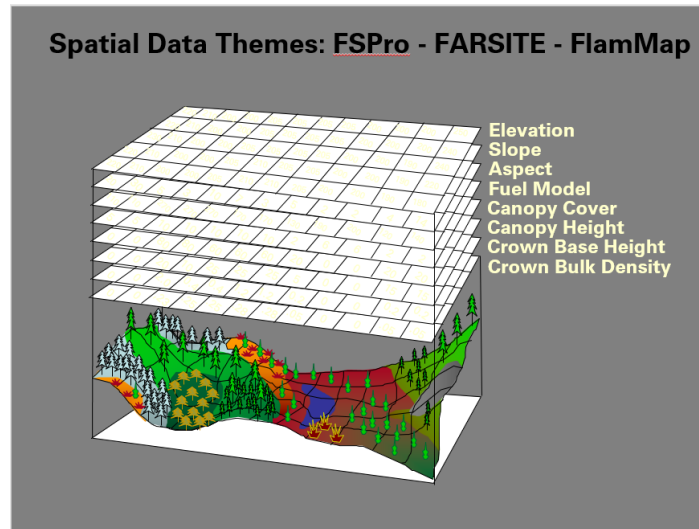


## LANDSCAPE DATA

All the geospatial models use the same landscape files and data themes to construct a landscape (LCP) file as illustrated below.



### Potential Data Sources:

- Locally sourced data
- LANDFIRE - Standard LCP Format
- WFDSS - Standard LCP format
- IFTDSS - 12 Band GeoTiff

```
:"Band_1">Elevation</MDI>  
:"Band_2">Slope</MDI>  
:"Band_3">Aspect</MDI>  
:"Band_4">Fuel Model</MDI>  
:"Band_5">Canopy Cover</MDI>  
:"Band_6">Stand Height</MDI>  
:"Band_7">Canopy Base Height</MDI>  
:"Band_8">Canopy Bulk Density</MDI>  
:"Band_9">EVT</MDI>  
:"Band_10">EVC</MDI>  
:"Band_11">EVH</MDI>  
:"Band_12">Zone</MDI>
```

- WFDSS/IFTDSS generated LCP's can be used in FlamMap6

## Landscape Data Sources LANDFIRE

- LANDFIRE Direct Downloads a variety of versions available
- WFDSS – Multiple LF Versions
- IFTDSS – LF version 1.4.0

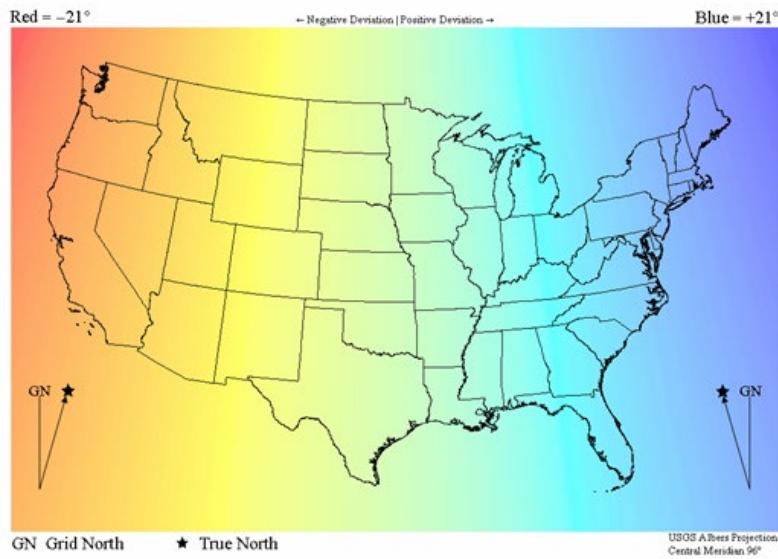
## LANDFIRE Data can be accessed from these locations

- Data: <https://landfire.gov/getdata.php>
- Data Distribution Site: <https://landfire.gov/viewer/viewer.html>
- LANDFIRE Data Access Tool (LFDAT): <https://landfire.gov/datatool.php>
- Download data Mosaics: [https://landfire.gov/version\\_comparison.php](https://landfire.gov/version_comparison.php)

These sources always include a Projection File NO Matter what source your data comes from. This allows for some reprojection of data within FlamMap6. Any ancillary data should also include a projection file so that it can be used appropriately within the application as well.

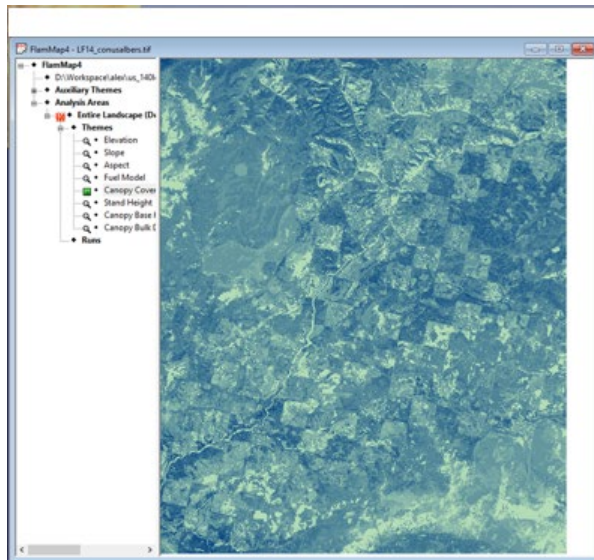
## A Note on LANDFIRE Data Projections

- LANDFIRE data is projected in NAD83 Albers
- Both FARSITE and FlamMap require the data to be in a north up orientation.
- ALL Direct Access LANDFIRE data needs to be reprojected to a local projection, such as UTM prior to use
- During the download process from the LANDFIRE data site you can modify the projection to a Best Fit UTM, NAD83. It is HIGHLY recommended that this be done.

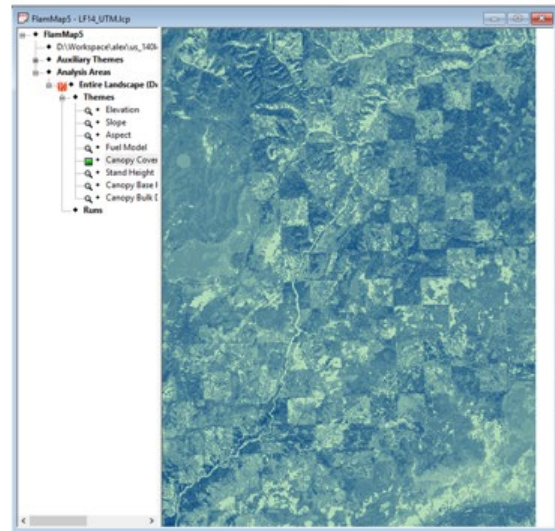


The projection LANDFIRE uses is based on a centroid in the middle of the United States. This means that as you move out away from the center the landscape becomes rotated by +/- 21 Degrees as illustrated below. NOT having your projection in a UTM or North Oriented projection means that wind directions WILL NOT be used appropriately during any fire behavior simulations.

In the example below illustrates how an LCP in the standard LANDFIRE projection looks (left hand side) and the same LCP in the Best Fit UTM NAD83 projection (right) within FlamMap. The right side image is the preferred projection for use within FlamMap.



- LCP acquired from the LANDFIRE Data Distribution Site.**
- Projection Is in the standard LANDFIRE USGS Contiguous Albers NAD83.
  - LANDSCAPE is rotated. Notice sections rotated to the east.



- LCP acquired from the LANDFIRE Data Distribution Site.**
- Projection Modified to Best Fit UTM NAD83 in the LANDFIRE DDS.
  - Removes rotation is more north top up Oriented.

Further information on projections in LANDFIRE and further discussion and tutorials can be accessed from here.

- **LANDFIRE Projections**

The following LANDFIRE Note discusses this which is available here:

<https://landfire.gov/notifications.php>

See specifically the one entitled: Reproject LANDFIRE DATA to your local projection posted on 2008-09-25

- If you are accessing the data from LANDFIRE when you extract the data you can have it projected to a best fit UTM Coordinate in an LCP format.
- This Youtube video [<https://www.youtube.com/watch?v=FfhIB4RE1WY>] illustrates how you can Modify the download of data to a best fit utm projection
- The link to this tutorial will also explain how to do this:  
[https://www.landfire.gov/modify\\_request\\_tutorial.php](https://www.landfire.gov/modify_request_tutorial.php)

- **Other Landscape Data Projections**

- WFDSS - Custom based on LCP extent
- IFTDSS - Custom based on LCP extent
- WFDSS/IFTDSS LCP's can be used in FlamMap6 without reprojection from a fire behavior perspective as they will be in an appropriate North up oriented projection.
- All outputs from FlamMap will be in the same custom projection or projection of the landscape (LCP) file.
- Outputs used in ArcMap with custom projections can sometimes cause issues in overlaying with more localized data within ArcMap. After importing into ArcMap you may need to define the projection associated with the data file.