



United States  
Department of Agriculture  
**Forest Service**  
Research & Development  
Science Update SRS-85

A group of five firefighters wearing yellow hard hats and orange safety vests are walking through a dense forest. The air is thick with smoke, and the trees are mostly bare, suggesting a winter or late autumn setting.

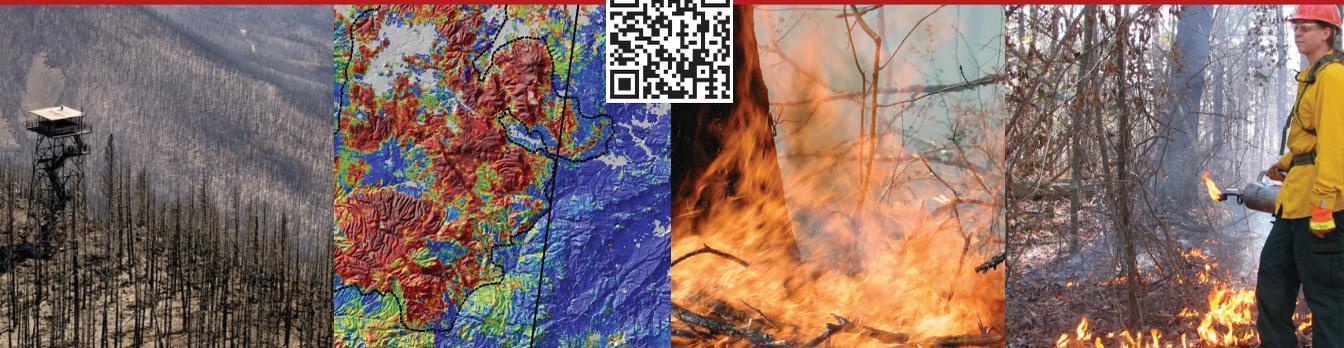
# Fire-Ready

## THROUGH SCIENCE

Wildland fire and climate change  
science are working to create:

- Fire-adapted landscapes
- Fire-safe management decisions
- Fire-resilient communities

[www.forestsandrangelands.gov/strategy](http://www.forestsandrangelands.gov/strategy)





# Wildland fire and climate change science are working for YOU.

[www.fs.fed.us/ccrc](http://www.fs.fed.us/ccrc)



*ForWarn* is a satellite-based system that allows land managers to act quickly to mitigate damage from wildfires, extreme weather, insects, diseases, or other natural or human-caused events.

[www.forwarn.forestthreats.org](http://www.forwarn.forestthreats.org)



In California and the Pacific Islands, scientists' research provides an understanding of the impact of fire on the management of our forests, wildlife habitat, air quality, watersheds, and soil erosion. This long- and short-term research stretching over 80 years looks at how fire can be both a friend and a foe in our ever changing climate. Video link:

[www.youtube.com/watch?v=CH3BBYZsK5A#t=214](http://www.youtube.com/watch?v=CH3BBYZsK5A#t=214)



Physical Chemistry Fire Frequency Model (PC2FM) aids in the understanding of how climate compels and drives fires across the United States. This model can estimate with high precision how frequently fires occurred on average.

[www.nrs.fs.fed.us/disturbance/research\\_highlights/](http://www.nrs.fs.fed.us/disturbance/research_highlights/)

and for an article on predicting fire frequency with chemistry and climate:  
<http://treesearch.fs.fed.us/pubs/40218>



The Risk Assessment Framework improves assessment of wildfire risk to communities, watersheds, wildlife habitat, and natural and cultural resources by combining computer models with specialized maps. The end result is that resource specialists make better fire management decisions and improve the management of wildfire risk.

[www.fs.fed.us/rm/human-dimensions/WFE\\_WEBSITE/FER.html](http://www.fs.fed.us/rm/human-dimensions/WFE_WEBSITE/FER.html)



Wildlands Threat Mapper is a GIS-based tool that includes an interactive, online mapping system so that users can see the relationship between multiple threats (i.e., fire hazard, insects, and drought in relation to mapped values at risk such as homes, cell towers, recreation sites, and critical wildlife habitat).

[www.fs.fed.us/wwetac/threat\\_map/index.html](http://www.fs.fed.us/wwetac/threat_map/index.html)



In Puerto Rico, researchers are offering solutions to values at risk, such as the new challenge that changes in agricultural land present both in assessing fire danger and in managing flammable debris and fire. The rapid pace of development tends to increase number of structures in forested areas, which increases the costs of fire control and fire-related damages.

[www.fs.fed.us/global/iitf/pubs/IITF-RMAP-01\\_english.pdf](http://www.fs.fed.us/global/iitf/pubs/IITF-RMAP-01_english.pdf)

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