



NE – Use LANDFIRE Data – Fall 2020:

AGENDA:

- Tools for using LANDFIRE Data.
- How to review LANDFIRE Data
- Submitting feedback to LANDFIRE

LANDFIRE

Landscape Fire and Resource Management Planning Tools Project

- Comprehensive
- Consistent
- Compatible
- Current



LANDFIRE is a program that provides over 20 national geo-spatial layers (e.g. vegetation, fuel, disturbance, etc.), databases, and ecological models that are available to the public for the US and insular areas. [Learn more...](#)



LANDFIRE ... [more than fire](#)

Wildland Fire Leadership Council



Interagency Partnership Work





How-to: Tools



1. Get Data and/or Review – Overview

Data can be accessed several ways ---

Offline use – for use in ArcMap

- ❖ LANDFIRE.gov
- ❖ LFDAT
 - ❖ LANDFIRE Data Access Tool
- ❖ Data as Service
 - ❖ Web Coverage Service (WCS) / Representational State Transfer (REST) Calls
 - ❖ Landscape Service

❖ Other – e.g. Forest Service T: drive

Online use

- ❖ IFTDSS
 - ❖ Interagency Fuel Treatment Decision Support System
- ❖ WFDSS
 - ❖ Wildland Fire Decision Support System
- ❖ ArcGIS Online
 - ❖ Link to data from LANDFIRE.gov
- ❖ LANDFIRE Data Product Review Website (More on this later)

For more information visit

https://landfire.gov/participate_refdata.php

<https://landfire.nkn.uidaho.edu/>



How-to: Tools - LFTFC



LFTFC - LANDFIRE TOTAL FUEL CHANGE TOOL

•The LANDFIRE Total Fuel Change Tool, or LFTFC Tool, is an ArcGIS toolbar that links to a set of fuel rules stored in a Microsoft Access database.

•The tool quickly translates user-defined fuel rules into spatial layers, allowing for iterative changes to LANDFIRE fuels data.

•Inputs to the LFTFC Tool:

- Biophysical Setting (BpS)
- Existing Vegetation Type (EVT)
- Existing Vegetation Cover (EVC)
- Existing Vegetation Height (EVH)
- “Fuel Disturbance” (Fdist)

Range of Cover	Range of Height	BPS	Wild	FM13	FM40	CanFM	FCCS	FLM	CG	CC
10%- 69% Tr...	5(m)- max Tr...	any	any	9	TL6 ...	9999	9999	9999	2	9...
70%- 79% T...	0(m)- 10(m) Tr...	any	any	9	TL6 ...	9999	9999	9999	2	9...
70%- 79% T...	10(m)- 25(m) T...	any	any	8	TL2 ...	9999	9999	9999	2	9...
70%- 79% T...	25(m)- 50(m) T...	any	any	9	TL6 ...	9999	9999	9999	2	9...
80%- 100% T...	0(m)- 50(m) Tr...	any	any	8	TL2 ...	9999	9999	9999	2	9...



How-to: Tools - LFTFC



LFTFC Tool's outputs are created in ARC GIS by Mapzone and consist of:

–Surface Fuel Grids:

- Fire Behavior Fuel Model 13 (FBFM 13)
- Fire Behavior Fuel Model 40 (FBFM 40)

–Canopy Fuel Grids:

- Forest Canopy Cover (CC)
- Forest Canopy Height (CH)
- Forest Canopy Bulk Density (CBD)
- Forest Canopy Base Height (CBH)

Range of Cover	Range of Height	BPS	Wild	FM13	FM40	CanFM	FCCS	FLM	CG	CC
10%- 69% Tr...	5(m)- max Tr...	any	any	9	TL6 ...	9999	9999	9999	2	9...
70%- 79% T...	0(m)- 10(m) Tr...	any	any	9	TL6 ...	9999	9999	9999	2	9...
70%- 79% T...	10(m)- 25(m) T...	any	any	8	TL2 ...	9999	9999	9999	2	9...
70%- 79% T...	25(m)- 50(m) T...	any	any	9	TL6 ...	9999	9999	9999	2	9...
80%- 100% T...	0(m)- 50(m) Tr...	any	any	8	TL2 ...	9999	9999	9999	2	9...



How-to: Review LANDFIRE data



2. Evaluating LANDFIRE data

LANDFIRE can be used right away for a quick output and check of results. It is always **best to review, validate, or calibrate any data** for your purposes.

Here are some possible steps to help review the LANDFIRE data.

1. Define **objectives**
2. Download data in the **proper projection**
3. Consider your projects relation to **LF map zones**
4. Get a list of natural or man-made **disturbances**
5. Run fire behavior and evaluate outputs
6. Assess the **range and distribution of values** for each theme
7. Confirm **non-burnable** areas
8. Combine several layers; evaluate relationships
9. Compare LF values to **field measured values**.
10. Run data in Models / Compare **fire behavior** outputs to observed or expected fire behavior
11. Compare predicted crown fire and flame length areas of measured high **fire severity**
12. Compare predicted fire growth, to actual **fire perimeters**

This process will **create a framework for becoming more familiar** with your area and LANDFIRE data. It will provide knowledge and confidence with the data.



How-to: Feedback on LANDFIRE data



3. Suggesting changes to LANDFIRE

Feedback helps LANDFIRE:

- Understand the issue(s)
 - {Need the details (version, location, description, etc.)}
- Develop systematic approaches for potential updates
- Prioritize improvements

Example suggestions/feedback:

1. Area improvements - disturbances that have occurred in your area that have not been recorded.
2. Blanket improvements – consistent differences between LANDFIRE and what you have observed on the ground. Examples:
 1. Fuel Model - An area classified as Timber Understory but you have observed that it burns more like a Grass Shrub fuel model.
 2. Fuel Model and Elevation – Above 6500 ft. the Grass fuel model burns more like a Timber Litter fuel model.
 3. Canopy Base Height – comparing modeled to observed fire behavior --- consistently not transitioning to crown fire.

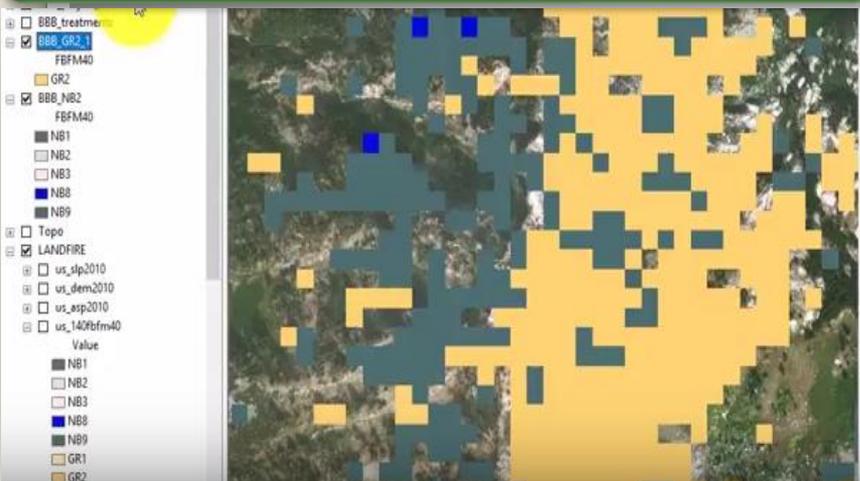


How-to: Feedback on LANDFIRE data



3. Providing feedback to LANDFIRE

Submit feedback to the **LF Helpdesk**



Home About Data Products Contribute Data Methods & Applications Improvements Search Help

DATA

Reference Disturbance Vegetation Fuel Fire Regime Topographic Seasonal

Homepage - LANDFIRE Helpdesk

Contact Us

Please fill out the form below if you have questions or want to provide feedback for the LANDFIRE team.
Hours of operation: Monday - Friday, 8:00 a.m. to 4:00 p.m. Central Time
(You should receive a confirmation email from the Helpdesk within one business day. If you do not, please resubmit your question or feedback directly to helpdesk@landfire.gov.)

NOTE: Users may experience intermittent service Thursday evenings due to routine maintenance.

First Name: _____
Last Name: _____
Email: _____ **Email: helpdesk@landfire.gov**
Subject: _____
Feedback/Concerns: _____

I'm not a robot

Submit

LANDFIRE Listens
A summary of user feedback received from October 2015 through September 2016.

It is important to understand that LANDFIRE does NOT simply substitute or "stamp in" the ancillary (feedback) data in place of LF data but uses it to inform data improvements.

John Ashcraft: Phragmites occurs in relatively small areas(it is common near urban interface areas) compared to the larger NE assessment area. Phragmites can have some of the highest fire intensities (however, near the low end of the crown fire intensities). Some of my areas with phrag are showing as a GS2 instead of appropriately being labelled as a GR8 in LANDFIRE.

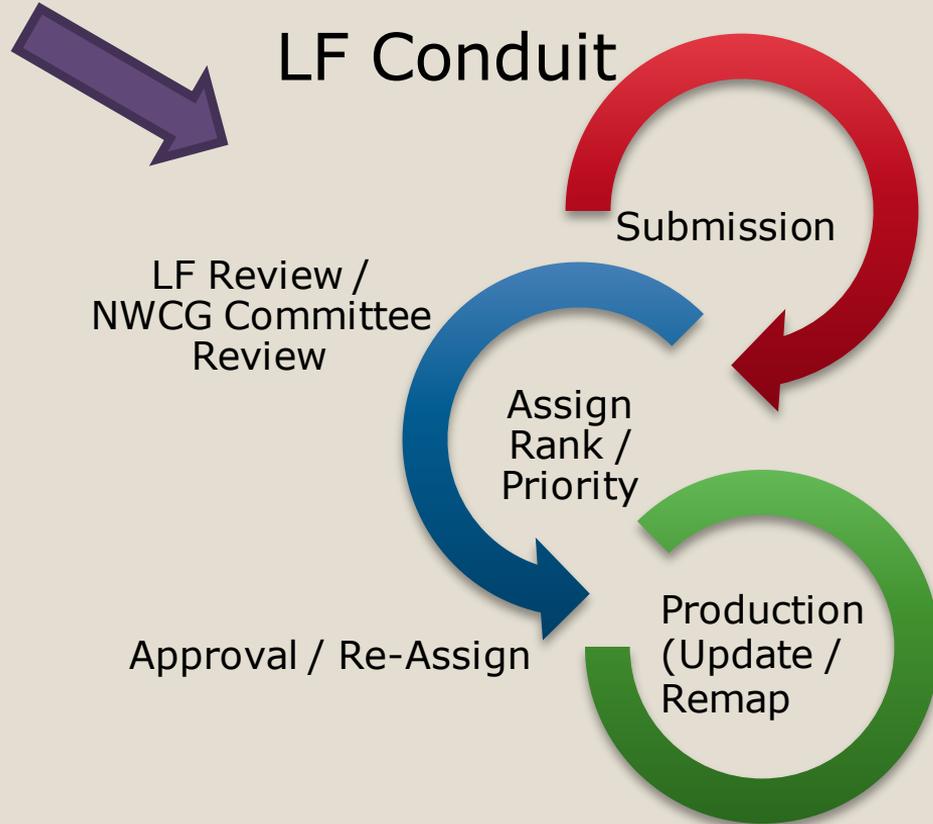


Feedback



Feedback

Review Example



- User Feedback - HelpDesk / LF Data Product Review Website

- Automation Rank
- Size Rank
- Geographic Priority Rank
- Production Capability
- Science / Research ?

Help Desk Goals

LF Helpdesk

- Provide a better customer experience – better access to the experts... **that's you**
- Provide more transparency, management and reporting to the LANDFIRE Help Desk process – **Reporting capability**
- Provide a mechanism for **collecting and managing** external contacts with the LANDFIRE Team – Help Desk management system (Kayako)
- Systematic **Issues database** collection

Process: Normal Case

1. Inquiry comes to LF Help Desk
2. Inquiry Event ID created,
 1. Automated response generated (Thanks for contacting)
3. Answer Follow up:
 1. Front line support questions
 1. Follow up on user inquiry - Close front line inquiries
 2. Forward to 2nd line SMEs
 1. Monitor resolution of 2nd level SME information
4. Update status and or close inquiry

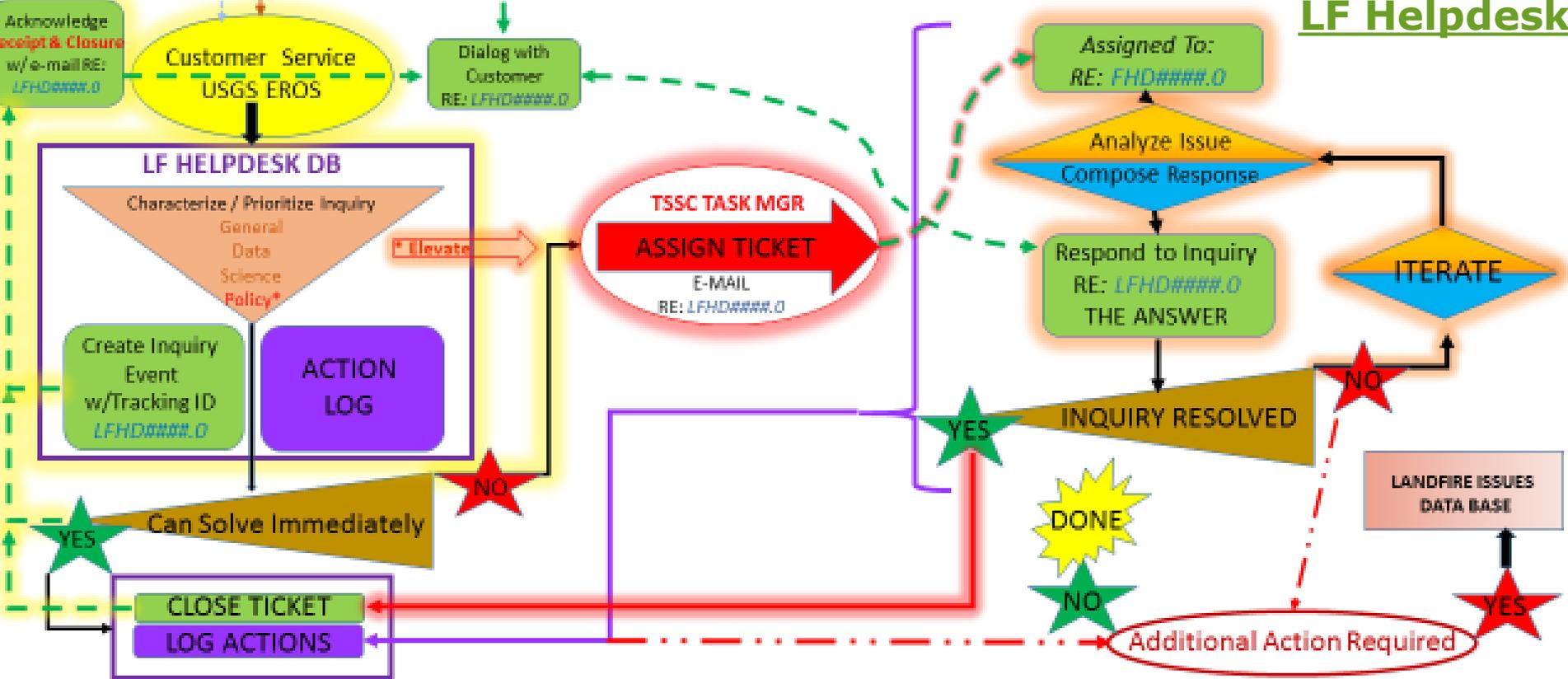
EROS LANDFIRE HELPDESK FLOWCHART

DOI, USDA, TNC, USFS, USGS

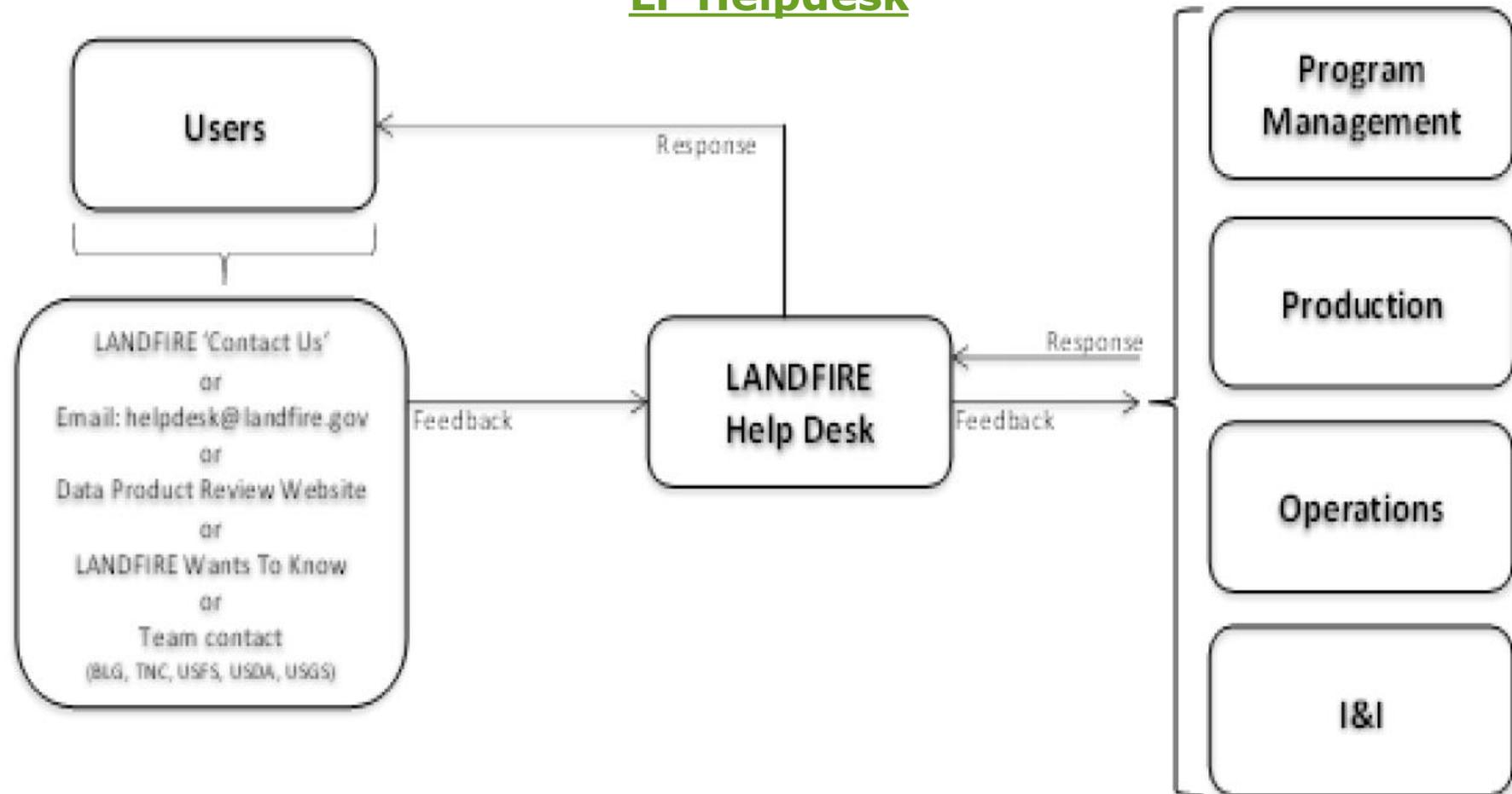
HELP !

WEB FORM E-MAIL PHONE CALL SOCIAL MEDIA TEAM CONTACT

LF Helpdesk



LF Helpdesk



LANDFIRE Data Product Review Website

Secure | <https://landfire.nkn.uidaho.edu>



How: To get an account set up so you can provide feedback on the LANDFIRE vegetation and fire behavior fuel products, please send an email to: landfire@northwestknowledge.net.

Existing Vegetation Type, Fire Behavior Fuel Models, and Disturbances Data Product Review



USDA Forest Service & Department of the Interior
LANDFIRE Data Product Review Website



Would you use a site like this?

Is the site structure / organization helpful to you in providing feedback?

LANDFIRE Data Product Review

Objectives

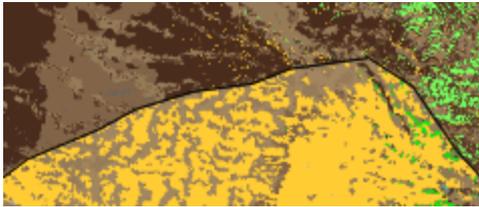
1. Collect site- or zone-specific information, comments, and recommendations for map layers and associated data
 - Result - improved quality of future LANDFIRE map layers and associated quantitative and descriptive information
2. Feedback from you/your team on specific applications (*remember to submit to LANDFIRE for potential modifications*)
 - Result –improved quality of future LANDFIRE products



LANDFIRE Data Product Review

Common Map Layer Issues

- Disagreement with map unit (value) assignment
- Two different map unit (value) assignments at zone boundary (seam) not associated with environment change



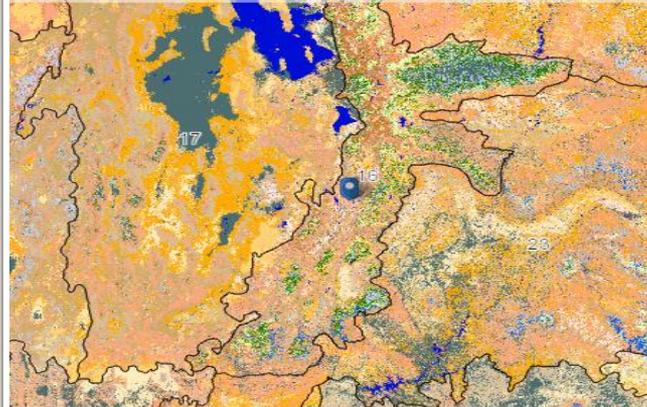
- Map unit methods for primary maps (EVT, Disturbances, EVC, EVH, BPS, ESP)
- Map unit rule from subsequent maps (FBFM, SCLASS, etc)

- Identify LF Fire Behavior Fuel Model (FBFM) & Existing Vegetation (EV) disagreement with both field knowledge & virtual checking in specific areas of concern
- Map unit (value) occurs locally but not in map legend



Form below. This map uses the following data: LANDFIRE 2012 Fire Behavior Fuel Model 40 Spatial Data Product

Please select a zone



Home » FBFM40 Map » FBFM40 Map

Caution - this map contains provisional information. If you find an error, please notify us using the comment form below. This map uses the following data: LANDFIRE 2012 Fire Behavior Fuel Model 40 Spatial Data Product

Fuel Model [Select]

Base Map [Topo]

Please select a zone

Zone Number	Zone Name
1	Northern Cascades
2	Oregon Coastal Range
3	Northern California Coastal Range
4	Southern California Coastal Range
5	California Central Valley
6	Sierra Nevada Mountain Range
7	Cascade Mountain Range
8	Grande Coulee Basin of the Columbia Plateau
9	Blue Mountain Region of the Columbia Plateau
10	Northwestern Rocky Mountains
12	Western Great Basin
13	Death Valley Basin



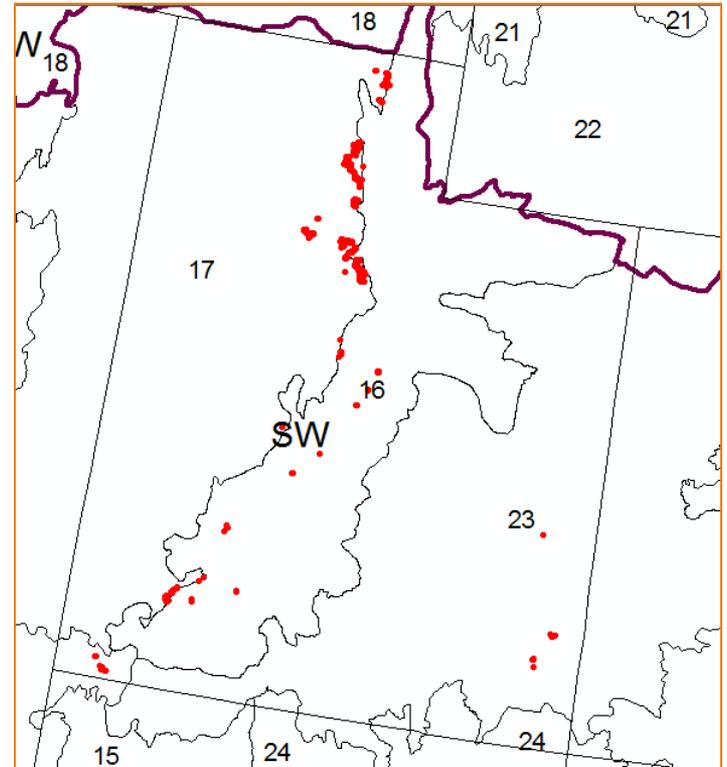
User quickly zooms to area (e.g. Utah). Assesses Topo map, Image map, FBFM40 map, & EVT map in areas of interest.

Utah Example:

Polygons – recommended changes of pixels within these polygons to FBFM NonBurnable (NB) 91, 93, 98, or 99 – recommend NB FBFM where LF indicates some mosaic; example of shape file data in images

ControlAreasFromUT

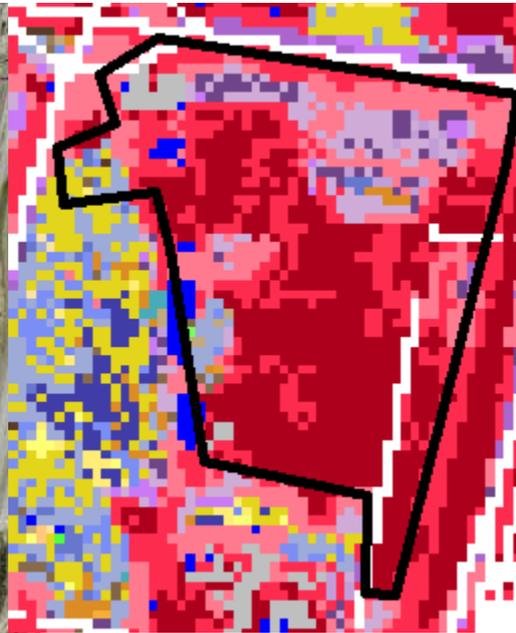
	FID	Shape *	SHAPE_Leng	SHAPE_Area	Change_to_
▶	133	Polygon	3926.358487	669175.688833	91
	134	Polygon	2088.766798	191636.741994	91
	135	Polygon	1508.57946	146863.522249	91
	136	Polygon	3181.560243	632381.479351	91
	137	Polygon	3348.884321	614810.436922	91
	138	Polygon	3207.494785	642466.039887	91
	139	Polygon	4121.946098	848501.51672	91
	140	Polygon	719.194049	31217.275043	91
	142	Polygon	1360.203331	124378.124898	91



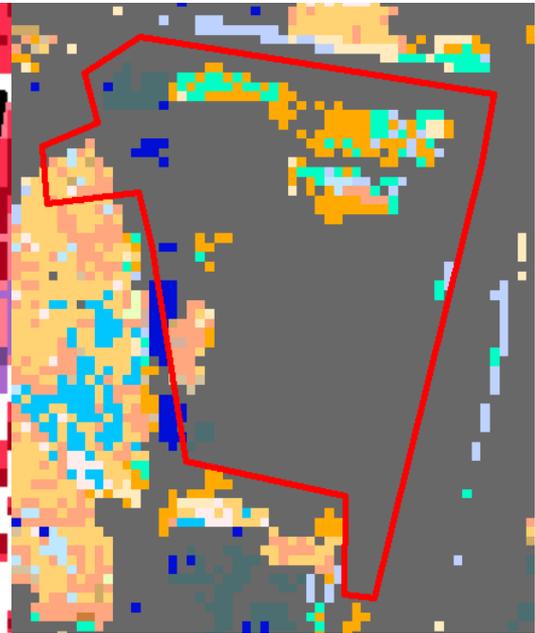
Utah Polygons -one example



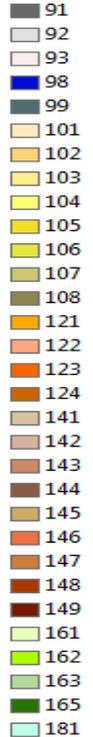
Imagery



LF EVT



LF FBFM40



To auto-populate this form:

1. Use the map above to select a Fuel Model and a Zone.
2. Zoom into the area of interest.
3. Click the Capture Data button (above the map), then click a point on the map specific to your comment.
4. Scroll down to the form and check to see that your values have been added.
5. Continue filling out the remaining form fields.
6. When you are finished, click the Submit button.

Zone *

Latitude (decimal)

Longitude (decimal)

Does your recommendation occur in an Adjacent Zone? * No Yes Unknown

What is the Adjacent Zone?

Current Fuel Model *

This is the currently mapped fuel model.

Recommended Normal Fire Behavior

What should the NORMAL fire behavior be?

Recommended Severe Fire Behavior

What should the SEVERE fire behavior be?

Type of Visit * Field Visit Virtual Visit

Is this comment based on an actual field visit or a virtual visit?

User Analysis

Extent

Select the scale on which your comment applies. Please describe in detail in the Comment field. If you select Local Management Area, you may wish to upload:

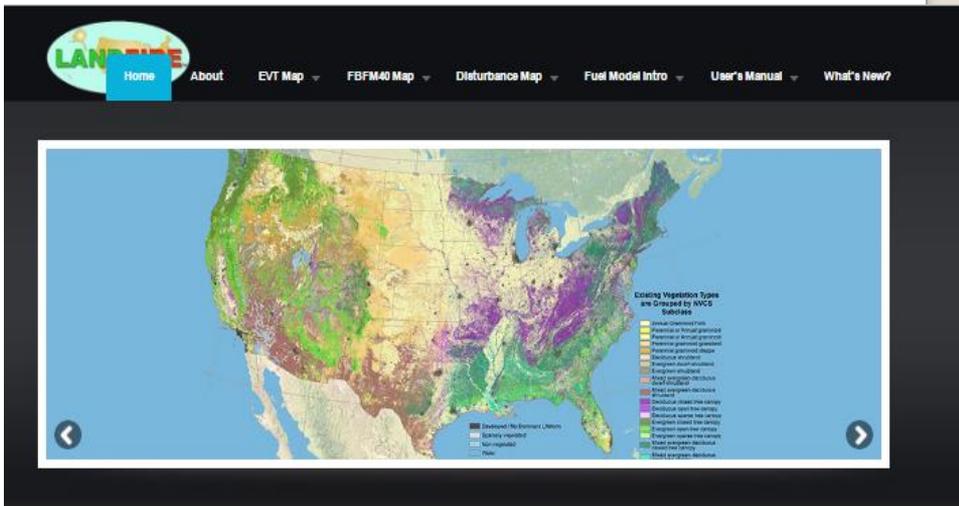
Related File or Image ControlAreasFromUT.zip

Files must be less than 2 MB.

Allowed file types: gif jpg jpeg png txt pdf doc docx xls xlsx zip kml kmz.

Comment *

 Secure | <https://landfire.nkn.uidaho.edu>



The screenshot shows the LANDFIRE website interface. At the top, there is a navigation menu with links for Home, About, EVT Map, FBFM40 Map, Disturbance Map, Fuel Model Intro, User's Manual, and What's New. Below the menu is a large map of the United States, color-coded by vegetation type. A legend on the right side of the map is titled "Cropping Vegetation Types are Grouped by NVCS Subclass" and lists various vegetation types with corresponding color swatches. The map includes navigation arrows on the left and right sides.

Welcome To LANDFIRE's Data Product Review Website

To auto-populate this form:

1. Use the map above to select a Fuel Model and a Zone.
2. Zoom into the area of interest.
3. Click the Capture Data button (above the map), then click a point on the map specific to your comment.
4. Scroll down to the form and check to see that your values have been added.
5. Continue filling out the remaining form fields.
6. When you are finished, click the Submit button.

Zone *

Latitude (decimal)

Longitude (decimal)

Does your recommendation occur in an Adjacent Zone? * No Yes Unknown

What is the Adjacent Zone?

Current Fuel Model *

This is the currently mapped fuel model.

Recommended Normal Fire Behavior

What should the NORMAL fire behavior be?

Recommended Severe Fire Behavior

What should the SEVERE fire behavior be?

Type of Visit * Field Visit Virtual Visit

Is this comment based on an actual field visit or a virtual visit?

User Analysis

Extent

Select the scale on which your comment applies. Please describe in detail in the Comment field. If you select Local Management Area, you may wish to upload a shapefile of your area under "Related File or Image".

Related File or Image ControlAreasFromUT.zip

Files must be less than 2 MB.

Allowed file types: gif jpeg png txt pdf doc docx xls xlsx zip kmz.

Comment *

These data are recommended changes within these polygons in zones 16, 17, & 23 to EBFU48 NB types. The whole area within each polygon is considered non-burnable because of maintenance management for non-burnable fuels. I selected 684 as current for no other reason than it was first in the list. The current EBFU48 within these polygons that are burnable are many and highly variable. This data covers three zones rather than just the two identified in the comment. For further information contact the Utah Wildland fire Risk Analysis Project (UT WRAP).

User enters data about area (e.g. Utah) polygons in website form. Some data can be auto-populated, but because this is very general data most has to be user entered = *{estimate about 5 minutes describing & uploading}*

Submitted Comments

Submitted by whann on February 6, 2017 [edit](#)

Zone:	17 Eastern Great Basin
Lat/Lon:	,
Adjacent Zone:	16 Utah High Plateaus
Fuel Model:	GR1/101
Recommended Normal Fire Behavior:	User submits. Comment & data upload can be edited or downloaded by user or others.
Recommended Severe Fire Behavior:	
Type of Visit:	Virtual Visit
User Analysis:	other (please explain in comments)
Extent:	Pixel area/group
Comment:	These data are recommended changes within these polygons in zones 16, 17, & 23 to FBFM40 NB types. The whole area within each polygon is considered non-burnable because of maintenance management for non-burnable fuels. I selected GR1 as current for no other reason than it was first in the list. The current FBFM40 within these polygons that are burnable are many and highly variable. This data covers three zones rather than just the two identified in the comment. For further information contact the Utah Wildland fire Risk Analysis Project (UT WRAP).
Related File:	ControlAreasFromUT.zip
EVT code:	

Possible feedback for the LFDPR website

1. Field photos or virtual screen captures w/ comments
 1. [associated files (GIS shape, raster, kmz/kml, jpg, xls, mdb, doc, pdf, etc) on FBFM Page or EVT Page



Accumulation of data is user driven to benefit both the area & LANDFIRE future updates or remaps



LANDFIRE Data Product Review

Common Associated Information Issues

- Not aware of information

✓ Descriptions & Data

- May be confused by terminology and coding systems

✓ Relative to EVT – EVT 3000 versus EVT_Fuel 2000
✓ Relative to EVT – non-local long names

- Overwhelming information for local area

✓ Difficulty in determining correct local assignment



LANDFIRE details . . .

- LANDFIRE/GAP Land Cover Map Unit Descriptions
NatureServe Access Database
(Laurentian-Acadian Northern Pine Forest, Eastern Boreal Floodplain Woodland, Appalachian Acidic Peatland Woodland, etc.)
- LANDFIRE/Library
- LANDFIRE Reference Database (LFRDB)
- LFDPR website / Resources Tab
 - ✓ EVT GeoRange, Descriptors & Similar Types
 - ✓ Key to Existing Vegetation Types (EVT)



Developing Auto-Keys for LANDFIRE Vegetation Mapping: 2014-2015 CONUS Project Report

The NatureServe Conservation Science Division

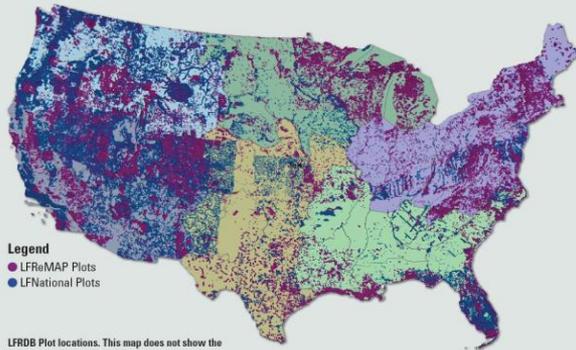


Principle Investigator
Patrick J. Comer
patrick_comer@natureserve.org
703.797.4802

To BLM and the Inter-Agency LANDFIRE Program

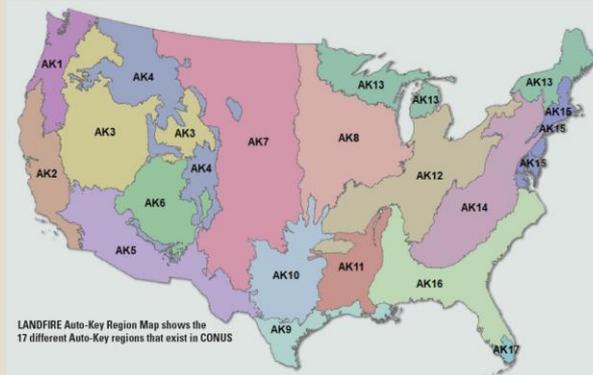
December 2015

Photos: Spruce-Fir Forest on Sandia Mountains, NM (left);
Boreal Parkside Pond, Eastern WA (right)

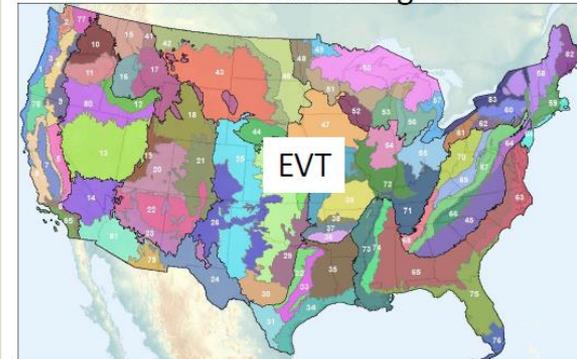


Legend
● LFRMAP Plots
● LFNational Plots

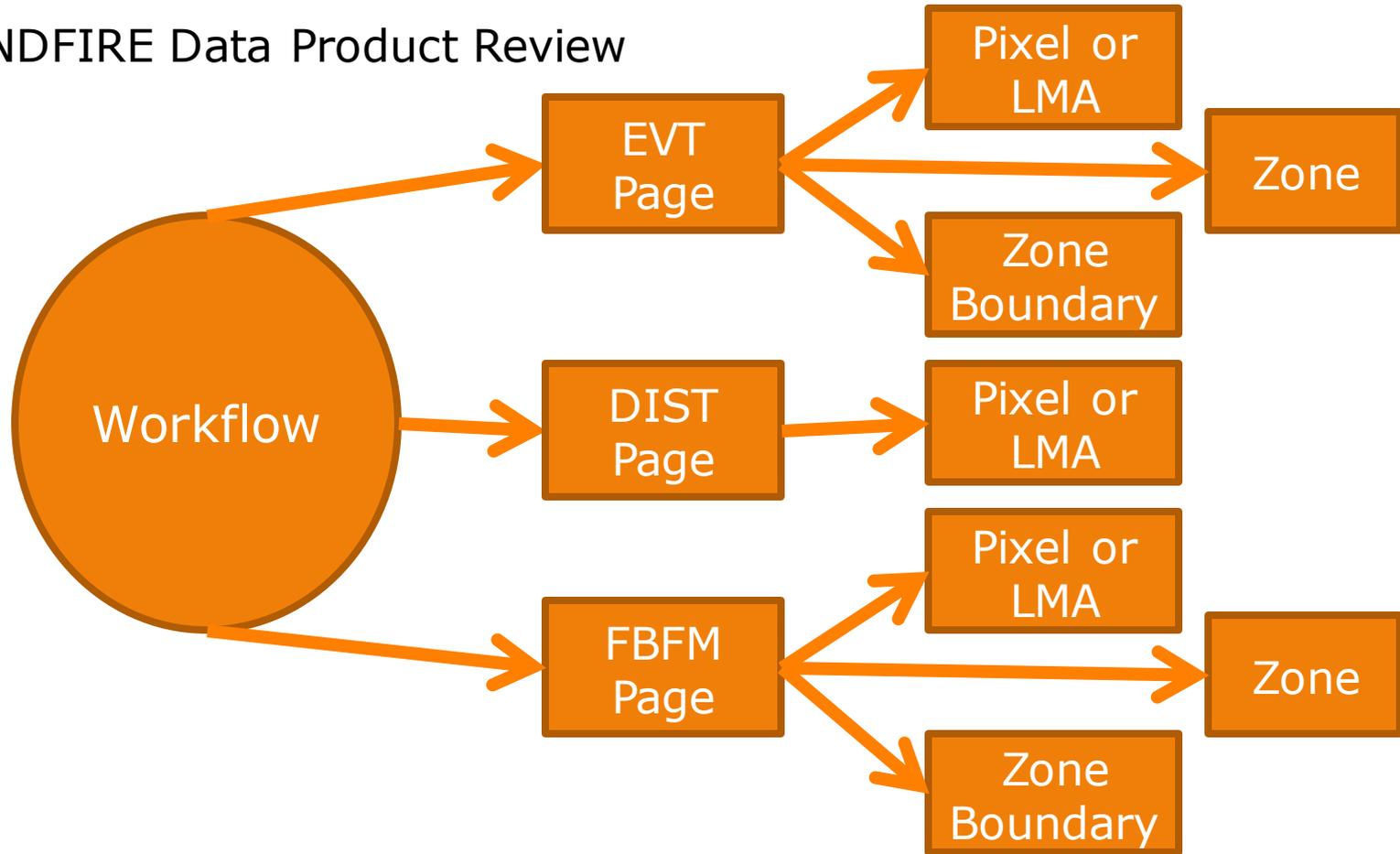
LFRDB Plot locations. This map does not show the locations of FIA or NRI plots.



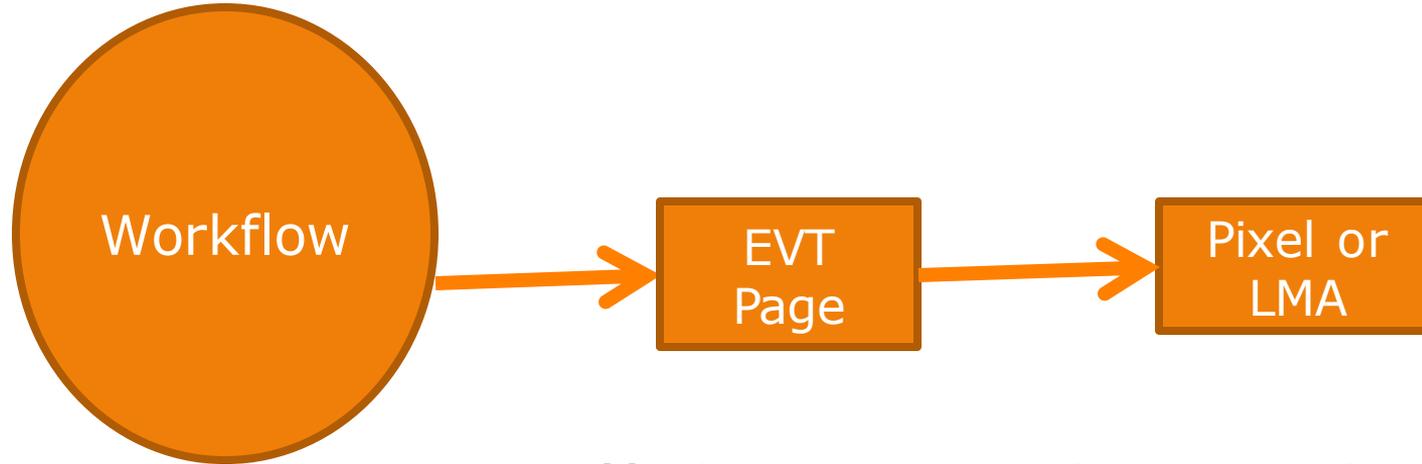
LANDFIRE Auto-Key Region Map shows the 17 different Auto-Key regions that exist in CONUS



LANDFIRE Data Product Review



EVT Page – Pixel Group or Land Management Area (LMA) Workflow



- Most common way to comment
 - Good way to start
- Very valuable to LF & local area/coordination

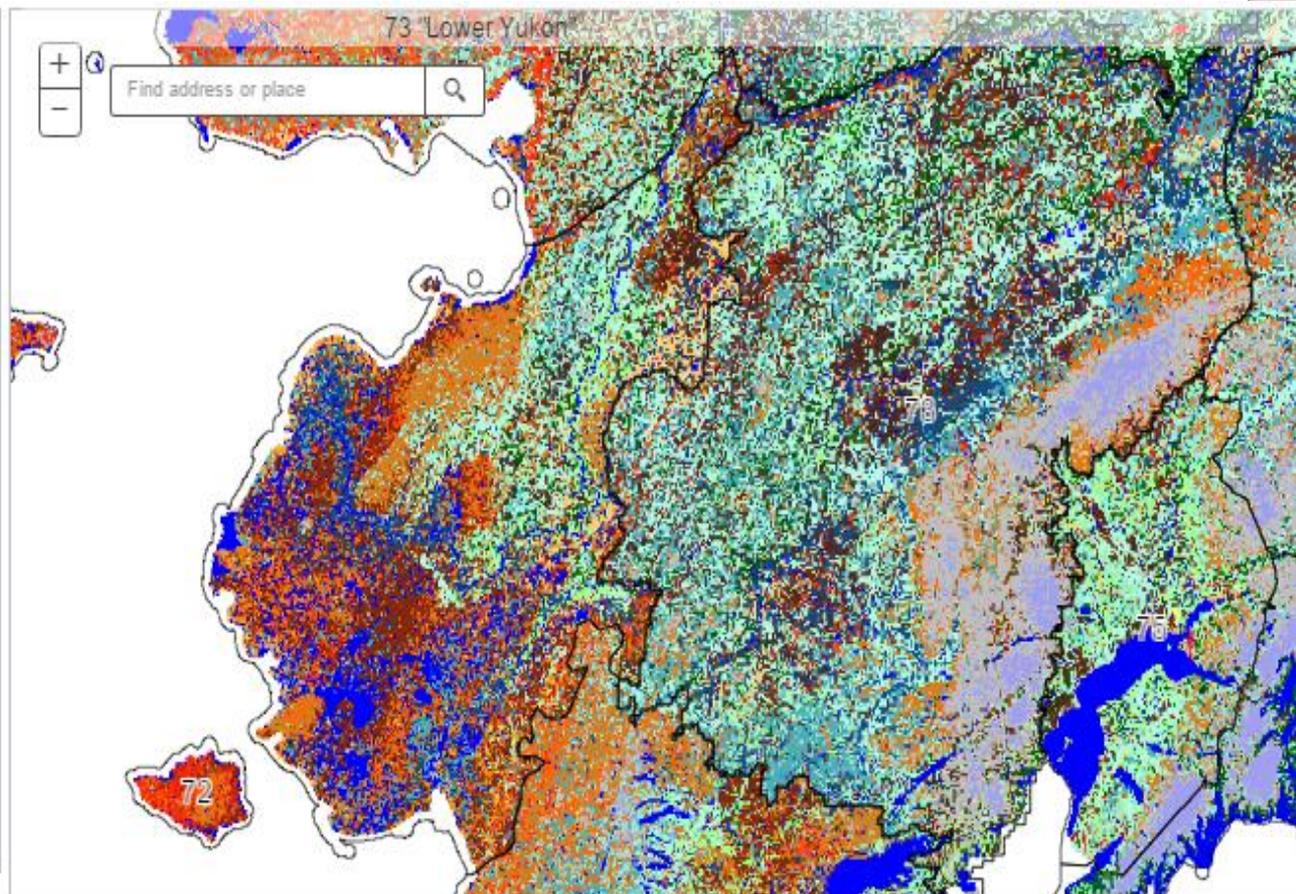
Select a Vegetation Type (Order: Name EVT Code Acres)

[2195] He Recently Burned-Herb and Grass Cover
[2651] He Aleutian Mesic Herbaceous Meadow
[2678] Tr Alaska Sub-boreal Mountain Hemlock-White Sp
[2631] Sh Western North American Boreal Alpine Dwarf-S
[2688] Sh Alaska Arctic Acidic Dryas Dwarf-Shrubland
[2719] Sh Aleutian Crowberry-Herbaceous Heath
[2720] Sh Aleutian Mixed Dwarf-Shrub-Herbaceous Shrub
[2743] He Aleutian Herbaceous Wetlands
[9999] Nodata
[2744] He Arctic Herbaceous Wetlands
[2784] Sh Arctic Shrub Tundra

Base Map: EVT

Zone
Number

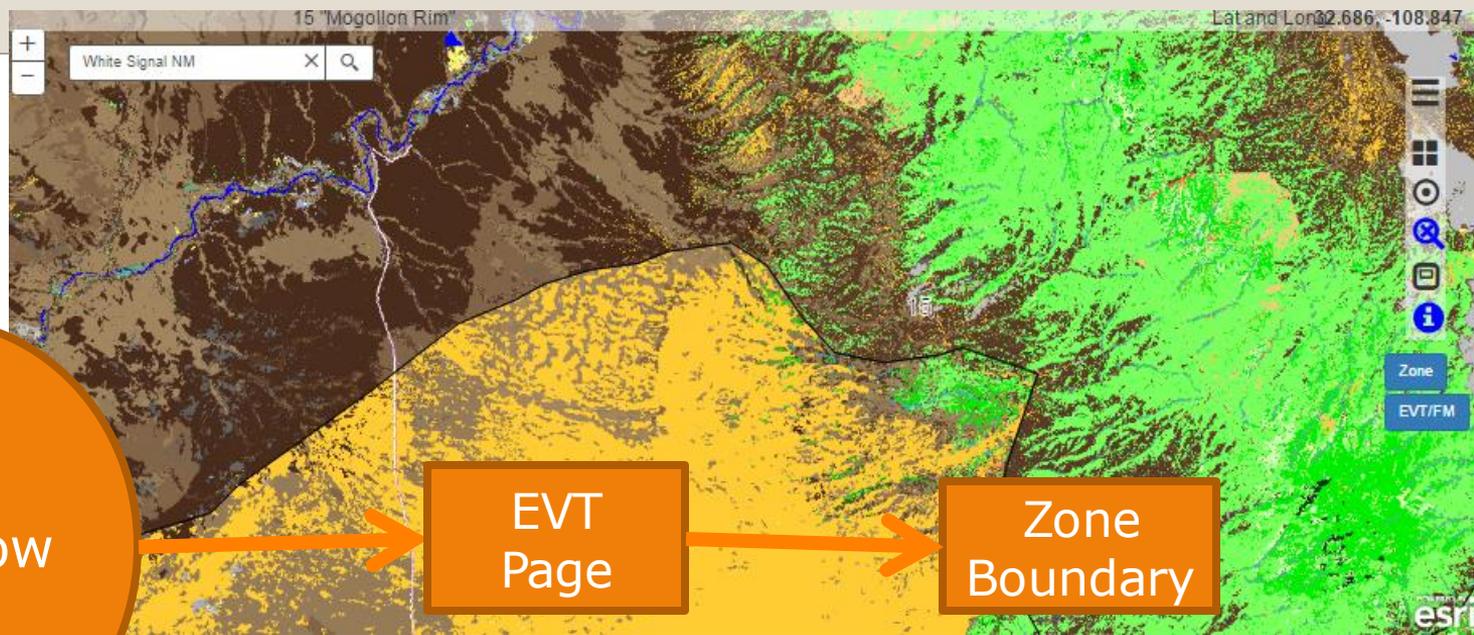
- | | |
|----|--------------|
| 67 | North Slope |
| 68 | Northwest |
| 69 | Brooks Range |
| 70 | Upper Yukon |
| 71 | Koyukuk |
| 72 | Yukon Delta |
| 73 | Lower Yukon |
| 74 | Tanana |



EVT Page – Zone Workflow



- **Most directly applicable to LANDFIRE mapping**
- **User needs to evaluate the whole zone**
- **Very valuable to LANDFIRE & local area/coordination**



Workflow

EVT
Page

Zone
Boundary

- **LANDFIRE mapping may be able to update**
- **User needs to evaluate and provide info for both sides**
- **Very valuable to LANDFIRE & local area/coordination**

Select a Disturbance Type (Order: Code Type)

- [131] | Fire | High Severity | One Year Ago |
- [121] | Fire | Moderate Severity | One Year Ago |
- [112] | Fire | Low Severity | Two to Five Years Ago |
- [111] | Fire | Low Severity | One Year Ago |
- [133] | Fire | High Severity | Six to Ten Years Ago |
- [132] | Fire | High Severity | Two to Five Years Ago |
- [123] | Fire | Moderate Severity | Six to Ten Years Ago |
- [122] | Fire | Moderate Severity | Two to Five Years Ago |
- [113] | Fire | Low Severity | Six to Ten Years Ago |
- [512] | Insects and Disease | Low Severity | Two to Five Years Ago |
- [522] | Insects and Disease | Moderate Severity | Two to Five Years Ago |

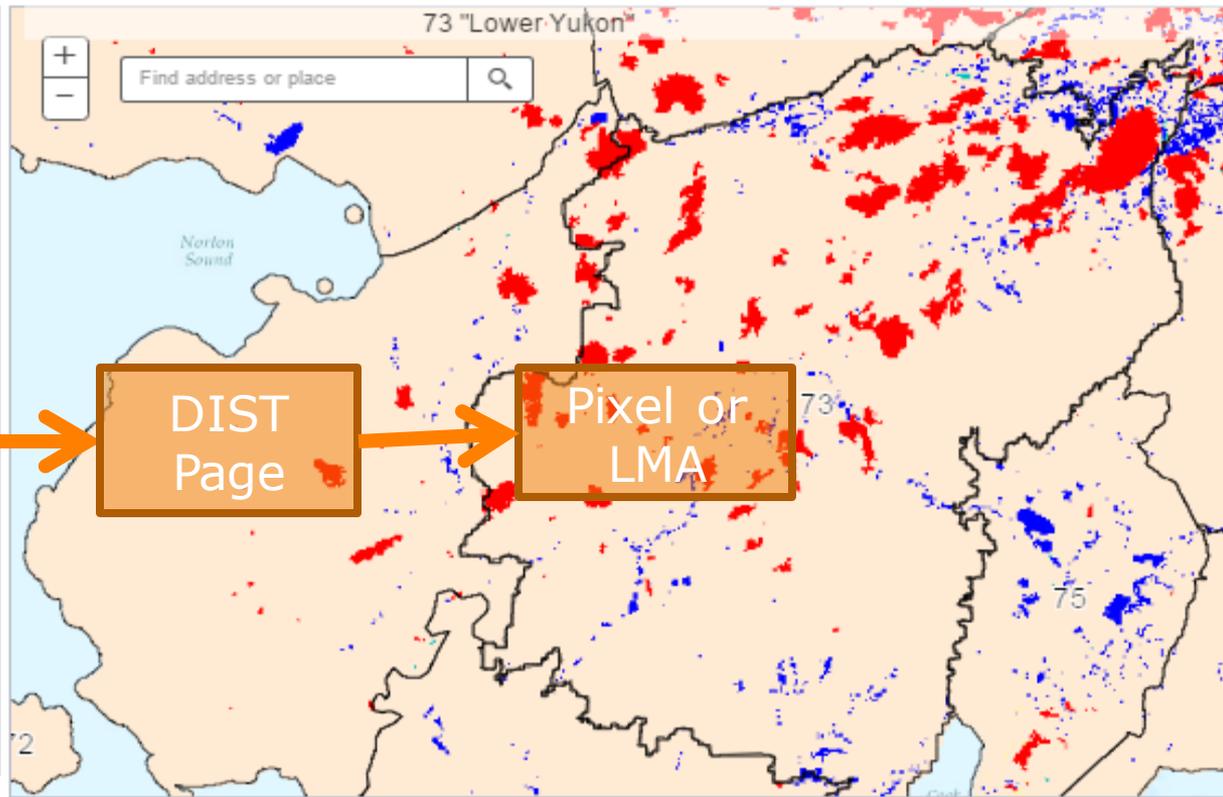
Base Map:

Zone Number	Zone
67	North Slope
68	Northwest
69	Brooks Range
70	Upper Yukon
71	Koyukuk
72	Yukon Delta
73	Lower Yukon
74	Tanana

Workflow

DIST
Page

Pixel or
LMA



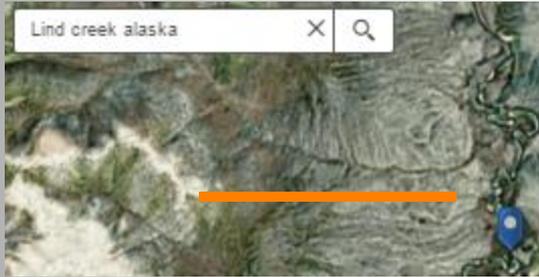
- **LANDFIRE** most important feedback for updates
- User needs to evaluate for missing disturbances
- User needs to evaluate disturbance locations

Review Hierarchy

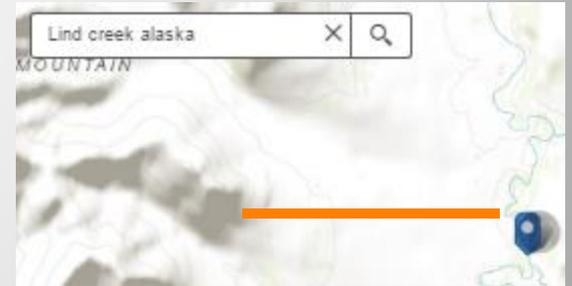
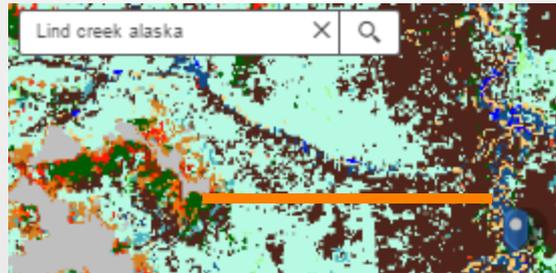
1. User comments
2. Website staff clarifies
3. Data to LF Staff
4. Easier improvements / large area – possible inclusion in next update and/or improvements in next remap
5. Harder improvements / small-large areas – possible research
6. External review of conflicting comments



- Avoid “my backyard pixel comments”



“important things to key in on . . .
Vegetation type or Dominant type or
missing type or ...”



“be systematic”



Megan's Corner



NE Liaisons Contributions

- Context
 - Funded by the Great Lakes Fire Compact
 - Led by Megan Sebasky, and WiDNR (Jed, David, and Patricia)
- Communications
 - With regional leadership on larger scale issues/needs/opportunities
 - With local stakeholders to understand specific issues, (e.g., "Data", Agreements, Pitch Pine mapping and fuels)
 - With LANDFIRE leaders and production teams to understand how products are created and what impacts them
- Assisting with the analysis of key ancillary data sets such as Protected Areas Database and Cropland Data Layer
- Reviewing draft data sets from a regional perspective
- Connecting LANDFIRE to the NE risk assessment processes and other important projects
- Organizing NE fuel calibration workshops
- Helping plan these NE training webinars



Northeast Regional Strategy Committee Newsletter

November 2019

The purpose of the Northeast Regional Strategy Committee (NE RSC) is to provide strategic oversight and participating organization (federal, state, local, non-profit) coordination to ensure policy coordination, cross-boundary communication, accountability, facilitate sharing of resources, and effective implementation of the Cohesive Strategy and related long-term strategies to address wildfire preparedness and suppression, hazardous fuels reduction, landscape restoration and rehabilitation of wildlands, and assistance to communities.



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- [3rd Annual National Cohesive Wildland Fire Management Strategy Workshop Lands Successfully in Plymouth, MA](#)
- [Megan's Corner - November 2019: LANDFIRE](#)
- [Study says Heat Waves Could Increase Substantially in Size by Mid-Century](#)
- [New Firewise USA® Brochure now available](#)
- [What is IFTDSS?](#)
- [Other NE-MW Wildfire News](#)
- [Meetings and Trainings](#)

State and Private Forestry FY2016 Northeastern Area Wildfire Risk Reduction Process Proposal: Northeast Region LANDFIRE Coordinator: Building Bottom-up Participation in Wildfire Planning Tools.



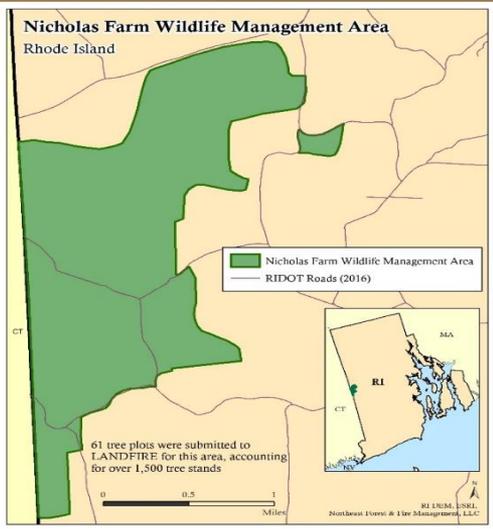
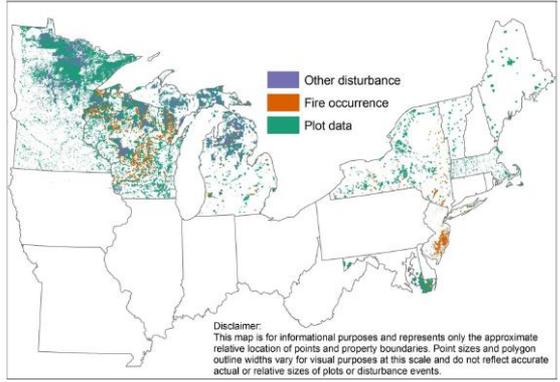


Megan's Corner

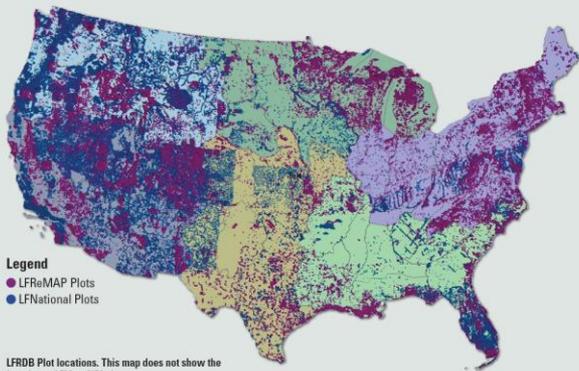


NE Liaisons Contributions

DRAFT Northeast Region Data Submissions to LANDFIRE 2017-2018



State	Organization	Data type	Dataset name
MA	Department of Fish and Game	Plot	NHESP Natural Communities
MD	Maryland Forest Service	Plot	State Forest inventories (Chesapeake, Pocomoke, Potomac-Garrett)
ME	TNC-ME	Plot; event	Maine Natural Areas Program
MI	MI DNR	Plot	Forest inventory
MN	MN DNR	Event	Canopy change detection locations
MN	MN DNR	Plot	Forest inventory
MN	MN DNR	Event	Timber harvest data
MN	MN DNR	Plot	Minnesota Native Plant Community Relevé plots
NJ	NJ forest fire service	Event	Recent and historic fire polygons
NY	NY Dept Envr Cons	Plot, event	Fire polygons, forest and wetland plots
VT	Vermont Monitoring Cooperative	Plot	Forest health monitoring plots (60 plots, 236 subplots)
WI	WI DNR	Event; plot	WisFIRS and other fire polygons



New Jersey Forest Fire Service GIS Data Sharing Agreement and Terms:

The NJFFS (New Jersey Forest Fire Service) seeks to lay the foundation from which it will make GIS data available to governmental units, educational institutions and non-profits engaged in cooperative projects with the NJFFS. This will be achieved through the formation of this GIS (Geographic Information Systems) Data Sharing Agreement. The NJFFS realizes the importance of sharing digital information for the advancement of public programs and projects and this agreement provides the basis for sharing and distributing digital data amongst the agreeing parties, as described in the agreement's outlined terms of use.

The NJFFS develops, maintains, and uses GIS data to support a variety of internal functions and public services. There are a variety of departments that maintain and develop GIS information. The following terms and conditions apply to **ALL** forms of NJFFS geospatial data and hard copy GIS and mapping products that the NJFFS create and maintain.

Eligible Data Sharing Members:

The following entities may benefit from this sharing agreement.

- Any governmental entity (municipality, school district, etc.) within the State of New Jersey
- Any municipal authority within the State of New Jersey
- Any political subdivision or agency of or within the State of New Jersey
- Any agency of the United States federal government
- Any educational institution or student participating in a class project or internship
- Any non-profit engaged in a cooperative project with the NJFFS

Sharing Terms of Use:

1. Sharing Members may only use shared data to promote clearly definable, publicly supported objectives and functions.
2. Sharing Members may not use shared data in any way that misrepresents the integrity, quality, or accuracy of the shared data, as stated by the NJFFS in the outlined terms of this agreement.
3. Sharing Members are not authorized, for commercial purposes to: copy, redistribute, resell, transfer, lease, provide in whole or part to any other person or entity any shared data or related products. Only the NJFFS has the authority to distribute NJFFS owned digital data.



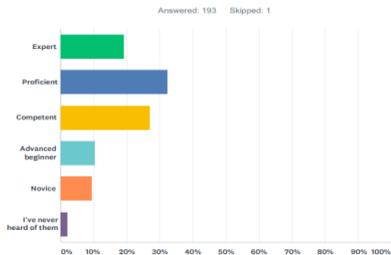
Megan's Corner



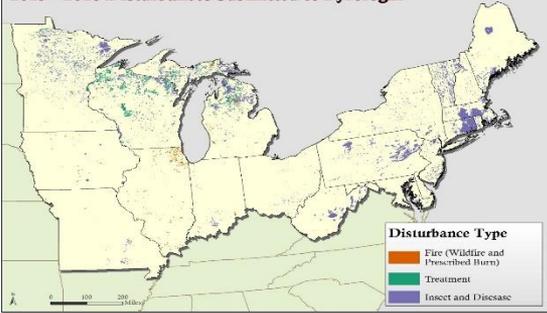
NE Liaisons Contributions

Fire Behavior Fuel Model (FBFM) Knowledge and Application Survey

Q1 How would you rate your knowledge/understanding of Fire Behavior Fuel Models (FBFMs)?



2015 - 2018 Disturbances Submitted to Pyrologix



Eastern Region Risk Assessment (ERRA) Fuelscape Preparations

OVERVIEW

The USFS Eastern Region (R9) has initiated a risk assessment with Pyrologix for the Region, which consists of twenty northeastern states. Regional fuels specialists, in Pyrologix, will be holding three separate risk assessment fuelscape workshops on **and 21-22** where participants will review the interim fuelscape for the risk assess

The objective of each workshop is to review whether interim fire behavior results behavior that knowledgeable, local, staff anticipate for the ERRA landscape. When either over/under predicted, we will edit fuel rules to produce a locally calibrated document describes resources provided by Pyrologix that will allow attendees to interest and expertise prior to the workshop.

Questions? Please contact:

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Regional Fuels Program Manager

Forest Service
Eastern Region, R9 Regional Office

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Cell: 517-285-9258
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Megan Sebasky
Northeast Region LANFIRE C
GIS Specialist - Division of F

Wisconsin Department of Nat
Madison, WI

Phone: (608) 516-5978
Megan.Sebasky@wisconsin.gov

101 South Webster Street
Madison, WI 53707

In preparation for these ERRA fuelscape calibration workshops, Pyrologix has co of fuelscape processing and developed interim versions of the fuelscape and fire l products of these efforts are available to workshop attendees in a folder on the P Pyrologix maintains an FTP workspace for sharing large files with clients, colleague created a private folder for the ERRA project. The credentials below will give you materials referenced in this document. To access you must use an FTP client. We source FileZilla (available at <https://filezilla-project.org/>). Other FTP clients should

Northeast-Midwest Regional LANDFIRE Fuels Calibration workshops for USFS R9 risk assessment and LANDFIRE Remap

SUMMARY

For the ongoing [wildfire risk assessment led by R9](#), we need to conduct fuel calibrations to make sure the LANDFIRE fuels data are accurately representing the landscape. This assessment will be used at the regional level for planning, but data will also made available to any and all entities who could use it. Making sure the fuel data input to this assessment is extremely important to create a useful product. The calibration involves reviewing which fire behavior fuel models are assigned to which vegetation type, which have experienced which types of disturbances. Attendees will also better understand how to implement the product once it is complete. In addition, feedback on fuels from these workshops will be shared back with LANDFIRE for potential incorporation into the Remap.

WHO SHOULD ATTEND

This is your one big chance to influence the results of the region's fire hazard mapping and the LANDFIRE fuels remap. You should encourage as many fire staff and ecologists familiar as possible from each of our 20 States to attend. Attendee expertise ranges from fire behavior fuel model experts, to those who use the Wildland Fire Decision Support System on occasion, to those not very familiar with Fire Behavior Fuel Models (FBFMs) who want to soak it all in, to those unfamiliar with FBFMs but who plan to use the results of this risk assessment. There will be remote options for attendance, but in-person participation is more effective. See an example of the [materials Pyrologix provides prior to the calibrations](#) to identify important folks in your State and prepare for them yourselves. If you are not familiar with the Scott and Burgan 40 fire behavior fuel models, a great place to start is the [Compare Fuel Models Five spreadsheet](#).

WHEN AND WHERE

States	Location	Dates
Great Lakes: MN, WI, WI	USFS R9 Office 626 E Wisconsin Ave, Milwaukee, WI 53202	2/7-8 CANCELED, rescheduling
NE/Coast: ME, NH, VT, MA, CT, RI, NY, PA, NJ, MD, DE	Albany Pine Bush Reserve 195 New Karner Rd #1, Albany, NY 12205	3/14-15
Lower NW and NE: WV, OH, IN, IA, MO, IL	Indiana DNR Fire Control Headquarters 6220 Forest Road, Martinsville, IN 46151	3/18-19

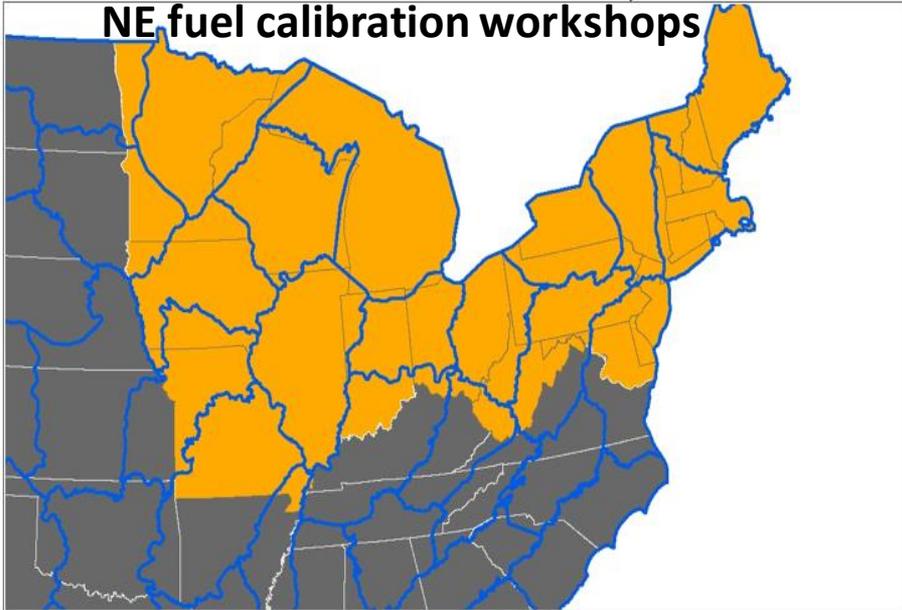


Megan's Corner



NE Liaisons Contributions

NE fuel calibration workshops



Northeast region in yellow, State borders in white/gray, map zone boundaries in blue

Of 20 LANDFIRE map zones involved in the NE, 11 were completely inside the area represented. The workshop reviewed a total of 33 EVT's.

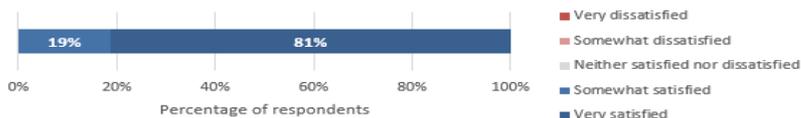
UPDATES:

- 31 of 33 EVT's and associated surface fuel changes occurred
 - (2927 Developed Ruderal Grasslands & 2927 Pasture Haylands). Both these EVT's already have burnable fuel rules and are mapped as herbaceous in LF Remap
 - Changes to some of the surface fuel models increased fire behavior while some some hardwood EVT's reduced fire behavior

NOT UPDATED:

- 13 of the 33 EVT's had explicit canopy base height adjustments that were designed to achieve specific fire type in terms of crown fire activity for the risk assessment, which were not adopted for Remap

Overall satisfaction with Fuels Calibration Workshop

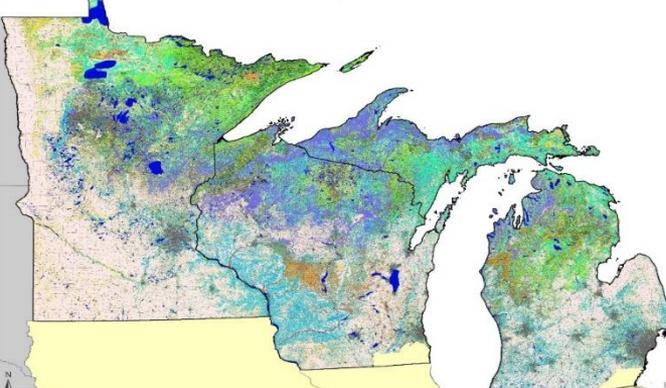




Megan's Corner

NE Liaisons Contributions

LANDFIRE Remap FBFM40: Great Lakes States



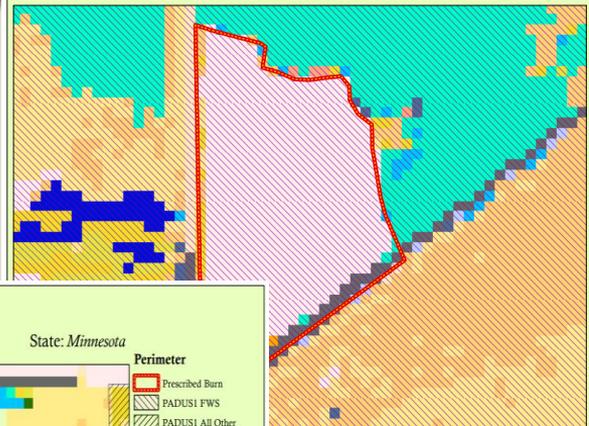
LF Remap	SH2
SH2	SH2
SH3	SH3
SH4	SH4
SH5	SH5
SH6	SH6
SH7	SH7
SH8	SH8
SH9	SH9
TL1	TL1
TL2	TL2
TL3	TL3
TL4	TL4
TL5	TL5
TL6	TL6
TL8	TL8
TL9	TL9
TU1	TU1
TU2	TU2
TU3	TU3
TU4	TU4
TU5	TU5
NB1	NB1
NB3	NB3
NB8	NB8
NB9	NB9
SB1	SB1
SB2	SB2
SB3	SB3
SH1	SH1

Great Lake States
 Northeast Region States
 All Other States

FY18 Prescribed Burns on FWS Lands:

FWS Incident Name: *MOSQR-FY18-RX-29 seeding*

State: *Missouri*



Perimeter

- Prescribed Burn
- PADUS1 FWS
- PADUS1 All Other

FBFM40 (2014)

- GS2
- GS1
- GR6
- GR5
- GR3
- GR2
- NB8
- NB3
- GR1
- NB1

FWS PAD Date Info:
 Date Establishment: 1935
 GAP Status Code Date: 2008
 GIS Source Date: 2015/05/01
 IUCN Category Date: 2015

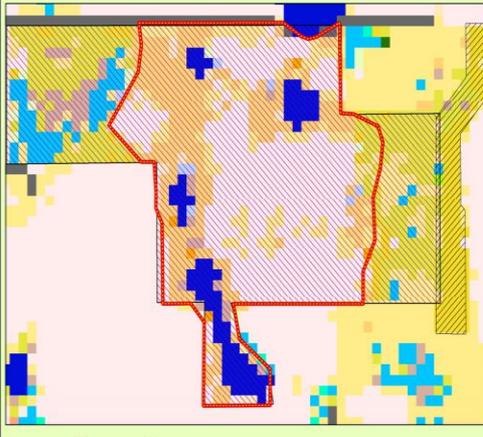
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 Date Establishment: *No Data*
 GAP Status Code Date: *No Data*
 GIS Source Date: *No Data*
 IUCN Category Date: *No Data*

This map showcases Prescribed Burns that occurred on lands owned and managed by the Fish and Wildlife Service. The FWS Incident has a FBFM 40 Majority of "Non-Burnable" (NB).

FY18 Prescribed Burns on FWS Lands:

FWS Incident Name: *MNBNR-FY18-RX-Pieske*

State: *Minnesota*



Perimeter

- Prescribed Burn
- PADUS1 FWS
- PADUS1 All Other

FBFM40 (2014)

- NB3
- TU5
- TU2
- TU1
- TL6
- TL3
- TL2
- SH2
- NB8
- NB1
- GS2
- GS1
- GR6
- GR5
- GR3
- GR2
- GR1

FWS PAD Date Info:
 Date Establishment: *No Data*
 GAP Status Code Date: 2008
 GIS Source Date: 2015/05/01
 IUCN Category Date: 2015

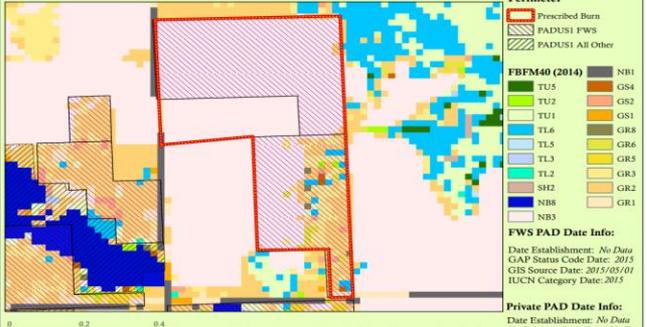
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 GAP Status Code Date: *No Data*
 GIS Source Date: *No Data*
 IUCN Category Date: *No Data*

This map showcases Prescribed Burns that occurred on lands owned and managed by the Fish and Wildlife Service. The FWS Incident has a FBFM 40 Majority of "Non-Burnable" (NB).

FY18 Prescribed Burns on FWS Lands:

FWS Incident Name: *WISCR-FY18-RX-Plumbrush*

State: *Wisconsin*



Perimeter

- Prescribed Burn
- PADUS1 FWS
- PADUS1 All Other

FBFM40 (2014)

- NB1
- TU5
- TU2
- TU1
- TL6
- TL5
- TL3
- TL2
- SH2
- NB8
- NB1
- GS2
- GS1
- GR6
- GR5
- GR3
- GR2
- GR1

FWS PAD Date Info:
 Date Establishment: *No Data*
 GAP Status Code Date: 2015
 GIS Source Date: 2015/05/01
 IUCN Category Date: 2015

Private PAD Date Info:
 Date Establishment: *No Data*
 GAP Status Code Date: *No Data*
 GIS Source Date: *No Data*
 IUCN Category Date: *No Data*

This map showcases Prescribed Burns that occurred on lands owned and managed by the Fish and Wildlife Service. The FWS Incident has a FBFM 40 Majority of "Non-Burnable" (NB).

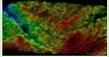


Megan's Corner



NE Liaisons Contributions

State(s)	Data Type	Data Description	Data Source	Acquisition	Date Range	Acquisition Type	Data Use
Connecticut	Plot	Community element	Connecticut Department of Energy and Environmental Protection	3/22/2019		External	Not Used: Data
Connecticut	Events	Wildfires and Prescribed	Connecticut	3/29/2019	2018	External	Events
Minnesota	Plot	Forest inventory data	U.S. Army Corps of Engineers, La Crescent, MN	4/4/2018	2017	External	LFDRB Remap
Indiana	Plot	Vegetation composition	US Army - Camp Atterbury Range and Training Land Assessment		1996-2004	External	LFDRB Remap
Delaware	Events	Treatment and disturbance	Delaware Forest Service	10/2/2009	2005-2009	External	Events
Michigan	Plot	Vegetation composition	US Army National Guard - Camp Grayling Range and Training Land		1992-1997	External	LFDRB Remap
Minnesota	Plot	Vegetation composition	US Army National Guard - Camp Ripley		1998-2000	External	LFDRB Remap
Maine	Plot	Tree data from a Managed	US Forest Service - Northern Research Station, Penobscot Experiment		1950-2011	External	LFDRB Remap
Maine	Plot	Tree data from a Silvicultural	US Forest Service - Northern Research Station, Penobscot Experiment		1950-2014	External	LFDRB Remap
Maryland, Virginia	Plot	Vegetation composition	US Forest Service - Eastern Region			External	LFDRB Remap
Wisconsin	Plot	Exotic plant records data	US Forest Service - Chequamegon-Nicolet National Forest		2000-2006	Internal	LFDRB Remap
Minnesota	Plot	Vegetation composition	US Forest Service - Chippewa National Forest			Internal	LFDRB Remap
Minnesota	Plot	Exotic plant records data	US Forest Service - Chippewa National Forest		2005	Internal	LFDRB Remap
Minnesota	Plot	Vegetation composition	US Forest Service - Chippewa National Forest		1986-1997	External	LFDRB Remap
Michigan	Plot	Vegetation composition	US Forest Service - Huron-Manistee National Forest			Internal	LFDRB Remap
Michigan	Plot	Fuels monitoring data	US Forest Service - Huron-Manistee National Forest	11/9/2017	2010-2013	External	Not Used: Lack of
Missouri	Plot	Vegetation composition	US Forest Service - Mark Twain National Forest			Internal	LFDRB Remap
Missouri	Plot	Exotic plant records data	US Forest Service - Mark Twain National Forest		2003-2006	Internal	LFDRB Remap
Illinois	Plot	Vegetation composition	US Forest Service - Shawnee National Forest			Internal	LFDRB Remap
Minnesota	Plot	Vegetation composition	US Forest Service - Superior National Forest			Internal	LFDRB Remap
Michigan	Plot	Vegetation composition	US Forest Service - Hiawatha National Forest			Internal	LFDRB Remap
Michigan	Plot	Stand and vegetation	US Forest Service - Hiawatha National Forest	12/2/2015	1976-2015	External	LFDRB Remap
Indiana	Plot	Vegetation composition	US Forest Service - Hoosier National Forest			Internal	LFDRB Remap
Pennsylvania	Plot	Vegetation composition	US Forest Service - Allegheny National Forest			Internal	LFDRB Remap
West Virginia	Plot	Vegetation composition	US Forest Service - Monongahela National Forest			Internal	LFDRB Remap
Maine, New Hampshire	Plot	Vegetation composition	US Forest Service - White Mountain National Forest			Internal	LFDRB Remap
Maine, New Hampshire	Plot	Vegetation composition	US Forest Service - White Mountain National Forest	11/2/2011	2004-2006	External	LFDRB Remap
Nationwide	Plot	Vegetation composition	US Forest Service - Forest Inventory and Analysis Program	8/16/2017	2003-2016	External	LFDRB Remap
Michigan, Wisconsin, Minnesota, Iowa, North Dakota, South Dakota, Nebraska, Montana, Indiana	Plot	Vegetation composition	US Forest Service - Forest Inventory and Analysis Program			External	LFDRB National
Michigan, Wisconsin, Minnesota, Iowa, North Dakota, South Dakota, Nebraska, Montana, Indiana	Plot	Vegetation composition	US Forest Service - Forest Inventory and Analysis Program			External	LFDRB National
Nationwide	Plot	Vegetation composition	US Forest Service - Forest Inventory and Analysis Program	7/11/2016	1984-2015	External	LFDRB Remap
Illinois, Wisconsin, Kentucky, Tennessee, Ohio, New York, Vermont, New Hampshire, Maine, Connecticut	Plot	Vegetation composition	US Forest Service - Forest Inventory and Analysis Program			External	LFDRB National
Illinois, Wisconsin, Kentucky, Tennessee, Ohio, New York, Vermont, New Hampshire, Maine, Connecticut	Plot	Vegetation composition	US Forest Service - Forest Inventory and Analysis Program			External	LFDRB National
Ohio	Events	Wildfire and prescribe	Ohio Department of Natural Resources - Division of Forestry	12/19/08	1974-2008	External	Events
Wisconsin	Events	Records of completed	US Forest Service - Chequamegon-Nicolet National Forest	11/13/08	1930-2008	Internal	Events
Wisconsin	Events	Records of completed	US Forest Service - Chequamegon-Nicolet National Forest	7/24/2012	2008-2010	Internal	Events
Wisconsin	Events	Records of completed	US Forest Service - Chequamegon-Nicolet National Forest	1/4/2013	2011	Internal	Events
Wisconsin	Events	Records of completed	US Forest Service - Chequamegon-Nicolet National Forest	12/20/2013	2012	Internal	Events
Wisconsin	Events	Records of completed	US Forest Service - Chequamegon-Nicolet National Forest	2/11/2015	2013-2014	Internal	Events
Wisconsin	Exotics	Exotic plant records data	US Forest Service - Chequamegon-Nicolet National Forest	11/13/06	1997-2006	Internal	Exotics

Location	Data or feedback type	Examples	Data/Review requirements*	Integration reported to users	Examples of integration	Direct Link
LANDFIRE.gov https://landfire.gov/participate_refdata.php	Polygons Events 	Wildfire perimeter Prescribed burn perimeter Forest stand treatment boundary	Minimum: georeferenced polygons with a disturbance type and year. Additional helpful information outlined here .	LANDFIRE Reference Database (LFRDB) (See 'Events')	The Black Hills example	https://landfire.gov/participate_contribute.php
	Lidar 		Links and contact information to obtain data.	Not at this time.	The Georgia example explains how remote sensing is used. Lidar example in prep.	https://landfire.gov/participate_refdata.php
	Plot 	Vegetation surveys Species observations	Can be as little as georeferenced point and associated vegetation information, or best to include date, full species list, etc. See more information here .	LANDFIRE Reference Database (LFRDB) (See LFRDB records in Combined Data table)	https://landfire.gov/participate_refdata.php	https://landfire.gov/participate_plot.php
	Feedback (comments)	"Dataset X in the area of X (lat/long, place name) appears incorrect based on X evidence"	https://landfire.gov/participate_feedback.php	No	Varies	https://landfire.gov/participate_feedback.php
BpS review site http://www.landfirereview.org/	Biophysical Settings Reviews		Individual BpS or Macro BpS Reviews	All feedback will be reviewed by the TNC team and submitted to LANDFIRE.....(Randy write)		http://www.landfirereview.org/
Data Review Site https://landfire.nkn.uidaho.edu/	Fire Behavior Fuel Model (FBFM) review					https://landfire.nkn.uidaho.edu/fbmd0
	Existing vegetation map review		Identify map area for feedback, fill out form and comments. Can submit a related file or image.	No. The website says "The comments and suggestions <u>may</u> help inform the current LANDFIRE ReMap project"		https://landfire.nkn.uidaho.edu/evt-map2map=conus
	Disturbance map					https://landfire.nkn.uidaho.edu/

*contact (Megan? Brenda?) for best methods of sharing private data
 If you are a part of the USFS Eastern Region 9 and have any questions on georeferencing, data



Megan's Corner



NE Liaisons Contributions

The logo for the "Third Annual NATIONAL COHESIVE WILDLAND FIRE MANAGEMENT STRATEGY" workshop, featuring a house icon with a tree and the text "workshop" in a script font.

Third Annual **NATIONAL COHESIVE WILDLAND FIRE MANAGEMENT STRATEGY** workshop
OCT. 21-24, 2019 PLYMOUTH, MA

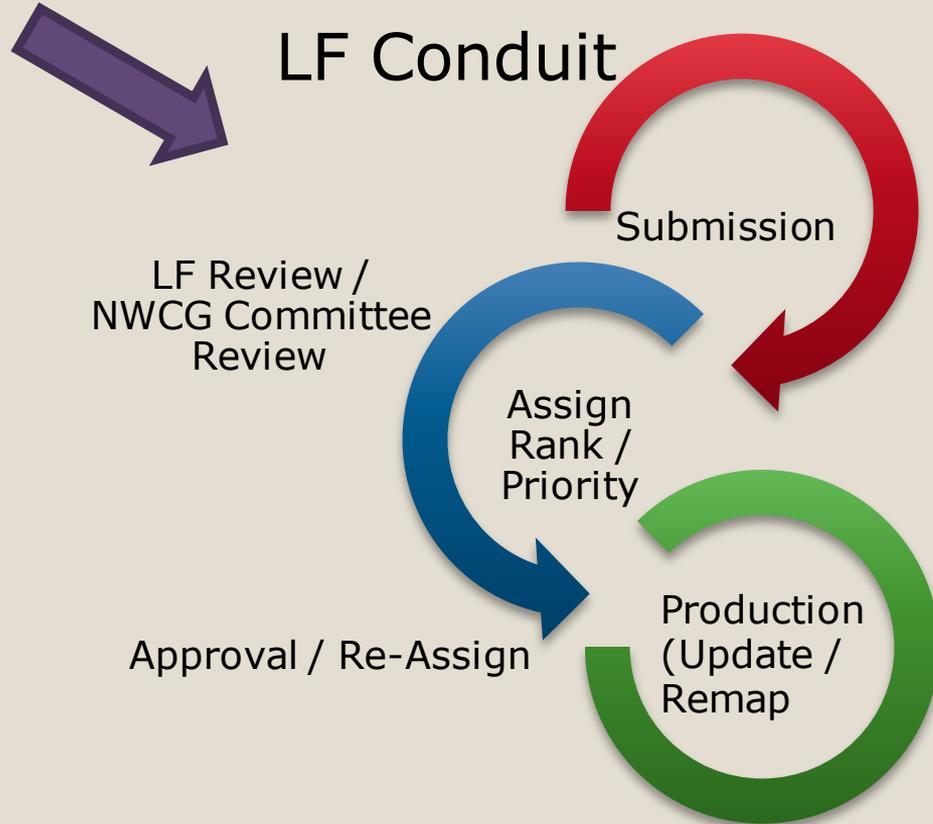


Feedback



Feedback

Review Example



- User Feedback - HelpDesk / LF Data Product Review Website

- Automation Rank
- Size Rank
- Geographic Priority Rank
- Production Capability
- Science / Research ?

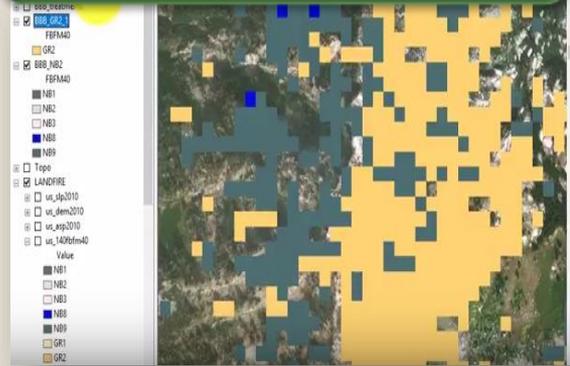


How-to: Feedback on LANDFIRE data



*. Suggesting changes to LANDFIRE

Submit feedback to the [LF Helpdesk](#)



Contact Us
Please fill out the form below if you have questions or want to provide feedback for the LANDFIRE team.
Hours of operation: Monday - Friday, 8:00 a.m. to 4:00 p.m. Central Time
(You should receive a confirmation email from the Helpdesk within one business day. If you do not, please resubmit your question or feedback directly to helpdesk@landfire.gov.)

NOTE: Users may experience intermittent service Thursday evenings due to routine maintenance.

First Name:
Last Name:
Email:
Subject:
Feedback/Concerns:

Email: helpdesk@landfire.gov

It is important to understand that LANDFIRE does NOT simply substitute or "stamp in" the ancillary (feedback) data in place of LF data but uses it to inform data improvements.

Field photos & comments or virtual screen captures w/ comments & associated files (GIS shape, raster, kmz/kml, jpg, xls, mdb, doc, pdf, etc) on BFBM or EVT items is helpful!!!

I'm not a robot



NE – Use LANDFIRE Data – Fall 2020:

AGENDA:

- Tools for using LANDFIRE Data.
- How to review LANDFIRE Data
- Submitting feedback to LANDFIRE

LANDFIRE

Landscape Fire and Resource Management Planning Tools Project

- Comprehensive
- Consistent
- Compatible
- Current



LANDFIRE is a program that provides over 20 national geo-spatial layers (e.g. vegetation, fuel, disturbance, etc.), databases, and ecological models that are available to the public for the US and insular areas. [Learn more...](#)



LANDFIRE ... [more than fire](#)

Wildland Fire Leadership Council



Interagency Partnership Work

