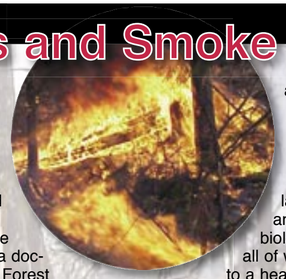
Prescribed Fires and Smoke

For the first time in 33 years, our forest has had less than 100 human caused fires.



In northern Arizona, we love our forests. Our forests are the setting for various recreational activities and provide the backdrop for our community. But, while it may not always be evident, our forests are sick. Many parts of our forest are susceptible to insect infestations, disease, and catastrophic wildfire. It is because of our love of our forest, and our desire to improve its health that we prescribe fire. Much like a doctor prescribes medication to a sick patient, Forest Service managers sometimes prescribe fire to improve the health of our local forests.

In the southwest, plants and animals have evolved with fire as a natural part of the ecosystem. For thousands of years, small lightning-caused fires have moved through southwestern forests burning along the ground, thinning out smaller pines, consuming accumulated needles, and leaving behind nutrient-rich ash that stimulated the growth of grasses and wildflowers. This continuous cycle of fire and regeneration continued unchecked until civilization began to encroach upon the forests. Fire was viewed as a threat to early settlements in the west, and all fires were aggressively suppressed.

In more recent times, forest managers have observed how forests have changed due to the exclusion of fire, and have gained an understanding of fire's importance in forest health. Without natural fire, more seedlings have survived to maturity, resulting in a denser and less healthy forest. Also, more needles and debris have accumulated due to the exclusion of fire, resulting in an increased fire danger.

Prescribed fire addresses these problems by approximating natural fire and reducing the amount of hazardous fuels. Prescribed fire is needed today to replenish soil nutrients, stimulate new growth, and to maintain biological diversity; all of which contribute to a healthy forest. In addition to a healthier forest, another benefit resulting from prescribed fire and a healthier forest is a reduction in fire danger for our communities. Areas treated with prescribed fire are less likely to burn intensely during a wildfire and allow a wildfire to be brought under control more easily.

While prescribed fire has proven to be successful in improving forest health and reducing the danger of catastrophic wildfires, there is a side effect: smoke. Air quality considerations are an integral part of prescribed fire for forest managers, and each fire prescription is formulated in order to disperse smoke rapidly and reduce lingering haze. Before each prescribed fire is ignited, forest managers must get approval from the Arizona Department of Environmental Quality (ADEQ). Additionally, a current weather report is obtained in order to ensure that weather conditions are conducive to smoke management and a safe burn. It is the goal of forest managers to minimize smoke impacts to our communities while still accomplishing forest health and fuels reduction goals. Yet, even in favorable conditions the air will still become smoky. Much like people who live in deserts can expect extreme temperatures in the summer, people who live in and around the forest should expect some smoke in the cooler months when weather conditions allow for low intensity burning.

Today we understand the importance of fire in our forests. Prescribed fire is the result of that understanding and represents just of the many tools used by forest managers to improve the health of our forests and to reduce the threat of wildfire to our communities. Our forests need fire, and by planning fire prescriptions we can maximize the chance that these fires will burn on our terms.

To Help Minimize the Effects of Smoke

When smoke is present:

- Stay indoors as much as possible
- Use air conditioning in cars and homes, and keep windows closed
- If you must go out and you feel that smoke is impaciting you, put a loose scarf or painter's mask over your mouth and nose to partially filter the air
- DO NOT excercise outside if smoke and air polution are heavy
- Seek medical treatment if you have uncontrolled coughing, whezzing or choking, or if breathing difficulty does not subside indoors

"The danger of wildfire in northern Arizona has always been a threat to our communities, but through continued diligence and care from the public, and the improvement of our forest's health we can reduce that threat and make every year as successful as 2003."-Bruce Greco, Fire Management Officer for the Coconino National Forest

Invasive Species

Throughout the United States, there are thousands of plants and animals that do not belong here and are doing great harm to our natural environment. These plants and animals are referred to as "invasive" and account for $138 billion per year in total economic damages and control costs. Nationally, invasive plants alone cover approximately 133 million acres, an area larger than California. The annual rate of advance for these invasive plants is approximately 1.7 million acres per year, an area larger than Delaware. Additionally, approximately 42% of the species currently on Endangered Species lists are at risk because of competition and loss of habitat due to invasive species. The spread of invasive species is a threat to the ecological health of our public lands and the continued existence of our native species, and has resulted in great economic loss. Prevention and control of the spread of invasives requires extraordinary effort on a landscape level.

On the Coconino National Forest, we are working toward the control of invasive plants and animals with projects that seek to eradicate or control the spread of invasive species, and with projects that protect and restore the habitats of native species. Currently the Coconino, Kaibab, and Prescott National Forests have proposed an aggressive project to contain and control the spread of some invasive plants while completely eradicating others. This project is intended to address the approximately 187,500 acres within the three national forests that are currently infested with invasive plants. By mid-February an Environmental Impact Statement will be released describing the proposed methods and impacts of this project.

In addition to efforts to control invasive plants, the Coconino National Forest is also working to reclaim and restore habitat for native species while protecting these species from competition with invasives. In Fossil Creek, the Coconino National Forest is working with the Bureau of Reclamation, US Fish and Wildlife Service, Arizona Public Service (APS), and the Arizona Game and Fish Department in an effort to restore natural flows to the creek and to restore native aquatic species. Part of these efforts would include the decommissioning of the Childs-Irving hydroelectric plant and the construction of a fish barrier to protect native species from competition with non-native invasive fish such as smallmouth bass. This project has been moving through the NEPA process and the Environmental Assessment (EA) for this project was released for public review in December 2003. A final decision on this EA could be made as early as mid-March 2004.

The threat of invasive species in the United States is widespread and is an important issue for the Forest Service. This is why the Coconino National Forest, in partnership with land management agencies and interested parties at all levels, is working at a landscape level in order to control or eradicate the spread of invasive species. If successful, these landscape-scale efforts will promote ecosystem health, protect our native species, and protect our public lands for generations to come.

For More Bark Beetle Information:

http://www.fs.fed.us/r3/coconino/barkbeetles/barkbeetle.shtml
http://www.ag.arizona.edu/extension/fh

For Help Finding Certified Arborists/Foresters:
http://www.isa-arbor.com
http://www.safenet.org/certified/directory.htm

Bark Beetles

Fall colors in the winter? Not quite, the brown peppered landscape that is becoming more prominent in the high country is the result of dead or dying trees. With the region-wide drought and the choked, unnaturally dense condition of our National Forests, populations of several species of pine bark beetles have exploded over the last few years. While the beetle is a constant presence in healthy ponderosa pine forests, the drought has allowed the beetles to increase to an unhealthy level.

The Coconino National Forest is addressing this issue through projects like the Kachina Village forest health project, which thins trees in the wildland-urban interface making them less susceptible to bark beetles and fire. These types of projects reduce the competition for water among trees and relieve the stress of healthy trees, allowing these stands to better defend against the beetles. The Coconino is also addressing the dead trees through public safety activities, such as removing hazard trees near campgrounds or near roads and trails. Salvage logging of dead trees that are not a threat to public safety would not achieve our goals of improving forest health and would compete with limited resources needed for forest health projects.

The actions being taken by the Coconino National Forest, while substantial, cannot stop the spread of bark beetle infestation. Even with the actions taken by the Forest Service, the bark beetle has continued to kill more trees. This is because there are significant limitations to what land managers can do to stop the spread of the beetles. First, because there are over 1.8 million acres on the Coconino National Forest alone, the cost of mass treatments would be prohibitive and the effectiveness of such treatments is questionable. Second, while the large numbers of dead trees pose a fire hazard, it would be impossible to remove these trees without emergency funding. Finally, while northern Arizona received more rain in 2003 than in years past, it was not enough to alleviate the drought that has affected the Southwest for several years now. The drought is a major factor in the spread of the beetles and without more substantial precipitation, our forests will continue to be at risk.

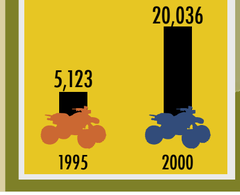
In addition to the efforts of the Coconino National Forest in battling the bark beetle infestation, there are steps that private citizens can take to help protect trees on their property from the bark beetle. The best way to protect trees from the bark beetle is to take preventative action; because once a tree has been successfully attacked by the bark beetles there is nothing that can be done to save that tree. Lowering tree density by thinning is perhaps the most effective preventative action that private citizens can take. Additionally, deep watering in a circle around the tree, just below the outer edges of the branches once every 1 ½ months will help to counteract the weakening effects of the drought upon small numbers of trees on private property. Finally, there are preventative sprays that may be applied to trees to fend off the bark beetles, but because of the high costs involved in treating each tree, this method is only recommended for small numbers of high value trees. For help in determining exactly what you can do to protect trees on your land, contact a certified arborist or forester.

The bark beetle infestation in northern Arizona has affected millions of trees and will result in changes in the appearance of the forest. In the short-term the affected areas will see an increase in woody shrubs and undergrowth, and in some areas where piñon pine was dominant, juniper will become more dominant. In the long-term, the efforts of both the Coconino National Forest and local communities will help to minimize the changes and ensure that our forests will continue to exist. But, due to the scale of the current beetle infestation there will be changes, and our forests will exist in a different condition than what we have previously known. Although this condition is less than desirable, the bark beetle infestation will not last forever. Nature will regain its balance and the forest will return to a healthy condition once again.

OHV Management

ARIZONA OHV SALES

The Forest Service administers 11.25 million acres in Arizona. While each National forest manages off-highway vehicles (OHV) as part of their foret plan, many of these plans were written before the recent dramatic increase in the use of OHVs. The chart below illustrates the tremendous increase in off highway vehicle sales in Arizona between 1995 and 2000. Total sales in Arizona have increased 291.1%!



As off highway vehicles (OHV's) become more popular and their use increases within the national forests, environmental impacts are also increasing on national forest lands. Impacts from cross-country travel on our national forests include: erosion, damage to cultural resources and sites, user conflicts, creation of new roads, disrupted wildlife and their habitats and the spread of noxious weeds. The national forests in Arizona currently manage cross-country travel in different ways, which has resulted in confusion among OHV enthusiasts. In order to help protect our national forests, a common policy has been proposed and is the focus of an environmental impact study for five of the national forests in Arizona. The preferred alternative within the study would generally limit OHV's to designated roads and trails, but with some exceptions. The preferred alternative would allow travel off roads and trails for: access to certain camping areas, retrieval of big game, gathering firewood with a permit, and administrative access for Forest Service operations.

Although cross-country travel is addressed in the management plans for each of the five affected forests (Tonto, Prescott, Apache-Sitgreaves, Coconino, Kaibab), many of these plans were written before the dramatic increase in the use of OHV's. In Arizona alone, OHV sales increased 291% between 1995 and 2000. Additionally, the plans vary considerably between the five different forests as to where cross-country travel is allowed and where it is limited. The Forest Service is concerned that this inconsistency in policy is causing confusion with the public about what is and what is not acceptable in various locations. A consistent policy for the five coordinating forests will help end public confusion, leading to a reduction in damage to natural resources. These changes would not affect snowmobile use or limit current intensive off-road vehicle use designated sites.

Arizona national forests remain open to OHV use while the study is being conducted and will continue to be managed on a site-specific basis until the study is complete. The Draft Environmental Impact Statement for this proposal was released for public comment in April 2003 and public meetings were held in communities throughout the state. The Final Environmental Impact Statement (FEIS) and Record of Decision will be released to the public this spring. For more information, visit www.fs.fed.us/r3/ohv.

CROSS-COUNTRY USE PROJECT