

**HIGH HAZARD ZONE DETERMINATION
TREE MORTALITY TASKFORCE
NOVEMBER 16, 2015**

CAL FIRE

https://www.gov.ca.gov/docs/10.30.15_Tree_Mortality_State_of_Emergency.pdf

http://www.readyforwildfire.org/Bark_Beetles_Risk/



OVERALL OBJECTIVES

- Emergency Order to: Protect Public Safety and Property from Falling Dead Trees and Fire.
- Identify High Hazard Zones based on location of dead trees near communities and infrastructure.
- Reduce fire ignitions caused by trees falling on powerlines and other assets.
- Maintain safe evacuation routes by assisting in clearing dead trees inside communities, along roads and other critical infrastructure
- Provide interagency coordination and public transparency throughout the process using the latest geospatial tools and scientific data.

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GEOSPATIAL SUPPORT

- Prioritize: Identify High Hazard Zones to support the Tree Mortality Taskforce
- Coordination and Transparency: Develop a web based data entry tool to map project boundaries and communicate the status of projects being implemented to agencies and the public
- Monitoring: Work with US Forest Service and others to map new areas of dead trees that may have emerged and update high hazard zone maps

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IDENTIFY HIGH HAZARD ZONES

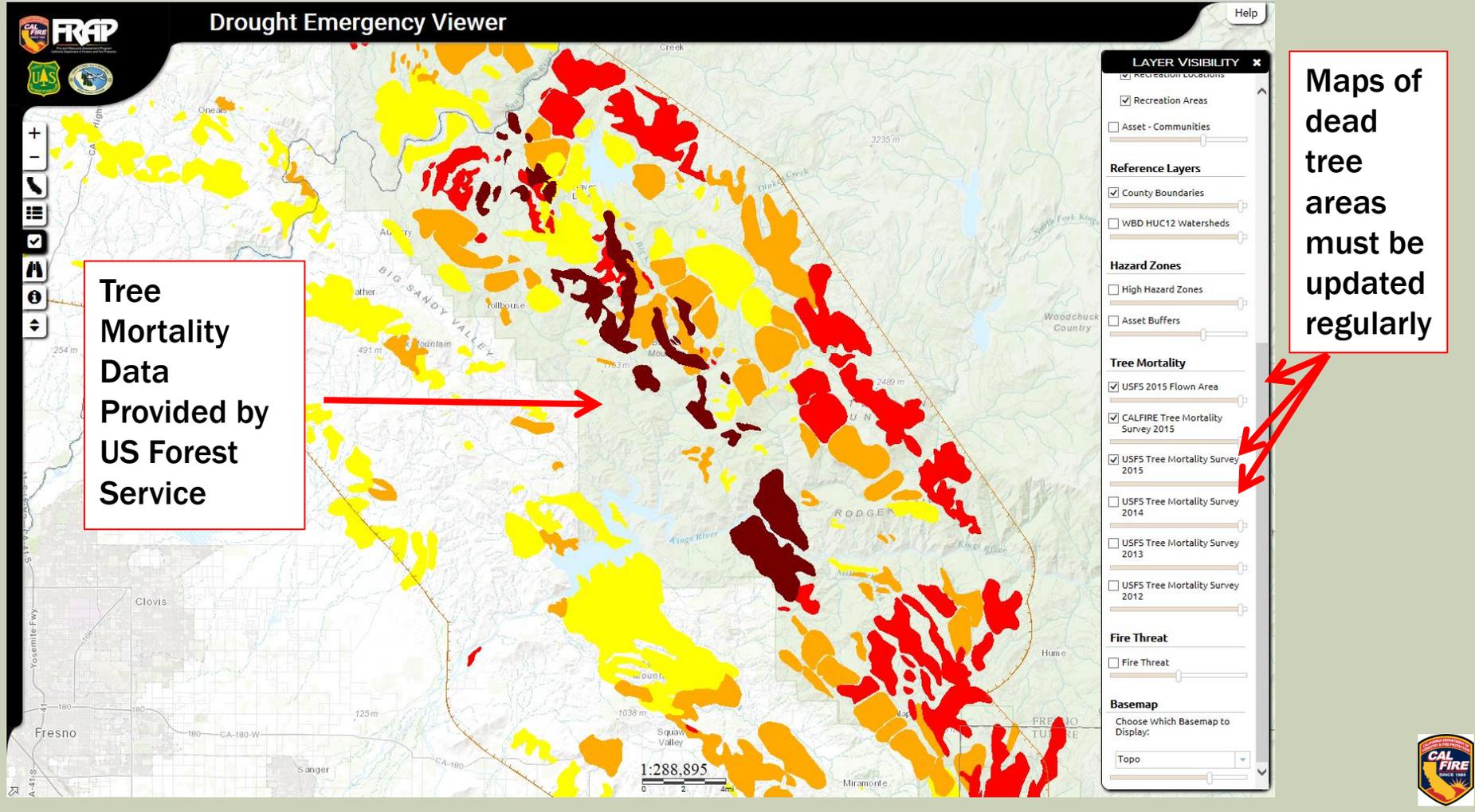
- Identify High Hazard Zones to support the Tree Mortality Taskforce
 - Map Dead Trees
 - Map Community Protection Zones
 - Define High Hazard Zone Foot Print
 - Field Review, Validation and Revision
 - Update High Hazard Zones based on new mortality
 - Provide information using web based mapping tools

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TREE MORTALITY DATA 2012-2015



ASSET DATA

The screenshot displays the 'Drought Emergency Viewer' interface. The main map area shows a topographic map with various asset layers overlaid, including roads, communication sites, and utilities. The interface includes a toolbar on the left with navigation and zoom controls, and a 'Layer Visibility' panel on the right. The 'Layer Visibility' panel lists several asset categories with checkboxes and sliders to control their visibility. A red arrow points to the 'Asset - Transportation' layer, which is currently unchecked. The 'Assets' section includes: 'Asset - Communications', 'Asset - Transportation', 'Rail Stations', 'RailRoads', 'Primary and Secondary Roads' (checked), 'All Roads', 'Asset - Utilities', 'Water Supply Flumes' (checked), 'Pipelines' (checked), 'Transmission Lines' (checked), 'Asset - Recreation', 'Recreation Locations' (checked), 'Recreation Areas' (checked), and 'Asset - Communities'. The map also shows logos for CAL FIRE, FRAP, and UAS in the top left corner, and a scale bar at the bottom center.

Layer Visibility

Click to toggle the visibility of the various layers

Assets

- Asset - Communications
- Asset - Transportation
- Rail Stations
- RailRoads
- Primary and Secondary Roads
- All Roads
- Asset - Utilities
- Water Supply Flumes
- Pipelines
- Transmission Lines
- Asset - Recreation
- Recreation Locations
- Recreation Areas
- Asset - Communities

Roads, Communication sites, Utilities and other asset information provided by Federal, State and Local Partners.



SEARCH AROUND ASSETS

Drought Emergency Viewer

Help

LAYER VISIBILITY

- Recreation Areas
- Asset - Communities
- Reference Layers**
 - County Boundaries
 - WBD HUC12 Watersheds
- Hazard Zones**
 - High Hazard Zones
 - Asset Buffers
- Tree Mortality**
 - USFS 2015 Flown Area
 - CALFIRE Tree Mortality Survey 2015
 - USFS Tree Mortality Survey 2015
 - USFS Tree Mortality Survey 2014
 - USFS Tree Mortality Survey 2013
 - USFS Tree Mortality Survey 2012
- Fire Threat**
 - Fire Threat
- Basemap**

Choose Which Basemap to Display:

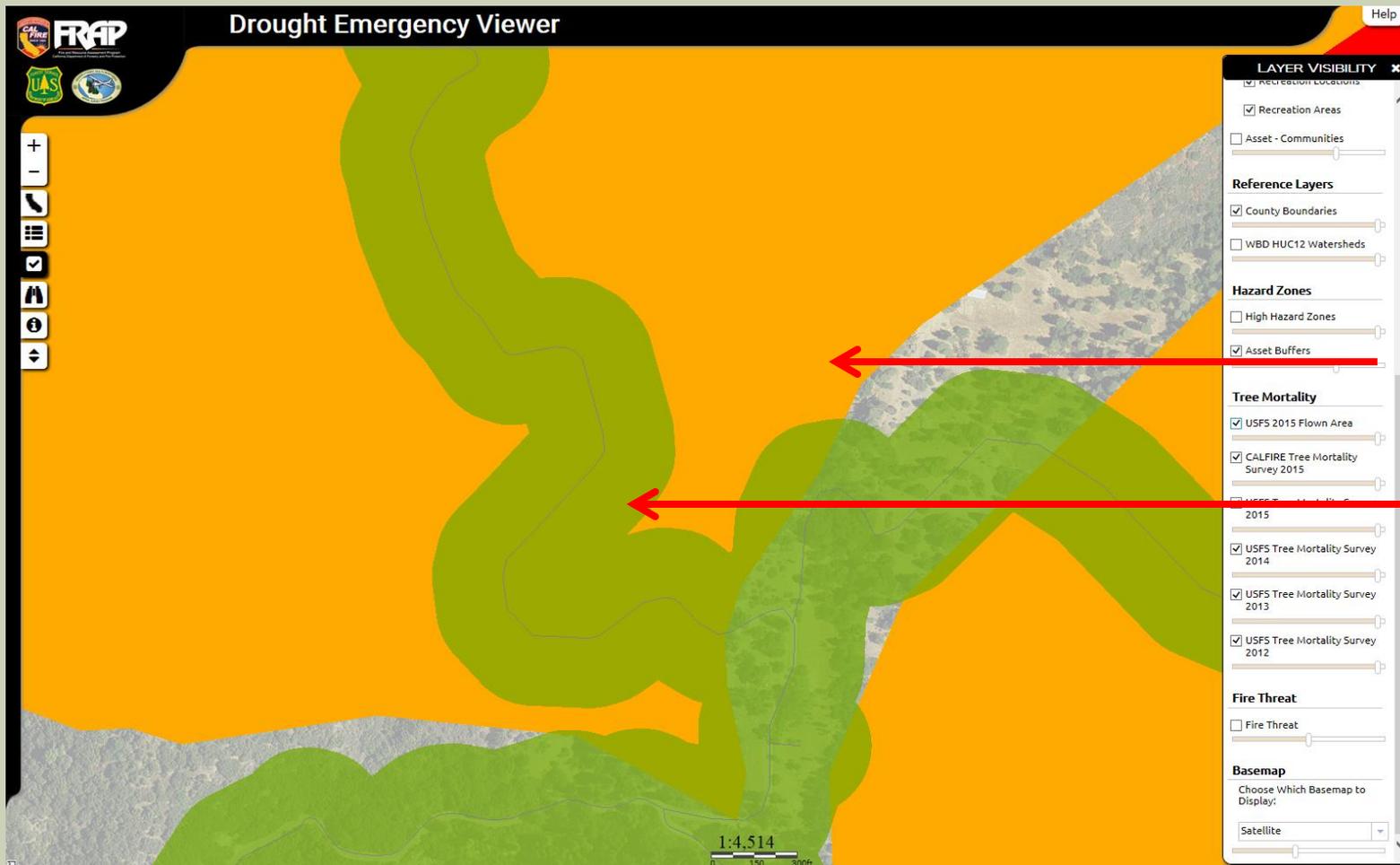
Satellite

1:4,514

0 150 300ft

Buffer around Roads, Utilities and other infrastructure assets 200 feet; Buffer around Communities 1000 feet.

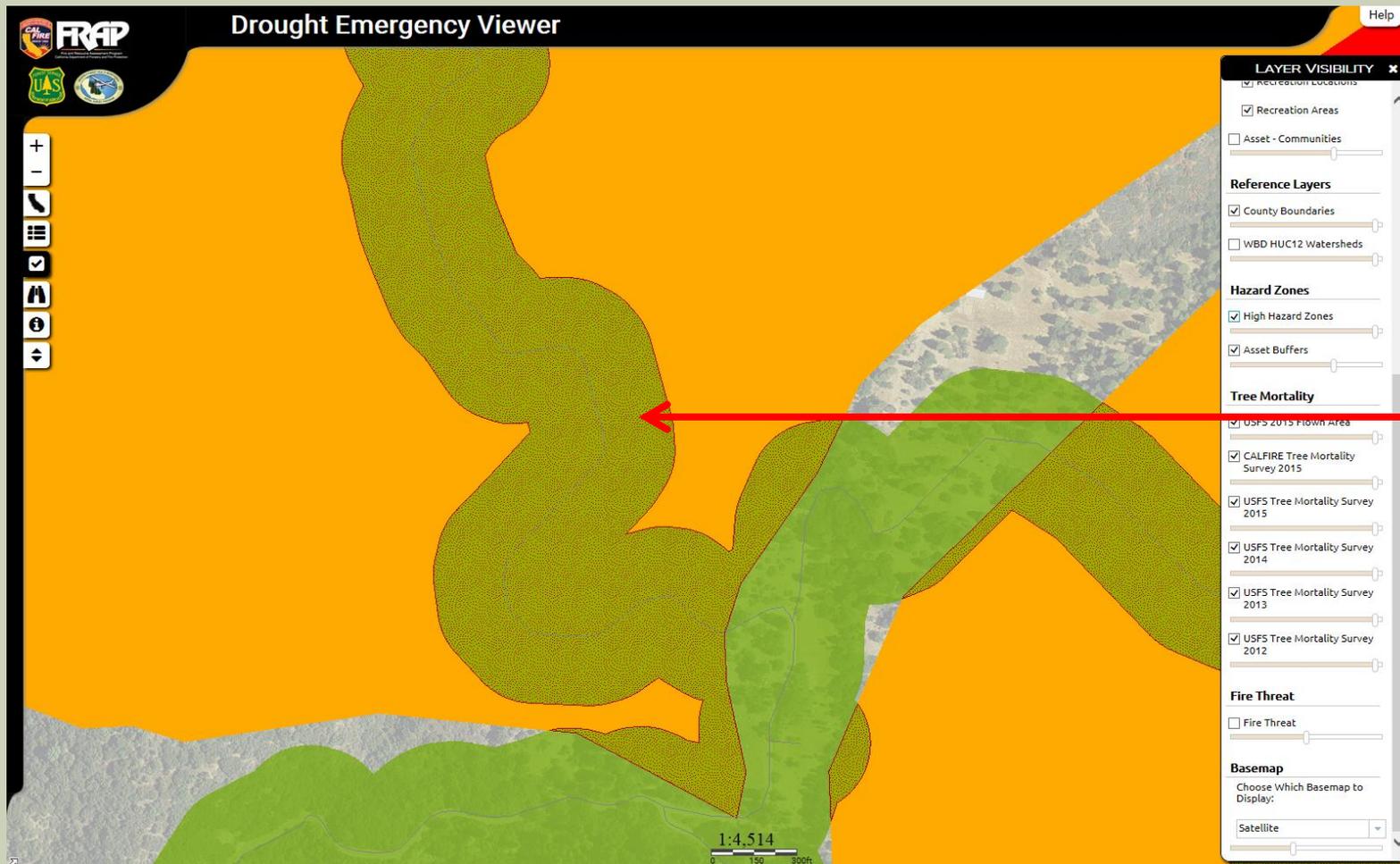
HIGH HAZARD ZONE IDENTIFICATION



Overlay Tree Mortality Data And Asset Buffers to identify High Hazard Zones



High Hazard Zone Identification



High Hazard Zones are within asset buffers with high tree mortality



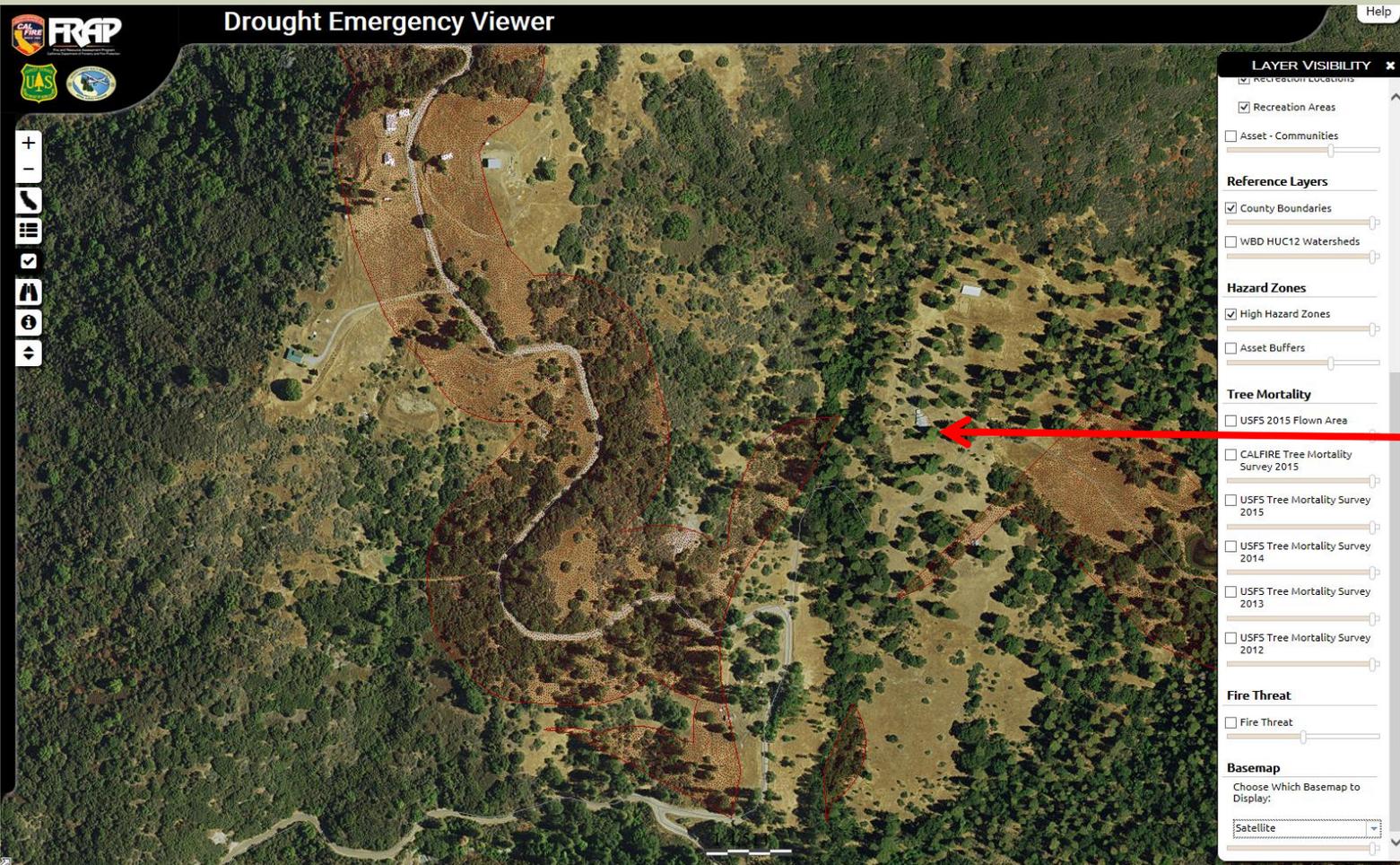
HIGH HAZARD ZONE IDENTIFICATION

The screenshot displays the 'Drought Emergency Viewer' interface. The map shows a large, irregularly shaped area shaded in red, representing a high hazard zone. A red arrow points from the 'High Hazard Zones' layer in the 'LAYER VISIBILITY' panel to this shaded area. The interface includes a top navigation bar with logos for CAL FIRE, FRAP, and UAS, and a 'Help' button. The 'LAYER VISIBILITY' panel on the right lists various layers: Recreation Areas, Asset - Communities, Reference Layers (County Boundaries, WBD HUC12 Watersheds), Hazard Zones (High Hazard Zones, Asset Buffers), Tree Mortality (USFS 2015 Flown Area, CALFIRE Tree Mortality Survey 2015, USFS Tree Mortality Survey 2015, 2014, 2013, 2012), Fire Threat, and Basemap (Streets). A scale bar at the bottom indicates a scale of 1:4,514, with markers for 0, 150, and 300 feet.

High Hazard Zones will need to be reviewed by local responders and updated regularly for new mortality



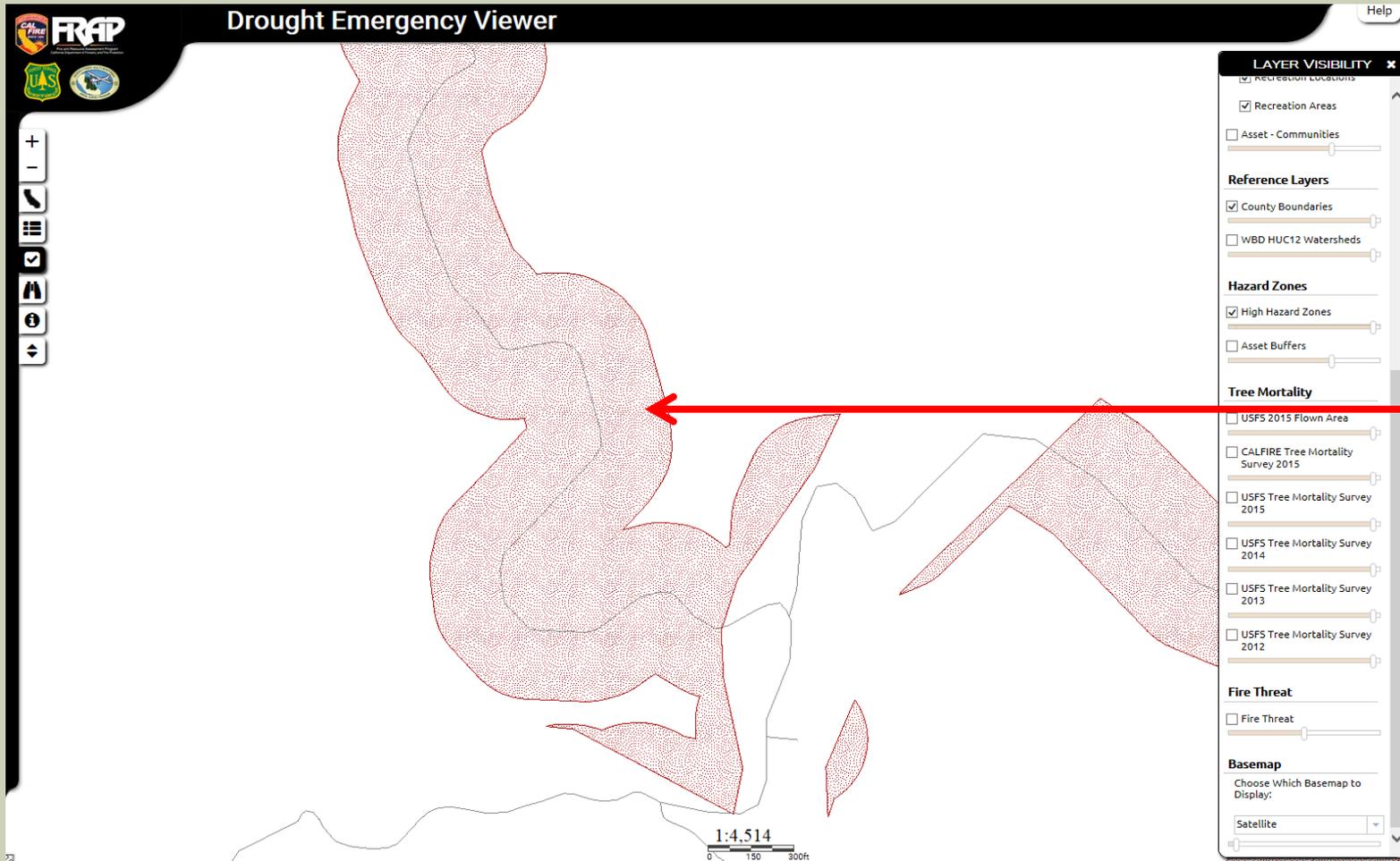
HIGH HAZARD ZONE IDENTIFICATION LOCAL REVIEW AND ADDITIONS



Local Review to identify assets or mortality not contained in the available GIS data layers.



High Hazard Zone Identification



Final High Hazard Zones are within asset buffers with high tree mortality



NEXT STEPS

- Hazard Zone Identification: Complete an initial Field Review of draft High Hazard Zones and provide to the public using internet based maps.
- Coordination and Transparency: Develop a web based data entry tool to map project boundaries and communicate the status of projects being implemented to agencies and the public
- Monitoring: Work with US Forest Service and others to map new areas of dead trees that may have emerged and update high hazard zone maps



THANK YOU

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DROUGHT EMERGENCY VIEWER

Demonstration

(If Time Allows)

http://www.readyforwildfire.org/Bark_Beetles_Risk/

