

PG&E Vegetation Management Drought Response – 2015 Report to the Board of Forestry



October 28, 2015

**Niel Fischer, Principal, PG&E Vegetation
Management**

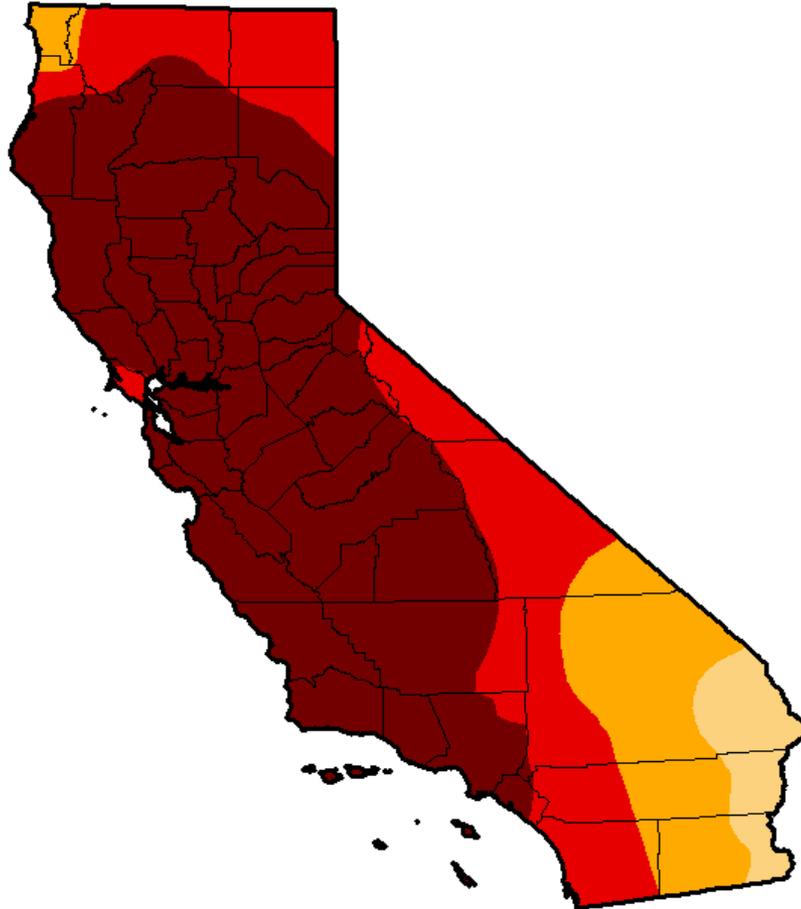
Setting the Stage: Mariposa County June 25, 2015





Let's look back a year & compare: here's Sept. 2014.

U.S. Drought Monitor California



September 9, 2014

(Released Thursday, Sep. 11, 2014)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	100.00	95.42	81.92	58.41
Last Week 8/2/2014	0.00	100.00	100.00	95.42	81.92	58.41
3 Months Ago 6/10/2014	0.00	100.00	100.00	100.00	76.68	24.77
Start of Calendar Year 12/31/2013	2.61	97.39	94.25	87.53	27.59	0.00
Start of Water Year 10/1/2013	2.63	97.37	95.95	84.12	11.36	0.00
One Year Ago 8/10/2013	0.00	100.00	97.08	92.94	11.36	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

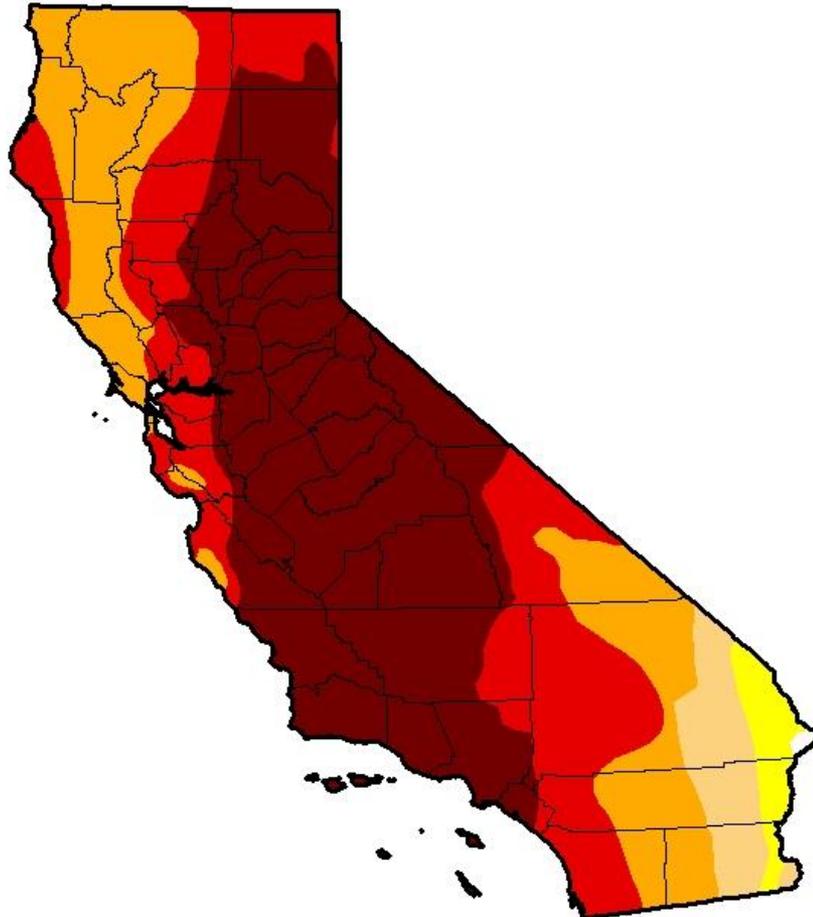
Brian Fuchs

National Drought Mitigation Center



U.S. Drought Monitor California

September 1, 2015
(Released Thursday, Sep. 3, 2015)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.14	99.86	97.35	92.36	71.08	46.00
Last Week 8/25/2015	0.14	99.86	97.35	92.36	71.08	46.00
3 Months Ago 6/2/2015	0.14	99.86	98.71	93.91	69.61	46.73
Start of Calendar Year 12/31/2014	0.00	100.00	98.12	94.34	77.94	32.21
Start of Water Year 9/30/2014	0.00	100.00	100.00	95.04	81.92	58.41
One Year Ago 9/2/2014	0.00	100.00	100.00	95.42	81.92	58.41

Intensity:

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Author:

Anthony Artusa
NOAA/NWS/NCEP/CPC





PG&E Veg Mg't 2015 Drought Response

Initiative	Metrics & Plan Goals	Status at 10/20/15
1, Enhanced Vegetation Inspection and Mitigation	Abate 19,000 trees; clear 1,425 poles	<p><i>Redundant air, ground & LiDAR/Spectral Imagery patrols</i></p> <ul style="list-style-type: none"> • 26,899 trees ID'd; • 15, 209 abated as of 10/20/15 <p><i>Wild land Urban Interface (WUI) LRA pole-clearing</i></p> <ul style="list-style-type: none"> • 1,425 poles cleared
2. Fuel Reduction and Emergency Response Access	Fund 20 Fire Safe Councils	<p><i>Funding fuel reduction, defensible space & escape route safety</i></p> <ul style="list-style-type: none"> • Funded 19 FSC's throughout service territory • FSC's actively working
3. Early Detection and Response to Wildfires & Forest Disease/Infestation	4 fire spotting planes; 2 cameras; ID tree mortality	<p><i>Funding for insect & disease/tree mortality study, aerial fire patrols, & lookout cameras</i></p> <ul style="list-style-type: none"> • Research project in forest health w/ HSU – publish & share w/ universities & agencies • 4 planes flying 2 pm to dusk 7d/w; 94 fires spotted; 20 first call-in • 2 cameras installed
4. Public Messaging	Double Cal-Fire's Messaging	<p><i>Leverage Cal-Fire's "Ready, Set, Go," "Beetle," & "One Less Spark," programs</i></p> <ul style="list-style-type: none"> • E-banners, ads on Pandora, Facebook, radio & billboards began 7/21 & ended 8/31 • Letters to Editor and Local Newspaper Debris Notices & Articles



1. Enhanced Inspection and Mitigation

Enhanced Patrols

- 43,924 line miles re-inspected
- 26,899 trees ID'd

(Bass Lake 8/13/15)



(Miwuk 8/12/15)

- Accelerated tree mortality
- Public understanding and opportunity for education around fire prevention & bark beetles



Mowbray's Tree Service at Bass Lake 10/6/15



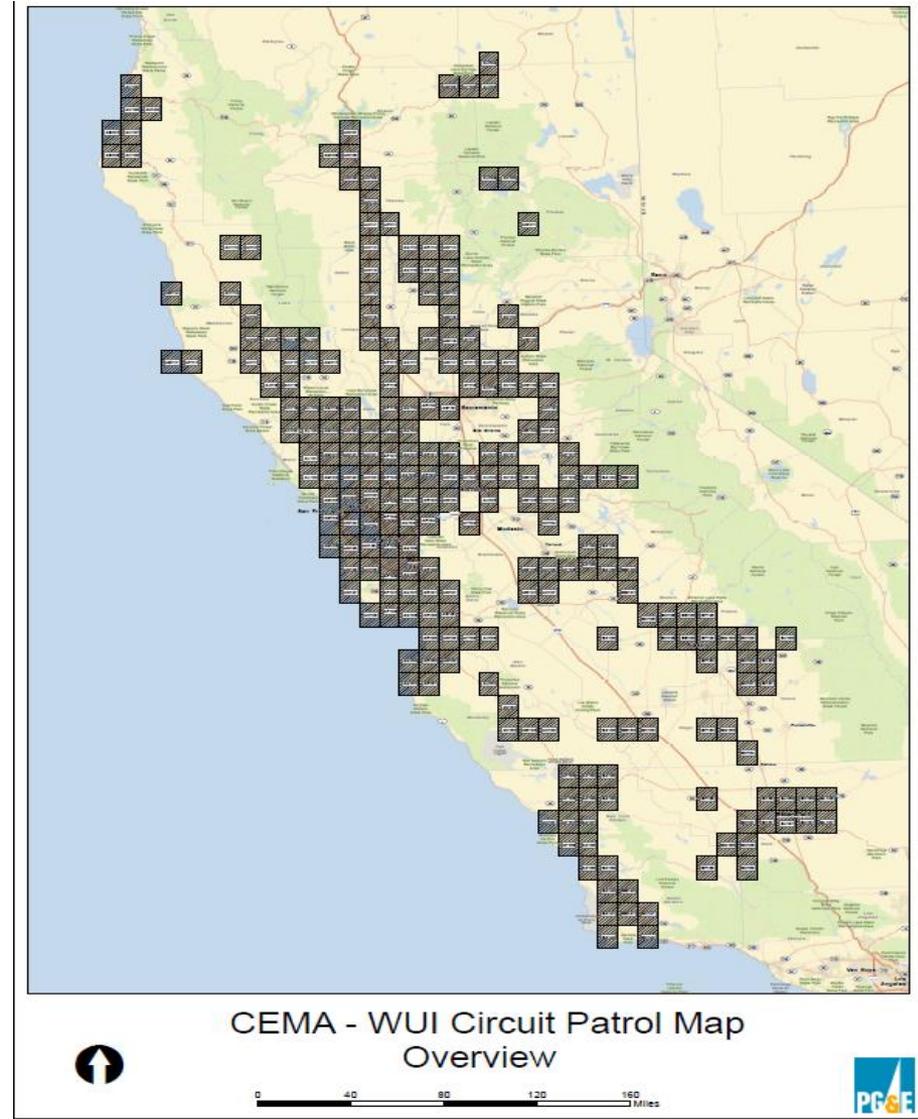


Mowbray's Tree Service at Bass Lake 10/7/15



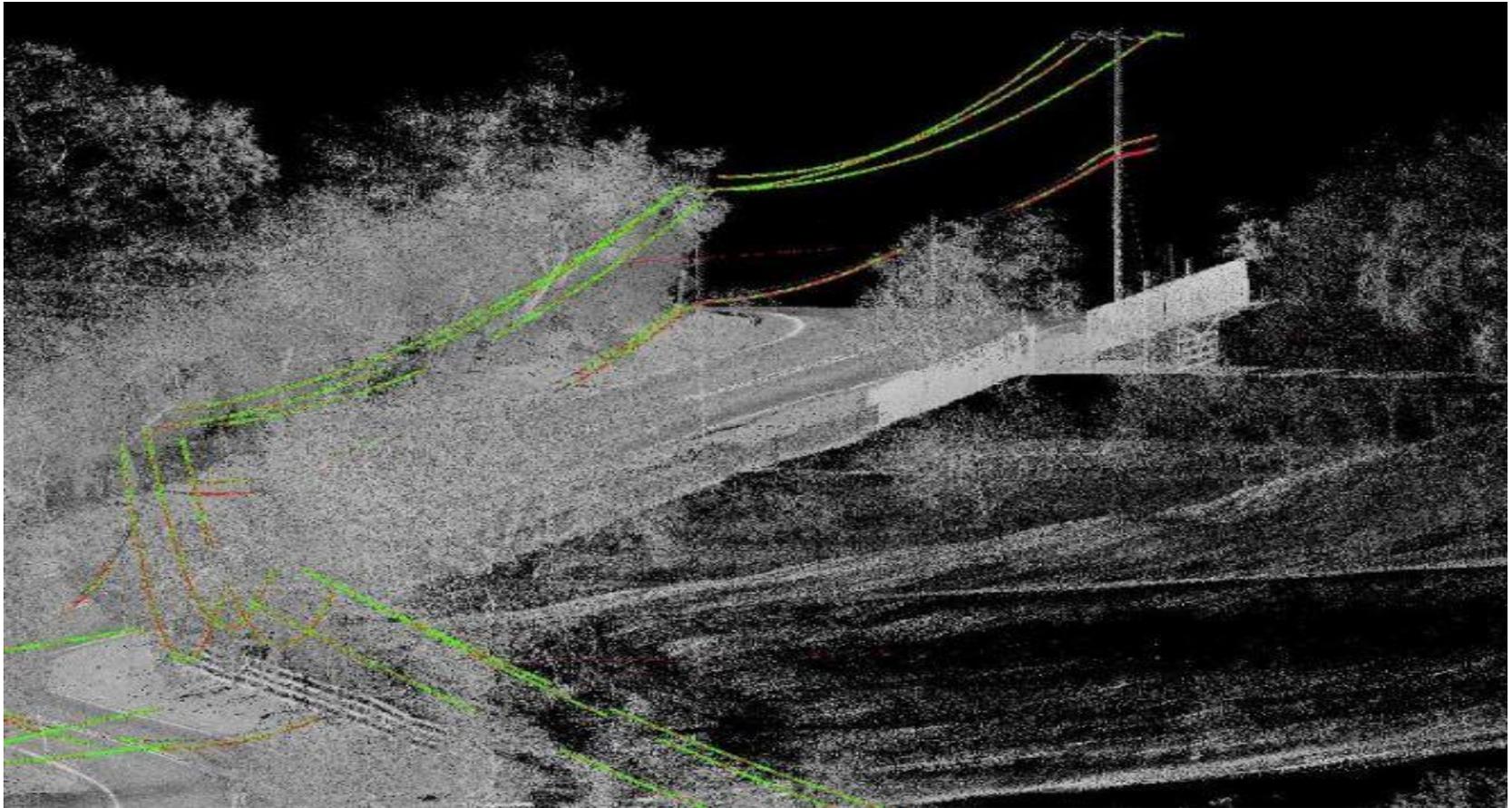
The WUI Initiative in LRA (Local Responsibility Areas).

- Implemented redundant vegetation patrols: **493 trees abated.**
- **Inspected 3,231** and **cleared 1,425** poles with PRC 4292 'non-exempt' equipment in LRA.





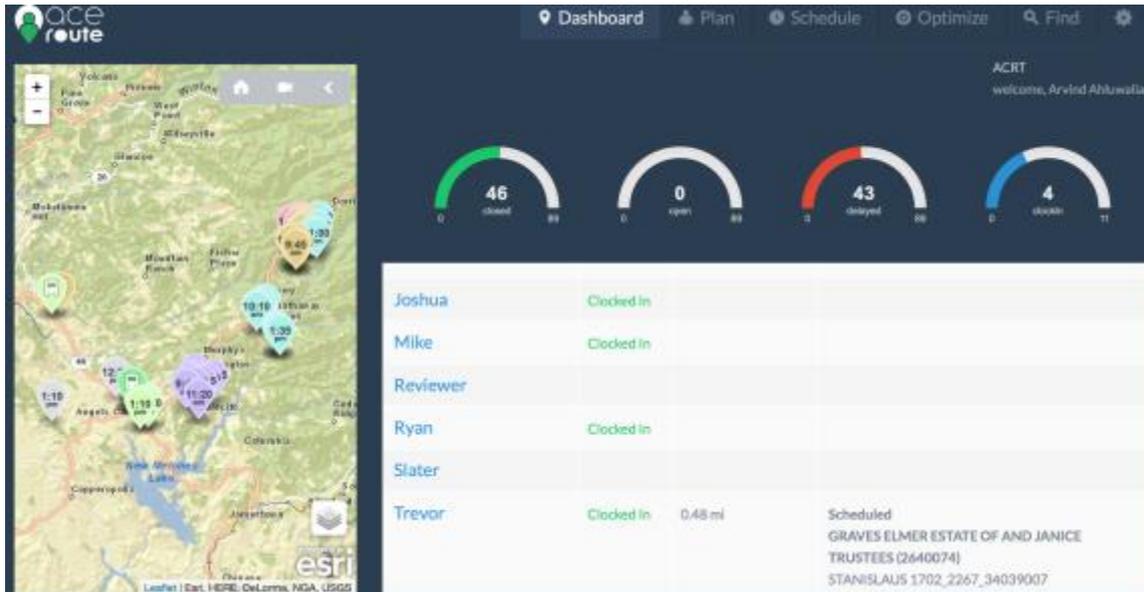
Use emerging technologies like LiDAR (Light Detection and Ranging), & spectral imagery to I.D. & abate hazardous trees in high fire danger areas.





Example of LiDAR & Tech Driven Decision Making

- 6 Circuits
- 1500 Detections
- Butte Fire impacted all 6 circuits
- AceRoute technology allowed contractors to make real-time changes on maps to stay outside the fire perimeter



9/9 Field Kick-off & Training
Frogtown (Angles Camp, CA)

9/15: Pulled out of Salt Springs
due to Fire. Refocus on
Frogtown

9/17: Started Stanislaus

9/10: 1st Tree Signed-up for Tree
Work

9/16: First Tree Added

9/18: Pulled out of Stanislaus
due to Fire Duty



2. Fuel Reduction & Emergency Response Access



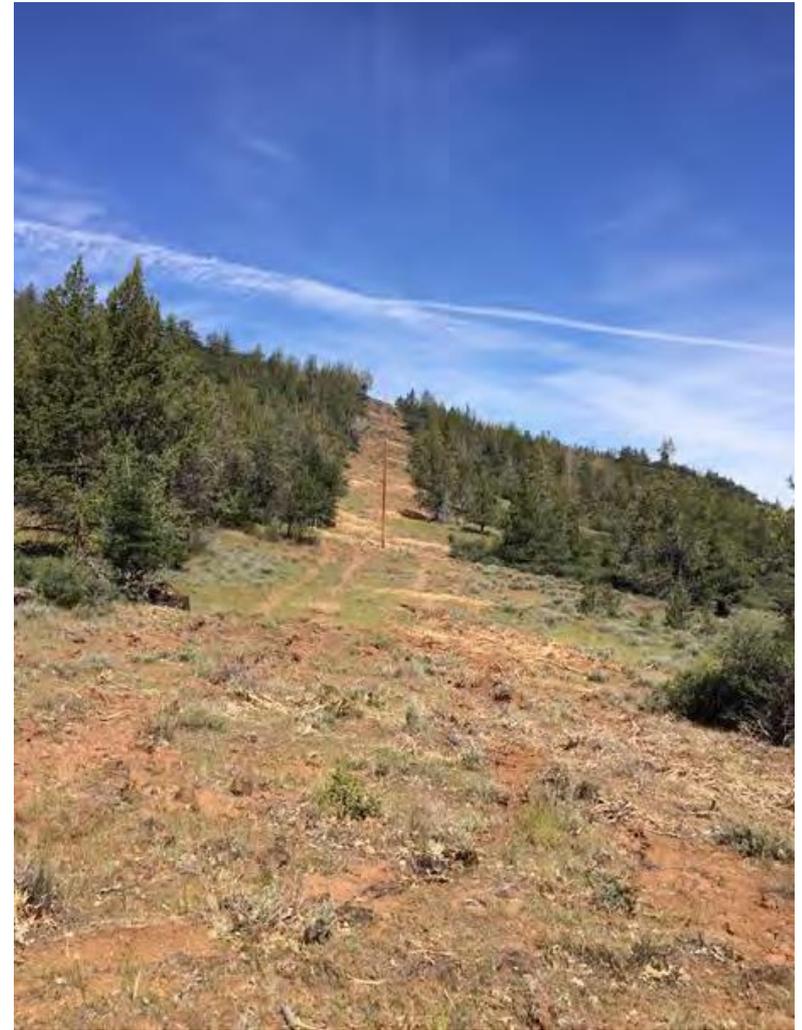
Fire Safe Council Funding

Funded Fire Safe Council projects:

- 58 requests for funding
- 24 projects funded
- 19 Fire Safe Councils
- 21 counties
- Fuel Break and Access Focused
- Joint media events w/ FSC's to drive public awareness and education



Lassen County Fire Safe Council Fuel Reduction



Before & After



Butte County FSC Media Event: Local Spanish TV





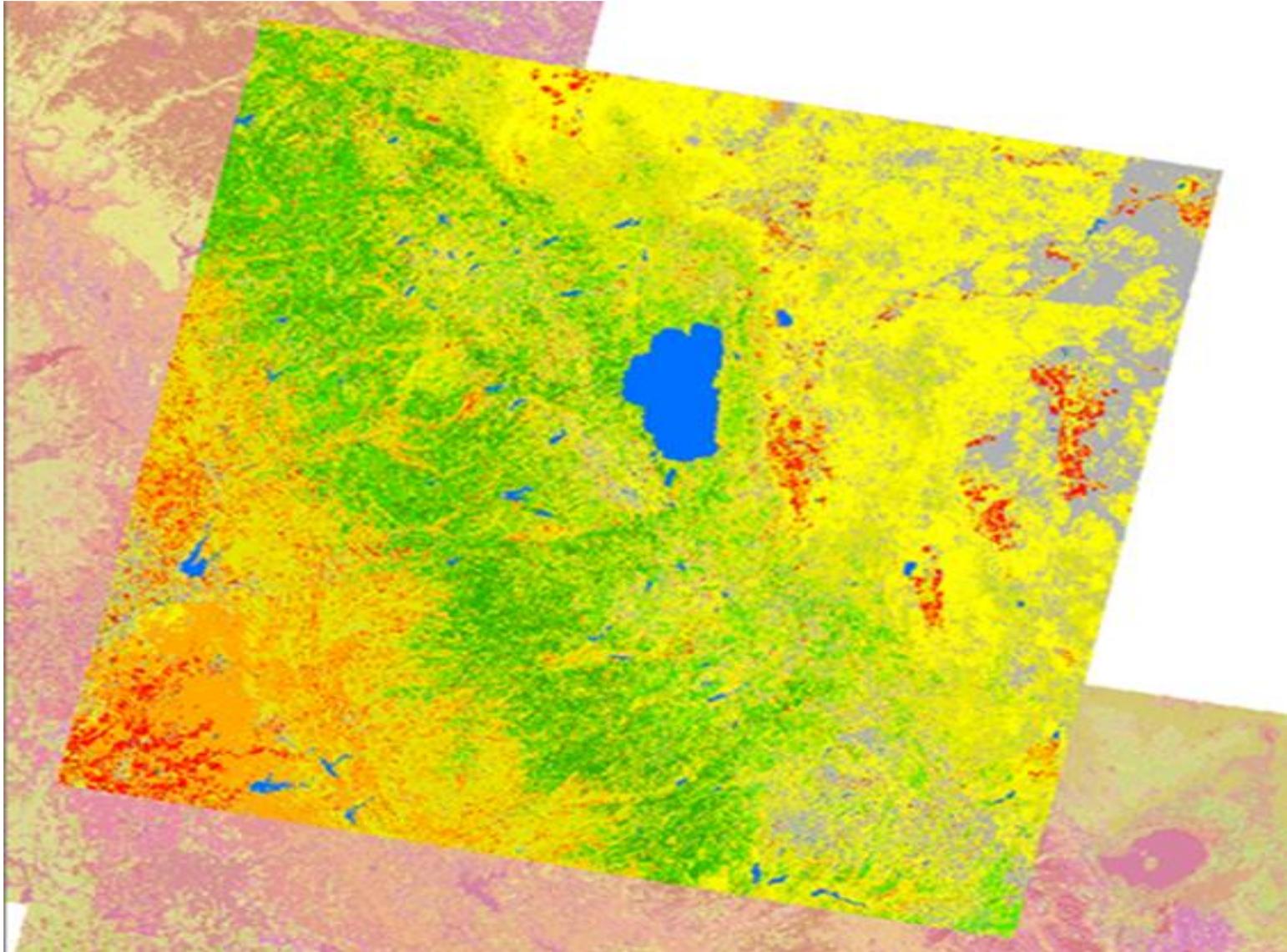
3. Early Detection: Forest Health, Fire Patrols & Cameras



2015 Forest Health Mapping Project

- Phase 2 of partnership
- Develop & share map of 25 unique forest cover types
- 2014 Landsat Imagery + 2014 project database
- Run algorithms
- Delineate the various forest types
- Output - example = Lake Tahoe image:

Early Detection: Forest Health Mapping





Early Detection: Aerial Patrols & Cameras

Aerial Patrols:

- 7 days/week 2 PM to dusk
- 7/12/15-10/31/15
- 94 fires detected; 20 “First Reports”
 - Doubled Mendocino Aerial Coop Patrol
 - PG&E Contract Fixed wing:
 - I. Redding to Auburn
 - II. Auburn to Auberry
 - III. Monterey to Solvang

Remotely Operated Cameras:

- 2 New systems installed (Butte County & Amador)
- Cal-Fire Support
- Telecom support



CURRENTS WEEK IN REVIEW: JULY 6-10, 2015

PG&E-FUNDED CAMERAS HELP RESCUE STRANDED WOMAN DAYS AFTER SHE GIVES BIRTH IN BUTTE COUNTY FOREST

A pregnant woman reportedly went into labor while driving on the outskirts of Oroville after she became lost and her car ran out of gas. Stranded on the side of the road in the Plumas National Forest in Butte County, she described to a local TV station how she gave birth to her daughter in the car and survived three days on bottled water and fruit. Then, she made a fire. PG&E-funded cameras meant to detect wildfires noticed the woman, setting off a chain of events that would eventually lead to her helicopter rescue.

[Currents](#) covered this story and more this week.

— Tracy Correa, Editor

4. Public Messaging



Leverage Cal-Fire's Campaigns

- Double Cal-Fire's effectiveness in Public Messaging by Leveraging, "One Less Spark," "Ready, Set, Go," & "Beetle," campaigns.
- Pandora, E-Billboards at fueling stations, radio & print media
- Excellent cooperation and efficient production with Cal-Fire's support

Campaign Overview



Cal Fire Bark Beetle - Campaign Report

Flight Dates:

- 7/20/2015 – 8/30/2015

Total Impressions Contracted: 9,103,104

Total Impressions Delivered: 9,558,895

Over Delivery of ~5%!

Clicks: 39,734

Campaign Elements:

- Display Everywhere (9 separate line items for each demo)
- Audio Everywhere :30 (9 separate line items for each demo)
- Mobile Display 300x250 Added Value (9 separate line items for each demo)

Demos:

1. Tuolumne County, Sierra County, Nevada County, El Dorado County, Calaveras County, Amador County, Alpine County, 25-65+
2. Kern-W CA County, 25-65+
3. Tulare County, Mariposa County, Madera County, Fresno County, 25-65+
4. San Luis Obispo County, 25-65+
5. Trinity County, Siskiyou County, Shasta County, Lake County, Humboldt County, Butte County, 25-65+
6. San Bernardino County, 25-65+
7. Contra Costa County, 25-65+
8. Riverside-C County, 25-65+
9. San Diego County, 25-65+

