PG&E VEGETATION MANAGEMENT

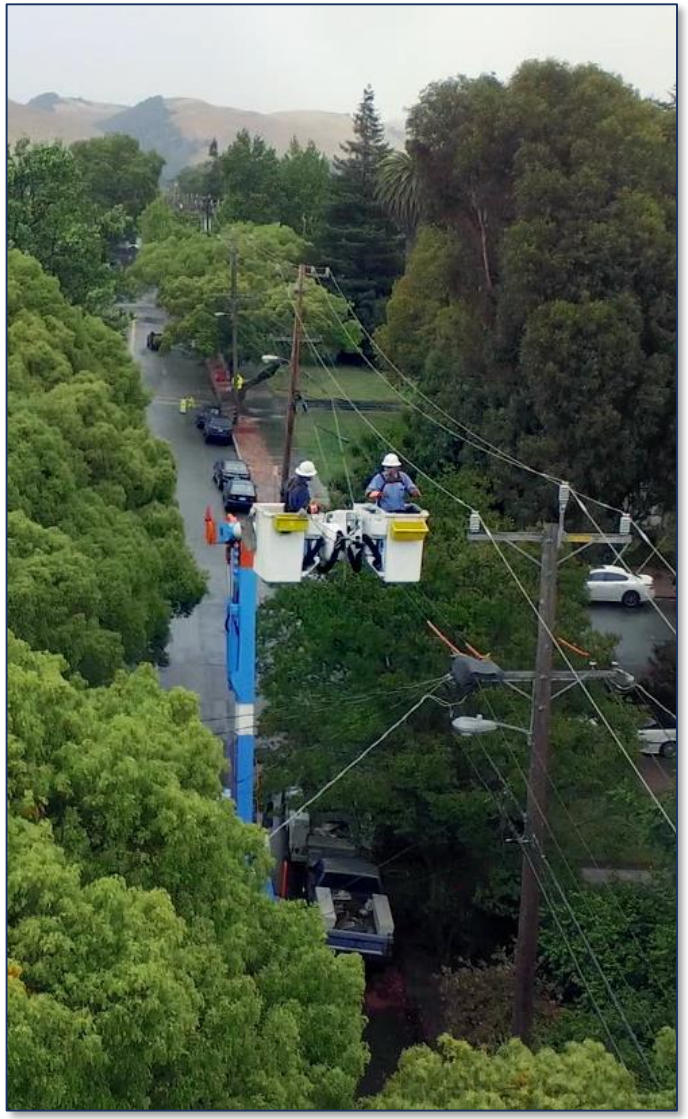
WSD PRESENTATION

February 22, 2021

PG&E Wildfire Risk Model

In this presentation, we will focus on how PG&E's 2021 Wildfire Distribution Risk Model applies to Enhanced Vegetation Management (EVM) work.

- PG&E **has used the 2021 Wildfire Distribution Risk Model** for its EVM program. The output of the risk model was then overlaid with LiDAR data and previously completed EVM to develop the 2021 EVM work plan
- The 2021 Wildfire Distribution Risk Model uses **100m x 100m risk pixels** that each have a risk score associated with them. The pixels were then re-aggregated into ~1km x ~1km grid areas to align with the EVM work tracking tool.
- Any **changes to the workplan will be approved by** the Wildfire Risk Governance Steering Committee.
- The EVM team will also target completing **80%** of the miles **from the top 20%** of the ranked CPZs.



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

Tree Crew Resources (Defined Scope)

WHY:

- Moved to the Defined Scope contracting model to **align the indicators of safety, quality and success** for both PG&E and our contracted workforce.
- This new contractor strategy will ensure that PG&E **aligns its contractors' goals with the Vegetation Management program** strategies and commitments.

WHAT:

- **A single Vegetation Management company** will be responsible for Routine and CEMA First patrols and all tree work along a grouping of circuits (referred to as "bundles" in this model).
- Under the Defined Scope model, both pre-inspection and tree work will be completed by a single vendor that will apply its expertise to **determine the most efficient and effective way to complete the work** along its assigned circuit(s).

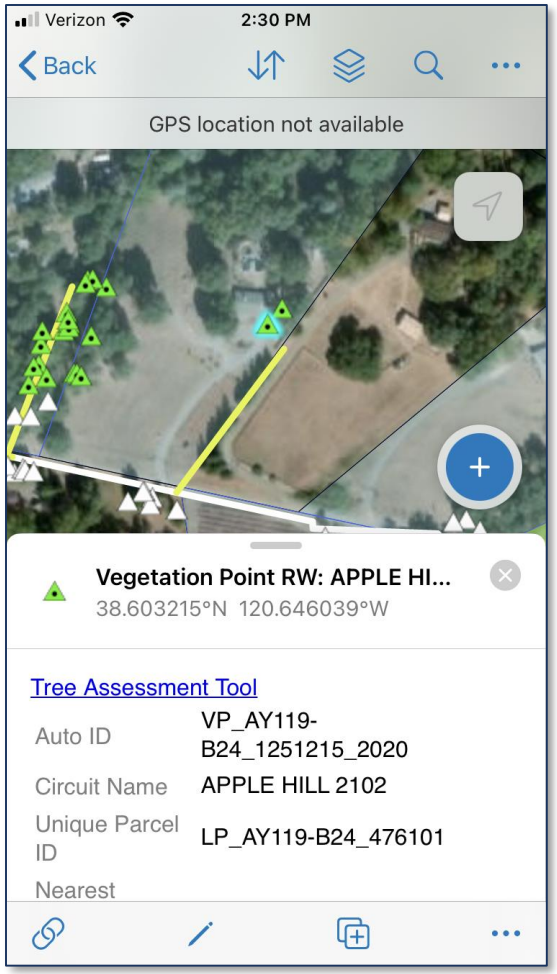
This contracting model will allow the responsible vendor the flexibility to determine the level of resources needed to complete the work, as well as the best method to complete the work, instead of PG&E requiring an assumed resource level.

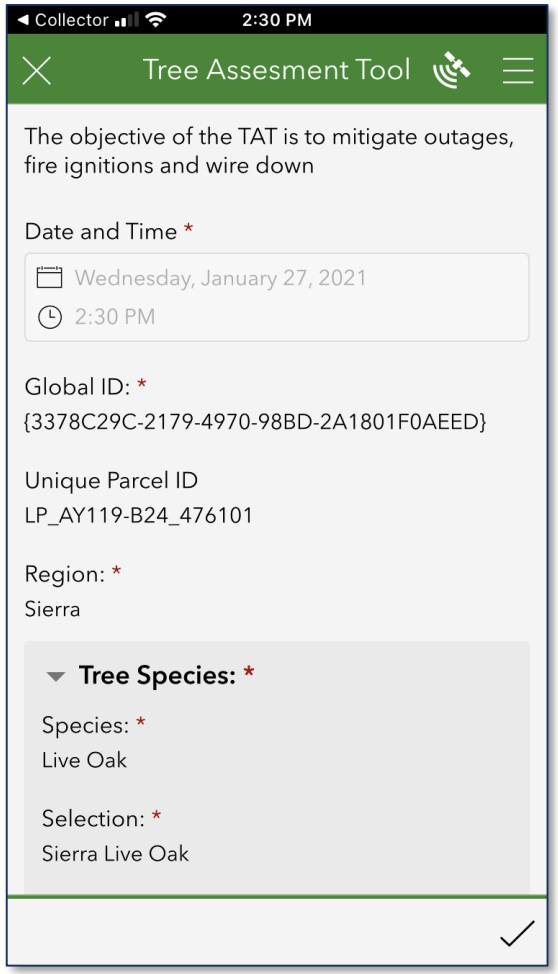
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Tree Assessment Tool (TAT)

TAT Overview:

- In 2020, PG&E rolled out a new **tool for evaluating an individual tree's likelihood of failing called the TAT.**
- As part of our EVM program, the TAT is **used on all trees with the potential to strike facilities**.
- The TAT is used by inspectors in the field on a per-tree basis to **inform Pre-Inspectors of whether to abate or not abate a tree**.
- The TAT helps create a **consistent method of evaluating trees along the conductors**.
- The TAT has various data inputs that inform the assessment, including but not limited **to historical data and statistics on tree failures, tree species, lean, health, terrain, slope and regional wind gust data**.



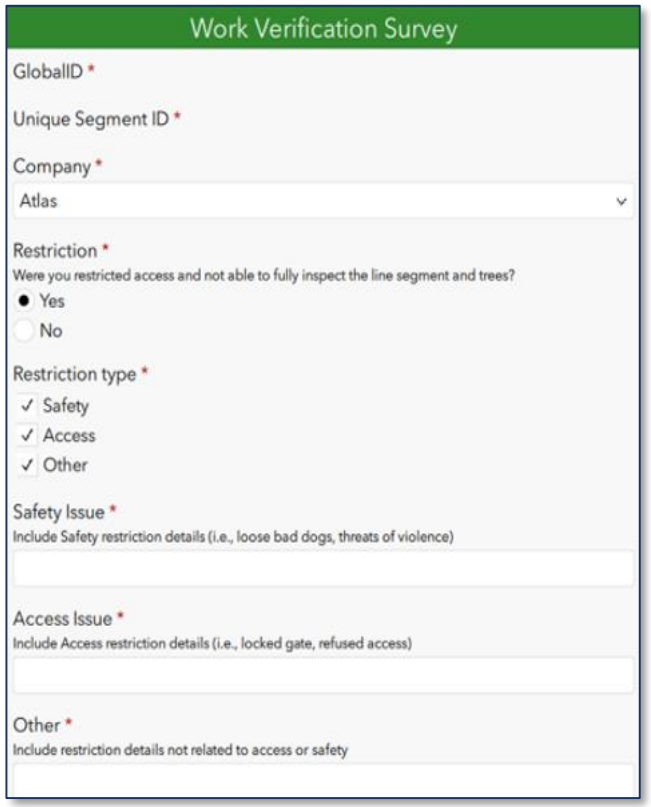


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Expanded Work Verification

Expanded Work Verification Overview:

- **This is an independent review of all EVM work to verify:**
  - ☑ The Pre-Inspector prescribed tree work that is needed, per compliance requirements
  - ☑ Tree work is completed as prescribed
  - ☑ The Pre-Inspector has listed out all strike trees (applicable to PG&E's EVM program only)
  - ☑ Defective trees are mitigated or removed
- The EVM Work Verification activity described above is now **expanding to all High Fire-Threat District Defined Scope circuits.**
- The EVM Work Verification team has typically been **comprised of a group of contractors who were independent and not part of any tree or Pre-Inspector vendor.** However, PG&E has recently started **using internal personnel to perform work verification tasks.**
- For more information see Action PGE-76 (Class B) in the 2021 WMP

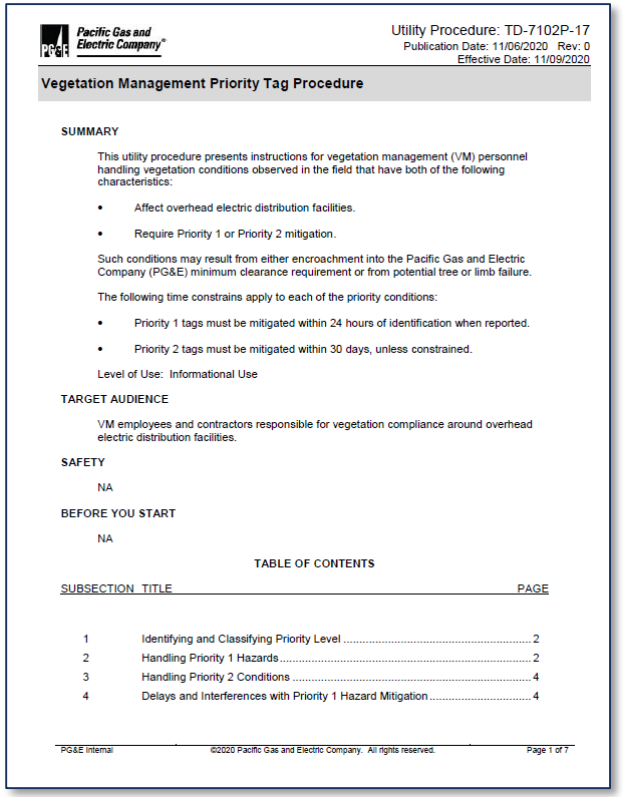


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Improved Priority Tag Process

Improved Priority Tag Process Overview:

- Accelerated method for **addressing both compliance and safety risks**
- Vegetation Program Managers are **notified right away** for all Priority 1 tags
- **Priority 1 tags must be mitigated within 24 hours of identification when reported. A Priority 1 condition is a safety concern that meets any of the following scenarios:**
  - ☑ The vegetation is in contact or showing signs of previous contact with a primary conductor.
  - ☑ The vegetation is actively failing or at immediate risk of failing and could strike the facilities.
  - ☑ The vegetation presents an immediate risk to the facilities.
- **Priority 2 tags must be mitigated within 30 days, unless constrained. A Priority 2 condition meets the following scenario:**
  - ☑ The vegetation has encroached within the PG&E minimum clearance requirements and is not in contact with a conductor.
- There is a **clear process for constrained units**
- **Timelines are the same** in and out of fire season to reduce confusion
- For more information see Section 7.3.5.4 in the 2021 WMP



Pacific Gas and Electric Company

Utility Procedure: TD-7102P-17
Publication Date: 11/06/2020 Rev: 0
Effective Date: 11/09/2020

Vegetation Management Priority Tag Procedure

SUMMARY

This utility procedure presents instructions for vegetation management (VM) personnel handling vegetation conditions observed in the field that have both of the following characteristics:

- Affect overhead electric distribution facilities.
- Require Priority 1 or Priority 2 mitigation.

Such conditions may result from either encroachment into the Pacific Gas and Electric Company (PG&E) minimum clearance requirement or from potential tree or limb failure.

The following time constrains apply to each of the priority conditions:

- Priority 1 tags must be mitigated within 24 hours of identification when reported.
- Priority 2 tags must be mitigated within 30 days, unless constrained.

Level of Use: Informational Use

TARGET AUDIENCE

VM employees and contractors responsible for vegetation compliance around overhead electric distribution facilities.

SAFETY

NA

BEFORE YOU START

NA

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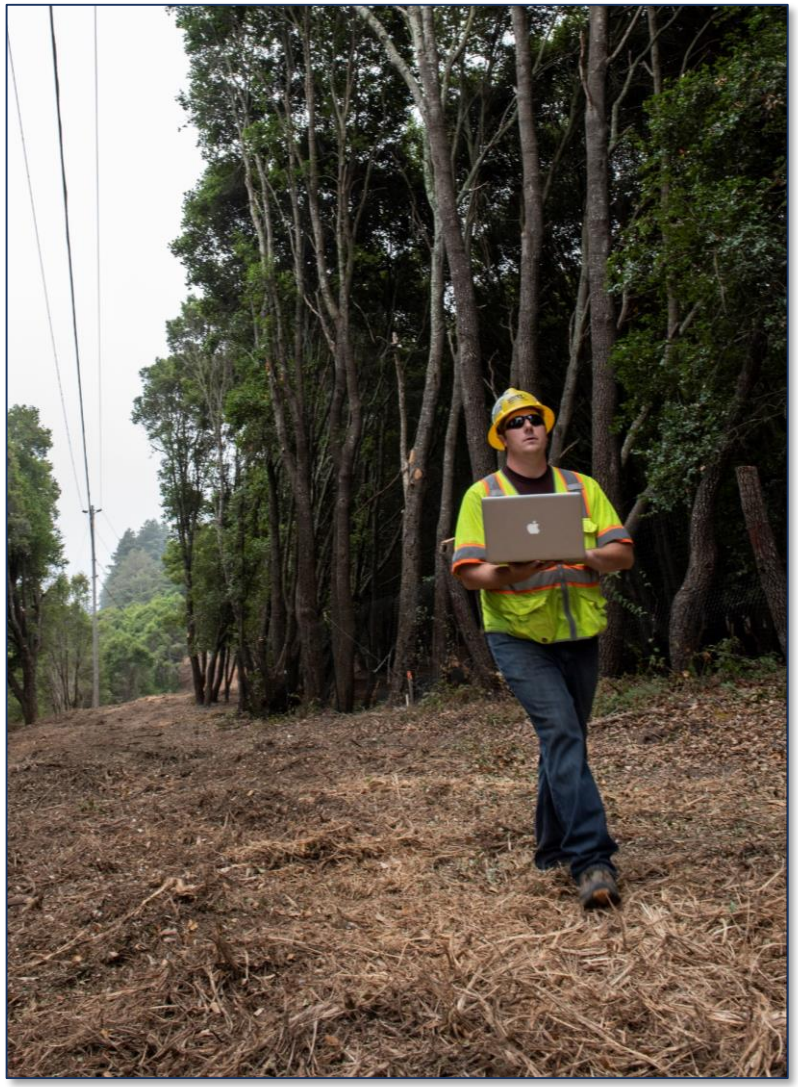
Utility Defensible Space (UDS)

WHAT:

- UDS is defined as creating an area around PG&E electrical facilities that, **in an event of a wire-down scenario, would reduce the likelihood of an ignition and/or spread of a fire.**
- It is **similar to the defensible space homeowners** are asked to create around their homes.

HOW:

- PG&E would like **to incorporate the use of a flame retardant and/or herbicides to increase the effectiveness** but this is still under review.
- The **program will leverage the 2021 Wildfire Distribution Risk Model** developed by the Asset Strategy team to identify high risk CPZs to prioritize projects for performing modification of vegetative fuels.
- Additional projects are also planned in **combination with local agencies such as CAL FIRE, USFS, and Municipalities on wildfire prevention initiatives.**
- For more information see Action PGE-78 (Class B) in the 2021 WMP



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