Vegetation Management

PRE-INSPECTION ACTIVITY

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

1 PURPOSE

This document outlines the procedures of the Pre-Inspection Activity including preparation, the Vegetation Management System (VMS), inspection requirements and scope, and customer engagement.

2 APPLICABILITY

This document is intended for use by:

- Vegetation Management Contractors and Vegetation Management internal staff.
- Internal or external groups that need to understand the Pre-Inspection Activity for accountability and compliance purposes.

3 REGULATORY AND OTHER REQUIREMENTS

Code, Regulation, or Requirement	Description
CPUC Rulemaking 18-10-007).	Implements the provision of Senate Bill (SB) 901 that requires electrical corporations under the California Public Utilities Commission's (CPUC's) jurisdiction to submit annual Wildfire Mitigation Plans (WMP).
ESP113.1	This document describes the procedures used for coordination of fire suppression and SDG&E operations during wildland fires that have San Diego Gas & Electric (SDG&E) facilities or equipment within or adjacent to an active fire boundary.
GO 95, Rule 35	General Order (GO) 95, Rule 35, requires an 18-inch radial clearance always be maintained between vegetation and high-voltage conductors (750 volts to 22,500 volts). Clearance requirements increase for conductors carrying transmission voltages (69,000 volts and greater).
NCCP/HCP	This plan, developed in collaboration with the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife, covers 2,245,800 acres of the service area and was designed to avoid, minimize, and mitigate impacts to 110 Covered Species and their habitats while allowing SDG&E to install, maintain, operate, and repair its existing gas and electric system and undertake anticipated expansion of that system.
NERC FAC-003-5	In addition to meeting state requirements, utilities must meet federal reliability standards for clearances between vegetation and transmission lines. These standards for the nation's bulk-power system are set by the Federal Energy Regulatory Commission (FERC) and the North American Electric Reliability Corporation (NERC). The Transmission Vegetation Management Reliability Standard, FAC-003-5, establishes a minimum vegetation clearance distance (MVCD) that must be maintained at all times between trees and certain transmission voltage conductors. Federally required clearances vary depending on voltage and in some cases are less stringent than state standards.

Code, Regulation, or Requirement	Description
PRC§4292	This law is administered by the California Department of Forestry and Fire Protection (CAL FIRE). It requires a minimum clearance of 10 feet around the base of the pole cleared of all flammable vegetation down to bare soil. Limbs within the 10-foot radius are removed up to 8 feet above ground. All dead branches below the cross arms and within the 10-foot radius must be removed. This rule is applicable within the State Responsibility Area (SRA).
PRC§4293	This law is administered by CAL FIRE. It requires a 4-foot radial clearance always be maintained for conductors between 2,400 volts and 72,000 volts. The clearance requirements increase as the voltage increases. Public Resources Code (PRC)§4293 applies year-round in San Diego County areas designated as SRAs, where CAL FIRE is the primary fire suppression agency.

4 PRE-INSPECTION ACTIVITY SUMMARY

Pre-Inspection[1] is the initiating vegetation management activity, resulting in work orders that drive the rest of the activities in Vegetation Management. It follows an annual Master Schedule and involves the field evaluation of trees within and adjacent to the overhead electrical right-of-way to determine which require pruning and the evaluation of poles and structures within the State Responsibility Area (SRA) and portions of the Local Responsibility Area (LRA) to determine which require clearing. The Pre-Inspection activity is performed via foot patrol in every span of overhead transmission, distribution, and stand-alone secondary span, including any new line segments. Pre-Inspection of some portions of transmission lines located in desert areas are patrolled via helicopter for efficiency where the population of trees is sparse or non-existent. Pre-Inspection is separated into Detailed Inspections, Off-Cycle Patrols, and Pole Clearing Pre-Inspection. See Figure 1 for the Pre-Inspection process flow. See Table 1 for a comparison of Detailed inspections and Off-Cycle patrols.

Detailed Inspections

Detailed Inspections are performed throughout the service territory and determine whether vegetation will encroach the minimum vegetation clearance distance (MVCD) in the annual cycle. Additionally, within the High Fire Threat District (HFTD) all trees in the utility strike zone are assessed for tree growth and hazard potential. Detailed Inspections are completed by a Pre-Inspector and occur annually based on the Master Schedule, which remains static year to year. Detailed Inspections may be performed by either International Society of Arboriculture (ISA)-Certified or non-ISA Certified Arborists. Once all vegetation within each span is surveyed, inventory tree records are updated.

[1] SDG&E's WMP uses both "pre-inspection" and "inspection" to describe pre-inspection activities (or activities that occur prior to tree pruning).

Off-Cycle Patrols

Off-Cycle Patrols are performed in areas of the service territory that are within the HFTD and serve as the second annual tree inspection for those areas. The process is similar to Detailed Inspections in the HFTD, where all vegetation in the utility strike zone is assessed for tree growth and hazard potential. As part of the Wildfire Mitigation Plan (WMP), Off-Cycle Patrols are scheduled to be completed by September each year. Off-Cycle Patrols are performed by ISA Certified Arborists, who may be San Diego Gas & Electric (SDG&E) Forester Patrol Persons (Patrollers) or contracted Pre-Inspectors. Patrollers are SDG&E employees whose primary duty is performing Off-Cycle HFTD patrols. They also assist in resolving customer refusals.

Pole Clearing Pre-Inspections

During Detailed inspections, all poles and structures in the SRA and portions of the LRA are evaluated to determine if they require pole clearing. Pole clearing is the state-mandated activity of maintaining a fuel break around power poles by removing vegetation that could ignite or propagate a fire. Pole clearing is required within the SRA to comply with Public Resources Code (PRC)§4292 for poles that carry specific, attached, “non-exempt” equipment, which may spark, arc, and/or fail, causing hot particles to fall to the base of the pole and potentially cause an ignition. Pole clearing is also performed in areas within the LRA that could support a significant wildland fire. Additionally, SDG&E has pole clearing criterion for poles with non-exempt equipment in the LRA. These criteria include acreage, fuel type, slope, values threatened, and access (see the Pole Clearing Pre-Inspectors/Auditors Procedures document for details).

Figure 1: Pre-Inspection Activity Process Flow

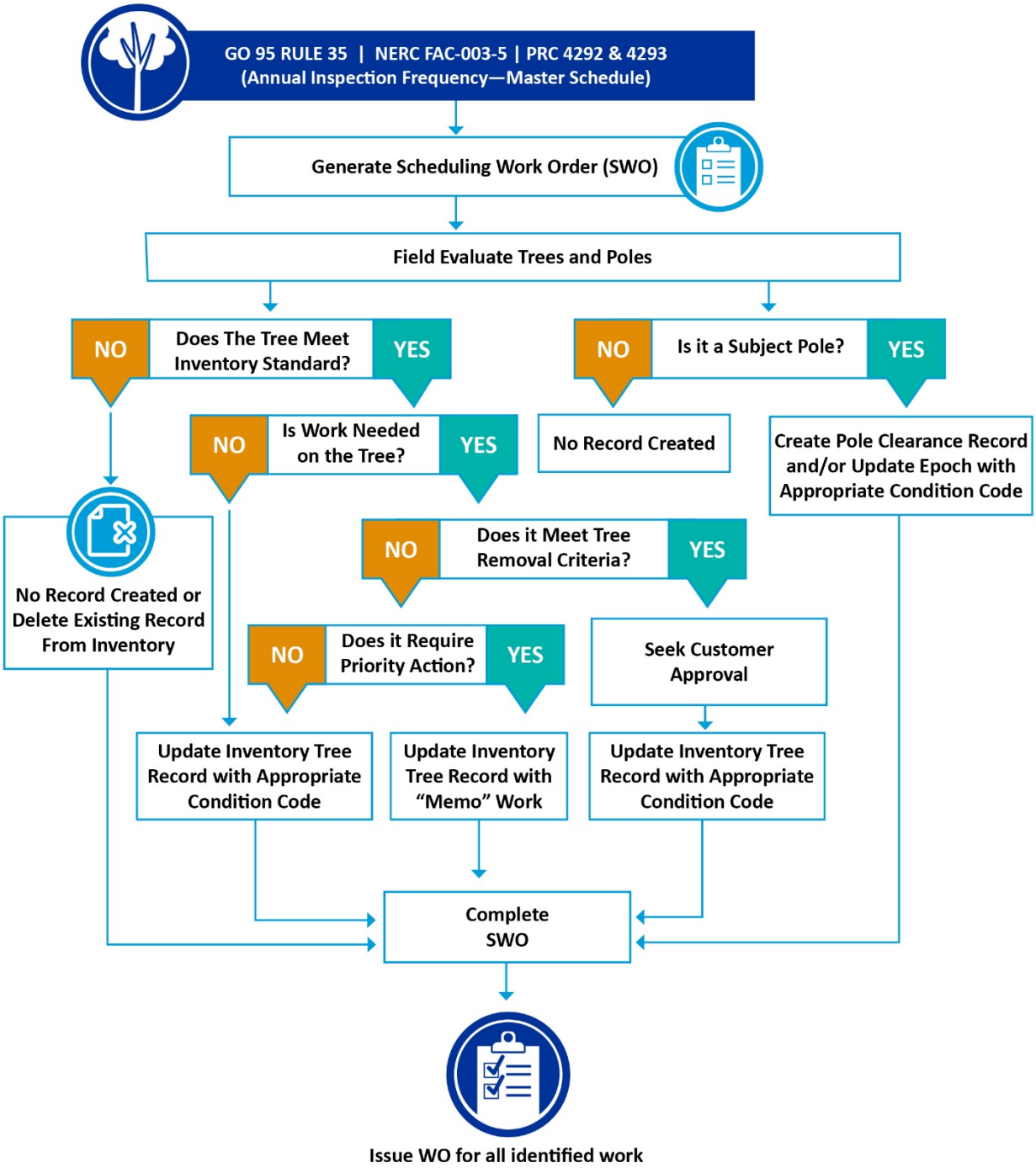


Table 1: Comparison of Detailed Inspections and Off-Cycle Patrols

	Detailed Inspection Non-HFTD	Detailed Inspection HFTD	Off-Cycle Patrol HFTD
Schedule	Annual inspection	Annual inspection	Second annual inspection
Area	All VMAs	VMAs in the HFTD	VMAs in the HFTD
Electric Facilities	Transmission, Distribution, Open-wire Secondary	Transmission, Distribution, All Secondary	Transmission, Distribution, All Secondary
Pre-Inspection Procedure	Level 1 inspection of inventory trees	Level 2 inspection of inventory trees and all trees in the utility strike zone	Level 2 inspection of inventory trees and all trees in the utility strike zone
Inventory Tree Records	Update all existing inventory tree records. Add or remove inventory tree records as necessary	Update all existing inventory tree records. Add or remove inventory tree records as necessary	Update only if work is required prior to the next Detailed Pre-Inspection
Clearance Requirement	Per GO 95, Rule 35	Per GO 95, Rule 35	Per GO 95, Rule 35
Memo Protocol	Normal protocol	Normal protocol	Normal protocol
Pole Clearance Pre-Inspection	Included	Included	Excluded

5 PRE-INSPECTION ACTIVITY

5.1 Activity Readiness

5.1.1 Requirements

Required Training

The Pre-Inspection Contractor is responsible for performing tree inspections and pole evaluations. The Pre-Inspection Contractor is responsible for hiring competent, professional individuals and providing the necessary training to ensure compliance with the applicable rules and regulations specific to vegetation management. The Pre-Inspection Contractor is also expected to provide the required level of resource staffing at all times to successfully perform its function and to maintain established work schedules critical to operations.

Pre-Inspectors are required to be fully prepared to perform every aspect of their job duties. This includes completing all required initial training for safety, electrical awareness, species identification. hazard tree assessment, applicable regulations, workflow processes, and hardware and software proficiency. Pre-Inspectors must retain all required safety and fire personal protective equipment (PPE),

maintain it in proper working order, and be properly trained on its deployment and use. Pre-Inspectors must be trained on and have hard copies or electronic copies of all work-related documents, regulatory requirements, and training and reference materials.

The Pre-Inspection Contractor is required to develop and train employees on the details of activity processes, procedures, and workflows that are in addition to what is covered in this document.

Prior to beginning Pre-Inspection activities, personnel must complete the following internal contractor training:

- Fire prevention and awareness training, including proper use of fire extinguishing equipment
- Proper use of fire PPE
- SDG&E Operations and Maintenance Wildland Fire Prevention Plan (ESP 113.1)

Required Equipment

Pre-Inspectors are required to carry the following items:

- PPE including hard hat, safety glasses, and safety vest
- Shovel (round head)
- Pulaski tool
- 5-gallon, water back-pack-pump
- One serviceable “2A10BC” fire extinguisher, minimum UL rated
- Diameter at Breast Height (DBH) measuring tape
- Employee ID badge
- Rubber mallet or other to check tree soundness

Required Documentation

All field personnel must retain copies (electronic or hard copy) of the following documents:

- Vegetation Management Pre-Inspection Activity
- Operations & Maintenance (O&M) Wildland Fire Prevention Plan (ESP 113.1)
- Natural Community Conservation Plan (NCCP) or subsequent Habitat Conservation Plan (HCP) Amendment
- Pole Clearing Pre-Inspectors/Auditors Procedures
- Powerline Fire Prevention Field Guide
- PowerWorkz Pre-Inspection User Guide

5.1.2 Vegetation Management Areas

The service territory is divided into 133 Vegetation Management Areas (VMAs) that are delineated variably by city boundaries, SDG&E Districts, roads, geographical characteristics, etcetera. In addition, boundaries were drawn to contain a relatively comparable number of inventory trees within each VMA. The service territory is further delineated by jurisdictional and fire designation areas including SRAs,

LRAs, and the HFTD. These designations determine which vegetation clearance rules and regulations apply. Each VMA has a unique three-digit identification number. The VMAs where PRC§4293 applies (see Section 3 for regulatory requirements) are identified with a second digit number of 5 or greater (ex: VMA 453; 463). One exception to this rule is VMA 552 which is located within the LRA. In VMAs where the second digit of the VMA number is 4 or less (ex: VMA 210; 220), the minimum conductor clearances of General Order (GO) 95, Rule 35 apply.

VMAs are used to create the Master Schedule that includes the core activities of Pre-Inspection, Tree Pruning and Removal, Audit, and Pole Clearing. Tree pruning for each VMA is performed annually according to the Master Schedule.

Hardcopy VMA maps are provided to the Pre-Inspector to track progress and document completion in each VMA. Hard copy maps are returned to SDG&E as part of the certification process once Pre-Inspection in a VMA is complete. Each Pre-Inspector is responsible to patrol every span of overhead transmission, primary, and stand-alone secondary conductors, including any new line segments within their assigned VMA section. In addition, Pre-Inspectors must:

- Ensure all sections between Pre-Inspectors in the same VMA are patrolled in their entirety.
- Write pole numbers on the map indicating start and stop position of each bordering section.
- Record the “start date” and “end date” in the space provided on the VMA map.
- Add any new construction or line extensions to the VMA map relative to existing circuits.

5.1.3 State Responsibility Area

SRAs are recognized by the Board of Forestry and Fire Protection as areas where the California Department of Forestry and Fire Protection (CAL FIRE) is the primary emergency response agency responsible for fire suppression and prevention. Pole clearing is required within the SRA to comply with PRC§4292 for poles that carry specific, attached, “non-exempt” equipment (e.g., fuse, switch, lightning arrestor, hot line clamp, split bolt connector). Within the service territory, there are 80 VMAs that are in the SRA (VMS defines the service territory GIS SRA layer).

5.1.4 Local Responsibility Area

LRAs are land areas where CAL FIRE, the U.S. Forest Service, or the Bureau of Land Management is not the primary fire protection agency. These are land areas that are “within the exterior boundaries of any city.”[2]. Pole clearing is performed in the LRA based on criterion developed by the Vegetation Management Program (see Pole Clearing Pre-Inspectors/Auditors Procedures). In areas of the LRA which can support a significant wildland fire, poles with non-exempt hardware are recorded in the VMS and cleared to the same specifications as a non-exempt SRA pole.

There are 53 VMAs located within the LRA boundary.

[2] Power Line Field Prevention Guide 2021, Section 4127(b), page 28

5.1.5 High Fire Threat District

The HFTD outlines areas of the state designated by the California Public Utilities Commission (CPUC) as having increased risk from utility-related wildfires.[3] The HFTD is separated into Tier 2 and Tier 3, where the risk of wildfire is considered elevated and extreme respectively. Fire risk factors include the presence of utility infrastructure, vegetation type and density, weather conditions, and fire history. Approximately two-thirds of the service territory is within the HFTD (see Appendix A). Approximately one-half of the total population of inventory trees is located within the HFTD. Of the 133 total VMAs, 106 are located partially or entirely within the HFTD.

Pre-Inspection scoping activities in the HFTD Tier 2 and Tier 3 are the same.

Pole clearing is mandated on poles and structures within the SRA. SDG&E also performs pole brushing in parts of the LRA. The HFTD is not used to define whether pole clearing is performed on a pole or structure.

5.1.6 Scope

5.1.6.1 Vegetation Management: Electric Facilities

Pre-Inspections are performed on the following types of energized electrical facilities. Where distribution, secondary, and transmission facilities are co-located on poles, Pre-Inspection activities are performed concurrently.

- Primary (aka distribution) voltage: Distribution facilities are typically 12 kilovolts (kV) and include some 4 kV.
- Secondary voltage: Less than 700 volts. Secondary facilities are typically 120 volts, 240 volts, or 480 volts. Pre-Inspections are performed on all types of secondary construction including open-wire, aerial cable, and triplex in the HFTD portion of the service territory.
- Transmission voltage: Transmission facilities include 69 kV, 138 kV, 230 kV, and 500 kV.
- Service drop: secondary voltage lines going from pole to structure.
- Telecommunications: phone and cable utilities sometimes co-located on utility poles.

See Figure 2 for the types of powerline facilities. See Table 2 for Pre-Inspection scoping for secondary facilities in the HFTD and Non-HFTD.

[3] CPUC's Fire-Threat Maps and Fire-Safety Rulemaking; https://www.cpuc.ca.gov/industries-and-topics/wildfires/fire-threat-maps-and-fire-safety-rulemaking

Figure 2: Powerline Facilities

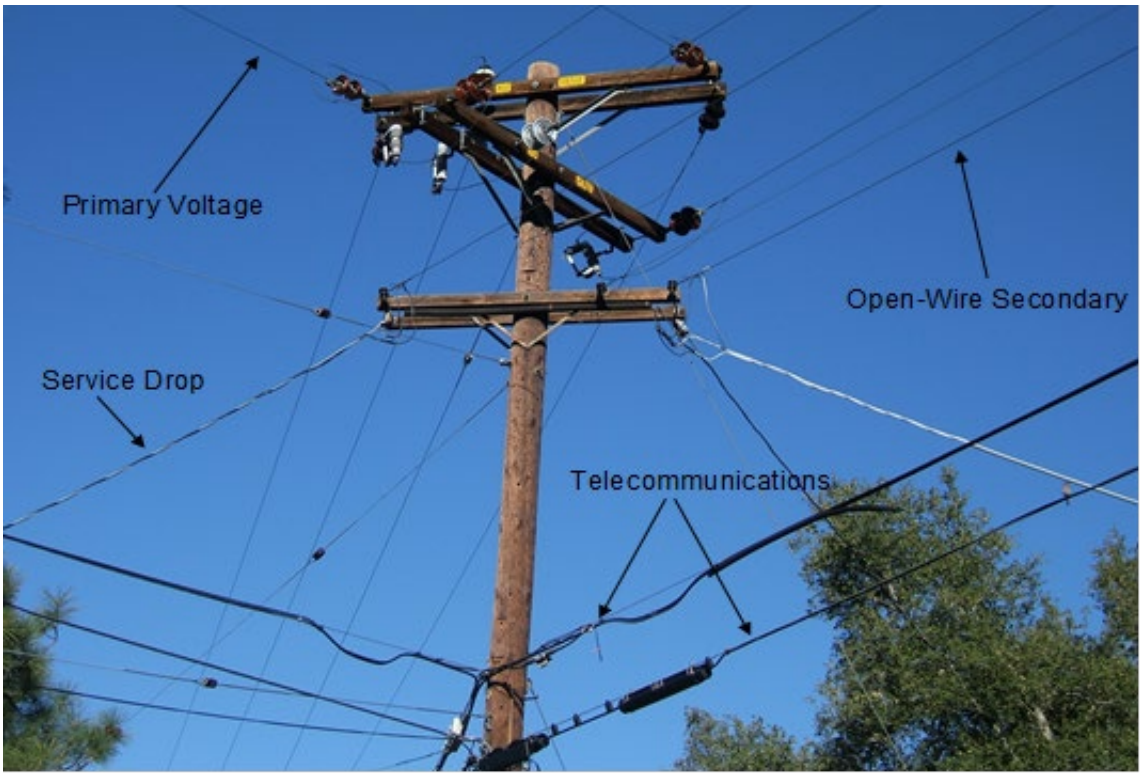


Table 2: Pre-Inspection Scoping for Secondary Facilities in the HFTD and Non-HFTD

	HFTD	Non-HFTD
Open-Wire Secondary		
Pre-inspect for under-build and stand-alone secondary to prevent line contact; post-trim to approximately 4-8-foot clearance if needed.	**X**	**X**
Level 1 hazard tree Pre-inspection		**X**
Level 2 hazard tree Pre-inspection	**X**	
Twice-annual Pre-inspection activity	**X**	
Insulated Secondary		
Pre-inspect and prune only for strain or abrasion; post-trim to approximately 4-8-foot clearance if needed.	**X**	**X**

	HFTD	Non-HFTD
Level 1 hazard tree Pre-inspection		X
Level 2 hazard tree Pre-inspection	X	
Twice-annual Pre-inspection activity	X	

Secondary voltage service drops going from a pole to a service attachment are considered the responsibility of the customer and are outside the Pre-Inspection Activity scope.

Telecommunications facilities are not owned or maintained by SDG&E and are outside the Pre-Inspection Activity scope.

Underground electrical and gas facilities are out of the Pre-Inspection Activity scope. Corrective Maintenance Program (CMP) inspections are performed by SDG&E Qualified Electrical Workers (QEWs) via Distribution Operations and are scoped to include vegetation clearance infractions related to padmount transformer, down-guy, and pole climbing space. A CMP finding may trigger a request to Vegetation Management to perform vegetation clearance.

5.1.6.2 Pole Clearing: PRC§4292 Non-Exempt Hardware

PRC§4292 defines seven main hardware categories that are non-exempt (for examples, see the Powerline Fire Prevention Field Guide):

- Split Bolt Connectors (single bolted split bolts only)
- Hot Tap Clamps
- Lighting Arrestors
- Fuses
- Switches
- Inline Disconnects
- Solid Blade disconnects

When any non-exempt hardware is identified, the pole becomes a managed subject pole, which requires maintaining a 10-foot radial clearance around base of the pole.

5.1.6.3 Pole Clearing: Internal Pole Clearing Sources

In addition to PRC§4292 compliance (or scope), there are internal requirements/policies for determining if a structure needs to be cleared.

- Transmission Construction Maintenance (TCM) Steel Transmission Pole Clearing:
    - Steel poles 138 kV and above without non-exempt equipment: Vegetation is cleared to 5 feet around the base of the structure and trees are trimmed back from the climbing legs.

- Steel Towers 230 kV and above without non-exempt equipment: Vegetation is cleared to 5 feet around the base of the footers and trimmed to 4 inches above ground level underneath the tower frame and trees are trimmed back from lattice.

- TCM Transmission Reliability Clearing: 138 kV wooden structures without non-exempt equipment. Vegetation is cleared to 10 feet around the base of the structure.
- Bird nests: Bird nests on facilities can become a fire hazard. If there is a bird nest with eggs or fledglings, the Pre-Inspector will evaluate the risk and if necessary, the pole may be cleared.

5.1.7 Wildfire Operating Guides

5.1.7.1 ESP.113.1

The Fire Potential Index (FPI) was developed to communicate the wildfire potential on any given day to promote safe and reliable operations. The 7-day FPI forecast, which is produced daily, classifies the fire potential based on weather and fuels conditions and on historical fire occurrences.

Figure 3 shows the FPI rating scale:

Figure 3: FPI Rating Scale

Normal	Elevated	Extreme
≤ 11	12 to 14	≥ 15

Operating Conditions (e.g., Normal condition, Elevated condition, Extreme or Red Flag Warning [RFW]) and associated fire mitigations are designated for work activities as outlined in the Electric Standard Practice (ESP) document: SDG&E Operations and Maintenance Wildland Fire Prevention Plan (ESP 113.1). As the fire potential increases in severity, activities that present an increased risk of ignition have additional mitigation requirements. Where risk cannot be mitigated, work activity might cease.

All internal Company and Contracted personnel are required to be trained on SDG&E's fire prevention procedures annually. Pre-Inspection Contractors are also required to develop and perform their own company fire prevention and safety training. In addition, fire prevention measures are discussed at pre-job briefings (tailboards, tailgates). These practices are implemented in all areas of the service territory where at-risk activities are performed.

5.1.7.2 Cleveland National Forest Operations & Maintenance Fire Plan

In addition to complying with ESP 113.1 protocols, Vegetation Management contractors must comply with all fire prevention protocols in the Cleveland National Forest (CNF) O&M Fire Plan when operating on U.S. Forest Service lands. The Plan describes the fire equipment requirements to work within specific Project Activity Levels (PALs) and when work is prohibited. PAL level severity ranges from A, the lowest, to Ev, the highest level.

5.2 Access and Notification Protocols

5.2.1 Public Agency Lands

State and Federal agencies such as the Bureau of Indian Affairs, State Parks, U.S. Forest Service, Bureau of Land Management, and U.S. Fish and Wildlife Service require specific access and notification protocols for performing work on these properties that may be guided by specific easement rights, use-permits, Memorandums of Understanding (MOUs), or other agreements. These agency properties require specific environmental and/or cultural review prior to performing work. Agency lands are identified in the geographic information system (GIS) mapping layer in the electronic field application (Epoch) and within inventory tree and pole clearance records.

5.2.2 Military Bases

Military base facilities are identified via a GIS mapping layer in Epoch and within the inventory tree and pole clearance records under property ownership. Access to military facilities is restricted and requires advance notification and identification to gain entry. The respective SDG&E Land Management Department representative has the most current protocol for accessing specific military base installations.

5.2.3 Environmental Procedures

Procedures developed between SDG&E and State and Federal wildlife agencies serve to ensure vegetation management activities follow applicable rules and regulations. SDG&E's Subregional NCCP and subsequent Habitat Conservation Plan (HCP) Amendment were developed to avoid or minimize adverse impacts to sensitive and protected flora and fauna species and for the protection of cultural resources. The NCCP follows a comprehensive habitat approach to species protection while allowing SDG&E to perform maintenance and construction activities to meet safety, compliance, and reliability responsibilities. All internal and contracted personnel are required to understand and follow the requirements and operational protocols outlined in the NCCP and HCP Amendment.

Environmentally Sensitive Areas (ESAs) are naturally occurring areas within the service territory that contain or provide habitat for sensitive, threatened, or endangered species or encompass protected cultural resources that are State and/or Federally protected. As they pertain to Vegetation Management activities, ESAs are predominantly located within and/or adjacent to major riparian areas where nesting bird species may be present. Annual Pre-Inspection and Tree Pruning and Removal Activities are scheduled to occur outside traditional bird breeding season (generally February 15-September 1) in areas classified ESA.

In addition to procedures in ESAs and the NCCP, environmental reviews are performed annually for all existing subject poles and prior to the initial clearing of all new subject poles to assess potential impacts to protected habitat and resources.

5.2.4 Customer Engagement

Customer engagement and understanding of utility vegetation management is crucial to the success of the program. Pre-Inspectors actively engage and educate customers regarding work scheduled on their

property and on the overall benefits of utility line clearance pruning including safety, fire mitigation, electrical reliability, and tree health.

Pre-Inspectors must follow property notes within the inventory tree and pole clearance records prior to entering a property and must update restriction notes as needed to reflect current access/notification protocols and requirements. Pre-Inspectors shall always place their personal safety first and leave a property if safety is a concern. Safety incidents should be communicated immediately to the SDG&E Area Forester for resolution.

If a tree or other vegetation on a customer's property needs to be removed, the customer will fill out the Tree Removal Authorization form with the help of the Pre-Inspector (see example in Appendix B).

Customers who refuse tree pruning, access to property or poles, or critical palm removals can risk public safety, jeopardize compliance with laws and regulations, delay inspection and pruning schedules, and increase the costs to manage electrical facilities. Pre-Inspectors attempt to resolve all customer refusals, including communicating the safety and reliability benefits of utility pruning and pole clearing. Customers who refuse removals are given a Customer Refusal Handout that includes information on vegetation management requirements (see example in Appendix C). All inventory tree or pole clearance records are condition coded for work where required even if a customer refuses. Unresolved refusals are communicated to the Pre-Inspection Lead and the SDG&E Area Forester.

5.3 Vegetation Management System

The VMS, PowerWorkz, is used to track and record inventory assets (trees and poles) and manage all work activities via work orders. The field (mobile) application of PowerWorkz, Epoch, is the mapping interface used to navigate and to perform data entry to record completed work. Epoch includes multiple GIS layers, electric infrastructure, land ownership, and parcel information, and houses the electronic records and activity history for all tree and pole assets.

Pre-Inspectors enter information into PowerWorkz using a mobile data terminal (MDT). The information is tracked at the asset (individual tree or pole) level within the inventory tree or pole clearing record. All attributes listed in inventory tree or pole clearing records are assessed and updated at least once annually during the Pre-Inspection activity including, tree attributes, location, customer information, work type, and activity history.

5.3.1 Inventory Tree Records

An inventory tree record is created in Epoch for each new tree that meets the inventory tree definition. An inventory tree is defined as one that could encroach within the required minimum clearance distance by growth or tree failure within 3 years of the inspection date for distribution and transmission lines. The inventory tree record includes all attributes unique to a tree including species, growth rate, height, diameter, location, customer information, and activity history. Inventory tree records may be deleted from the database if the inventory tree is physically removed or if it no longer meets inventory tree criteria.

A tree unit represents the number of trees or the volume of brush material documented in an inventory tree record. Trees are quantified as individual units and brush (vegetation with a DBH less than 3 inches) is measured into units of specified volume (square feet). A tree is defined as vegetation with a diameter at breast height of 3 inches or greater. Brush is defined as vegetation with a DBH of less than 3 inches.

The condition code indicates the status of an inventory tree based on the most recent activity update. During Pre-Inspection, the Pre-Inspector determines whether a tree requires work within the annual cycle and enters the appropriate condition code.

5.3.2 Pole Clearance Pole Records

A pole clearance record is created within Epoch for each non-exempt pole or structure. The pole clearance record includes all attributes unique to a pole including location, customer information, and activity history. New pole clearance records are created for poles or structures when non-exempt hardware is identified. Poles are deleted from the database if the pole is no longer equipped with subject hardware, the bird's nest is no longer present, or the pole has been removed from the field.

5.3.3 Work Orders

Electronic work orders are used to schedule, create, assign, and complete work for all Vegetation Management activities. A scheduling work order (SWO) is created in PowerWorkz for each annual activity within a VMA. The SWO is the assignment of the work activity to the Contractor and includes all related activity assets in the VMA. Dispatch work orders (DWO) are created within a SWO for individual work assignments and are assigned to field workers. The multiple DWOs comprise all the assets within the SWO.

When a field worker has completed the update for all assets within a DWO, the DWO is completed electronically in VMS. Once all DWOs within the parent SWO are completed, the SWO is also completed electronically.

5.4 Requirements: Vegetation/Tree Inspections

5.4.1 Inspections

A Level 1 inspection is a cursory assessment of trees within the right-of-way to determine which require pruning for the annual cycle based on tree growth and/or to abate a hazardous condition. Level 1 inspections are performed on all inventory trees outside of the HFTD during Detailed Inspections.

A Level 2 inspection is a 360-degree visual assessment of a tree and evaluates the crown, trunk, canopy, and above-ground roots for hazards to the electric infrastructure. This may involve simple tools such as a mallet to sound the tree trunk. Level 2 inspections are performed in the HFTD on all inventory trees and trees within the utility strike zone during Detailed Inspections and Off-Cycle Patrol.

5.4.2 Clearance

During Detailed Inspections, the Pre-Inspector determines whether vegetation will encroach the MVCD within the timeframe of the annual cycle. Detailed Inspections precede the Tree Pruning and Removal

Activity by 2 months; therefore, the Pre-Inspector applies a 14-month forecast timeframe in determining whether vegetation requires pruning or removal.

Clearances are recorded in the inventory tree record as the distance in feet between the overhead electrical conductors and the closest portion of the vegetation. Clearance categories are expressed as a range of values. Trees are assessed from multiple perspectives when determining clearance and consideration is given to changing weather conditions that may occur throughout the annual cycle that may impact clearance, including wind sway or snow load. Minimum clearances must be maintained year-round and in all weather conditions. See Table 3 for minimum radial clearance requirements.

When entering clearance data in the inventory tree record, the lowest value within the range is selected if the number is within two separate range categories (e.g., if a tree is 4 feet from the primary conductor, “2.1 to 4” is entered rather than “4.1 to 5.9”). In instances where both distribution and transmission voltages are present, clearance is recorded to the conductor closest to being non-compliant.

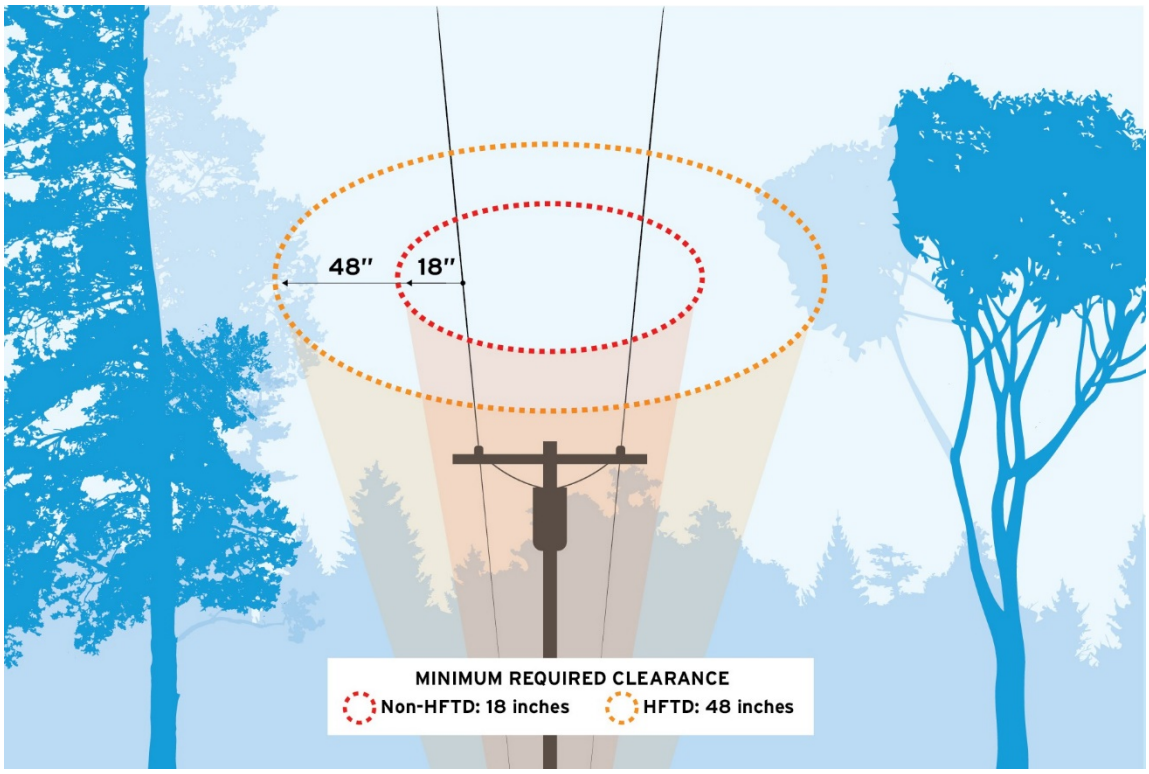
Clearance values are recorded for secondary voltage in the inventory tree record when the construction is only secondary. Where secondary voltage is underbuilt to primary on the same poles, the clearance to primary is recorded. If pruning is only required for the secondary, a restriction note is placed in the inventory tree record indicating as such.

Table 3: Minimum Radial Clearance Requirements

Conductor Voltage	PRC 4293 (SRA)	GO 95, Rule 35 (LRA)	GO 95, Rule 35 (HFTD)	NERC FAC-003-5*
500 kV	10.0 ft	9.7 ft	10.0 ft	7.8 ft
230 kV	10.0 ft	2.7 ft	10.0 ft	4.5 ft
138 kV	10.0 ft	1.9 ft	10.0 ft	N/A
69 kV	4.0 ft	1.5 ft	4.0 ft	N/A
12 kV	4.0 ft	1.5 ft	4.0 ft	N/A
4.0 kV	4.0 ft	1.5 ft	4.0 ft	N/A
2.4 kV	4.0 ft	1.5 ft	4.0 ft	N/A
<750 V	No strain abrasion	No strain abrasion	No strain abrasion	N/A

*North American Electric Reliability Corporation (NERC) FAC-003-5 applies to transmission lines operated at 200 kV and above or any lower voltage conductors as critical to the reliability of the bulk electrical system. NERC minimum vegetation clearances reflect highest elevational values for San Diego County.

Figure 4: Vegetation Management Clearances



5.4.2.1 Tree Growth Rate

The tree growth rate is determined by species and site-specific conditions. The individual tree, not just the species, is considered when determining whether pruning is required. Drought, lack of irrigation, declining health, or poor soil may lead to slower growth. Irrigation, favorable soil, heavy pruning, or fertilization may lead to faster growth. See Table 4 for growth-rate selection options.

Table 4: Growth Rate Selections

Growth Type	Growth Rate
Very Fast	Greater than 6 feet per year
Fast	4 to 6 feet per year
Medium	2 to 4 feet per year
Slow	Less than 2 feet per year

5.4.2.2 Tree Growth Regulators

Tree Growth Regulators (TGRs) are products designed to limit shoot growth in trees. They have been studied and used for over 50 years. TGRs are applied in the service territory, reducing the pruning

frequency for certain trees from annually to once every 3 years. The application of TGRs is focused on eucalyptus trees, which comprise 21% of trees in the VMS, of which 60% to 80% are pruned on an annual basis. With the exception of a few species, Memo trees are also targeted for removal or TGR application.

TGR treatments do not work on all species. The following species are not pursued for TGR application:

- Fruit/Nut Trees
- Ash
- Bay
- Brisbane Box
- Bamboo
- Coral
- Cottonwood
- Ficus
- Palms
- Pines
- Sycamore/Plane
- Willow

There are additional Pre-Inspection procedures when inspecting a tree that has been treated with TGRs or for trees that are good candidates for treatment with TGRs. The Pre-Inspection Contractor is responsible for training its employees on these procedures.

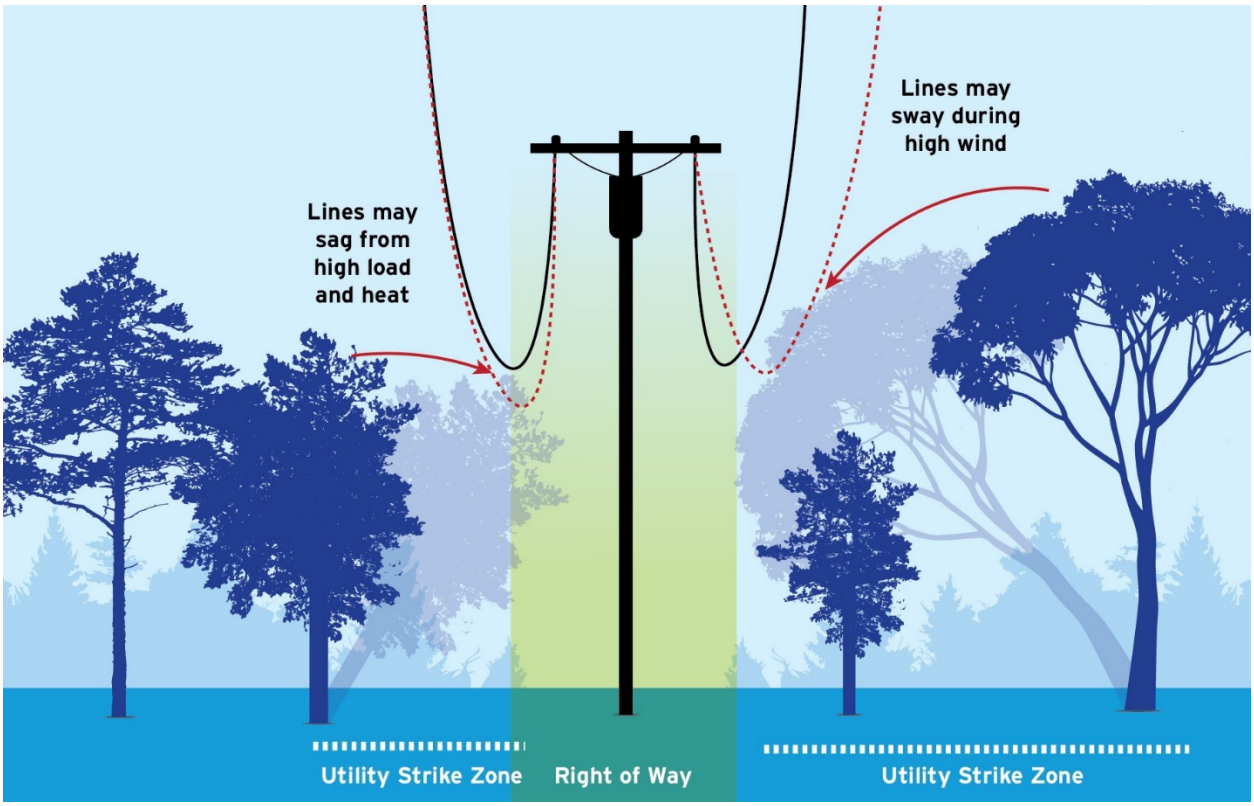
5.4.2.3 Diameter at Breast Height

Determining the correct DBH is important for identifying trees in the field and is the primary factor in the cost of removing a tree. The DBH is a horizontal, radial measurement taken at 4.5 feet above the ground. For multiple trunked trees, each trunk with a DBH of 3 inches and greater is aggregated to determine the overall DBH. If a tree is located on a slope, the measurement is taken from the high side of the slope. The DBH is updated over time as needed due to growth, pruning, or breakouts.

5.4.3 Utility Strike Zone

In the HFTD, A Level 2 inspection is performed on all trees located within the utility strike zone. These can be existing inventory trees or trees that do not have an inventory tree record. A tree is considered in the utility strike zone if a shed branch could strike the lines or if a tree that failed at its base and fell in the direction of the facilities could strike the lines (see Figure 5). See 5.5.1 for details on Level 2 inspections.

Figure 5: Utility Strike Zone



5.4.4 Reliability or Hazard Tree

The terms “reliability tree” and “hazard tree” are used synonymously to describe a tree that poses a potential danger to overhead electrical facilities due to poor health, structural deficiency, and/or site-specific conditions, and that should be mitigated within the annual inspection cycle. Hazard trees may be located inside or outside of the utility right-of-way and may require pruning to prevent encroachment into the MVCD. Hazard tree assessment/training is performed by the Pre-Inspection Contractor and is required by SDG&E as refresher training each year.

Hazard tree characteristics and risk must be assessed based on tree- and site-specific criteria. Pre-Inspectors must apply ongoing training, education, and experience to ensure proper tree risk assessment when determining if a tree is a hazard tree. A hazard tree may include one or several of the following conditions:[4]

- Dead and/or detached branches in the tree that could fall and strike the facilities

[4] Also see the California Power Line Fire Prevention Field Guide, pages 41-52; https://cdnverify.osfm.fire.ca.gov/media/3vqj2sft/2021-power-line-fire-prevention-field-guide-ada-final_jf_20210125.pdf

- Cavities or compromised wood in the trunk or branches
- Evidence of disease (e.g., fruiting bodies, root rot)
- Visible cracks, cavities, and/or splits in the trunk or branches
- Previous branch failures
- Weak attachments and poor structure from previous pruning
- Fire damage
- Heavy lean
- Girdled roots
- Included bark
- Poor trunk taper
- Soil upheaval/root lifting
- Decline or mortality of nearby trees
- Compromised roots due to pruning, grade change, pavement installation, sidewalk repair, excavation, etc.
- Site changes due to construction, wind or water erosion, saturated soil, and/or lawn installation
- Leaf discoloration due to stress or disease
- Windthrow exposure
- Insect infestation
- Observable hazardous branch likely to impact SDG&E facilities
- Branches presenting strain or abrasion on secondary conductors
- Dead, decayed, and diseased trees
- Heavy lean toward the lines
- Uplifted or disturbed soil that indicates instability of the tree
- Visible signs of included bark
- Branches that overhang conductors

The Pre-Inspector marks hazard trees in the field by affixing a white tag that includes the tree ID, Pre-Inspector initials, and Pre-Inspection date. Based on the severity of the condition, a hazard tree may require priority work and consequently may be elevated to a Reliability memo, as determined by the Pre-Inspection Lead.

5.4.5 Species-Specific Protocols

Because of their exceptional and unpredictable growth patterns, certain species such as Century plant, bamboo, palm, and vines require specific protocols to avoid encroachment into overhead electrical facilities. Multiple, annual inspections are performed for all Century plant and bamboo to control and intercept growth. Specific protocols are followed for managing palm species and vines.

5.4.5.1 Century Plant

Century plants (*Agave americana*) are succulents whose flower stalks can encroach overhead power facilities (see Figure 6). Flower stalks can reach a height of 20 to 30 feet or more within a matter of weeks.

Inventory tree records are created for any Century plant whether or not the flower stalk has emerged.

A century plant is listed to be pruned when:

- It is directly under or adjacent to the lines at the first sign of an emerging flower stalk regardless of clearance, it is flagged for memo work.
- The stalk is adjacent to the lines and cannot encroach the MVCD by growth but has the potential of falling into the conductors, it is flagged for routine work.

Figure 6: Century Plant in Bloom

5.4.5.2 Bamboo

Bamboo species are exceptionally fast-growing and may have more than one growing season each year. Multiple, annual inspections are performed for all inventory bamboo to identify any stalks (culms) that may pose a compliance or reliability risk.

- Bamboo shoots with a stalk in contact with primary (including potential wind contact) are listed as a Same-Day Memo.

- Bamboo shoots within 4 feet of primary are listed as a Next-Day Memo.
- Bamboo shoots outside of 4 feet are listed as a Group Memo with a 1-week due date.
- If Bamboo is already flagged with tape and/or is in memo status, the Project Lead is contacted to research the current status.

5.4.5.3 Palms

Though trunk growth is relatively slow, palms should be considered fast-growing when the meristem ("heart") begins to encroach the required minimum clearance distance. Once the heart of a palm is in close proximity to conductors, the fast generation of leaves (fronds) will require the palm to be pruned frequently. Many inventory palms are good removal candidates.

A palm is listed to be pruned when:

- Existing or potential growth, including wind sway, could encroach the MVCD
- Detached fronds or seed pods have a reasonable potential to strike the conductors or cross-phase electrical equipment in close proximity

A palm is pursued for removal when:

- Growing directly under the power lines
- Can no longer be maintained with continued pruning
- Subject to detached fronds falling on the power lines

Non-inventory palms including brush and small palms may be pursued for removal if they pose a future compliance risk.

Palm species are divided into category types in the inventory tree record. The cost of palm removal is determined by the category of palm and height; therefore, it is critical these fields in the inventory tree records are accurate. See Table 5 for categories of palm.

Table 5: Palm Categories

Palm Category	Description
Palm–Fan	All fan palms
Palm–Feather	All feather except Date palms
Palm–Date	All Date palms
Brush Fast 5x5 Palm	Palms with trunk height of less than 5 feet from the ground to base of fronds
Small Palms	Palms between 5 and15 feet in height from the ground to base of fronds. In the tree record small palms shall be entered using the correct category

5.4.5.4 Vines

Vines can be found in the canopy of trees or growing separately on a pole or other hardware. There are different procedures for each as follows:

- If a vine requires pruning and is located within the canopy of an inventory tree that also requires pruning, a separate inventory tree record for the vine is not required.
- If a vine requires pruning but the host tree does not, a separate inventory tree record is created for the vine.
- If a vine is growing on facilities, such as poles and guy wire that are encroaching conductors, an inventory tree record is not created. Instead, vines on facilities are reported to the Pre-Inspection Lead for processing.

A vine is flagged for prune or removal if one or more of the conditions apply.

- The vine is in contact with primary or open wire secondary.
- The vine will be non-compliant with primary within a year.
- The vine will contact open wire secondary within a year.

5.4.5.5 Major Woody Stem

Major woody stems (MWS) are trunks or limbs of trees that are within the minimum clearance requirement of GO 95, Rule 35 or PRC§4293 but can be exempted from the requirement if they meet the following specific criteria:

- The trunk or branch must be of sufficient strength and rigidity to prevent it from encroaching within 6 inches of high-voltage conductors
- The trunk or branch must meet all requirement criteria outlined in the MWS Exemption Form (see Appendix D). MWS does not apply to transmission conductors.

During pre-inspection, exempt MWS must be reviewed by a qualified ISA-Certified Arborist annually and documented on a MWS Exemption Form. A MWS that does not meet exemption criteria is evaluated for compliance. All MWS are noted in the inventory tree record as either Major Woody Stem Exempt or Major Woody Stem Non-Exempt.

5.4.6 Memos

Memos are issued for vegetation that requires priority pruning in advance of the routine tree-trim schedule timeframe. They are issued for vegetation that is currently non-compliant, violates the current project minimum clearance allowances such as on North American Electric Reliability Corporation (NERC) lines, represents imminent hazard threats due to partial or total tree failure, or for required species or patrol specifications such as with Century plants or ESA patrols. A memo may be issued for a prune or removal based on the condition and appropriate mitigation. A memo is identified as prune or removal via the assigned condition code.

Memos, including reliability trees, are classified and assigned ‘Same Day/Next Day’ or ‘Group' based condition and urgency. The memo classification is as follows:

- Same Day/Next Day: Vegetation that is in direct contact or potential intermittent contact with primary or transmission conductors or has the potential to contact the lines prior to a group

memo issuance. Trees that have visible signs of a defect or structural weakness that represents an imminent threat which will likely cause the tree to fail into the energized facilities.

- Group: All vegetation that requires priority work that does not require a same/next day response but will not hold compliance until the routine pruning occurs. Trees that have visible signs of a defect or structural weakness that may cause the tree to fail into the energized facilities prior to routine pruning.

If any memo is associated with a NERC-rated tieline (200 kV and above), the Pre-Inspection Lead notifies the System Forester by phone. The System Forester will then notify the SDG&E Grid Operations Shift Supervisor, who will determine if switching is required and whether notification to the California Independent System Operator (CAISO) is required.

If removal of a memo tree is refused by the customer, TGR application is pursued. If there are other fast-growing species that are annual prunes on the same property, removal and TGR application is pursued on those trees as well.

5.4.7 Removals

Tree removals are an important component of utility vegetation management operations. Removals reduce the need for repeated pruning, reduce the frequency of property visits, reduce maintenance costs, and help ensure safety and regulatory compliance.

The Pre-Inspector should actively pursue removal of fast-growing trees, hazard trees, and all palms once they can no longer be maintained with continued pruning. For removal of hazard trees, the Pre-Inspector should consult the Pre-Inspection Lead to determine appropriate removal candidates and criteria. All attempts to remove palms are documented within the inventory tree record with the appropriate work restriction note. Any palm not authorized for removal by the customer is processed as a refusal and submitted to the Pre-Inspection Lead for additional follow-up by the Area Forester.

5.5 Requirements: Pole Inspections

5.5.1 Inspections

During the Pre-Inspection, the Pre-Inspector evaluates each pole in the VMA for non-exempt hardware and determines whether a pole meets the requirements of PRC§4292 and/or internal requirements for pole clearing.

Poles are added to the database if they meet the criteria and poles are deleted from the database if they are no longer equipped with subject hardware, the bird's nest is no longer present, or the pole has been removed from the field.

5.5.2 Minimum PRC§4292 Clearance Requirements

In the SRA, PRC§4292 requires a clearance of 10 feet within an imaginary cylindrical space surrounding each pole or tower on which a switch, fuse, or lightning arrester is attached unless such pole or tower is exempt from minimum clearance requirements by provisions of California Code of Regulations (CCR) 14§1255 or PRC§4296. The 10-foot radius is measured horizontally from the outer circumference of the

specified pole or tower and the height is equal to the distance from the intersection of the imaginary vertical exterior surface of the cylindroid with the ground to an intersection with a horizontal plane passing through the highest point at which a conductor is attached to such pole or tower (see Figure 7 and Figure 8).

5.5.2.1 Exemptions

Some poles are exempt from pole clearing. Section 1255 of PRC§4292 discusses landscape and hardscape exemptions. Additionally, the minimum clearance provisions of PRC§4292 are not required around poles and towers, including line junctions, corner, and dead-end poles and towers for the following areas:

- Fields planted to grow crops, plowed or cultivated fields, or producing vineyards that are plowed or cultivated if fire will not propagate thereon.
- Fields in non-flammable summer fallow.
- Irrigated pastureland.
- Orchards of fruit, nut or citrus trees that are plowed or cultivated.
- Christmas tree farms that are plowed or cultivated.
- Swamp, marsh or bog land.
- Where vegetation is maintained less than 12 inches (30.48 centimeters) in height, is fire resistant, and is planted and maintained for the specific purpose of preventing soil erosion and fire ignition.

See the Pole Clearing Pre-Inspectors/Auditors Procedures for details on specific exemptions.

5.5.3 Internal Pole Clearing Sources

Figure 9 and Figure 10 show clearances determined by internal thresholds/requirements/policies.

Figure 7: Clearance Requirements around Poles and Towers

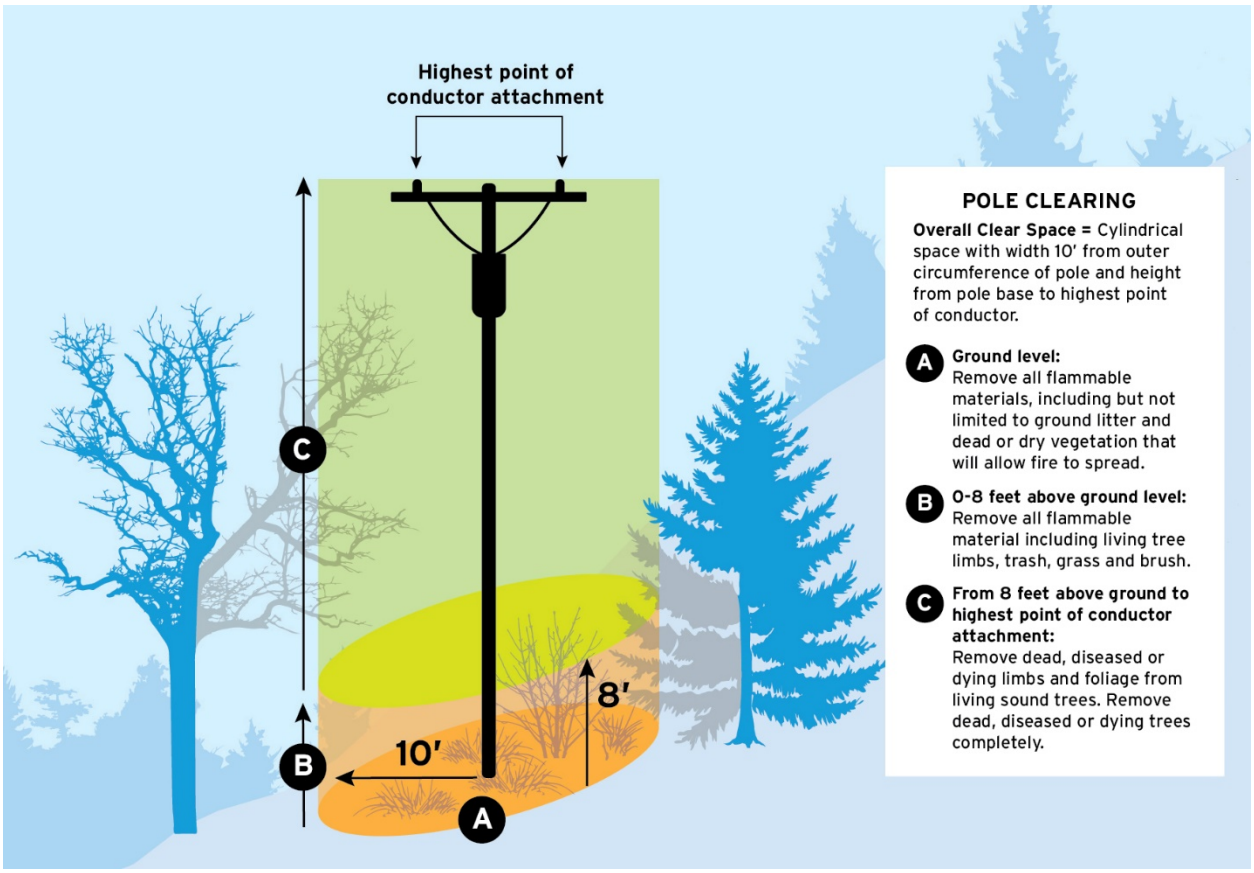


Figure 8: Clearance around Structures

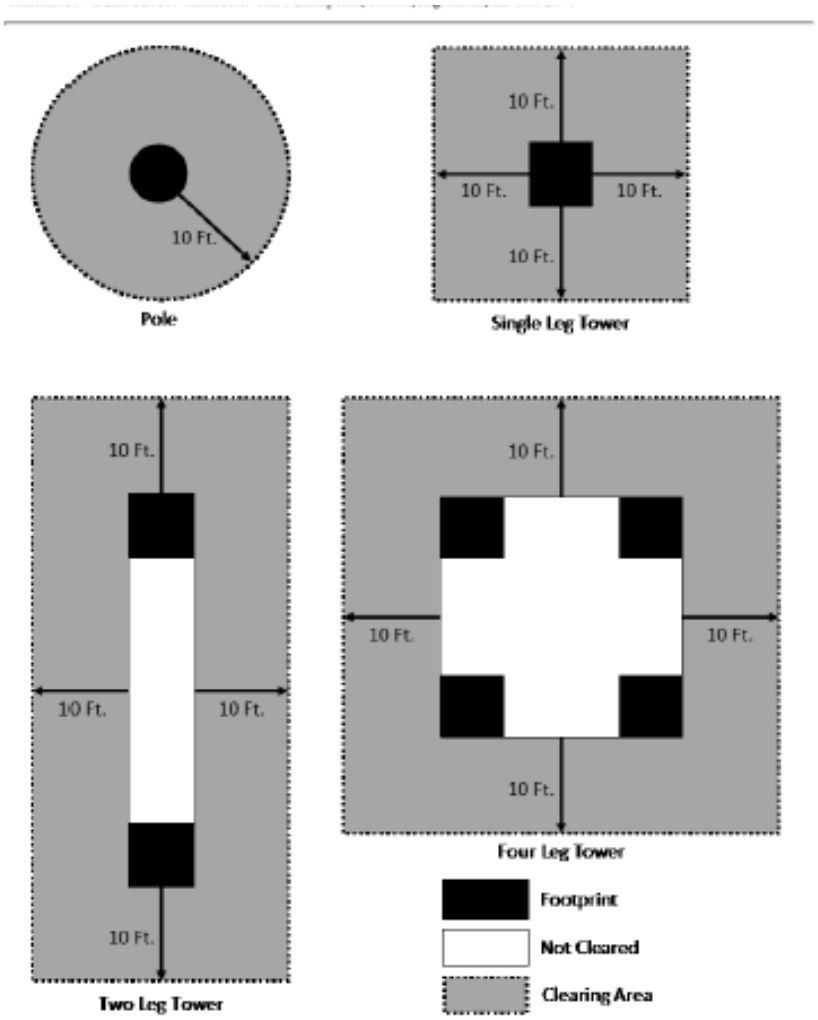


Figure 10: PRC 4292 and 14 CCR 1251 Definition of Outer Circumference Examples (Plan View at Ground Level)

Figure 9: Internal Clearance Requirements for Exempt Transmission Structures

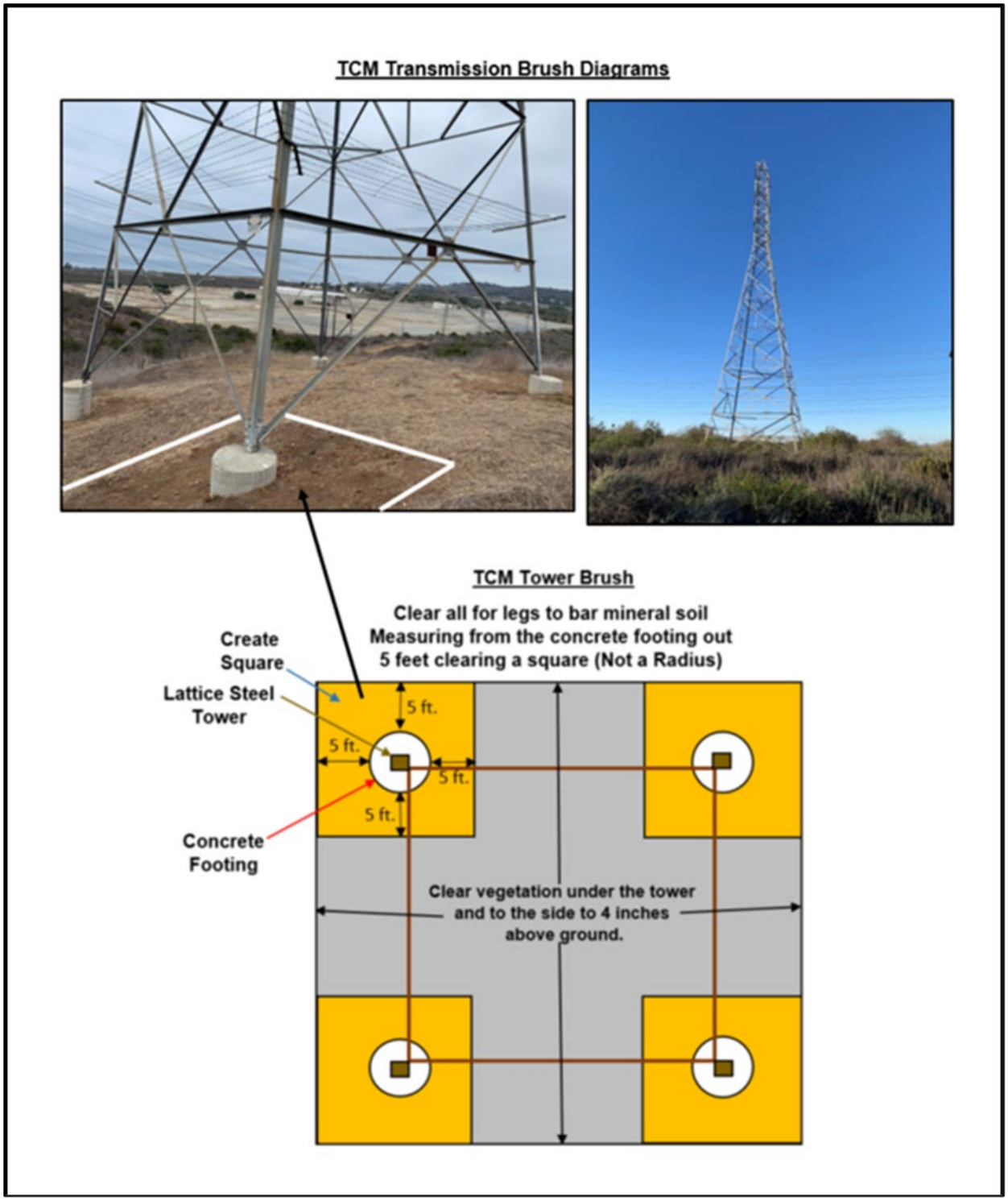
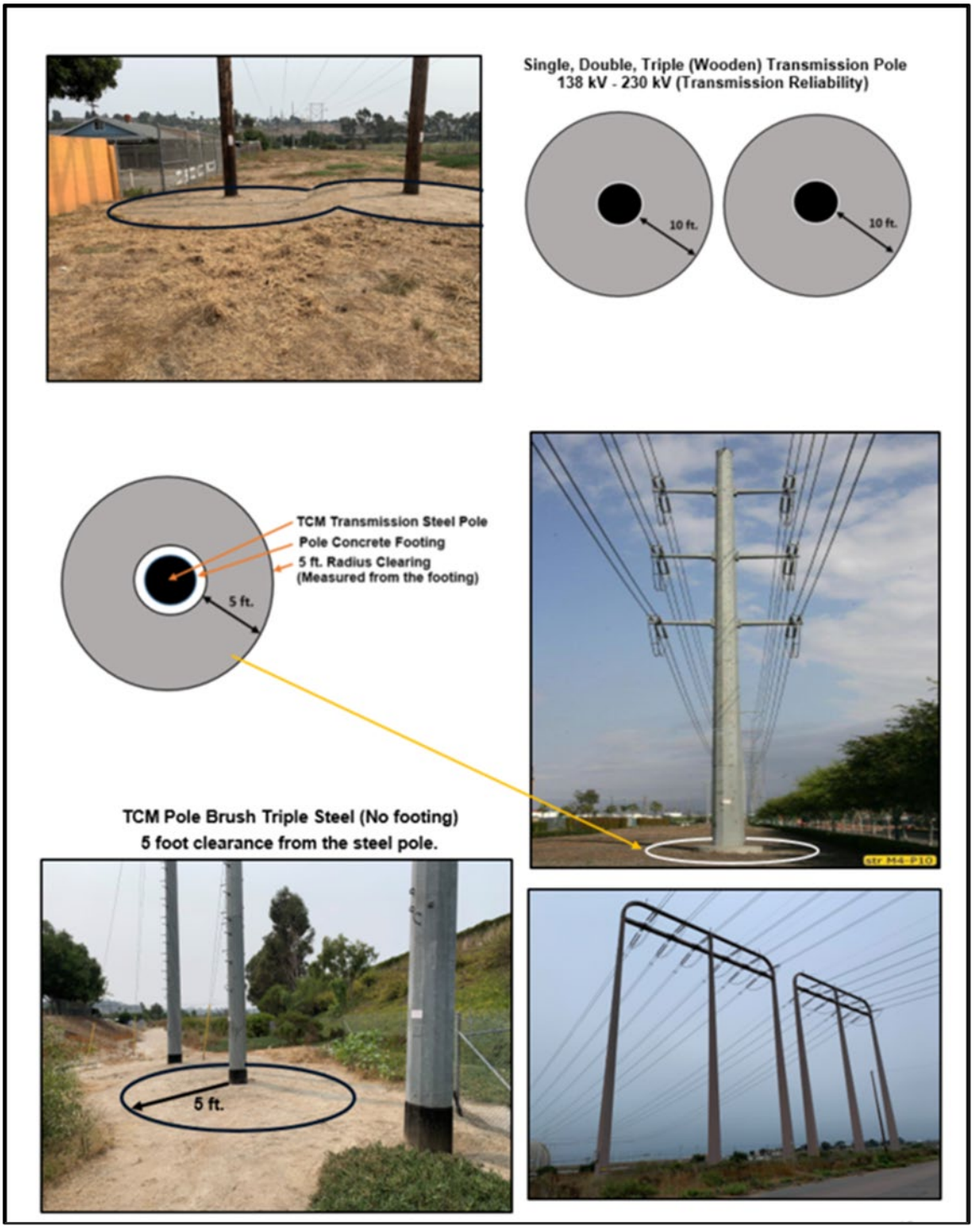


Figure 10: Internal Clearance Requirements for Exempt Transmission Structures



6 CERTIFICATION PROCESS

Upon completion of the pre-inspection activities within a VMA, the Pre-Inspection contractor documents the work via the certification process. This process includes the electronic completion of all assigned dispatch and schedule work orders within Cityworks, a summary report of all completed work, and documentation of all deferred (e.g., refusal and exception) work. VMA certifications are reviewed by the SDG&E Area Forester for accuracy and completeness. Pre-Inspection contractors are to complete all assigned work by the scheduled due date work. Any deviations from completing VMA by its scheduled due date are to be requested in advance and approved by the Area Forester. An electronic copy of the VMA certification is retained by SDG&E for documentation and auditing purposes for the duration of the department's retention period.

7 REFERENCE DOCUMENTS

Document Type	Document Name
Internal	Audit Activity (in development)
External	California Power Line Fire Prevention Field Guide
External	CNF O&M Fire Plan
External	CNF Master Special Use Permit
External	Fire-Threat Maps and Fire-Safety Rulemaking
Internal	ESP113.1
Internal	PowerWorkz Pre-Inspection Manual
Internal	PowerWorkz Pre-Inspection User Guide
Internal	PowerWorkz Server Manual
External	State Responsibility Area Viewer
External	Subregional Natural Community Conservation Plan (NCCP)
Internal	Tree Pruning and Removal Activity (in development)
Internal	Vegetation Management Master Schedule
Internal	Vegetation Management Program Overview Guide (in development)
Internal	VMS Condition Code
Internal	2023-2025 WMP

8 ROLES AND RESPONSIBILITIES

Roles and Responsibilities for used in this document can be found on the Vegetation Management SharePoint site.

9 DEFINITIONS AND ACRONYMS

9.1 Definitions

Definitions for terms used in this document can be found on the Vegetation Management SharePoint site.

9.2 Acronyms

Abbreviation	Name
CAISO	California Independent System Operator
CAL FIRE	California Department of Forestry and Fire Protection
CCR	California Code of Regulations
CMP	Corrective Maintenance Program
CNF	Cleveland National Forest
CPUC	California Public Utilities Commission
DBH	Diameter at Breast Height
DWO	dispatch work order
ESA	Environmentally Sensitive Area
ESP	Electric Standard Practice
FERC	Federal Energy Regulatory Commission
FPI	Fire Potential Index
GIS	geographic information system
GO	General Order
HCP	Habitat Conservation Plan
HFTD	High Fire Threat District
ISA	International Society of Arboriculture
kV	kilovolt
LRA	Local Responsibility Area
MDT	mobile data terminal

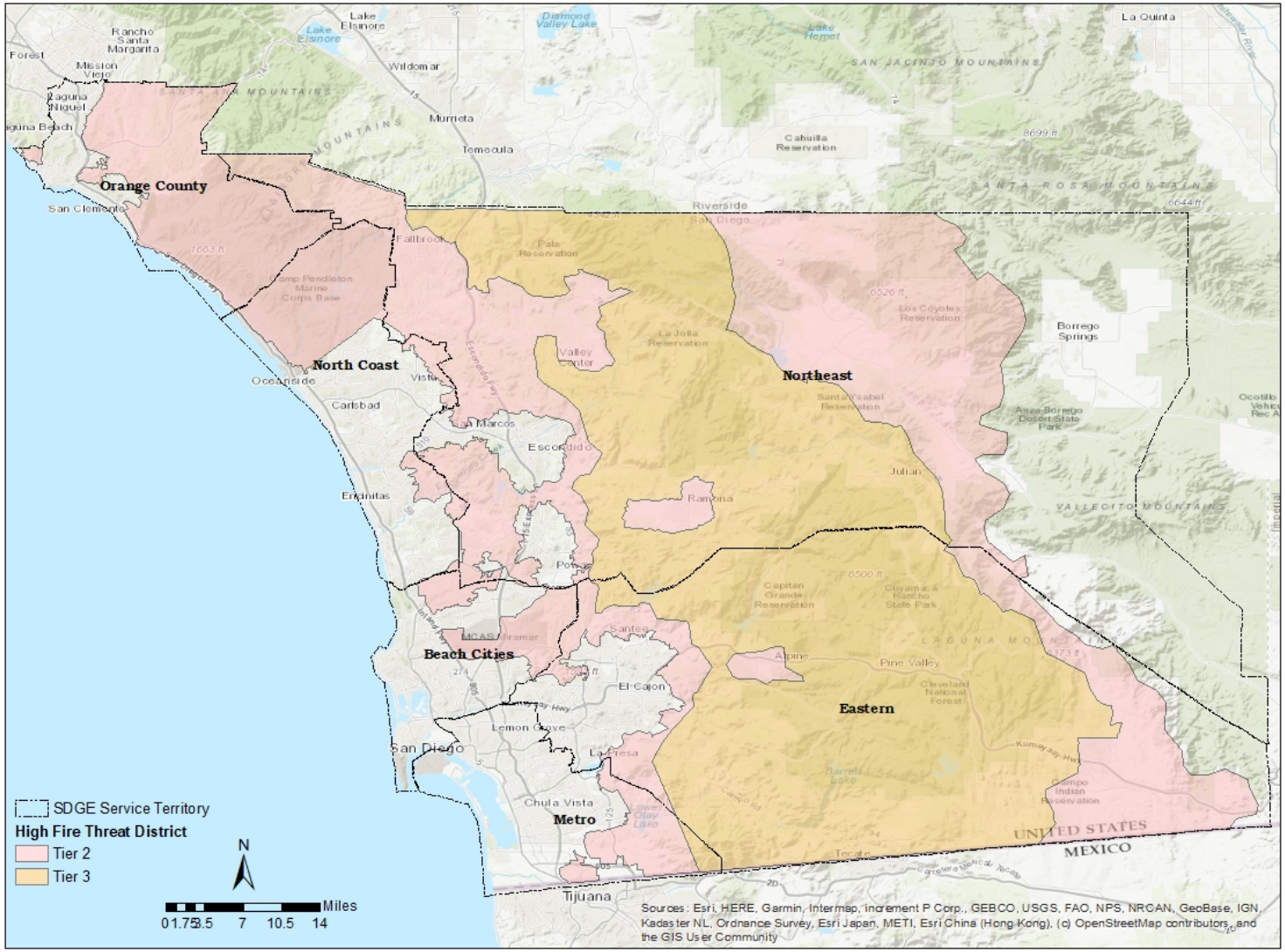
Abbreviation	Name
MOU	Memorandum of Understanding
MVCD	minimum vegetation clearance distance
MWS	Major Woody Stem
NCCP	Natural Community Conservation Plan
NERC	North American Electric Reliability Corporation
O&M	Operations & Maintenance
PAL	Project Activity Level
Patrollers	Forester Patrol Persons
PPE	personal protective equipment
PRC	Public Resources Code
QEW	Qualified Electrical Workers
RFW	Red Flag Warning
SB	Senate Bill
SDG&E	San Diego Gas & Electric
SRA	State Responsibility Areas
SWO	scheduling work order
TCM	Transmission Construction Maintenance
TGR	Tree Growth Regulator
VMA	Vegetation Management Area
VMS	Vegetation Management System
WMP	Wildfire Mitigation Plan

10 REVISION HISTORY AND APPROVALS

Rev. Number	Description	By	Approved By	Date
1	Document creations	Michael Daleo, Leigh Ratcliffe, Lana Radchenko	Michael Daleo	11/1/2024
2				

Rev. Number	Description	By	Approved By	Date
3				

Appendix A: High Fire Threat District Map



Source: 2023-2025 Wildfire Mitigation Plan, Section 5.3.3

Appendix B: Tree Removal Authorization Form

– VEGETATION MANAGEMENT –

TREE REMOVAL AUTHORIZATION

TICKET ID № 60325

As the authorized agent, I (print name) _____ do hereby authorize SDG&E®

to remove (quantity) _____ (species) _____

located at (property address, city and ZIP code): _____

This work will be done by SDG&E at no cost to me. I understand that: (1) wood over 3 inches in diameter will be cut, whenever practical, into a manageable size and left at the site; (2) SDG&E will remove branch debris and all palm tree debris; and (3) SDG&E **will not** grind or remove stumps.

Signature: _____ Date: _____

Home phone: (_____) _____ Mobile phone: (_____) _____

VMA # _____ Start pole # _____ Tree ID(s): _____

Stop pole # _____ _____

Ownership (check one): ☐ private ☐ city ☐ county ☐ state ☐ federal

Comments: _____

_____

_____

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Appendix C: Customer Refusal Handout

– VEGETATION MANAGEMENT –

PLEASE READ

IMPORTANT INFORMATION

Notice about the potential consequences of refusing to allow tree pruning near high-voltage power lines

The purpose of this notice is to inform property owners about the requirements of maintaining safe distances between vegetation and high-voltage power lines. SDG&E's Vegetation Management Program provides a high level of safety for the public by reducing the risk of power outages, fires, and personal injuries that can occur from overgrown vegetation coming into contact with or growing near electrical facilities. SDG&E® directs its contractors to prune and/or remove trees on your property in accordance with State and Federal mandates. This work is provided at no cost to you.

It's the Law!

State law requires utility companies to maintain specific clearances (depending on the voltage running through the line) between electric power lines and all vegetation. SDG&E has in place an annual maintenance schedule to comply with State and Federal law.

California Public Utilities Commission (CPUC) General Order 95, Rule 35 - Requires SDG&E to maintain specific clearances at all times between vegetation and high-voltage power lines.

Public Resources Code (PRC), Section 4293 - Requires SDG&E to maintain more stringent minimum clearances at all times for fire prevention purposes in areas under the responsibility of Cal Fire.

Public Resources Code (PRC) 4295.5 - States that utilities may traverse land as necessary, regardless of land ownership or express permission to traverse land from the landowner, after providing notice and an opportunity to be heard to the landowner, to prune trees to maintain clearances pursuant to Section 4293, and to abate, by pruning or removal, any hazardous, dead, rotten, diseased, or structurally defective live trees.

North American Electric Reliability Corporation (NERC) - Requires SDG&E to maintain increased clearances between vegetation and transmission voltage conductors.

Cal OSHA, Title 8, Article 37 - States no person shall come within 6 to 16 feet of energized high-voltage power lines and that no boom, lifting, or hoisting equipment shall come within 10 to 20 feet (depending on the voltage) of the power lines. This also means there cannot be personnel or equipment in trees, such as avocado or other fruit trees, less than 6 feet from high-voltage power lines.

Continued on the back →

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Appendix D: MWS Exemption Form

Major Woody Stem (MWS) Exemption Form

A MWS is a tree whose trunk or large branch(es) are within 4 feet of the primary conductor in the State Responsibility Area (SRA) or within 18 inches of primary conductor in the Local Responsibility Area (LRA). The following criteria shall be applied to any tree being considered for MWS exemption*. Each condition below must exist for the tree to qualify for exemption. Exemption status shall be reviewed and documented annually by a qualified ISA Certified Arborist.

Inspector / Company_____ Date_____

Vegetation Management Area (VMA) _____

Tree ID _____

Species_____

Tree address_____

Span (pole – pole)_____

Current clearance to primary conductor_____

Date of digital photo(s)_____

Please check box for each condition that applies:

☐ Tree is at least 6 inches or more from the conductor at all times.

☐ Tree limb or trunk is at least 6 inches diameter at line height (DLH).

☐ Tree does not have "scaffold branches" below eight and one-half vertical feet above the ground.

☐ Tree is healthy, showing no signs of decay, disease, structural defect, or lean.

☐ Tree does not show signs of previous contact with the conductor.

*MWS exemption does not apply to transmission conductors.