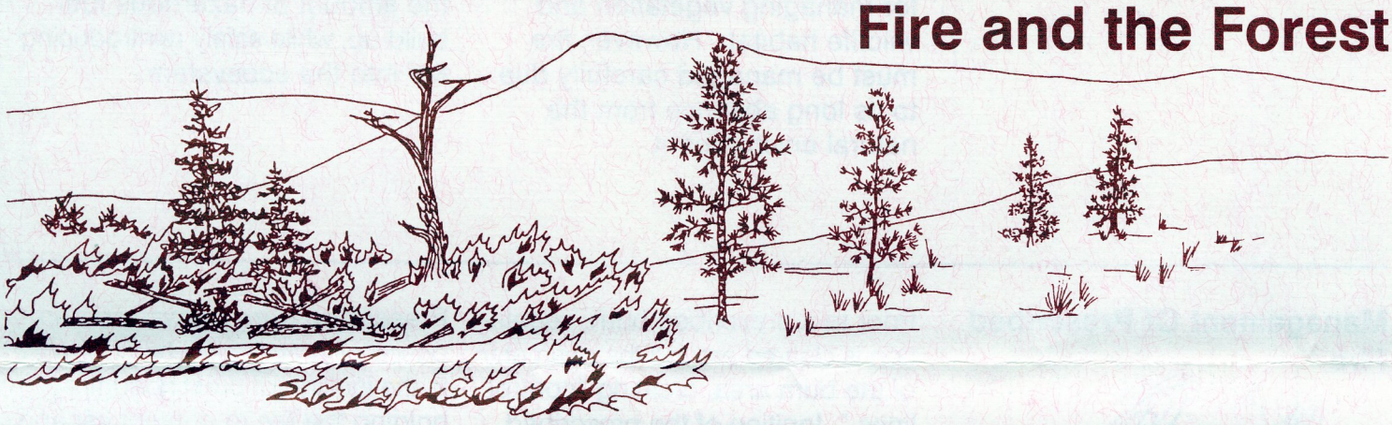
Whiskeytown Unit

Whiskeytown-Shasta-Trinity
National Recreation Area
National Park Service
U.S. Department of the Interior

Fire and the Forest



Nature

Frequent low to medium intensity fires are a natural component of the environment at Whiskeytown. Large fires have historically occurred every 13.5 years. These fires served to reduce the build-up of dead wood, thick brush, and understory trees. Fires removed weak and diseased trees and cleared the forest floor of excess brush and duff, allowing for seedlings to grow.

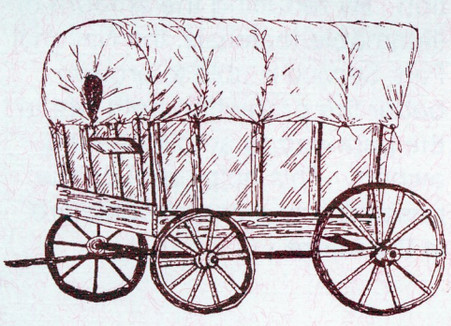
Healthy forests are composed of a patchwork of plants of various ages, sizes, and types, ranging from open areas to mature stands of trees. Frequent low to medium intensity fires helped to create this forest mosaic by allowing sunlight to reach the forest floor to nourish new growth

Native Americans

Native Americans in the Whiskeytown area have historically used fire to their benefit. During the mid-1800's fire was used to produce a better wild seed crop by burning fields. Native Americans used two converging fires to hunt both large and small game. The fires trapped the game, making them easy prey.

Fires were also started to "smoke out" wildlife. Smoke forced bear and rodents out into open areas where they could be more easily hunted In addition, the Shasta and Wintu Indians used fire in conjunction with tobacco harvesting practices.

Westward Expansion



As settlers arrived in Northern California in the mid and late 1800's, fire suppression became common Many settlers were concerned that fires would damage their property or endanger their lives. Fire brigades were formed to extinguish fires as quickly as possible. However with fire suppression came the build-up of hazardous flammable vegetation.

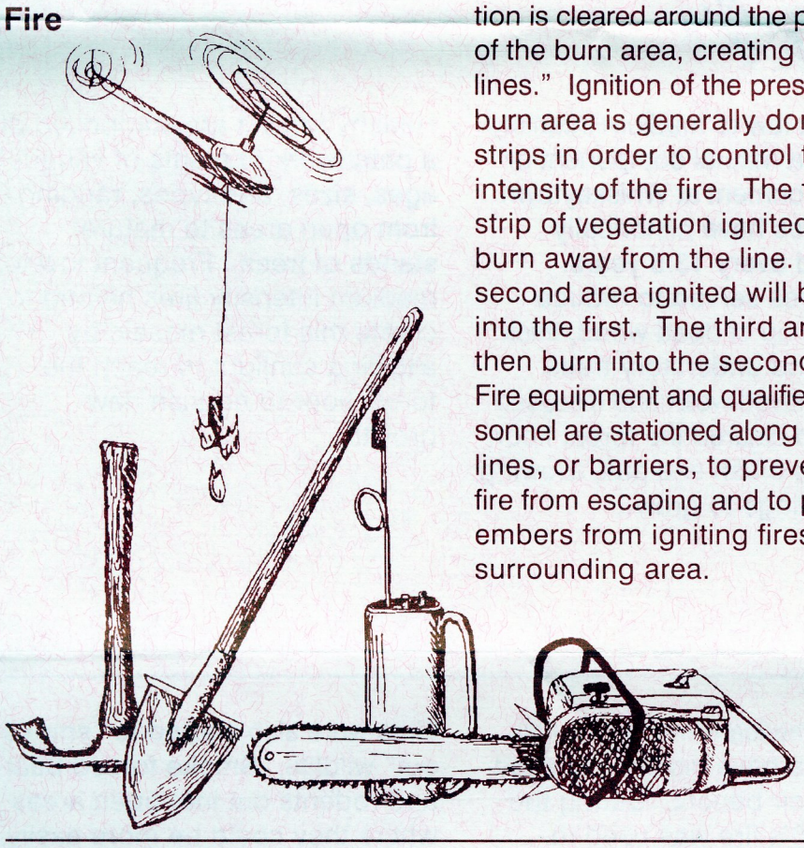
Areas that did not burn became so thick with vegetation that animals could scarcely travel through the dense brush. When fires did occur in these densely vegetated areas, they were explosive in nature and burned with such intensity that they left the area with no vegetation at all.

Re-Introduction Of Fire

After more than one hundred years of fire suppression the importance of fire in the ecosystem is being recognized. Resource managers now see fire as a tool for managing vegetation and wildlife habitat. However fire must be managed carefully due to its long absence from the natural environment.

One way to manage fire as a resource is through the use of prescribed fire. These are management-ignited fires specifically designed to reduce the amount of hazardous fuel build-up, while safely reintroducing fire into the ecosystem.

Management Of Prescribed Fire

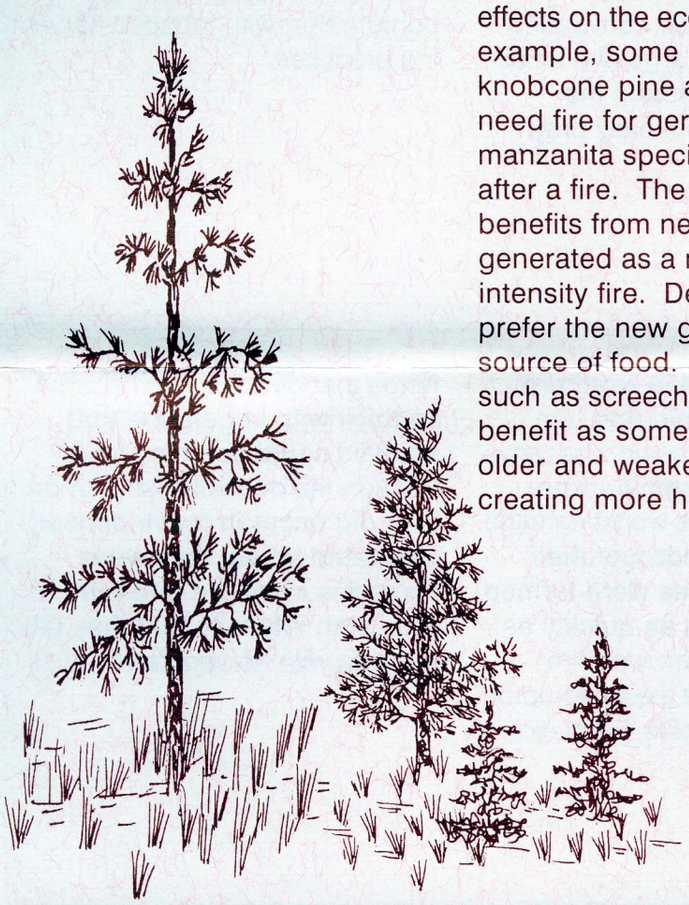


Prior to a prescribed burn, vegetation is cleared around the perimeter of the burn area, creating "control lines." Ignition of the prescribed burn area is generally done in strips in order to control the intensity of the fire The first strip of vegetation ignited will burn away from the line. The second area ignited will burn into the first. The third area will then burn into the second area. Fire equipment and qualified personnel are stationed along control lines, or barriers, to prevent the fire from escaping and to prevent embers from igniting fires in the surrounding area.

Prescribed burn crews are composed of individuals who specialize in the ignition of prescribed fire holding the fire to prevent escape, monitoring the fire for intensity, and tracking weather conditions. After the prescribed burn has been completed, the area will be monitored to ensure that smoldering materials will not flare-up.

Air quality regulations must be met when conducting a prescribed burn. By burning only when the proper atmospheric conditions are present for the smoke to rise and dissipate, the National Park Service can conduct a prescribed fire with a minimum impact on air quality

Benefits Of Prescribed Fire



Prescribed fire has many positive effects on the ecosystem. For example, some plants, such as knobcone pine and chamise, need fire for germination Some manzanita species sprout better after a fire. The deer population benefits from new plant growth generated as a result of a low-intensity fire. Deer typically prefer the new growth as a source of food. Many birds, such as screech owls and flickers, benefit as some of the larger older and weaker trees die, creating more habitat.

Fire also adds nitrogen to the soil, which is an essential nutrient for plant growth. Reduction of underbrush allows for new seedlings to grow. An excess of underbrush can result in competition for nutrients and water which, if n short supply can kill larger trees.

Prescribed fire also benefits people. It provides an effective method of hazardous fuel reduction By reducing the amount of flammable materials, the National Park Service is able to provide better fire protection both within the park and to adjoining land owners. This helps reduce the possibility of a catastrophic fire in the future.

This site bulletin was produced with funds donated by Southwest Parks and Monuments Association.