

SDG&E Wildfire Mitigation Plan Enhanced Vegetation Management Scope of Work

Purpose: Outline scope of work for inspection and tree trim operations in SDG&E's Highest Fire Threat District (HFTD) to mitigate risk of tree-related fire ignitions.

Background: As a requirement of the 2018 Senate Bill 901, SDG&E was required to file a Wildfire Mitigation Plan (WMP) outlining the steps the company planned to take to mitigate the risk of fire ignitions related to electrical infrastructure. Part of the Plan was the development of enhanced vegetation management (EVM) activities to reduce the likelihood of a fire ignition caused by vegetation coming into contact with energized conductors. SDG&E will execute its WMP within the state-defined High Fire Threat District (HFTD) (Zone 1; Tier 2; Tier 3) of its service territory.

Since 2009 SDG&E Vegetation Management has performed additional, off-cycle tree patrols in portions of the previously-defined High Risk Fire Area (HRFA) of the service territory. These off-cycle, HRFA patrols occurred during the Spring within the Vegetation Management Areas (VMA) whose routine, annual inspection schedule occurs within the months of September – December. The rationale was to perform an additional patrol within the HRFA portion of these specific VMAs before the onset of the Fall 'Santa Ana' wind season.

SDG&E's enhanced vegetation management will include the following:

- Perform additional, off-cycle patrols in all VMAs within the entire HFTD
- Integrate off-cycle patrols during the post-trim audit activity
- Expand post-trim clearances to 25 feet in targeted applications where achievable

Pre-Inspection Scope – Routine Schedule & Off-Cycle

The pre-inspection (PI) activity for EVM will primarily follow the current scope of identifying trees that require pruning to prevent encroachment within the required minimum clearance (4 feet) for the duration of the annual cycle. The intent is not to trim a tree solely on the basis that it is or will be within 25 feet of the power lines. A tree should be coded for trim if it could encroach by growth within the

minimum clearance required, *and* also if it could blow within the minimum clearance.

A primary function of pre-inspection is to determine whether a tree or its branches has the potential and likelihood to strike the power lines or associated equipment. Historically, the vast majority of tree-related outages and instances of fire ignitions involving tree/line contact are the result of trees that drop a branch or fail onto the power lines. To mitigate, the PI activity will inspect for hazard trees that have a reasonable and likely potential to strike the power lines by branch or trunk failure. PI will conduct a hazard inspection of all trees located within the ‘utility strike zone’. This zone is fluid, defined as including any and all trees that are tall enough to strike the lines if failure were to occur at ground level. Inspection will include a 360-degree assessment of the tree and will include criteria outlined in the *Pre-Inspection Procedures* manual and the *HFTD Scope of Work* documents. PI will also consider ‘edge effect’ trees that may need to be worked as a result of their exposure after the trim or removal of adjacent trees.

SDG&E data identifies a few key species that have historically caused the highest frequency of tree-related outages. These include eucalyptus, pine, oak, and sycamore. Pre-inspection shall apply the expanded post-trim clearance considerations for these species and others that have an inherent propensity for limb or trunk failure.

The PI activity will also increase tree unit reduction measures by targeting the removal of incompatible species and those where continued trimming is not prudent or effective.

Post-Trim Audit Patrols

SDG&E will perform additional, off-cycle HFTD patrols in tandem with the post-trim audit activity schedule. This activity will be performed in those VMAs whose routine pre-inspection activity occurs in the months of January through August. The scope of the post-trim audit patrol will emulate the EVM pre-inspection scope outlined above. A schedule of PI and Audit off-cycle patrols will be developed.

Tree Trimming/Removal Scope

Achieving correct post-trim clearances is critical to the success of the vegetation management program. The clearances obtained must be sufficient to prevent encroachment by growth within the minimum clearance required for the annual cycle, and to completely abate any structurally hazardous condition. The rationale for extending post-trim clearances is to create a larger space between trees and power lines and lessen the likelihood of contact during strong winds or when tree limbs break.

SDG&E has set a post-trim clearance of 25 feet on trees within the HFTD where it is achievable based on tree structure, tree health, proper pruning practices, etc., for all routine and reliability work. SDG&E will apply the expanded post-trim clearances to targeted species such as eucalyptus, pine, oak, and sycamore. Maximum clearances will be applied to the portions of the tree adjacent to and above the conductors and/or any other portion of the canopy that could impact the power lines by growth, breakout or wind sway. Tree trimming shall apply industry-standard, directional pruning techniques to direct growth away from power lines. The expanded clearances shall be achieved by cutting branches at strong laterals growing away from the conductor, avoiding inter-nodal cuts, and removing portions of tree canopy that could sway into the lines during strong winds.