

Company	Legal, Regulatory, and Compliance	Transmission & Distribution Utility Vegetation Management Program	Procedure	Doc. No.	UVM-08	 SOUTHERN CALIFORNIA EDISON Energy for What's Ahead SM
				Version	12	
Effective Date		11/14/22				
Supersedes		Version 11				
Managing Vegetation Threats						

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UVM-08

Utility Vegetation Management Managing Vegetation Threats

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1 Introduction

The Vegetation Threat Procedure identifies the methods of prioritization for identified threats discovered through the UVM Program's Transmission Vegetation Management Plan (UVM-02), Distribution Vegetation Management Plan (UVM-03), Hazard Tree Management Plan (UVM-04) and Dead and Dying Tree Program (UVM-18). Identified vegetation threats to public safety and/or electric system reliability are mitigated in accordance with this procedure. Qualified Observers and SCE vegetation contractors should identify potential vegetation threats and follow this procedure to ensure the appropriate mitigation action(s) are taken. Additionally, P2 conditions identified by Vegetation Management (VM) Pre-Inspection (PI) contractors during their normal assigned PI activities are not considered vegetation threats under this procedure.¹

This procedure also documents the mitigation timeline for E1P2 vegetation threats identified by non-UVM personnel using the SAP notification system.

2 Applicability

This document is applicable to the Operating Units (OU's) impacted by the ERCP Compliance Requirements pertaining to Vegetation Management including, but not limited to:

- Customer & Operational Services
- Generation
- Legal
- Safety, Security & Business Resiliency
- Transmission & Distribution
- UVM Contractors

3 Definitions

Refer to the NERC Glossary of Terms, the E&C Shared Services Glossary of Terms (ECSS-02), and UVM Program Glossary of Terms (UVM-16) for any capitalized terms not listed below.

Qualified Observer – an SCE employee or SCE contractor for Vegetation Management who understands vegetation threats and how to secure the area for public safety.

¹ P2 Conditions (RCD, CCD or TCD encroachments) identified by PIs during normal scheduled work activities are remediated as part of the normal work scheduling process in accordance with the timeliness requirements of UVM-08 Table 1 (30-90 days as applicable)

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4 Document Detail

4.1 Vegetation Threat Criteria

Priority 1 Conditions

- Any observed tree, or parts thereof, that is expected to imminently fail and contact electric facilities
- Any observed tree, or parts thereof, where vegetation contact or arcing with bare-wire conductors is highly probable to occur in a high-wind or modeled maximum load event due to vegetation proximity to power lines
 - In HFRA only, any observed tree, or parts thereof, where vegetation is within approximately 18" shall be considered a P1²
- Any observed vegetation condition where it appears that contact has occurred with primary electric facilities
- Any observed vegetation condition where it appears that strain or abrasion has occurred with secondary bare open wire
- Specific to the Heavy Tree Program (HTP), any observed tree, where failure of the tree and contact with the conductors is highly probable to occur in a high-wind event

NOTE: Any P1 condition identified within California Department of Fish and Wildlife (CDFW) jurisdiction and Water Ways that requires a permit for the removal or trimming, may be trimmed to an interim clearance necessary to make the tree compliant to regulations prior to permit issue and achieving final required clearance and/or tree removal.

UVM P2 and E1P2 Conditions (refer to Tables 1 & 2)

- Any observed tree, or parts thereof, that is not a Priority 1 condition and is currently stable but the likelihood of failure and/or contact with primary electric facilities is plausible but not imminent
- Any observed vegetation condition, that is not a Priority 1 condition and is currently stable but where it appears that vegetation may cause a failure of electric facilities (i.e., a condition that changes pole loading conditions such as excessive strain on a down guy or communication wires)
- Any observed tree, or parts thereof, that is not a Priority 1 condition but is within the TCD, CCD or RCD (including strain or abrasion at the secondary level that is not a Priority 1 condition)
- RCD, CCD or TCD vegetation encroachments identified by VM pre-inspection crews during scheduled work are not considered P2 threat conditions under UVM-08 but are remediated during the normal scheduling process in accordance with UVM-08 timelines (30-90 days)
- Any Vegetation with an HTMP Risk score resulting in a P2 mitigation (typically a risk score 50 – 100)

² Remediation timeline is 72 hours and stay on site requirements do not apply

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Priority 3 Conditions (HTMP Only)

- Any tree assessed through the HTMP process not requiring mitigation (typically a risk score < 50)
- Priority 3 conditions are added to the HTMP inventory as subject trees for future monitoring

4.2 Vegetation Clearing Times³⁴

- Priority 1 is cleared within 24 hours⁵⁶⁷
- Priority 2 (all except HTMP and Dead Trees) are mitigated by encroachment zone (reference Table 1)
- Priority 2 (HTMP) are mitigated based on risk score⁸ of identified threat (reference Table 2)
- Priority 2 (Dead and Dying Trees) are mitigated within 180 days
- Priority 3 is added to the HTMP inventory

Table 1: Remediation Timelines – TVMP/DVMP

Priority	TVMP/DVMP (Encroachment Zones)	Remediation Timeline
1	Priority 1	24 hours ⁶
2 E1P2	Near term failure of tree (or part of tree)	30 days
	Vegetation < RCD	
	Vegetation ≥ RCD and ≤ TCD	90 days

Table 2: Remediation Timelines – HTMP

Priority	HTMP (Risk Score)	Remediation Timeline
1	Priority 1	24 hours
2	50 – 100 ⁹	180 days
3	1 – 49 ⁸	Evaluate on next HTMP inspection cycle

³ Remediation timelines for Tables 1, 2 and Dead and Dying trees are considered “Targets” and do not account for constraint times. Constraints that impact remediation timelines include but may not be limited to: Access, Authorization, Resources, Customer Refusals, Environmental (Nesting birds, protected species habitat, archeological sites, cultural sites, human remains / criminal investigation), Safety concerns, Outage coordination, Weather (Flood, Fire, Snow, Wind), Permitting (City, County, State, Federal), and Technological. Constraints are documented in the work management system to the extent they are specific to an individual tree or work point.

⁴ Remediation Timelines for Table 1 meet and/or exceed the requirements of GO95 Rule 18A

⁵ If difficult or hostile conditions are encountered or expected during a P1 forced prune event, for the safety of personnel, the 24 hour remediation requirement may be relaxed in order to formulate a game plan and notify/engage the appropriate internal and/or external resources to support remediating the P1 condition. The SAP Notification generated to track the P1 shall be annotated accordingly

⁶ If a hostile environment is encountered and the condition is perceived as unsafe to personal safety, personnel are not required to stay on-site, and should notify their respective SSP or Manager of the situation

⁷ In HFRA only, P1 conditions for vegetation within 18” and no prior evidence of contact shall be remediated within 72 hours

⁸ Risk score only applies to HTMP, not Dead and Dying Tree Program

⁹ Typical risk score requiring remediation. May be overridden by the ISA Certified Arborist performing the assessment but shall be documented

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4.3 Vegetation Threat Steps

Evaluation and Categorization of Vegetation Threat

- If a potential vegetation threat is identified by the qualified observer or vegetation contractor, they should evaluate and categorize the threat as either a Priority 1 or 2 in accordance with Section 4.2
- Vegetation threats identified by personnel not within the UVM organization are typically entered into SAP as either an E1P1 or E1P2 notification and reviewed by vegetation personnel for appropriateness of the assigned priority condition
- Vegetation threats for HMP are assigned a risk score after assessment by an ISA Certified Arborists using the Tree Risk Calculator

Table 1 – HFRA		
PRC 4293, GO 95 Rule 35 (Case 14)		
Nominal Voltage	Clearance Distance that Triggers Work TCD	Regulation or Code Requirement
500kV	18'	10.0'
230kV	18'	10.0'
161kV	18'	10.0'
115kV	18'	10.0'
2.4 - 69kV	9'	4.0'

Table 2 – non HFRA		
GO 95, Rule 35 (Case 13)		
Nominal Voltage	Clearance Distance that Triggers Work TCD	Regulation or Code Requirement
500kV	18'	9.6'
230kV	10'	4.7'
161kV	8'	3.2'
115kV	7'	2.2'
2.4 - 69kV	n/a ¹⁰	1.5'

- To properly categorize the Vegetation Threat, the qualified observer or vegetation contractor should use good professional judgment when determining if the threat is a P1 or P2, and should ask / answer the following questions in determining the condition:
 - Is the vegetation above the line?
 - Consider factors that would cause vegetation to contact the line (dew, rain, fog)
 - Is the vegetation below the line?
 - Consider factors that would cause vegetation to contact the line (heat, load, etc.)
 - Is the vegetation adjacent to the line?
 - Consider factors that would cause vegetation to contact the line (wind)
- If determined to be a Priority 1 condition, perform the following:
 - Secure the area for public safety
 - Remain on-site¹¹ until the condition is corrected or they are relieved by an authorized SCE representative (see note below)
 - P1 conditions identified via the trouble order process require the initiator to call the Environmental Services Department at (833) SCE-2ENC or (833) 723-2362 for approval to remediate
 - Perform P1 Vegetation Dispatch Protocol

¹⁰ For Table 2 Voltages 2.4 – 69kV, CCD clearance value of 3' shall be used to identify a P2

¹¹ If a hostile environment is encountered and the condition is perceived as unsafe to personal safety, personnel are not required to stay on-site, and should notify their respective SSP or Manager of the situation

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NOTE: Observers/contractors are not required to stay on site for the following P1 conditions:

- When contact is with a covered conductor
 - When contact is with a clearly discernible neutral wire in non-HFRA areas only
 - When contact is with a secondary bare wire conductor of 750 Volts or less in non-HFRA areas only
 - When contact is highly probable to occur during a high-wind event, or within 18” of the conductors (HFRA only), but there is no evidence contact has yet occurred (applies to both TVMP/DVMP and Heavy Tree Program)
- If determined to be a Priority 2 condition, then document the Vegetation Event in the WMS

Performing P1 Vegetation Dispatch Protocol – When Identified by SCE Personnel/Qualified Observer

When a P1 condition is identified, the qualified observer shall perform the following:

NOTE: If the P1 condition is: (1) an observed tree, or parts thereof, that is expected to imminently fail and contact electric facilities; or (2) a P1 grow in condition that is within the Minimum Approach Distance and/or flash-over distance as surveyed (not modeled conditions), AND is part of SCEs Transmission Bulk Electric System Line/Circuit, immediate notification to the Grid Control Center (GCC) is required. The GCC shall log the notification and determine what system protection is available and appropriate for the section of the line in question.

Notification to the GCC for other P1 conditions shall be as deemed necessary for personnel and circuit protection.

Contact Phone Numbers	
Event Expeditor	833-744-1393
Grid Control Center	626-308-6717

- Contact the Work Scheduler, or applicable Senior Specialist (SSP) to contact the General Foreman to dispatch a VM work crew to perform the remediation
- Notify the SSP and/or applicable Vegetation Manager for that assigned area that a P1 condition has been identified
- Provide relevant information to the General Foreman or dispatcher to ensure response to the correct location. Information to be provided may include but is not limited to the following:
 - Location of P1 condition
 - Bounding Towers or Poles
 - Line Number / Circuit Name

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Performing P1 Vegetation Dispatch Protocol – When Identified by SCE Contractors

When a P1 condition is identified, the observer shall notify the applicable pruning contractor (and SSP as applicable) to perform the remediation

Documenting and Clearing P1 Vegetation Events – SHALL BE PERFORMED WITHIN 24 HOURS¹²

The work is dispatched to the applicable work crew who is required to perform a tree and site assessment of the location for other conditions that may pose a threat

All P1 Vegetation Conditions are entered into the Work Management System (WMS) as a noncompliance by the responding work crew

Within 24 hours, the work crew general foreman provides confirmation in the WMS and objective evidence (before and after photograph) to document the creation and remediation of the P1 condition

The RPPM Event Expeditor (EE) performs the following tasks related to the UVM P1 condition:

- On a quarterly basis, performs a batch upload of the P1 conditions into SAP
- Confirms before and after photographs are included in the WMS as evidence of compliance to the documentation requirements
 - During the review of photographs, a non-technical review is performed to provide reasonable assurance mitigation was performed based on the photographic evidence
- Generates weekly reports to verify P1 conditions are remediated

Documenting and Clearing P2 Vegetation Events

- P2 conditions for TVMP/DVMP are remediated in accordance with Table 1 requirements and documented in the Work Management System
- P2 conditions for HTP are typically remediated within 180 days contingent on having appropriate access, authorization, and resources to perform the removal.
 - Remediation/completeness is documented in Fulcrum

Tracking and Reporting P1, P2 & E1P2 Conditions

- The RPPM group is responsible for tracking and reporting closure of all UVM P1, P2 and E1P2 notifications
- Status reports are issued weekly and distributed via e-mail to UVM personnel
- Status reports are provided monthly during UVM Performance Review Meetings
- Notification timeliness begins upon creation of the work point in the Work Management System

¹² In HFRA only, P1 conditions for vegetation within 18" and no prior evidence of contact shall be remediated within 72 hours

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4.4 FAC-003 Reporting

Upon completion of the necessary vegetation work, T&D Compliance Integration will complete and submit to WECC an Imminent Threat Report when a Bulk Electric System line was included in the P1 event and the Line Clearance was within the Regulatory Clearance Distance (RCD) which encompasses the Minimum Vegetation Clearance Distance (MVCD). This report provides evidence for FAC-003-4 of the corrective action taken for each constraint where an applicable transmission line was placed at risk.

In addition to the documentation required above, the following information will also be retained related to the event, as applicable.

- Initially planned work orders; Documentation of constraints from landowner (refusal or limited clearance); Court orders; Inspection records of increased monitoring; Documentation of the de-rating of lines; Revised work orders; Invoices; and Evidence the line was de-energized

5 Approvals

Program Manager	Signature	Date
Melanie Jocelyn, Principal Manager	Melanie Jocelyn / Approved by E-mail	11/8/22

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6 Revision History

Revision Number	Date	Description of Revision	By	Next Review Date
1	8/1/18	New process under UVM Program	UVM Build Team	2019
2	5/17/19	General Document Refresh Incorporated prior attachments into body of procedure Revised P2 criteria timelines	Bill Kotteakos	5/17/20
3	6/7/19	Corrected HTMP P2 Risk Score Error in Section 4.2 (was 56 now 50)	Bill Kotteakos	6/7/20
4	6/28/19	Revised SAP E-1 to UVM P1 Updated Process Flow on Page 4	Bill Kotteakos	6/28/20
5	7/19/19	Clarified P1 Notification requirements	Bill Kotteakos	7/19/20
6	9/1/19	Clarified P1 Remediation and Stay Onsite requirements when difficult conditions are encountered	Bill Kotteakos	9/1/20
7	11/11/19	Revised P1 & P2 Criteria	Bill Kotteakos	11/11/20

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8	12/31/20	Revised P1, P2, P3 Criteria	Bill Kotteakos	12/31/21
9	6/25/21	Revised P1 Criteria and Stay onsite exception	Bill Kotteakos	6/25/22
10	7/18/22	General procedure update. Revised P1 Criteria, Table 1 requirements and deleted P1 SAP requirements	Bill Kotteakos	7/18/23
11	9/19/22	Revised P1 Criteria and added footnotes 2, 3, 6, 11	Bill Kotteakos	9/15/22
12	11/14/22	Reformatted procedure to emphasize notification to the GCC when a P1 condition is identified in the BES Added reference to GO95 Rule 18A	Bill Kotteakos	11/14/23

7 References

External References

NERC Reliability Standard FAC-003-4

Internal References

UVM-02, Transmission Vegetation Management Plan

UVM-03, Distribution Vegetation Management Plan

UVM-04, Hazard Tree Management Plan

UVM-16, UVM Program Glossary of Terms

UVM-18, Assessment and Removal of Dead and Dying Trees

ECSS-02, E&C Shared Services Glossary of Terms

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8 Distribution and Data Retention

- Impacted OU Touchpoints
- E&C Portal
- VM Portal

The approved version of the document shall be stored on the Vegetation Management SharePoint site while in effect and for at least ten (10) years thereafter.

9 Key Contacts

UVM Principal Manager, Operations: Jeff Copeland, (310) 995-6178

UVM Senior Manager, Compliance: Bill Kotteakos, (949) 379-9470

UVM Senior Manager, Resource Planning and Performance Management: Minhthu Duong, (714) 812-3306

UVM Senior Manager, Strategic Planning: Jessica Doucette, (626) 464-4010