



## Benefits of Natural Fire

*You've seen the stories on television, read the newspaper headlines that blazed about the devastation caused by wildfires, but as a visitor to the national parks, that plume of smoke you see towering over the trees may be from a fire benefitting not only the land, but you as a park visitor.*



Great Smoky Mountains National Park,  
Tennessee and North Carolina



North Cascades National Park,  
Washington



Yosemite National Park, California

During your park visit do you hope to see healthy wildlife, open panoramic vistas, forests penetrated by sunlight, or verdant grasslands? If so, then wildland fire was also likely part of that picture whether you knew it or not.

Many parks across the country, from Great Smoky Mountains National Park in Tennessee to North Cascades National Park in Washington State, have in the past few years used natural fire, such as a fire started by lightning, to reach resource objectives, such as reducing fuels, providing wildlife habitat, and restoring native species. This natural fire is also called “wildland fire use” because fire is being used to benefit park resources.

### Why does fire need to be restored to the land?

From 1872 when Yellowstone became the world's first national park until the mid-twentieth century, land managers were dedicated to stopping what they saw as destruction of forests by fire. While some scientists and land managers had recognized the value of fire on the land and advocated its use, it was not until the 1960s that this view resulted in a change of National Park Service policy.

Fire is part of a cycle in most ecosystems. It reduces dead vegetation, stimulates new growth, and improves habitat for wildlife, many of the details park visitors imagine when they think of a national park. With fire suppression, fire was removed from the cycle and ecosystems began to get out of balance. After nearly a century of no fires, fuels, such as dead trees, pine needles, leaf litter, and shrubs, have built up to unnatural levels in forests. In these cases, restoring fire is no easy task; sometimes it takes additional work such as manual removal of the debris before the fire cycle can begin again.



Fire, such as this one at Grand Canyon National Park, helps to clear the forest floor of debris or fuel and encourages new growth.

### Are there any firefighters on the fire?

It depends. Every human-caused fire is suppressed, and a natural fire could be suppressed by firefighters if it is too close to park infrastructure or a community. When it is not, it is regularly monitored and assessed to assure that it meets and continues to meet objectives pre-set by park and fire managers. Some fires that are burning in very remote parts of a park where there will be no impact to human life and safety may only be monitored by plane every few days. Other fires may need more active management – point protection for structures, cooling the fire in certain areas, burning out large amounts of fuel in other areas. On these fires, firefighters may camp out close to the fire for several days as they are still typically remote from park infrastructure. To learn more, talk to a park employee.

### How will the fire impact my visit to the park?

Most likely you will see smoke during your visit. Depending upon weather conditions, the smoke may come into visitor areas and surrounding communities. If smoke becomes too extreme and





Smoke may appear as a large billowy cloud on the horizon or obscure the view during your visit.



In times of low fire activity, visitors are sometimes allowed through a fire area. Check with park staff regarding the safety of entering any fire area.



At times fire managers burn vegetation in front of the fire to create a buffer.

impacts visitors and nearby communities, fire managers may cool areas of the fire with water.

If the fire is burning in an area where there is a trail, fire managers and park managers will decide whether to allow visitors to pass through a fire area. When the fire is very active, the trail may be closed; however, in times of low activity visitors may be escorted through a fire area or be allowed to go through on their own. They must remain on the trail and not report or put out the fire that may be burning near the trail.

#### Why don't they use natural fire everywhere?

A park must have an approved fire management plan in place before wildland fire use is allowed in a park. Even then, park and fire managers must evaluate each fire that starts as to whether it should be allowed to burn or be suppressed. Each park is different in specifying when, under what conditions, and what objectives are to be met for wildland fire use to take place. If the "fire use" strategy is chosen, managers allow the fire to spread as naturally as possible. Any wildland fire that has the potential to threaten human life or safety will be suppressed. Some parks adjoining lands owned by other agencies (i.e. Forest Service, Bureau of Land Management) work together to have a wildland fire use cross jurisdictional boundaries. Other times, if wildland fire use is not permitted on adjoining land owned by another agency, the fire is suppressed near the boundary.

During a wildland fire use managers may choose to steer the fire away from certain areas by digging fireline or burning vegetation in advance of the fire to create a buffer. These targeted actions protect special resources or reduce smoke emissions in specific areas while still allowing beneficial fire spread in other areas. If conditions change and it is decided that the fire is no longer achieving the objectives, it may be converted to a suppression fire and put out.

#### How long will the fire burn?

Generally, wildland fire use events are characterized as long duration fires that may burn from early summer into the fall when seasonal rain, snow and lower temperatures put it out. Fire activity can vary depending upon the type and amount of vegetation, terrain, temperature, and moisture. Fire size can also vary, from

less than one-acre to several thousand acres. It all depends upon the continuity of burnable vegetation, weather patterns, and management objectives for the fire. As conditions change, the fire may go from a smoldering surface fire to flames that roar through the tops of the trees. Fire managers may take actions to assure the fire continues to meet objectives by changing or directing the fire's spread. As with all management of fires, public education is important, especially when the fire or the smoke produced has the potential to impact nearby communities.



Fire is a natural part of the ecosystem and can coexist with national park visitors.

#### Conclusion

Fire is a jolt to living systems, the beginning of a new state of life on the land which is part of a cycle that has been in place for thousands of years. For the National Park Service, natural fire is used as an important management tool which enables it to continue its natural role on the landscape.

For more information please visit <http://www.nps.gov/fire>