Frequently Asked Questions about LANDFIRE's Data Draw (Spring 2014)

Q: What is the purpose of LANDFIRE updates?

A: An update program is vital to support the full spectrum of fire and natural resource management programs with timely and quality products that reflect recent changes in landscape conditions. The LANDFIRE updates focus on landscape changes to vegetation and fuels resulting from disturbance and treatment activities such as wildland fire, fuel and vegetation treatments, mortality from insects and disease, storm damage, invasive plants, and other natural or anthropogenic events. Areas of concern will be improved through the LANDFIRE update process, and the existing layers will be updated to reflect more current conditions.

Q: Isn't LANDFIRE just a fire centric program?

A: The official name of LANDFIRE is Landscape Fire and Resource Management Planning Tools. Fire is a main component of the program however the sponsors (Wildland Fire Leadership Council (WFLC)) envisioned its use for broader resource management. LANDFIRE distributed data products consist of over 20 spatial data layers in the form of maps and other data that support a range of land management analysis and modeling. Specific data products include: Existing Vegetation Type, Cover, and Height; Biophysical Settings; Environmental Site Potential; Fire Behavior Fuel Models; Fire Regime Classes; and Fire Effects layers. LANDFIRE products are designed to be used at a landscape-scale in support of strategic vegetation, fire, and fuels resource management planning.

Q: Why should we contribute data to LANDFIRE?

A: The Wildland Fire Leadership Council (WFLC) envisioned that LANDFIRE be used for broader resource management applications and this is your opportunity to provide data to improve and update LANDFIRE products. LANDFIRE is structured to be part of a National Landscape Conservation Information Framework, where authoritative data sources and coordinated agency data are tapped for updating LANDFIRE deliverables. LANDFIRE produces products that serve as key data sets in many decision support applications. Since fire is a natural resource ecological process and the LANDFIRE data products start with soil and vegetation data, the value and utility of LANDFIRE deliverables is significant for natural resources management as well as fire management applications. Your assistance in improving the data products is needed because the continual updating of LANDFIRE relies heavily on land-management professionals at agency field locations to supply the data needed for mapping improvements and updates. Without this data, LANDFIRE data products including existing vegetation and wildland fuels layers are not as current as they could be.

Q: What are some of the fire applications that use LANDFIRE data products?

A: LANDFIRE data products are important foundational data sets for many fire management decision support applications. A few of these include: The National Wildland Fire Cohesive Strategy, Wildland Fire Decision Support System (WFDSS), Fire Program Analysis (FPA), Hazardous Fuels Prioritization and Allocation System (HFPAS), etc. For more information on how the LF products are being applied, please visit http://www.landfire.gov/documents_dataproducts.php.

Q: Are there any funds available to cover the time and cost of organizing our data for submission?

A: LANDFIRE recognizes that it takes some time and cost to organize and submit data. It is also recognized that some agencies/organizations do not have a centralized data structure where their data are linked from the local (field, park, refuge, forest) area up through the states and regions in a standardized electronic format. LANDFIRE has been able to access many regional and national databases which save time and money because of the structured process (many organizations are moving in this direction). Although LANDFIRE would like to have resources to be able to support this, ultimately it is up to the organizations to have good data and records management in place. With this type of data management in place, opportunities for sharing data and linking data to efforts like LANDFIRE do not require a lot of resources. LANDFIRE does not have funds available for organizing data, however we do accept data in many different formats and we have staff available that can work with the provided data to interpret and convert the information into the LANDFIRE format. We can likely work with data you currently have available as long as it meets our data needs and minimum requirements (see question **What types of data are needed for LANDFIRE?**). Supporting information, including definitions of the fields and any codes in the data tables, should accompany the data to ensure that they can be interpreted correctly. For more information on data format please see question **In what format do you need the data?**

Q: How can we better facilitate data collection and submission efforts for our region of the country?

A: In some regions of the country like-minded individuals have coordinated together to share information and facilitate regional data composites. Spearheading a regional data collection effort within or across agencies can help ensure that all available data for your region is submitted to LANDFIRE. Because the United States is large and diverse, being able to know and work with all of the organizations that manage land is extremely difficult. We do the best that we can but a regional data collection effort can get partners involved who may not otherwise be aware of LANDFIRE and the benefits that contributing data can provide for their local area. Data contributions will help improve the LANDFIRE data products for your area of the country and ensure that the data products are as current as possible.

Q: We received a similar request for data from LANDFIRE not very long ago. Why are you requesting data again?

A: Any data that you contributed to date were likely used to support LANDFIRE 2001 National (LF 1.0.0) mapping effort and LANDFIRE 2008 Refresh (LF 1.0.5 & LF 1.1.0), LANDFIRE 2010 (LF 1.2.0), and LANDFIRE 2012 (LF 1.3.0) updating efforts. Wildland fires, insects, diseases, wind storms, and vegetation/fuel treatment activities have altered many landscapes since that time. The priority for this data draw is to collect disturbance and vegetation/fuel treatment data from 2013 to help us update the existing vegetation and wildland fuel layers to reflect more current conditions.

Q: How often will LANDFIRE update their data products?

A: LANDFIRE update cycles are presently being reviewed based upon user needs, budgetary limitations, and other considerations. However, as listed in the business case and plan the LANDFIRE update cycle is every two years for landscape changes and every 10 years for a complete remap.

Q: Now that there are multiple versions of LANDFIRE data products what naming convention will LANDFIRE use to distinguish between the different data products?

A: As we continue to periodically update our data products LANDFIRE will no longer be referring to these updates with a name such as Refresh. Since the purpose of updating LANDFIRE products is to maintain the currency of data layers, LANDFIRE is switching the naming convention to reflect the year that a particular data product represents. For example data products labeled LANDFIRE 2001 will reflect landscape conditions from 2001 and data products labeled LANDFIRE 2008 will reflect landscape conditions from 2008. In addition to that naming convention we will still maintain a versioning code with LF 1.0.5 type versioning nomenclature as an example.

Q: What has changed since the last data request?

A: LANDFIRE still collects data once a year but has extended the data submission deadline to January 31 of each year. While data can be submitted at any time throughout the year, LANDFIRE will draw all available and usable data by **January 31 of each year**. Data submitted before January 31 will be evaluated for inclusion into the next LANDFIRE update cycle. Data submitted after January 31 will be considered in subsequent LANDFIRE update cycles.

Q: Will we be contacted again in the future for my data given this annual change?

A: LANDFIRE will send e-mail reminders to those folks that have contributed in previous years. LANDFIRE may also route future letters like this through both, line and staff as well as direct contact with data managers with a reminder to provide your data. Ultimately it is the local staffs' responsibility to provide your data if you want your information represented in the suite of data products to inform and improve decision support.

Q: What types of data are needed for LANDFIRE?

A: We need data that can be used to update LANDFIRE data layers, as well as data that could be used to remedy known concerns with the current LANDFIRE layers. In a nutshell, we are asking for Event data on any recent disturbances or vegetation/fuel treatments that would have altered the composition or structure of vegetation and/or fuel. In addition to Event data, LANDFIRE also benefits from contributions of point or polygon vegetation or fuel plot data.

> **Q: What type of Event (disturbance and vegetation/fuel treatment) data are need for LANDFIRE?**
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> A: LANDFIRE's focus for the current data draw is to collect disturbance and vegetation/fuel treatment data or Event data for 2013. This data will be evaluated for incorporation into a LANDFIRE Events geodatabase depicting disturbance and vegetation/fuel treatment activities. Events data are first priority for periodic updates (LF2008, LF2010, LF2012, etc). The information in the Events geodatabase is used to update existing vegetation and wildland fuel layers to reflect changes in landscape conditions. If your organization possesses older or newer Event data, LANDFIRE will archive the data for evaluation and potential use in future mapping updates or comprehensive remaps.
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> Event data needs include spatial polygon layers of 1) wildland fires, 2) harvest/thinning activities, 3) mechanical vegetation/fuel treatments, 4)

seeding/planting, 5) chemical treatments, 6) storm damage, 7) insect and disease infestations, 8) and exotic plant infestations. The polygon layers should contain the following information (i.e., attributes), at minimum:

- The event must be represented by a polygon on the landscape and have a defined spatial coordinate system.
- The event must have an event type needed for LANDFIRE updates. If exotics perimeter data there must be exotics plant species listed.
- The event must be attributed with the year of occurrence.

Supporting information, including definitions of the fields and any codes in the data tables, should accompany the data to ensure that they can be interpreted correctly.

Q: What types of LFRDB (vegetation or fuel plot) data are needed for LANDFIRE?

A: In addition to Event data, LANDFIRE also benefits from contributions of any geo-referenced point or polygon vegetation or fuel plot data along with any associated digital photos, project descriptions, or final reports. These data are incorporated into the LANDFIRE Reference Database (LFRDB) and are first priority for mapping and remapping updates (LF2001, LF2015, etc) The geo-referenced vegetation and/or fuel plot data should afford some combination of the following from each sampling unit (for example, plot or transect):

- geo-reference with defined coordinate system – required for all sampling units,
- sampling date,
- cover type and/or potential vegetation type label,
- full or partial list of plant taxa with estimates of canopy cover and height (if available),
- measurements of individual trees (may include diameters, height, crown base height, crown ratio, crown class, and/or density),
- counts or biomass estimates of fine and coarse woody material,
- depths or biomass estimates of litter and duff layers,
- Biomass of live and dead shrub or herbaceous material

In the event that individual trees have been mapped within the sampling unit (i.e., if data were collected following a protocol similar to that of the USFS Forest Inventory and Analysis Program (FIA)), we ask that you include the coordinates (or distance and azimuth from mapped plot center) for each of the trees, as those data would enable us to model tree canopy cover ideally suited for LANDFIRE's remote-sensing applications.

Supporting information, including definitions of the fields and any codes in the data tables, should accompany the data to ensure that they can be interpreted correctly. Any associated digital photos, project descriptions, or final reports are also appreciated.

Q: In what format do you need the data?

A: We will accept Event data (disturbance and vegetation/fuel treatment data) in various formats, including ESRI shapefiles, geodatabases, and ArcInfo coverages. Supporting

information, including definitions of the fields and any codes in the data tables, should accompany the data to ensure that they can be interpreted correctly.

If you have LFRDB data (vegetation and/or fuel plot data) to share, we're even more flexible in terms of data format. We'll gladly accept digital data in, text files, spreadsheets, relational databases, ESRI shapefiles or geodatabases, and ArcInfo coverages – whichever is most convenient for the contributor. Coordinate information, including map datum, can be bundled with the other attribute information or in a separate, linked file, or data form. Supporting information, including definitions of the fields and any codes in the data tables or data-entry forms, should accompany the data to ensure that they are accurately represented in the LANDFIRE reference database.

Q: We have some of the types of data you've requested, but not all of them. Can you use our subset of the data?

A: Yes, we likely can. Your data need not contain the full suite of vegetation/fuel or disturbance/treatment activity information that we've listed as examples in order to be useful to us. Any subset of those data likely can be used to support some aspect of LANDFIRE. The primary requirement is that the information be reliably geo-referenced with the coordinate system (including map datum and projection parameters) fully defined.

Q: How big must a fire or other event be for LANDFIRE to take into account when making changes to the vegetation and fuel layers? Is there a lower size limit to the perimeters we should submit?

A: We are not putting a lower size limit on the disturbances or vegetation/fuel treatments for which we're seeking data. Please submit all data. This type of coordinated national effort has not been done before so potential uses for a database of this type may be extremely valuable for other applications. While we can lean on, say, MTBS (http://mtbs.gov/) for remotely sensed data on large fire events (>500 ac in the East), smaller treatments and disturbances are apt to be accounted for in LANDFIRE only if we receive information directly from the various administrative units. Newer Landsat image data mining processes such as Vegetation Change Tracker (VCT) and Remote Sensed Landscape Change (RSLC) will potentially allow us to detect smaller treatments and disturbances. Data contributed on all sized events are critical in labeling the type of disturbance or treatment associated with changes in the Landsat images.

Q: You ask for "information that can be used to improve the existing maps of vegetation and fuel". Will you provide some examples of the information you're requesting? Does it need to be in a particular format?

A: One of the objectives of the LANDFIRE updates is to address discrepancies between map products and known field conditions. To that end, we are asking for feedback information from you to let us know where these discrepancies or issues exist and to provide information that will help us improve the data with actual conditions on the ground. Here are some examples of how you can communicate feedback information to us, in order of increasing utility:

1. *A narrative.* Simply provide a description of the concern you have with a current LANDFIRE data layer. For example, you could explain that LANDFIRE mapped a substantial amount of recently harvested forest as agricultural lands within your area of interest and therefore both the vegetation and fuel layers have errors that you hope will be addressed

during LANDFIRE updates. Be sure to include as much detail as possible in the description of the issue(s) at hand and the requested change(s).

2. *A narrative plus geo-spatial data illustrating the issue(s) at hand.* Same as 1 above but include a polygon shapefile or coverage exemplifying significant misrepresentations of ground conditions in the current LANDFIRE data products. For example, you could include a set of polygons delineating what you know to be recently harvested forest in areas that LANDFIRE has mapped as agriculture with your narrative regarding this issue.

3. *A narrative plus one or more existing data layers with information that depicts your area of interest.* Same as 1 above, but including an existing vegetation or fuel map (as a GIS layer) that you believe reflects conditions on the ground. Please be as specific as possible with regard to the way(s) in which the dataset you are providing is an improvement over the LANDFIRE layer in question. For example, send with your narrative regarding the layer and locations in question, a copy of a non-LANDFIRE vegetation layer or edited LANDFIRE layer that classifies or discriminates the issue you are addressing. We will use this information for reference when trying to address the issue.

4. *A narrative plus a version of the current LANDFIRE data product that you have edited to address the issue at hand.* Same as 1 above, but include a copy of the LANDFIRE layer in question in which pixels have been reclassified in the way you hope to see them changed. Please include in your narrative as much information as possible about the edits that you have made and the rationale behind the changes.

Q: How do you intend to use the feedback information that we submit "to improve the existing maps of vegetation and fuel"? Will it be "stamped" or otherwise incorporated directly into the LANDFIRE layers?

A: We will use the narratives and supporting GIS data that you submit as reference materials to (1) understand the issue(s) that you raise, (2) develop a systematic approach for potentially making the desired changes, and (3) evaluate our efforts to improve the products. We will NOT simply substitute or "stamp in" the ancillary data in place of LANDFIRE data. Also please understand that while we will evaluate all contributed information and make a concerted effort to address the issue(s) raised, we anticipate that some requested changes will fall outside the scope of LANDFIRE updates or may be otherwise impossible to make due to limitations of the information provided and/or other resources at our disposal.

Q: When do you need the data?

A: While data can be submitted at any time throughout the year, LANDFIRE will draw all available and usable data by **January 31 of each year**. Data submitted before January 31will be evaluated for potential inclusion into the next LANDFIRE update cycle. Data submitted after January 31 will be considered in subsequent LANDFIRE update cycles.

Q: We have submitted data to LANDFIRE in the past, how can I verify LANDFIRE has my data?

A: To date, LANDFIRE has acquired many data-sets including, disturbance and vegetation/fuel treatment perimeters (Events data), vegetation and fuel plot data (LFRDB) and feedback information (Feedback data), which were used to support LANDFIRE mapping and updating efforts.

By referencing the Compiled Data table you can determine if LANDFIRE has already collected your data. For a copy of the Compiled Data Table please visit http http://www.landfire.gov/participate_refdata_sub.php. The priority for this data draw is to collect disturbance and vegetation/fuel treatment data from 2013. Please note the *Time Span* field in the table to determine if the most recent data for your area has been contributed.

In addition, LANDFIRE obtains data from several web-based data clearing houses and agency/corporate database systems. The Website Agency DB Table provides a complete list of websites or agency database systems from which LANDFIRE draws data. For a copy of the Website Agency DB Table please visit http://www.landfire.gov/participate_refdata_sub.php. If you store data on one of the websites or agency data bases listed in this table, please verify that a current version of your data are posted to ensure that this data will be evaluated for use in the next LANDFIRE update cycle.

Q: We have submitted similar information to a web-based data clearing house such as the NPS Data Store or an agency/corporate database system such as USFS-FACTS (Forest Service ACtivity Tracking System). Why don't you simply download the information you need from those existing websites or agency databases?

A: LANDFIRE does draw data from several web based data clearing houses including the NPS Data Store, USGS/NPS Vegetation Characterization Website, and USFS Regional Data Clearing houses. LANDFIRE also acquires data from agency/corporate database systems such as USFS FACTS (Forest Service ACtivity Tracking System) and USFS NRIS (Natural Resource Information System). The Website Agency DB Table provides a complete list of websites or agency database systems from which LANDFIRE draws data. For a copy of the Website Agency DB Table please visit http://www.landfire.gov/participate_refdata_sub.php. If you store data on one of the websites or agency databases listed in this table, please verify that a current version of your data are posted to ensure that this data will be evaluated for use in the next LANDFIRE update cycle.

Q: Will LANDIFRE accept data in hard copy and digitize it?

A: Although this was an offer that we made during the initial development of LANDFIRE 2001 National, the complexity of adding in polygon data has precluded us from being able to continue with this offer. We do not have the time or resources at this time to digitize data.

Q: What if my data are proprietary?

A: All data that we receive for LANDFIRE that are not already in the public domain are considered to have been provided to us for internal use only. We will send an official information request to all data contributors asking their permission to share their data before incorporating the information into a public version of the Events or LFRDB. We will gladly enter into formal data sharing agreements if you are concerned about sharing proprietary data. Please contact Brenda Lundberg, the LANDFIRE Reference Data Administrator, at (406) 329-3405 or blundberg@usgs.gov if you wish to share proprietary or otherwise sensitive information and/or would like to enter into a formal agreement with LANDFIRE before sending the data. For more information on the public version of the LFRDB or Events data please visit http://www.landfire.gov.

Q: How do we submit data to LANDFIRE and who should we contact if we have questions?

A: If you have questions or would like to submit data please contact Brenda Lundberg, LANDFIRE Reference Data Administrator. You may email datasets smaller than 10MB to Brenda Lundberg at blundberg@usgs.gov. If the files are too large to send via email or if you need to send some hard-copy information, you can mail to:

Attn: Brenda Lundberg,
LANDFIRE RM G-70

US Forest Service
Region One Regional Office
PO Box 7669
Missoula, MT 59807

If mailing data please include your name, number, and email so we have a point of contact for the contributed data. Alternatively, you can ftp large electronic data files. Please contact Brenda Lundberg at (406) 329-3405 or blundberg@usgs.gov for more information.