



# Benefits of Fire

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The sounds and smells of fire bring different images to different people. That is surprising since fire is one of our greatest tools and one of our most destructive forces. So what is fire? Is it enemy or friend? Fire in the wildlands does not have to be a villain. Fire that is low in intensity and does not grow out of control benefits our wildlands and is actually vital to the survival of several species.



### Cleaning the Forest Floor

Fire removes low-growing underbrush, cleans the forest floor of debris, opens it up to sunlight, and nourishes the soil. Reducing this competition for nutrients allows established trees to grow stronger and healthier. History teaches us that hundreds of years ago forests had fewer, yet larger, healthier trees. Forests today have more trees than in the past, but they are not as large or healthy. Established trees have to compete with undergrowth for nutrients and space. Fire clears the weaker trees and debris and returns health to the forest. Clearing brush from the forest floor with low intensity flames can help prevent large damaging wildfires that spread out of control and completely destroy forests. Under optimum conditions, when wildfires do start, the result is a low intensity fire that remains on the ground burning grasses and vegetation, but causing less damage to trees.

### Providing Habitat

Wildlands provide habitat and shelter to forest animals and birds. Fire clears wildlands of heavy brush, leaving room for new grasses, herbs and regenerated shrubs that provide food and habitat for many wildlife species. When fire removes a thick stand of shrubs, the water supply is increased. With fewer plants absorbing water, streams are fuller, benefiting other types of plants and animals.

### Killing Disease

Fire kills diseases and insects that prey on trees and provides valuable nutrients that enrich the soil. More trees die each year from insect infestation and disease than from fire. Many forests struggle against diseases such as pitch canker and bark beetle infestations – pests that destroy the part of the tree that delivers nutrients to the roots, leaves and needles. Fire kills pests and keeps the forest healthy. Vegetation that is burned by fire provides a rich source of nutrients that nourish remaining trees.

### New Generations

Change is important to a healthy forest. Some species of trees and plants are actually fire dependent. They must have fire every 3-25 years in order for life to continue. Some trees have fire resistant bark and cones that require heat to open and release seeds for regeneration. Chaparral plants, including manzanita, chamise and scrub oak, also require intense heat for seed germination. These plants actually encourage fire by having leaves that are covered with flammable resins. Without fire, these trees and plants would eventually succumb to old age with no new generations to carry on their legacy.