

## Why prescribed burn?



Fire has been part of the landscape in the Blue Mountains for centuries. Fire historically burned across the mid and lower elevations of the Malheur National Forest every 15-20 years. These low intensity fires reduced seedlings and saplings, consumed accumulated tree litter, accelerated the return of nutrients to the soil and rejuvenate grasses and forbs.

There are two broad types of prescribed fire used on the Malheur National Forest. Low intensity under-burning and activity fuels (slash) burning.

Under-burning can be used to approximate the natural vegetative disturbance of periodic fire occurrence. This vegetative management tool is used to maintain fire dependent ecosystems and restore those outside their natural balance. Low-intensity fire is vital to the life cycles of fire-dependent range and forest lands.

Low intensity under-burns are used to achieve several specific goals. Most burns are prescribed to reduce future wildfire severity and intensity by reducing dead fuel accumulation and reducing ladder fuels. Generally, low intensity prescribed fire is applied by trained experts to clear ground of dangerous fuels like dead wood and brush, thin ladder fuels by killing some of the smaller seedlings and saplings, and pruning the lower branches on larger trees. Prescribed fires are also used to increase forage for big game and domestic livestock by reducing accumulated surface fuels and duff layers, increasing the abundance of grasses and forbs, and increasing the palatability and nutritional content of many shrubs.

Research has shown that, in areas where effective under-burning has taken place especially in conjunction with mechanical treatments, wildfires are more likely to stay in the surface fuels, close to the ground, and out of the tree crowns, reducing tree mortality, reducing fire intensities and reducing risk to the firefighters and the public. Previous fuel treatments and prescribed burns on Malheur National Forest Lands played a significant role in reducing the fire severity in portions of the 2007 Egley Complex Wildfire, and the 2002 Monument Rock Wildfire.

Activity fuel burning is used to reduce fuels generated from logging and non-commercial thinning. In most cases the slash is piled and burned either at the landings or in the unit in the form of hand piles or machine piles.

Fire is an important and inevitable part of the Blue Mountains. It's now widely recognized that we must restore fire to many areas from which it has been excluded. Wildland fires can produce both benefits and damages - to the environment and to people's interests. By working together, people can maximize the benefits of wildland fire and minimize the damages, including threats to public health.

## When will prescribed burns take place?

Prescribed burning is highly dependant on weather conditions. Conditions have to be within a narrow criteria window in order to use prescribed fire. Wind speed and direction, temperatures, relative humidity, and fuel moistures are all taken into consideration. Fall and spring weather provide the best conditions for under-burning: moist soil, dry material and cooler temperatures.

Burning will only take place when and if the conditions are right. Spring under-burning begins in late April and early May and is usually completed by mid June. The fall under-burning program begins in September and should be completed by the end of November. Pile burning usually begins in the late fall after significant rainfall or light snow.

Much consideration is also given to timing prescribed fires to avoid impacts on wildlife such as big game calving season and breeding/hatching season for sensitive bird species. Attempts are made to perform spring burning prior to the time when ground nesting birds have begun nesting. Burn block sizes are also reduced in the spring to lessen the potential impacts.

Fall is often the prime season for conducting under-burning, but fall is also the primary big game hunting season. The Malheur National Forest is committed to reducing the impacts on the hunting public by excluding large burn projects during opening weekend of deer season and some of the early elk hunts. The Forest will notify hunters of up-coming burn locations prior to the hunting seasons through public service announcements over the local radio station, with signs at the burn unit and web sites such as this.

## What is burned in a prescribed burn?



The Malheur burn program includes burning both activity fuels and natural fuels. Activity fuels such as “slash piles” consist of the non-merchantable material remaining after harvest activities. Removing slash can stimulate plant growth for wildlife winter forage and reduces fuel accumulations. Natural fuels are created by the excessive accumulation of dead and down material that occurs with the lack of natural fires and can be compounded by insect and disease mortality. Natural fuel burns, or “landscape under-burns,” are low intensity burns conducted to meet forest management objectives and can take weeks to complete.

## How do you conduct a prescribed burn?



Ignition will either be done on the ground by hand crews with drip torches, ATV's with attached torch or by aerial release of ping-pong balls which ignite a small fire when they hit the ground. Ping-pong ball ignition is an efficient, cost effective method for igniting large areas. Ping-pong balls drop through the tree canopy, keeping flames small and close to the ground.

Fire lines, roads and natural barriers along with fire crews and fire engines are used to keep the prescribed fire within specific project areas. Prescribed fires are monitored following ignition until they are declared out.

## What about all the smoke?



While prescribed fires have proven to be very successful in creating the conditions necessary for healthy forests and rangelands, there is a troublesome side effect. It is smoke. To ensure smoke dispersion, atmospheric conditions are closely monitored before prescribed fires are ignited. Yet even in favorable conditions, the air will still become smoky. Often, although the air is smoky, it still meets federal and state air quality standards.

Prescribed fire managers rely on weather forecasts and smoke dispersal forecasts when planning burns to reduce the impacts to local communities from smoke. All burning is reported to the Oregon State forecasters and they have the authority to halt prescribed burning if conditions are such that smoke may negatively impact sensitive areas.

To learn more about smoke monitoring in Oregon visit the following Oregon State DEQ site.  
<http://www.deq.state.or.us/lab/aqm/airMonitoring.htm>

