FUEL MANAGEMENT PROJECTS

Fuel Management involves changing the amount, kind and arrangement of both natural vegetation and human constructed fuels. Unit Fire Risk Zones are defined as areas of high assets at risk, fuel loading in excess of 4 tons per acre (using the predominant fuel model of dense conifer stands) and weather patterns that include higher than normal temperatures and lower humidity (Zone 3).

Ignitions or fire starts in these areas may not be excessive. Likely ignitions would start near roads or from equipment use within residential property. The majority of these starts would be contained within the area of origin taking into account the high Level of Service within the unit. Unfortunately, the potential for severe fire weather does exist in the Unit (2 to 5% of the total days monitored during fire season). Control of wildland fire ignitions under these conditions is dependent on detection, emergency response time, hazard abatement measures and fire suppression strategies.

Focusing on the potential unit fire threats (referred to as Fire Risk Zones), these zones are:

Indian Trails Subdivision
La Cumbres Subdivision
Bonny Doon Ecological Preserve
Pineridge Subdivision
Lompico/Zayante Watersheds

Several fuel modification treatments have been effectively implemented within the Unit. They are:

Manual vegetation removal. Less disruptive to the environment then mechanized treatment, this includes limbing/pruning or removal of all dead or live vegetative growth up to eight (8) feet from the ground on mature shrubs or trees, usually to separate the aerial array of fuels from ground and/or “ladder fuels”. This technique is utilized to break the vertical continuity of a fuel bed and decrease the susceptibility of taller trees and shrubs to a wildland fire event.
The use of “thinning” the vegetation is another desired treatment. Thinning includes the selective removal of shrubs and or other material to break the horizontal continuity of a fuel bed, decreasing the overall burning intensity of the fire event.

Chipping. Chipping is an effective method to reduce the green waste (biomass) from a manual vegetation treatment. Chips can be scattered on site and is environmentally safe.

Santa Cruz County Fire Chiefs' Association has purchased a chipper for the sole purpose of fuel management projects. The purpose of the Chipper Program is to assist homeowner or road association members with their neighborhood defensible space projects.

In combination with other vegetation management techniques, manual removal methods may be used in sensitive areas and is cost effective.

Mechanical vegetation removal. Mechanical removal of vegetation may be used alone or in conjunction with other methods. Mechanical methods of fuel modification are typically more cost effective and less labor intensive than manual methods, but create a higher risk of adverse or disruptive environmental effects such as soil compaction, erosion and damage to sensitive vegetation.

Use of mechanical fuel modification are often more practical for cost effective large-scale projects.

Mechanical includes tractors, bulldozers or any other heavy equipment.

Prescribed burning. The use of this treatment method is an effective management tool that reduces the potential impacts of wildland fire events. This tool can also be utilized to promote the establishment of native grasslands, improve wildlife habitat and increase the age class and diversity of specific plant communities.

Prescribed burning offers low cost treatment per acre.

As with any fuel management treatment, the use of one specific method over another must be weighed depending on the type of project and location. Use of fire in close proximity to homes in the interface may not be the best choice. A manual treatment may be the better method.

The following Fuel Management Projects are being undertaken in the following geographical areas:

San Bruno Mountain Park (San Mateo County)

This fuel management project, located north of the Park's main parking lot off of the Guadalupe Parkway, consists of thinning and removing a stand of overgrown Eucalyptus trees. Presently, talks are under way for project scheduling and funding.

Laurelwood Park (Sugarloaf Homeowners' Association - San Mateo County)

The Laurelwood residences have just completed a community master plan. A key component to the plan was fire protection. The plan, currently being discussed with Belmont City Park and Fire Safe San Mateo staff, is to widen and reestablish a shaded fuel break around the residential properties. In 1993, a shaded fuel break was constructed in the same location.

Crystal Springs Watershed (San Francisco Water Department - San Mateo County)

This ongoing fuel management project includes the South Firebreak (lands located between Canada' Road in Woodside up the slopes along the PG & E Right of Way to Skyline Boulevard), power pole and fire road access point fuel reduction.

Mills Canyon (San Mateo County – Burlingame)

This ongoing project consists of maintaining a 30 foot shaded fuel break around the upper end of the canyon and under the residential property lines. Future funding to keep this a continuing project is being explored.

Loop Trail Fire Break (Wunderlich County Park – San Mateo County)

The project goal is to reduce the Eucalyptus slash and reestablish a shaded fuel break along the Loop Fire Break Trail. The existing road extends 3 miles up slope to the Loop Meadow. The meadow's overgrown vegetation will be removed, clearing the area that was once a well-established trailhead and picnic ground.

Implementation of this project will protect numerous residences along Bear Creek Road, an upscale community in Woodside.

Fire Safe San Mateo and San Mateo County Parks applied for funding through a grant.

Las Cumbres (Santa Cruz County)

The Las Cumbres property owners have worked with the Unit off and on over the past 20 years. This group has identified a need to upgrade the fire roads and fire defense infrastructure within their community. Implementation of this project will protect approximately 1400 acres and 140 homes.

The project, upon completion, will reduce hazardous fuel levels to acceptable levels and to improve the fire defense system within and surrounding Las cumbers. This will include a shaded fuel break along 5 miles of roads, reopening of select interior roads and do repair where needed.

Bonny Doon Ecological Preserve/Pineridge Subdivision (Santa Cruz County)

The Bonny Doon Ecological Preserve (BDEP) is owned and managed by the California Department of Fish and Game. The property is surrounded by residential development with an average resell value of about $800,000 each. The fuel loading within the property is very high due to the age of the knob cone pine, ponderosa pine and manzanita. The area to be protected is approximately 1000 acres.

The fire defense system within and surrounding the property needs to be improved by reducing the amount of down and ladder fuels. The Rural Bonny Doon Homeowners' Association has expressed their concern about the fire hazard in the area and is currently participating in the effort to develop a Fire Management Plan for the BDEP and community. The California Department of Fish and Game, US Fish and Wildlife Service and California Department of Forestry and Fire Protection are working cooperatively, with CDF as the lead, in the implementation of the fuels reduction and fire defense improvements in the area.

The goal is to reduce the hazardous fuel levels to acceptable levels and to improve the fire defense system within and surrounding the BDEP. Along with the development of a Fire/Vegetation Management Plan for the preserve, shaded fuel breaks will be developed along several key area roads and upgrade the fire defense roads within the BDEP.

Long-range plans for small vegetation management burns are being explored.

Indian Trails Subdivision (Santa Cruz County)

Located at the headwaters of the San Lorenzo River (San Lorenzo Watershed), the Indian Rock Community has been identified as an area at high risk for a damaging wildfire and a high priority for the implementation of a vegetation management project. The watershed is a major water source for the City of Santa Cruz and surrounding communities.

The area that will be protected by the implementation of a vegetation management project is approximately 400 acres.

The goal is to reduce the hazardous fuel levels to acceptable levels and to improve the fire defense system within and surrounding the Indian Rock Subdivision.

Shaded fuel breaks will be created along 5 miles of interior roads through thinning of fuels, eliminating ladder fuels, chipping and broadcasting the green waste. Pile burning will be used as needed and usable firewood made available to senior citizens within the subdivision.

Lompico/Zayante Watershed (Santa Cruz County)

This project is a cooperative effort with the Santa Cruz County Resource Conservation District, City of Santa Cruz and the California Department of Forestry and Fire Protection.

The goal is to restore the shaded fuel break along the eastern boundary of the Loch Lomond Watershed (Lompico), along the western boundary (of the watershed (Boulder Creek) and within the interior fire defense roads. The Loch Lomond Watershed provides water for the City of Santa Cruz, the communities of Lompico and Zayante. It is a well-known recreational area for the local residents.

UNIT FUEL MANAGEMENT PROJECT LOCATIONS