Disturbance Data Processing

This page provides a description of how Event data are evaluated and processed into the LANDFIRE Events geodatabase and when data contributors can expect to see their data in updated LANDFIRE products.

Disturbance and vegetation/fuel treatment data or Event data submitted to LANDFIRE will be evaluated for inclusion into the LANDFIRE Events geodatabase. Each event must meet the following minimum requirements to be included in the Events geodatabase:

1. The event must be represented by a polygon on the landscape and have a defined spatial coordinate system.
2. The event must have an acceptable event type needed for LANDFIRE updates. If exotics perimeter data there must be exotics plant species listed.

Category	Event Type (polygon features only)
Fire	Wildfires
	Wildland Fire Use
	Prescribed Fires
Other Disturbances	Insects and Disease
	Weather Damage
Other Treatments	Harvest/Thinning
	Seeding/Planting
	Other Mechanical
	Chemical
Other Information	Exotic Plant Infestations

3. The event must be attributed with the year of occurrence or observation 2011 to be considered for the next LANDFIRE update.

Any data received by November 15, 2012 that meet the above requirements will be evaluated and processed for inclusion into the next Events geodatabase. If your organization possesses older or more recent Event data, LANDFIRE will archive the data for evaluation and potential use in future mapping updates or comprehensive remaps.

All data meeting LANDFIRE minimum requirements are systematically converted to the standard LANDFIRE Events or Exotics format and analyzed to eliminate geospatial or information content errors. During this process, natural disturbances and management activities are assigned to a LANDFIRE Event Type. If the data contains exotic plant information, species names or codes are converted to Natural Resources Conservation Service (NRCS) scientific names. Once the data is in the LANDFIRE format, it is reviewed and evaluated for use in the production process and several different layers are produced.

The Raw Events layer is a compilation of all acceptable Event perimeters. This layer may include multiple perimeters for the same event and a high degree of overlap between events within a single year. Examples of the former include multiple perimeters for a single fire event reported by several different agencies or individuals. Examples of the latter include locations in which multiple disturbances and/or vegetation/fuel treatments occurred within the same year.

The Model Ready Events layer has been reduced to only one unique event per year per location. To produce the Model Ready layer, a series of topologies are created in order to identify areas of overlap

between polygons within the same year. The topology overlap errors are corrected using a standard hierarchy of LANDFIRE Event types, which are organized so the Events with the greatest impact on vegetation and/or fuels composition and structure are ranked highest. To correct topology errors, polygons with lower-ranked events are merged into polygons with higher-ranked events where they overlap. The result is a layer which contains only one event per year for a location. Reforestation (seeding and planting) events are analyzed further to remove all but the most recent event at each location.

The Exotics layer is a compilation of exotic or invasive plant species perimeters. Up to ten species and their associated percent cover (absolute) or infestation level (P = present, L = low, M = moderate, H = high) are reported for each unique polygon per year. If there is no percent cover or infestation level listed for particular exotics species, it will be assigned a P for present.

The Model Ready Events layer is a primary input for developing the LANDFIRE Disturbance Grids which are used to update a multitude of LANDFIRE products. Product updates reflecting the disturbance and management activities 2011 will bring various map layers up to a 2011 condition, and products will be labeled LF_1.3.0 (LANDFIRE 2011). The estimated delivery for LF_1.3.0 is 2013/2014. The estimated delivery is due to several factors: the national scale of the LANDFIRE program; the amount of funding available; and the time it takes to compile and process data, and produce updates to multiple LANDFIRE data layers.