

Questions & Answers

Benefits of Prescribed Burning

Fire in the wildland plays an important role in the natural cycle of life in the forest and it can also quickly become a dangerous hazard situation for a community. A non-catastrophic fire, whether prescribed or natural, has many ecosystem and resource benefits. An unmanageable wildfire threat to a community is a situation we all want to avoid. Prescribed fire is the controlled application of fire to the land to accomplish specific land management goals and can reduce hazardous fuels accumulations that can lead to an unwanted wildfire threat. The benefits include:

- **Reducing hazard fuel build-up:** Dead wood, overcrowded, unhealthy trees, thick layers of pine needles, and continuous decadent brush fields can all contribute to catastrophic wildfires in the forest or adjacent to communities.
- **Prepares the land for new growth:** When excess vegetation or needle layers are burned off, nitrogen and other nutrients are released into the soil and become available for new plants to grow.
- **Helps certain plants/trees germinate:** Many native plant and forest communities have adapted to fire for their germination and growth. Seed contact with bare soil (such as that exposed by a fire) is necessary for some species to naturally regenerate.
- **Naturally thins overcrowded forests:** Historically, natural fire thinned the forests. Thinned forests can recover faster and are more resistant to insect and disease attacks. Currently, many of the mature forests are overcrowded, resulting in a lack of vigor and health.
- **Creates diversity needed by wildlife:** Fire creates a varied land and vegetation pattern that provides diverse habitat for plants and animals. Grazing wildlife benefit from new growth as shrubs produce succulent edible leaves when re-sprouting after a fire.

What is a burn plan?

A burn plan helps ensure that the objectives of the burn are met, as well as addressing safety issues. Land managers determine if the resource would benefit from a specifically prescribed fire application. The burn plan determines the environmental conditions necessary for meeting resource objectives in a safe, effective manner.

The plan includes how and when the fire will be ignited and contained and what resources, such as fire equipment and personnel, must be on site before burning may begin. Air Quality Management District issues project specific burning permits as required. A burn plan must be followed. If unexpected problems arise, a burn operation is shut down.

How is burning accomplished?

Four major methods of burning are utilized on the Shasta-Trinity National Forest:

- **Pile Burning:** Involves burning piles that were generated by hand piling and mechanical piling. The piled fuels are typically generated by some activity like logging slash, thinning, and brush removal.

- **Underburning:** Involves implementing a light-to-moderate intensity fire through an area to reduce surface fuel loading, thin overstocked reproduction, and accomplish natural limbing of lower (near ground level) branches of large trees.
- **Helitorch:** Involves igniting brush fields using a helicopter carrying a 55-gallon drum filled with gelled gasoline. The fuel is ignited with a remote igniter as it is dispensed from the drum.
- **Plastic Sphere Dispenser:** Involves dispensing from a helicopter, plastic (ping-pong sized) balls that start individual fires through a chemical reaction. The balls are injected with reactive substances as they are dispensed from the helicopter.

Who does the burning?

Prescribed fire use is conducted by trained and qualified fire management professionals who have studied and are experienced and skilled in the areas of fire behavior and fire management techniques. These prescribed fire professionals help ensure the safety of the burn crew, nearby residents, and property.

What about the smoke?

Controlling where the smoke will go is an important part of every prescribed burn. Before each burn, land managers look carefully at what they plan to burn and the proximity of houses, roads, and other smoke sensitive sites to the planned burn area. The burn plan is then written to minimize negative impacts of smoke, especially to individuals who may be smoke-sensitive. Smoke, however, is a natural byproduct of fire and some amounts are unavoidable.

Periodic prescribed burns prevent heavy fuel accumulation that would send a larger amount of smoke into the air should an uncontrolled wildfire occur.

When does burning occur?

The Shasta-Trinity National Forest conducts most prescribed fires between October 1 and June 1. Prescribed burning is started after the fall rainy season begins, and extends until the final spring rains are eminent usually in April. The forest burn schedule is established for fuels reduction, wildlife habitat and resource protection priorities.