



## Spotlight on Rocky Mountain Research Station

Summary by [Donald Long](#), LANDFIRE USFS Technical Lead

LANDFIRE Data has been affording the research community a consistent vegetation and fuel database for the entire United States for over ten years. LANDFIRE data products, created at a 30-meter grid spatial resolution, are designed to facilitate national- and regional-level strategic planning and support of fire and fuel management planning activities.

For example ...

- Matt Reeves, from the Human Dimensions program, who used LANDFIRE bio-physical settings map in support of an update to the rangeland analysis portion of the [Renewable Resources Planning Act](#).
- Mark Finney, from the Fire, Fuel, and Smoke program and other researchers at the Missoula Fire Lab have used a number of versions of LANDFIRE fuel data for the entire CONUS to develop [fire risk maps through use of the Large Fire Simulator FSIM](#).
- Greg Dillon, from the Fire Modeling Institute within the Fire, Fuel, and Smoke program, used FSIM simulations based on LANDFIRE fuel maps to provide [important input into development of national scale Fire Potential Map](#).
- Gretchen Moisen and Chris Toney, both within the RMRS Inventory and Monitoring program, have used LANDFIRE disturbance data in order to research [the efficacy of mapping causes and severity of landscape forest change across the CONUS](#).

Three key findings of these research activities indicate a number of positive outcomes of a science-management partnership.

- Consistent, nationally available data on vegetation conditions can facilitate a number of research ventures in order to characterize current conditions.
- Changes in fuel and fuel management activities can significantly change the matrix of fuel conditions and thus the risk of fire
- Disturbance on the landscape can be characterized both in terms of severity and causality

Potential implications of this research or lessons learned that are relevant to natural resource management or policy include

- Rangeland conditions across the CONUS are deteriorating.
- Fire risk is higher in some parts of the CONUS than others which sets the stage for prioritization of fire management activities.
- Strategic decisions based on fire risk can significantly cut fire suppression costs.

In all of these cases, researchers in the Rocky Mountain Research Station were able to leverage a wide range of nationally consistent data in order to accomplish research on a number of important and nationally relevant management issues. These issues in turn often drive management decisions at local, on-the-ground levels.