LANDFIRE 2014 Public Events: Geodatabase Contents

This geodatabase includes a subset of the full suite of data that were used in the production of LANDFIRE 2008 Refresh (LF 1.1.0), LANDFIRE 2010 (LF 1.2.0), LANDFIRE 2012 (LF 1.3.0), and LANDFIRE 2014 (LF 1.4.0) program deliverables. According to agreements between LANDFIRE and its data contributors, certain proprietary or otherwise sensitive data have been removed to create this publically available version of the geodatabase. The LANDFIRE 2014 Public Events geodatabase includes a feature dataset for Alaska, CONUS, and Hawaii. Each feature dataset contains three feature classes, namely Raw Events, Model Ready Events, and Exotics. The Public Raw and Model Ready Event feature classes include natural disturbance and vegetation/fuel treatment data. The Public Exotics feature class contains data on the occurrence of exotic or invasive plant species. In addition to the feature classes there is also a look up table for the source code, which is an attribute found in all feature classes.   The source code is a LANDFIRE internal code assigned to each data source. Please consult the table "lutSource_Code" found at http://www.landfire.gov/publicevents.php for more information about the data sources included and excluded from this release.

The data compiled in the LANDFIRE 2014 Public Events geodatabase were collected from disparate sources including federal, state, and local, and private organizations. All data submitted to LANDFIRE were evaluated for inclusion into the LANDFIRE Events geodatabase. Acceptable event data had to have 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 (Appendix B) or exotics plant species and 3) the event must be attributed with year of occurrence or observation of 1999-2014.

Natural Disturbance and Vegetation/Fuel Treatment Events

The LANDFIRE Public Raw and Model Ready Event feature classes are compilations of natural disturbance and vegetation/fuel treatment events that occurred between 1999 and 2014. All acceptable data were systematically converted to the standard LANDFIRE Events format (Appendix A). During the conversion process, natural disturbances and vegetation/fuel treatments were assigned to a LANDFIRE event type (Appendix B).

Public Raw Events

The data in the Public Raw Events feature class have been analyzed to eliminate geospatial or information content errors, but otherwise represent the full account of acceptable data processed for LANDFIRE. These data 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 the same management activity or disturbance event reported by multiple agencies or individuals. Examples of the latter include locations in which multiple management activities and/or natural disturbances occurred within the same year.

Public Model Ready Events

The Public Model Ready Events feature class has been reduced to only one unique event per year per location. In order to produce the Model Ready layer, a series of topologies were created with the Raw Events data to identify areas of overlap between polygons within the same year. A standard hierarchy of LANDFIRE event types was applied to correct the topology errors (Appendix B). The event types at the top of this list are highest ranked events thus having the greatest impact on vegetation and/or fuels composition and structure. The event type hierarchy was used to correct topology errors by merging lower ranked events into higher ranked events where polygons overlap.   When there were multiple perimeters for the same event one perimeter was chosen. The selected perimeter was not necessarily from a public data set so the Public Model Ready Events feature class may be missing information on events that appear in the Public Raw Events feature class. The result is a layer which contains only one event per year for a location. Reforestation (seeding and planting) events were analyzed further to remove all but the most recent event at each location. Point derived polygons and polygons that were <0.02 acres were also removed from the Public Model Ready Events.

Exotic Events

Public Exotics

The Public Exotics feature class is a compilation of exotic or invasive plant species perimeters that were reported between 1999 and 2014. All acceptable data were converted to the standard LANDFIRE Exotics format (Appendix C). Any geospatial or information content errors that were identified were eliminated and species names or codes were converted to Natural Resources Conservation Service (NRCS) scientific names ca. January 2004. Up to ten species and their associated percent cover (absolute) or infestation level (P = present, L = low, M = moderate, H = high) were reported for each unique polygon. If there was no percent cover or infestation level listed for particular exotics species it was assigned a P for present.

Appendix A

LANDFIRE 2014 Public Events – Raw and Model Ready Events Data Dictionary

Attribute	Description
Event_ID *Required*	LANDFIRE unique identifier for the vegetation/fuel treatment or disturbance event.
LF_ID *Required*	LANDFIRE unique identifier for the vegetation/fuel treatment or disturbance event within the original dataset.
DB_ID	Unique identifier for the event or polygon within the source dataset, if applicable.
DB_Source	Name of data layer in source dataset where the DB_ID information can be found, if applicable.
Event_Type *Required*	Type of event represented by the polygon. LANDFIRE assigned one of the following terms to each event: **Development** - conversion of natural lands into housing, commercial, or industrial building sites. Involves permanent land clearing. **Clearcut** - the cutting of essentially all trees, producing a fully exposed microclimate for the development of a new age class. **Harvest** - a general term for the cutting, felling, and gathering of forest timber. The term harvest was assigned to events where there was not enough information available to call them one of the 2 distinct types, clearcut or thinning. **Thinning** - a tree removal practice that reduces tree density and competition between trees in a stand. Thinning concentrates growth on fewer, high-quality trees, provides periodic income, and generally enhances tree vigor. **Mastication** - means by which vegetation is mechanically "mowed" or "chipped" into small pieces and changed from a vertical to horizontal arrangement. **Other Mechanical** - catch all term for a variety of forest and rangeland mechanical activities related to fuels reduction and site preparation including; piling of fuels, chaining, lop and scatter, thinning of fuels, Dixie harrow, etc. **Wildfire*** - an unplanned, unwanted wildland fire including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fires where the objective is to suppress or put out the fire. **Wildland Fire Use*** - the application of the appropriate management response to naturally-ignited wildland fires to accomplish specific resource management objectives in pre-defined designated areas outlined in Fire Management Plans. **Prescribed Fire*** - any fire ignited by management actions to meet specific objectives. A written, approved prescribed fire plan must exist, and NEPA requirements (where applicable) must be met, prior to ignition. **Wildland Fire*** - a catch all term used to describe any non-structure fire that occurs in the wildland. Three distinct types of wildland fire have been defined: wildfire, wildland fire use, and prescribed fire. The term wildland fire was assigned to events where there was not enough information available to call them one of the 3 distinct types. **Weather** - a weather related event that results in loss of vegetation such as blowdown, hurricane, or tornado.

LANDFIRE 2014 Public Events – Raw and Model Ready Events Data Dictionary (cont.)

Attribute	Description
Event_Type (cont.) *Required*	**Insecticide** - application of a chemical substance used to kill insects. **Chemical** - application of a chemical substance. The term chemical was assigned to events where there was not enough information available to call them one of the 2 distinct types, herbicide or insecticide. **Insects** - infestations of unwanted insects that can affect vegetative health such as bark beetle. **Disease** - infestations of disease that can affect vegetative health such as root rot. **Insects/Disease** - infestations of insects and/or disease that can affect vegetative health. This term was assigned to events where there was not enough information available to call them one way or the other. **Herbicide** - application of a chemical substance used to kill or inhibit the growth of plants. **Biological** - the use of living organisms, such as predators, parasites, and pathogens, to control weeds, pest insects, or diseases. **Planting** - reestablishing a vegetative community by planting. **Reforestation** reestablishing a vegetative community by planting or seeding. **Seeding** - reestablishing a vegetative community by seeding. ***** Fire policies have changed overtime for how fires are defined. Users need be aware of these changes as well as other aspects of the data as they are applied.
Event_Subtype	Type of event assigned in source dataset to represent the polygon.
Year *Required*	Year (YYYY) in which the event occurred.
Start_Date	Date (MMDDYY) on which the event began.
End_Date	Date (MMDDYY) on which the event ended.
Severity	Severity of vegetation/fuel treatment or disturbance event, in terms of biomass reduction. One of the following terms was used to indicate the effects of the event on the above-ground vegetation within a polygon: Low = <20% above-ground biomass removed Moderate = 20-80% above-ground biomass removed High = >80% above-ground biomass removed
Agency	Reporting agency (or non-governmental organization) for event.
Source_Code *Required*	LANDFIRE internal source code assigned to each data source. For more information on data sources consult the table "lutSource_Code" found at http://www.landfire.gov/publicevents.php.

Appendix B

LANDFIRE Event Type Nomenclature and Hierarchy
Event Types at the top of this list are highest ranked events thus having the greatest impact on vegetation/fuel composition and structure

LANDFIRE Event Type
Development
Clearcut
Harvest
Thinning
Mastication
Other Mechanical
Wildfire
Wildland Fire Use
Prescribed Fire
Wildland Fire
Weather
Insecticide
Chemical
Insects
Disease
Insects/Disease
Herbicide
Biological
Planting
Reforestation
Seeding

Appendix C

LANDFIRE 2014 Public Events – Exotics Data Dictionary

Attribute		Description
EventID	*Required*	LANDFIRE unique identifier for exotics sampling event.
Source_Code	*Required*	LANDFIRE internal source code assigned to each data source. For more information on data sources consult the table "lutSource_Code" found at http://www.landfire.gov/publicevents.php.
PolyID	*Required*	LANDFIRE unique identifier for each polygon location in the original dataset.
YYYY	*Required*	Year (YYYY) in which the event was sampled.
MM		Month (MM) of this sampling event.
DD		Day (DD) of month sampled.
Tax1		Scientific Name from the NRCS (Natural Resources Conservation Service) Plants Database ca. January 2004 for the most prevalent exotic plant.
Cov1		Absolute cover (%) of Tax1. If no cover reported, the following categories indicate level of infestation: P = present, L = low, M = moderate, H = high.
Tax2		Scientific Name from the NRCS Plants Database ca. January 2004 for the second most prevalent exotic plant.
Cov2		Absolute cover (%) of Tax2. If no cover reported, the following categories indicate level of infestation: P = present, L = low, M = moderate, H = high.
Tax3		Scientific Name from the NRCS Plants Database ca. January 2004 for the third most prevalent exotic plant.
Cov3		Absolute cover (%) of Tax3. If no cover reported, the following categories indicate level of infestation: P = present, L = low, M = moderate, H = high.
Tax4		Scientific Name from the NRCS Plants Database ca. January 2004 for the forth most prevalent exotic plant.
Cov4		Absolute cover (%) of Tax4. If no cover reported, the following categories indicate level of infestation: P = present, L = low, M = moderate, H = high.
Tax5		Scientific Name from the NRCS Plants Database ca. January 2004 for the fifth most prevalent exotic plant.
Cov5		Absolute cover (%) of Tax5. If no cover reported, the following categories indicate level of infestation: P = present, L = low, M = moderate, H = high.
Tax6		Scientific Name from the NRCS Plants Database ca. January 2004 for the sixth most prevalent exotic plant.
Cov6		Absolute cover (%) of Tax6. If no cover reported, the following categories indicate level of infestation: P = present, L = low, M = moderate, H = high.
Tax7		Scientific Name from the NRCS Plants Database ca. January 2004 for the seventh most prevalent exotic plant.
Cov7		Absolute cover (%) of Tax7. If no cover reported, the following categories indicate level of infestation: P = present, L = low, M = moderate, H = high.
Tax8		Scientific Name from the NRCS Plants Database ca. January 2004 for the eighth most prevalent exotic plant.
Cov8		Absolute cover (%) of Tax8. If no cover reported, the following categories indicate level of infestation: P = present, L = low, M = moderate, H = high.
Tax9		Scientific Name from the NRCS Plants Database ca. January 2004 for the ninth most prevalent exotic plant.
Cov9		Absolute cover (%) of Tax9. If no cover reported, the following categories indicate level of infestation: P = present, L = low, M = moderate, H = high.
Tax10		Scientific Name from the NRCS Plants Database ca. January 2004 for the tenth most prevalent exotic plant.
Cov10		Absolute cover (%) of Tax10. If no cover reported, the following categories indicate level of infestation: P = present, L = low, M = moderate, H = high.
Total		Total number of exotic plant taxa reported for this sampling event.