LANDFIRE Fact Sheet

What is LANDFIRE?

LANDFIRE (also known as Landscape Fire and Resource Management Planning Tools) is an interagency vegetation, fire, and fuel characteristics mapping program, sponsored by the United States Department of the Interior (DOI) and the United States Department of Agriculture, Forest Service.

LANDFIRE produces a comprehensive, consistent, scientifically credible suite of spatial data layers for the entire United States. Key goals of the LANDFIRE Program are to update and improve the data products completed by the LANDFIRE Project in December 2009. The program is a long-range initiative to periodically update LANDFIRE data to sustain the value of the original project investment and to ensure the timeliness, quality, and improvement of data products into the future.

Why LANDFIRE?

LANDFIRE was initiated based on agencies' needs for mapped data that support prioritization of hazardous fuel reduction and ecological conservation activities and also support strategic resource management initiatives, such as the Healthy Forests Restoration Act, Community Wildfire Protection Plans, the National Fire Plan, fire management planning, stewardship of public and private lands, and natural resource management.

Since LANDFIRE began in 2004, an expanded range of land management uses of LANDFIRE data products has surfaced. These new uses include climate change research, carbon sequestration planning, eco-regional assessments, as well as ongoing fire management planning initiatives.

What are LANDFIRE's data products and how are they developed?

LANDFIRE data products consist of over 50 spatial data layers in the form of maps and other data that support a range of land management analysis and modeling. Specific data layer products include: Existing Vegetation Type, Canopy, and Height; Biophysical Settings; Environmental Site Potential; Fire Behavior Fuel Models; Fire Regime Classes; and Fire Effects layers.

The original LANDFIRE Project was designed to use peer-reviewed, consistent, and repeatable scientific methods. Data products are developed through integrating a collection of advanced scientific procedures, including relational databases, georeferenced land-based plots and polygons representing field conditions, satellite-enabled remote sensing, systems ecology, gradient analysis, predictive landscape modeling, and vegetation and disturbance dynamics.

The LANDFIRE Program continues that tradition of innovation through applied research and science, new developments in remote sensing of landscape change, and leveraged data from companion geographic information system (GIS) data programs. LANDFIRE is also expanding its stakeholder base, both within and external to the wildland fire community.

How can LANDFIRE data products be applied?

LANDFIRE products are designed to be used at a landscape-scale in support of strategic vegetation, fire, and fuels management planning to evaluate management alternatives across boundaries. LANDFIRE data products also facilitate national- and regional-level strategic planning and reporting of wildland fire and natural resource management activities.

LANDFIRE National products are delivered at a 30-meter pixel resolution. The most effective use of the products is at the landscape scale. Thus, applying LANDFIRE data at an individual pixel level or in small groups of pixels is not recommended. Landscape-scale analysis includes 1) nationwide (all states) strategic planning, 2) regional (single large states or groups of smaller states) strategic planning, and 3) strategic/tactical planning for large sub-regional landscapes. Use of LANDFIRE products to support analysis in smaller areas can result in outcomes that will vary in quality by product, location, and specific use. Users of LANDFIRE data will benefit greatly from familiarity with LANDFIRE metadata and local area landscape characteristics.

LANDFIRE products are not intended to replace local-scale data products. However, LANDFIRE data products can serve as a back-up reference data by providing wall-to-wall cross-boundary products that span the United States.

For more information, current program status, or to contact the LANDFIRE team, please visit www.landfire.gov

RSAC USGS FireLab The Nature Conservancy NIFTT