

PG&E Vegetation Management Drought Response - 2014



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2014 Vegetation Management Initiatives

Initiative Name	Description
Enhanced Vegetation Inspection and Mitigation	Redundant ground and air inspection on selected circuits to abate drought affected trees that died <i>after</i> routine annual work.
Wild Land Urban Interface Protection	Conducted work normally only required in SRA within WUI LRA areas and abated drought affected trees.
High Fire Risk Tree Identification and Mitigation	Apply emerging technologies to I.D. and abate particular species of trees, drought-caused declining trees and dead trees.
Fuel Reduction and Emergency Response Access	Funded FSC's, Counties & NGO's for fuel reduction and ingress/egress.
Early Detection of Forest Disease/Infestation	Formed cooperative information sharing with Universities, Cal-Fire and USFS on forest health.
Early Detection and Response to Wildfires	Funded lookouts, aerial patrols and fire detection cameras.



Enhanced Vegetation Inspection and Mitigation

Enhanced Patrols

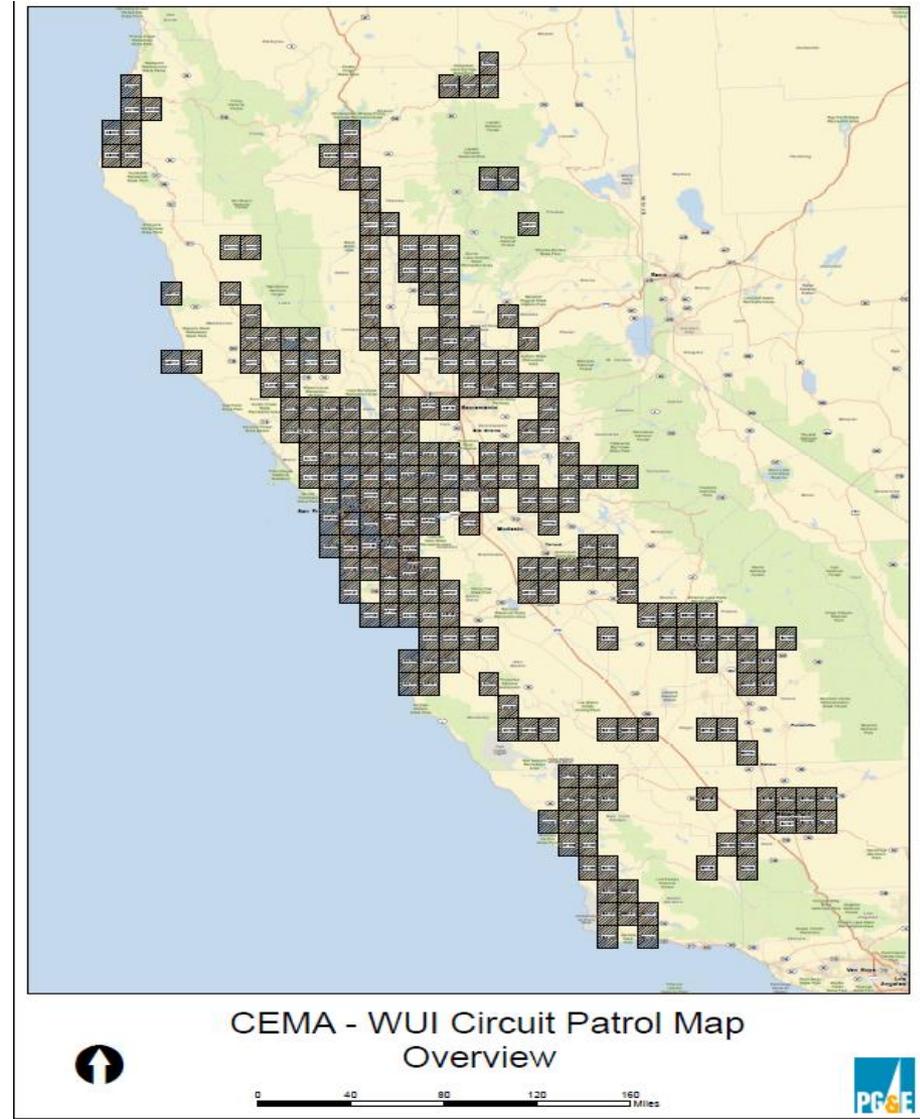
- 30,600 line miles re-inspected
- 8,005 hazard trees abated



- Accelerated customer notification process to expedite tree work
- Broader public understanding and opportunity for education around fire prevention

The WUI Initiative consisted of two main risk reduction efforts in LRA (Local Responsibility Areas).

- Implemented redundant vegetation patrols: **400 trees abated.**
- Inspected **3,235** and cleared **1,425** poles with PRC 4292 'non-exempt' equipment in LRA.



Wildland Urban Interface

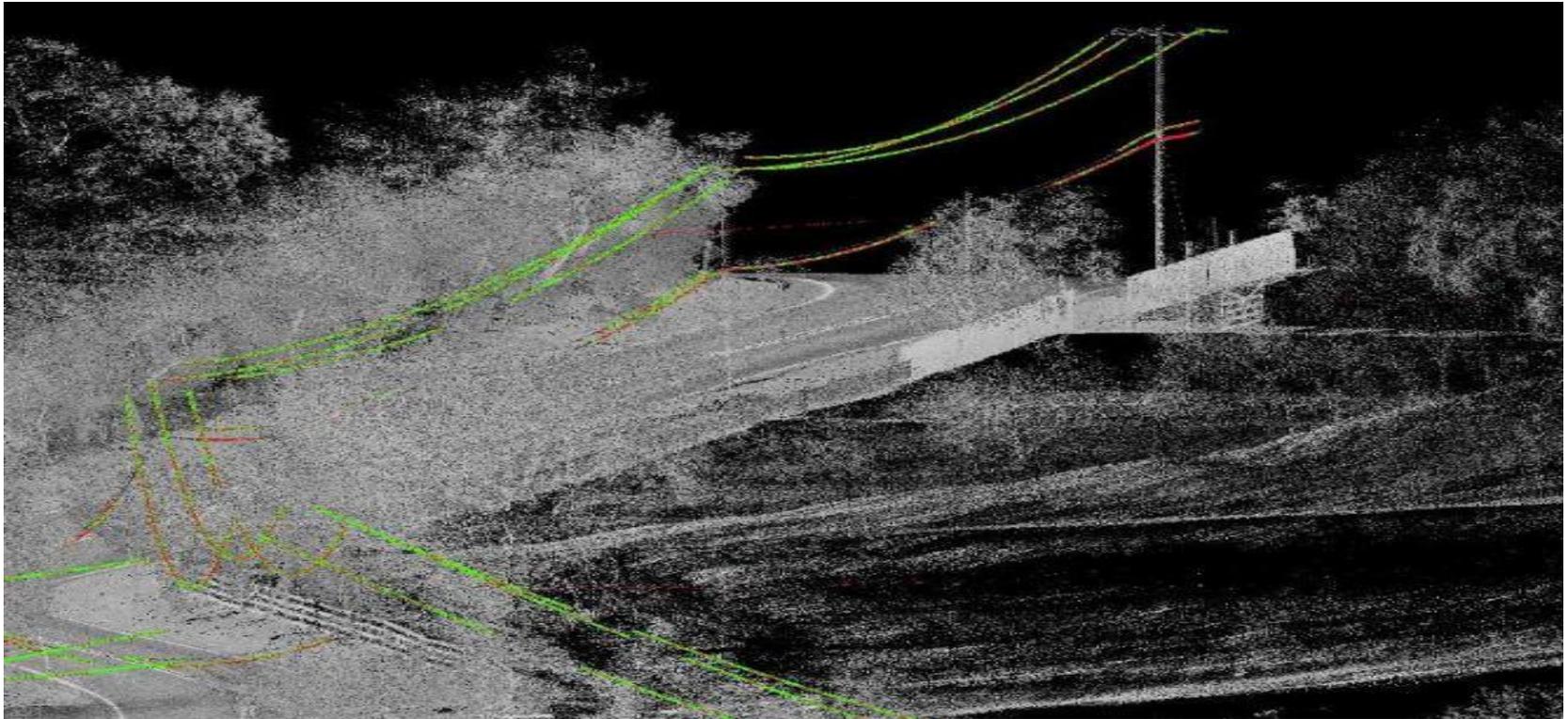




High Fire Risk Tree Identification and Mitigation

Use emerging technologies like LiDAR and spectral imagery to I.D. & abate hazardous trees in high fire danger areas.

Included LiDAR (Light Detection and Ranging) and spectral imaging techniques.



SPECTRAL IMAGERY: SPECIES EXTRACTION



Use spectral imagery analysis to search for species like Gray Pine, Valley Oak, Black Oak, & Blue-Gum.



Fuel Reduction and Emergency Response Access

Funded FSC's & NGO projects:

- 149 requests for funding
- 99 projects funded
- 28 Fire Safe Councils/NGOs funded
- Funding occurred in 33 counties
- Issued joint media releases and partnered w/ FSCs to drive public awareness and education
- Most projects were done in cooperation with Cal Fire and/or local fire dept., BLM, USFS, County RCD's and private road associations

The work performed by this group of dedicated men is of great help to my wife and me, not only from the standpoint of safety, but from a great relief of emotion over the always impending fear of forest fires.

Thanks to the generosity of Pacific Gas and Electric, who have provided funding for this extremely worthwhile program and the professional planning and scheduling by the Calaveras Foothills Fire Safe Council many disabled and elderly folks will rest easier during future forest fire dangers. I strongly encourage the full continuance of this extremely important program.

Thank you one and all for your interest and effort exceptionally well done.

Sincerely,


FRED P. SLIKOFF

Calaveras Foothills Fire Safe Council



Fuel Reduction and Emergency Response Access





Early Detection of Forest Disease/Infestation

Initiative Scope: Partner with USFS, Cal-Fire, Universities & NGO's monitoring forest health to identify and mitigate areas at risk from drought stress resulting in likely tree mortality. Use information to augment annual work, conduct follow up work and capture risk as it occurs.

- Utilize existing and developing USFS Aerial Patrol Data; shared latest versions of maps and uploaded in GIS
- Train with CAL FIRE forest pest specialists
- Partner with HSU to map drought stressed vegetation
- Beetle training in SC & Santa Clara counties

An aerial photograph of a dense forest. The majority of the trees are green, but there are several distinct patches of brown and tan trees scattered throughout, indicating areas affected by drought or other environmental stressors. The terrain appears to be a mix of forested hills and valleys.

Mapping Drought Impacts in the Central Valley and Sierra Nevada Foothills Using Remote Sensing

**Mahesh Rao, Ph.D.
Humboldt State University
Arcata, CA**



Early Detection and Response to Wildfires

Refurbish & Staff Lookouts

- 4 Lookouts re-furbished and staffed
- 3 in Sierra & 1 in Humboldt

Aerial Patrols - 6 days/wk 3 PM to dusk, July 12 - Nov 14

- Mendocino Aerial Coop Patrol
 - I. Doubled Coop's patrol
 - II. 8 Detections – 7 first call-in
- PG&E Contract Fixed wing
 - I. Redding to Auburn
 - II. Auburn to Mariposa
 - III. Monterey to San Luis Obispo
 - IV. 28 Detections

Remotely Operated Cameras

- 28 Cameras
- Located within 7 Cal-Fire Units



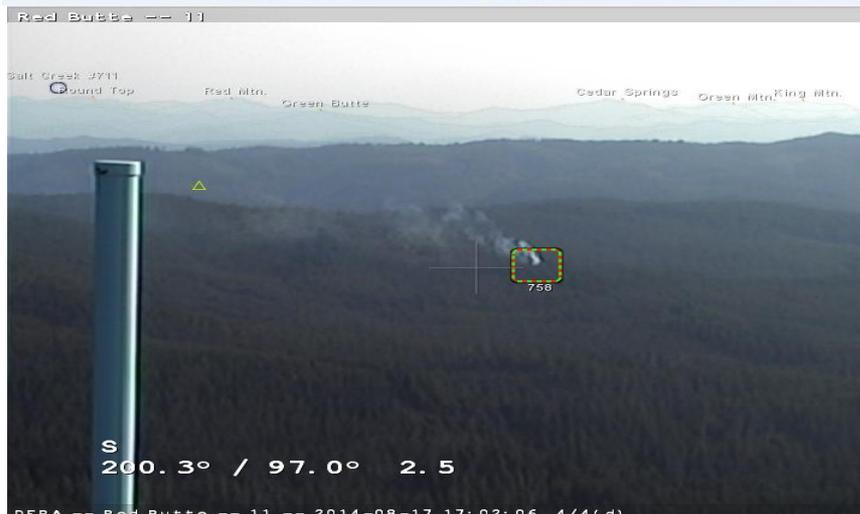
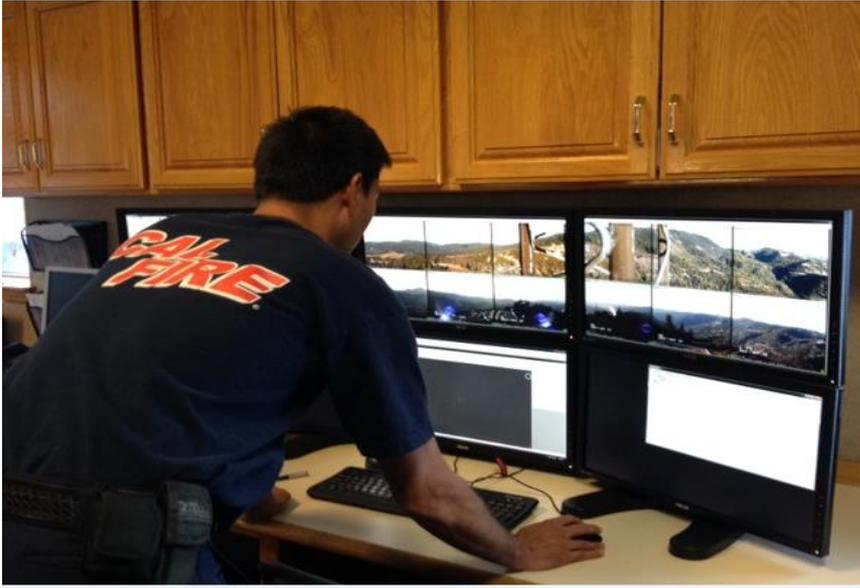
Early Detection and Response to Wildfires





Early Detection and Response to Wildfires

28 Cameras and 7 Monitoring Centers: Humboldt, Siskiyou, Butte, Calaveras, Santa Clara and Marin Counties



An aerial photograph of a lush green forest. In the lower-left quadrant, there is a small settlement with several buildings, including a prominent one with a red roof. A winding path or road leads through the forest towards the settlement. In the lower-center, there is a small, dark pond. The forest is dense and vibrant green, covering most of the image.

THANK YOU.
QUESTIONS?