

# National Fire Plan

## Mapping Fuel and Fire Hazards Nationwide



Knowledge about fuel conditions is critical to assessing fire hazards and fire effects. Funded by the National Fire Plan, the Ground-Based Support Program through the Pacific Northwest Research Station has been assigned to develop methods to monitor fuel characteristics, and validate information about fuels collected by satellite or aircraft (remote sensing). These methods will be applicable across the entire country.

The U.S. Forest Service Cohesive Strategy and the National Fire Plan are built on the premise that reducing fuel levels is necessary to restore healthy and fire-resilient ecosystems and sustain and protect people. However, current ability to characterize and map fuels is too imprecise to assess the priority and value of fuel treatments. Moreover, this ability is missing for many fuel types. Although remote sensing techniques are available to map spatial distributions of some fuels characteristics, the weakest link in fire hazard mapping is lack of on the ground data.

Researchers are developing ways to monitor and assess fuels, map fuel characteristics, and validate fuels information with remote sensing. Managers will use these techniques to assess fire hazard conditions and take actions to reduce the hazards.

The following projects have been completed under the Ground-Based Support Program.

- Researchers analyzed fuels data from “Frostfire,” a large prescribed burn in the boreal forest of Alaska. Ground data compared to data from remote sensing and aerial photographs is critical to validate and improve the accuracy of obtaining fuels information via remote methods.
- Federal, state, and tribal land management agencies in the Southwest and Southeast have determined what fuel types are most difficult to describe accurately. Six fuel types were selected for further description in a “natural fuels photo point series.”

- Researchers assessed which critical computer-based fire models need immediate links to the new comprehensive fuel characteristic classification system to improve predictive capabilities across the country.

All of these projects and others planned in the future will assist land managers to address the hazardous fuels conditions.

For additional information on the National Fire Plan, visit [www.fireplan.gov](http://www.fireplan.gov)