



United States Department of Agriculture

[Home](#) [Publications](#) [Locations](#) [Blog](#) [About Us](#)

Forest Service

Research
and Development

Monthly News and Highlights from
the World Leader in Forestry Research

#SoundScience

[Twitter](#) [Instagram](#) [Facebook](#) [YouTube](#)

The banner features a green and orange gradient background. On the left is the U.S. Forest Service shield logo. On the right is a stylized white leaf with a globe as its center. A white line graphic frames the text on the left. Social media icons are located at the bottom right of the banner.

U.S. Forest Service R&D Newsletter: Sept. 2019
News from the Washington Office and Research Stations

SPECIAL ISSUE: WILDFIRE

[CLICK HERE TO SUBSCRIBE](#)



FEATURED NEWS

Economic Benefits of Wildfire Prevention Education

From 2002 to 2007, the State of Florida spent an average of \$500,000 annually on fire prevention education to reduce fires ignited by humans. A [study](#) conducted by the Forest Service and partners showed that by reducing accidental wildfires, Florida avoided associated firefighting costs and economic losses. What's more, the study showed that any additional dollar spent on fire prevention education in Florida would have produced a benefit-to-cost ratio of 35 to one.



MITIGATE WILDFIRE RISK

Wildfires Now Occur Year-Round

NPR: Forest Service Chief Vicki Christiansen warned that a billion acres of U.S. lands are at risk of catastrophic wildfires. She also warned: "Fire season is not an appropriate term anymore," because wildfires are now a year-round [phenomenon](#).



DELIVER BENEFITS TO THE PUBLIC

Benefits of Native Approaches to Fire

PhysOrg: A [study](#) led by Stanford University, with the Forest Service and Yurok and Karuk tribes, showed that incorporating traditional techniques into current fire suppression practices could help revitalize American Indian cultures and economies and reduce wildfire risks.



HUMAN HEALTH AND SAFETY

Pardon Our Smoke

Air quality impacts from wildfires are the biggest source of public exposure to air pollution in the U.S. To address these impacts, the Forest Service helped [create](#) and now co-leads the Interagency Wildland Fire Air Quality Response Program.



MITIGATE WILDFIRE RISK

"Era of Megafires" Presentation Helps Forest Service Train Fire Fighters

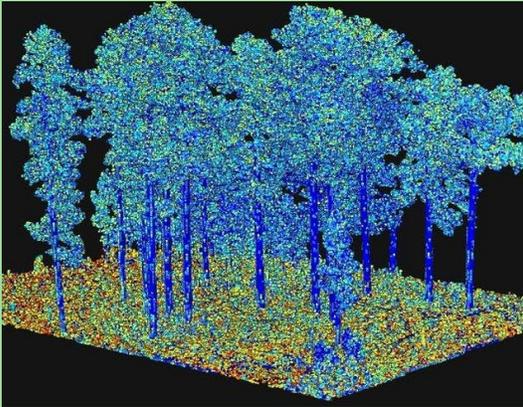
The "Era of Megafires" [presentation](#)--produced by Forest Service scientist Paul Hessburg and North 40 Productions--has been delivered in more than 100 U.S. cities and towns to more than 53,000 people. The online TEDTalk version of the presentation has received over a million hits. Now, a version of the presentation is included in interagency firefighting training classes.



MITIGATE WILDFIRE RISK

A Trailblazing Plan to Fight California Wildfires

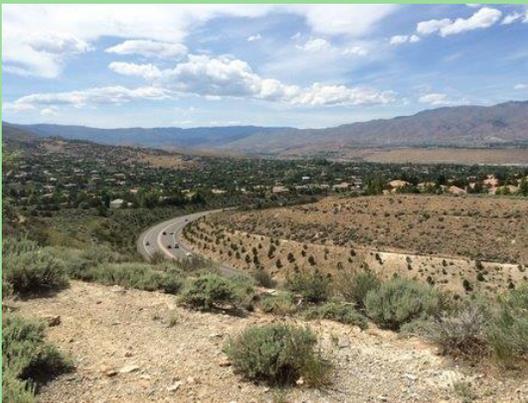
The New Yorker: In the 20th century, federal policy emphasized quickly extinguishing fires. But preventing megafires requires new [approaches](#).



MITIGATE WILDFIRE RISK

3-D Tool Helps Predict Fire Behavior

Land managers have a new firefighting [tool](#) for 3-D modeling of forest fuels. This tool will enable testing of varied ignition patterns for a prescribed burn to show the 3-D behavior of resulting fires.



SUSTAINABLE FOREST MANAGEMENT

Growth of Wildland-Urban Interface Increases Wildfire Challenges

The wildland-urban interface (WUI), where homes meet or intermingle with undeveloped forests and grasslands, is a [critical area](#) for wildfire and natural resource management. Both the number of homes in the WUI and total WUI footprint has grown fast.



MITIGATE WILDFIRE RISK

NASA Tracks Wildfires from Above to Aid Firefighters Below

PhysOrg: A large global constellation of satellites, operated by NASA and the National Oceanic and Atmospheric Administration, combined with a small fleet of Forest Service-operated planes, help [detect](#) and map forest fires.



RESTORATION

Seeding Post-Fire Restoration

Forest Service scientists revisited sites in Tintic Valley, Utah, where seeding experiments had been initiated after the 1999 Railroad wildfire. [Results](#) imply that seed mixes should be formulated to promote long-term objectives, such as persistence, in addition to short-term objectives, such as fast establishment.



SUSTAINABLE FOREST MANAGEMENT

Fire-Climate Interactions

A new Forest Service [tool](#) identifies which fire regime and ecosystem components are most likely to be affected by climate, and which treatments are able to mitigate impacts. The Forest Service and collaborators recently used the tool to assess landscapes in three western [national forests](#).



MITIGATE WILDFIRE RISK

Post-Hurricane Wildfires in Puerto Rico

Puerto Rico is facing its second dry season since the 2017 hurricanes. Because of an abundance of post-hurricane woody debris, wildfires have increased in some areas. In response, firefighters are establishing several preparedness [methods](#).



HUMAN HEALTH

Missoula Fire Sciences Lab Provides Firefighters with Insights & Tools

Missoulian: Many parts of firefighting are intuitive. Fire burns faster uphill. Fires need fuel, a spark, and oxygen. Wind pushes fire. But such properties are just the start of [research](#) at the Forest Service's Missoula Fire Sciences Laboratory, and resulting discoveries are making firefighting safer.



MITIGATE WILDFIRE RISK

Story Map: Missoula Fire Sciences Lab Facility

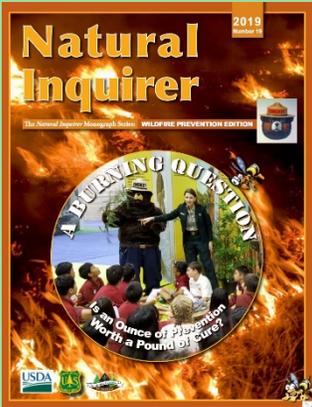
Tour the Missoula Fire Sciences Lab Facility using the interactive [story map](#). The lab conducts fundamental and applied research on wildland fire processes, terrestrial and atmospheric effects of fire, and ecological adaptations to fire.



MITIGATE WILDFIRE RISK

Summary of Wildland Fire and Fuels Research

A new [report](#) summarizes Forest Service research on wildland fire and fuels—including research outcomes that have improved wildland fire management and response.



WILDFIRE EDUCATION

A Burning Question

A new [monograph](#) from the Natural Inquirer conservation education program focuses on wildfire prevention and research on wildfire education programs. This edition was created in honor of Smokey Bear's recent 75th birthday.



HISTORY

Origins of Wildland Fire Research

Fire suppression was among the highest priorities of the Forest Service when it was created in 1905. The large fires of 1910 increased this priority. Today, the Forest Service continues to protect wildlands, but allows some fires to burn. Learn more about the evolution of Forest Service fire research in a [book](#) by Diane M. Smith.

Messages from the Deputy Chief of Research and Development



Forest Service Scientist Honored by American Geophysical Union

Forest Service senior research ecologist Connie Millar received the 2019 Ambassador Award from the American Geophysical Union.



Study on Arrests from Intentionally Set Wildfires Named "Editor's Choice"

A study led by Forest Service research economist Jeff Prestemon was selected as "Editor's Choice" in the *International Journal of Wildland Fire*.

FOREST SERVICE RESEARCH: BY-THE-NUMBERS

In 2018, the Forest Service-led Interagency Wildland Fire Air Quality Response Program issued smoke outlooks supported by Forest Service scientists and their models for an area populated by **forty-five million people.**



[Learn More About the Wildland Fire Air Quality Response Program](#)



Forest Service

[Visit the Archives](#)

STAY CONNECTED



USDA Forest Service | 201 14th Street SW, Washington, DC 20250

Sent by research@fs.fed.us