

Are All Forest Fires Bad?

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If you've ever seen Smokey the Bear, you know that "Only YOU can prevent wildfires." Over the past several years, you've probably watched news reports about the great damage that wildfires can cause. In addition to destroying beautiful forests, wildfires can burn homes and even take lives.

Did you realize, though, that not all forest fires are bad? It's true! Sometimes forest officials set fires on purpose. They do this when they use a forest management tool called a prescribed — or controlled — burn.

Many people don't realize that fire is a natural part of a forest's life cycle. At times, other plants can grow on the forest floor, choking out desirable trees. This makes it more difficult for good trees to grow and for animals to find food and places to live.

Fire can burn through these unwanted plants, making more room for desirable trees. This, in turn, makes it easier for animals to find homes and food. In fact, the seeds of some of the most desirable hardwood trees need fire to crack open their shells before they can take root and grow into a tree.

Sometimes, these necessary fires occur naturally. For example, a thunderstorm may send a lightning bolt into a forest, starting a wildfire that burns away some of the unwanted underbrush. Unfortunately, these wildfires may also burn good trees in the process.

At other times, though, forest officials start fires purposefully in areas that need to be cleared. During a controlled burn, forest officials monitor the fire closely and put it out when the unwanted plants are gone. They keep the fire in check, so that it does not burn the good trees.

In this way, a controlled burn can prevent future wildfires. During the next thunderstorm, a lightning bolt might strike, but if there's no accumulated underbrush present, a wildfire might never spread.

Prescribed burns can also save trees from diseases and insect infestations. Invasive plant species sometimes choke out good trees. A prescribed burn can eliminate these invasive species — and the diseases and insects they carry — and thereby improve the overall health of the trees in a forest.

Controlled burns usually require a special permit and must be carried out by fire or forest officials. Fires are often ignited with a special tool called a drip torch. A drip torch pours out a steady stream of fuel onto the ground, so the user can control where the fire starts.

Wildfire in the West

One of the biggest California wildfires on record spreads across Yosemite National Park

By Jennifer Marino Walters for Scholastic News AUGUST 28, 2013

<http://sni.scholastic.com/top-news/2013/08/Wildfire-in-the-West>

Nearly 3,800 firefighters are battling a massive wildfire in the northwestern part of California's Yosemite National Park. The fire, which started August 17 in a forest west of Yosemite, has burned at least 185,000 acres of land (more than 41,000 of them inside the park). Called the Rim Fire, it is one of the biggest California wildfires on record.

No one yet knows what caused the fire, which is spreading farther east into the forest. Extremely dry weather there has made plants flammable (able to catch fire easily), and high winds have quickly spread the flames. The mountainous, rocky landscape has made battling the wildfire difficult for firefighters. But with the help of water-dropping helicopters, bulldozers, and more than 450 fire engines, firefighters have 20 percent of the fire under control.

"We're starting to get a little bit of a handle on this [fire]," Lee Bentley, of the U.S. Forest Service, told reporters. "[But] we're not there yet."

AN EMERGENCY SITUATION

The fire has affected only about 5.5 percent of the 750,000-acre national park—mostly wilderness areas—but it is still very serious. More than 30 homes and roughly 80 other structures have already been destroyed. About 4,500 additional homes are threatened, most of which have been evacuated. Major roads through Yosemite have been closed.

The Rim Fire is also threatening San Francisco's water and power supply, causing California Governor Jerry Brown to declare a state of emergency for the city. The fire is burning dangerously close to the Hetch Hetchy Reservoir, which supplies water to 2.6 million San Francisco Bay Area residents. Ash has already fallen onto the water's surface. If the water becomes unsafe to drink, officials say they will tap into a supply of water in some reservoirs near San Francisco.

The fire has also damaged two of the three facilities that supply **hydroelectric power** (power generated by the force of moving water) to many of San Francisco's public facilities, such as the airport, hospitals, police stations, and firehouses. The city has been relying on reserve power that's been stored for emergencies, as well as on power it purchases on the open market.

A PART OF NATURE

The Rim Fire is just one of dozens of large wildfires that have recently raged across the western U.S. because of the season's **drought** (an extreme shortage of water) and very dry heat. Firefighters are confident they will soon put out the blaze.

While this wildfire is dangerously large, these fires happen naturally all the time. Yosemite officials are focusing on the fire's potential positive effects: Wildfires contribute to the overall health of the forest by burning off dead vegetation and controlling plant diseases.

"[The fire is] certainly a serious thing," says Scott Gediman, a park ranger. "[But] it's also a part of nature and the wildness of a national park."