



Disaster Preparedness Workshop

Wildfire

July 9, 2019

Preface

- Disasters are complicated and challenging
- Action Item from 2017 Wildfires After Action Report



Agenda

- History
- Science
- Potential impacts/losses
- Mitigation efforts
- Preparedness activities
- Response
- Next steps



Objectives

1. Provide an **overview of wildfire hazards**, mitigation, preparedness, and response capabilities
2. Discuss **how stakeholder agencies will monitor and respond**
3. Identify potential **future actions to mitigate and prepare** for the threat of wildfire in Sonoma County



Wildfire

- High probability, high impact
- Countywide vulnerability
- Climate change influences
- Primary and secondary impacts



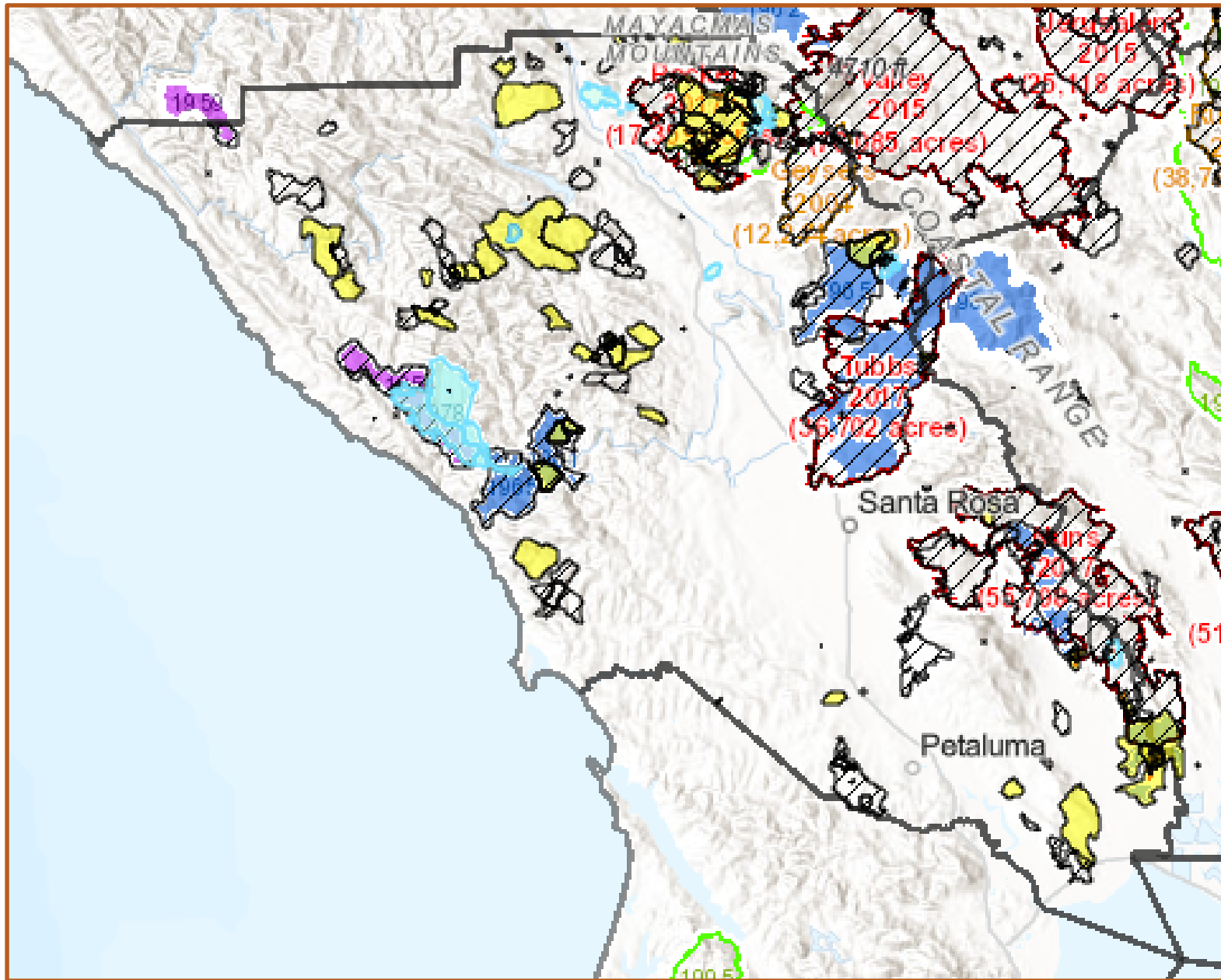
Hazard Overview

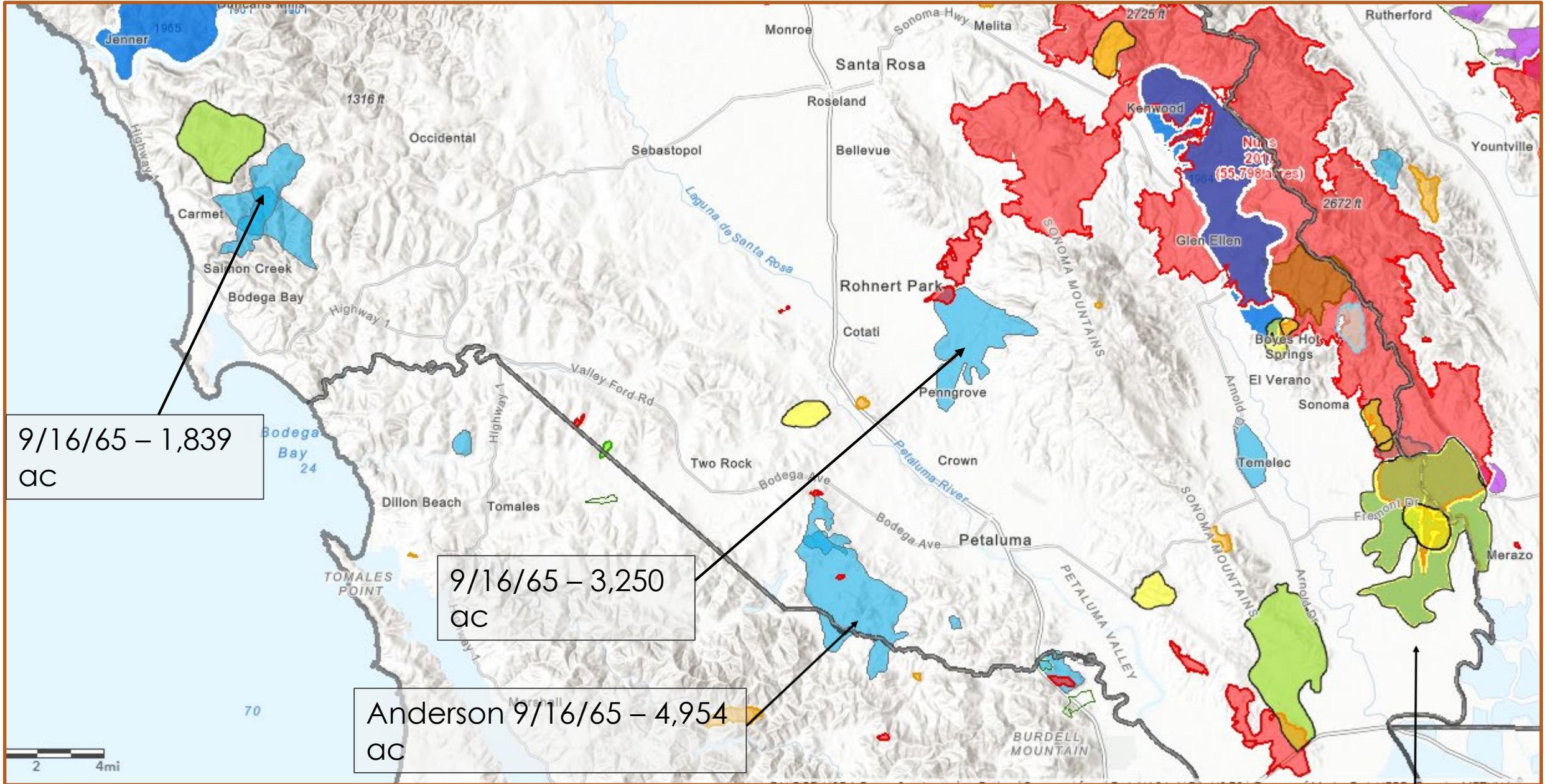


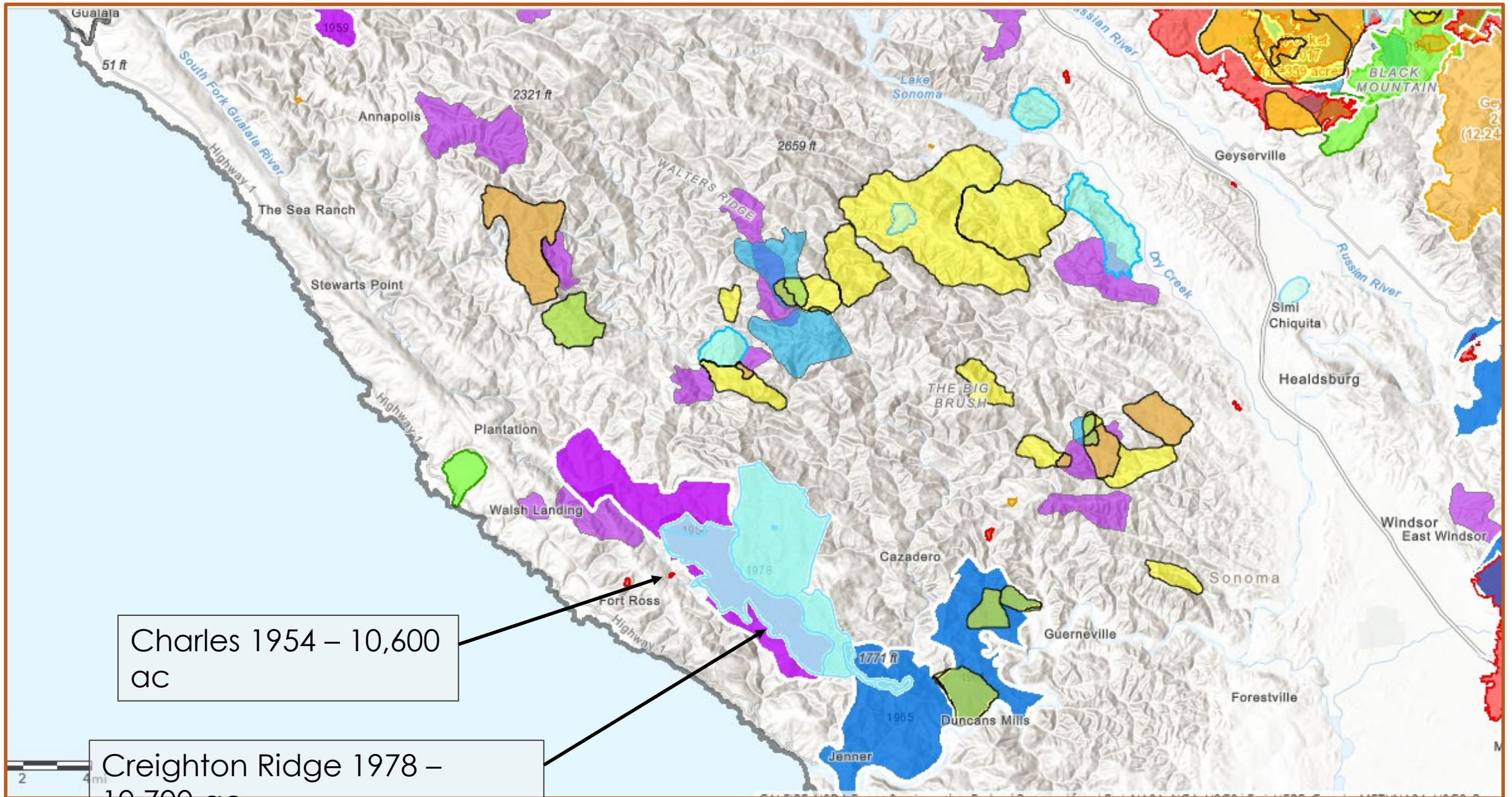
Large Wildfire History in Sonoma County

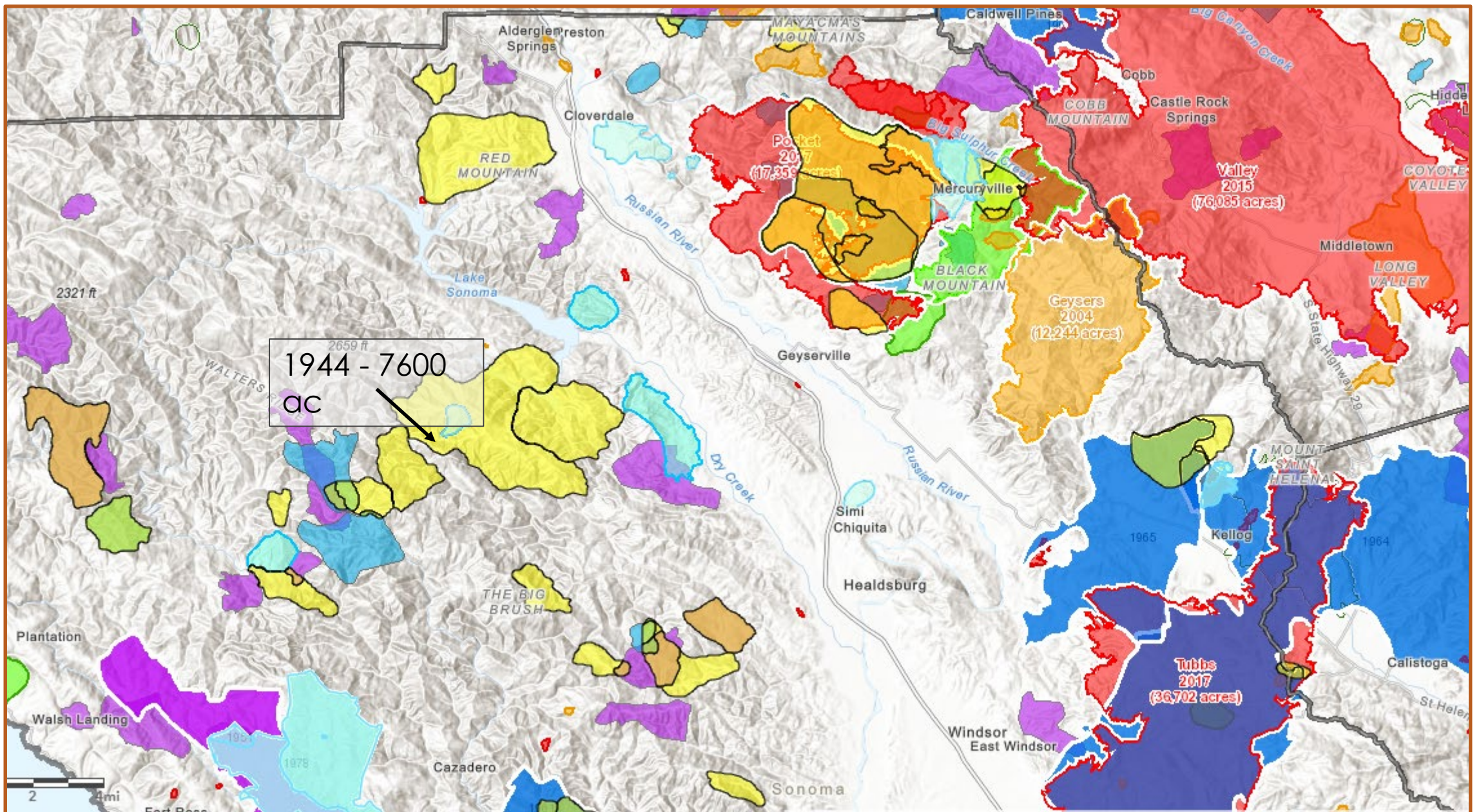
1923	Boyes Hot Springs/Cazadero
1940s	Guerneville
1950s	Hoover Ridge, Charles Fire
1960s	Hanley, Nuns, Sept. 16-17, 1965
1978	Creighton Ridge
1988	Geysers
1991	Geysers
1996	Cavedale
2004	Geysers
2017	Tubbs, Nunns, Pocket (October Fires)



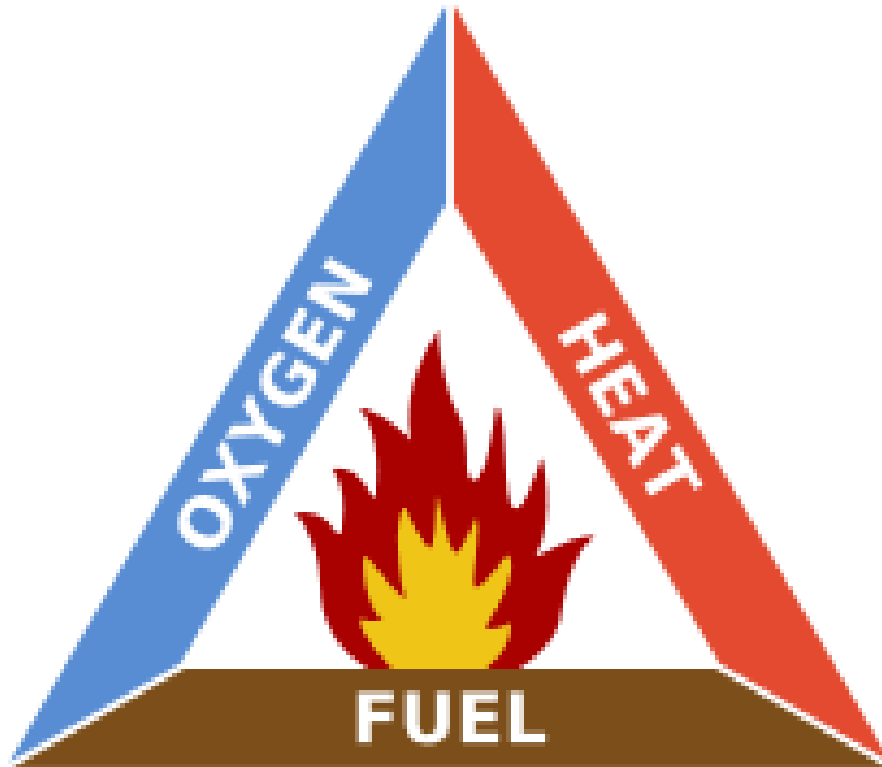








Fire Science



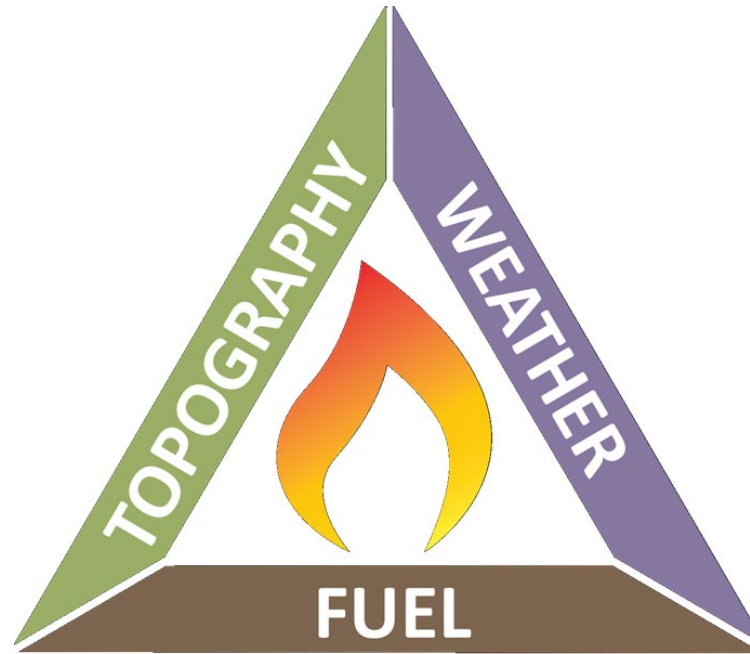
Forms of Heat Transfer

- Radiation
- Convection
- Conduction



Wildland Fire Triangle

- Position on Slope
- Aspect
- Shape of Country
- Steepness of Slope

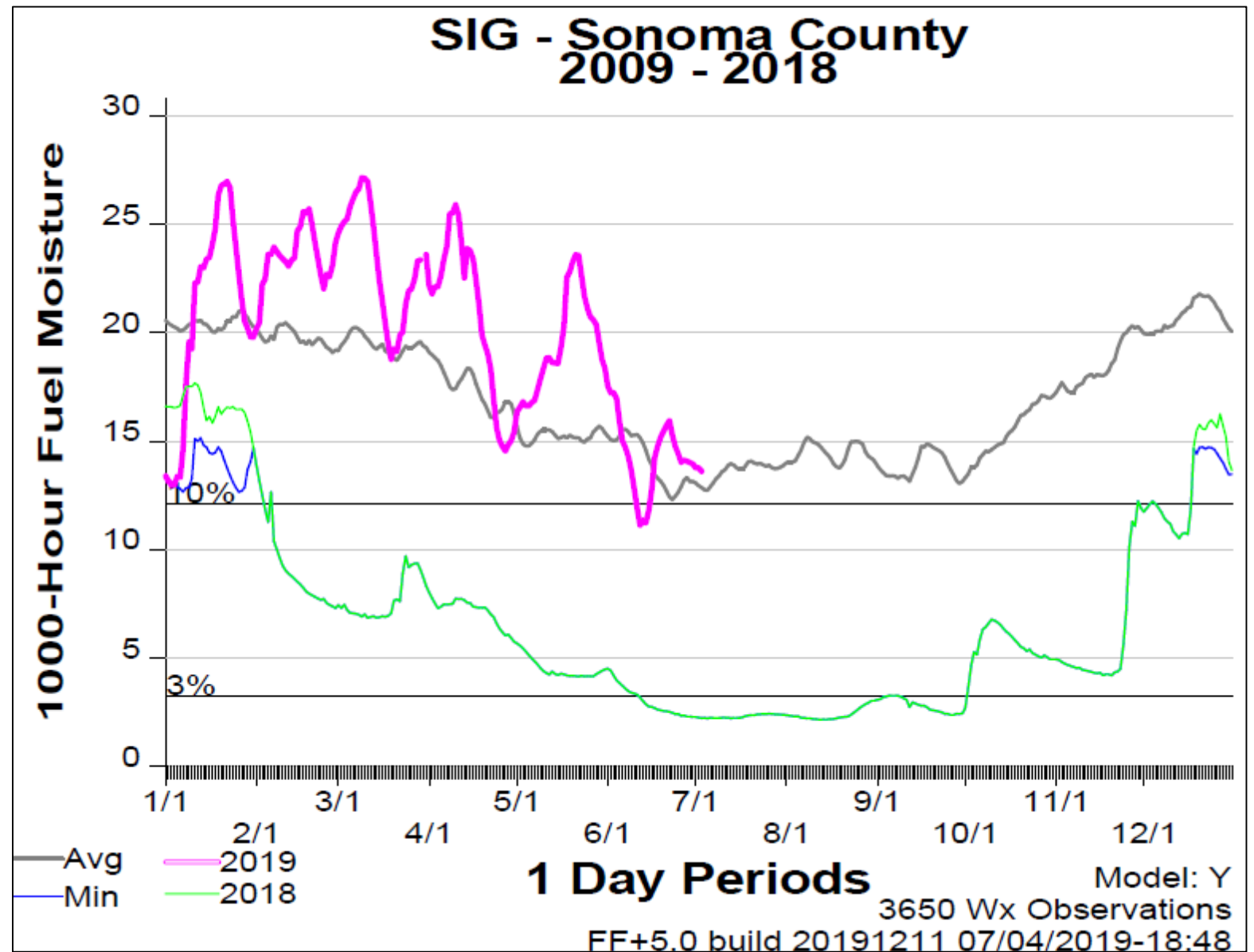


- Temperature
- Relative Humidity
- Windspeed and Direction
- Precipitation

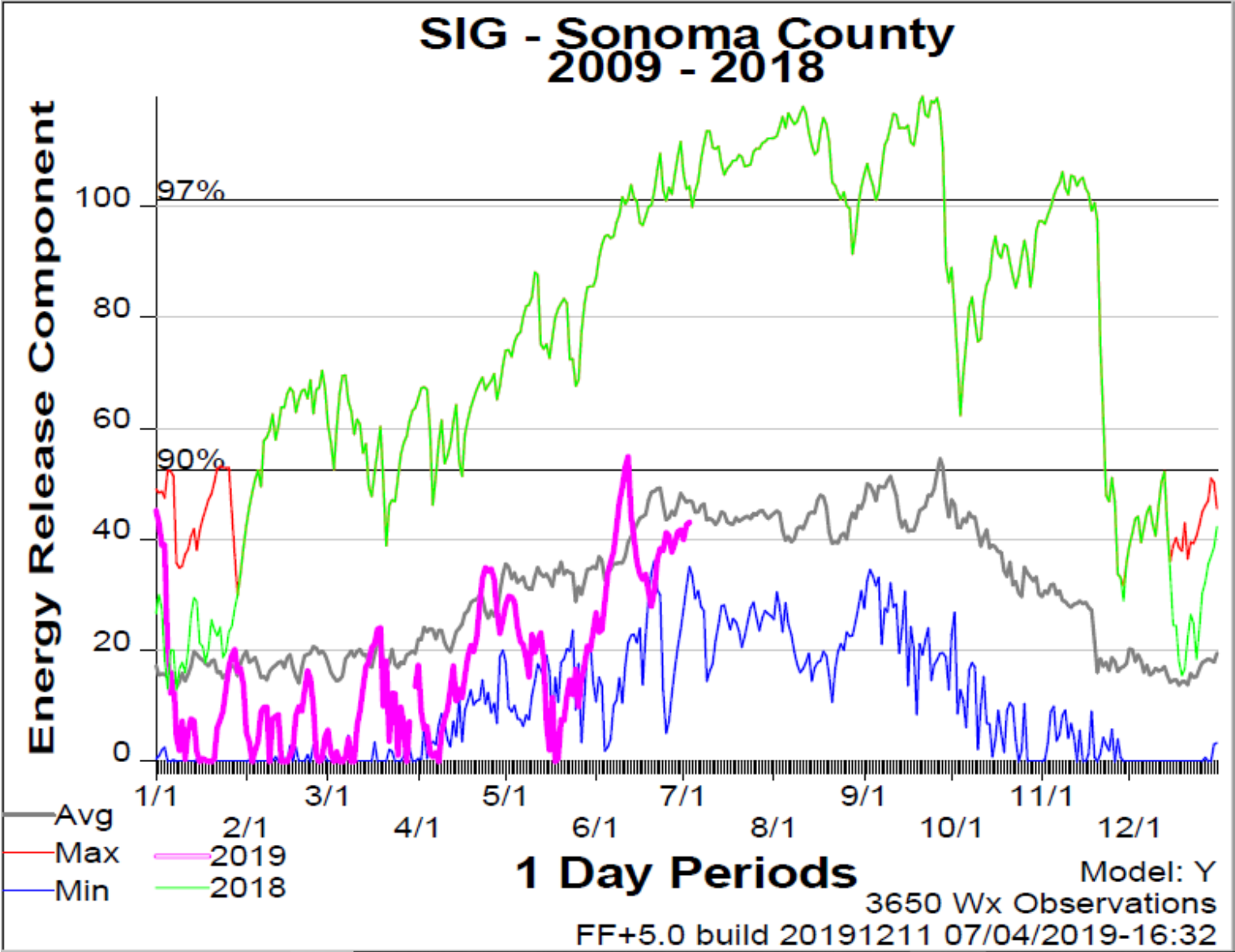
- Fuel Moisture
- Fuel Loading
- Size and Shape
- Horizontal Continuity
- Vertical Continuity



Fuel Moisture



Energy Release



Red Flag Warning

- Sustained wind speeds averaging 15 mph or greater
- Relative humidity 25% or less
- Temperature over 75 degrees Fahrenheit



Estimating Potential Impacts and Losses

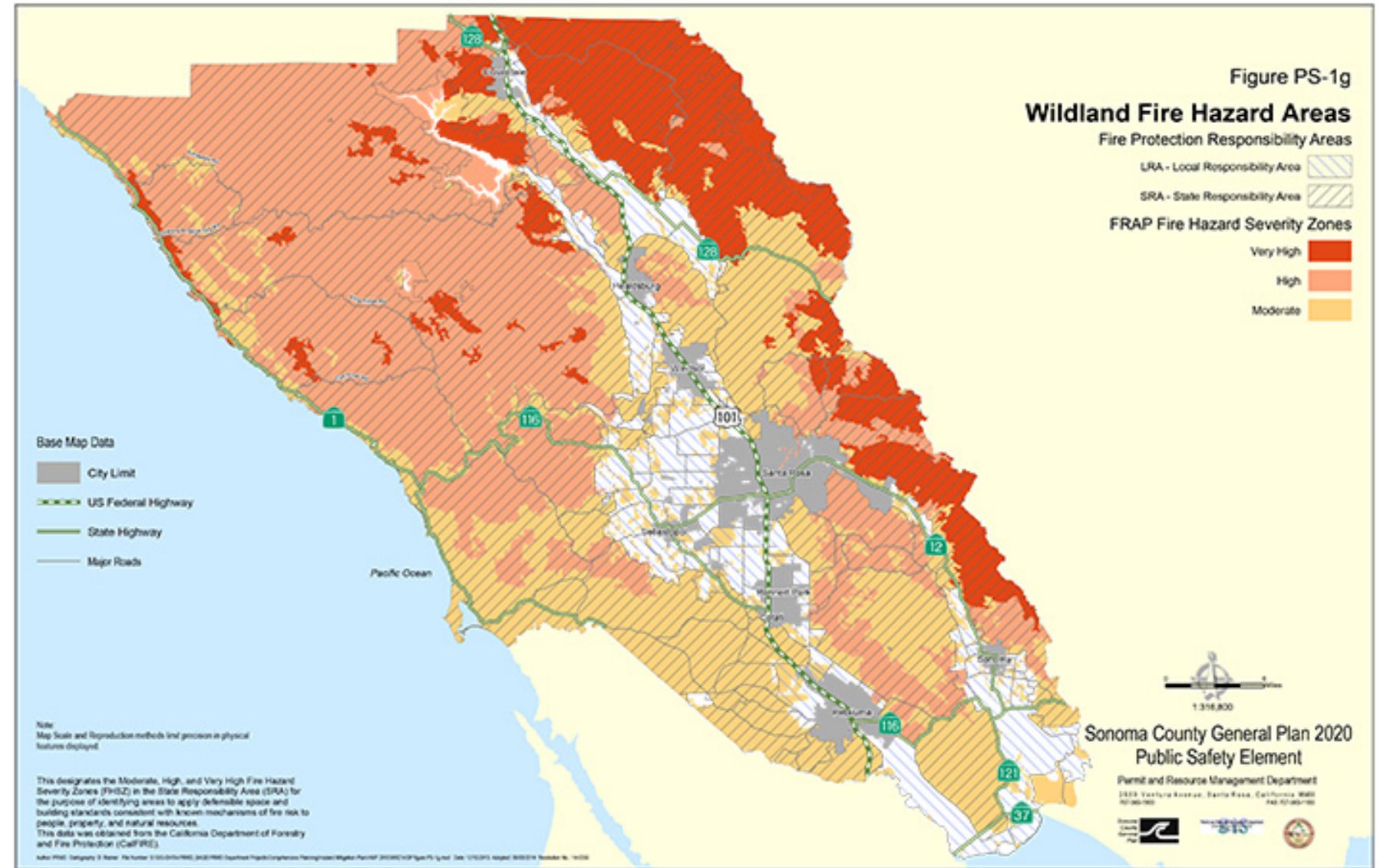
- Difficult to model
- Multiple scenarios
- Impact variables
- Multiple impacts
- New models needed
 - Hazard Mitigation Plan
 - History + climate change estimates



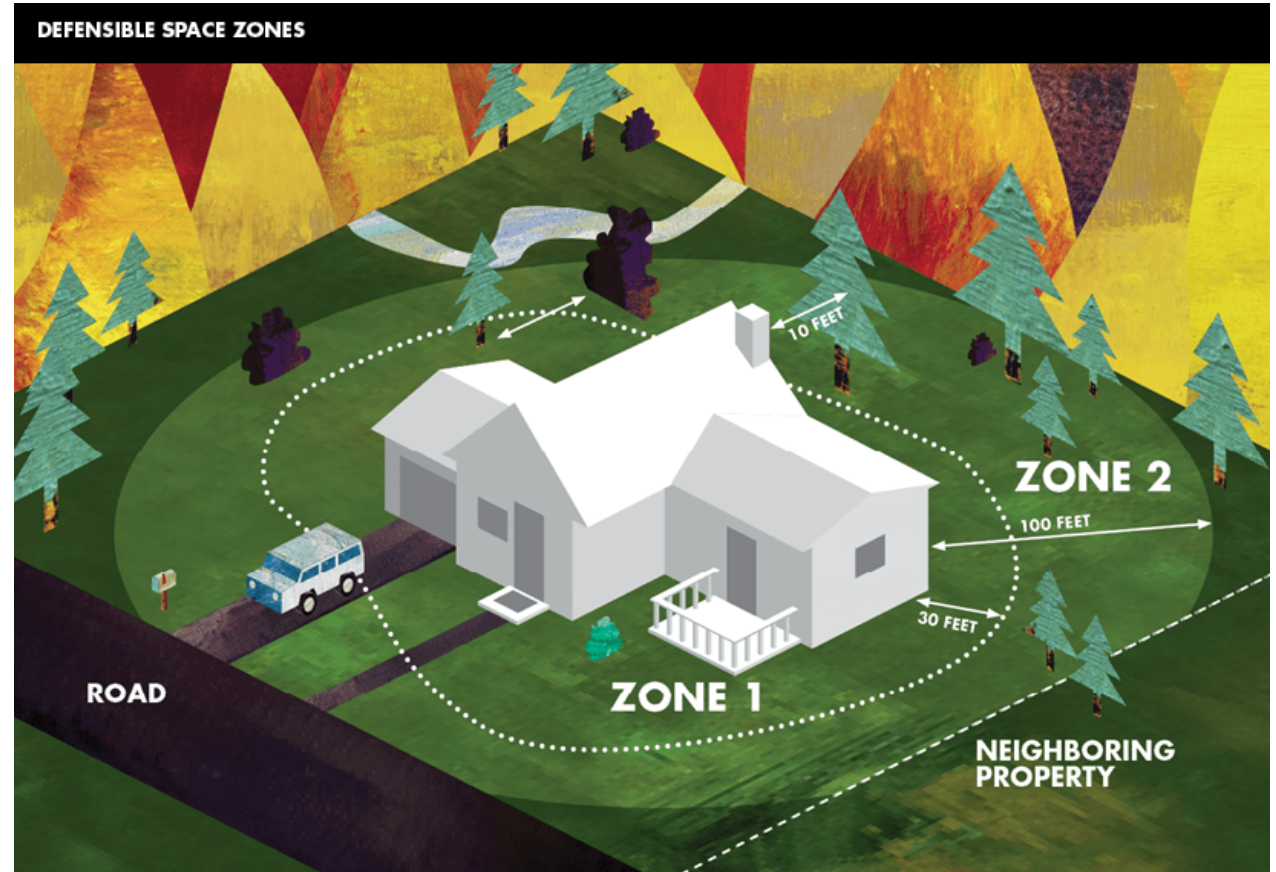
Mitigation



Land Use

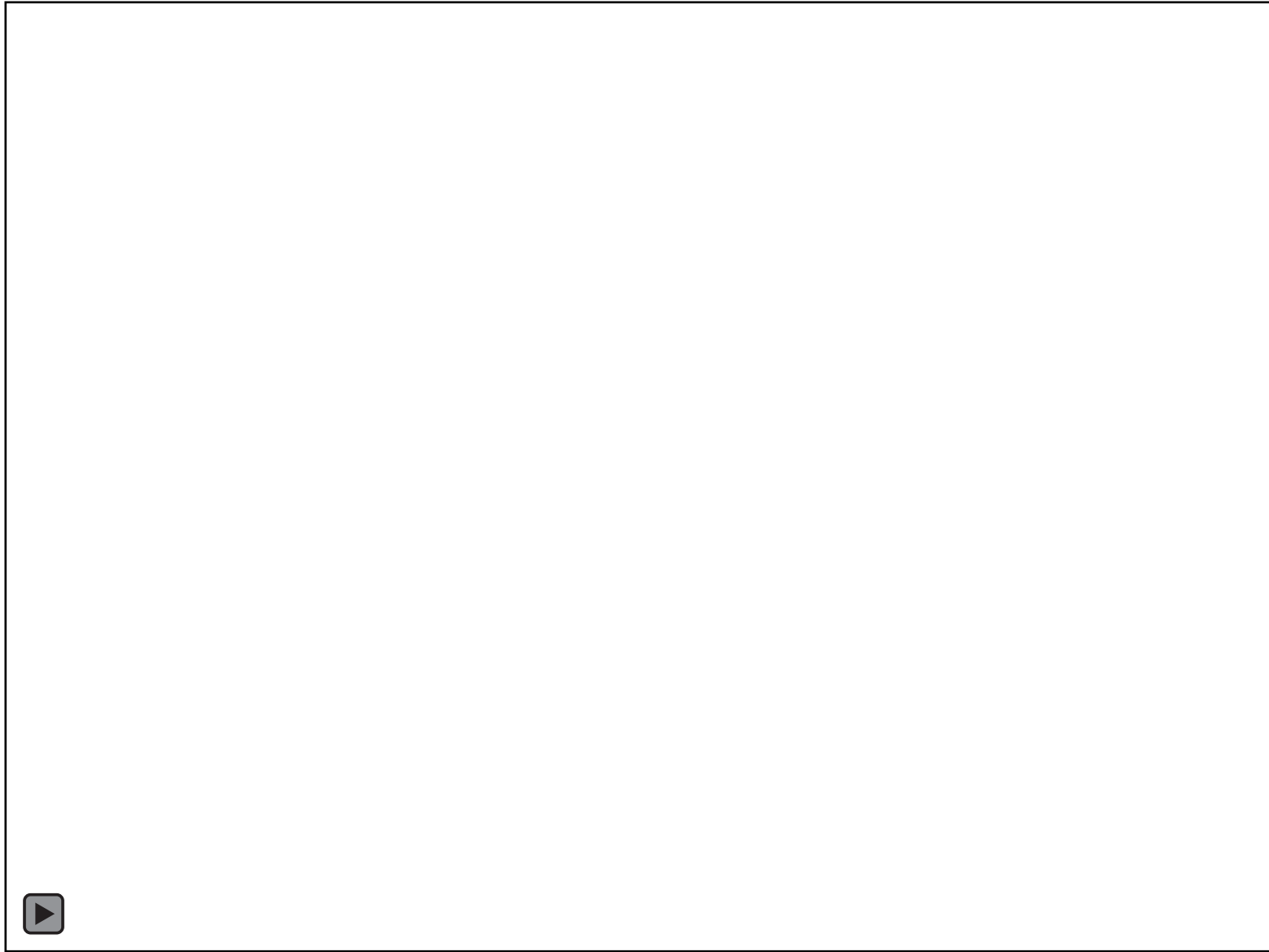


Property Owner Preparedness

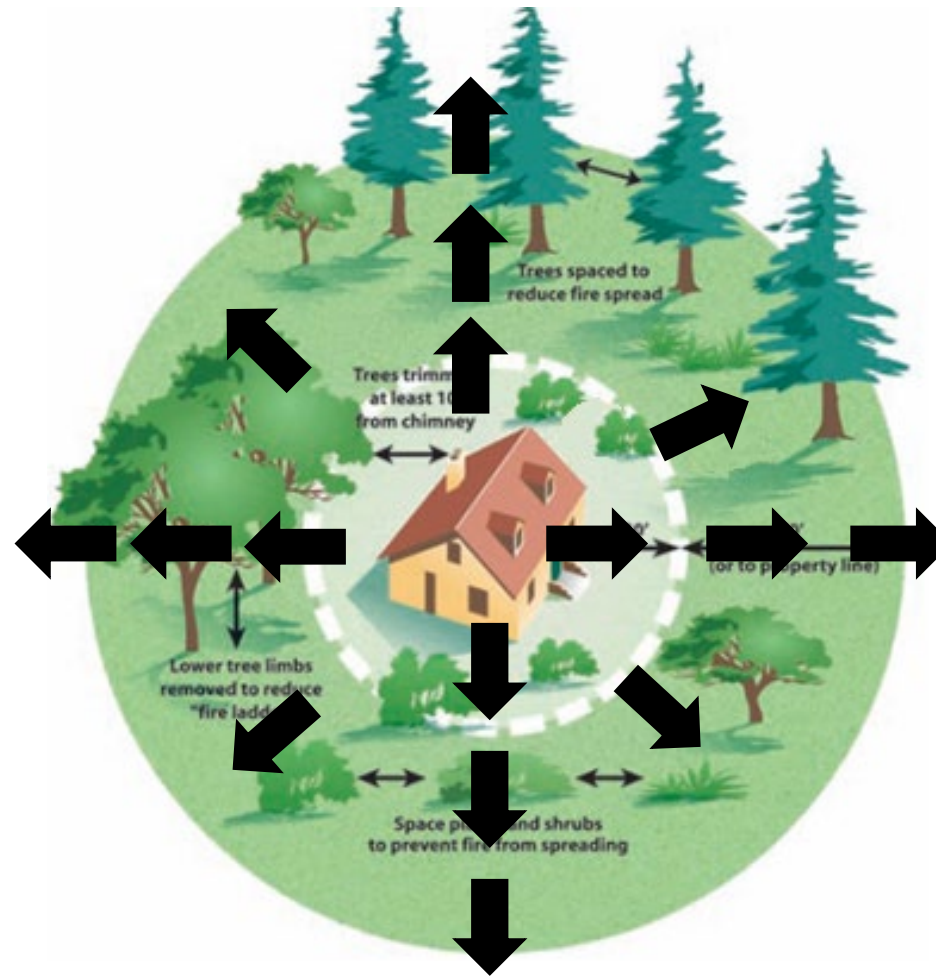


Beyond Code and Regulations: What Do Residents Need to Know and to Do?





Start With the House and Work Out



Community Motivation is Key



Community Organizations

- COPE
- Watershed Groups
- Community Forests
- Et Al



County Departments



SONOMA COUNTY
Office of Recovery
and Resiliency

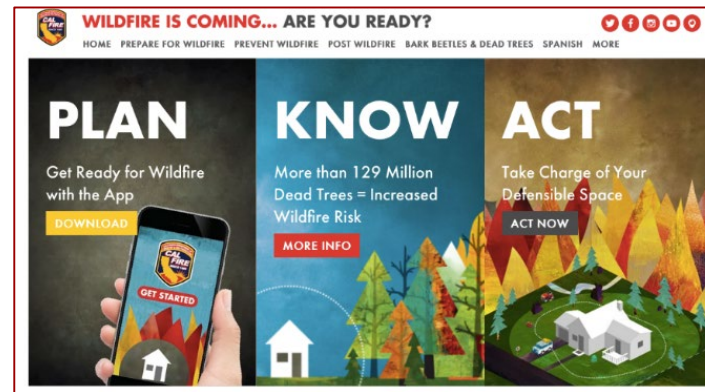
State Agencies



Local Fire Districts



More Awesome Help



Recovery Framework Initiatives

- Alert & Warning program
- Evacuation routes
- Hardening infrastructure
- Community awareness
- Enhance 2-1-1 system



Preparedness



Community Education and Awareness

- Key Messages: Ready, Set, Go
- Connect
 - COPE
 - FireSafe Councils

www.SoCoEmergency.org



Early Fire Detection Cameras

- 11 cameras online now
 - Sonoma Water
 - PG&E funded
- More proposed



www.AlertWildfire.org/Northbay



Alert & Warning (A&W)

- A&W Program Manager on board
- Maximized System performance
 - Wireless Emergency Alert (WEA)
 - Emergency Alert System (EAS)
 - NOAA Weather Radio
- A&W Exercise in August
- Grants pending for sirens, NOAA radios

www.SoCoAlert.org



Evacuation Planning

- New Evacuation Annex
 - Concept, policies, terminology
- Community Evacuation Planning Project
 - GIS Mapping = Evacuation Zones
 - Assessment of evacuation challenges
 - Prioritization of effort
 - Community Evacuation Plan
 - Resident Evacuation Guide
 - Drills



Electrical De-energization

- Increased potential scope, frequency and duration
- CPUC filings:
 - Notification/Communication
 - Individuals with Access & Functional Needs
 - \$\$
- Rewriting the Operational Area Response Annex
 - Public Safety System Impacts (9-1-1, Alert & Warning)
 - Potential expanded public services
- Operational Area Workshop on July 24th
- New Annex to Board on Supervisors in August



Emergency Management Preparedness

- New Department
- 24/7 Staff Duty Officer
- Operational Area calls
- Training
- Exercises



Enhanced Fire Response Preparedness

CAL FIRE Staffing Patterns / Pre-position

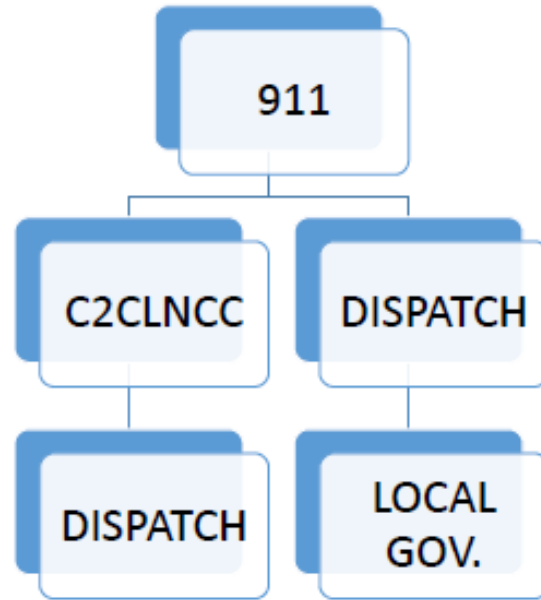
Sonoma County Task Force



Response



Initial Attack Vegetation Fire LRA



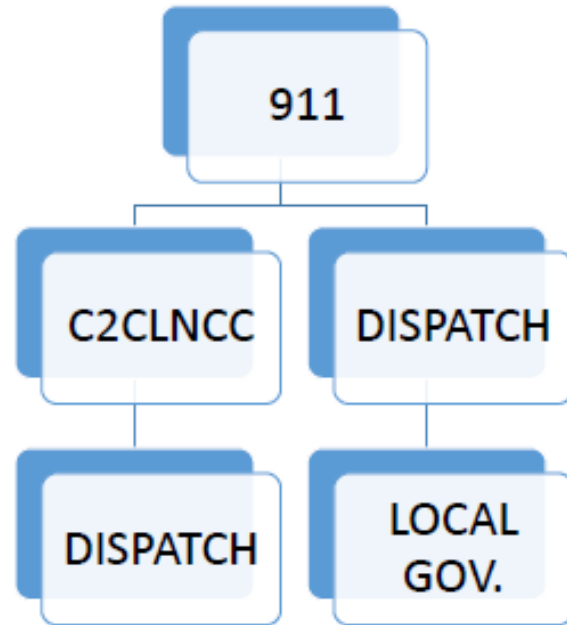
1 Battalion Chief
1 Type III Fire Engine

1 Chief Officer
2 Type III Fire Engines
2 Type I Fire Engines
1 Water Tender

- County Task Force
- DRiSC Strike Team



Initial Attack Vegetation Fire SRA



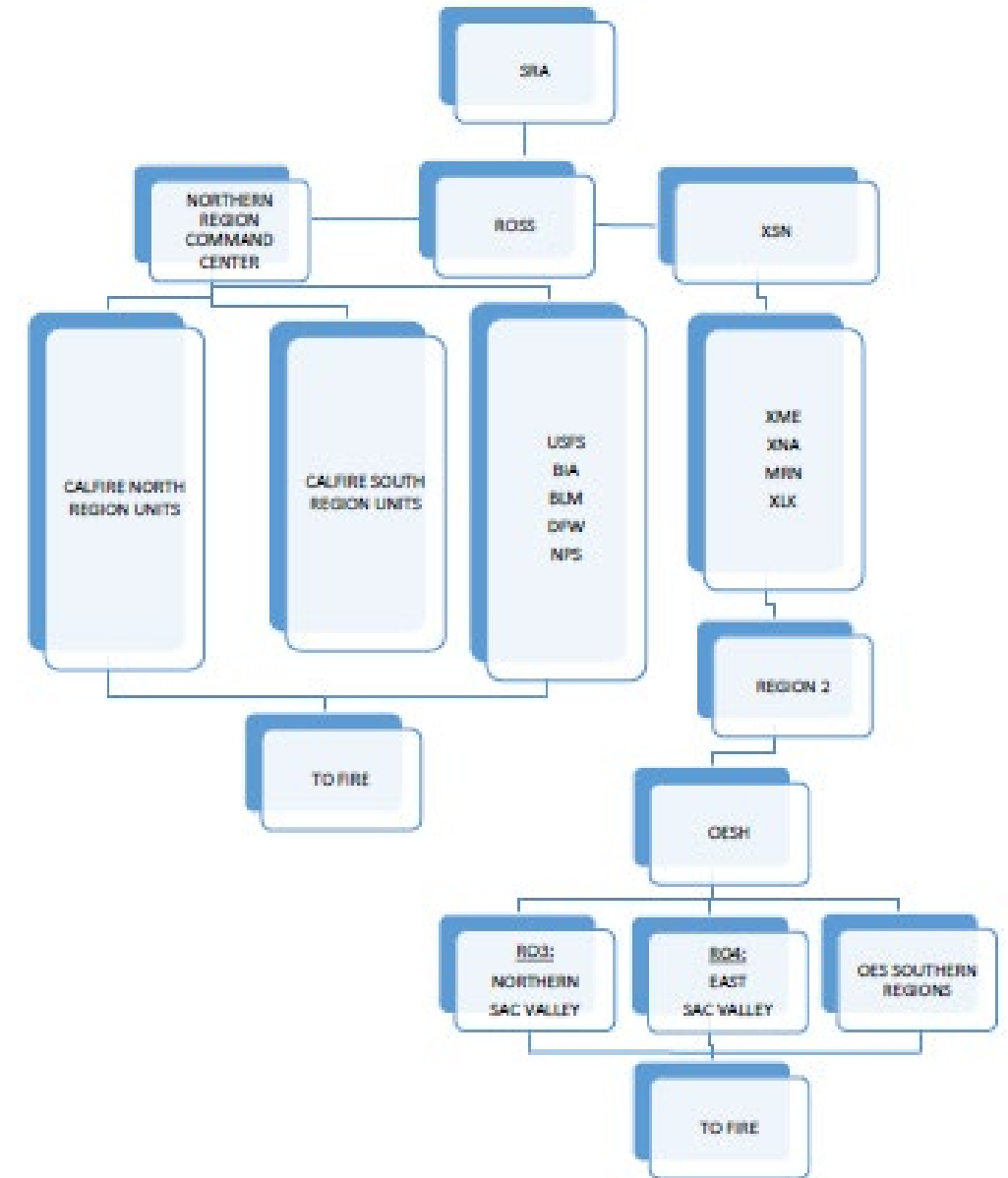
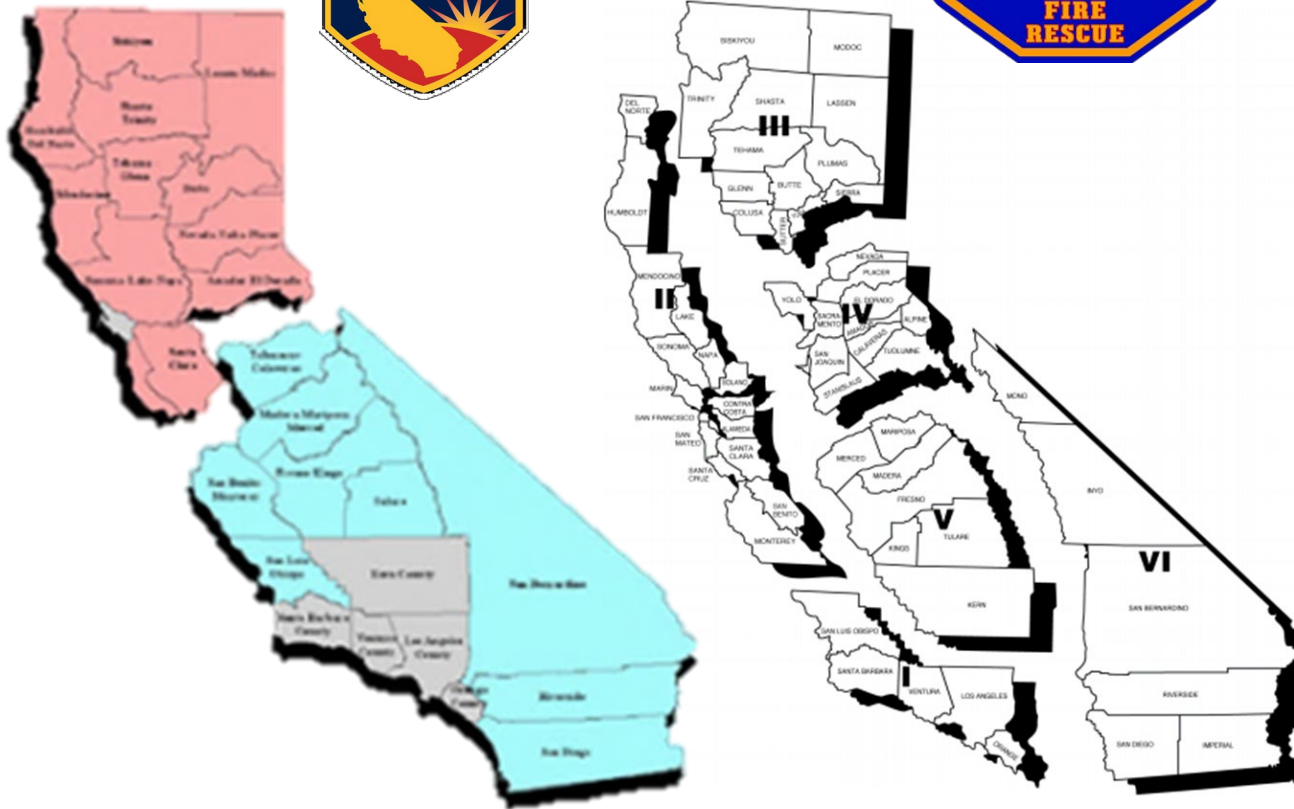
1 Battalion Chief
1 Air Tactical Group Sup
2 Air Tankers
1 Helicopter
5 Type III Fire Engines
2 Hand Crews
1 Bulldozer

1 Chief Officer
2 Type III Fire Engines
2 Type I Fire Engines
1 Water Tender

- County Task Force
- DRiSC Strike Team



Extended Attack / Major Fire



Response Coordination

- Multi-Jurisdictional
- Multi-Discipline
- Operational Area
- Regional / State



Response Resources/Activities

- Fire Agencies / EMS
- Law Enforcement
- Transportation & Public Works
- Utilities
- Human Services
- Health Services
- Community



Chronicle / Mark Costantini





Questions/Discussion



