



# Foothills

## Nature Notes

CITY OF PALO ALTO • COMMUNITY SERVICES DEPARTMENT • OPEN SPACE, PARKS AND GOLF DIVISION

### Fire in the Foothills

Up until the late 1800s, fires were a regular occurrence in the Palo Alto foothills, burning a given area every 20 to 40 years. More recently, under the watchful eye of Smokey Bear, fires have been suppressed. These hills have not burned since 1914. Recently, however, we have come to understand that fire, like the wind and the rain, is a natural force essential to the health and beauty of the foothills.

Just as regular rain causes growth, regular fires will clear out dead and dying brush, restore nutrients to the soil and stimulate re-sprouting. Some seeds in fact will not sprout unless they are seared by flames. Since the flames of regular fires are relatively small, mature trees are scorched but unharmed, and wildlife can usually escape the flames, often returning within hours. Wildlife diversity is higher in areas that have been regularly burned. Forests take on an open, park-like appearance. The effect of such a fire is to produce, like the phoenix rising from its ashes, a rebirth of life.

A grassland fire burns everything above the ground, and the area will appear black until winter rains carry nutrients from the ash down into the soil. With dead grass converted by fire to fertilizer, a burned area will appear more lush than a non-burned area in the spring. Grassland can burn every year without harm. A fire in chaparral (brush) consumes leaves and twigs, while branches remain as black skeletons. Some plants will sprout new leaves immediately while others must grow from seed. In about 20 years, the area will be ready to burn again. Fires in oak woodland will burn away underbrush, but usually spares the sturdy oak, which, although scorched, grows new leaves.

Like a prolonged drought, the lack of fire has several ill effects. Forest floors become thickets of brush. Chaparral plants pass maturity and begin to die. Soil becomes depleted. As leaves become tough and low in nutrients, deer look elsewhere to browse. Meadows shrink as they are invaded by brush and trees. Perhaps worst of all, the buildup of brushy fuel makes the area ripe for a summer holocaust.

Like a severe flood, such a fire storm is destructive. Instead of clearing the forest of dead brush, it consumes the forest. Instead of burning



slowly and leaving unburned areas that serve as islands of refuge for wildlife, it overtakes wildlife and kills it. Instead of helping humans by grooming the environment, it endangers property and life.

To guard against such fires, humans have employed such techniques as bulldozing and building codes. The best approach, however, is to “fight fire with fire” – to reintroduce frequent low-intensity fires that will cleanse our foothills and prevent dangerous buildup of brush. The result would be open space in which all natural processes interact to preserve a healthy and beautiful environment.

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*Palo Alto Fire Dept. Engine 8*



*Park Ranger Trucks with Fire Fighting Gear*