

CULTURE

ECONOMICS

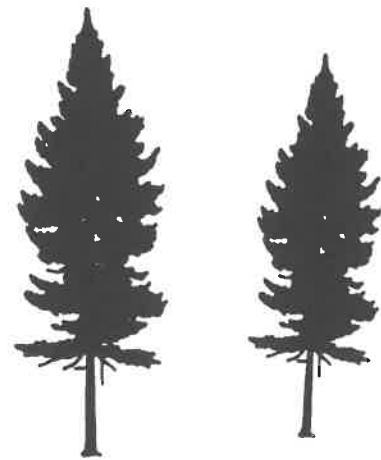
BLACK HILLS FOREST MANAGEMENT

What Is The Black Hills Forest?

Before European settlement, the Black Hills ecosystem looked quite different than it does today. Open, park-like pine areas were created by relatively frequent, low-intensity wildfire. Large devastating fires did occur, but are believed to have been fairly infrequent. A more patchy pattern, or mosaic, of small openings emerged, caused by insect epidemics, disease, and fire. *Riparian* areas were more extensive, and old growth areas, while similar in acreage today, were in larger blocks. In general, the pre-pioneer settlement forest was made up of younger trees than are found in the Black Hills today.

What Is The History Of Forest Management In South Dakota?

In 1898, the first professionally organized timber sale from National Forest lands in the United States took place in South Dakota near present day Nemo. "Case Number One," as it was entitled, supplied timber production for the local area. The design of the sale ensured an adequate amount of forest cover and future continuity of the Black Hills forests.



After a century of logging activity, nearly every part of the Black Hills has been harvested. Pictures from Custer's Expedition in 1874 help document early forest conditions and provide a valuable base reference for today's forest managers. Professional foresters, fire managers, *silviculturists*, and biologists have worked together to produce a more productive, healthy, and renewable timber resource.

What Is The Status Of The Black Hills Forest?

Currently, there are over 1.5 million acres of forested land in the Black Hills of South Dakota and Wyoming. These lands are under federal, state, and private ownership. State-owned lands, including Custer State Park, are managed with the *multiple use concept* in mind. The Black

Hills National Forest, a federal holding, includes 73% of the forested area of the Black Hills. It is managed by the USDA Forest Service, and like all national forests, is managed for multiple benefits.

How Are The Forests Managed?

Ponderosa pine, one of the prime timber species of the Black Hills, has a prolific ability to regenerate naturally. From each mature tree, hundreds of new seedlings can be produced. These seedlings often grow into over-stocked, *dog-hair stands*. Without the natural cycle of fire, these stands will dominate the forest and reduce species' diversity by crowding out other forms of vegetation, including aspen, birch, oak, many shrubs, and grasses valuable for wildlife. Nature ultimately reacts to over-stocked conditions with insect epidemics, disease, or devastating wildfire. This situation results in the destruction of a valuable natural resource and, all too often, endangers the lives and property of Black Hills residents. Thus, *prescribed fire*, thinning, and periodic timber harvests are used to manage the forest.

Timber harvesting techniques have changed significantly since early times. Today, managers work to minimize the negative impacts of logging and are sensitive to the environmental concerns of all who love and enjoy the Black Hills forests. Carefully planned and controlled timber harvests are the primary tools foresters use to manage the forest. These periodic entries into the forest occur approximately every twenty years on any given tract of land. Only a portion of the saleable trees are individually selected for removal by foresters. The better formed and more vigorous trees are left properly spaced to ensure a future seed source and to leave the area continuously stocked with trees. As these trees grow and mature, and new stands develop underneath them, mature trees are gradually removed to make room for the young trees.

Privately owned lands in the Black Hills are managed by their owners for livestock grazing, wildlife, timber production, aesthetics, and recreational enjoyment. State-owned lands, including Custer State Park, are managed for multiple uses including tourism, education, wildlife, livestock grazing, and recreational enjoyment. The USDA Forest Service manages the Black Hills National Forest to provide as many benefits as possible. These multiple benefits are balanced to help to meet a portion of our nation's demand for wood, water, livestock forage, wildlife, and outdoor recreational opportunities.

Why Is Forest Management Important?

- **Wildlife**, such as deer, elk, and turkeys, seek the openings in the forest. When the forest floor is open to more sunlight and moisture, grasses, *forbs*, and shrubs can grow, providing important wildlife habitat needs, such as food and cover.
- **Water**, available for lakes, streams, and domestic use, is increased as pine-clad *watersheds* are periodically thinned, allowing nature's precipitation to soak the ground and form valuable surface water.
- **Rural forest homeowners** are less susceptible to catastrophic fires because heavy forest fuels are periodically reduced by harvesting.
- **Sports and recreational opportunities** are enhanced by the presence of trails and open areas in the forest that can be used by hikers, hunters, horseback riders, snowmobilers, and cross-country skiers. Forest openings and logging roads are ideal for these popular sports. The Black Hills National Forest has more miles of snowmobile trails than any other national forest.
- **Species diversity** is enhanced as many broadleaf tree species such as aspen, birch, and oak flourish. Their autumn splendor is a great Black Hills attraction. Also, this tree species

diversity makes better wildlife habitat and can reduce catastrophic loss to insects and diseases.

- **Forage** for domestic livestock and native species increases almost immediately after timber harvest. Livestock grazing is an important part of the multiple use management of national forest lands.
- **Wood products** from our forest are an everyday part of our lives. Lumber and building materials, paper products, furniture, utility poles, and chemicals for medicines, plastics, and film are a few of the thousands of our many uses of wood.
- **Economic benefits** from forest management in South Dakota are significant. County governments receive 25% of the gross receipts from the sale of timber on federal lands within their counties. For those counties in

the Black Hills of South Dakota and Wyoming, these payments amount to several millions of dollars each year. These funds help support local government services such as roads and schools.

Community and economic stability result from thousands of people throughout the Black Hills whose livelihoods are derived from the harvesting and manufacturing of forest products. Collectively, the forest products industry of the Black Hills of South Dakota and Wyoming employs nearly 1,600 people, producing materials worth over \$200 million annually. These people purchase goods, own homes, pay taxes, and contribute immeasurably to the economic and social well-being of the entire Black Hills area.

Glossary

Dog-hair stands - dense stands of trees that are thin-trunked and very crowded together.

Forbs - herbaceous plants other than grass (many weeds).

Multiple use concept - according to the Multiple Use-Sustained Yield Act of 1960, multiple use is the management of all renewable surface resources of the National Forest System so that they are used in the combination that best meets the needs of the American people.

Riparian - relating to or living along the bank of a waterway such as a river or stream.

Silviculturist - a person specializing in the ecology, development, and care of forest trees and forest communities.

Watershed - the area of land that drains water, sediment, and dissolved materials toward a body of surface water.

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Selected Resource For Teachers

Project Learning Tree, S.D. Division of Forestry, 445 East Capitol Ave. Pierre, SD 57501.

This educational program has numerous resources including activity guides, posters, and videos.

South Dakota Forests, a video by the S.D. Society of American Foresters, grades 4-12.

Outreach

Forestry tours are available from:

Black Hills Forest Resource Association, 2040 W. Main, #315, Rapid City, SD 57702.

Phone: 605-341-0875.

Merillat Industries, P.O. Box 4040, Rapid City, SD 57709. Phone: 605-348-3900.

Pope and Talbot Sawmill, P.O. Box 850, Spearfish, SD 57783. Phone: 605-642-7741.

U.S. Forest Service Pactola Visitor Center. Phone: 605-343-1567.

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