Department of the Interior




# LANDFIRE Reference Database

## LF 2025 PUBLIC DATA DICTIONARY

Contact: Brenda Lundberg
email: blundberg@contractor.usgs.gov

# Table of Contents

## Contents

Table of Contents ..... 1
Data Tables ..... 2
dtCommunities ..... 2
dtExotics ..... 3
dtFBInputs ..... 4
dtFEInputs ..... 4
dtPoints ..... 5
dtSeedlings ..... 6
dtSiteChanges ..... 6
dtSpecies ..... 6
dtStands ..... 7
dtTrees ..... 8
dtVisits ..... 9

# Data Tables

Data tables (dt) characterize vegetation and fuels that are present within the sampled unit. LANDFIRE has compiled data from many different sources and sampling designs. Not all sampling units will have all the attributes listed in the data tables.

## dtCommunities

This table contains data describing the plant community present within the sampled unit.

**Table 1: The plant community present within sampled unit**

| Name | Description |
|---|---|
| EventID ***Required*** | Unique identifier for this sampling unit. Assigned by LANDFIRE. |
| SourceEcoSys | Ecological System assigned from the source dataset to describe existing vegetation within the sampled unit. |
| SourceAlliance | NVCS Alliance assigned from the source dataset to describe existing vegetation within the sampled unit. |
| SourceAssocn | NVCS Association assigned from the source dataset to describe existing vegetation within the sampled unit. |
| SourceCovType | Other cover type assigned from the source dataset to describe existing vegetation within the sampled unit. |
| SourceCTSys | System used from the source dataset to characterize the cover type within the sampled unit. |
| EcoSysLifeformPrimary | Primary physiognomic (lifeform) label associated with the Ecological System assigned by LANDFIRE to the sampled unit. |
| EcoSysLifeformAll | All physiognomic (lifeform) label(s) associated with the Ecological System assigned by LANDFIRE to the sampled unit. |
| EcoSysCd | Code for the Ecological System assigned by LANDFIRE to the sampled unit. See lutdtCommunitiesEcoSys for code definitions. |
| EcoSys | Name of Ecological System assigned by LANDFIRE to the sampled unit. |
| EVTMeth | Method by which Ecological System and/or National Vegetation Classification Standard (NVCS) group were assigned by LANDFIRE to the sampled unit. Methods include: AutoKey – Automated program that assigns EVT based on species cover data; Crosswalk – Crosswalked by experts from existing vegetation type labels assigned from the source dataset; Expert Opinion – Plots identified by experts in underrepresented vegetation types. |
| NVCSGroupCd | Code for National Vegetation Classification Standard (NVCS) Group assigned by LANDFIRE to the sampled unit. See lutdtCommunitiesNVCSGroup for code definitions. |
| NVCSGroup | Name of National Vegetation Classification Standard (NVCS) Group assigned by LANDFIRE to the sampled unit. |
| DomLifeform | Lifeform from which the dominant and co-dominant taxa (DomSp and CoDomSp) were selected during the application of the LANDFIRE Ecological System Auto-Key. |
| DomSp | Dominant taxon within the sampled unit, based on percentage cover, as derived from the LANDFIRE Ecological System Auto-Key. |

| Name | Description |
|---|---|
| DomSpLifeform | Lifeform of the dominant taxon within the sampled unit, as derived from the LANDFIRE Ecological System Auto-Key. |
| DomSpCov | Cover (%) of the dominant taxon within the sampled unit, as derived from the LANDFIRE Ecological System Auto-Key. |
| CoDomSp | Co-dominant taxon within the sampled unit, based on percentage cover, as derived from the LANDFIRE Ecological System Auto-Key. |
| CoDomSpLifeform | Lifeform of the co-dominant taxon within the sampled unit, as derived from the LANDFIRE Ecological System Auto-Key. |
| CoDomSpCov | Cover (%) of the co-dominant taxon within the sampled unit, as derived from the LANDFIRE Ecological System Auto-Key. |
| SourcePV | Label assigned from the source dataset to describe potential vegetation within the sampled unit. |
| SourcePVCd | Code for potential vegetation of the sampled unit assigned from the source dataset. |
| SourcePVSys | Code for system used to categorize potential vegetation from the source dataset; "100" = classification of disturbance-maintained climax community or "200" = classification of climax community. |
| AdjEcoSysCd | LF2016 Remap adjusted Ecological System code that reflects removal of problematic plots or reclassification of plot codes based on initial model results and expert review. Only populated for plots that were adjusted. |
| AdjEcoSys | LF2016 Remap adjusted Ecological System name that reflects removal of problematic plots or reclassification of plot names based on initial model results and expert review. Only populated for plots that were adjusted. |

# dtExotics

This table contains cover estimates or presence data for exotic plants on sampling units not included in the dtSpecies table. These are sampling units that only contain information on exotic plant species, non-exotic species were not inventoried.

## Table 2: Exotic plant species estimates or presence data

| Name | Description |
|---|---|
| EventID ***Required*** | Unique identifier for this sampling unit. Assigned by LANDFIRE. |
| Item ***Required*** | Accepted Symbol from the NRCS Plants Database ca. December 2013. |
| SciName | Scientific Name from the NRCS Plants Database ca. December 2013. |
| Lifeform | Lifeform of item. F = forb, G = graminoid, S = shrub, T = tree, V = vine. Assigned by LANDFIRE based on NatureServe's lifeform assignments. |
| Duration | Duration of item, if herbaceous. A = annual, P = perennial. Assigned by LANDFIRE based on NatureServe's duration assignments. |
| NativityFlag | Assigned by LANDFIRE. Coded as "1" if identified as "Introduced to U.S." or "Cultivated, or not in the U.S." in NRCS Plants DB but does not meet criterion for "3" or "3" if in LANDFIRE list of exotics of concern. For a complete list of LANDFIRE exotics see lutdtExoticsLANDFIRE. |
| CovAbs | Absolute cover (%) of item from the source dataset. If no cover reported, the following categories indicate level of infestation: P = present, L = low, M = moderate, H = high. |

## dtFBInputs

This table contains fuel data relevant to fire-behavior modeling within the sampled unit.

### Table 3: Fuel data relevant to fire-behavior modeling

| Name | Description |
|---|---|
| EventID ***Required*** | Unique identifier for this sampling unit. Assigned by LANDFIRE. |
| LwdyCov | Cover (%) of live trees and shrubs from the source dataset. |
| DwdyCov | Cover (%) of dead trees and shrubs from the source dataset. |
| WdyHgt | Average height (feet) of trees and shrubs from the source dataset. |
| LherbCov | Cover (%) of live herbaceous vegetation from the source dataset. |
| DherbCov | Cover (%) of dead herbaceous vegetation from the source dataset. |
| HerbHgt | Average height (feet) of herbaceous vegetation from the source dataset. |
| IntegFbedDpth | Average shrub/herb heights (feet) from the source dataset. |
| StandHgt | Typical height (feet) of vegetation taller than 6 feet from the source dataset. |
| CanBaseHgt | Typical lowest point above the ground (feet) at which there is enough live and/or dead woody vegetation to spread a fire vertically into the overstory vegetation, from the source dataset. |
| CanCov | Cover (%) of woody vegetation taller than 6.5 feet from the source dataset. |
| FBFM13 | Fire Behavior Fuel Model (Anderson 1982) from the source dataset. See lutdtFBInputsFBFM13 for code definitions. |
| FBFM40 | Fire Behavior Fuel Model (Scott and Burgan 2005) from the source dataset. See lutdtFBInputsFBFM40 for code definitions. |

## dtFEInputs

This table contains fuel data relevant to fire-effects modeling within the sampled unit.

### Table 4: Fuel data relevant to fire-effects modeling

| Name | Description |
|---|---|
| EventID ***Required*** | Unique identifier for this sampling unit. Assigned by LANDFIRE. |
| FWD1hBmass | 1-hour fuel (small Fine Woody Debris [FWD]; 0.00-0.24 inches diameter) biomass (tons/acre) from the source dataset. |
| FWD10hBmass | 10-hour fuel (medium FWD; 0.25-0.99 inches diameter) biomass (tons/acre) from the source dataset. |
| FWD100hBmass | 100-hour fuel (large FWD; 1.00-2.99 inches diameter) biomass (tons/acre) from the source dataset. |
| FWDTotBmass | 1 to 100-hour fuel (total FWD) biomass (tons/acre) from the source dataset. |
| CWDSndBmass | 1000-hour sound fuel biomass (tons/acre) from the source dataset. |
| CWDRotBmass | 1000-hour rotten fuel biomass (tons/acre) from the source dataset. |
| CWDTotBmass | 1000-hour fuel (total Coarse Woody Debris [CWD]; 3.00 inches in diameter and greater) biomass (tons/acre) from source dataset. |
| CWD9plusSndBmass | 10,000-hour sound fuel biomass (tons/acre) from the source dataset. |
| CWD9plusRotBmass | 10,000-hour rotten fuel biomass (tons/acre) from the source dataset. |
| CWD9plusTotBmass | 10,000-hour fuel (total Coarse Woody Debris [CWD]; 9.00 inches in diameter and greater) biomass (tons/acre) from the source dataset. |

| Name | Description |
|---|---|
| DuffLittDpth | Combined duff and litter depth (inches) from the source dataset. |
| DuffDpth | Duff depth (inches) from source dataset. |
| DuffBmass | Duff biomass (tons/acre) from the source dataset. |
| LittDpth | Litter depth (inches) from the source dataset. |
| LittBmass | Litter biomass (tons/acre) from the source dataset. |
| TotFuelBmass | Combined biomass of FWD, CWD, duff, and litter (tons/acre) from the source dataset. |
| LWdyBmass | Biomass (tons/acre) of live trees and shrubs (i.e., below 6 feet) from the source dataset. |
| DWdyBmass | Biomass (tons/acre) of dead trees and shrubs (i.e., below 6 feet) from the source dataset. |
| TotWdyBmass | Biomass (tons/acre) of live and dead trees and shrubs (i.e., below 6 feet) from the source dataset. |
| LHerbBmass | Biomass (tons/acre) of live herbaceous vegetation from the source dataset. |
| DHerbBmass | Biomass (tons/acre) of dead herbaceous vegetation from the source dataset. |
| TotHerbBmass | Biomass (tons/acre) of live and dead herbaceous vegetation from the source dataset. |
| FCCSProtoFuelbed | Fire behavior fuel model selected from 113 options in the FCCS Prototype Fuelbed set from the source dataset. |
| FLM | Fuel-loading model from the source dataset. |

# dtPoints

This table contains location information for each sampled unit.

## Table 5: Sample unit location information

| Name | Description |
|---|---|
| EventID ***Required*** | Unique identifier for this sampling unit. Assigned by LANDFIRE. |
| Lat | Latitude, WGS 84, in decimal degrees to the nearest 100 seconds. |
| Long | Longitude, WGS 84, in decimal degrees to the nearest 100 seconds. |
| LFX | Albers x coordinate, as used in LANDFIRE production. |
| LFY | Albers y coordinate, as used in LANDFIRE production. |
| LFCoordSys | Code for well-known text defining full coordinate system to which LFX and LFY are referenced. See lutdtPointsLFCoordSys for code definitions. |
| LFZone | LANDFIRE Mapping Zone in which this sampling unit is located. See lutdtPointsLFZone for code definitions. |
| AKRID | Numerical ID for LANDFIRE Auto-Key Region in which this sampling unit is located. See lutdtPointsAKRID for code definitions. |
| VPU | LANDFIRE Vegetation Production Unit in which this sampling unit is located. See lutdtPointsVPU for code definitions |
| GeoArea | LANDFIRE Geographic Area in which the sampling unit is located. |
| LocMeth | Method by which this point or original polygon was located. G = captured with a GPS unit in the field, M = digitized or otherwise derived in office, X = unknown. |

## dtSeedlings

This table contains data from the source dataset on tree seedlings within the sampled unit.

### Table 6: Tree seedlings within sampled unit

| Name | | Description |
|---|---|---|
| EventID | ***Required*** | Unique identifier for this sampling unit. Assigned by LANDFIRE. |
| Subplot | ***Required*** | Subplot on which this tree seedling was measured. |
| Spe | ***Required*** | Accepted Symbol from the NRCS Plants Database ca. December 2013. |
| Count | | Number of individual seedlings of this species on the sampling unit subplot, from the source dataset. |

## dtSiteChanges

This table contains data describing disturbances and treatments within the sampled unit as reported in the source dataset.

### Table 7: Disturbances and treatments within sampled unit

| Name | | Description |
|---|---|---|
| EventID | ***Required*** | Unique identifier for this sampling unit. Assigned by LANDFIRE. |
| Disturb1 | | Type of disturbance 1 from the source dataset. |
| Disturb1Sev | | Severity of disturbance 1 from the source dataset. |
| Disturb1Yr | | Year of disturbance 1 from the source dataset. |
| Disturb2 | | Type of disturbance 2 from the source dataset. |
| Disturb2Sev | | Severity of disturbance 2 from the source dataset. |
| Disturb2Yr | | Year of disturbance 2 from the source dataset. |
| Disturb3 | | Type of disturbance 3 from the source dataset. |
| Disturb3Sev | | Severity of disturbance 3 from the source dataset. |
| Disturb3Yr | | Year of disturbance 3 from the source dataset. |
| Trtmnt1 | | Type of treatment 1 from the source dataset. |
| Trtmnt1Yr | | Year of treatment 1 from the source dataset. |
| Trtmnt2 | | Type of treatment 2 from the source dataset. |
| Trtmnt2Yr | | Year of treatment 2 from the source dataset. |
| Trtmnt3 | | Type of treatment 3 from the source dataset. |
| Trtmnt3Yr | | Year of treatment 3 from the source dataset. |
| SourceComments | | Comments pertaining to disturbance from field personnel from the source dataset. |

## dtSpecies

This table lists and characterizes the plant species reported on the sampled unit.

### Table 8: Plant species characterization in sample unit

| Name | | Description |
|---|---|---|
| EventID | ***Required*** | Unique identifier for this sampling unit. Assigned by LANDFIRE. |
| Item | ***Required*** | Accepted Symbol from the NRCS Plants Database ca. December 2013. |
| SciName | | Scientific Name from the NRCS Plants Database ca. December 2013. |

| Name | Description |
|---|---|
| Lifeform | Lifeform of item. F = forb, G = graminoid, H = herb, N = nonvascular, S = shrub, T = tree, V = vine. Assigned by LANDFIRE based on NatureServe's lifeform assignments. |
| Duration | Duration of item, if herbaceous. A = annual, P = perennial. Assigned by LANDFIRE based on NatureServe's duration assignments. |
| NativityFlag | Assigned by LANDFIRE. Coded as "1" if identified as "Introduced to U.S." or "Cultivated, or not in the U.S." in NRCS Plants DB but does not meet criterion for "3" or "3" if in LANDFIRE list of exotics of concern. For a complete list of LANDFIRE exotics see lutdtExoticsLANDFIRE. |
| LFAbsCov | Absolute cover (%) of item pulled or derived from the source dataset. In some cases, absolute cover was averaged across subplots or calculated from transect data. |
| LFRelCov | Relative lifeform cover (%) of item. Calculated by LANDFIRE based on NatureServe's lifeform assignments. |
| LFHgt | Height (meters) of item from the source dataset. |

# dtStands

This table contains lifeform cover and height data within the sampled unit.

## Table 9: Lifeform cover and height data within sample unit

| Name | Description |
|---|---|
| EventID ***Required*** | Unique identifier for this sampling unit. Assigned by LANDFIRE. |
| SourceTreeCov | Tree cover (%) from original field call(s), i.e., accounting for most overlap, but based on lifeform assignments from the source dataset. |
| SourceShrubCov | Shrub cover (%) from original field call(s), i.e., accounting for most overlap, but based on lifeform assignments from the source dataset. |
| SourceForbCov | Forb cover (%) from original field call(s), i.e., accounting for most overlap, but based on lifeform assignments from the source dataset. |
| SourceGramCov | Graminoid cover (%) from original field call(s), i.e., accounting for most overlap, but based on lifeform assignments from the source dataset. |
| SourceHerbCov | Herbaceous cover (%) from original field call(s), i.e., accounting for most overlap, but based on lifeform assignments from the source dataset. |
| SourceNvasCov | Nonvascular plant cover (%) from original field call(s), i.e., accounting for most overlap, but based on lifeform assignments from the source dataset. |
| LFTreeCov | Tree cover (%) calculated by LANDFIRE (based on NatureServe's lifeform assignments). Tree species from dtSpecies were summed and overlap was not accounted for, values may exceed 100%. |
| LFTreeCovAdj | Tree cover (%) adjusted for overlap and calculated by LANDFIRE (based on NatureServe's lifeform assignments). All values will be between 0% and 100%. |
| LFConiferTreeCov | Conifer tree cover (%) calculated by LANDFIRE (based on NatureServe's lifeform assignments). Conifer tree species from dtSpecies were summed and overlap was not accounted for, values may exceed 100%. |
| LFShrubCov | Shrub cover (%) calculated by LANDFIRE (based on NatureServe's lifeform assignments). Shrub species from dtSpecies were summed and overlap was not accounted for, values may exceed 100%. |

| Name | Description |
|---|---|
| LFShrubCovAdj | Shrub cover (%) adjusted for overlap and calculated by LANDFIRE (based on NatureServe's lifeform assignments). All values will be between 0% and 100%. |
| LFHerbCov | Herbaceous cover (%) calculated by LANDFIRE (based on NatureServe's lifeform assignments). Herb species from dtSpecies were summed and overlap was not accounted for, values may exceed 100%. |
| LFHerbCovAdj | Herbaceous cover (%) adjusted for overlap and calculated by LANDFIRE (based on NatureServe's lifeform assignments). All values will be between 0% and 100%. |
| LFNvasCov | Nonvascular plant cover (%) calculated by LANDFIRE (based on NatureServe's lifeform assignments). Nonvascular species from dtSpecies were summed and overlap was not accounted for, values may exceed 100%. |
| SourceTreeHgt | Tree height (meters) from original field call(s), based on lifeform assignments in the source dataset. |
| SourceShrubHgt | Shrub height (meters) from original field call(s), based on lifeform assignments in the source dataset. |
| SourceHerbHgt | Herbaceous height (meters) from original field call(s), based on lifeform assignments in the source dataset. |
| LFTreeHgt | Tree height (meters), cover weighted average from dtSpecies calculated by LANDFIRE (based on NatureServe's lifeform assignments). |
| LFShrubHgt | Shrub height (meters), cover weighted average from dtSpeceis calculated by LANDFIRE (based on NatureServe's lifeform assignments). |
| LFHerbHgt | Herbaceous height (meters), cover weighted average from dtSpecies calculated by LANDFIRE (based on NatureServe's lifeform assignments). |

# dtTrees

This table contains data describing individual trees measurements within the sampled unit.

## Table 10: Individual tree measurements within sample unit

| Name | Description |
|---|---|
| EventID ***Required*** | Unique identifier for this sampling unit. Assigned by LANDFIRE. |
| Tag ***Required*** | Number used to uniquely identify this tree on this sampling unit. |
| Subplot | Subplot on which this tree was measured, if applicable. |
| Spe | Accepted Symbol from the NRCS Plants Database ca. December 2013. |
| Status | Status of this tree. L = live, D = dead. |
| Dia | Diameter (centimeters), taken either at breast height (DBH) or root collar (DRC) from the source dataset. |
| Hgt | Height (meters) of this tree from the source dataset. |
| CR | Compacted crown ratio from the source dataset. |
| UCR | Uncompacted crown ratio from the source dataset. |
| CHBC | Height (meters) to the base of the live crown. |
| CHBCSource | Means by which height to the base of the live crown was determined. See lutdtTreesCHBCSource for code definitions. |
| CCCd | Crown class code from the source dataset. See lutdtTreesCCCd for code definitions. |
| TPH | Number of trees per hectare that this individual represents. |

# dtVisits

This table includes basic information about each sampling unit.

## Table 11: Basic information about sample units

| Name | Description |
|---|---|
| EventID ***Required*** | Unique identifier for this sampling unit. Assigned by LANDFIRE. |
| YYYY | Year this unit was sampled from the source dataset. |
| MM | Month this unit was sampled from the source dataset. |
| DD | Day this unit was sampled from the source dataset. |
| DDD | Day of year this unit was sampled, calculated by LANDFIRE. |
| Type | Type of assessment (e.g., field visit, aerial survey, photo interpreted). Assigned by LANDFIRE. |
| Purpose | Purpose of assessment (e.g., inventory, monitoring, research, mapping). Assigned by LANDFIRE. |
| SourceID | Code for data source, assigned by LANDFIRE. See lutdtVisitsSourceID for code definitions. |
| SourceEventID | Unique identifier of this sampling unit from the source dataset. |
| Protocol | Sampling protocol. Assigned by LANDFIRE. |
| Photo1 | Photo 1 of sampling unit from the source dataset. |
| Photo2 | Photo 2 of sampling unit from the source dataset. |
| Photo3 | Photo 3 of sampling unit from the source dataset. |
| Photo4 | Photo 4 of sampling unit from the source dataset. |
| LFVersion | Indicates which version of LANDFIRE the data were acquired. |