2024 Execution Kick Off and Training

Focus Tree Inspection
Tree Removal Inventory
Vegetation Management Outage Mitigation
Annual Refresher

Sign In

Please be sure to sign in to receive course credit for the following classes

- VEGM-9073
- VEGM-0111
- VEGM-0112
- VEGM-0114

Safety and Security Orientation

Assign safety roles if in person

Psychological Safety

- Practice transparency and vulnerability
- Avoid blame; learn from mistakes
- Show care and appreciation
- Invite new ideas from all
- Disagree respectfully and with curiosity
- Prioritize mental health by encouraging self-care

Fire

- Exits, escape routes, evacuation
- Fire ext.

Earthquake

- Drop, cover, hold

Medical Emergency

- First aid/CPR
- 911/share location
- AED

Security: [redacted]

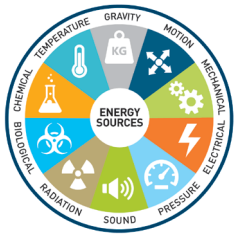
- Active shooter—get out, hide out, take out, call out
- Maintain situational awareness to mitigate hazards

Ergonomics

- Proper ergo
- 30/30: move for 30 secs every 30 min

Don't report to work if testing positive for COVID-19

Energy-Based Hazard Wheel



SIF prevention field guide

On the road, off the phone

Park in a safe location

Ground Rules

Create an environment where employees feel psychologically safe to speak up

Trustworthy
- Act with genuine humility
- Vulnerability is encouraged
- It's okay to say "I don't know"

Empathetic
- Listen for understanding
- Assume positive intent
- Encourage/provide space for all to participate

Curious
- Seek alternative perspectives
- Explore unintended consequences

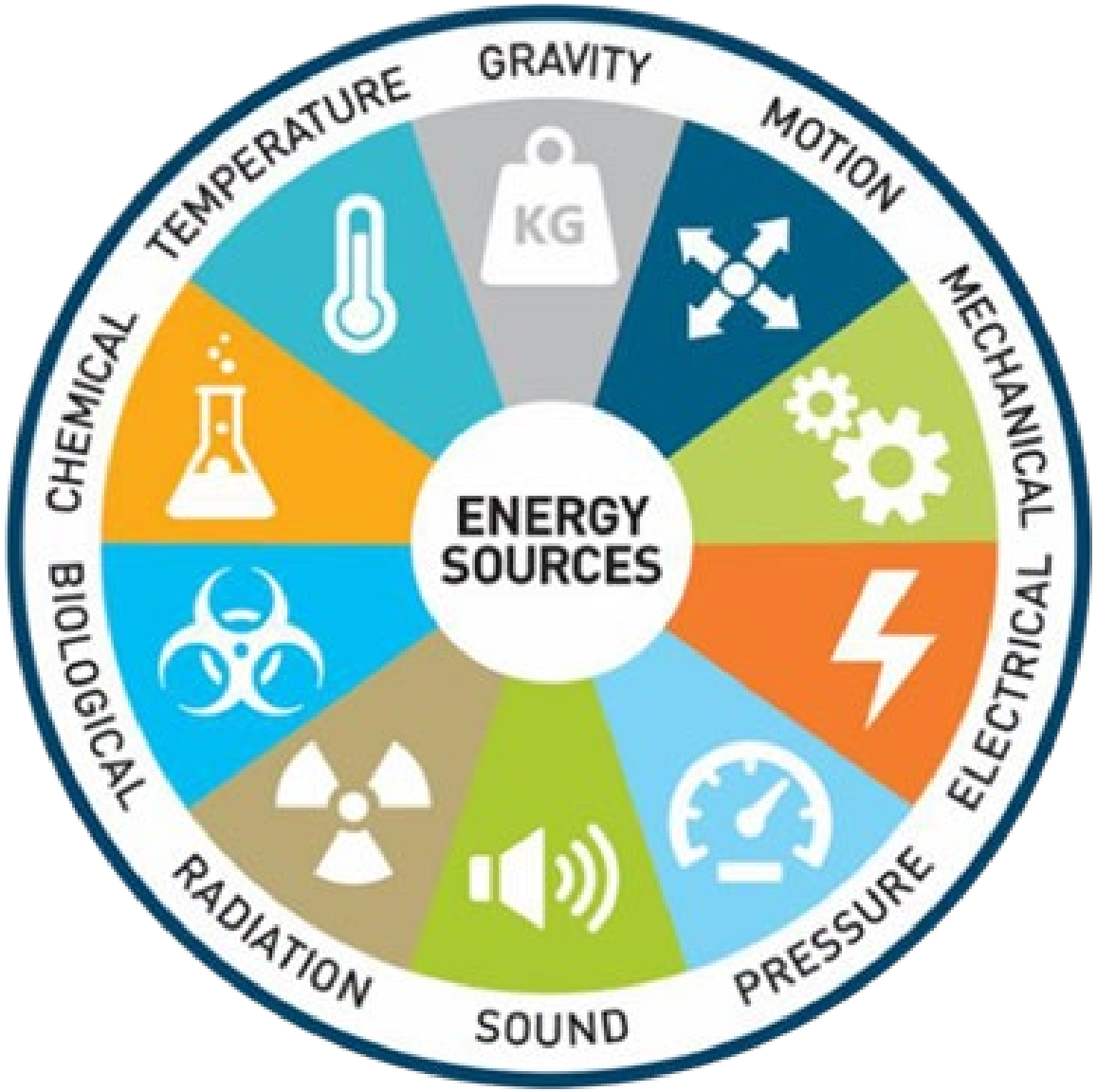
Tenacious
- Think big
- Have fun!

Nimble
- Accept/learn from mistakes
- At closing, review MOLOSA and action items

Owners
- Own decisions and outcomes
- Stop and regroup if off-course
- Clarify desired outcomes and decision-making process

Which are most relevant today? Others to add?

Energy Wheel

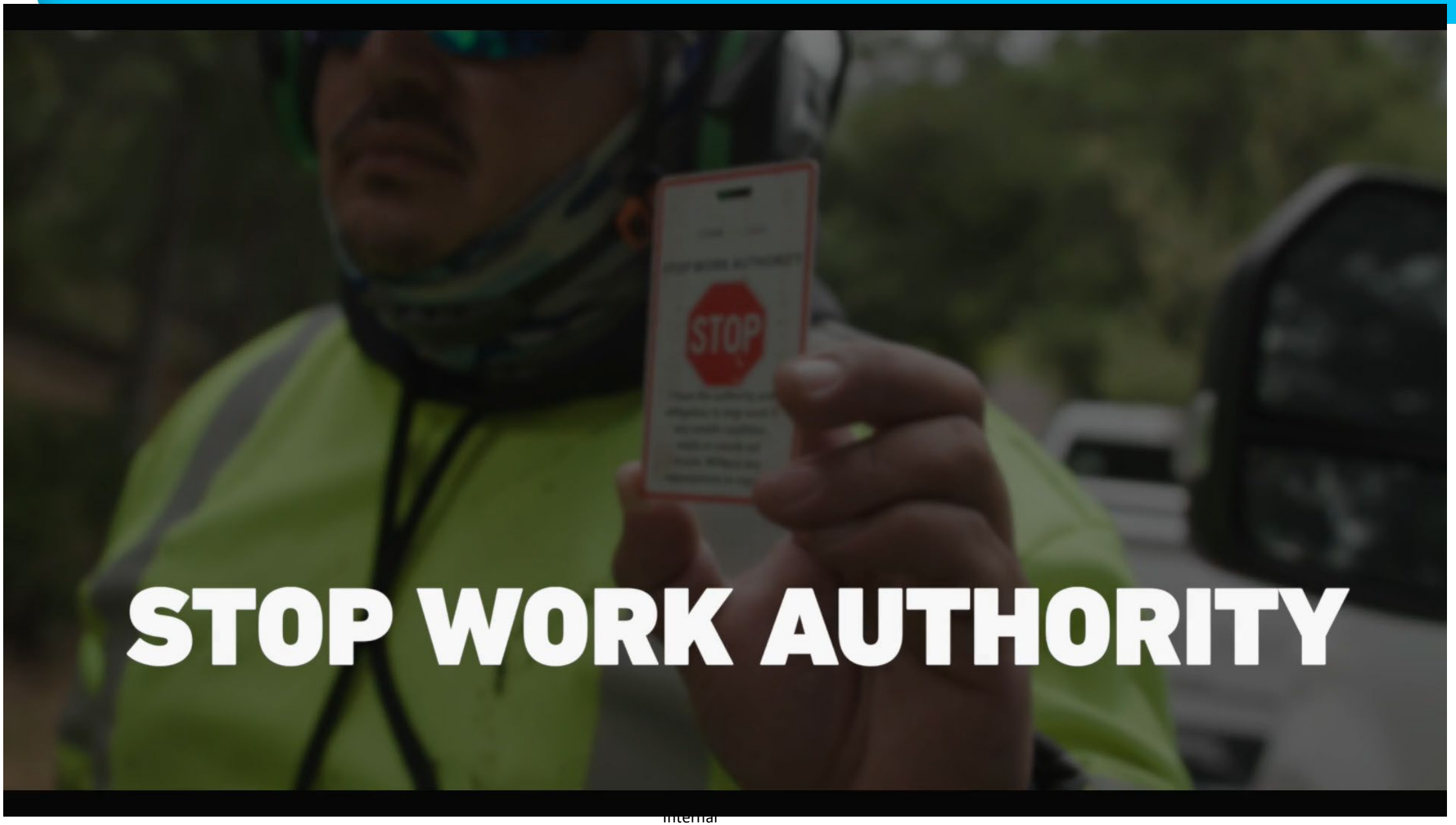


What energy is a concern on your job site?

Keys To Life

Which Key to Life are you most concerned about?

Stop work authority



Agenda

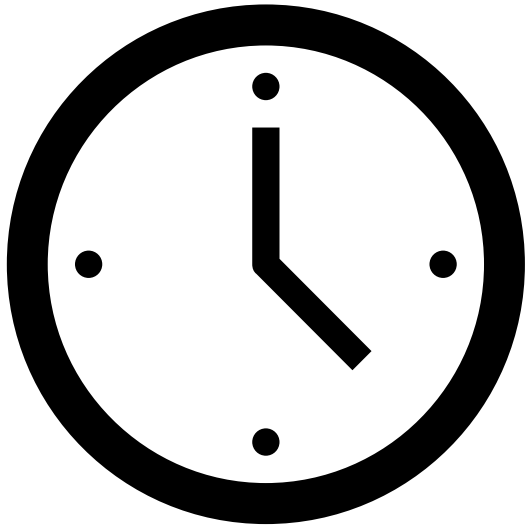
- Distribution Inspection Procedure (DIP) Refresher
- Focus Tree Inventory (FTI) Introduction
- Tree Removal Inventory (TRI) Introduction
- Vegetation Management Operational Mitigation (VMOM) Introduction
- Additional Information
  - Procedure updates
  - New training structure
  - New ISA opportunities
  - Helpful tools

Distribution Inspection Procedure - Refresher

Certifications Survey

Based on the various expertise requirements on various programs, and as part of our training opportunities, the leadership team is asking that ALL employees scan and complete.

TD-7102S Standard Note



- Beginning in the 2024 inspection cycle, **unless a constraint or external factors is documented**, tree work shall be completed within one year of identification.

Work is to be completed prior to vegetation breaching compliance.

During the Work Cycle, vegetation pruning and felling of trees is performed to ensure compliance with the regulatory requirements and recommendations

TD-7102S-B005 Standard/Procedure

The Vegetation Management (VM) Second Patrol inspection area has been updated to be more risk informed.

Previous Inspection Areas TD-7102P-01 Appendix C

Jurisdictional

- State Responsibility Area
- Federal Responsibility Area
- Wildland Urban Interface

Risk

- High Fire Threat District
- High Fire Risk Area

Miscellaneous

- Fire Hazard Severity Zone

Second Patrol – Inspection Area (TD-7102S-B005)

Risk

- High Fire Threat District (HFTD)
- High Fire Risk Area (HFRA)

Starting in the 2024 inspection year, the Second Patrol area will be within HFTD and HFRA

The Wildfire Risk Governance Steering Committee approved this change on July 13, 2023

What to inspect and handling an inspection that cannot be completed (1/2)

The VMI must inspect the following:

1. Vegetation **that has or may encroach the MDR**, based on anticipated growth rates before the next annual work cycle (see Appendix A, Minimum Distance Requirements [MDR]) and considering normal weather patterns for the local area or line position or line conditions

2. Vegetation (categorized as either a whole tree or portion of tree) that **may fall into or otherwise impact** PG&E electric facilities (any PG&E owned electrical conductors, neutral or apparatus on a pole, the pole, or any pole supporting wires with voltage levels – excludes service drops)

3. Any **vegetation that is causing significant strain** or abrasion to the secondary conductors (excluding service drops)

What to inspect and handling an inspection that cannot be completed (2/2)

The VMI must inspect the following:

4. All **idle lines** as if they are energized

5. Distribution underbuilt for vegetation that **could fall into transmission structures**, guys, or poles, regardless of right-of-way (ROW) or easement width

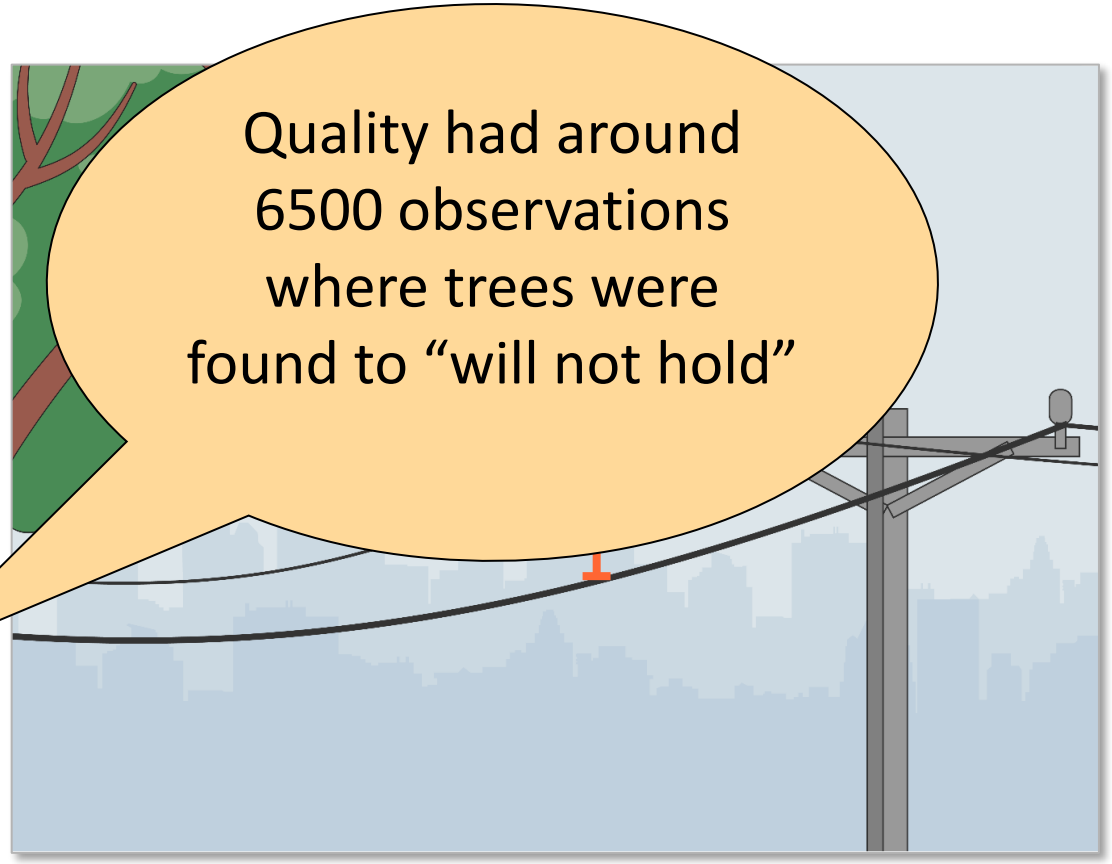
6. Areas **outside fenced areas**, including portions of distribution line span crossing substation fence at substations, generation stations, or switchyards in the inspection area

7. Enhanced Vegetation Management **(EVM) segments** that have been claimed and reported as part of the EVM WMP commitments (refer to Attachment 2, “EVM Commitments”)

If an inspection cannot be completed because of constraints or external factors, the VMI must record the type of constraint or external factors involved in the system of record

Minimum Distance Requirements

Jurisdiction	Local Responsibility Area (non-HFTD)	High Fire-Threat District (HFTD)	State Responsibility Area (SRA)	Federal Responsibility Area (USFS property)
Relevant time of year	Applicable year-round	Applicable year-round	Applicable during fire season	Applicable during fire season
Regulation	General Order 95, Rule 35	General Order 95, Rule 35	Public Resources Code 4293	Public Resources Code 4293
Min. Distance Rqmt. for Primary Conductors >750 volts	18-inches	4-feet	4-feet	4-feet
Min. Distance Rqmt. for Secondary Conductors <750 volts	Prune if strain or abrasion to the conductor is observed			



Service drops and secondary conductors

Secondary Conductor:

- Conductor operated at a transformer's secondary voltage (<600 volts) to distribute power to end-used customers

Service Drop:

- Conductor connects PG&E's secondary system to the customer's service panel

Secondary conductors

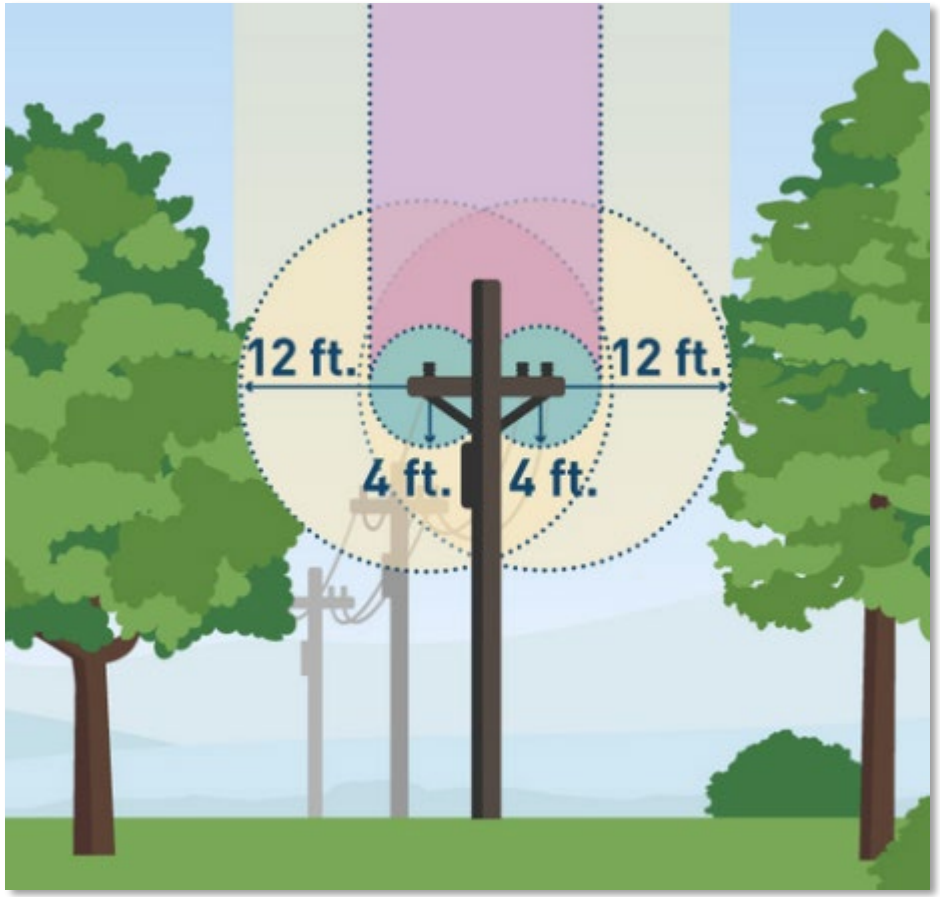
Service drop

Rider poles and secondary splitting into multiple services

Rider pole

Secondary splitting into multiple services

Attachment 2 – EVM WMP Commitments



- The EVM Program **concluded at the end of 2022**
- Routine VM patrols now **maintain the enhanced clearances achieved** in EVM, PG&E **has established routine maintenance requirements for electric distribution circuits** where EVM scope clearances have been performed (in HFTD designated areas) and passed by work verification
- All electric distribution circuits where the EVM scope clearances have been previously achieved must be prescribed for **no less than 12 feet (ft.) of clearance**
- All overhanging vegetation that will **encroach the 4-ft overhang plane** before the next annual inspection cycle must be prescribed to remove all overhangs

Idle Lines Bulletin

When inspecting and recording vegetation around idle distribution lines, VMIs must:

1. Inspect idle lines as if energized
2. List trees for work in idle line spans as regular priority
3. Do not use the Priority Tag Procedure for trees requiring only radial clearance around idle lines
4. If a tree is in imminent danger of failure into PG&E facilities or if a tree is causing strain or abrasion on idle PG&E lines, then use the Priority Tag Procedure and list the tree as Priority 2 (*refer to TD-7102P-17 Vegetation Management Priority Tag Procedure)*

How to identify an idle line or facility

Note: *the criteria shown below are non-exhaustive. Please use your professional judgement to identify an idle line or facility*

Idle Line Definition: **One or more spans of overhead or runs of underground conductors** together with their supporting poles or structures and appurtenances that are located outside of buildings and **do not serve customer load**. Idle lines can range from a single service to an entire line section

Identification criteria:

- Jumpers have been cut on all phases
- Conductors have been removed
- Insulators are undersized for the line
- Pole tops have been removed
- First Line Supervisor knowledge
- Documentation or field observations that an idle line is energized at distribution voltages
- Documentation or field observations that an idle line is energized at transmission voltages

Note: When encountering broken idle poles and floating conductors, please reference TD-7102P-09 for guidance

Idle Facility Field Conditions and Investigation Priorities

Note: *The details shown below are non-exhaustive. Please use your professional judgement to identify an idle line or facility, and reference TD-2459S-B001 for further information*

Condition	Action	Investigation Priority
Safety Situation/Risk	Mitigate hazard and make safe, which may include de-energizing Initiate an IF and / or Electric Corrective Notification	**High**
Idle transformers that do not have a blue sticker indicating a polychlorinated biphenyl (PCB) content of less that 5 parts per million (ppm)	If High priority, mitigate hazard and make safe, which may include de-energizing Initiate an IF Notification	**High – Medium-Low**
Future work required to maintain existing idle facility	Initiate an IF Notification for investigation	**High – Medium-Low**
PG&E and Modesto Irrigation District (MID) service areas	Initiate an IF Notification for investigation	**Medium**
Idle facilities in raptor concentration zones (RCZs) with suitable habitat to support raptors	Initiate an IF Notification for investigation and a Priority B, 3-month EC Notification to de-energize the facility	**Medium – Low**
Oil-filled equipment (e.g., ground waters, sewers, grazing lands)	Initiate an IF Notification for investigation Blue sticker on Notification indicates a PCB content of less than 5 ppm	**Medium**
Idle facility in Tier 2 & 3 Fire Zone	Initiate an IF Notification for investigation and a Priority B, 3-month EC Notification to de-energize the facility	**Medium**
Potential use for agricultural pumps or vacant buildings	Initiate an IF Notification for investigation	**Low**
Entire primary tap is identified as idle and is unfused	Initiate an IF Notification for investigation and a Priority B, 3-month EC Notification to de-energize the line	**Low**

Performing an Inspection

Go to first location and perform a Level 1 inspection of the vegetation surrounding the facility, look for the following:

Overhead electric distribution primary and secondary conductors and facilitates

Distribution underbuilt spans for any of the above conditions

Tree or limbs is more than >6” in diameter at line height, >10” in DBH, 6-48” of a conductor (in HFTD/SRA) or 6-18” of a conductor (in LRA)

Limited Visual Assessment Overview (Level 1)

Definition: *A visual assessment from a specified perspective such as foot, vehicle, or aerial (airborne) patrol of an individual tree or a population of trees near specified targets to identify*

Assessment Video

Level 1 visual inspection criteria

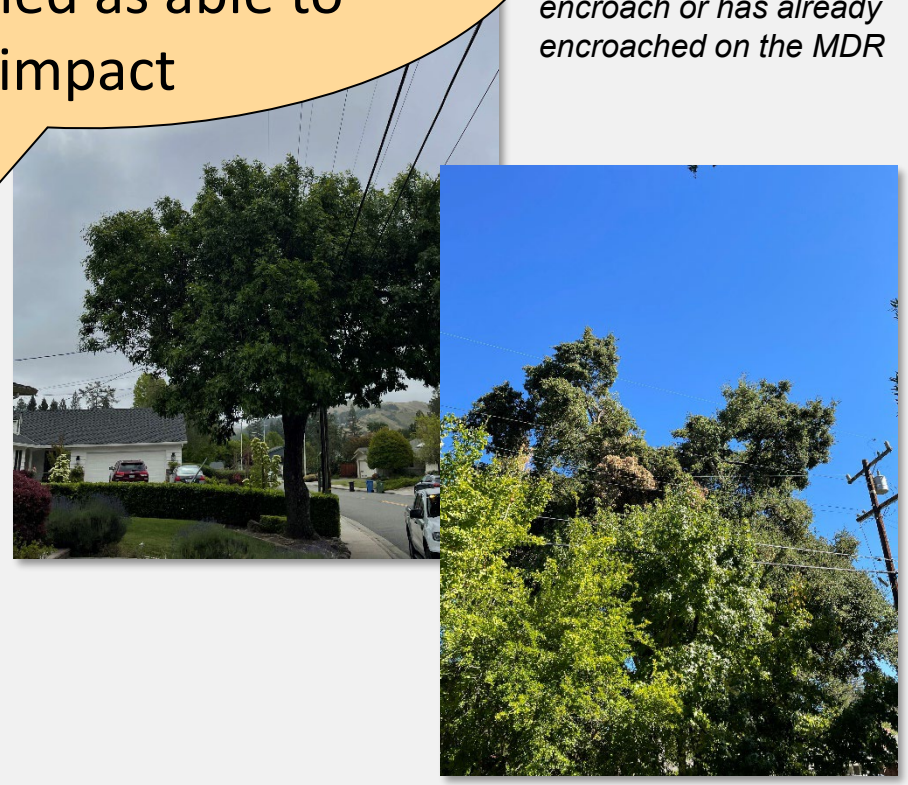
Quality had around 6300 observations where fall-in trees were not initially identified as able to impact

Electric distribution conductor criteria

On overhead electric distribution primary and secondary conductors and facilities (excluding service drops), identify:

1. Vegetation that will encroach the MDR (see Appendix A, Minimum Distance Requirements (MDR)) before the next annual work cycle
2. Any vegetation that has already encroached the MDR
   Note: For trees that may fall into or contact the line, identify:
   Dead trees or portions of tree that are rotten or weakened by decay or disease Rotten or diseased portions of otherwise healthy trees that overhang or lean (due to outside influences: soil structure, soil heaving, weather conditions, cracking, breaking, etc.) toward the line (refer to Appendix E, “Information About Tree Lean”)

VMIs must identify vegetation that will encroach or has already encroached on the MDR



Please reference the California Power Line Prevention Field Guide when conducting inspections

Level 1 visual inspection criteria

Distribution underbuilt span criteria

On distribution underbuilt spans, identify:

1. Any of the conditions mentioned previously

2. The VMI must inspect the distribution underbuilt spans as described in the document titled TD-7103P-01, “Transmission Routine (Non-Orchard) Patrol Procedure (TRPP).”

    If the VMI discovers vegetation or abnormal conditions that adversely affect transmission primary and/or secondary facilities, then the VMI must appropriately report them

Basic Assessment Overview (Level 2)

Key assessment details

A **detailed visual inspection of a tree** and surrounding site that may include the use of **simple tools**
Requires a VMI to inspect **completely around the tree trunk** looking at the visible aboveground roots, trunk, branches, and site
Level 2 inspections are **ground-based**
Perform a Level 2 inspection if a tree is suspected to have **any of the conditions found in the Hazard Trees section** of the CA Power Line Fire Prevention Field Guide

Assessment video

Note: *the examples shown below are non-exhaustive. Please use your professional judgement to determine when a Level 2 inspection is appropriate*

A tree with an insect infestation (top-left), fire damage (top-right), cracks (bottom-left), or signs of dying (bottom-right) would require a Level 2 Assessment

Overview of tree defects and site conditions

- The following tree defects and site conditions can **increase the likelihood of tree failure**
  - 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 (lean, balance, branch distribution, or lack of taper)
  - Loss of root support
  - 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
  - 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

Identifying Tree Lean

California Power Line Fire Prevention Field Guide (2021)

Trees with more than a slight lean away from utility infrastructure are unlikely to strike the infrastructure, regardless of their weight distribution

Trees exhibit corrected or uncorrected lean

Corrected lean

Usually exhibited in hardwood trees that naturally grow in a non-linear fashion or in conifers (decurrent) that grow upright (excurrent) after a force has moved the bole off vertical (like snow-loading)

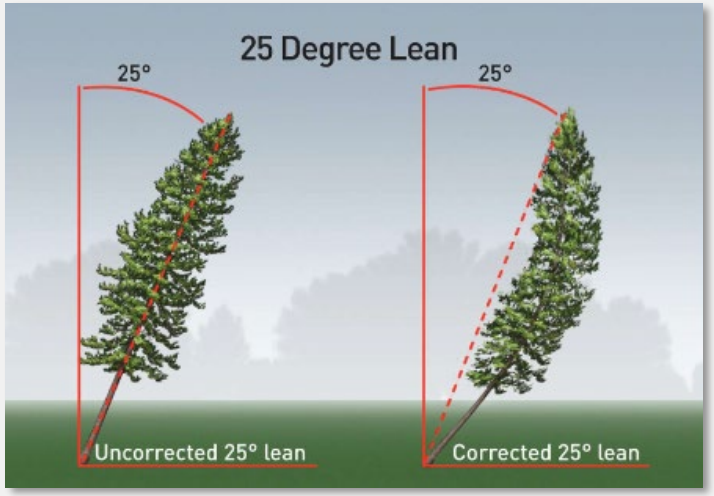
Uncorrected lean

Uncorrected lean is caused by outside factors (wind, soil conditions, etc.) that loosen or break roots

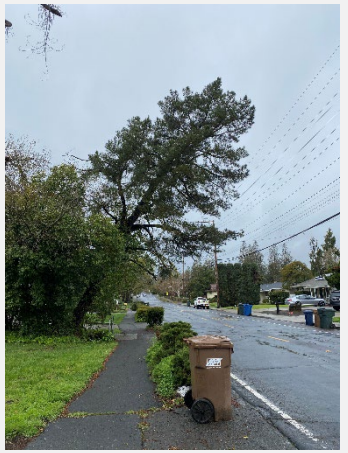
Construction activities that sever roots or strike tree butts and boles also cause trees to lean

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 tree can display either uncorrected or corrected lean



Examples of uncorrected lean (left) and corrected lean (right) from the field

Prescribing work

Using the information gathered from the Inspection and their professional judgement, the VMI must determine which of the following two options applies to the vegetation, and prescribe work in that option in the system of record:

1 Prescribing Non-EVM work:

Prescribe **removal**

If prescribing removal of a tree that may resprout or if a stump is currently resprouting, then refer to Attachment 4, “Handling Stump Resprouts”

If removal is not practical, prescribe pruning such that the tree will **maintain compliance for three annual work cycles**

If pruning to maintain compliance for three annual work cycles is not an option, then prescribe pruning such that the tree will **maintain compliance for one annual work cycle**

If pruning to maintain compliance for one annual work cycle is not an option, then **prescribe Bi-Annual Clearance**

The VPM must consider the mitigation options outlined in Attachment 5, “Bi-Annual Considerations” and determine a course of action for the tree

If the customer refuses removal and / or any pruning, then the VMI must follow the steps outlined in the document titled “Distribution Vegetation Refusal Procedure” and **escalate to the VPM**

Prescribing work

2

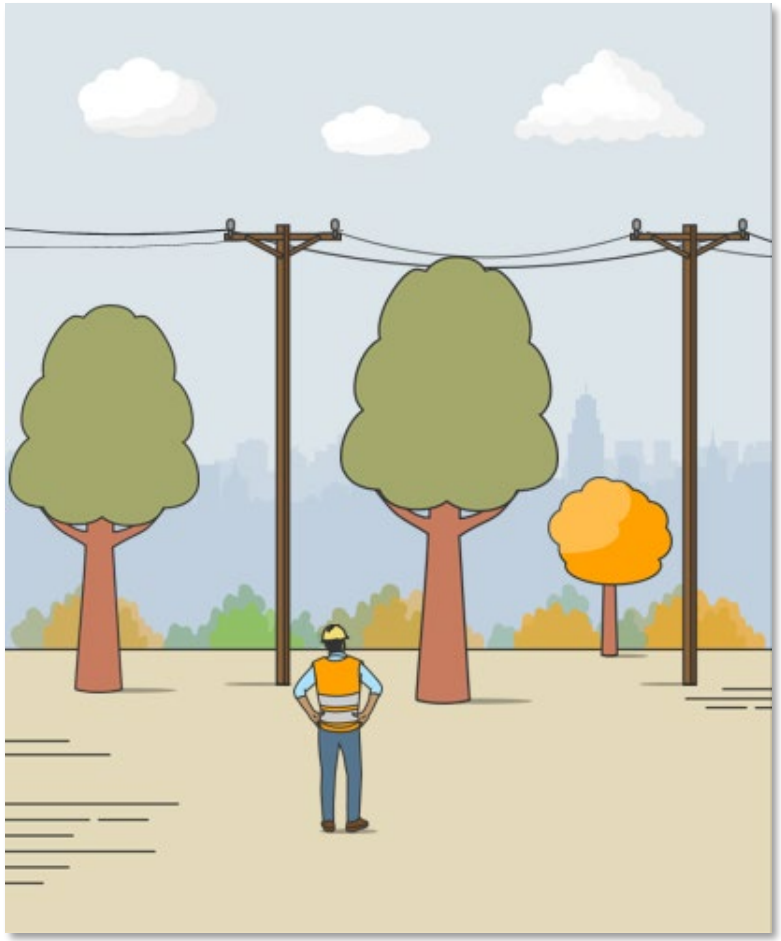
Prescribing work to maintain EVM clearances:

VMIs must prescribe work to maintain the following EVM clearances for the entire segment:

A clear vertical plane (clear to sky) of **a minimum of 4 ft. from the outside conductor**

EVM-required radial clearances of a **minimum of 12 ft.** at time of trim

Conditions for Non-EVM work



Prescribe Non-EVM work if any of the following characteristics are present:

1. Has the potential to **encroach within minimum distances** required to maintain compliance with G.O. 95, Rule 35, or PRC 4293 (see Appendix A, Minimum Distance Requirements (MDRs)
2. Shows **evidence of creating strain or abrasion** on secondary lines, or may fall into or otherwise impact secondary conductors
3. Is **dead or has portions of it that are dead**, rotten, or weakened by decay or disease and overhangs or leans towards and may fall into or contact the line from the side
4. Is **healthy but has one or more portions that are rotten** or diseased, and overhangs or leans toward and may fall into or contact the line from the side

KEY CHANGE:
Prescription: Reason for Tree Removal

UWC (regardless of size class) that needs prescription reasons:

Fell Tree	Major Dismantle	Brush Clear to Ground

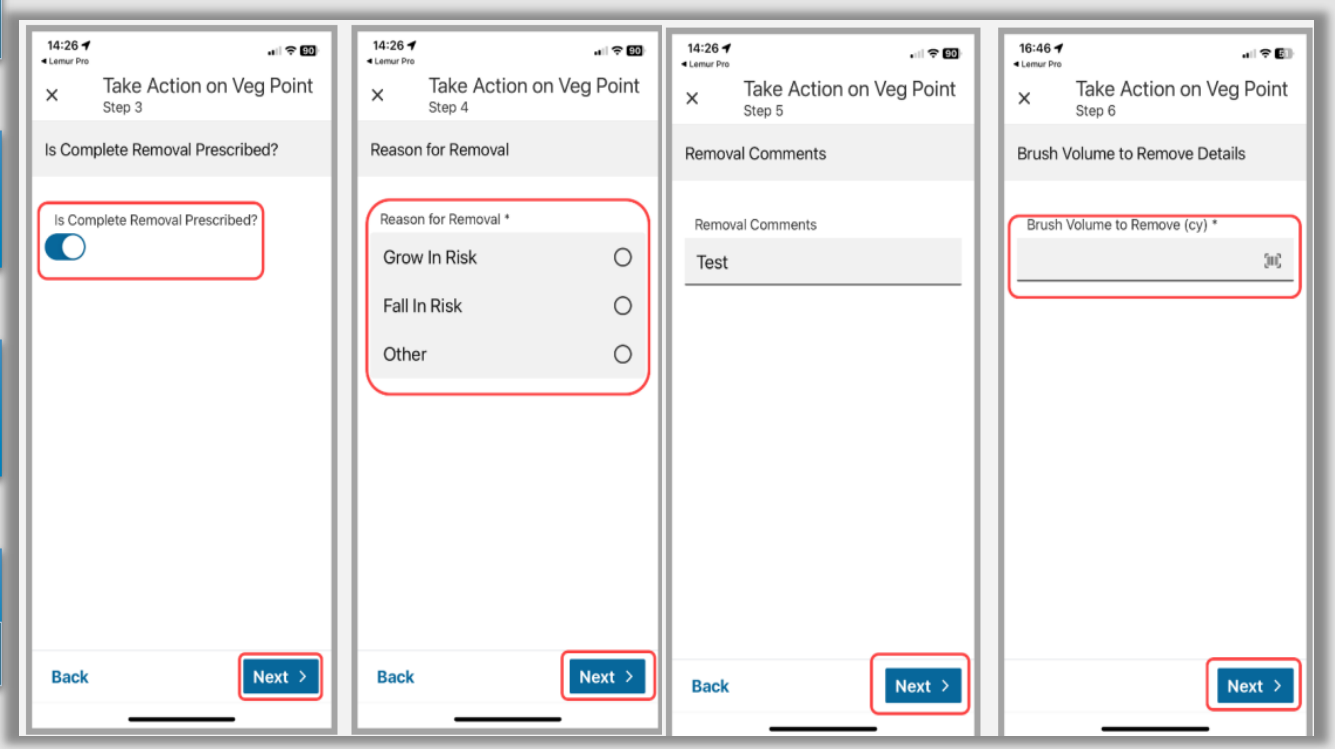
When selecting a Prescription Action resulting in removal, toggle “Is Complete Removal prescribed?” Select next

Provide Reason for Removal. Select Next

Enter Removal Comments. Select Next

Likely Limb Failure	Likely Trunk Failure	Likely Root Failure

If it is a brush removal you will enter the Brush Volume to Remove Details. Then Select Next



Attachment 5 – Bi-Annual Tree Mgmt. and Reduction Strategy

A bi-annual tree is a tree that cannot be prescribed enough clearance to maintain one-year compliance and no other alternatives are available. The purpose of the bi-annual patrol cycle is to effectively address fast growing trees that may not hold compliance for a full cycle and the customer is refusing removal of the tree(s)

VMI must determine if the prescription will achieve enough clearance to maintain the MDR based on anticipated growth rates to the next annual work cycle

If one year clearance can be achieved

VMI must prescribe the tree for routine priority

If one year clearance cannot be achieved

VMI must attempt to notify customer of any and all work

If the customer refuses removal, then the VMI must contact the Pre-Inspection Manager (PIM) then the PIM must follow the steps in Utility Procedure TD-7102P-04, “Distribution Vegetation Refusal Procedure” and escalate to vegetation program manager (VPM)

The PIM and the Vegetation Program Manager (VPM) must consider the mitigation options and determine a course of action for the tree

If the tree cannot maintain compliance on a bi-annual work schedule, then the PIM and VPM must pursue removal

If the VPM approves the tree for bi-annual patrol, then the VMI/PIM must prescribe the bi-annual priority

Marking a Tree (1/2)

The VMI must mark the tree using either (1) Painting or (2) Flagging

1 Painting

- Spray the paint **near the base of a tree** using one of the following shapes

A dot for pruning

X **An "X" for removal**

- When Painting a mark, use the following guidelines
  - The best location for marking is **above surrounding vegetation** (grass and bushes) and **above any expected snowline**
  - The best location for marking is **on the side that a tree crew will likely see first**
  - Spray **new marks over any marks from previous years**, but with some of the **older mark still showing**

Note: *Painting is the preferred method, and flagging should only be used if painting is not possible*

Marking a Tree (2/2)

The VMI must mark the tree using either (1) Painting or (2) Flagging

1 Flagging

Securely attach flagging that will help the tree crew identify the tree

- Place flag on trunk for trees to be cut down
- Place flag on branch for trees to be pruned

3 Cannot Paint or Flag

Update the tree record with the code **CNP** (cannot paint) or **CNF** (cannot flag) and a description of the tree's location within the span

Tree Marking Colors

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, 2030 Transmission program years: 2023, 2027, 2031	Light Green		Nelson Aero Spot: Lite Green	
Distribution program years: 2022, 2026, 2028 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 Second patrol / CEMA	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	
Work verification	Pink with a pattern		*Flagging only*	

Attachment 3 - Identifying Major Woody Stems

A tree must meet all of the following criteria in order to qualify for a major woody stem exemption:

1. Wood is more than **6 in. from high voltage conductors**
2. There is **no evidence of prior contact** between any portion of the tree branches or trunk and the conductor, including abrasion and/or incidental contact
3. The tree has been established in its current location for **at least 10 years**
4. The tree is **at least 10 in. in diameter** at breast height (DBH)
5. The tree or limb at the conductor level is at least **6 in. in diameter**
6. The tree is **not resprouting** at the conductor level at the time of inspection
7. The tree is **not easily climbable** (i.e., has scaffold branches present below 8.5 ft. from the ground)
8. The tree is **not hazardous** per TD-7102P-17, “Vegetation Management Priority Tag Procedure”

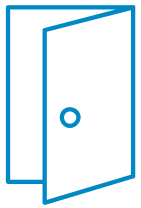
Attachment 4 – Handling Stump Resprouts

A VMI must perform the following steps:

1. Verify stump death of past removals from previous patrols for all re-sprouting species during current routine patrol
2. Attempt to get permission when using herbicides if you don't prescribe for routine work
3. List all re-sprouting stumps for tree re-work in the system of record when following conditions are met:
    - Stump is or will become a compliance issue in the future, regardless of time frame
    - Herbicide treatment was prescribed and customer, agency, or local ordinances approve the herbicide application
    - Herbicide will not translocate to other living vegetation
    - Re-sprouts are not root sprouts
4. Delete the tree record when the stump is verified as dead
5. Notify the customer of re-treat in person or with door card
6. When the TC notifies the VMI of locations where herbicide treatments cannot be applied, update the system of record and add comments

Customer / Property Owner Notification

Step 1: VMI should attempt to contact the customer / property owner directly and describe the work to be performed

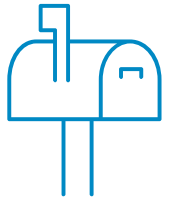


Direct contact in person

Phone calls

Email

Door hanger



Letters

Step 2: If the customer / property owner does not respond to the first contact attempt, try to contact two more times (total of three times)

Step 3: If the customer / property owner does not acknowledge the receipt of information, enter the details and methods of the notification attempts into the system of record

Door Hanger Details

Standard door hanger

Notice of Tree Work door hanger

If a VMI elects to leave a door hanger, they must choose one of the two hangers available (shown on the left) and ensure that the following information is provided:

Property Address

Parcel ID

Trees identified to be worked

Expectations after tree work is done (e.g., wood management)

Questions and details of PG&E representative

Outside Observer Findings and Lessons Learned

Note: *Below is findings from all outside observation teams and an opportunity for VM to continuously improve. This includes Distribution, FTI, VMOM and TRI observations.*

Category	Key Findings	Key Learning/Improvement Opportunity
Will not hold / Missed MDR Overhang Radial Clearance	Radial Clearance will not hold until next work cycle Currently not meeting MDR EVM not maintained	• Follow Inspection Procedure section 4 regarding prescribing work • Prescribe maximum clearance able to obtain • Look for tree defects that may cause a limb to cross MDR • Check for potential overhang • **Reminder**: Inspect Vegetation that has or may encroach the MDR, based on anticipated growth rates before the next annual work cycle (see Appendix A, Minimum Distance Requirements [MDR]) and considering normal weather patterns for the local area or line position or line conditions.
Fall In Trees Hazard Tree Overhang	Missed defects Lean Dead limbs Hazard Trees	• Closely review list of Appendix B • Perform a quality Level 1 • Perform Level 2 more often when identify defects • **Reminder**: Inspect Vegetation (categorized as either a whole tree or portion of tree) that may fall into or otherwise impact PG&E electric facilities.
Strain/Abrasion On Secondary	Contact points on secondary Guy wire strain	• Review what to inspect sections of procedures • **Reminder**: Inspect **ANY** vegetation that is causing significant strain or abrasion to the secondary conductors (excluding service drops). INSPECT **ALL** Idle lines as if they are energized.
Pre-Inspection Error	Procedure not followed Missing LAN ID Missing information in record Unable to locate Incorrect status of VP	• Follow procedure and ALL attachments • Review this training and procedures often • Update all required fields in system of record • Provide clear comments

Focused Tree Inspection (FTI) Training

VEGM-0112

Focused Tree Inventory

Goals/intent

To maintain safe and reliable operation, the FTI program focuses Vegetation Management (VM) efforts with qualified Inspectors **during annual or second patrols** in identified **Area of Concerns (AOCs)** that have experienced higher volumes of vegetation damage and/or outages.

Reminder:
FTI is Attachment 7 of the DIP TD-7102P-01
All expectations and requirements of the DIP must be followed

Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

Target Audience

- International Society of Arboriculture (ISA) Tree Risk Assessment Qualified (TRAQ) Vegetation Management Inspectors (VMIs)
- Distribution Vegetation Management Inspectors (VMI and SVMI)
- Vegetation Program Manager (VPM)
- Execution supervision

REFER to the Target Audience section in TD-7102P-01, "Vegetation Management Distribution Inspection Procedure."

Before you Start

- All individuals must complete PG&E Academy training required for inspections prior to performing this procedure. Training expectations are available at Training Expectations SharePoint
- **Inspectors must be** International ISA Tree Risk Assessment Qualification (TRAQ)

  Individual standing must be current and on record in the appropriate PG&E system of record.
- Gather and review the following information:
  - Work packets
  - Pre-Patrol Report
  - Historical outage data
- Gather the assigned paint and flagging tape color for marking.

Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

FTI Work Locations: Areas of Concern

- An Area of Concern is a **geographical region** that is at a **high risk of having a tree-caused outage**
- The data used to identify Areas of Concern is similar to the data used to make Public Safety Power Shutoff (PSPS) decisions.
- FTI works in conjunction with Enhanced Power Safety Setting-enabled circuits to provide an extra level of protection.

Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

What to Inspect 1.1

1

INSPECT all Vegetation (categorized as either a whole tree or portion of tree) which has a likelihood of impacting PG&E electric facilities (excluding service drops).

FTI inspection should be completed during annual or second patrols in identified AOCs- to minimize customer impact

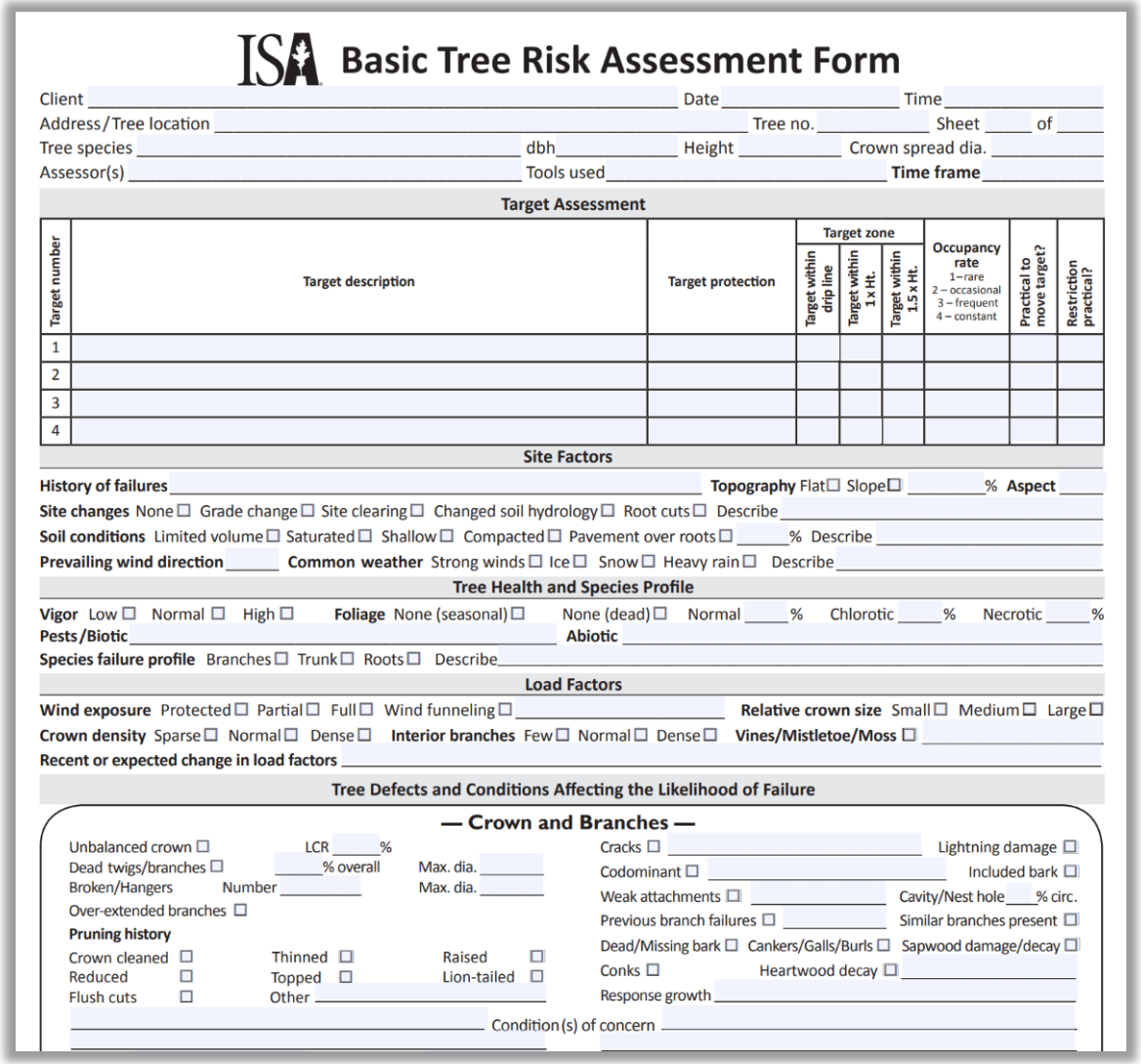
Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

Inspecting Vegetation 1.2

1. TRAQ VMI goes to location

2. PERFORM a Level 2 (Basic Tree Risk Assessment) of all Vegetation with the likelihood to impact PG&E electric facilities (excluding service drops).

- Complete Basic Tree Risk Assessment Form using a **15 Month time frame** for trees with **likelihood to impact** facilities



ISA **Basic Tree Risk Assessment Form**

Client _____ Date _____ Time _____
Address/Tree location _____ Tree no. _____ Sheet ____ of ____
Tree species _____ dbh _____ Height _____ Crown spread dia. _____
Assessor(s) _____ Tools used _____ **Time frame** _____

Target Assessment

Target number	Target description	Target protection	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare, 2–occasional, 3–frequent, 4–constant)	Practical to move target?	Restriction practical?
1								
2								
3								
4								

Site Factors

History of failures _____ **Topography** Flat☐ Slope☐ _____% **Aspect** ____
Site changes None☐ Grade change☐ Site clearing☐ Changed soil hydrology☐ Root cuts☐ Describe _____
Soil conditions Limited volume☐ Saturated☐ Shallow☐ Compacted☐ Pavement over roots☐ ____% Describe _____
Prevailing wind direction ____ **Common weather** Strong winds☐ Ice☐ Snow☐ Heavy rain☐ Describe _____

Tree Health and Species Profile

Vigor Low☐ Normal☐ High☐ **Foliage** None (seasonal)☐ None (dead)☐ Normal ____% Chlorotic ____% Necrotic ____%
Pests/Biotic _____ **Abiotic** _____
Species failure profile Branches☐ Trunk☐ Roots☐ Describe _____

Load Factors

Wind exposure Protected☐ Partial☐ Full☐ Wind funneling☐ _____ **Relative crown size** Small☐ Medium☐ Large☐
Crown density Sparse☐ Normal☐ Dense☐ **Interior branches** Few☐ Normal☐ Dense☐ **Vines/Mistletoe/Moss** ☐ _____
Recent or expected change in load factors _____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

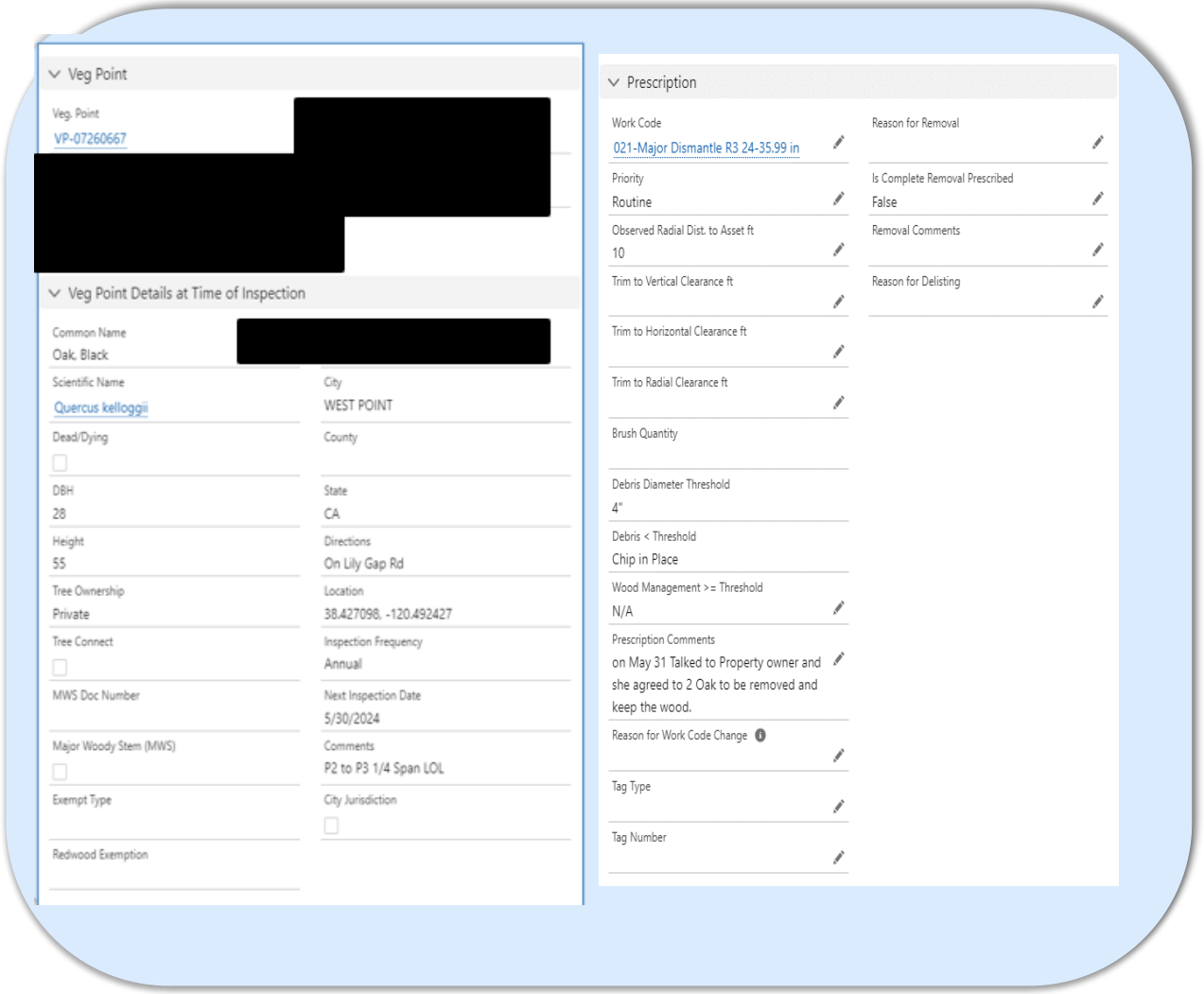
Unbalanced crown ☐ LCR ____% Cracks ☐ _____ Lightning damage ☐
Dead twigs/branches ☐ ____% overall Max. dia. _____ Codominant ☐ _____ Included bark ☐
Broken/Hangers Number _____ Max. dia. _____ Weak attachments ☐ _____ Cavity/Nest hole ____% circ.
Over-extended branches ☐ Previous branch failures ☐ _____ Similar branches present ☐
Pruning history Dead/Missing bark ☐ Cankers/Galls/Burls ☐ Sapwood damage/decay ☐
Crown cleaned ☐ Thinned ☐ Raised ☐ Conks ☐ Heartwood decay ☐ _____
Reduced ☐ Topped ☐ Lion-tailed ☐ Response growth _____
Flush cuts ☐ Other _____
_____ Condition(s) of concern _____

Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

Prescribing Work 1.3

1. Using the Information gathered in the Basic Tree Risk Assessment Form and their professional judgement, the TRAQ VMI must
2. DETERMINE which mitigation option applies to the vegetation (whole or part of the tree)
3. Prescribe work in the system of record. (One VM)

Drop a Veg Point and create a record in One VM for each tree inspected and upload the TRAQ form to the corresponding record



Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

Marking a Tree – SAME Distribution

The VMI must mark the tree using either (1) Painting or (2) Flagging

1 Painting

- Spray the paint **near the base of a tree** using one of the following shapes

A dot for pruning

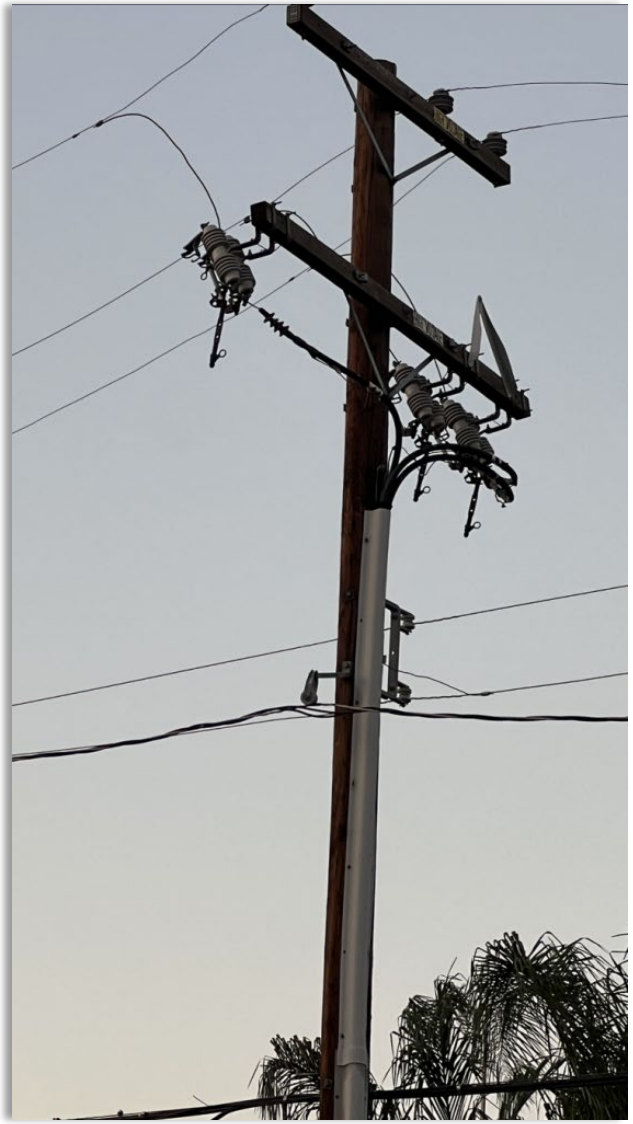
X

An "X" for removal

- When Painting a mark, use the following guidelines
  - The best location for marking is **above surrounding vegetation** (grass and bushes) and **above any expected snowline**
  - The best location for marking is **on the side that a tree crew will likely see first**
  - Spray **new marks over any marks from previous years**, but with some of the **older mark still showing**

Note: *Painting is the preferred method, and flagging should only be used if painting is not possible*

Key Definitions 1/3



Facilities

The components of the electric **distribution** overhead system, including pole/support structure, primary conductors [4 kilovolts (kV) and less than 60 kV – with the majority being between 4 kV to 21 kV], voltage regulating equipment, switching equipment, transformers, and secondary conductors (operates under 750 V and supply ranging from 120 V to 480 V). Refer to TD-8105, "Distribution Line Overhead Asset Management Plan" for additional details

Key Definitions 2/3

Time frame

Period in which you are estimating the likelihood of failure. Time frame is essential when rating the likelihood of failure with all categories except ***imminent***, which has a different time frame (very soon).

For FTI our Time frame is **15 months**

Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

Key Definitions 3/3

Likelihood of Impact:

When determining the likelihood of impact to PG&E electric facilities, the inspector should consider factors including **tree height, lean, weight distribution, and whether the tree has a path to the conductors**. If a tree cannot impact PG&E electric facilities during reasonably foreseeable conditions, it is not hazardous to it.

- The target zone (where tree failures may have impacts) is typically defined in terms of distance from conductors.

- For a branch failure, the target zone is the area in which the branch could strike and is evaluated using the same general principles. Reference the Cal Fire Power Line Fire Prevention Field Guide for full definition Pg. 43 “Steps to Inspection”.

Procedure Revisions 2023 to 2024

Significant Changes in FTI

OLD	New
1.1, 1.2.1-2 Inspect Primary facilities and Secondary conductors	1.1 Inspect Primary and Secondary facilities for all vegetation that has **likelihood of impact**.
1.2.3 Perform level 1 assessment of all trees then perform a level 2 inspection to trees with listed hazard conditions	1.2 Perform a **level 2** assessment and complete a basic tree risk assessment form for all trees with likelihood to impact facilities
1.2.4 Continue with inspection if work is not necessary to maintain safety and compliance as listed	1.3 Create a record for all trees inspected with a basic tree risk assessment form for **both** no work trees and trees requiring work.
Table 1-4 Program applies increased scrutiny to specific trees of concern	1.2 Use the Basic Tree Risk Assessment form for **all trees** with likelihood of impact
	1.4, 1.5 Align with DIP for marking Trees and Notifying Customers

Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

Summary

- Inspections take place in Areas of Concern
- Conduct a level 2 assessment on every tree with likelihood of impact
- Use a Time frame of 15 months
- Drop a new point and create a new record for every tree inspected
- Fill out a Basic Tree Risk Assessment for every tree inspected
- Can be done concurrently with other patrols

Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

Quiz questions for FTI

Scan the QR code shown on the screen

Tree Removal Inventory (TRI) Training

VEGM-0111

Tree Removal Inventory

The program focuses on vegetation points identified by the Enhanced Vegetation Management (EVM), Accelerated Wildfire Risk Reduction (AWRR) programs and other known populations to reduce the risk of wildfire due to vegetation.

Reminder:
TRI is Attachment 6 of the DIP TD-7102P-01
All expectations and requirements of the DIP must be followed

Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

Target Audience

- Distribution Vegetation Management Inspectors (VMI and SVMI)
- International Society of Arboriculture (ISA) Tree Risk Assessment Qualified (TRAQ) Vegetation Management Inspectors (VMIs)
- Vegetation Program Manager (VPM)
- Execution supervision

REFER to the Target Audience section in TD-7102P-01, "Vegetation Management Distribution Inspection Procedure."

Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

Before you Start

- All individuals must complete PG&E Academy training required for inspections prior to performing this procedure. Training expectations are available at Training Expectations SharePoint
- For TRAQ VMI, confirm International ISA Tree Risk Assessment Qualification (TRAQ) is current and on record in the appropriate system of record.
- Gather and review the following information:
  - Work packets
  - Pre-Patrol Report
  - Historical outage data
- Gather the assigned paint and flagging tape color for marking.

What to Inspect

In-scope trees are grouped into two categories for the purposes of this attachment:

- Vegetation with TAT results of ABATE
- Vegetation with TAT results other than abate *(this includes Vegetation prior to TAT implementation)*

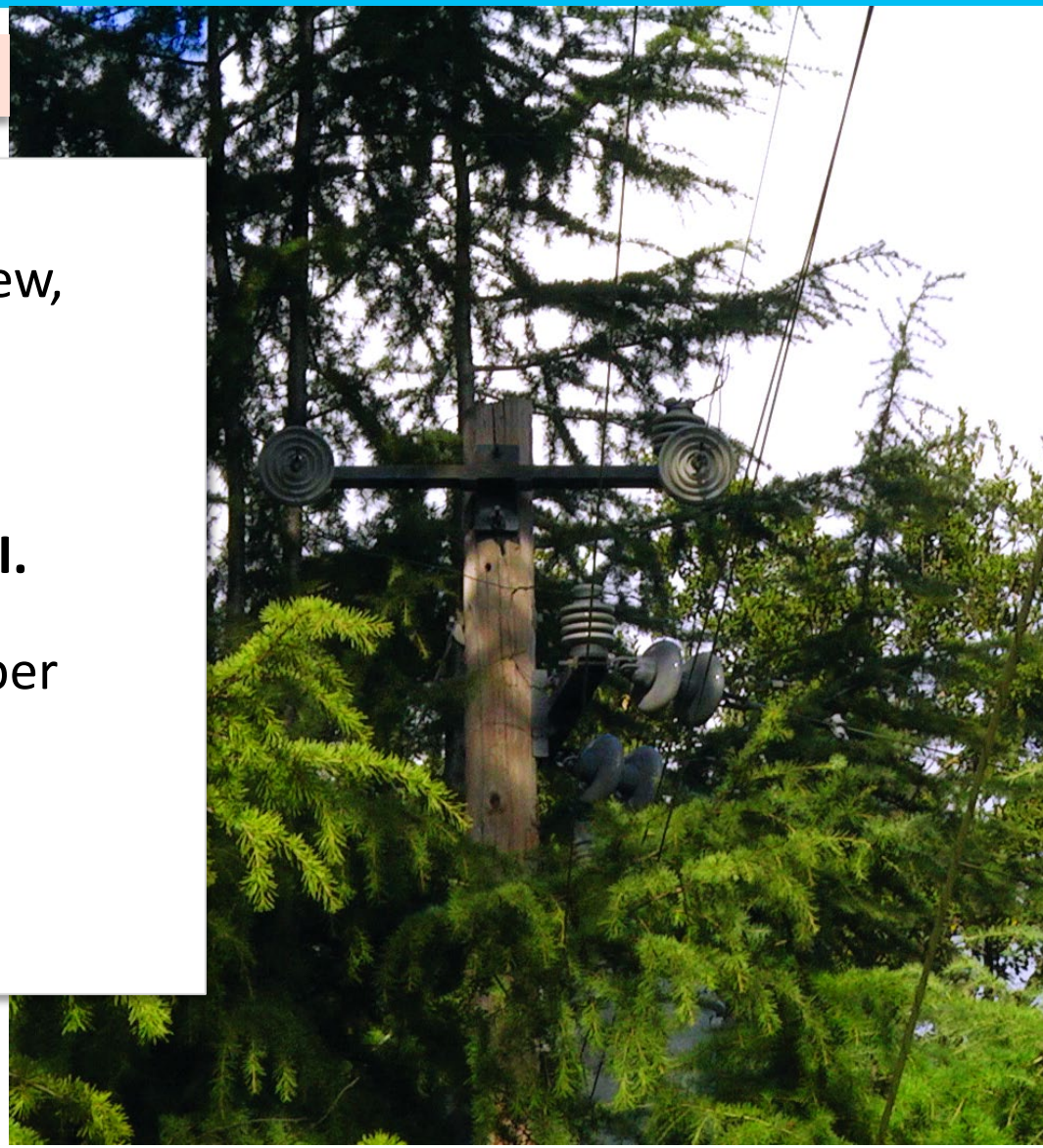
- Each vegetation point must be inspected, either through desktop review or field review, and the system of record updated.

Reminder:
Tree Assessment Tool (TAT) – **Retired** Tool that evaluated an individual tree's likelihood of failing and supplied instruction of whether to abate or not abate the tree

TRI Process: Inspecting Vegetation

NOTE

- IF through inspection by VMI or desktop review, a local operation team determines that a vegetation point is ready for tree crew assignment, **THEN no further inspection is necessary. This DOES NOT require TRAQ VMI.**
- The **prescription field will require updating** per the new Unified Work Codes implemented in 2023.
- Work can be assigned directly to a tree crew.



Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

Performing an Inspection

The VMI (or TRAQ VMI) must **GO TO** their first vegetation point assigned.

- **Re-inspections must be performed physicall** at each tree location assigned
- Utilize tree location comments to help locati trees
- Update **Field Maps** on-site during assessment

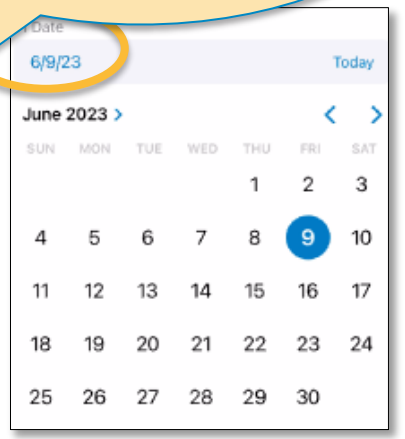
Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

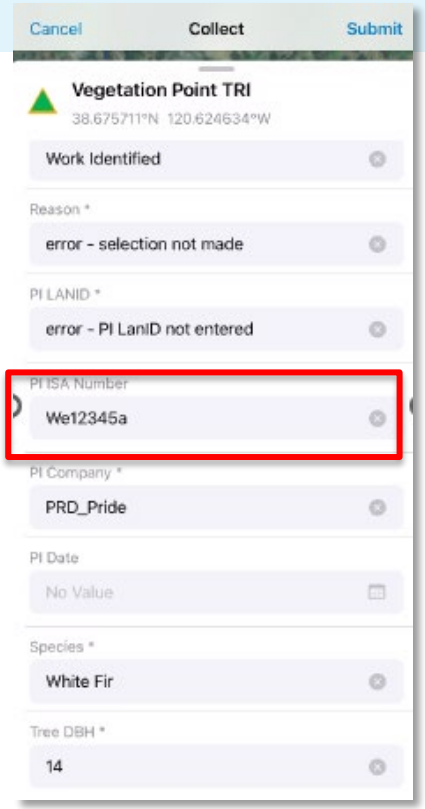
Field Maps: Required Updates

Every inspection or desktop review must have the following fields must be updated in Field Maps

- **Date:** Date of Inspection
- **PI Company:** With VMI Company Name
- **PI LAN ID**: LAN ID of the VMI (REPLACE ANY EXISTING VALUE)
- **PI ISA Number**: ISA number of the VMI (or TRAQ VMI, if applicable)
- **Wood Management Needed:** Update appropriately based on result

Quality 9% failure rate
Inspector not documenting ISA Credentials
NOTE: enhancement in the future





Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

Performing and Inspection

For each Vegetation Point - Determine if one of the following exist:

1. The tree is NOT present.
2. There are no longer any above-ground facilities present for the tree to impact
3. The Vegetation Point exists with facilities intact, and the Vegetation Point has a TAT result of ABATE.
4. The Vegetation Point exists with facilities intact, and the Vegetation Point has a TAT result other than ABATE

For each of the field conditions above, follow the following actions in the next slides

Tree is No Longer Present

Field Condition:

The tree is NOT present., update Field Maps as follows.

- **Reason:** Tree Has Already Been Removed
- **VP Status:** No Work Required
- **Prescription:** No Work Required
- **PI Lan ID**: VMI's Lan ID
- **PI ISA Number:** VMI's ISA number

Facilities No Longer Exist in the Field

Field Condition:

There are no longer any above-ground facilities present for the tree to impact.

Update Field Maps as follows:

- **Reason:** Line Does Not Exist
- **VP Status:** No Work Required
- **Prescription:** No Work Required
- **PI Lan ID**: VMI's Lan ID
- **PI ISA Number:** VMI's ISA number

The TREE exists and has a TAT result of ABATE

Field Condition:

The TREE exists, facilities intact and the TREE has a TAT result of ABATE

Update Field Maps as follows:

- **Reason** Tree Still Requires Work
- **VP Status:** Work Identified
- **Prescription:** UPDATE the **PRESCRIPTION** field to the correct unified WORK CODE
- **PI Lan ID**: VMI's Lan ID
- **PI ISA Number:** VMI's ISA number

The TREE exists and has a TAT result of other than ABATE

Field Condition:

Inspection shows that the facilities exist and the tree is still present with TAT result of **other than** Abate

In these situations, there are two possible paths to follow:

Path 1:

Inspection by VMI

Path 2:

Inspection by TRAQ VMI

VMI Inspecting: Vegetation Points that has a TAT Result of Other Than Abate

The VMI does not believe that the tree is likely to impact the facilities.

Therefore, a TRAQ VMI must INSPECT the tree.

Update Field Maps as follows:

- **Status**: “Hold”
- **Reason**: “Requires Reassessment by TRAQ VMI”
- **Constraint**: “Pending TRAQ Reassessment
- **PI Lan ID**: VMI’s Lan ID
- **PI ISA Number:** VMI’s ISA number

Inspecting: Vegetation Points that has a TAT Result of Other Than Abate

A VMI or TRAQ VMI DETERMINES the same work is needed.

Update Field Maps as follows:

- UPDATE the **PRESCRIPTION** field to the correct unified WORK CODE.
- **Status**: “Work Identified”
- **Reason**: “Tree Still Requires Work”
- **PI Lan ID**: VMI’s Lan ID
- **PI ISA Number:** VMI’s ISA number

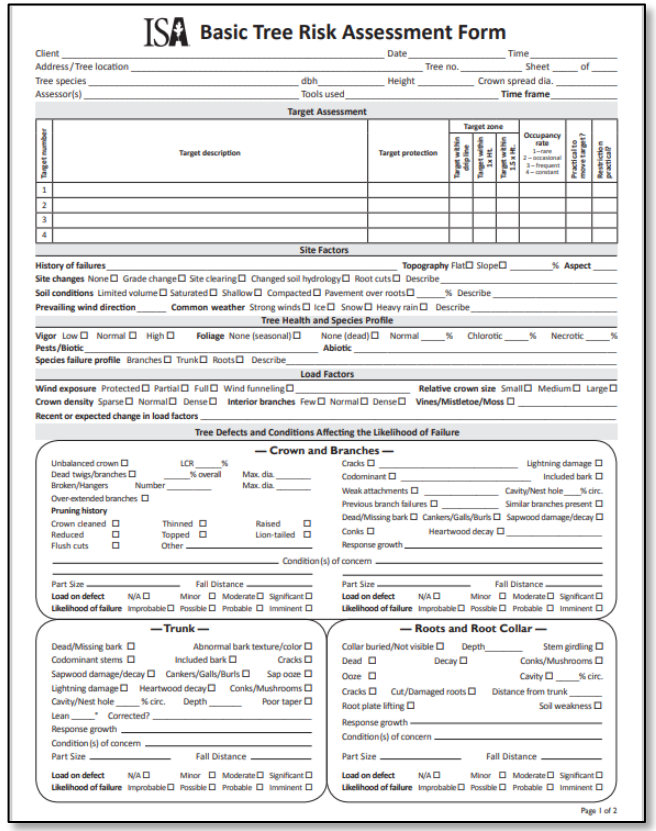
NOTE: This inspection may be done as an individual assessment OR after being assigned the location from a VMI based on “HOLD” status

Vegetation Points with TAT other than Abate (1.2.4)

TRAQ VMI DETERMINES the work needed is a CHANGE from the original prescription

After completing a Level 2 inspection and completing the Basic Tree Risk Assessment Form update field maps as follows:

- UPDATE the PRESCRIPTION field to the new unified WORK CODE.
- VP Status: “Work Identified”
- Reason: “Tree Still Requires Work”
- **UPLOAD** a photograph of the completed Basic Tree Risk Assessment Form to the vegetation point in Field Maps.



ISA Basic Tree Risk Assessment Form

Client _____ Date _____ Time _____
Address / Tree location _____ Tree no. _____ Sheet ____ of ____
Tree species _____ dbh _____ Height _____ Crown spread dia. _____
Assessor(s) _____ Tools used _____ Time frame _____

Target Assessment

Target number	Target description	Target protection	Target zone: Target within drip-line	Target within 1x ht.	Target within 3 x ht.	Occupancy rate (1—rare, 2—occasional, 3—frequent, 4—constant)	Practical to move target?	Restriction practical?
1								
2								
3								
4								

Site Factors

History of failures _____ Topography Flat ☐ Slope ☐ _____% Aspect ____
Site changes None ☐ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe _____
Soil conditions Limited volume ☐ Saturated ☐ Shallow ☐ Compacted ☐ Pavement over roots ☐ ____% Describe _____
Prevailing wind direction _____ Common weather Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ☐ Normal ☐ High ☐ Foliage None (seasonal) ☐ None (dead) ☐ Normal ____% Chlorotic ____% Necrotic ____%
Pests / Biotic _____ Abiotic _____
Species failure profile Branches ☐ Trunk ☐ Roots ☐ Describe _____

Load Factors

Wind exposure Protected ☐ Partial ☐ Full ☐ Wind funneling ☐ _____ Relative crown size Small ☐ Medium ☐ Large ☐
Crown density Sparse ☐ Normal ☐ Dense ☐ Interior branches Few ☐ Normal ☐ Dense ☐ Vines/Mistletoe/Moss ☐ _____
Recent or expected change in load factors _____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ☐ LCR ____% Cracks ☐ _____ Lightning damage ☐
Dead twigs/branches ☐ ____% overall Max. dia. _____ Codominant ☐ _____ Included bark ☐
Broken/Hangers Number _____ Max. dia. _____ Weak attachments ☐ _____ Cavity/Nest hole ____% circ.
Over-extended branches ☐ Previous branch failures ☐ _____ Similar branches present ☐
Pruning history Dead/Missing bark ☐ Cankers/Galls/Burls ☐ Sapwood damage/decay ☐
Crown cleaned ☐ Thinned ☐ Raised ☐ Conks ☐ Heartwood decay ☐ _____
Reduced ☐ Topped ☐ Lion-tailed ☐ Response growth _____
Flush cuts ☐ Other _____
Condition(s) of concern _____

Part Size _____ Fall Distance _____
Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☐
Likelihood of failure Improbable ☐ Possible ☐ Probable ☐ Imminent ☐

Part Size _____ Fall Distance _____
Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☐
Likelihood of failure Improbable ☐ Possible ☐ Probable ☐ Imminent ☐

— Trunk —

Dead/Missing bark ☐ Abnormal bark texture/color ☐
Codominant stems ☐ Included bark ☐ Cracks ☐
Sapwood damage/decay ☐ Cankers/Galls/Burls ☐ Sap ooze ☐
Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ☐
Cavity/Nest hole ____% circ. Depth _____ Poor taper ☐
Lean ____° Corrected? _____
Response growth _____
Condition(s) of concern _____
Part Size _____ Fall Distance _____
Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☐
Likelihood of failure Improbable ☐ Possible ☐ Probable ☐ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ☐ Depth _____ Stem girdling ☐
Dead ☐ Decay ☐ Conks/Mushrooms ☐
Ooze ☐ Cavity ☐ ____% circ.
Cracks ☐ Cut/Damaged roots ☐ Distance from trunk _____
Root plate lifting ☐ Soil weakness ☐
Response growth _____
Condition(s) of concern _____
Part Size _____ Fall Distance _____
Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☐
Likelihood of failure Improbable ☐ Possible ☐ Probable ☐ Imminent ☐

Page 1 of 2

NOTE: No other photos should be uploaded for the vegetation point, except the Basic Tree Assessment form
This inspection may be done as an individual assessment OR after being assigned the location from a VMI based on “HOLD” status.

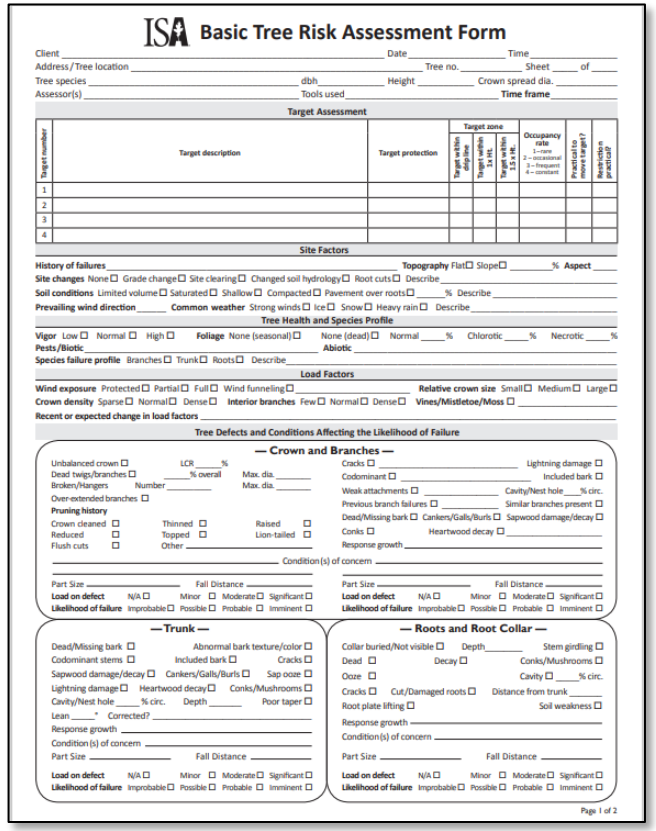
Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

Vegetation Points with TAT other than Abate (1.2.4)

The TRAQ VMI DETERMINES that NO WORK is required.

PERFORM a Basic Tree Risk Assessment (Level 2) using the Basic Tree Risk Assessment Form. AND update field maps as follows:

- Status: No Work Required
- Reason: “Reassessed by TRAQ VMI” or “NO STRIKE POTENTIAL
- Prescription: No Work Needed” OR “NO STRIKE POTENTIAL” as appropriate
- Constraint: None Observed
- **UPLOAD** a photograph of the completed Basic Tree Risk Assessment Form to the vegetation point in Field Maps.



ISA Basic Tree Risk Assessment Form

Client _____ Date _____ Time _____

Address / Tree location _____ Tree no. _____ Sheet ____ of ____

Tree species _____ dbh _____ Height _____ Crown spread dia. _____

Assessor(s) _____ Tools used _____ Time frame _____

Target Assessment

Target number	Target description	Target protection	Target zone: Target within drip line	Target within 1x ht.	Target within 1.5 x ht.	Occupancy rate (1 – rare, 2 – occasional, 3 – frequent, 4 – constant)	Practical to move target?	Restriction practical?
1								
2								
3								
4								

Site Factors

History of failures _____ Topography Flat ☐ Slope ☐ _____% Aspect _____

Site changes None ☐ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe _____

Soil conditions Limited volume ☐ Saturated ☐ Shallow ☐ Compacted ☐ Pavement over roots ☐ _____% Describe _____

Prevailing wind direction _____ Common weather Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ☐ Normal ☐ High ☐ Foliage None (seasonal) ☐ None (dead) ☐ Normal _____% Chlorotic _____% Necrotic _____%

Pests / Biotic _____ Abiotic _____

Species failure profile Branches ☐ Trunk ☐ Roots ☐ Describe _____

Load Factors

Wind exposure Protected ☐ Partial ☐ Full ☐ Wind funneling ☐ _____ Relative crown size Small ☐ Medium ☐ Large ☐

Crown density Sparse ☐ Normal ☐ Dense ☐ Interior branches Few ☐ Normal ☐ Dense ☐ Vines/Mistletoe/Moss ☐ _____

Recent or expected change in load factors _____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ☐ LCR _____% Cracks ☐ _____ Lightning damage ☐

Dead twigs/branches ☐ _____% overall Max. dia. _____ Codominant ☐ _____ Included bark ☐

Broken/Hangers Number _____ Max. dia. _____ Weak attachments ☐ _____ Cavity/Nest hole ____% circ.

Over-extended branches ☐ Previous branch failures ☐ _____ Similar branches present ☐

Pruning history Dead/Missing bark ☐ Cankers/Galls/Burls ☐ Sapwood damage/decay ☐

Crown cleaned ☐ Thinned ☐ Raised ☐ Conks ☐ Heartwood decay ☐ _____

Reduced ☐ Topped ☐ Lion-tailed ☐ Response growth _____

Flush cuts ☐ Other _____ Condition(s) of concern _____

Part Size _____ Fall Distance _____ Part Size _____ Fall Distance _____

Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☐ Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☐

Likelihood of failure Improbable ☐ Possible ☐ Probable ☐ Imminent ☐ Likelihood of failure Improbable ☐ Possible ☐ Probable ☐ Imminent ☐

— Trunk —

Dead/Missing bark ☐ Abnormal bark texture/color ☐

Codominant stems ☐ Included bark ☐ Cracks ☐

Sapwood damage/decay ☐ Cankers/Galls/Burls ☐ Sap ooze ☐

Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ☐

Cavity/Nest hole _____% circ. Depth _____ Poor taper ☐

Lean _____° Corrected? _____

Response growth _____

Condition(s) of concern _____

Part Size _____ Fall Distance _____

Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☐

Likelihood of failure Improbable ☐ Possible ☐ Probable ☐ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ☐ Depth _____ Stem girdling ☐

Dead ☐ Decay ☐ Conks/Mushrooms ☐

Ooze ☐ Cavity ☐ ____% circ.

Cracks ☐ Cut/Damaged roots ☐ Distance from trunk _____

Root plate lifting ☐ Soil weakness ☐

Response growth _____

Condition(s) of concern _____

Part Size _____ Fall Distance _____

Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☐

Likelihood of failure Improbable ☐ Possible ☐ Probable ☐ Imminent ☐

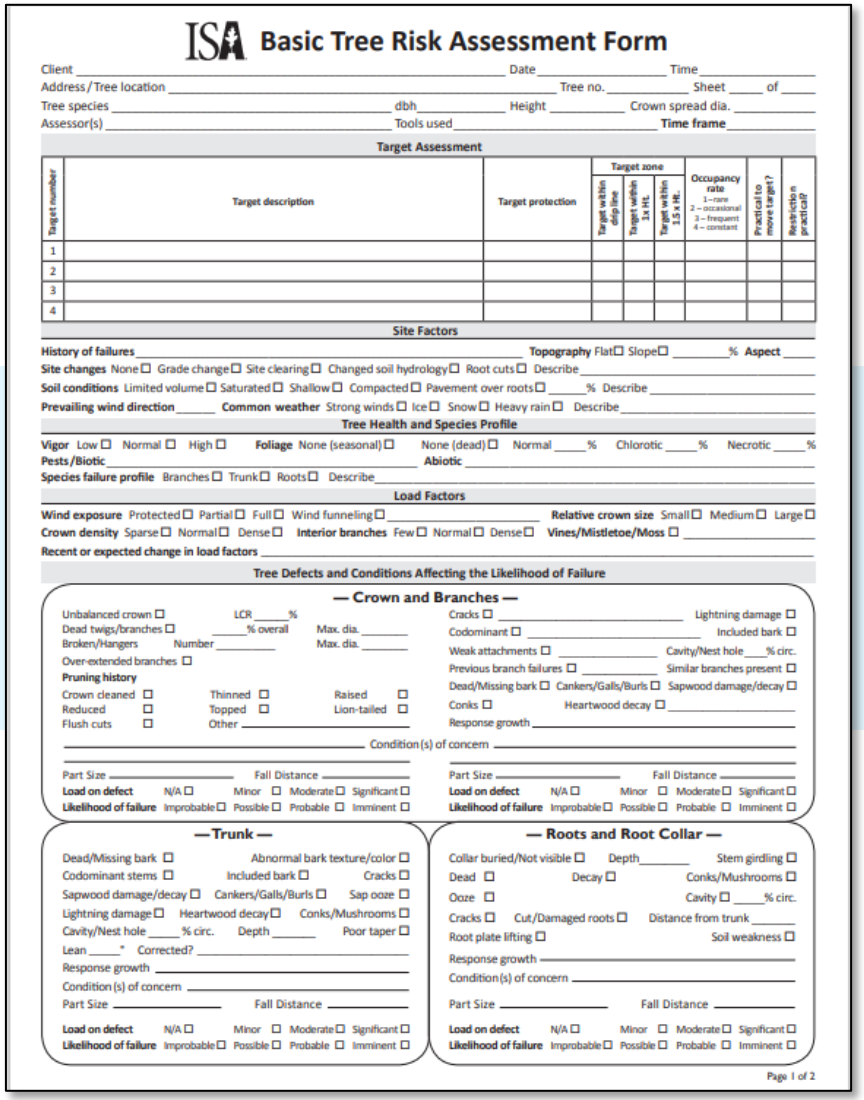
Page 1 of 2

No other photos should be uploaded for the vegetation point, except the Basic Tree Assessment form

Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

Basic Tree Risk Assessment Form

Only **TRAQ VMI** can complete a Basic Tree Risk Assessment Form and upload to the Vegetation Point in Field Maps.



ISA **Basic Tree Risk Assessment Form**

Client _____ Date _____ Time _____
Address / Tree location _____ Tree no. _____ Sheet ____ of ____
Tree species _____ dbh _____ Height _____ Crown spread dia. _____
Assessor(s) _____ Tools used _____ **Time frame** _____

Target Assessment

Target number	Target description	Target protection	Target zone: Target within dripline	Target zone: Target within 1x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1 – rare, 2 – occasional, 3 – frequent, 4 – constant)	Practical to move target?	Restriction practical?
1								
2								
3								
4								

Site Factors

History of failures _____ **Topography** Flat ☐ Slope ☐ _____% **Aspect** ____
Site changes None ☐ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe _____
Soil conditions Limited volume ☐ Saturated ☐ Shallow ☐ Compacted ☐ Pavement over roots ☐ _____% Describe _____
Prevailing wind direction _____ **Common weather** Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ☐ Normal ☐ High ☐ **Foliage** None (seasonal) ☐ None (dead) ☐ Normal ____% Chlorotic ____% Necrotic ____%
Pests / Biotic _____ **Abiotic** _____
Species failure profile Branches ☐ Trunk ☐ Roots ☐ Describe _____

Load Factors

Wind exposure Protected ☐ Partial ☐ Full ☐ Wind funneling ☐ _____ **Relative crown size** Small ☐ Medium ☐ Large ☐
Crown density Sparse ☐ Normal ☐ Dense ☐ **Interior branches** Few ☐ Normal ☐ Dense ☐ **Vines/Mistletoe/Moss** ☐ _____
Recent or expected change in load factors _____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ☐ LCR ____% Cracks ☐ _____ Lightning damage ☐
Dead twigs/branches ☐ ____% overall Max. dia. _____ Codominant ☐ _____ Included bark ☐
Broken/Hangers Number _____ Max. dia. _____ Weak attachments ☐ _____ Cavity/Nest hole ____% circ.
Over-extended branches ☐ Previous branch failures ☐ _____ Similar branches present ☐
Pruning history Dead/Missing bark ☐ Cankers/Galls/Burls ☐ Sapwood damage/decay ☐
Crown cleaned ☐ Thinned ☐ Raised ☐ Conks ☐ Heartwood decay ☐ _____
Reduced ☐ Topped ☐ Lion-tailed ☐ Response growth _____
Flush cuts ☐ Other _____
Condition(s) of concern _____

Part Size _____ Fall Distance _____ Part Size _____ Fall Distance _____
Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☐ **Load on defect** N/A ☐ Minor ☐ Moderate ☐ Significant ☐
Likelihood of failure Improbable ☐ Possible ☐ Probable ☐ Imminent ☐ **Likelihood of failure** Improbable ☐ Possible ☐ Probable ☐ Imminent ☐

—Trunk —

Dead/Missing bark ☐ Abnormal bark texture/color ☐
Codominant stems ☐ Included bark ☐ Cracks ☐
Sapwood damage/decay ☐ Cankers/Galls/Burls ☐ Sap ooze ☐
Lightning damage ☐ Heartwood decay ☐ Conks/Mushrooms ☐
Cavity/Nest hole ____% circ. Depth _____ Poor taper ☐
Lean ____° Corrected? _____
Response growth _____
Condition(s) of concern _____
Part Size _____ Fall Distance _____
Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☐
Likelihood of failure Improbable ☐ Possible ☐ Probable ☐ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ☐ Depth _____ Stem girdling ☐
Dead ☐ Decay ☐ Conks/Mushrooms ☐
Ooze ☐ Cavity ☐ ____% circ.
Cracks ☐ Cut/Damaged roots ☐ Distance from trunk _____
Root plate lifting ☐ Soil weakness ☐
Response growth _____
Condition(s) of concern _____
Part Size _____ Fall Distance _____
Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☐
Likelihood of failure Improbable ☐ Possible ☐ Probable ☐ Imminent ☐

Page 1 of 2

Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

Certifications Survey

Based on the various expertise requirements on various programs, and as part of our training opportunities, the leadership team is asking that ALL employees scan and complete.

Marking a Tree – SAME Distribution

The VMI must mark the tree using either (1) Painting or (2) Flagging

1 Painting

- Spray the paint **near the base of a tree** using one of the following shapes

A dot for pruning

X

An "X" for removal

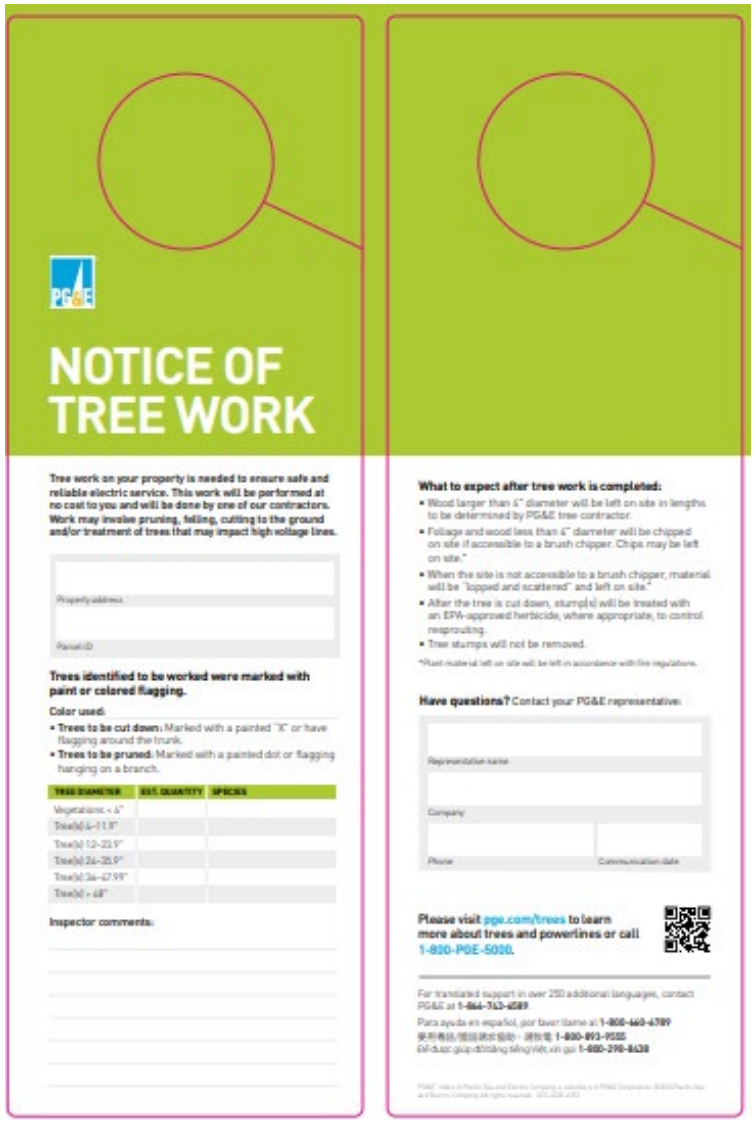
- When Painting a mark, use the following guidelines
  - The best location for marking is **above surrounding vegetation** (grass and bushes) and **above any expected snowline**
  - The best location for marking is **on the side that a tree crew will likely see first**
  - Spray **new marks over any marks from previous years**, but with some of the **older mark still showing**

Note: *Painting is the preferred method, and flagging should only be used if painting is not possible*

Marking and Customer Communication

1. Mark all trees in accordance with the DIP using routine color for the given year.

2. Notify the customer in accordance with the DIP ensuring at least 3 attempts.



NOTICE OF TREE WORK

Tree work on your property is needed to ensure safe and reliable electric service. This work will be performed at no cost to you and will be done by one of our contractors. Work may involve pruning, felling, cutting to the ground and/or treatment of trees that may impact high voltage lines.

Property address:

Parcel ID:

Trees identified to be worked were marked with paint or colored flagging.

Color used:

- **Trees to be cut down:** Marked with a painted "X" or have flagging around the trunk.
- **Trees to be pruned:** Marked with a painted dot or flagging hanging on a branch.

TREE DIAMETER	EST. QUANTITY	SPECIES
Vegetation < 4"		
Tree(s) 4–11.9"		
Tree(s) 12–23.9"		
Tree(s) 24–35.9"		
Tree(s) 36–47.99"		
Tree(s) > 48"		

Inspector comments:

What to expect after tree work is completed:

- Wood larger than 4" diameter will be left on site in lengths to be determined by PG&E tree contractor.
- Foliage and wood less than 4" diameter will be chipped on site if accessible to a brush chipper. Chips may be left on site.*
- When the site is not accessible to a brush chipper, material will be "lopped and scattered" and left on site.*
- After the tree is cut down, stump(s) will be treated with an EPA-approved herbicide, where appropriate, to control resprouting.
- Tree stumps will not be removed.

*Plant material left on site will be left in accordance with fire regulations.

Have questions? Contact your PG&E representative:

Representative name:

Company:

Phone:

Communication date:

Please visit pge.com/trees to learn more about trees and powerlines or call 1-800-PGE-5000.

For translated support in over 250 additional languages, contact PG&E at 1-866-743-4589.

Para ayuda en español, por favor llame al 1-800-660-4789

1-800-893-9555

1-800-298-8438

Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

Summary

- Any inspector, whether TRAQ Qualified or not, is able to verify that an above ground facility or tree is no longer present.
- **TAT ABATE cannot** have assigned work changed, i.e., a removal cannot be changed to a trim
- Only TRAQ VMI can change work (no work or change work prescribe) for Vegetation Points with a TAT other than Abate. Decision must be documented with a completed Basic Tree Risk Assessment Form
- Reinspection results must all be documented in the system of record.
- All other requirements of DIP must be followed

Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

Quiz questions

Quiz questions for TRI

Scan the QR code shown on the screen- complete questions

Vegetation Management Operational Mitigation(VMOM) Training

VEGM-0114

Vegetation Management Operational Mitigation

Vegetation Management Operational Mitigation (VMOM) provides procedures for performing inspections on Enhanced Powerline Safety Setting (EPSS) capable electric facilities.

VMOM activities are performed when EPSS-enabled circuits experience vegetation-related outages.

These activities are divided into two types of projects: Proactive Inspection Projects and Reactive Inspection Projects

Reminder:
VMOM is Attachment 8 of the DIP TD-7102P-01
All expectations and requirements of the DIP must be followed

Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

Project Types

VMOM Reactive Projects:

Patrols ad tree work at the locations of vegetation caused EPSS outages.	Includes all trees with similar symptoms and conditions as the tree that caused the outage and prescribe work to mitigate all vegetation (categorized as either a whole tree or portion of tree) that has a likelihood of impacting PG&E electric facilities (excluding service drops) during the next 15 months.	VMOM reactive patrols are conducted on electric distribution facilities at a minimum of five spans in **all directions** from the location of the tree that caused the EPSS outage.

VMOM Proactive Projects:

Patrols of the entire Circuit Protection Zone (CPZ) identified by the Vegetation Assets Strategy and Analytics (VASA) team. Proactive projects address historic vegetation-caused outages. The scope of work for Proactive Projects is determined by the tree failure history for the circuit.

Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

Target Audience

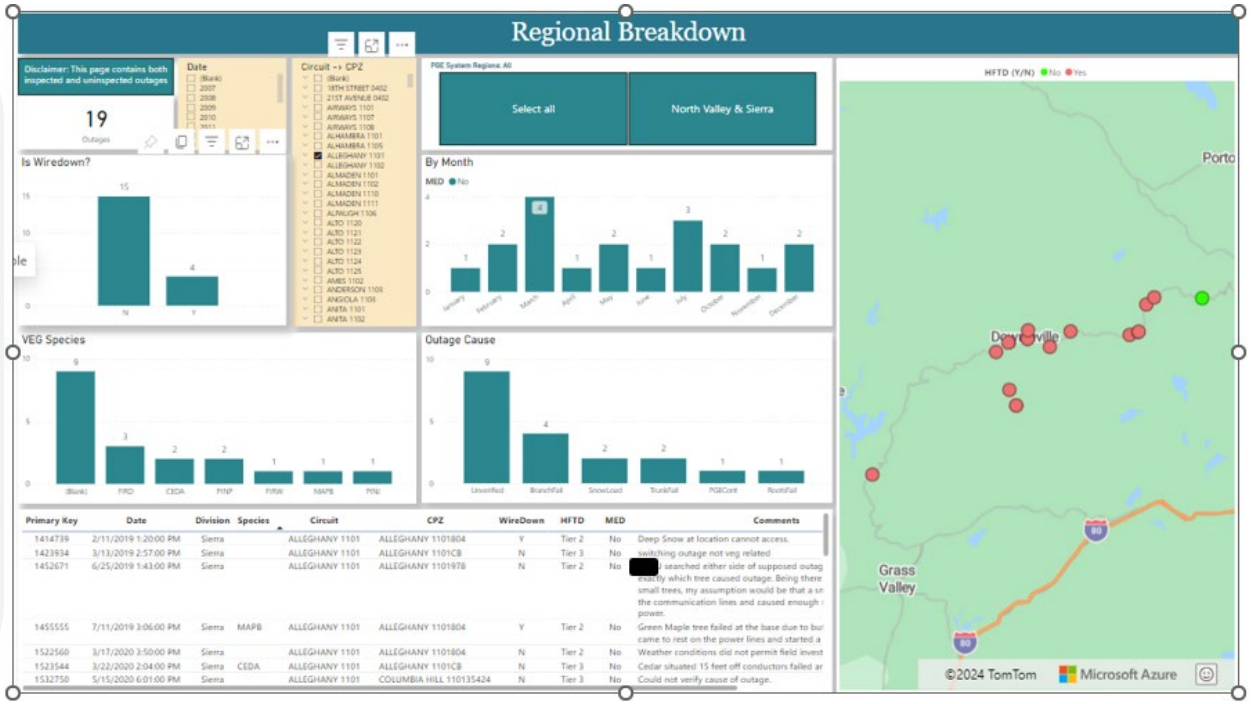
- Vegetation Management Inspectors (VMI and SVMI)
- Vegetation Program Managers
- Execution Supervision

Qualified VMI that has one of these qualifications:

- TRAQ,
- Certified Arborist,
- Registered Professional Forester (RPF),
- VMI who has either 1 year Utility Vegetation Management experience plus bachelor's degree, 2 years Utility Vegetation Management experience plus associate degree, or 3 years of Utility Vegetation Management experience

Before You Start

- All individuals must complete the PG&E Academy training required for inspections prior to performing this procedure. Training expectations are available at Training Expectations.
- Gather and review the following information:
  - Review work assignment
  - Pre-Patrol Report
  - Power Bi to help inform inspection.
- Gather the assigned paint color for marking.



Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

1.0 Preparing to Inspect

VMOM is an additional patrol attachment to the DIP therefore, as with all distribution inspections, the following applies

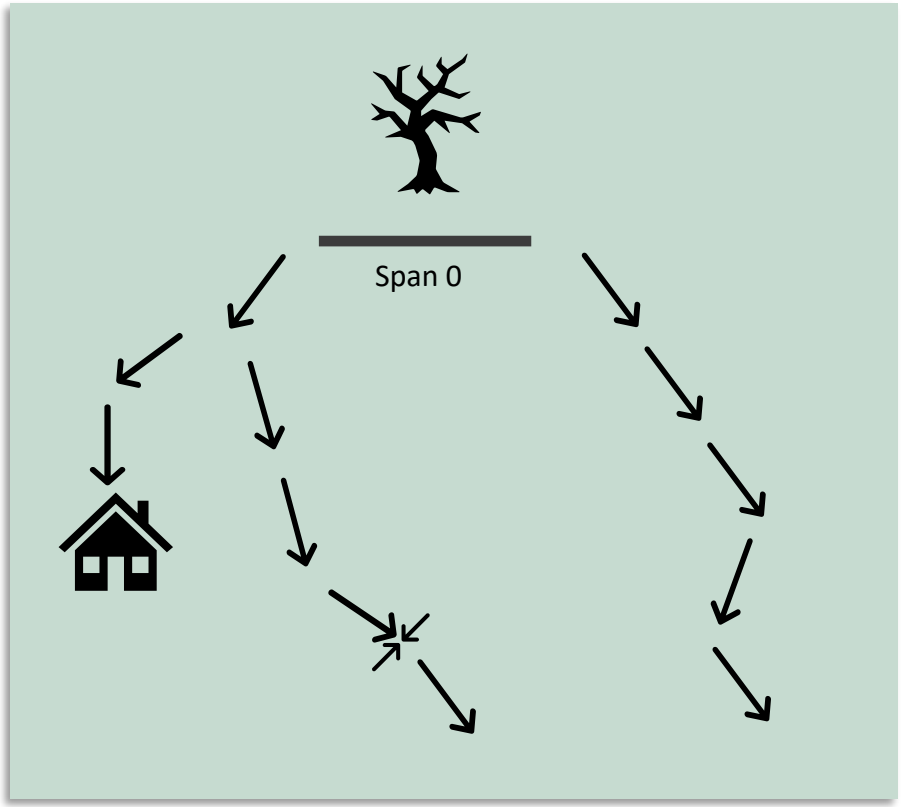
Always inspect and report Priority hazard trees according to the Priority Tag Procedure TD-7102P-17

Always Inspect and report Abnormal Field Conditions following the Abnormal Procedure

TD-7102P-09

2 Performing Reactive Projects

2.1 What to Inspect for Reactive Patrols



1. Inspect the tree that caused the EPSS outage.
   - If the outage-causing tree cannot be located, perform further investigation of the Integrated Logging Information System ((ILIS) and contact the restoration specialist to determine the starting point.
2. Perform a Level 1 visual inspection on all trees within the determined patrol area that extends from the location of the outage-causing tree.
   - The patrol area starts at the outage-causing tree and extends **at least 5 primary and secondary spans** in **all directions** from the outage-causing tree.
   - If necessary, the local VPM or VMI can use their professional judgement to extend the patrol.
3. If patrols reach an **intersection** then extend patrols an equal number of spans in all directions and/or to an appropriate stopping point (i.e., end pole, end of tree stand, grass field, Recloser or other source side device).

2 Performing Reactive Project Inspections

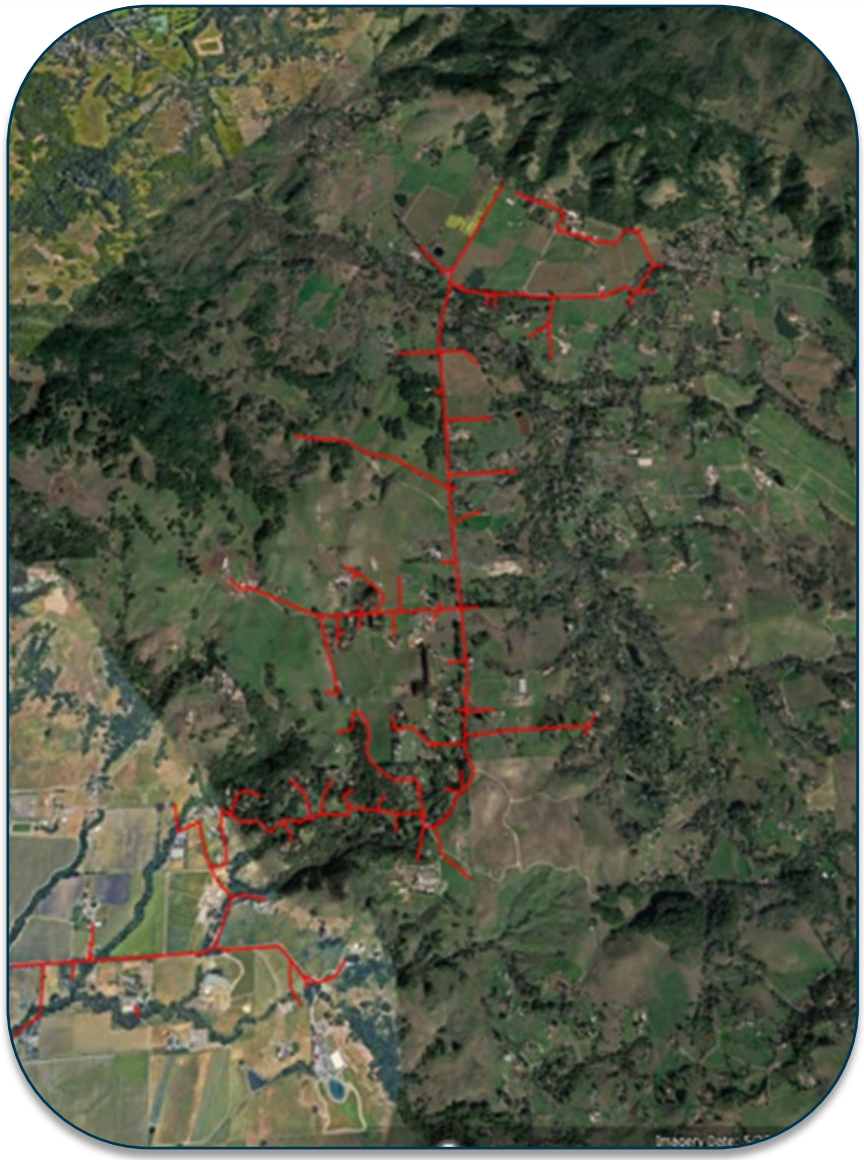
2.2 Inspecting Vegetation

1. Go to the tree failure location
    1. **Identify the tree** that caused the outage
    2. Conduct a Level 2 assessment of that tree
2. Perform a level 1 visual inspection for **all trees** that extend from the outage location within the determined patrol area
3. If during your Level 1 Inspection you see or suspect a tree with defects or site conditions as stated in the “Hazard Trees/ Vegetation Clearance” section of the Cal Fire Power Line Fire Prevention Field guide perform a **Level 2 inspection**

3 Performing Proactive Project

3.1 What to Inspect

- The defined work area is the assigned section or entire CPZ
- Vegetation (categorized as either a whole tree or portion of tree) that has the **likelihood to impact** PG&E electric facilities.
  - Likelihood to Impact: When determining the likelihood of impact to PG&E electric facilities, the inspector should consider factors including tree height, lean, weight distribution, and whether the tree has a path to the conductors. If a tree cannot impact PG&E electric facilities during reasonably foreseeable conditions, it is not hazardous to it.



3 Performing Proactive Project Inspections

3.2 Inspecting Vegetation

1. Go to the **assigned CPZ** and perform a **Level 1** inspection of all vegetation surrounding the facilities

2. If you see or suspect a tree with defects or site conditions as stated in the “Hazard Trees/ Vegetation Clearance” section of the **Cal Fire Power Line Fire Prevention Field Guide** and perform a **Level 2** inspection

3 Performing Proactive Project Inspections

3.3 Conduct a Level 2 assessment on ALL overhanging trees

4.0 Prescribing Work

- Using the information gathered during inspection and applying professional judgement
  - Use a 15 month time frame to inform all prescriptions
  - Follow the prescribing work section of the Distribution Inspection Procedure

Marking a Tree – SAME Distribution

The VMI must mark the tree using either (1) Painting or (2) Flagging

1 Painting

- Spray the paint **near the base of a tree** using one of the following shapes

A dot for pruning

X

An "X" for removal

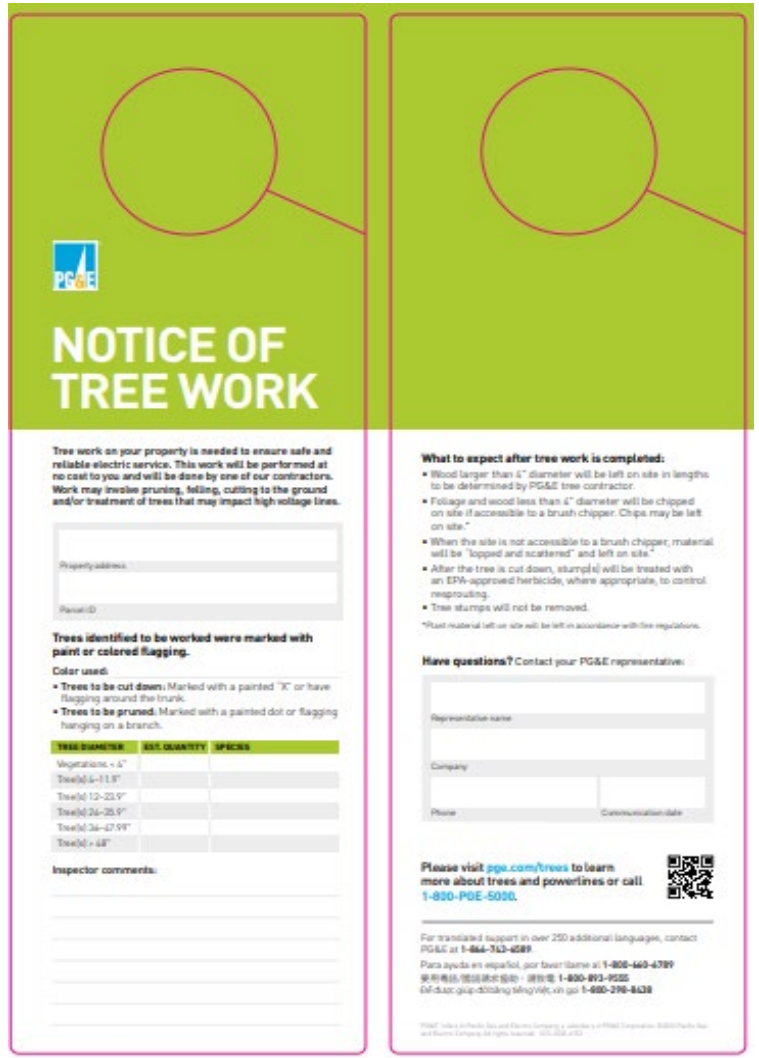
- When Painting a mark, use the following guidelines
  - The best location for marking is **above surrounding vegetation** (grass and bushes) and **above any expected snowline**
  - The best location for marking is **on the side that a tree crew will likely see first**
  - Spray **new marks over any marks from previous years**, but with some of the **older mark still showing**

Note: *Painting is the preferred method, and flagging should only be used if painting is not possible*

Marking Standard and Customer Communication

1. Mark all trees in accordance with the DIP using routine color for the given year.

2. Notify the customer in accordance with the DIP, ensuring at least 3 attempts.



NOTICE OF TREE WORK

Tree work on your property is needed to ensure safe and reliable electric service. This work will be performed at no cost to you and will be done by one of our contractors. Work may involve pruning, felling, cutting to the ground and/or treatment of trees that may impact high voltage lines.

Property address:

Parcel ID:

Trees identified to be worked were marked with paint or colored flagging.

Color used:

- **Trees to be cut down:** Marked with a painted "X" or have flagging around the trunk.
- **Trees to be pruned:** Marked with a painted dot or flagging hanging on a branch.

TREE DIAMETER	EST. QUANTITY	SPECIES
Vegetation: < 4"		
Tree(s) 4–11.9"		
Tree(s) 12–23.9"		
Tree(s) 24–35.9"		
Tree(s) 36–47.99"		
Tree(s) > 48"		

Inspector comments:

What to expect after tree work is completed:

- Wood larger than 4" diameter will be left on site in lengths to be determined by PG&E tree contractor.
- Foliage and wood less than 4" diameter will be chipped on site if accessible to a brush chipper. Chips may be left on site.*
- When the site is not accessible to a brush chipper, material will be "lopped and scattered" and left on site.*
- After the tree is cut down, stump(s) will be treated with an EPA-approved herbicide, where appropriate, to control resprouting.
- Tree stumps will not be removed.

*Plant material left on site will be left in accordance with fire regulations.

Have questions? Contact your PG&E representative:

Representative name:

Company:

Phone: Communication date:

Please visit pge.com/trees to learn more about trees and powerlines or call 1-800-PGE-5000.

For translated support in over 250 additional languages, contact PG&E at 1-866-743-4589.

Para ayuda en español, por favor llame al 1-800-660-4789

1-800-893-9555

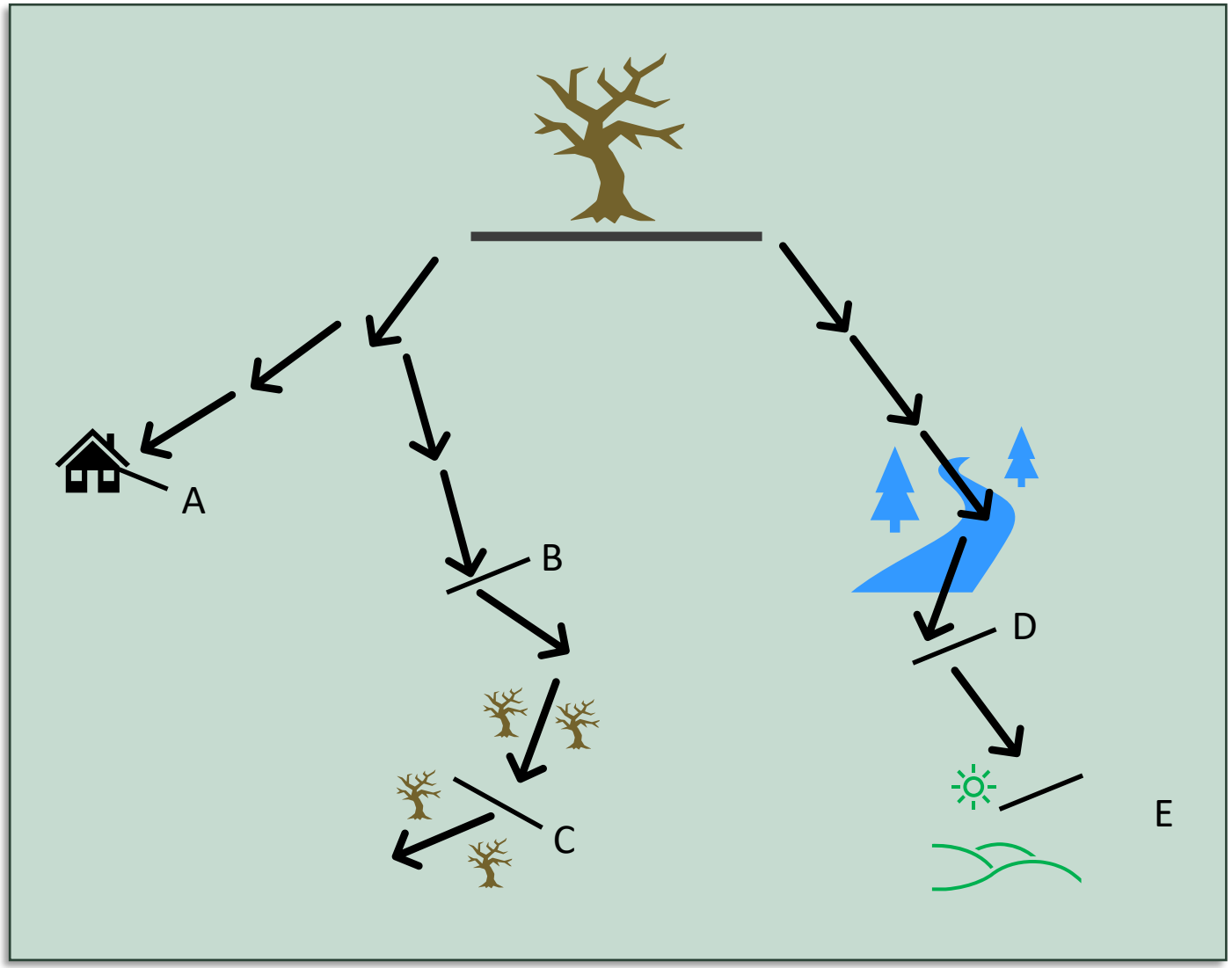
1-800-298-8438

Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

Summary of the Two Projects

Work is conducted on EPSS enabled circuits	
Identify and Prescribe work for all risk trees	
Conduct a Level 1 inspection of assigned work area (DIP conformance)	
Use a 15-month timeframe to inform Level 2 prescriptions	
Reactive Project Inspection	**Proactive Project Inspection**
Looks at current outage causing trees	Looks at historical outage data found at Outage Power Bi
Minimum of 5 spans in all directions of the outage span	Entire Circuit Protection Zone (CPZ)
Level 2 inspection of all same species with similar symptoms **and** conditions as the outage tree	Level 2 inspection of all overhanging trees

Knowledge Discussion



Define **patrol area:**

All trees within **AT LEAST** 5 spans ALL directions of the outage tree

What would be an appropriate stopping point?

- Grassy field? SSD? End of Tap? Terrain feature?

Quiz questions

Quiz questions for VMOM

Scan the QR code shown on the screen

Constraints Management

Constraints Management

Agenda

1. Constraints Management Team Overview
    - Purpose, Goals
2. Constraints Management
3. Safety, Customer Service, Record Keeping
    - Procedures

3. Constraints Management within One VM - Overview
4. Constraints Categories and Subcategories within One VM
5. Constraints Field Use
6. Documenting Contact Attempts
7. Viewing Constraints in the Back Office
8. Managing a Constraint
9. Main Takeaways and Q&A

Constraints Management Team

CMT PURPOSE AND GOALS

Primary Goals

Establish standardized constraint resolution processes and procedures, including the escalation processes

Maintain ownership over all constraints reporting and analytics

Serve as the LOB liaison for other PG&E partners including Environmental, Customer Outreach and more

Serve as a support resource for Vegetation Operations

Secondary Goals

- Permitting support including field, packet creation and more

2. Constraints Management

Safety & Compliance

- Ensuring that we are working trees that have been identified as needing work in a timely manner
- Completing work in the right way

Customer Service

- Maintaining and improving relationships with customers
- Ensuring we notify customers of upcoming work and communicate the reasons why we need to perform this necessary work

Record Keeping Requirements and Best Practices

- We need to show what steps we are taking to resolve constraints

2. Constraints Management

Procedures/Bulletins

TD-7102P-16 – VM Riparian Review Procedure

- Ensure compliance with local, state, federal, and tribal environment laws and regulations

TD-7102P-04 – VM Interference Procedure

- Provides step-by-step instructions to follow when a customer/property owner interferes with Vegetation Management work.

TD-7110P-01 – VM Bird Nest Procedure

- Informs Pacific Gas and Electric Company (PG&E) personnel of their responsibilities for carrying out protection measures, notification, and approval processes when working near nests

TD-7102P-01-B038 – VM Encroachment Permit Bulletin

- Discusses how to request a site-specific encroachment permits which can be required for work on Caltrans and railroad agency managed lands that are not included in annual permits

3. Constraints Management in One VM - Overview

Within One VM, you can:

- Create constraints from the field
- Manage constraints from the back office/desktop
- Document customer interactions and other actions taken on constraints cases
- See summary reports, list views, and overviews of local constraints

5. Constraints Field Use

Constraint Field Use
Creating Constraints in the Field
There are multiple ways to create a constraint using a mobile device, depending on your role and One VM persona: • On a parcel • On a veg point (tree) prescription • On a Veg Work Item (Tree Crew work)
NOTE: You can have more than one constraint per veg point. For example, if you are working on Bureau of Land Management (BLM) land and identify a nest on a tree in a waterway, you will have three constraints (Agency, Nest, Riparian).

4. Constraints Categories

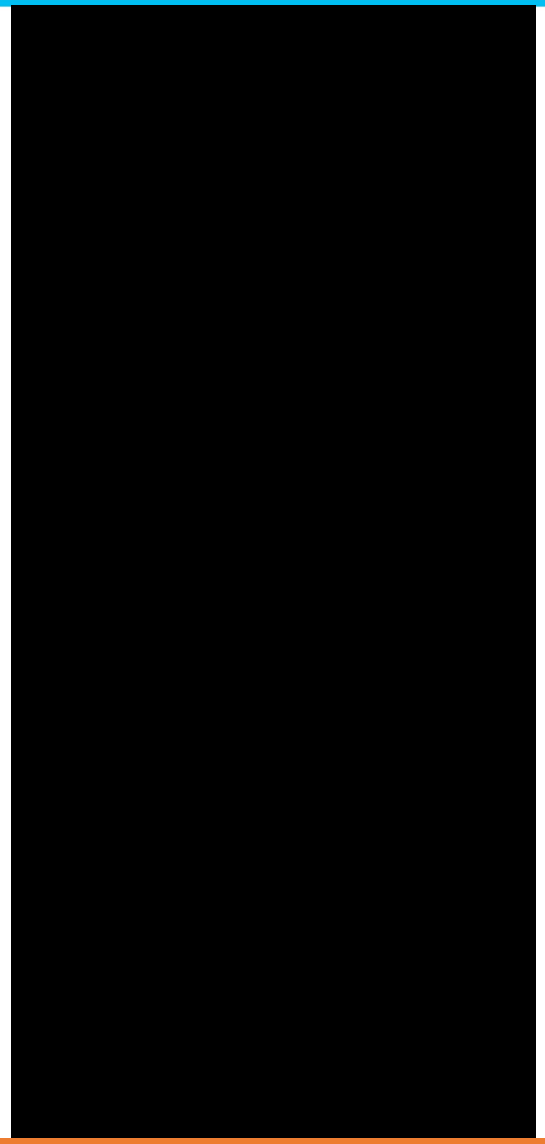
Within One VM Numerous Constraint Categories and Subcategories Exist:

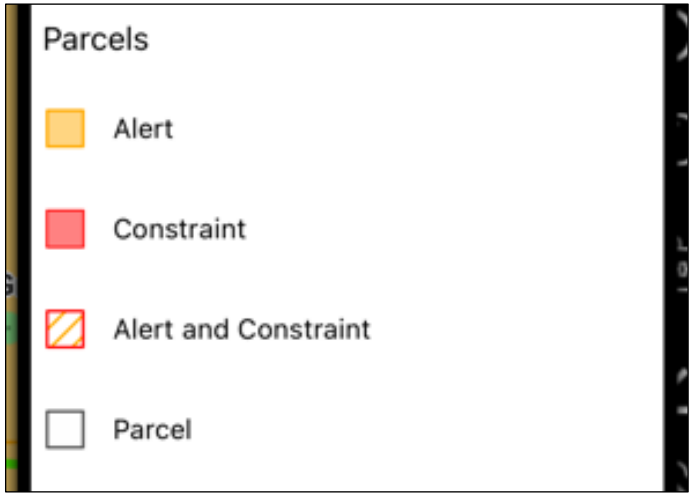
- Customer
  - Work Refused, Hire Own Contractor
- Agency Managed Lands
  - USFS, State Parks, Caltrans, City/County
- Environmental Review
  - Nest, Riparian
- Operational
  - Clearance Request

Utility Vegetation Management - TRA-0034-V03-One-VM-Constraints-Management-Reference-Guide.pdf - All Documents (sharepoint.com)

Agency Managed Lands		
Constraint Category	**Constraint Sub Type**	**Applicable Object**
Agency Managed Lands	USFS	Parcels, Veg Work, Prescription
	NPS	Parcels, Veg Work, Prescription
	BLM	Parcels, Veg Work, Prescription
	BOR	Parcels, Veg Work, Prescription
	State Parks	Parcels, Veg Work, Prescription
	Coastal Commission	Parcels, Veg Work, Prescription
	Open Space/Regional Parks	Parcels, Veg Work, Prescription
	Utility/water districts	Parcels, Veg Work, Prescription

5. Constraints Field Use – Creating a Parcel Constraint

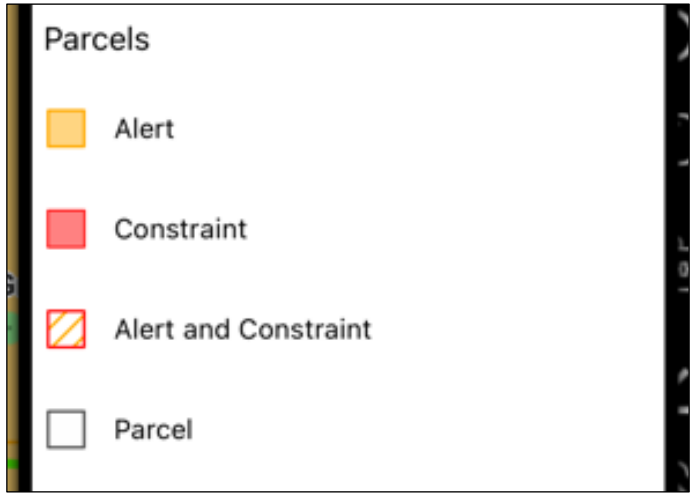




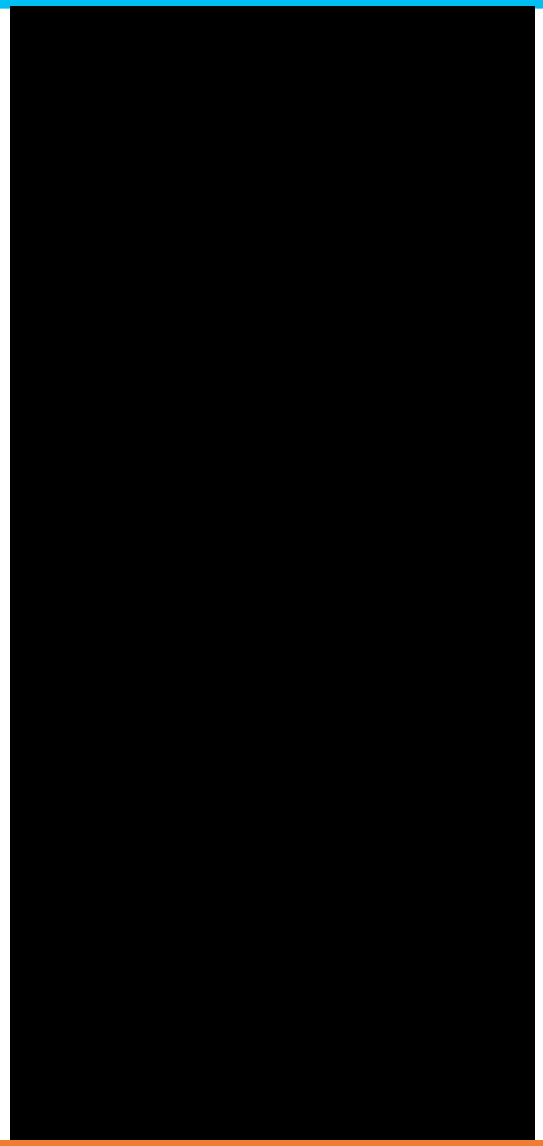
5. Constraints Field Use – Creating a Parcel Constraint

Key Takeaways

- Ensure the correct layers are turned on (e.g. Parcels)
- Initial Assignee - Select ‘Assign to Me’ Allows for in-field management and/or effective back office management
- Constraint Comments is important – What is the main issue here?
- Pay attention to symbology on parcels



5. Constraints Field Use – Creating a Prescription Constraint



Veg Points

Veg Point Prescription

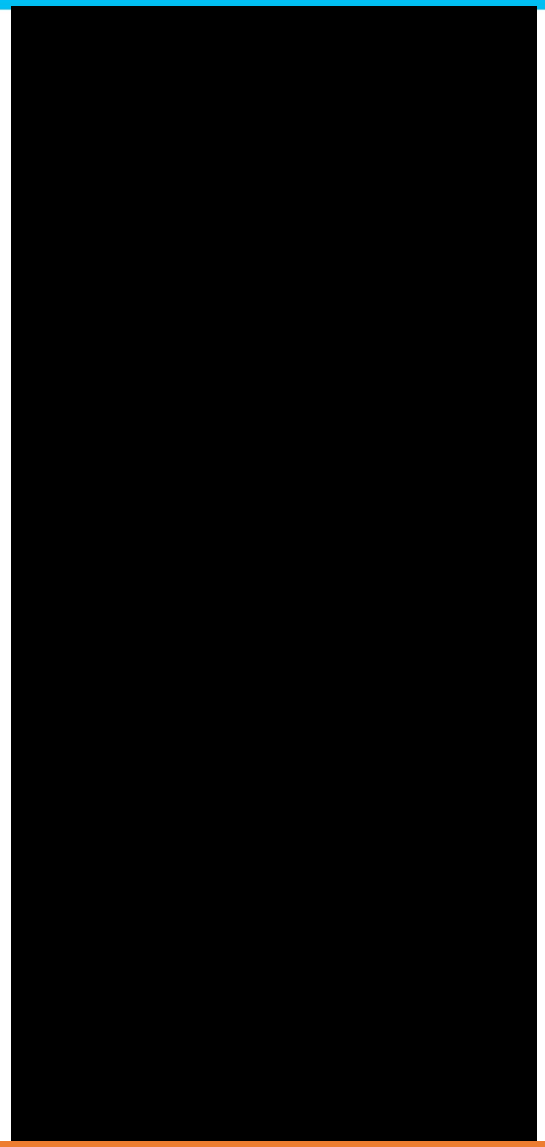
- Constrained
- Rejected
- Inspected, No Work
- Inspected, Prescribed
- Prescription Approved
- Veg Work Scheduled
- Veg Work Completed

5. Constraints Field Use – Creating a Prescription Constraint

Key Takeaways

- Initial Assignee - Select ‘Assign to Me’ Allows for in-field management and/or effective Back Office management
- Constraint Comments is important – What is the main issue here?
- Pay attention to symbology on prescriptions

6. Documenting Contact Attempts



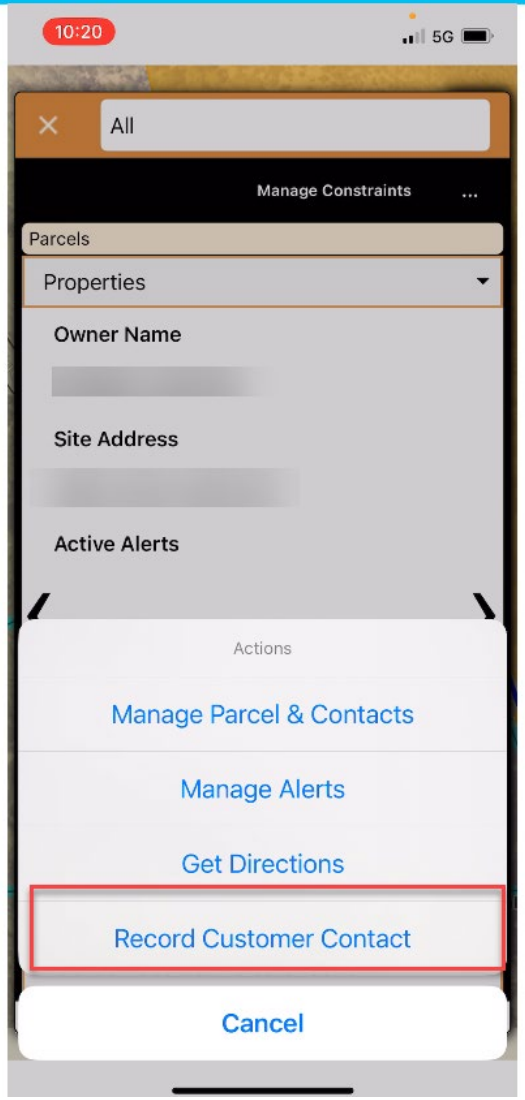
6. Documenting Contact Attempts

Key Takeaways

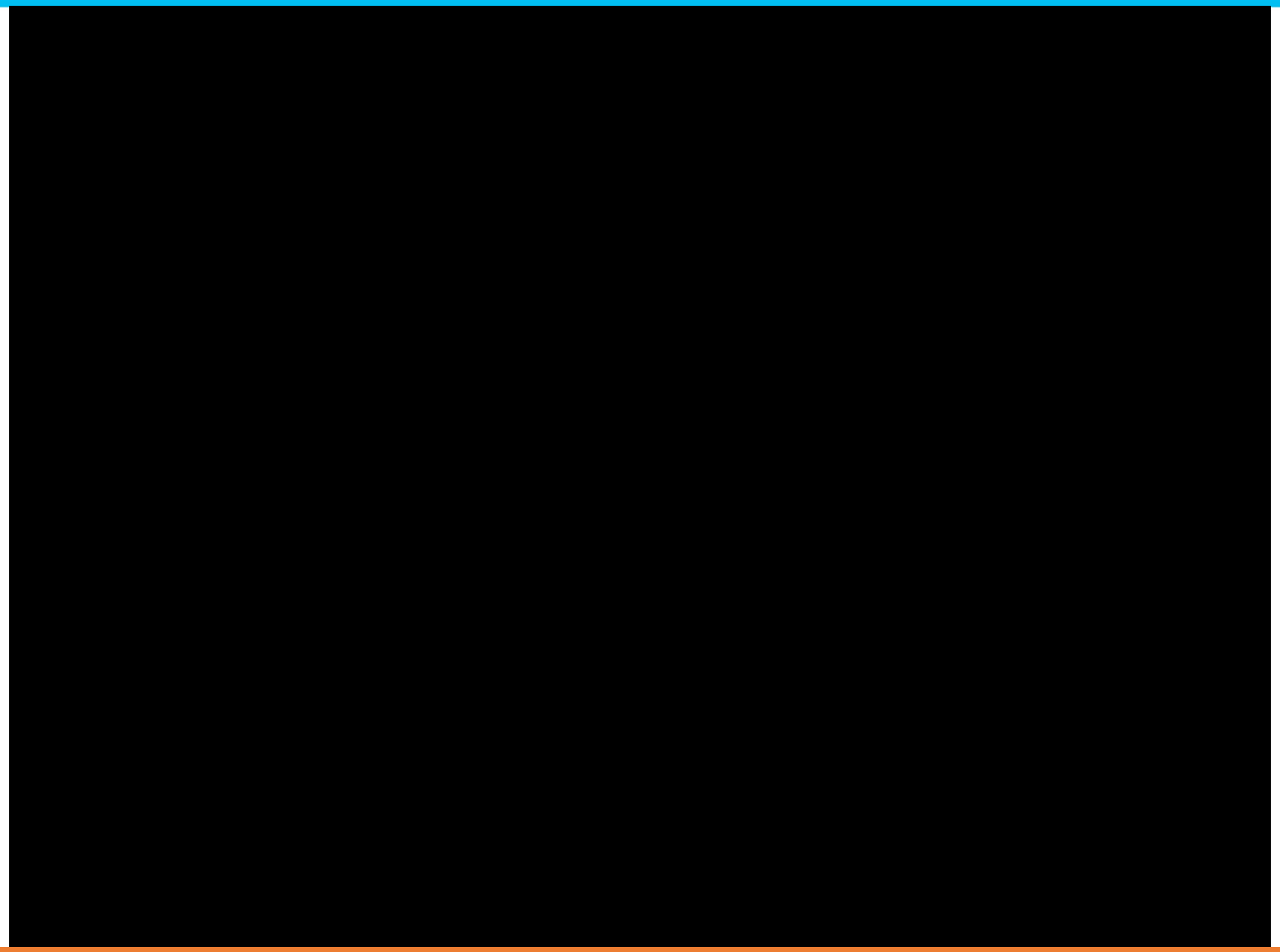
- Record every Customer Contact attempt
- Enter detailed and specific notes

NOTE: At minimum, an ideal record should include:

- **Who** you attempted to contact
- **When** you attempted contact (date)
- **What** method of contact was used, what was discussed, and what the outcome was



8. Managing a Constraint – Adding Customer Contact Attempts and Details

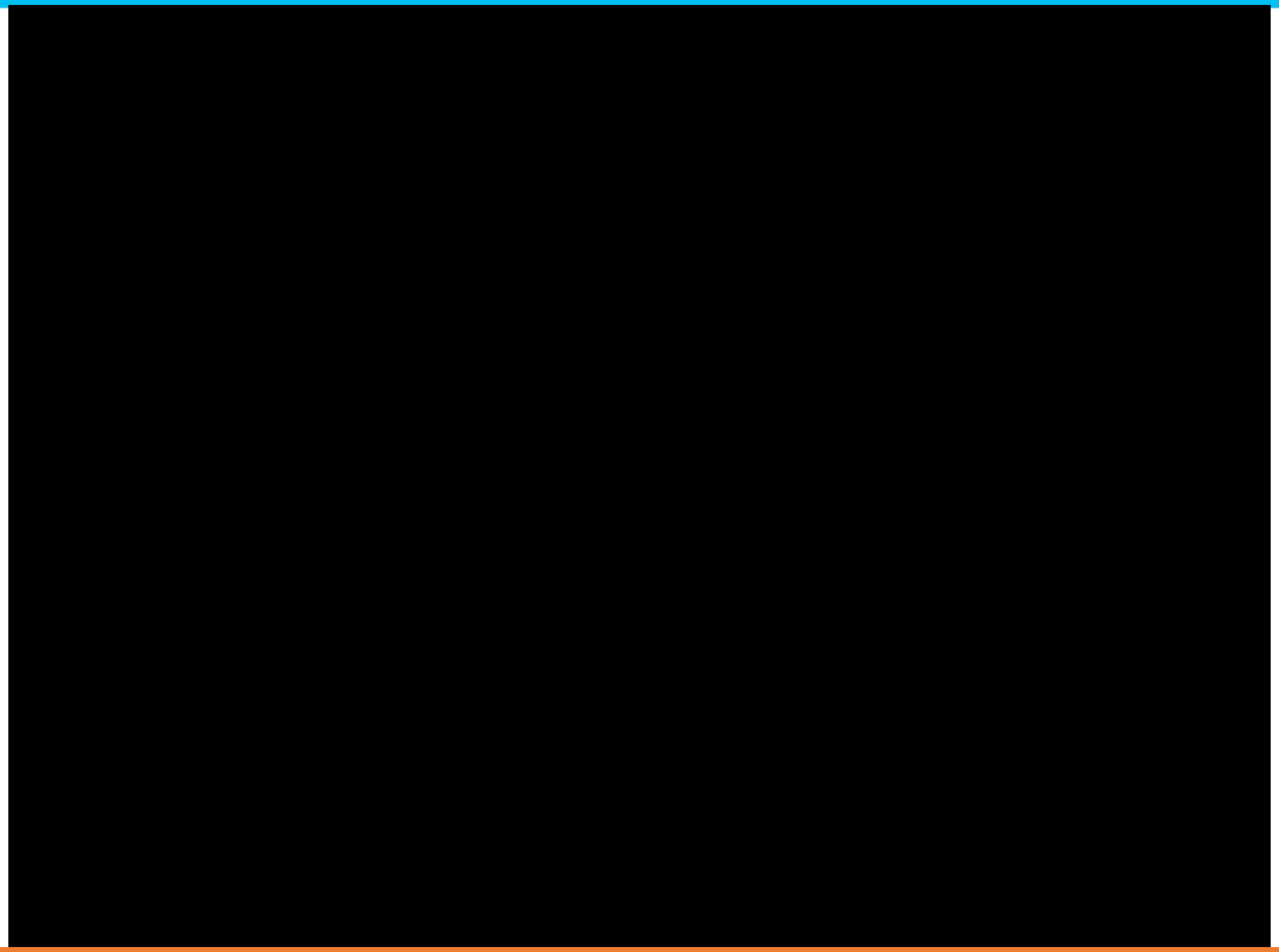


8. Managing a Constraint – Adding Customer Contact Attempts and Details

Key Takeaways

- Create a “New Task” to record each update to a constraint
  - Don’t use the “feed” tab
- Look through “Open Activities” and “Activity History” to review past updates
- **Be as thorough and detailed as possible**

8. Managing a Constraint – Uploading Documents



8. Managing a Constraint – Uploading Documents

Key Takeaways

- Upload **all** relevant documents
  - Any letter sent to a customer
  - Any land rights documents
  - Any long, written communications (e.g. emails)
- Label documents clearly

9. Key Takeaways

- **Main Takeaway 1**
  - Document, document, document
- **Main Takeaway 2**
  - One VM has powerful yet complex tools for constraints management
- **Main Takeaway 3**
  - **Constraints Management Team is here to support you**

9. Key Takeaways, Q&A

Immersive Reader Share

One VM Info Hub

Published 1/17/2024

Vegetation Management (VM) Technology has embarked on a project to deliver a new, single software platform that incorporates all VM work management systems into one. Called One VM, it will provide map-based work execution, monitoring, and validation application available on iOS mobile devices.

The One VM Project is part of the Strategic Priorities List for VM Leadership Wildfire Mitigation Program centralized vegetation inventory system.

One VM User Access Live Help line (650) 985-1213; 6 a.m. - 4 p.m. Mon-Fri (bi-lingual)

- Password resets, get access (back office and/or field), unlock account, set up of SFS Mobile app with the correct URL, install Salesforce Authenticator and connecting it with SFS Mobile, and install Lemur and registering.

What's New?

12/20/23: Enhancements and fixes deployed to One VM. For details, refer to the One VM Enhancements Release Tracker in Quick Links.

9/25/23: Phase 2 Completed, Vegetation Control (VC) is "Live" in One VM. VC Tech Field Crews began using One VM Oct. 9.

One VM User Adoption Dashboard

One VM Update: Sandbox and Production Access Login Support Sessions.

VM Support is available to assist with trouble-shooting user access to One VM for the implementation of the Routine and Tree Mortality programs. Four sessions a week are available. You must register in advance to attend.

Quick Links

- Get Access to One VM & Training Requirements
- Routine & 2nd Patrol User Guides, Videos
- Vegetation Control User & Training Guides
- One VM Enhancements Release Tracker
- 5MM Mobile Device Requirements (12/2/22)
- Need help? Contact VM Support

One VM Power BI

- Available on VM Operations website, Reports
- One VM Power BI Report Job Aid (10/2023)
- One VM Power BI Reporting Glossary (10/2023)

One VM Routine & 2nd Patrol: User Guides, Videos, & more

What's here:

- User Guides, Glossary, Quick Reference Cards
- Frequently Asked Questions (FAQs)
- How-To Videos (English and Spanish versions)

Note: Information on this page applies only to Routine Distribution & Second Patrol programs.

One VM User Access Live Help line (650) 985-1213 6 a.m. - 4 p.m. Mon-Fri (bi-lingual)

- Password resets
- Get access (back office and/or field)
- Unlock account
- Set up of SFS Mobile app with the correct URL
- Install Salesforce Authenticator and connecting it with SFS Mobile.
- Install Lemur and registering

One VM Installation Guides

- PG&E Sandbox Access via MEA (10/5/22)
- SFS & Lemur Apps Sandbox Install (1/17/24)
- SFS and Lemur Apps Production (11/13/23)
- Lemur Pro Read-Only Access: Production (6/16/23)

Tree Crew Training Guides

- Tree Crew Field Guide (8/2/2023)
- Foreman Practice Activity Guide (English 3/20/2023)
- Gen Foreman Practice Exercises for Sandbox
- Video: Assigning Work to Tree Crews Using Practi...
- Foreman Practice Activity Guide (Spanish 3/29/23)
- Tree Crew: Video QR codes (5/12/23)

User Guides

- One VM Desktop Reference Guide (12/3/23)
- Constraints Management Reference Guide...
- VMI Constraints & Alerts User Guide (11/13/23)

Instructor/Participant Training Guides

- One VM Training Agenda VEGM9105 ILT for...
- One VM Instructor/Participant Training Guides
- One VM Training Documents by Role (10/5/22)

Quick Reference Cards (QRCs)

- Map Layers & Symbology (11/13/23)

Additional Guides

- One VM Tool Glossary of Terms (10/13/2023)
- Mobile Synchronize User Guide (7/5/23)
- One VM Power BI Report Job Aid (10/2023)

9. Q&A

Any questions?

Thank you!

Annual Refresher VEGM-9073

One VM Adoption

Implemented in the following programs

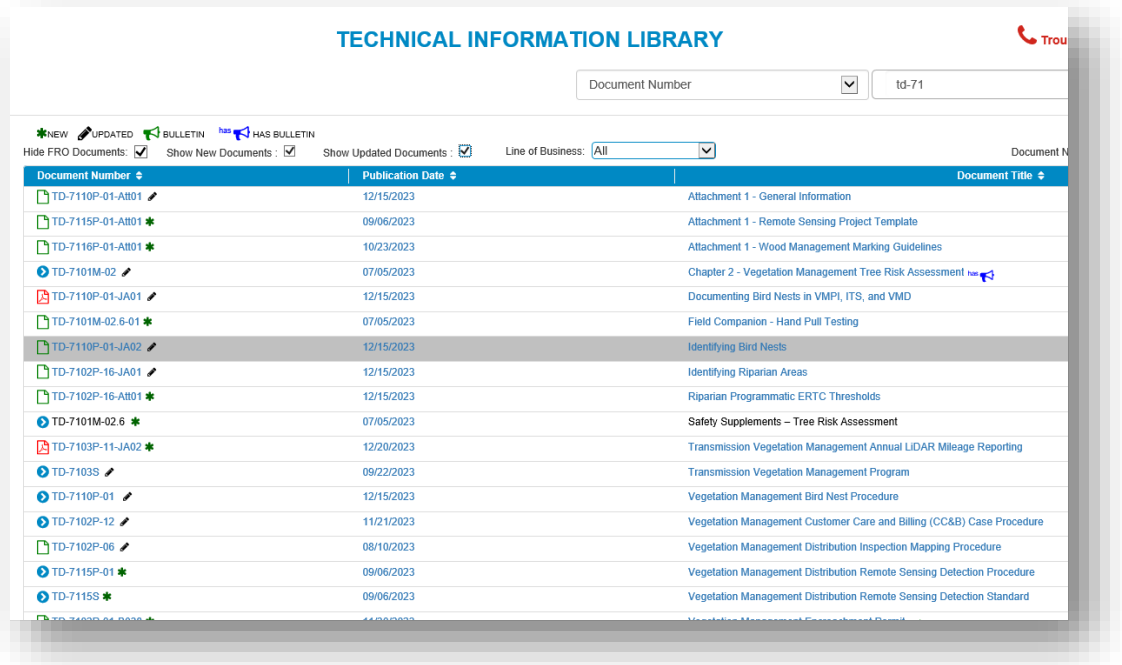
- Routine
- Second Patrol
- Vegetation Control

Additional programs continue to be added

Procedure Revision

Our document governance team was very active in 2023 revising many of our procedures and guidance documents.

It is important to always work from an electronic document to ensure you are using the most recent version.



The technical information library or the guidance document library should be used as the source of truth for all PG&E published procedures and documents.

Core Share

Core Share contains convenience copies of guidance documents and other resources.

Core share allows for the downloading of documents for offline use.

Useful for field locations without cell coverage.

Revised Procedures

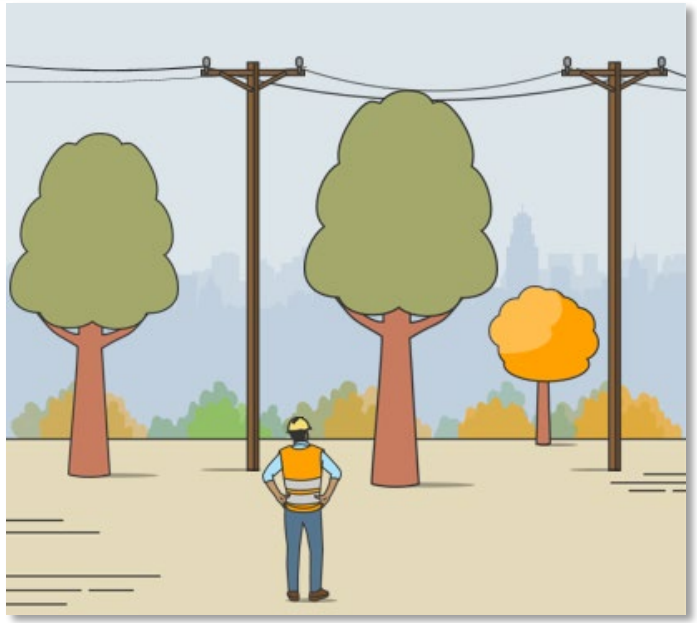
- Many operational procedures were revised to continually improve on our efforts to better provide safe and reliable energy to our hometowns
- Some revised procedures are:
  - TD-7102P-01 Distribution Inspection Procedure
  - TD-7103P-01 Transmission Inspection Procedure
  - TD-7102P-16 Riparian Review Procedure
  - TD-7110P-01 Bird Nest Procedure
  - TD-7102P-04 Interference Procedure

Industry Standard Practices

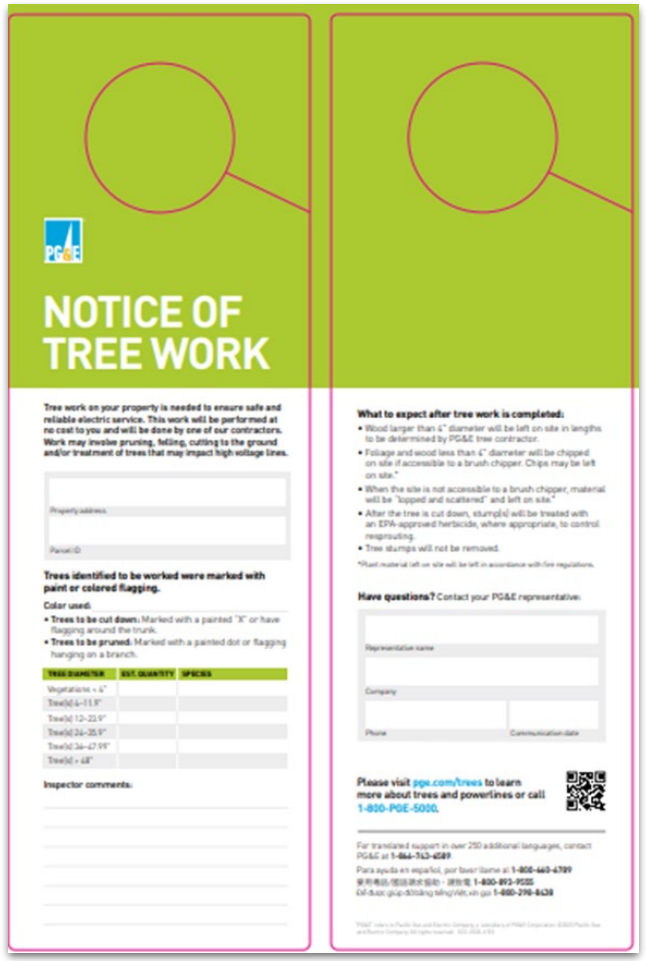
Both the Transmission and Distribution Inspection Procedures reference arboriculture industry standard practices including using level 1 and level 2 tree inspections.

- References the use of the Hazard Trees/Vegetation Clearance section of the California Power Line Fire Prevention Field Guide Produced by the California Department of Forestry

If while conducting a level 1 inspection an inspector suspects a tree may have one or more of the qualities in the guide, then the inspector must perform a Level 2 assessment of that tree



New Notice of Tree Work Form



NOTICE OF TREE WORK

Tree work on your property is needed to ensure safe and reliable electric service. This work will be performed at no cost to you and will be done by one of our contractors. Work may involve pruning, felling, cutting to the ground and/or treatment of trees that may impact high voltage lines.

Property address

Parcel ID

Trees identified to be worked were marked with paint or colored flagging.

Color used:

- **Trees to be cut down.** Marked with a painted "X" or have flagging around the trunk.
- **Trees to be pruned.** Marked with a painted dot or flagging hanging on a branch.

TREE DIAMETER	EST. QUANTITY	SPECIES
Vegetation < 4"		
Tree(s) 4–11.9"		
Tree(s) 12–23.9"		
Tree(s) 24–35.9"		
Tree(s) 36–47.99"		
Tree(s) > 48"		

Inspector comments:

What to expect after tree work is completed:

- Wood larger than 4" diameter will be left on site in lengths to be determined by PG&E tree contractor.
- Foliage and wood less than 4" diameter will be chipped on site if accessible to a brush chipper. Chips may be left on site.*
- When the site is not accessible to a brush chipper, material will be "lopped and scattered" and left on site.*
- After the tree is cut down, stump(s) will be treated with an EPA-approved herbicide, where appropriate, to control resprouting.
- Tree stumps will not be removed.

*Plant material left on site will be left in accordance with fire regulations.

Have questions? Contact your PG&E representative:

Representative name

Company

Phone

Communication date

Please visit pge.com/trees to learn more about trees and powerlines or call 1-800-PGE-5000.

For translated support in over 250 additional languages, contact PG&E at 1-866-743-4589

Para ayuda en español, por favor llame al 1-800-660-6789

1-800-893-9555

1-800-298-8438

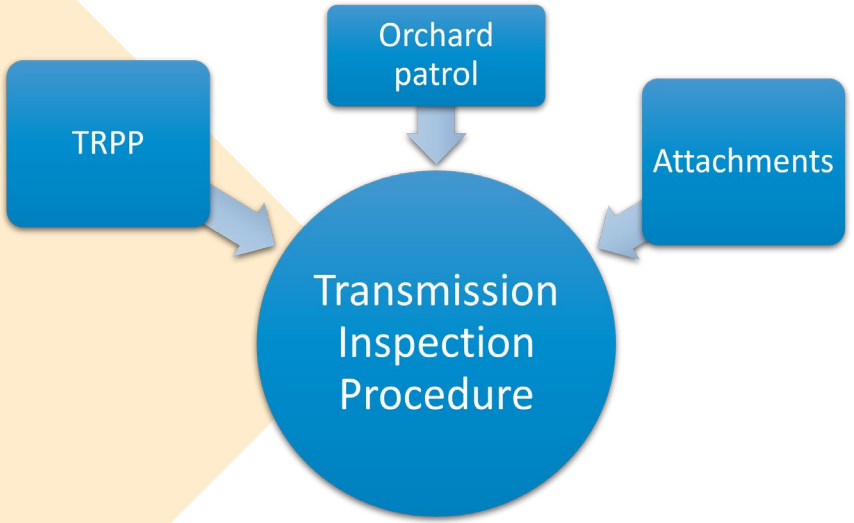
The Notice of Tree Work forms were updated and converted into a large door hanger.

Customers are now notified of the tree work and signatures are no longer required.

TIP changes

Many of the previously existing transmission documents were revised and compiled into the new Transmission Inspection Procedure including the orchard patrol procedure.

- TD-7103P-01, “Transmission Non-Orchard Routine Patrol Procedure,” rev. 2, 10/01/2016
- TD-7103P-02, “Transmission Orchard Patrol Procedure,” rev. 2, 10/01/2016
- VEG-2001P, “Transmission Routine Non-Orchard Patrol Procedure,” rev. 1, 06/18/2014
- VEG-2002P, “Transmission Orchard Patrol Procedure,” rev. 1, 06/18/2014



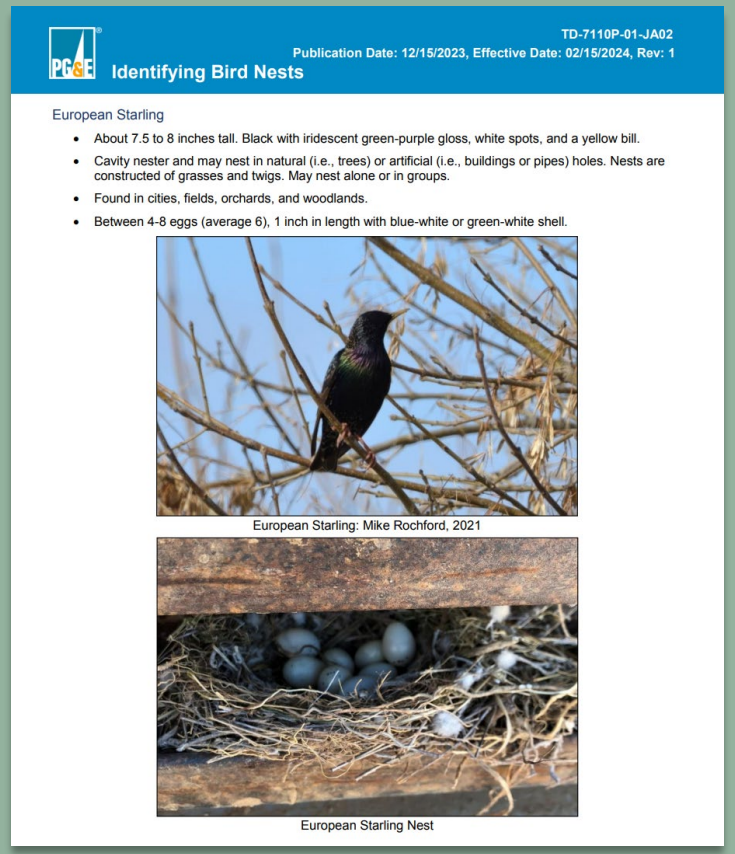
Riparian Review Procedure UpdateTD-7102P-16

Riparian Reviews Changes

VMI will determine if a riparian area exceeds Riparian Programmatic ERTC Thresholds

- Factoring in
  - Canopy shade
  - Location of tree within bed/bank/channel
  - Amount of ground disturbance
- Supervisor or VPM will review and submit the permitting request package when necessary

Bird Nest Procedure TD-7110P-01 Updates



TD-7110P-01-JA02
Publication Date: 12/15/2023, Effective Date: 02/15/2024, Rev: 1

Identifying Bird Nests

European Starling

- About 7.5 to 8 inches tall. Black with iridescent green-purple gloss, white spots, and a yellow bill.
- Cavity nester and may nest in natural (i.e., trees) or artificial (i.e., buildings or pipes) holes. Nests are constructed of grasses and twigs. May nest alone or in groups.
- Found in cities, fields, orchards, and woodlands.
- Between 4-8 eggs (average 6), 1 inch in length with blue-white or green-white shell.

New Job aid to help identify nests of exempt species and signs of activity

Simplifies outcomes for most nest scenarios

- The nest is an inactive non-raptor nest or the nest of an exempt species per TD-7110P-01- JA02 "Identifying Bird Nests".
- The nest is an eagle nest, raptor nest, colony/rookery, or active non-raptor nest and the worksite IS or IS NOT located close enough to remove or disturb the nest.

The addition of new Avian Protection Program Manager position who must be notified when nests might be disturbed by emergency work.

Training Update

New VM Basics courses

A new curriculum of web-based trainings has been developed to provide the most updated learning experience

The new courses aligns with the procedural changes and quick reference guides to support on the job development and training.

All new employee or existing inspectors will be profiled with this curriculum.

VEGM-0155	Intro to VM
VEGM-0161	VM Patrol Safety
VEGM-0165	PG&E Electrical Facilites
VEGM-0170	Tree Basics (Evaluating Tree Risks)
VEGM-0175	Tree Risks to Facilities (Identifying Tree Risks)
VEGM-0180	VM Inspection Fundamentals
VEGM-0185	Prescribing Tree Work
VEGM-0190	Abnormal Field Conditions
VEGM-0195	MWS Exemptions
VEGM-0198	Customer Relations

SLP transitioned to My Learning Profiling

Structured Learning Path is being replaced by MyLearning Profiling System

- This will enable tracking of compliance and completion dates. Additional Instructor Led Training courses, How To Videos, and Refresher trainings will now be utilized.

VMI Audits & Development Checklist replaced with Supervisor Onboarding Checklist and Monthly Development Check-in Process

ISA Learning and CEU opportunities

As part of our commitment to professional development, we want to help everyone strive towards learning more about arboriculture and obtaining their Arborist Certification

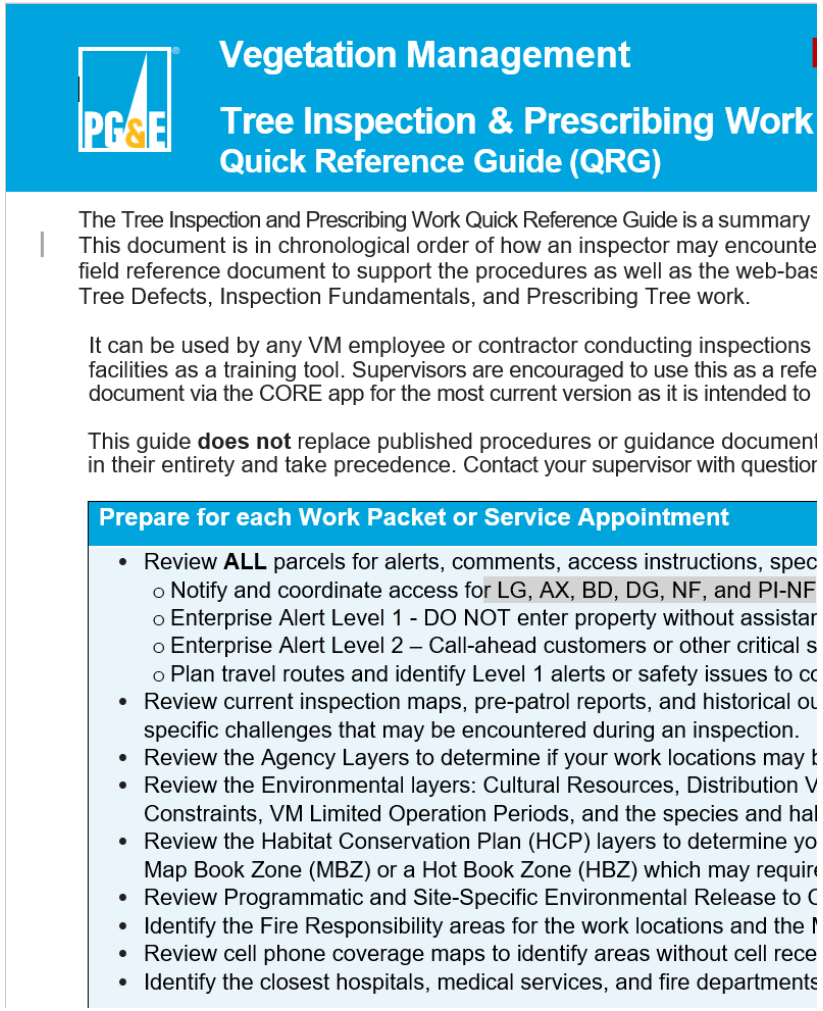
More of our calls, Trainings, and benchmarks will have pre-approved CEU credits available.

- Weekly Safety Calls
- Quarterly Benchmarks
- Other In Person Trainings

The training team is also partnering with the ISA to provide more opportunity for TRAQ courses

Helpful Inspection Guides and Tools

Quick Reference Guides QRGs



Vegetation Management

Tree Inspection & Prescribing Work
Quick Reference Guide (QRG)

The Tree Inspection and Prescribing Work Quick Reference Guide is a summary
This document is in chronological order of how an inspector may encounte
field reference document to support the procedures as well as the web-bas
Tree Defects, Inspection Fundamentals, and Prescribing Tree work.

It can be used by any VM employee or contractor conducting inspections
facilities as a training tool. Supervisors are encouraged to use this as a refe
document via the CORE app for the most current version as it is intended to

This guide **does not** replace published procedures or guidance documen
in their entirety and take precedence. Contact your supervisor with questior

Prepare for each Work Packet or Service Appointment

- Review **ALL** parcels for alerts, comments, access instructions, spec
  - Notify and coordinate access for LG, AX, BD, DG, NF, and PI-NF
  - Enterprise Alert Level 1 - DO NOT enter property without assistar
  - Enterprise Alert Level 2 – Call-ahead customers or other critical s
  - Plan travel routes and identify Level 1 alerts or safety issues to c
- Review current inspection maps, pre-patrol reports, and historical ou
  specific challenges that may be encountered during an inspection.
- Review the Agency Layers to determine if your work locations may
- Review the Environmental layers: Cultural Resources, Distribution V
  Constraints, VM Limited Operation Periods, and the species and hal
- Review the Habitat Conservation Plan (HCP) layers to determine yo
  Map Book Zone (MBZ) or a Hot Book Zone (HBZ) which may requir
- Review Programmatic and Site-Specific Environmental Release to C
- Identify the Fire Responsibility areas for the work locations and the
- Review cell phone coverage maps to identify areas without cell rece
- Identify the closest hospitals, medical services, and fire departments

Includes best practices collected from around the system and help provide alignment as we execute our work.

These guides do not replace the procedures but are a helpful tool to help understand how procedures interact with each other.

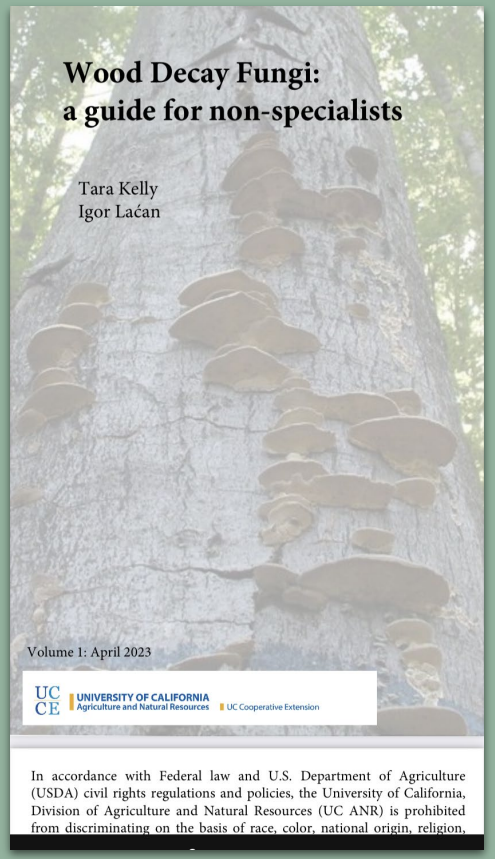
These guides were developed as a tool for new learners but are encouraged to be used by all field personnel. They are living documents that will be updated as our programs evolve.

Available on VM SharePoint and the Core Share application.

Tree Species and Wood Decay Fungi Guide

UC CE | UNIVERSITY OF CALIFORNIA Agriculture and Natural Resources | UC Cooperative Extension

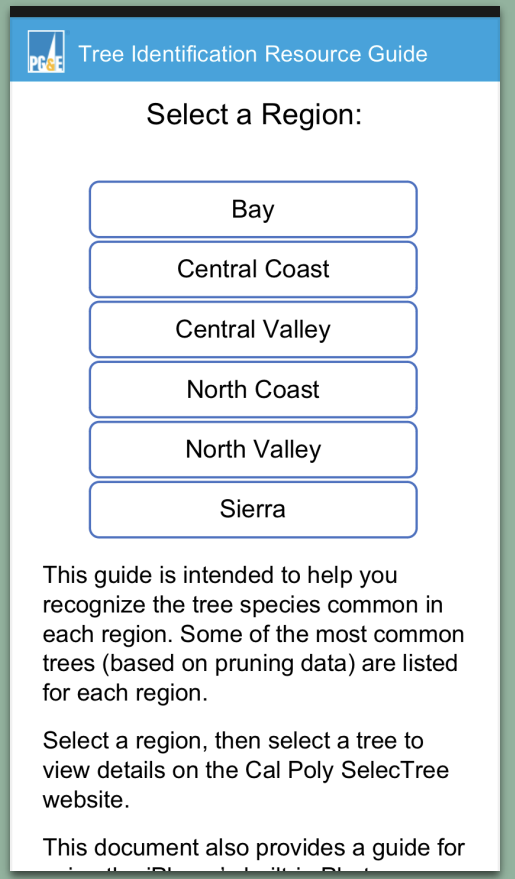
LEARN BY DOING | CAL POLY



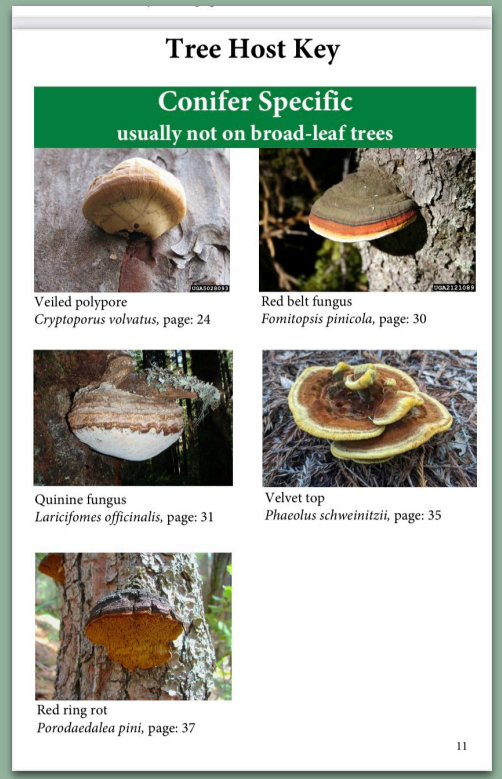
PG&E partnered with industry leaders and California Universities to develop guides to support knowledge of trees in our service territory.

These guides help you familiarize yourself with the species of trees and common wood decay fungi

The most updated versions of these guides can be found on the Core Share application.



Wood Decay Fungi Guide



Tree Host Key

Conifer Specific
usually not on broad-leaf trees

Veiled polypore
Cryptoporus volvatus, page: 24

Red belt fungus
Fomitopsis pinicola, page: 30

Quinine fungus
Laricifomes officinalis, page: 31

Velvet top
Phaeolus schweinitzii, page: 35

Red ring rot
Porodaedalea pini, page: 37

11

Prompt Action Recommended if Any of These Fungi Are on a Standing Tree

"Veiled polypore"
Page: 27

Yellow, brown, or white golf ball-like conks

"Cramp balls"
Page: 28

Black globe-like balls

"Split-gilled fungus"
Page: 29

Small hairy white-brown brackets

"Turkey tails"
Page: 30

"Turkey tail." Shelf-like, tough and leathery, multi-colored to pale gray

Inonotus andersonii, Page: 31

Sulfur yellow to pale sheet-like mat

19

"Veiled polypore" "Pouch fungus"

Cryptoporus volvatus

Concern Level: Very High
Prompt Action recommended - tree part is dead

C. volvatus

Identifying Features
Small, round golf-ball shaped conks with pores and no stem. Initially a yellow-brown color that fades to white or brown with age.

C. volvatus on a Douglas Fir

C. volvatus on a conifer

Notes
Fruiting bodies appear on dead tree parts and likely indicate tree mortality.

Common on conifers:
Ponderosa pine, Douglas fir

Commonly found in:
Fire damaged forests, Mixed conifer forests, North Coast, Sierras, Southern CA

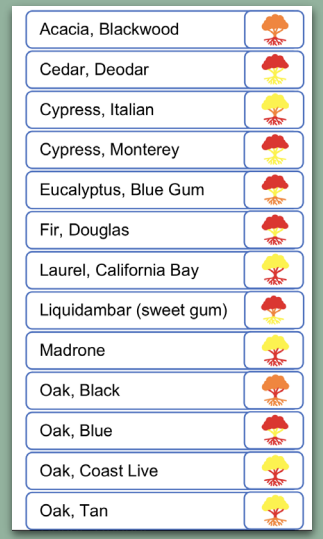
24

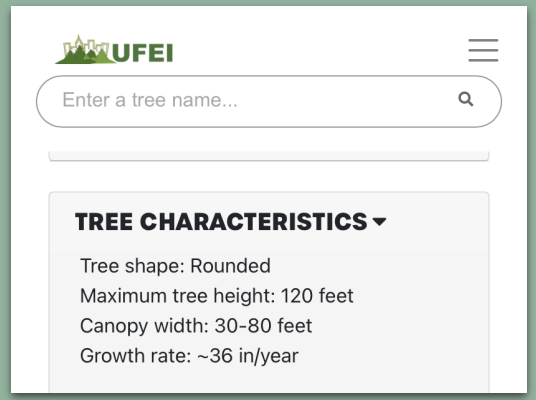
Partnering with industry experts the wood decay fungus guide can better help you determine the species and the risk hazard related to the fruiting body of the fungi you may find during inspection.

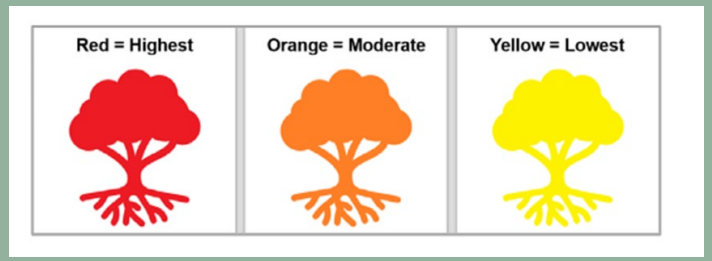
The guide includes many of the common fungi species that are a detriment to tree health and some helpful identification characteristics

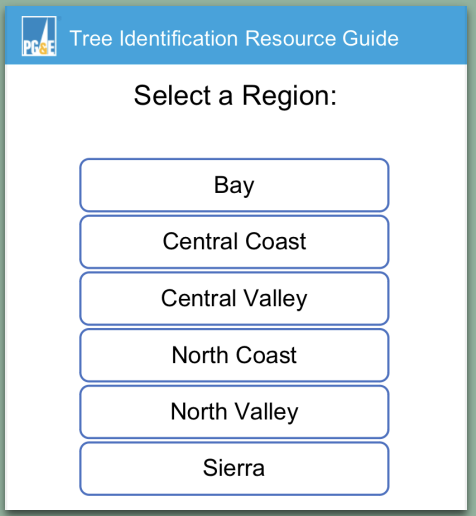
To help identify a fungi, there is small map of California for each fungi showing the likely hood of finding that fungi in a specific area.

Tree Identification Resource Guide









The tree species identification resource guide shows two key pieces of information. Tree growth / identification as well as tree failure profile:

Selecting each species will take you to the Cal Poly SelecTree site for more details regarding the growth rates identification and ecology of the species.

For tree failure, each trees shows a failure profile of where failure is likely: canopy, the trunk, or root system. With Red being a more likely location of a failure.

Data was obtained from on our historical outage data and is unique by division.

Quiz Questions

Quiz Questions for Annual Refresher

Scan the QR code shown on the screen

Answer all questions