



California Forest Pest Conditions

2009 Aerial Survey Highlights

A total of almost 432,000 acres of forest disturbance activity was mapped in 2009 due primarily to bark beetles.

- **Fir engraver activity increased 10-fold from 2008.** Increased activity was detected throughout the:

- Sierra Nevadas
- Southern Cascades
- North Coastal
- Tehachapi Mountains
- Warner Mountains

Ranges
comprising over half of all the acres of
damage mapped.

Survey Highlights Continued

- **Pine mortality from Western Pine Beetle was common throughout California and increased 3-fold from 2008.**
 - Jeffrey and Mountain Pine Beetle showed less of an increase.
- Approximately 365,000 acres were mapped as bark beetle mortality, about 200,000 acres more than last year.

Survey Highlights Continued

- **Gold-Spotted Oak Borer**

Oak mortality from Gold-Spotted Oak Borer in San Diego County **remained constant** at 1,600 acres.

- **Sudden Oak Death**

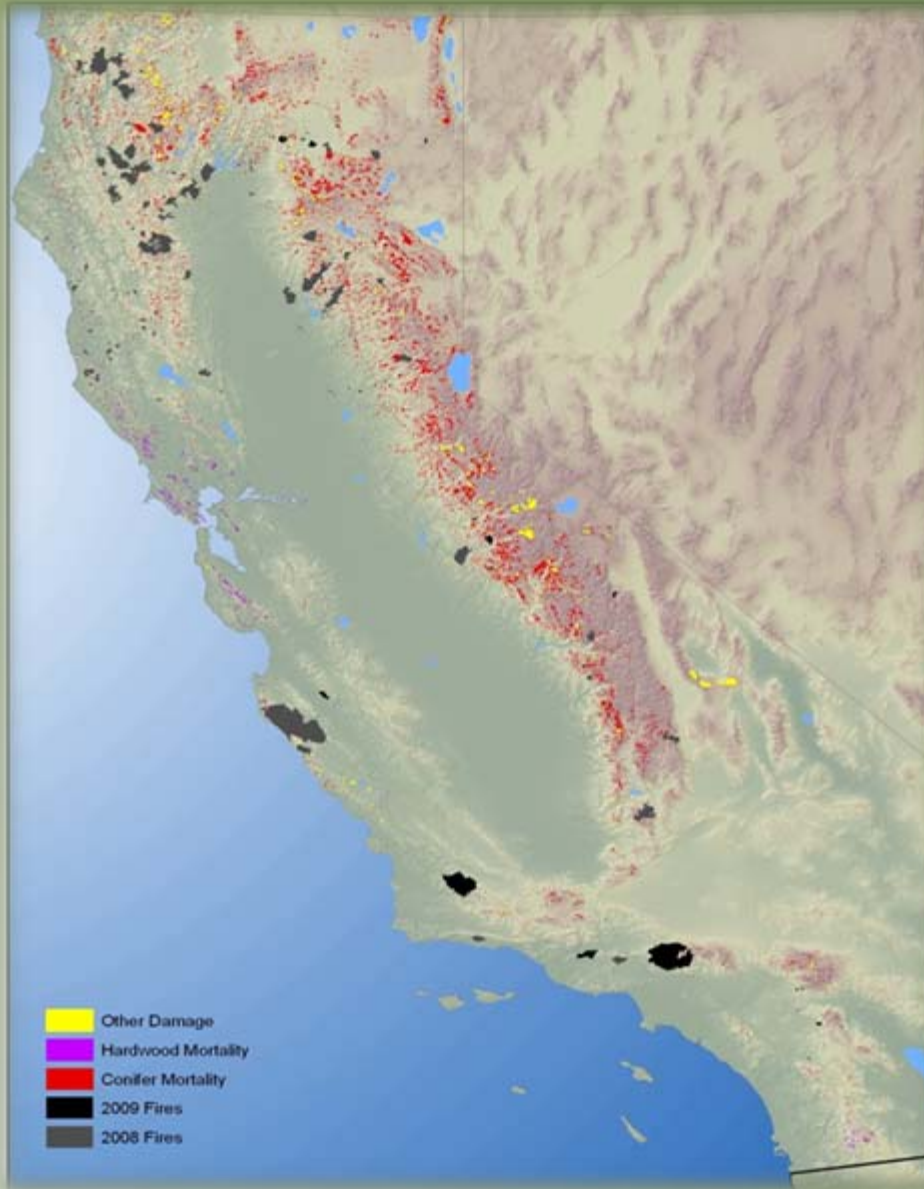
Tanoak and coast live oak mortality decreased from last year both in terms of intensity and extent to about 17,000 trees over 9,400 acres. **This is a quarter of 2008 levels and less than a tenth of 2007 levels.**

Area Covered by 2009 Aerial Survey



- **24,000 Miles Flown**
- **41 Million Acres Surveyed**
- **Many 2008 Wildfire Areas Not Flown**

Areas with Elevated Mortality in CA

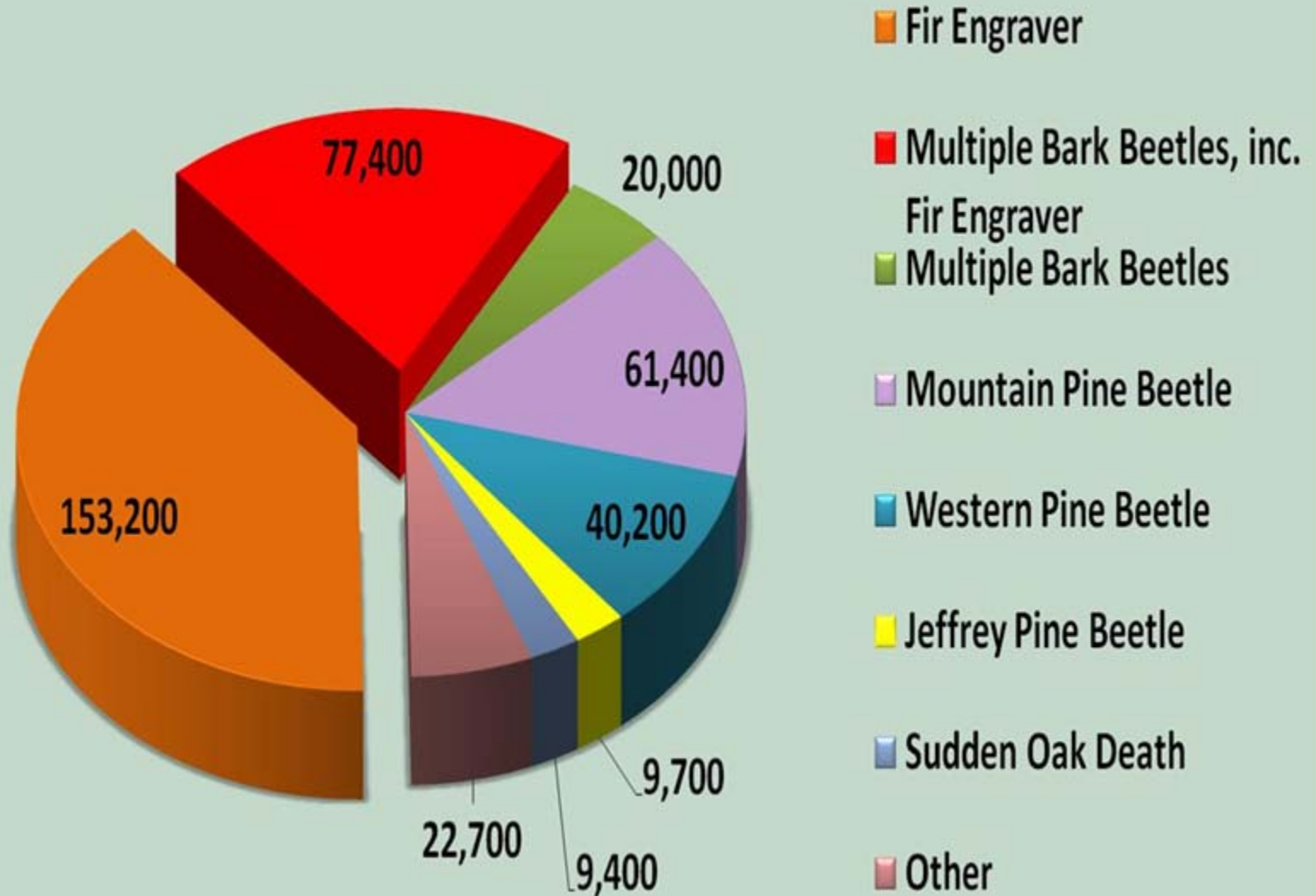


Based on 2009 draft aerial survey data

Some areas of mortality also contain other damage such as:

- Topkill
- Branch Flagging
- Defoliation
- Discoloration
- Decline

Acres of Elevated Mortality in CA 2009 by Agent



Precipitation vs Mapped Mortality for Region 5 Excludes Fire Mortality

