



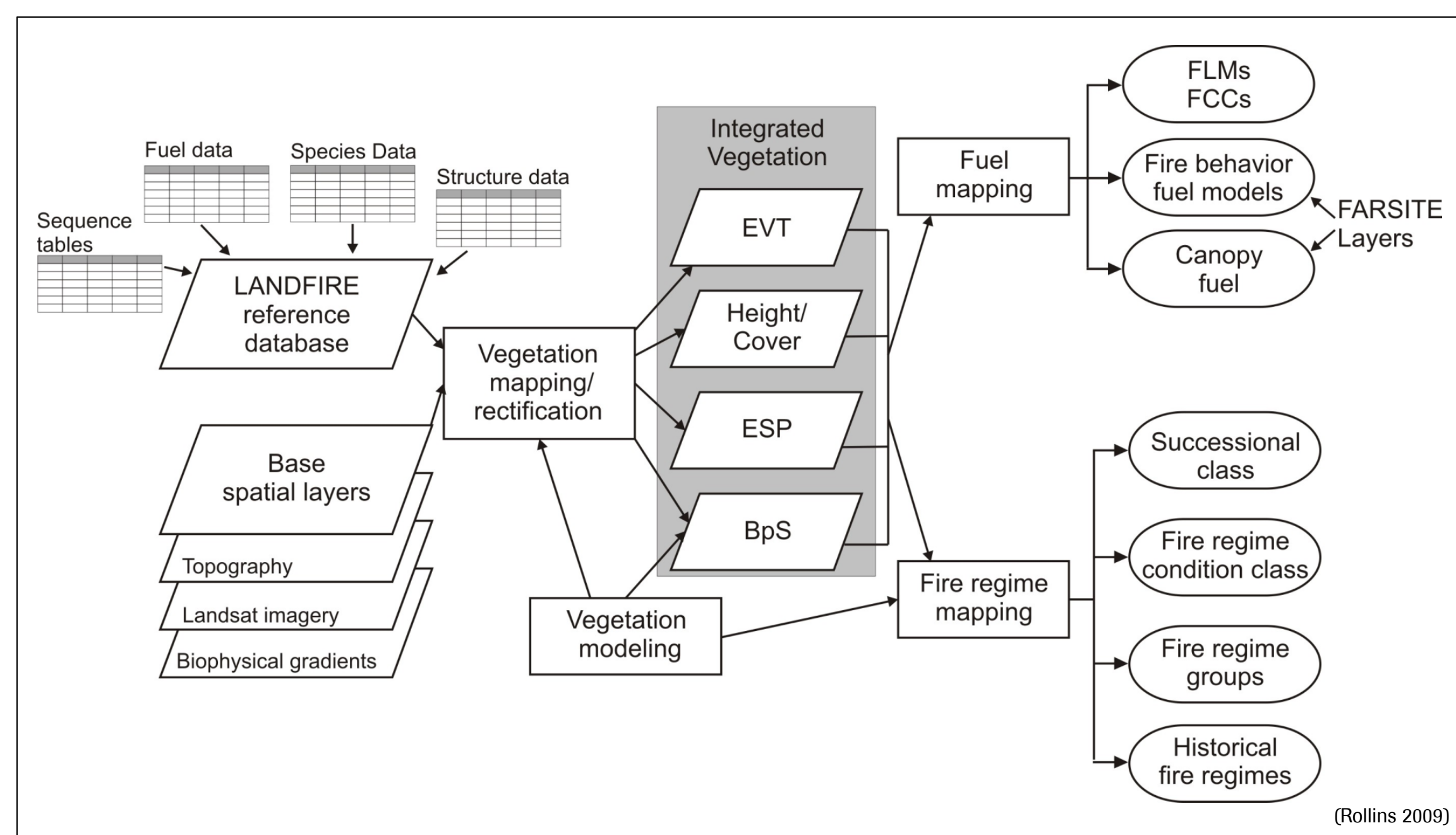
Applying National Data for Land Management

In the Pacific Northwest

Process

LANDFIRE is a nation-wide multi-partner program designed to map and model vegetation, fire regimes, and fuel characteristics using a consistent, peer-reviewed, scientifically based methodology.

Methods



Updates

LANDFIRE products are updated to reflect changes caused by management activities, natural disturbances and successional processes with the LANDFIRE Public Events Geodatabase (a collection of recent natural disturbance and land management activities), Landsat satellite imagery, Burned Area Reflectance Classification, Rapid Assessment of Vegetation Condition after Wildfire, Monitoring Trends in Burn Severity and ancillary data.

	National	2001	2008	2010
Description	Original products	Systematic improvements Existing vegetation type, cover, height	Updated for disturbance and succession	Updated for disturbance and succession
Completed	2009	2011	2011	2013
Imagery Date	1999-2003	1999-2003 with newer imagery where change was detected	1999-2003 with newer imagery where change was detected	1999-2003 with newer imagery where change was detected
Current as of	Circa 2001	Circa 2001	Circa 2008	Circa 2010

Major LANDFIRE Versions

Scale

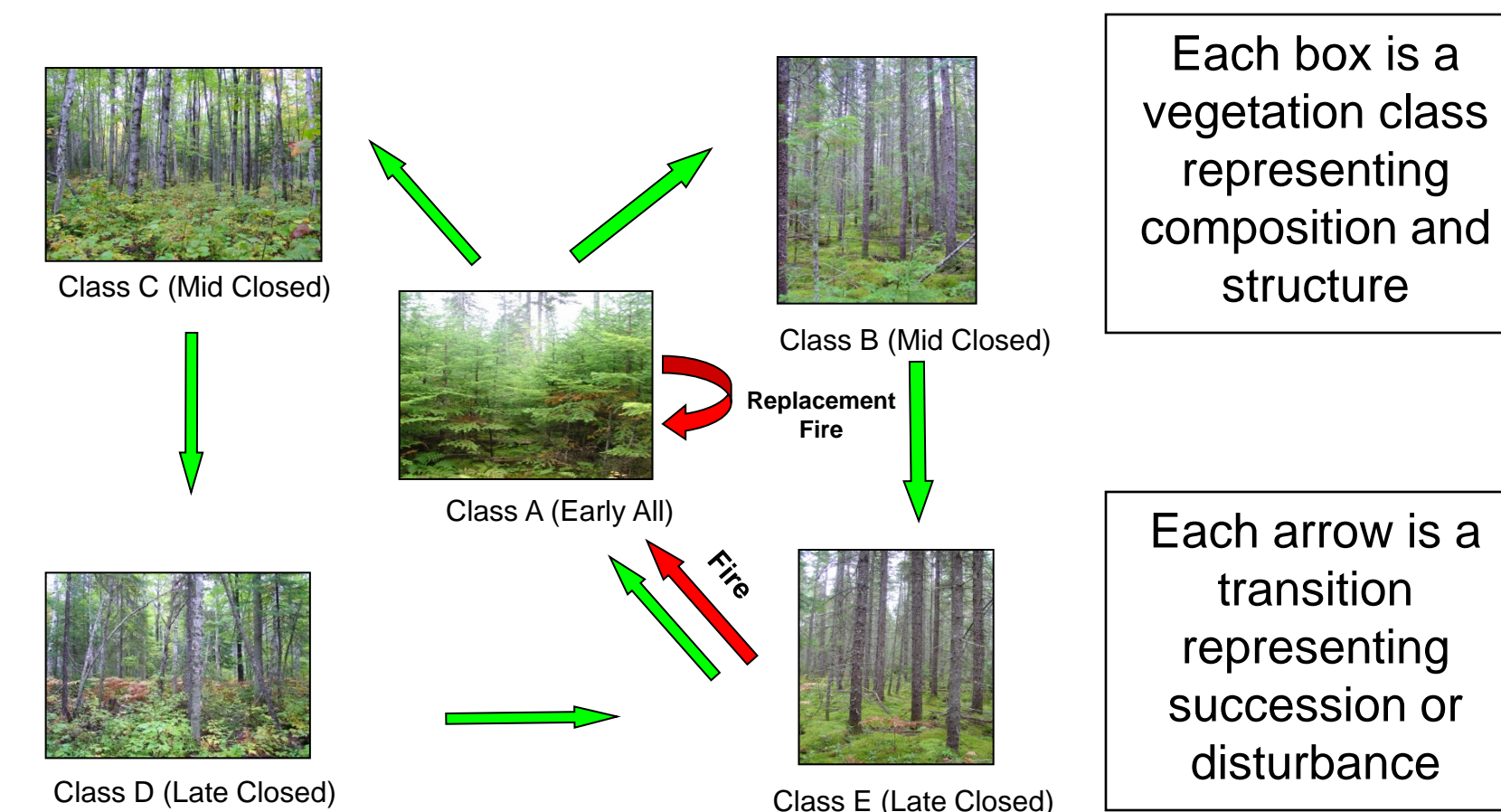
LANDFIRE products are designed to be used in support of strategic vegetation, fire and fuel management planning to evaluate management alternatives across boundaries. They were designed to work at: 1) national, 2) regional (large states or groups of smaller states) and 3) large sub-regional landscapes and Fire Management Units (such as significant portions of states or multiple federal administrative entities). The applicability of LANDFIRE products to support fire and land management planning on smaller areas will vary by product, location and specific use.

Products

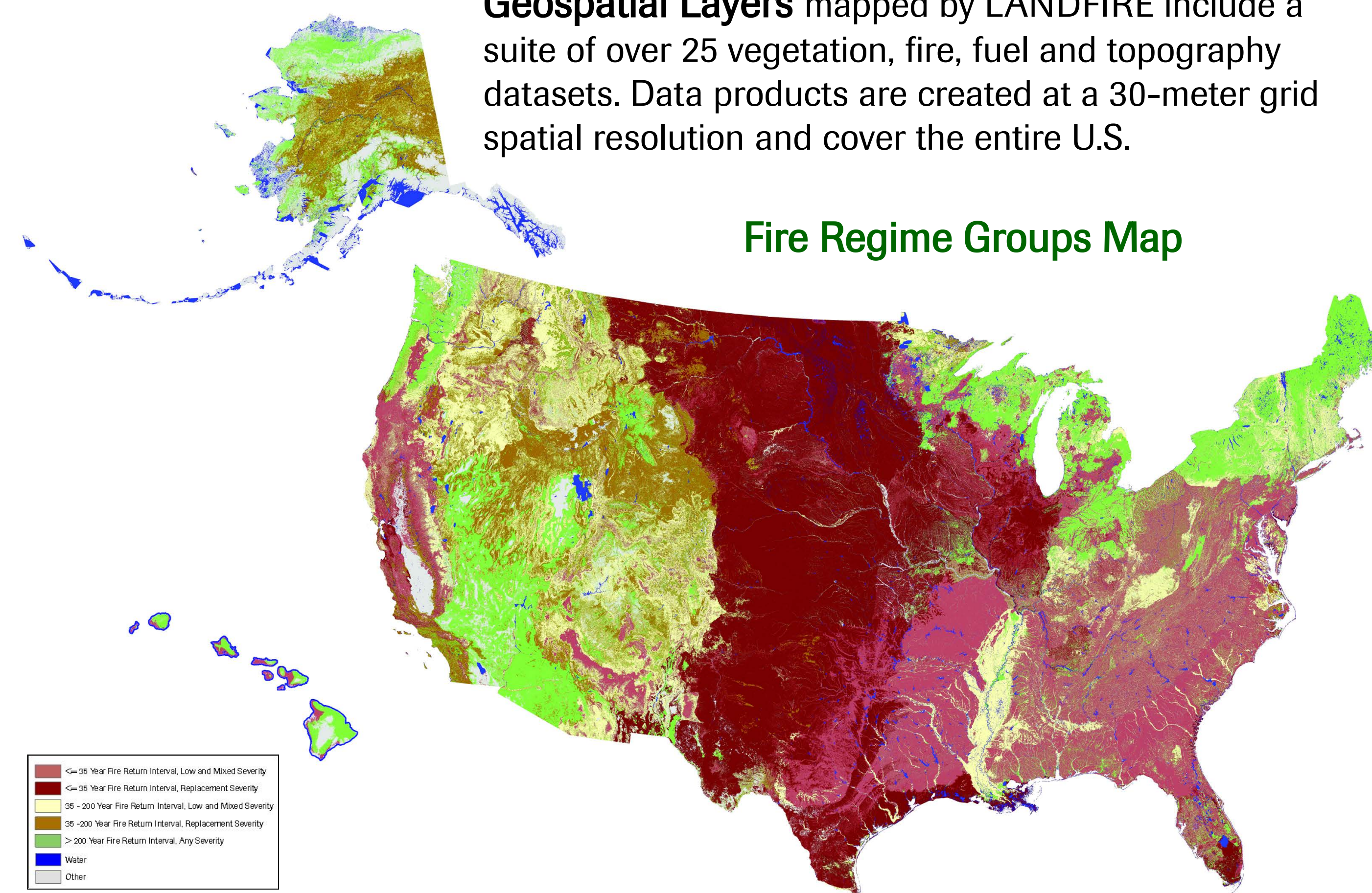
Vegetation Dynamics Models provide a quantitative representation of every Biophysical Setting mapped by LANDFIRE.

- The models can be used to:
- understand and set reference conditions,
 - represent current or desired conditions,
 - predict future conditions,
 - test land management strategies.

Northeast Lowland Spruce-Fir Forest Model



Geospatial Layers mapped by LANDFIRE include a suite of over 25 vegetation, fire, fuel and topography datasets. Data products are created at a 30-meter grid spatial resolution and cover the entire U.S.



Products

Vegetation
 Environmental Site Potential
 Biophysical Settings
 Existing Vegetation
 Existing Vegetation Height
 Existing Vegetation Cover
 Vegetation Dynamics Models

Fire Regime
 Fire Regime Groups
 Mean Fire Return Interval
 % Low-severity Fire
 % Mixed-severity Fire
 % Replacement-severity Fire
 Vegetation Condition Class
 Vegetation Departure
 Succession Classes

Fuel
 13 Fire Behavior Fuel Models
 40 Fire Behavior Fuel Models
 Canadian Forest Fire Danger Rating System
 Fuel Characteristic Classification System Fuelbeds
 Fuel Loading Models
 Forest Canopy Cover
 Forest Canopy Height
 Forest Canopy Bulk Density
 Forest Canopy Base Height

Disturbance
 Disturbance 1990-2010
 Fuel Disturbance
 Vegetation Disturbance
 Public Events Geodatabase

Topographic
 Aspect
 Elevation
 Slope

Applications

LANDFIRE Supports:

Land and Conservation Planning activities that meet governmental regulations and certification requirements by providing nationally consistent spatial datasets, ecological models and other valuable tools

Natural Resource Assessments that use landscape-scale vegetation maps and dynamic vegetation models to support effective and efficient management.

Wildlife Habitat Analyses of areas that are potentially suitable for species of concern by providing science-based information regarding cross ownership, seral stage, vegetation height and cover spatial data sets.

Wildland Fire Management activities that require current information on vegetation, surface and canopy fuels and topography including all the geospatial layers required to run fire behavior and effects models such as FARSITE.

Forest Restoration Needs Analysis



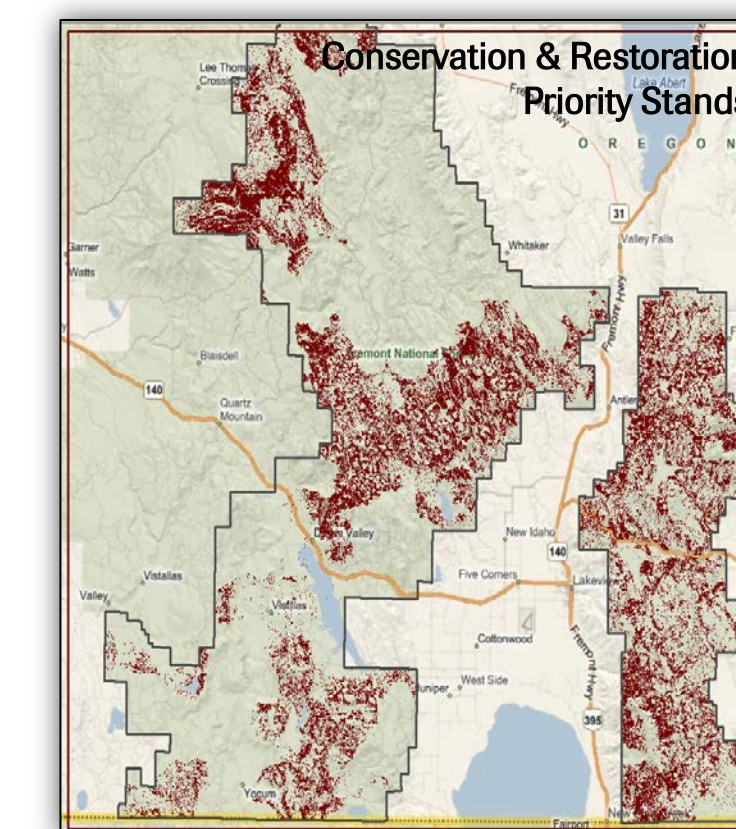
The Nature Conservancy and the Forest Service are assessing forest vegetation restoration needs across Washington and Oregon to further our understanding of where, how much and what kinds of treatments are needed to restore sustainable forests. This analysis aims to answer these questions and set the context for appropriate vegetation restoration and use of limited resources using LANDFIRE Bps Models and GNN geospatial data.

Statewide Assessment



Colorado, New Mexico and Hawai'i each utilized LANDFIRE National spatial layers to complete their state-wide Assessment and Strategy for Forest Resources as required by the "re-designing" approach within the State and Private Forestry organization of the USDA Forest Service. The process was aimed at helping partners identify the greatest threats to forest sustainability and to accomplish meaningful, landscape-level change in high-priority areas.

Values Mapping



The Lakeview Stewardship Group used a "values mapping" exercise to develop a spatially explicit set of priority treatment areas. Treatment in the identified areas would help to preserve large or old-growth trees and restore forest conditions. LANDFIRE forest height, forest cover, fire regime condition class and reference condition data were used in conjunction with other datasets to inform the values mapping process.

Conservation Assessment



The Washington Chapter of The Nature Conservancy conducted a broad scale assessment of forest conditions in eastern Washington. The assessment is part of a holistic approach designed to account for ecosystem processes and the needs of human communities while setting conservation goals. LANDFIRE data were used to calculate Ecological Conditions in the study area.

