

Figure 11: PRC 4292 and 14 CCR 1254 Fire Break Clearance Requirements around poles and towers

- Fuels Management
 - Elective program that varies by IOU
 - Includes thinning vegetation
 - For details, see Background Questions on IOU Fuels Management Programs

Research

Goal: Determine the optimum fuels management distance(s) to mitigate ignition risk along distribution lines. Different conditions and/or types of pole mounted equipment may have different optimum clearance distances. Distances may vary in the longitudinal and transverse direction, based on equipment orientation, etc.

Phase I

Scope

1. Research the history of the PRC 4292 requirements
 - a. This should include, but not be limited to, communication with Cal Fire
2. Investigate the following questions:
 - a. What was the basis for the requirements in PRC 4292?
 - b. When did Cal Fire last evaluate the applicability of the requirements in PRC 4292?
 - c. Does Cal Fire think the requirements are still appropriate?
 - d. If not, why not?
 - e. Does Cal Fire have plans to review or update the requirements?
3. Investigate what research, if any, has previously been conducted related to:
 - a. Fuels management around utility poles
 - b. Optimum fuels management distance(s) and corresponding parameters
 - c. Maintenance intervals for various vegetation types (i.e. grasses, brush, trees, etc.)
 - d. Historic ignition distances from utility poles
 - e. Theoretical ignition distances from utility poles
 - f. Projection distances associated with pole mounted equipment failure, may vary depending on equipment type
 - g. Other related research
4. Propose plan for Phase II with two or more options

Deliverables

Prior to the final submittal of all deliverables, drafts must be submitted for review.

1. Report including:
 - a. Table of contents
 - b. Summary of history behind PRC 4292 pole clearing requirements
 - c. The basis for the PRC 4292 pole clearing requirements
 - d. Date of Cal Fire's latest review of PRC 4292 pole clearing requirements
 - e. Cal Fire's view on the applicability of the requirements, including their reasoning
 - f. Cal Fire's plans for future reviews and updates
 - g. A summary of prior research performed, including the results
 - h. List of references
2. Proposed plan for Phase II including:

- a. Two or more options
 - b. Proposed scope, deliverables, and timeline for each option
 - c. Discussion on the feasibility of achieving meaningful results
 - d. Estimated cost
3. Presentation of findings and proposed Phase II options

Project Meetings

There will be bi-weekly project meetings.

Schedule Durations

1. Cal Poly research, draft report, proposed plan for Phase II, and presentation development: 10 weeks
 - a. Cal Poly to present findings and proposed Phase II options in a meeting
 - b. Cal Poly to submit draft report
 - c. Cal Poly to submit proposed plan for Phase II
2. IOU review: 2 weeks
 - a. Cal Poly and IOUs have meeting to go through review comments
3. Cal Poly's incorporation of IOU review comments: 3 weeks
 - a. Resubmittal of draft report and proposed plan for Phase II
4. IOU final review: 2 weeks

Phase II

Scope

1. Details will be developed at the end of Phase I
2. May include:
 - a. Determination of theoretical ignition distances from utility poles
 - b. Modeling of the projected distances associated with pole mounted equipment failures, which may vary depending on equipment type
 - c. Experimental testing
 - d. Other

Deliverables

To be determined at the end of Phase I. This will include recommendations or best management practices that IOUs may consider for informed decision making of discretionary fuels management programs. Recommendations may vary based on conditions (i.e. type of pole mounted equipment, vegetation type, etc.)

Project Meetings

There will be bi-weekly project meetings.

Schedule

To be determined at the end of Phase I.

References

1. California Public Resources Code, Section 4292
2. California Code of Regulations Title 14, Sections 1250-1255
3. Background Questions on IOU Fuels Management Programs
4. *SDG&E Wildfire Fuels Management Program 2022 Annual Report*, by AECOM, dated February 2023
5. *WMS Work Summary*, by Insight Global, dated 8/24/22
6. *WMP Fuels Management Study Phase 1 & Phase 2*, by SDG&E WM & Insight Global, dated 8/18/22
7. *Draft Policy Paper on Updating Vegetation Management Regulations and Industry Practices*, by California Wildfire Safety Advisory Board's
8. [Wildfire and Wildfire Safety \(ca.gov\)](https://www.ca.gov/wildfire-safety/) website, which includes IOU Wildfire Mitigation Plans, IOU annual ignition data, and other related information
9. *Vegetation Clearance Distances to Prevent Wildland Fire Caused Damage to Telecommunication and Power Transmission Infrastructure*, by B.W. Butler and T. Wallace U.S. Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory, Missoula MT and J. Hogge Brigham Young University, Provo Utah, [Proceedings of the large wildland fires conference; May 19-23, 2014; Missoula, MT \(usda.gov\)](#)
10. *High-Voltage Arc Flash Assessment and Applications*, by Albert Marroquin, Senior Member, IEEE, Abdur Rehman, Member, IEEE, and Ali Madani, Member, IEEE, published in *IEEE Transactions on Industry Applications*, Vol. 56, No. 3, May/June 2020
11. *California Power Line Fire Prevention Field Guide*, by Thomas Porter, Director CAL FIRE; Mike Richwine, State Fire Marshal; Marybel Batjer, President CA Public Utilities Commission, 2021