

Commonly Used Terminology

Operations

Containment: A fire is contained when it is surrounded by a boundary but is still burning and has the potential to jump a boundary line. The boundary may be a “fire line” which is a strip of area where the vegetation has been removed, a river, a freeway or some other barrier which is expected to stop the fire by denying the fire of fuel. Hose lines from fire engines may also contribute to a fire being surrounded and contained. Containment is expressed as a percentage of the fire’s total perimeter and is not indicative of current fire behavior.

Control: A fire is controlled when there is no further threat of it jumping a containment line.

Initial Attack: Refers to the initial resources dispatched to fire. The number of resources sent on the first dispatch to a wildfire depends upon the location of the fire, the fuels in the area (vegetation, timber, homes, etc.) and current weather conditions. Most fires are caught within the first burn period (the first two hours). Therefore, the clear majority of the fires CAL FIRE responds to are considered initial attack fires.

Extended Attack: Refers to a fire which has burned beyond the area or building of origin, and beyond the initial attack phase, and additional resources are called. If the fire cannot be confined in the area or building of origin even with a substantial addition of resources, and a long-term resource commitment and logistical support will be required, it is considered a major attack or a major fire.

Air Attack: Refers to the aircraft assigned to a vegetation fire in support of the ground forces. Air tactical planes fly overhead directing the air tankers and helicopters to critical areas of the fire for retardant and water drops. CAL FIRE has 14 air attack bases, 10 helitack bases, and one cooperative helitack base located statewide. Aircraft can reach most fires within 20 minutes and can access areas too steep, rocky or unsafe for ground forces to gain entry. CAL FIRE has an air force of 23 airtankers, 10 helicopters and 17 air tactical aircraft.

Equipment

Hand Crews: CAL FIRE operates 210 hand crews, housed in 30 conservation camps, 8 CAL FIRE fire centers, 14 California Conservation Corps (CCC) fire centers, and 7 California Military Department (CMD) fire centers throughout the state. A CAL FIRE hand crew consists of a fire captain and 12 to 17 firefighters. The firefighters that make up these crews can be CAL FIRE firefighters, California Conservation Corps members, California National Guard service members, or minimum-security inmates and wards from the California Department of Corrections and Rehabilitation (CDCR). These fire crews are directly supervised by a CAL FIRE fire captain. CAL FIRE hand crews are the “infantry” of the Department’s firefighting ground attack resources. Their primary function is to construct fire line by hand in areas where heavy machinery cannot be used because of steep topography, rocky terrain, or areas that may be considered environmentally sensitive.

Strike Team: A grouping of a preset number of the same kind and type of resources with a means of communication and a leader.

Engine Strike Team: An engine strike team consists of five fire engines of the same type and a lead vehicle. There are three or four personnel on each engine and one or two personnel in the lead vehicle. The strike team leader is usually a captain or a battalion chief.



CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION



Hand Crew Strike Team: A CAL FIRE crew strike team consists of a strike team leader, and two fire crews. All CAL FIRE fire crews are Type I crews. These crews are highly trained wildland firefighters and are fully equipped to respond to emergencies anywhere in the state with minimal support. Each fire crew carries enough supplies and food to last for about two days. The only additional support that would be needed is drinking water and fuel for chainsaws. The minimum staffing for a Type I crew strike team is 30 firefighters.

Bull Dozer Strike Team: A bull dozer strike team consists of two dozers, a dozer tender, and a leader.

Weather

Fire Weather Watch: Issued by the National Weather Service for potential fire weather conditions which could manifest within the next 12-72 hours.

Red Flag Warning: Issued by the National Weather Service for weather that will occur within 24 hours. These watches and warnings are called because of a combination of high temperatures, low humidity, and high winds. They can also be issued when there is a possibility of dry lightning. The concern is that if a fire starts in those conditions it has a better chance of spreading very rapidly and erratically. Red flag warnings were in effect during the 1991 Oakland Hills fire, and the 2003, 2007, and 2020 fire sieges. Each CAL FIRE unit has its own plan for how to react to these conditions. They may increase their dispatch levels, cancel days off, order volunteer patrols, cancel burning permits, etc.

Resource Management

Forestry: The science, art, and practice of managing and using trees, forests, and their associated resources for human benefit.

Fuels: Flammable materials existing in a natural or human built environment. Often refers to all vegetation in wildlands, including dead and live vegetation. Can refer to other flammable materials in the human built environment.

Ground Fuels: Fuels that lie beneath surface fuels, such as organic soils, duff, decomposing litter, buried logs, roots, and the below-surface portion of stumps.

Surface Fuels: Fuels lying on or near the surface of the ground, consisting of leaf and needle litter, dead branch material, downed logs, bark, tree cones, and low stature living plants.

Ladder Fuels: Fuels which provide vertical continuity which supports the spread of fire from the ground to the canopy.

Fuel Break: Fuel breaks are an area of modified vegetation that provides a safe location from which to fight fire and reduces fire spread, duration, and intensity. Fuel breaks can have flammable vegetation.

Shaded Fuel Break: A Fuel Break where overstory canopy is retained, trees are thinned/pruned, and brush is removed to reduce the fire potential yet retain enough crown canopy to create less favorable conditions for surface fires and rapid regrowth of brush.

CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION



Thinning: A tree removal practice that reduces tree density and competition between trees in a stand.

Timber Harvest Plan (THP): The environmental review documents submitted by landowners to CAL FIRE outlining what timber he or she wants to harvest, how it will be harvested, and the steps that will be taken to prevent damage to the environment.

Demonstration State Forest: The State Demonstration Forests provide research and demonstration opportunities for a variety of natural resource management objectives including sustainable timber production, public recreation, fish and wildlife habitat, and watershed protection.

Registered Professional Forester: A forester is a natural resource professional responsible for stewardship of forest resources. In California foresters are licensed by the state to perform professional services that require application of forestry principles and techniques to management of forested landscapes.

Cultural Resources Management: Identify and manage archaeological, historical, and tribal cultural resources located within project areas under CAL FIRE jurisdiction and develop methods to protect these resources from project-related impacts, including wildfire.

Prescribed Fire: The planned and controlled application of fire to a treatment area and ignited under a set of conditions that considers the safety of the public, firefighters, weather, community values and management objectives. Sometimes called a controlled burn, prescribed burn, managed burn, or Rx burning.

Broadcast Burn: The controlled application of fire to wildland fuels in their natural or modified state over a predefined area, often conducted to reduce wildland fire fuel loads, restore ecological health of an area, or to clear vegetation.

Pile Burning: A disposal method consisting of burning of piles of fuels collected from the treatment area.

Cultural Burning: Native American led application of fire to a landscape based on historic indigenous management techniques. Involves application of Traditional Ecological Knowledge (TEK).

Watershed: An area of land that channels rainfall and snowmelt to creeks, streams, and rivers, and eventually to outflow points such as reservoirs, bays, and the ocean.



CAL FIRE



Office of the State
Fire Marshal



CAL FIRE Careers



Ready for Wildfire