Vegetation Management Distribution Inspection

SUMMARY

This procedure outlines the tasks necessary to fulfill the inspection requirements of the Distribution Vegetation Management (VM) program. Inspecting vegetation around Pacific Gas and Electric Company's (PG&E's) overhead electric distribution Facilities and prescribing and conducting work where needed helps maintain safe and reliable operation.

Level of Use: Informational Use

TARGET AUDIENCE

- VM Employees and Contract Partners (together, Personnel) that include but are not limited to:
  - Distribution Vegetation Management Inspectors (VMIs)
  - Distribution Senior Vegetation Management Inspectors (SVMIs)
  - Vegetation Operations Inspectors (VOIs)
  - Vegetation Management Supervisors
  - Vegetation Program Managers (VPMs)
  - Vegetation Program Leads (VPLs)
  - Tree Crews (TCs)

SAFETY

Use caution and stay alert when inspecting vegetation around overhead electric distribution lines and Facilities.

Working next to high hazard roadways may result in serious injury or death. Be aware and alert of passing motor vehicles at all times.

Do not work alone without the appropriate communication system.

BEFORE YOU START

All VMIs must complete PG&E Academy trainings required for inspections prior to performing this procedure.

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PROCEDURE STEPS

1 Preparing to Inspect

1.1 CONFIRM access to the system of record.

1.2 GATHER and REVIEW the following information:

- Pre-Patrol Report (including all applicable alerts)
- Historical outage data
- Assigned inspection circuit and/or project area

1.3 IDENTIFY the following information:

- The type(s) of Work Assignment:
  - Routine Patrol projects – which may include Standard and/or Elevated work categories
  - Hazard Patrol projects – which may include Standard and/or Elevated work categories
- The next scheduled annual Routine Patrol to inform timeframe

1.4 REVIEW issues that may occur on the assigned circuit and/or project, as provided by the direct supervisor.

2 Immediately Report Unsafe Situations or Abnormal Field Conditions

2.1 At any time during the visit to a location, the VMI must REPORT any of the following:

- Any situation where VM Personnel feels threatened by a third party:
  a. GET to a safe area.
  b. CALL 9-1-1 or local emergency services and/or NOTIFY the supervisor.
  c. NOTIFY Corporate Security at (800) 691-0410 to create a case.
- Abnormal Field Conditions (whether owned by PG&E or a third party), per the Utility Procedure TD-7102P-09, "Reporting Abnormal Field Conditions for Vegetation Management."

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3 Conducting an Inspection

3.1 REVIEW and UNDERSTAND the different patrol types described in Table 1 below.

Table 1. Project Types

Patrol Type	Description
Routine	• Assessment Timeframe: Next Routine annual inspection cycle • Work Category: Standard or Elevated (SEE Table 2, "Work Categories" for description.) • Focus: Minimum Distance Requirement (MDR) (REFER to the TD-7102S-Att01, "Minimum Distance Requirement [MDR]" attachment), dead/dying or defective trees (SEE step 3.4 below.)
Hazard	• Assessment Timeframe: Next Routine annual inspection cycle (approximately 6 months) • Work Category: Standard or Elevated (SEE Table 2, "Work Categories" for description.) • Focus: Change of conditions (e.g., tree will not hold compliance until the next inspection, dead/dying or defective trees (SEE step 3.4 below), Facility construction changes.)

3.2 REVIEW and UNDERSTAND the different work categories described in Table 2 below.

Table 2. Work Categories

Work Category	Description
Standard	• Assessment Type: Level 1 leading to Level 2 Inspections, as needed (SEE step 3.4 below.) • Focus: Minimum Distance Requirement (MDR) (REFER to the TD-7102S-Att01, "Minimum Distance Requirement [MDR]" attachment), dead/dying or defective trees (SEE step 3.4 below.)
Elevated	• Assessment Type: Includes the components of the Standard work category AND Level 2 Inspections of all Strike Trees • Focus: Include the components of the Standard work category AND DOCUMENT all Strike Trees into the system of record AND USE a Tree Risk Assessment (TRA) form for all Strike Trees prescribed for work to mitigate fall-in risk. • Minimum Qualifications: Certified Arborist-Tree Risk Assessment Qualification (TRAQ)

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3.3 For the Standard work category, the VMI must INSPECT vegetation in the assigned circuit and DETERMINE if any of the criteria for prescribing work in Table 3, “Criteria for Prescribing Work” applies to the vegetation.

3.4 For the Standard work category, the VMI must PERFORM a Level 1 Inspection.

1. IF the VMI sees or suspects vegetation with defects or site conditions as stated in the Hazard Trees/Vegetation Clearance section of the “California Power Line Fire Prevention Field Guide” (SEE Appendix A, Overview of Tree Defects and Site Conditions),

   THEN the VMI must also PERFORM a Level 2 Inspection of the vegetation.

3.5 For the Elevated work category, the VMI must:

1. INSPECT vegetation according to step 3.3. above.
2. COMPLETE a Level 2 Inspection for all Strike Trees.
   a. DETERMINE if any of the criteria for prescribing work in Table 3, “Criteria for Prescribing Work” applies to all Strike Trees.
3. DOCUMENT all Strike Trees.
4. COMPLETE a TRA form for Strike Trees prescribed for work to mitigate fall-in risk.

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Table 3. Criteria for Prescribing Work

What is Being Inspected	Criteria for Prescribing Work
Historical Vegetation Points	While performing a Level 1 Inspection, the VMI must EVALUATE vegetation points with historically prescribed work (excluding removals) and vegetation points with active prescriptions not yet worked.
Vegetation surrounding any overhead electric distribution primary and secondary conductors and Facilities including idle lines and neutral conductors. NOTE: DRAW IN all stand-alone secondary conductors and Facilities, including idle lines, if they are NOT represented in the system of record. For more information, See Appendix G, "Further Guidance on Removal Criteria." NOTE: The following are **excluded**: • Service Drops • Facilities inside PG&E fenced-off restricted areas (inner perimeter fences at substations, generation stations, and switchyards)	While performing a Level 1 Inspection, the VMI must EVALUATE whether: 1. Vegetation has or may encroach the MDR, based on anticipated growth rates before the next Routine annual inspection cycle. a. REFER to TD-7102S-Att01, "Minimum Distance Requirements" to determine MDR for each voltage • NOTE: MDR must be maintained around primary neutrals and common neutrals per GO 95 Rule 33.1. For more information about common neutrals, SEE Appendix B, "Prescribing Work for Common Neutrals." b. CONSIDER normal weather patterns for the local area, line position, and line conditions. c. During inspection of the assigned circuit, the VMI must IDENTIFY any Major Woody Stems (MWS), covered wire, Raychem, or tree connect exemptions or exceptions to the MDR (SEE TD-7102P-01-Att03, "Exemptions to Minimum Distance Requirements [MDR]"). 2. Vegetation is causing Strain or Abrasion to the secondary conductors (excluding Service Drops). 3. Vegetation May Fall Into or otherwise Impact PG&E electrical Facilities before the next Routine annual inspection cycle. Distribution Substations and Remote Grids: 1. As included in the Annual Work Plan per the Utility Standard TD-7102S, "Vegetation Management Distribution Program," INSPECT vegetation around exterior perimeter of distribution-only substations and remote grids for trees that may Fall into or otherwise Impact distribution Facilities within the substation. 2. For a list of distribution substations and remote grids, REFER to Appendix C, "List of PG&E Distribution Substations and Remote Grids."

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What is Being Inspected	Criteria for Prescribing Work
Any distribution Underbuilt spans (pole/structure that supports both distribution and transmission conductors)	1. While performing a Level 1 Inspection, the VMI must EVALUATE whether: a. Vegetation has or may encroach the MDR or Minimum Clearance Distance (MCD), based on anticipated growth rates before the next Routine annual inspection cycle, as described above. For information about MCD, REFER to the TD-7103S, "Vegetation Management Transmission Program" standard AND TD-7103P-01, Vegetation Management Transmission Inspection" procedure. b. Vegetation May Fall Into or otherwise Impact PG&E electrical facilities before the next Routine annual inspection cycle. 2. IF work is required: a. PRESCRIBE work that would satisfy clearance requirements for both distribution and transmission lines. (REFER to the TD-7103S, "Vegetation Management Transmission Program" standard AND TD-7103P-01, Vegetation Management Transmission Inspection" procedure for more information regarding transmission clearances.) b. ADD comments about transmission clearance to the system of record.
Service Drops	1. PG&E is not required to inspect vegetation on Service Drops. 2. However, IF a VMI has actual knowledge of Strain or Abrasion or Hazard Tree risk on a Service Drop, THEN REFER to Appendix D, "Known Strain or Abrasion, or Hazard Tree Risk on Service Drops- 540 Notification Creation" for instructions.
Idle Lines	1. INSPECT idle lines as if they are energized. 2. See Table 6, "Encountering Unusual Conditions" for instruction regarding Priority tags for Idle lines.

4 Prescribing Work

4.1 IF any of the conditions in Section 3, "Conducting an Inspection" applies to the vegetation being inspected during Work Assignment (for both Standard and Elevated work categories),

THEN the VMI must PERFORM the following steps in Table 4, "Steps for Prescribing Work."

Table 4. Prescriptions for Work

Prescriptions	Detailed Instructions
Removal	1. Review Appendix G, "Further Guidance on Removal Criteria." to determine whether to prescribe removal. 2. When prescribing a vegetation point for removal, the VMI must DOCUMENT the reason(s) for prescribing removal in the system of record: • SELECT a "Reason for Removal." • SELECT the reason(s) for prescribing the vegetation point for removal in the "Removal Reasons" field (SEE Appendix A, "Overview of Tree Defects and Site Conditions"). • Do NOT provide details for locating vegetation points in the "Removal Comments" field.
Pruning	1. IF removal is not prescribed, THEN PRESCRIBE pruning so that vegetation will maintain compliance for **2 to 3 Routine annual inspection cycles**. 2. IF Pruning will NOT maintain compliance for 2 to 3 Routine annual cycles, THEN PRESCRIBE pruning such that vegetation will maintain compliance for one Routine annual cycle. 3. IF Pruning will NOT maintain compliance for one Routine annual cycle, THEN PRESCRIBE Bi-Annual clearance after PG&E VM Representative approval. **NOTE:** The VMI must CONSIDER the mitigation options outlined in the TD-7102P-01-Att05, "Bi-Annual Tree Management and Reduction Strategy" procedure AND DETERMINE a course of action for the vegetation. 4. When De-Designating a vegetation point from a removal to any other prescription type OR De-Listing a vegetation point, the VMI must DOCUMENT the reason in the system of record.
5. Elevated work category	COMPLETE a TRA form of all Strike Trees prescribed for work.

4.2 DOCUMENT the prescribed work into the system of record.

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5 Marking the Tree

5.1 Once a tree has been identified for vegetation work, the VMI must SELECT at least one of these methods to mark the tree (SEE Table 5).

6. Table 5. Methods for Marking the Tree

Method	Instructions
Painting (Preferred Method)	1. VERIFY paint color. a. Paint colors are assigned to programs and to specific years of some programs. See Appendix E, "Tree Marking Colors." 2. SPRAY the paint near the base of a tree using one of the following shapes: • A dot for pruning • An X for removal 3. When painting a mark, USE the following guidelines: • MARK above surrounding vegetation (grass and bushes) and above any expected snowline. • MARK on the side that a tree crew will likely see first. • SPRAY new marks over any marks from previous years (leave some of the older mark still showing). • COVER incorrect marks with black or brown paint.
Flagging	1. VERIFY flag color. a. Flag colors are assigned to programs and to specific years of some programs. See Appendix E, "Tree Marking Colors." 2. ENSURE flag is attached securely to the tree.
Cannot Paint or Flag	NOTE: The VMI may not be able to paint or flag a tree due to customer Interference or unsafe terrain. IF the VMI cannot paint or flag a tree, THEN UPDATE the tree record with the code "CNP" (cannot paint) or "CNF" (cannot flag) AND INCLUDE a description of the tree's location within the span.

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6 Making Notifications

6.1 Notifying Customer/Property Owner of Upcoming Work

1. The VMI must ATTEMPT to contact the customer/property owner directly AND DESCRIBE the work to be performed.

   a. DOCUMENT in the system of record all contact attempts AND INCLUDE at least the following details:

   - Method of contact
   - Name of customer/property owner who was contacted
   - Date/time that contact occurred
   - Outcome of the contact attempt

   (1) IF the Customer/Property Owner has an American with Disabilities Act (ADA) concern,

   THEN SELECT “ADA alert” in the system of record AND REFER to the 5 Minute Meeting (5MM) “ADA Reasonable Modification Requirement.”

2. IF the customer/property owner does not respond to the first contact attempt,

   THEN ATTEMPT to contact the customer/property owner up to two more times AND ENTER the details and method of the notification attempts into the system of record.

3. IF the customer/property owner interferes with the work,

   THEN the VMI must FOLLOW the steps in the TD-7102P-04, “Vegetation Management Distribution Interference” procedure.

7 Prescribing Work on Agency Managed Lands and Areas with Environmental Features

7.1 IF work is prescribed on agency land or an area with an environmental feature (e.g., bird nest, riparian area, cultural resource, Valley Elderberry Longhorn Beetle [VELB] habitat, work within Habitat Conservation Plan [HCP] Map Book Zone [MBZ] or Hot Book Zone [HBZ], etc.)

THEN:

1. ADD Constraint data into the system of record for environmental review.

2. Follow applicable procedure(s):

   a. Utility Procedure TD-7102P-16, “Vegetation Management Riparian Review”

   b. Utility Procedure TD-7110P-01, “Bird Nest Procedure”

3. If needed, REFER to the Environmental Support SharePoint site for more guidance.

7.2 IF vegetation work is located within Caltrans or railroad Rights-of-Way,

THEN:

1. SEE the Utility Procedure TD-7102P-31, “Vegetation Management Encroachment Permitting."
2. If needed, REFER to the Encroachment Permits SharePoint site for more guidance.

8 Encountering Unusual Conditions While in the Field

8.1 IF unusual conditions are encountered while in the field,

THEN follow the instructions in Table 6 below.

Table 6. Encountering Unusual Conditions

Condition	What to Do
Abnormal Field Conditions	At any time during inspection, REPORT Abnormal Field Conditions to Supervisor (whether owned by PG&E or a third party), per the TD-7102P-09, "Reporting Abnormal Field Conditions for Vegetation Management" procedure.
Priority 1 or Priority 2 Mitigation Required	1. IF any vegetation affects distribution Facilities so that it requires a Priority 1 or Priority 2 mitigation, THEN REFER to the TD-7102P-17, “Vegetation Management Priority Tag” procedure. 2. Do **NOT** use the Priority Tag Procedure for trees requiring only radial clearance around **Idle lines**. a. Exceptions: USE the Priority Tag Procedure AND LIST a tree as Priority 2 if vegetation is at imminent risk of impacting PG&E Facilities, OR if a tree is causing Strain or Abrasion on idle PG&E lines. (SEE TD-7102P-17, “Vegetation Management Priority Tag.”)
ANSI A300 Clause 5, Pruning” (ANSI A300 Tree Care Standard Book, 2023) Deviations	Where safe and practical, work must be prescribed and pruning cuts must be made according to ANSI A300 Clause 5, “Pruning.” IF the Tree Crew (TC) CANNOT comply with ANSI A300 Clause 5, THEN the TC must DOCUMENT the deviation from ANSI A300 Clause 5 in the appropriate system of record.
Hazard Notification-Immediate or Hazard Notification-Urgent Designation Required	IF any vegetation affects transmission facilities so that it requires a Hazard Notification-Immediate (HN-I) or Hazard Notification-Urgent (HN-U) designation. THEN REFER to the TD-7103P-09, “Transmission Vegetation Management Hazard Notification” procedure.

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Condition	What to Do
Encountering Palm Trees	IF the VMI encounters a palm tree that may encroach the MDR, THEN FOLLOW the steps in Attachment 1, “Strategies to Manage and Reduce Palms.”
Century Plants	If a mature Century plant is identified and has the possibility of blooming and Impacting PG&E electrical Facilities, then contact the local supervisor for guidance.

END of Instructions

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DEFINITIONS

The definitions apply to this procedure and all of the documents listed in the Attachments Section below.

Abnormal Field Condition: Field conditions that may include, but are not limited to, broken cross arms, floaters, objects on wires, broken poles, frayed conductors, arcing wires, etc.

Abrasion: Per GO 95, Rule 35, abrasion is “damage to the insulation resulting from the friction between the vegetation and conductor. Scuffing or polishing of the insulation or covering is not considered abrasion… Contact between vegetation and conductors, in and of itself, does not constitute a nonconformance with the rule.”

Constraint: A situation that occurs when an environmental concern or local government or agency obstructs or delays PG&E inspection work or the completion of intended tree work.

Contract Partner: Company directly hired by PG&E to complete a specific scope of work or service. This term also applies to all subcontract partners, at any tier, which have been retained by a primary PG&E contract partner to provide a service for PG&E related project work. Additionally, the term “subcontract partner” may include an individual, a group of workers (crew), equipment or other items used on a PG&E facility, project, or assets.

De-Designation: Any time a vegetation point prescription changes from Removal to a different prescription (i.e., Removal to Trim).

De-Listing: Anytime a tree prescription is changed to No Work.

Easement: An interest in land owned by another person or entity that gives the owner of the easement limited right to that land for a specific, defined purpose. It is a non-possessory, restricted right for a specific use or activity on the land of another that is less than ownership. Used interchangeably with right-of-way.

Facility (Distribution): The components of the electric distribution overhead system, including the pole/support structure, Primary Conductors, voltage-regulating equipment, primary and common neutrals (see GO 95, Rule 33.1), switching equipment, transformers, and Secondary Conductors. Refer to TD-8105, "Distribution Line Overhead Asset Management Plan" for additional details.

Hazard Patrol: Consists of additional proactive inspections conducted in high-risk areas based on a risk-prioritized approach.

Hazard Tree: A tree that has the likelihood of falling and impacting facilities within an inspection timeframe. It can also be a tree that may grow into conductors within an inspection timeframe.

High Fire Risk Area (HFRA): A purpose-built map for use in scoping Public Safety Power Shutoff events identifying areas where risk factors for the potential of catastrophic fire from utility infrastructure ignition during offshore wind events is higher.

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High Fire-Threat District (HFTD): High Fire-Threat District means those areas comprised of the following:

1. Zone 1 is Tier 1 of the latest version of the United States Forest Service (USFS) and CAL FIRE's joint map of Tree Mortality High Hazard Zones (HHZs). (Note: The Tree Mortality HHZs Map may be revised regularly by the USFS and CAL FIRE.)
2. Tier 2 is Tier 2 of the CPUC Fire-Threat Map.
3. Tier 3 is Tier 3 of the CPUC Fire-Threat Map.

Idle: Facilities that do not currently serve a customer load and may be energized or de-energized temporarily or permanently. All idle facilities are considered active until they are abandoned. For this document, abandoned facilities are included in this definition. Abandoned facilities are physically isolated from all other energized conductors, equipment, or facilities and are determined by PG&E to have no foreseeable future use.

Impact: Per the ANSI Best Management Practices Tree Risk Assessment (Second Edition, Part 9), Impact is to strike a target or cause a disruption that affects activities. Impact likelihood describes whether the entire tree or part of the tree has the potential to strike PG&E electrical facilities and cause damage that may compromise the safe delivery of electricity.

Inspection: An organized and systematic examination.

Interference: Situations where the Customer/Property Owner:

- Interferes with access to the property (e.g., the Customer/Property Owner physically blocks access to the property, the Customer/Property Owner verbally threatens the VM representative, etc.);
- Interferes with completion of identified tree work as defined in the TD-7102P-01 "Vegetation Management Distribution Inspection" procedure (e.g., the Customer/Property Owner gets in the work zone, creates unsafe working condition, creates hostile environment to work, or threatens harm);

  AND/OR
- Wants to Hire Own Contractor (HOC) or do work themselves.

Lean: The predominant angle of the trunk from vertical.

Level 1 Inspection: A visual assessment from a specified perspective such as a foot, vehicle or aerial (airborne) patrol of an individual tree or a population of trees near specified targets to identify conditions or obvious defects of concern.

- Walk-by: A limited visual inspection, usually from one side of the tree, performed as the tree risk assessor walks by the tree(s).
- Drive-by/windshield assessment: A limited visual inspection from only one side of the tree, performed from a slow-moving vehicle.
- Aerial patrol: Overflights of a utility Right-of-Way, large areas, or individual trees in a defined area to record the location of trees that are likely to fail and cause harm.

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Level 2 Inspection: A detailed visual inspection of a tree and surrounding site that may include the use of simple tools. It requires that a tree risk assessor inspect completely around the tree trunk looking at the visible aboveground roots, trunk, branches, and site.

- Level 2 inspections are ground-based.

Major Woody Stem (MWS): A trunk or limb at least 6 inches in diameter at the conductor level, on a tree at least 10 inches DBH and at least 10 years old.

May Fall Into: Tree failure where vegetation (categorized as a whole tree or portion of a tree) has the likelihood of impacting PG&E facilities under normal weather conditions within a specified time frame.

Minimum Distance Requirement: Distance to maintain separation between vegetation and conductors in Local Responsibility Areas (LRAs), SRAs, HFTDs, FRAs, and HFRAs, in accordance with GO 95, Rule 35, PRC 4293, and PG&E standards. See the TD-7102S-Att01, “Minimum Distance Requirement (MDR)” attachment.

Priority: Includes Priority 1 and Priority 2 conditions as described in the Utility Procedure TD-7102P-17, “Vegetation Management Priority Tag.”

Primary Conductor: Conductors operated at a transformer’s primary voltage (greater than 750 volts and less than 60 kV, with the majority being 4 kV to 21 kV) to distribute power to end-use customers.

Right-of-Way (ROW): See Easement definition.

Routine: Annual inspection of vegetation along primary and secondary overhead Facilities.

Scope of Work: A scope of work contains a detailed description of service, project, or program work activities.

Secondary Conductor: Conductors operated at a transformer’s secondary voltage (< 750 volts) to distribute power to end-use customers. Construction includes AWAC, open wire, Triplex, etc.

Service Drop: The portion of a circuit located between the last pole and a building, a structure or a service and meter pole. (GO 95, Rule 23.4) It is the low-voltage (generally 110 to 750 volts) electric supply lines that connect end users to an electric distribution supply network. (ISA)

Strain: Per GO 95, Rule 35, “strain on a conductor is present when vegetation contact compromises the structural integrity of supply or communication facilities. Contact between vegetation and conductors, in and of itself, does not constitute a nonconformance with the rule.”

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Strike Tree: A tree or tree part which has the potential to impact PG&E facilities upon failure is considered a strike tree. Factors such as height, lean, and balance should be considered. For example, a tree that has sufficient height, but leans or balances away from the facilities which makes contact unlikely should not be considered a strike tree.

Tree Wire: Insulated conductor covered with a high abrasion resistant, usually non-metallic, outer covering. (CCR Title 14, section 1251)

Underbuilt: Electric distribution lines located directly under and parallel with transmission lines and attached to the same pole or structure.

Work Assignments: is a group of work assigned with a specific project type (e.g., Routine, Hazard, etc.)

IMPLEMENTATION RESPONSIBILITIES

The VM Communication and Training team is responsible for issuing the communication associated with this procedure to the target audience and maintaining the accuracy of applicable training material.

The leadership of the target audience is responsible for holding the target audience accountable to perform the procedure as written.

The Document Contact(s) are subject matter or technical expert(s) who can answer questions about the procedure.

The Document Owner is responsible for maintaining the accuracy of this procedure.

GOVERNING DOCUMENT

TD-7102S, Vegetation Management Distribution Program

COMPLIANCE REQUIREMENT / REGULATORY COMMITMENT

Records and Information Management:

PG&E Data, Information, and Records are company assets that must be traceable, verifiable, accurate, and complete and can be retrieved upon request. Functional Areas are responsible for complying with the Information & Records Governance Policy, Standards, and the Information and Records Retention Schedule. Refer to GOV-7101S, “Enterprise Records and Information Management Standard” for further guidance or contact Information & Records Governance at Information&RecordsGovernance@pge.com.

California Public Utilities Commission (CPUC), General Order 95, Rule 33.1

California Public Utilities Commission (CPUC), General Order 95, Rule 35

California Public Utilities Commission (CPUC), General Order 95, Rule 35 in Appendix E

California Public Utilities Commission (CPUC), CPUC General Order 95, Rule 18

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California Public Resources Code (PRC), sections 4293 and 4295.5

California Code of Regulations (CCR), Title 14, section 1257, “Exempt Minimum Clearance Provisions – PRC 4293”

REFERENCE DOCUMENTS

Developmental References:

TD-7102S, “Vegetation Management Distribution Program”

Cal Fire Power Line Fire Prevention Field Guide

Supplemental References:

TD-7102P-04, “Vegetation Management Distribution Interference”

TD-7102P-09, " Vegetation Management Reporting Abnormal Field Conditions"

TD-7102P-16, “Vegetation Management Riparian Review”

TD-7102P-17, “Vegetation Management Priority Tag"

TD-7103P-01, “Vegetation Management Transmission Inspection”

TD-7103P-09, “Transmission Vegetation Management Imminent Threat and Hazard Notification”

TD-7102P-31, “Vegetation Management Encroachment Permitting”

TD-7110P-01, “Vegetation Management Bird Nest”

TD-2014P-01, “Notification of Conditions to Third-Party”

TD-2015P-01, “Notifying Non-Utility Third Parties of Safety/Compliance Conditions for Which They are Responsible”

Utility Tree Risk Assessment Best Management Practices, Companion Publication to ANSI A300 Part 9 (2020 Edition)

ANSI A300 Clause 5, “Pruning” (2023 Edition)

Utility Arborist Association (UAA) Best Management Practices for Tree Risk Assessment and Abatement

RISK-6300S, "Quality Management Audit Standard"

TD-2459S, “Management of Idle Electric Distribution Lines”

TD-2014S, “Third-Party Notification and Resolution of Potential Violations and Safety Hazards”

TD-2015S, “Notification of Abnormal Conditions Caused by Non-Utility Third Party”

TD-7102S-Att01, “Attachment 1, Minimum Distance Requirement (MDR)”

One VM Info Hub

VM Core Share

APPENDICES

Appendix A, “Overview of Tree Defects and Site Conditions”

Appendix B, “Prescribing Work for Common Neutrals”

Appendix C, “List of PG&E Distribution Substations and Remote Grids”

Appendix D, “Known Strain or Abrasion, or Hazard Tree Risk on Service Drops- 540 Notification Creation”

Appendix E, “Tree Marking Colors”

Appendix F, “Information about Tree Lean”

Appendix G, “Further Guidance on Removal Criteria”

ATTACHMENTS

TD-7102P-01-Att01 “Attachment 1, Strategies to Manage and Reduce Palms”

TD-7102P-01-Att02 “Attachment 2, EVM WMP Commitments”

TD-7102P-01-Att03 “Attachment 3, Exemptions to Minimum Distance Requirements (MDR)”

TD-7102P-01-Att05 “Attachment 5, Bi-Annual Tree Management and Reduction Strategy”

TD-7102P-01-Att06, “Attachment 6, “Tree Removal Inventory Program”

TD-7102P-01-JA01, “Best Management Practices (BMP) for Vegetation Management Activities”

TD-7102P-01-F01, “Rangefinder Verification Form”

DOCUMENT RECISION

TD-7102P-01, “Vegetation Management Distribution Inspection Procedure,” 04/28/2025, Rev. 3

TD-7102P-01-Att01 “Attachment 1, Strategies to Manage and Reduce Palms,” 04/28/2025, Rev. 1

TD-7102P-01-Att02 “Attachment 2, EVM WMP Commitments,” 04/28/2025, Rev. 1

TD-7102P-01-Att03 “Attachment 3, Identifying Major Woody Stems,” 04/28/2025, Rev. 1

TD-7102P-01-Att05 “Attachment 5, Bi-Annual Tree Management and Reduction Strategy,” 04/28/2025, Rev. 1

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TD-7102P-01-Att07 “Attachment 7, Focused Tree Inspection Instructions,” 04/28/2025, Rev. 3

TD-7102P-01-Att08 “Attachment 8, Vegetation Management Operation Mitigation (VMOM),” 04/28/2025, Rev. 2

TD-7102P-01-B037, “Prescribing Work for Common Neutrals in Distribution Inspection,” 05/13/2025. Rev. 0

DOCUMENT APPROVER

Angela Sanford, Vice President, Vegetation Management

DOCUMENT OWNER

Joe Echols, Senior Director, Vegetation Management Operations

DOCUMENT CONTACT

Eric Haggerty, Senior Manager, Vegetation Management Operations

Josh Green, Supervisor, Vegetation Management Program Management

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REVISION NOTES

Where?	What Changed?
General	Updated hyperlinks and cross-references throughout the procedure.
Section 1	Added verbiage regarding work assignment types: Routine Patrol and Hazard Patrol which may both include Elevated work category CPZs.
Section 2	Added step to notify Corporate Security.
Section 3	Added new table describing project types for Routine Patrol and Hazard Patrol. Created new table describing the Standard and Elevated work categories. Updated Table 3, “Criteria for Prescribing Work” to include references to new appendices that include: a list of PG&E Distribution Substations and Remote Grids, prescribing work for common neutrals, and instructions for Strain and Abrasion on a Service Drop.
Section 4	In the table, updated steps for when removal is not practical. Changes include updating pruning prescription to maintain compliance for 2 to 3 routine annual inspection cycle, and instructions on performing work when an Elevated inspection CPZ is assigned.
Section 6	Updated information about making notifications.
Section 7	Updated information about prescribing work on Agency Managed Lands and areas with environmental features.
Section 8	Added row for what to do when encountering Century Plants.
Definitions	Reviewed, added, or updated definitions.
Appendices	Reorganized Order of Appendices, Added new appendices : “Prescribing Work for Common Neutrals,” “List of PG&E Distribution Substations and Remote Grids,” “Known Strain or Abrasion, or Hazard Tree Risk on Service Drops- 540 Notification Creation,” and “Further Guidance on Removal.”

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Appendix A, Overview of Tree Defects and Site Conditions
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The Cal Fire Power Line Fire Prevention Field Guide provides information on tree defects and site conditions that increase the likelihood of tree failure. Below is a non-exhaustive list from that document.

- Standing dead trees and dead parts of trees
- Broken and/or hanging branches
- Cracks
- Weakly attached branches or codominant stems
- Decayed or missing wood (damage or cankers)
- Unusual tree architecture (balance, branch distribution, multi-stem, lack of taper, or lean [see Appendix F, “Information about Tree Lean”])
- Loss of root support
- Root defects such as stem-girdling roots
- Shallow soils
- Insect infestation
- Diseases
- Suppressed or intermediate stems within a forest stand
- Fire damage
- Fruiting bodies of known wood decay fungus
- Narrow attachment with included bark
- Dwarf Mistletoe and Rust Cankers (conifers)
- Bleeding
- Dying
- Rot

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Appendix A, Overview of Tree Defects and Site Conditions

When assessing for heart/butt rot, the assessment should include but not be limited to the following items:

- Open wounds showing visible rot
- Old wounds that have partially or fully healed over
- Conks anywhere on the bole of the tree
- Hollow trunks detected by rapping on the tree trunk or by use of an increment borer
- Decreasing crown vigor
- Cracks or splits not caused by lightning
- Swelling or cankers on the bole
- Wildlife cavities
- Presence of carpenter ants or termites
- Number, size, and distribution of fungal fruiting bodies
- Broken or dead tops
- The amount of solid radial wood remaining where visible
- Poor live crown ratio (% live crown)
- Poor diameter-to-height ratio

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Appendix B, Prescribing Work for Common Neutrals
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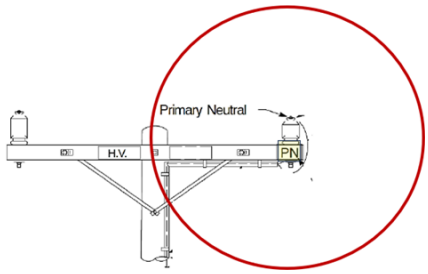
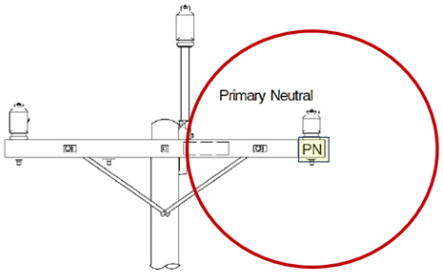
1. Follow these guidelines when prescribing vegetation work around primary and common neutrals. Per the TD-7102S-Att01, "Minimum Distance Requirement (MDR)" attachment:

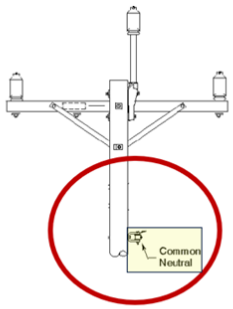
   a. For Primary Neutral (PN) AND Common Neutral (CN) conductors that are located at the primary position and CN conductors that are located at the secondary position when Secondary Conductors are **NOT** present, MDR must be maintained**.** See construction examples below:



Single Phase Primary with Primary Neutral, maintain for MDR

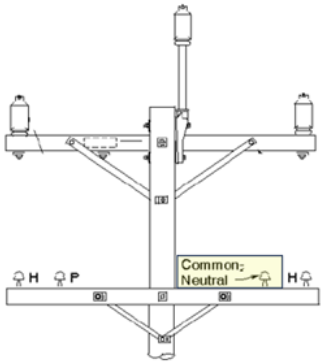


Two Phase Primary with Primary Neutral, maintain for MDR



Common Neutral without secondary lines, maintain for MDR

   b. For CN conductors that are located at the secondary position when Secondary Conductors are present, work must be performed to mitigate strain and abrasion. See the construction example below:



Common Neutral with secondary lines, maintain for secondary strain or abrasion

Vegetation Management Distribution Inspection

Appendix C, List of PG&E Distribution Substations and Remote Grids

Vegetation Asset Strategy and Analytics (VASA) manages the PG&E Distribution Substation and Remote Grid lists. Supervisors must contact VASA to confirm the most current versions of the Distribution Substation and Remote Grid lists.

Table C-1. PG&E Distribution Stations

Facility	Voltage	Region	Facility Has Hazard Patrol
ACTON	12	Bay Area	
ALPINE	17	Central Valley	
ALTA PH	12	Sierra	✓
ARANA	21	Central Coast	
ARLINGTON	12	Bay Area	
BABEL	21	Bay Area	
BANCROFT	12	Bay Area	
BARRETT	12	Bay Area	
BEACH ST	12	Bay Area	
BECK	12	Bay Area	
BEN LOMOND	21	Central Coast	✓
BERKELEY F	12	Bay Area	
BROOKSIDE	12	Bay Area	
CASSERLY	21	Central Coast	
CASTRO	12	Bay Area	
CHICO C	12	North Valley	
CONCORD	21	Bay Area	
CRESCENT MILLS	44	North Valley	
DAYTON RD	12	North Valley	
EIGHTEENTH ST	12	Bay Area	
EIGHTH AVE	12	Bay Area	
ESTUDILLO	12	Bay Area	
FELTON	21	Central Coast	
FLORENCE	12	Bay Area	
FREEDOM	21	Central Coast	
GILL	21	Bay Area	
HOLLYWOOD	12	Bay Area	
JUDAH	12	Bay Area	
LAWNDALE	12	Bay Area	

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Facility	Voltage	Region	Facility Has Hazard Patrol
LIME SADDLE PH	12	North Valley	
MAPLE	12	Bay Area	
MIRA VISTA	12	Bay Area	
NORIEGA	12	Bay Area	
OAK FLAT PH	12	North Valley	✓
OCEAN AVE	12	Bay Area	
PACIFIC GROVE	21	Central Coast	
PALO SECO	12	Bay Area	
PARSONS	12	Bay Area	
PINECREST	17	Central Valley	
PLYMOUTH	12	Bay Area	
PORTOLA	12	Bay Area	
RANDOLPH	12	Bay Area	
SAN FRAN F (MARINA)	12	Bay Area	
SAN FRAN K	12	Bay Area	
SAN FRAN L	12	Bay Area	
SAN FRAN N	12	Bay Area	
SAN JUSTO	21	Central Coast	
SARANAP	21	Bay Area	
SEACLIFF	21	Central Coast	
SIXTH AVE	12	Bay Area	
SOQUEL	21	Central Coast	
STUART	12	Bay Area	
SULLIVAN	12	Bay Area	
TAR FLAT	17	Central Valley	
TARAVAL	12	Bay Area	
TOADTOWN PH	12	North Valley	
TRES PINOS	21	Central Coast	
TWENTY-FIRST AVE	12	Bay Area	
VALLEJO B	22	Bay Area	
VIRGINIA	12	Bay Area	
WALDO	12	Bay Area	
WALL	12	Bay Area	
WALNUT CREEK	21	Bay Area	
WESTLAKE	12	Bay Area	

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Facility	Voltage	Region	Facility Has Hazard Patrol
WISE PH	12	Sierra	
WOOD	12	Bay Area	
YOSEMITE	12	Bay Area	
SILVER AVE	12	Bay Area	
CABBAGE PATCH SW STA	21	Central Valley	
RUSSELL	12	Bay Area	
FAIRMONT	12	Bay Area	
OAK	12	Bay Area	

Table C-2. Remote Grids*

Project Name			Location		
SPS Name	RG Number	RG Name	Division	Service Center	In 2026 Hazard Patrol Footprint?
Mariposa Remote 0001	RG 360	Briceburg	Yosemite	Madera	Yes
Mariposa Remote 0002	RG 531	Slaughterhouse	Yosemite	Madera	Yes
Oakhurst Remote 0001	RG 581	Miami Mountain	Yosemite	Madera	Yes
Corning Remote 0001	RG 299.A	Turri	North Valley	Redding	Yes
Corning Remote 0002	RG 299.B	Ellis	North Valley	Redding	Yes
Fulton Remote 0001	RG 44	Pepperwood	Sonoma	Santa Rosa	No
Dunlap Remote 0001	RG 631	Whitaker	Fresno	Selma	Yes
Coarsegold Remote 0001	RG 755	Coarsegold	Yosemite	Madera	Yes
Volta Remote 0004	RG 757	Presleigh	North Valley	Redding	No
Volta Remote 0001	RG 760.A	McCambel	North Valley	Redding	No
Volta Remote 0002	RG 760.B	Sundstrom	North Valley	Redding	No
Volta Remote 0003	RG 761	Battle Creek	North Valley	Redding	No
Corning Remote 0003	RG 301.A	N/A	North Valley	Redding	Yes
Corning Remote 0004	RG 301.B	N/A	North Valley	Redding	Yes

*Source: REMG/POL team snapshot received 09/04/2025.

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Appendix D, Known Strain or Abrasion, or Hazard Tree Risk on Service Drops- 540 Notification Creation
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1. If you have actual knowledge of strain, abrasion, or a hazard tree risk to a service drop, or that a dead, rotten, or diseased tree or branch is overhanging or leaning towards and may fall into or otherwise impact a service drop, then take the following steps:

   a. Ensure that the **PG&E Report It App** has been downloaded onto your mobile device (available through the App Store).

   

   b. To create and submit a Report It app notification:

      (1) Follow the instructions in the TD-7102P-12-JA01, "Known Strain and Abrasion, or Hazard Tree Risk on Service Drops- 540 Notification Creation" Job Aid,

      AND

      (2) Adhere to these important criteria:

      - Use your **firstname.lastname@pge.com** email address to report an issue in this program.
      - When prompted, enter **Tree Service Worker** for what best describes you.
      - Type in this comment as written into the report description field: "**Confirmed strain and abrasion on service drop. Please create a 540 notification**" or "**Confirmed hazard tree risk on service drop. Please create a 540 notification.**"

      (3) If you have the SAP ID Equipment Number, please add it to the report description.

      - You will receive a confirmation email with a Report It App case number after submission.

      (4) When closing the case in CC&B, reference this Report It App case number in your closing comments, if applicable.

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Appendix E, Tree Marking Colors

Programs are assigned the marking colors and patterns shown in the table. One color can be assigned to several programs. The sample column is approximate and illustrative only. The paint brands and color names shown in the table comply with this standard.

Program	Color	Sample	Paint Brand and Color Name
• Distribution program years: 2020, 2024, 2028 • Transmission program years: 2022, 2026, 2030	Orange		• Nelson Aero Spot: Orange • Aervoe: Orange • Aervoe Professional Choice: Orange
• Distribution program years: 2021, 2025, 2029 • Transmission program years: 2023, 2027, 2031	Green		• Aerovoe: Green
• Distribution program years: 2022, 2026, 2030 • Transmission program years: 2020, 2024, 2028	Red		• Nelson Aero Spot: Red • Aervoe: Red • Aervoe Professional Choice: Red
• Distribution program years: 2023, 2027, 2031 • Transmission program years: 2021, 2025, 2029	White		• Nelson Aero Spot: White • Aervoe: White • Aervoe Professional Choice: White
• Fire and storm response	Fluorescent Green		• Nelson Aero Spot: Green Glo • Aervoe: Fluorescent Green • Aervoe Professional Choice: Fluorescent Green
• Estimating arborist	Pink		• Nelson Aero Spot: Pink Glo • Aervoe: Fluorescent Hot Pink
• Transmission reliability (TVMR)	Blue		• Nelson Aero Spot: Lite Blue • Aervoe Professional Choice: Light Blue
• Enhanced vegetation management (EVM) • Fuel reduction • Hazard Patrol	Yellow		• Nelson Aero Spot: Yellow • Aervoe: Yellow • Aervoe Professional Choice: Yellow
• Cover paint	Black		• Nelson Aero Spot: Black • Aervoe: Black
	Brown		• Nelson Aero Spot: Brown
• VM Quality Control	Pink with a pattern	Examples:   (flagging only)	

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Appendix E, Tree Marking Colors
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1. Unassigned Colors (Informative)

Some colors are not yet assigned to a program. The sample column is approximate and illustrative only. This appendix is informative only.

Program	Color	Sample	Paint Brand and Color Name
• None	Fluorescent Orange		• Nelson Aero Spot: Orange Glo • Aervoe Professional Choice: Fluorescent Orange
• None	Fluorescent Red		• Nelson Aero Spot: Red Glo • Aervoe: Fluorescent Red
• None	Fluorescent Blue		• Nelson Aero Spot: Blue Glo • Aervoe Professional Choice: Fluorescent Blue
• None	Purple		• Nelson Aero Spot: Purple
• None	Light Purple		• Nelson Aero Spot: Lite Purple
• None	Gray		• Nelson Aero Spot: Gray

2. Marking Errors (Informative)

The following actions are marking errors. This appendix is informative only.

- Painting a crumbly dirt hillside (cut bank) below a tree.
- Getting paint on a road or curb or fence (which could be considered graffiti).
- Flagging that is not the current cycle's color.
- Flagging on surrounding vegetation (e.g., blackberry bushes around an oak tree that requires work).

3. Discontinued Markings (Informative)

Some markings have been discontinued. This appendix is informative only.

•• Two dots meant facility protect.

SE SE meant special equipment. Instead, the need for special equipment or methods is recorded in the tree record.

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Appendix F, Information about Tree Lean
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According to the “Hazard Trees/Vegetation Clearance/Steps to Inspection/Lean” in California Power Line Fire Prevention Field Guide:

> Trees with more than a slight lean away from utility infrastructure are unlikely to strike the infrastructure, regardless of their weight distribution. Within reasonably foreseeable field conditions, such trees are generally not hazardous to infrastructure. Otherwise, the direction and amount of lean should be carefully evaluated.
>
> Trees exhibit either corrected or uncorrected lean. Corrected lean is usually exhibited in hardwood trees that naturally grow in a non-linear fashion (decurrent) or in conifers that grow upright (excurrent) after a force has moved the bole off vertical (like snow-loading). Corrected lean may not constitute a structural weakness in a tree.
>
> Uncorrected lean is usually caused by outside factors (wind, soil conditions, etc.) that loosen or break roots. Construction activities that sever roots or strike tree butts and boles also cause trees to lean, as does the impact of falling trees, either natural or human caused. Humps and soil mounding on the opposite side of the lean direction are often indicators of broken or loosened tree roots. Cracks in the bole and roots are often signs of a failure in progress, and abatement may be required right away.
>
> A leaning tree can be more hazardous because of the presence of open fire wounds or cankers, especially if accompanied by rot.

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Appendix G, Further Guidance on Removal Criteria

Follow these steps to determine whether to prescribe a removal rather than a trim.

1. Prescribe a removal when:

    a. The tree is of an R1 size-class and requires work in the current cycle.

    b. The tree routinely will not hold an annual cycle (i.e., biannual).

    c. The tree requires work every year (annually), is an R2 size-class, requires work in the current cycle, and the tree is of a reoccurring constraint (e.g., interference or encroachment permit required).

    d. The tree has a reoccurring Priority 1 or Priority 2 status and needs work in the current cycle.

2. Exceptions to these criteria, including R3 and above holding annual cycle, requires leadership approval on a case-by-case basis.