



## **\*\*Fire Behavior Alert\*\***



### **THE POTENTIAL FOR EXTREME FIRE BEHAVIOR EXISTS THIS SEASON FOR ALL CAL FIRE UNITS AND CONTRACT COUNTIES**

The large number of early season shelter deployments and other fire behavior related incidents warrant a review of the conditions that contribute to extreme fire behavior. All of California is experiencing prolonged, record breaking drought and critical fuels conditions. **Situational awareness** is more than a buzz word – assess the big picture; **FUELS-WEATHER-TOPOGRAPHY**.

#### **Situation factors to consider:**

- Assess/scout the fire
- Always include SAFETY in your actions; making it your number one priority!
- Know the Weather
- Know Previous & Predicted Fire Behavior
- Have the Communications Plan & use it
- Look for & understand Local Factors relating to fire behavior

#### **Concerns for Firefighters to Consider**

- Live fuel moisture samples across the state, and especially in Southern California, have been the lowest sampled in history. Critical fuel moisture will be reached at least two months early in most areas. The heat sink properties that live fuel moisture usually provide will be absent this season. Assume live fuels are fully available to burn. **Low live fuel moistures and heavier than normal dead fuel accumulations under stressed vegetation will cause explosive fire behavior.**
- Weather conditions were unusually dry this spring with historically low rainfall and mountain snow pack over the entire state. Soil moisture is exceedingly low and large dead fuels are fully cured. **Fuel beds will support rapid ignition, heavy spotting, & high intensity fire spread.**
- Energy Release Component (ERC) values are above the 90<sup>th</sup> percentile in all areas, and above the 97<sup>th</sup> percentile in the most critical areas of the state. The 97<sup>th</sup> percentile indicates that only 3% of observations have ever been recorded above that level; in other words, **the ERC values currently being recorded in most areas of the state are at historical highs.** Remember, the ERC calculation is dominated by fuels and does not consider wind or topography and typically trends better than other NFDRS Indices.
- Topography plays a significant role in fire intensity through slope, aspect, and channeling. **Watch for the daily changes in sun exposure over the various aspects and consider topographic channeling or alignment when evaluating your position.**

#### **Mitigations**

Gather intelligence and remember the fundamentals – **emphasize and implement LCES prior to engagement!**

Develop situational awareness of the critical conditions described above. Use your experience or ask the locals what situations cause the greatest difficulty. How's it burning? If your gut makes you anxious, there is probably a good reason! Re-evaluate your situation and act accordingly. Clear and concise communication must be maintained.

Evaluate conditions continuously. Monitor fire weather conditions throughout your commitment. Pay attention to how internal and external distractions affect your risk-decisions. **Focus on the Big Picture, not the narrow view immediately in front of you.**

You are empowered to make risk-decisions based on current and expected conditions and your evaluation of probability of success. When considering structure protection, ask yourself, “Is the structure defensible and would you be there if the structure was not?” **Do not attempt a frontal assault on a fast moving fire.** Existing conditions warrant a “back to the basics” approach to safely mitigate incidents; anchor and flank, one foot in the black, valid safety zones and escape routes. Once you figure all these things out, communicate them to all concerned and make sure someone is acting as a knowledgeable and capable lookout. **DO NOT OVER COMMIT!**

***THE FIRST PRIORITY FOR ALL DECISIONS IS FIREFIGHTER SURVIVAL.***