

A: UNIT DESCRIPTION

Butte County is located in the eastern side of the northern Sacramento Valley. The majority of the public lands include parts of the Lassen National Forest and of the Plumas National Forest. The bordering counties include: Plumas County on the northeast, Yuba County on the southeast, Sutter and Colusa Counties on the southwest, Glenn County on the west and Tehama County on the northwest. State Routes 32, 70 & 99 are the primary highways through the county.

Butte County encompasses just over one million acres of land, ranging in elevation from 60 feet to 7,000 feet above sea level. The county is divided in half by two topographical features. The Sacramento Valley section in the southwest portion of the county is relatively flat and is predominantly grassland and farmland. The foothills and mountainous region of the northern Sierra Nevada and southern Cascade Mountains comprises the northeast portion of the county. This area is scattered with homes and communities intermixed amongst woodland fuels creating a serious wildland urban interface problem. These are areas where wildland fire once burned only vegetation but now burns homes as well. The WUI for Butte County consists of communities at risk as well as the area around the communities that pose a fire threat.

There are two types of WUI environments. The first is the true urban interface where development abruptly meets wildland. For Butte County the town of Paradise and the community of Paradise Pines are examples of high density housing meeting wildland. The second WUI environment is referred to as the wildland urban intermix. Wildland urban intermix communities are rural, low density communities where homes are intermixed in wildland areas. For Butte County the communities of; Cohasset, Forest Ranch, Concow, Yankee Hill, Berry Creek and Forbestown are some of these examples. Wildland urban intermix communities are difficult to defend because they are sprawling communities over a large geographical area with mixed vegetation types throughout. This profile makes access, structure protection, and fire control difficult as fire can freely run through the community. Human impact on wildland areas has made it much more difficult to protect life and property during a wildland fire. This home construction has created a new fuel load within the wildland and shifted fire fighting tactics to life safety and structure protection.

Topography and Fuels

Butte County's foothills and mountains are carved up by several river drainages, the largest being the Feather River watershed which culminates in Lake Oroville. The Feather River watersheds include the West Branch of the North Fork east of Paradise, the North Fork separating Yankee Hill from Berry Creek, the Middle Fork separating Berry Creek and Feather Falls, and the South Fork separating Feather Falls from Forbestown and the La Porte Road communities. The northern part of Butte County is bisected by Butte Creek west of Paradise and Big Chico Creek watersheds which separate the Forest Ranch and Cohasset ridges.

The topography in these drainages differs significantly from the deep and very steep, heavily timbered drainages of the Feather River watershed to the moderately steep wide and generally brush filled Butte Creek and Chico Creek drainages. The drainages are oriented toward south and west aspects which lead to prolonged sun exposure and diminished fuel moisture in the wildland fuels.

Butte County is comprised of three general fuel types (grass, brush and timber). There are a number of factors such as fuel type and size, loading (tons/acre), arrangement (vertical & horizontal), chemical composition, and dead and live fuel moisture that contribute to the flammability characteristics of vegetation.

The valley and lower foothills, up to roughly 1000' elevation, comprise the grass fuel type. This fuel type is comprised of fine dead grasses and leaf litter which is the main carrier of fire. Fires in this fuel type react dramatically to changes in weather, particularly low relative humidity and high wind speed. Grassland fires can be very difficult to control during strong wind conditions and often spread over a large area quickly, threatening life and property.

The mid foothill and lower mountain areas, generally between 1000' and 2500' elevation, are dominated by brush. Fire in this fuel type can burn readily, especially later in the summer as live fuel moistures drop to critical levels. Brush fuel, unlike grass fuel, does not react readily to changes in relative humidity. Brush fires can be difficult to control under normal summer burning conditions when their fuel moistures reach critical levels and become very difficult to control on steep topography and when subjected to strong winds.

The mountainous areas above the 2000' to 2500' elevation make up the timber fuel type. Timber fires burn readily, especially if they occur in overstocked stands, in stands with a lot of down dead material, and/or later in the summer as live fuel moistures drop. Timber fires can be difficult to control under normal summer burning conditions, but they become very difficult to control on steep topography and when subjected to strong winds.

Weather and Fire History

Butte County has a Mediterranean climate with cool, wet winters and hot dry summers. Precipitation is normally in the form of rain, ranging from approximately 20 to 80 inches per year, with snow in the higher elevations. The average annual high temperature for January is 55 degrees and for July is 96 degrees.

The predominant summer weather pattern includes high to very high temperatures, low humidity and light to moderate south winds associated with high pressure weather gradients. Occasionally during the summer, dry weather fronts will approach northern California bringing increased wind speeds from the south on approach, then changing direction to north winds after passing the area.

Each year, especially in the autumn months, north wind events bring high temperatures, very low humidity and strong winds. These north wind events usually produce *red flag warning* conditions and provide the highest potential for extreme fire behavior. With the fuels already at their driest moisture content, north winds can create a severe fire weather situation.

The Butte Unit has had a significant history of large fire occurrences during the past fifty years. Over 500,000 acres have burned during this time period. In 1990, the Campbell fire scorched 131,000 acres. The 1999 Butte Lightning Complex burned 33,000 acres. The Poe fire burned 8,333 acres and destroyed 50 homes in 2001. More recently, the Humboldt fire burned over 23,000 acres and 351 structures and the Butte Lightning Complex, destroyed or damaged over 100 homes and 59,000 acres in 2008. Wildfire history is a significant factor of the pre-fire management planning process. Identifying where fires have occurred can help managers determine the most beneficial locations for pre-fire management projects.

B: UNIT PREPAREDNESS AND FIREFIGHTING CAPABILITIES

The Butte Unit is geographically divided into seven battalions. Cooperative fire protection “Schedule A” agreements are maintained with the Butte County Fire Department, City of Biggs Fire Department, and City of Gridley Fire Department. During peak season preparedness, CAL FIRE/Butte County Fire Department resources include:

State Resources

- 235 Personnel
- 10 Fire stations
- 15 Engines
- 2 Transport/bulldozers
- 1 OV-10A Air tactical plane
- 1 S-2T Air tanker
- 1 Camp (unstaffed)

County/City Resources

- 11 Fire stations
- 12 Engines
- 1 Aerial ladder truck

A typical State engine company is staffed minimum 3.0 with one company officer and two firefighters. A typical County engine company is staffed minimum 2.0 with one company officer and one firefighter.

During periods of extreme fire danger, the lookouts on Bald Mountain (in northern Butte County) and Bloomer Hill (in southern Butte County) are typically staffed, aiding in early fire detection. During the past few years, community fundraisers have provided staffing for Sawmill Peak lookout (near Paradise) from late August through September.

The Butte County Fire Department is a combination fire department. The delivery of fire department resources is accomplished using both career and volunteer firefighters. Butte County has a strong and active volunteer firefighter program. Butte County Fire Department volunteer resources include:

- 16 Fire stations
- 17 Engines
- 16 Water tenders
- 14 Squads
- 2 Rescues
- 2 Breathing support units

Mutual/Automatic Aid Agreements

The Butte Unit maintains automatic aid agreements with all fire agencies within Butte County and with many adjacent to the county. These agencies include:

Within Butte County:

- Chico Fire Department
- El Medio Fire Protection District
- Oroville Fire Department
- Paradise Fire Department
- Lassen National Forest
- Plumas National Forest

Adjacent to Butte County:

- Foothill Volunteer Fire Department
- Hamilton City Fire Department
- Loma Rica/Browns Valley Community Services District
- Sutter County Fire Department
- Tehama County Fire Department

Dispatch Agreements

The Butte Unit Emergency Command Center maintains agreements to provide dispatch, communication, command and control, and “pre-arrival” emergency medical services to the following agencies:

- Butte County Fire Department
- Biggs Fire Department
- Gridley Fire Department
- El Medio Fire Protection District
- Oroville Fire Department