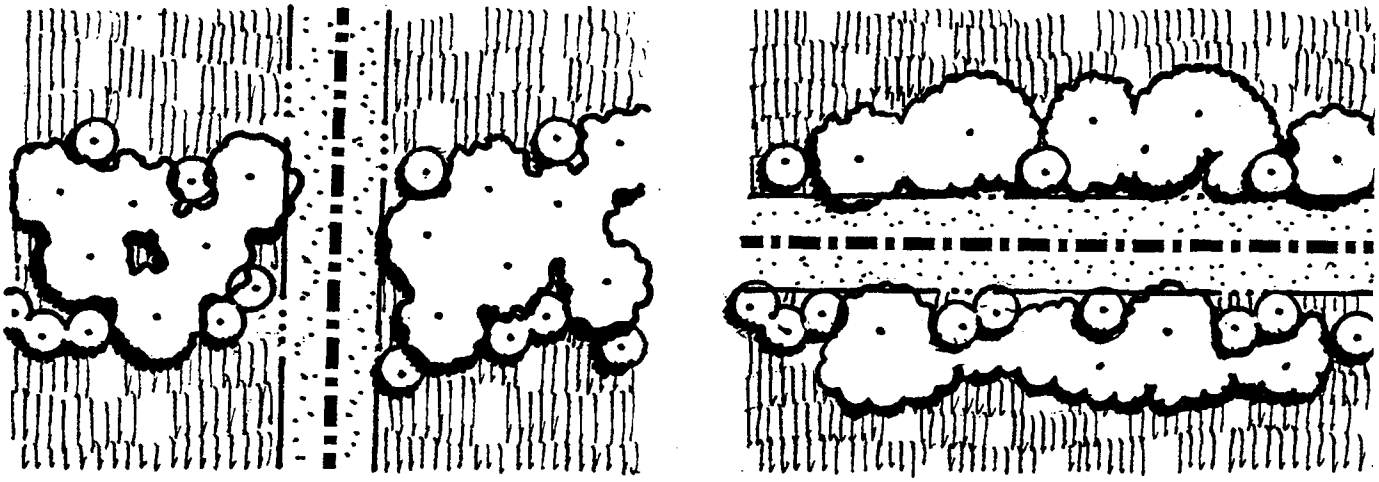
STUBS FROM EXISTING ACCESS ROADS SHOULD BE USED TO REACH NEW LINES

FIGURE

Operational Protocol Diagrams

5



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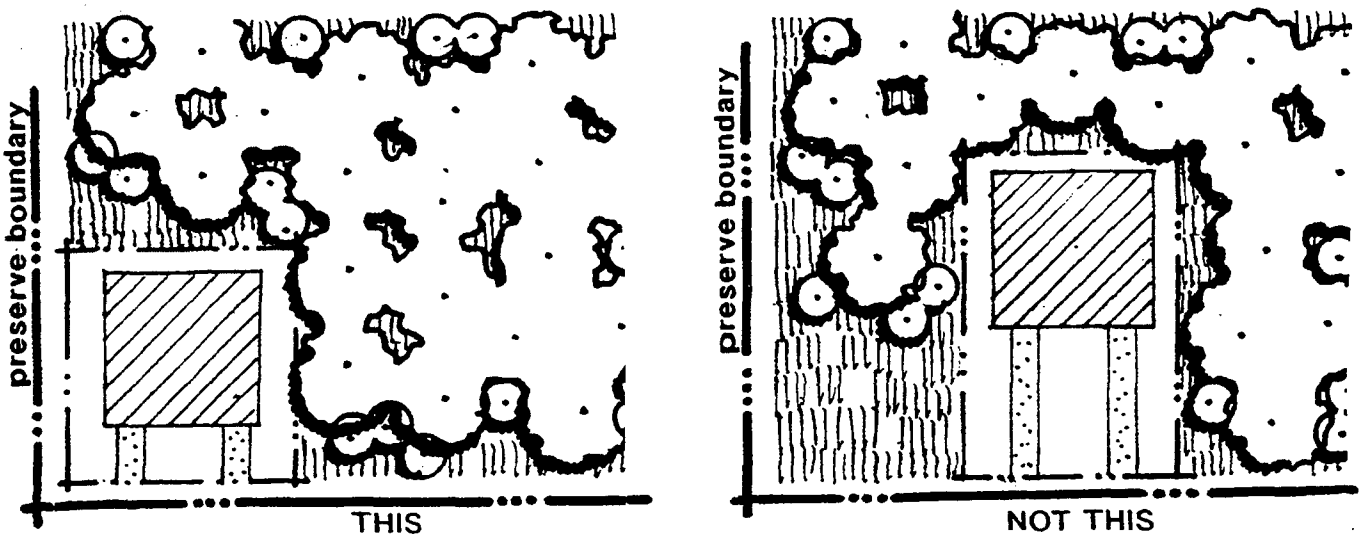
UTILITY LINES SHOULD MAKE PERPENDICULAR CROSSINGS THROUGH HABITAT AREAS



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SUBSTATIONS SHOULD BE SITED AT THE EDGES OF HABITAT PRESERVES

FIGURE

Operational Protocol Diagrams **6**

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.

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.

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

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.

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.

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.

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.

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.

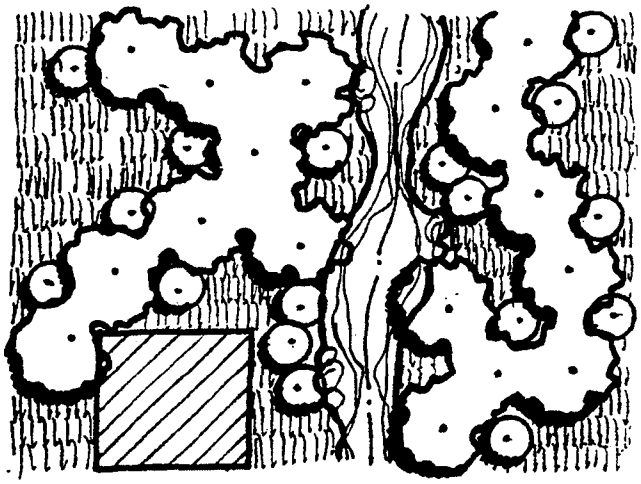
58. Emergency repair of facilities is required in situations which potentially or immediately threaten the integrity of the SDG&E system, such as pipe leaks, or downed lines, slumps, slides, major subsidence, etc. During emergency repairs the Operational Protocols contained in this Subregional Plan shall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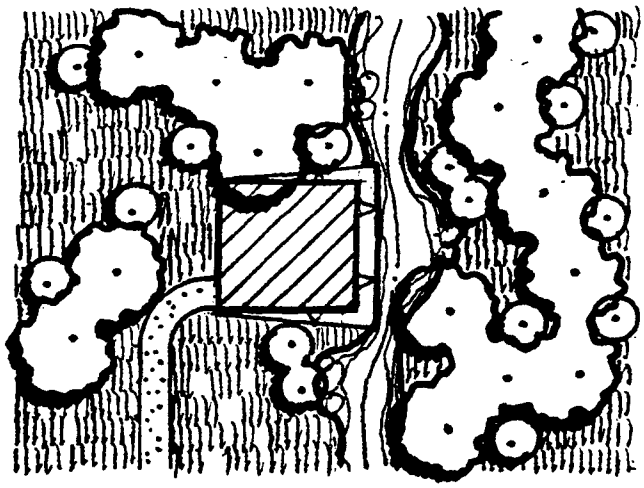

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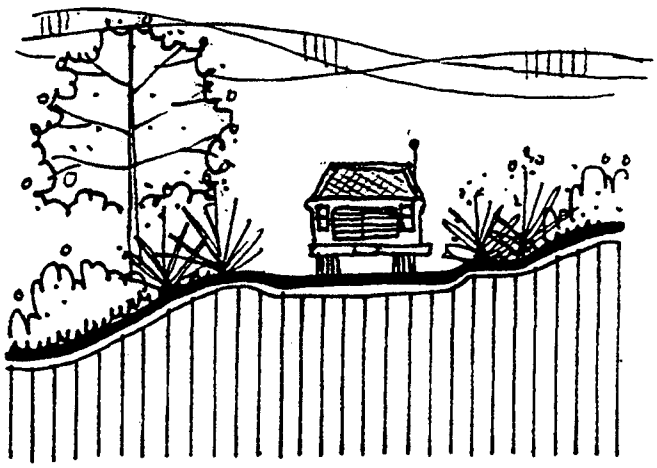
CONSTRUCTION STAGING/STORAGE AREAS SHOULD BE LOCATED OUTSIDE OF STREAMS



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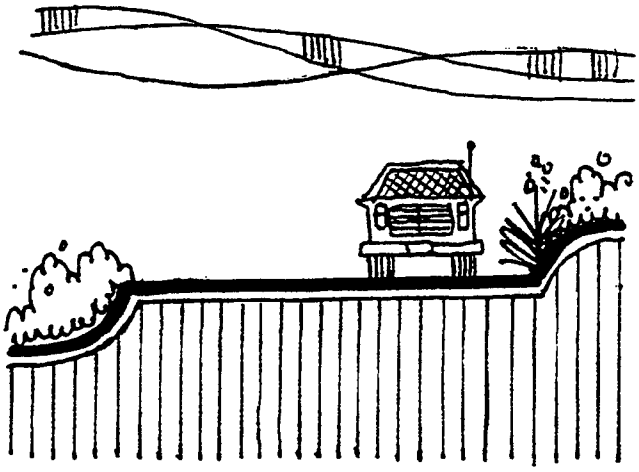


NOT THIS

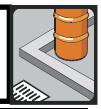
ACCESS ROAD MAINTENANCE SHOULD NOT EXPAND THE EXISTING ROAD BED

FIGURE

Operational Protocol Diagrams

23

ATTACHMENT C: SDG&E APPLICABLE BEST MANAGEMENT PRACTICES



What

Material Use is a procedural BMP that controls the amount or use of materials, chemicals and/or hazardous substances stored onsite and minimizes their potential for contact with storm water run-on or runoff or by non-storm water discharges.

When

Apply the Material Use BMP when the following materials are used or prepared on site:

- Pesticides (herbicides, insecticides, and biocides).
- Fertilizers and soil amendments.
- Detergents.
- Petroleum products such as fuel, oil, and grease.
- Asphalt and other concrete components.
- Hazardous chemicals such as acids, lime, glues, adhesives, paints, solvents, and curing compounds.
- Mastic, pipe wrap, primers, and paint.
- Concrete compounds.
- Welding material.
- Other materials that may be detrimental if released to the environment.

Where

All construction and operations and maintenance activity sites that utilize the above materials.

How

- Only use products or materials onsite that have been approved through the SDG&E Product Approval process.
- Reduce or eliminate use of hazardous materials on site when practical. Contact your Field Environmental Representative for additional information.
- Do not remove the original product label; it contains important safety and disposal information. Use the entire product before disposing of the container.
- Thoroughly dry empty latex paint cans, used brushes, paint rags, absorbent materials, and drop cloths. These dry wastes may be disposed of with other construction debris.
- When possible, mix paint indoors, otherwise use secondary containment structures. Do not clean paintbrushes or rinse paint containers into a street, gutter, storm drain, sanitary sewer or watercourse.
- Dispose of any paint thinners, residue, and sludge that cannot be recycled as hazardous waste (see BMP 2-05). For water-based paint, clean brushes to the extent practical, and rinse into a concrete washout pit or temporary sediment trap. Do not allow liquid to discharge to a storm water conveyance system. For oil-based paints, clean brushes to the extent practical and filter and reuse thinners and solvents.
- If possible, recycle residual paints, solvents, non-treated lumber, and other materials.

- **Do not over-apply fertilizers, pesticides, and soil amendments. Prepare only the amount needed. Strictly follow the recommended usage instructions.**

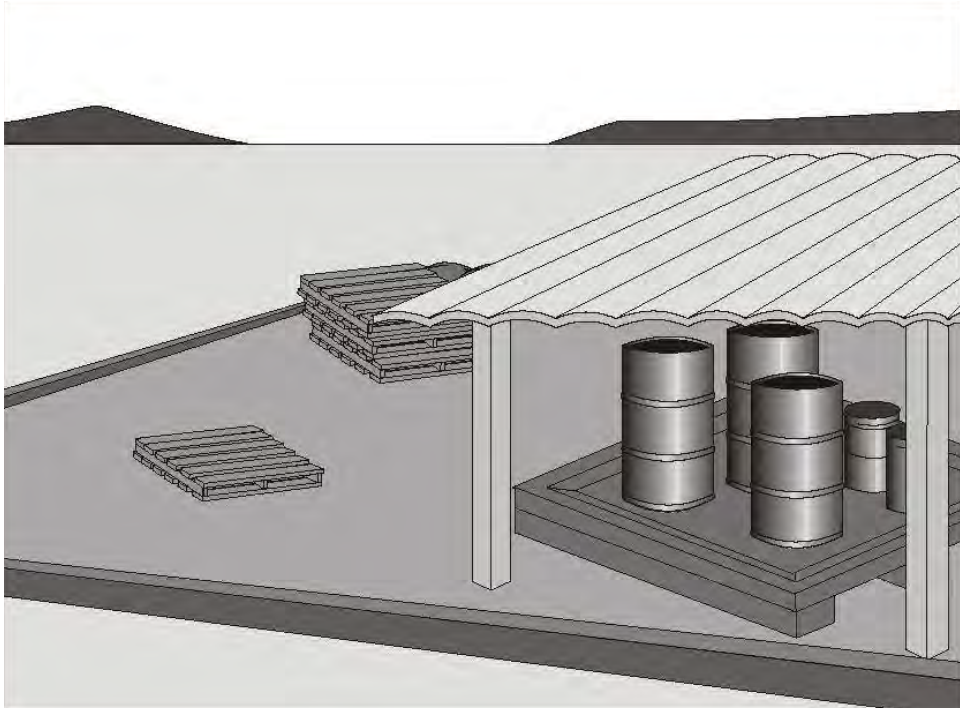
How (cont.)

- For termiticide applications (termite control pesticide) refer to CASQA Fact Sheet WM-2 "Material Use." Note that termiticide can only be applied when it is done in accordance with all applicable federal, state and local labeling requirements and in no case shall it be applied in a manner that would result in either a direct or indirect (e.g., drift) discharge to waters of the US or state.
- Keep an ample supply of spill cleanup material near use areas. Instruct employees in spill cleanup procedures.

Maintenance and Inspection

- Spot-check employees and contractors regularly throughout the job's duration to ensure appropriate practices are being employed.
- Inspect BMPs prior to and after each storm event, daily during extended rain events during the construction and/or clean-up activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable).

Pictures



Corresponding CASQA Fact Sheet

Fact Sheet WM-2