

For locatable minerals, approval of an operating plan is required before beginning any substantial ground-disturbing activity. The General Mining Laws give the miner the right to mine in an area of a cultural resource site, but the miner must bear all costs of protection and mitigation.

Wildernesses are withdrawn from all forms of appropriation under the mining and mineral leasing laws, subject to any valid existing rights established prior to the date of withdrawal.

## 12 Air Quality

Throughout time, fire has played a significant role in development of forest environments. To date, smoke has not caused significant problems within or adjacent to the Forest.

Predominantly light southwest winds during the spring, summer, and fall result in relatively clean, clear air. Visibility in the Blue Mountains is considered a prime asset by residents and visitors.

Prescribed burning is the only temporary emission source from the Forest of any significance. Prescribed burning is used for removal of logging residue, site preparation for reforestation, maintenance of range and wildlife habitats, and enhancement of specific fire-dependent plant communities. Most prescribed burning activity takes place in late fall and early winter.

Current policy for management of slash and other activity residues emphasizes utilization of the wood fiber.

Currently, prescribed burning on the Forest is producing approximately 604 tons of total suspended particulates (TSP) annually. This amount of TSP has not had any significant effect on either Wilderness or nonwilderness parts of the Forest. With greater wood utilization and a reduction in fuel treatment, the total amount of TSP is expected to decline in the future.

Commercial chip log sales and firewood sales have contributed to a reduction in slash burning on the Forest. As the supply of dead lodgepole pine is depleted and cogeneration plants are completed, utilization of logging residue should increase.

Cogeneration plants generally burn more efficiently than the old wigwam burners. For that reason, it is expected that cogeneration plants will produce less particulate matter per cubic foot of biomass burned than do wigwam burners. But because of their ability to produce electricity, cogeneration plants may consume more cubic feet of biomass. The overall result may be an increase in particulate matter dispersed into the air.

Local woodstove use has not been shown to have a significant effect on air quality. To date, no restrictions on use have been deemed necessary.

Air quality standards are considered when activities are planned. The Forest complies with all applicable air quality laws and regulations, and coordinates with appropriate agencies and the State of Oregon on smoke management. The main concerns are those areas having Class I visibility standards. On this Forest, only the Strawberry Mountain Wilderness has such standards, although the Monument Rock Wilderness is also being managed to meet it.

The predominantly southwest winds tend to carry any Forest-related smoke away from heavily-populated areas like Boise, Idaho. All air quality effects have generally dissipated by the time they reach other Class I airsheds over the Eagle Cap Wilderness or the Selway-Bitterroot Wilderness in Idaho.

a. *Relationship Between Forest Management and Air Quality*

Timber harvest activities have a temporary effect on air quality, primarily from slash disposal. Prescribed fires can also have short-term effects on air quality. Dust from logging traffic can have a localized effect.

There are some short-term effects, such as vehicle exhaust and dust, from recreational traffic. Clean air with good visibility and fresh, natural odors enhances recreational experiences. There is potential for slash burning to have some effect on recreationists during fall, when the Forest's heaviest recreation use and slash burning coincide.

Wildland fire, prescribed fire, and other activities outside the Wildernesses can periodically affect air quality within the Wildernesses. Air quality will be monitored to meet Class I airshed standards

Construction and use of Forest roads have a temporary effect on air quality because the soil is disturbed and may temporarily add dust to the air

13. Transportation

"David Eccles . . . came to Baker to found the Oregon Lumber Company (in 1899). He soon realized he needed a railroad to funnel logs to his mill . . . by 1909 . . . (the) narrow gauge track covered eighty bouncy miles with switchbacks and hairpin curves from Baker to Prairie City . . . in 1933 the Sumpter Valley Railroad tracks retreated to Bates and all the tracks were pulled up for good in 1947" (Malheur Ethnographic History, pp. 133-134).

Until 1921, railroad development had barely tapped the timber resources of the Forest. In conjunction with an 890 million board foot timber sale, a railroad connection between Seneca and Hines, Oregon, was completed. This line operated until 1983

Road building on the Forest began in earnest during the early 1920's. These roads were built mainly for firefighting access, but were also used by ranchers

By 1928, there were about 384 miles of road on the Forest. After World War II, the availability of dependable and economical automobiles, easy access to fuel, and a growing population with increased leisure time contributed to growth of motorized recreation.

Through the 1950's and 1960's, the road systems were improved and extended, largely in support of timber management activities. By the 1970's, concern began to focus on the environmental impact of roads, the impact of easy recreational access on areas, and the desire to preserve remaining unroaded areas. But demand for existing and additional roads is expected to continue

Section 10 of the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA), and Section 8 of the National Forest Management Act of 1976 (NFMA) require a "Forest Development Road System Plan." National direction requires that a Forest Development Transportation Plan include a transportation inventory system (TIS) and a map. *National Forests in Oregon and Washington are also required to have a Road Management Plan, consisting of multiyear development plans, traffic management plans, maintenance plans, and interagency road plans.* Since these plans are often lengthy, they are not included in this document, but are available for review at the Forest Supervisor's Office in John Day, Oregon.

The state and county road systems are essential for management of the Malheur National Forest. These road systems provide access to the Forest's arterial and collector road system. The Forest, in cooperation with the Federal Highway Administration, shares reconstruction costs with the state and county on selected roads. The Forest also enters into cooperative maintenance agreements with counties when such agreements are in the best interest of both parties.