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Changing the mapping approach for fuels in disturbed areas - LANDFIRE introduces “Capable” Fuels

Summary:

As LANDFIRE (LF) began producing Remap products, a new approach involving Time Since Disturbance (TSD) for surface and canopy fuels was being considered. Now complete, the process calculates TSD assignments using an effective year. For example, LF Remap fuels are now assigned for the 2019 effective year. The new process, called “capable” fuels, considers all incorporated disturbances in LF Remap and provides an adjustment to account for the TSD, making the data “capable” of representing an effective year. These capable data account for fuel attribute changes in disturbed areas to the effective year (2019 in this case). By synchronizing TSDs, users may not need to do much, if any adjustments, to the vegetation and fuel attributes to represent contemporary conditions. In addition, these refinements will improve performance of fire behavior modeling when using the data operationally. Although this process was not ready when the Northwest (NW) GeoArea was released, the “capable” fuel products for the NW are included in the release of the Southwest (SW) GeoArea. In addition, starting with the SW GeoArea release, LF Remap fuels will be delivered as capable fuels using 2019 as the effective year.

Why:

1. The LF team worked to address the logic between Time Since Disturbance (TSD) in surface and canopy fuels for disturbed areas.
2. In previous versions of LF, users had to manipulate/update the LF fuels to represent contemporary conditions and account for areas that had experienced a disturbance in between the delivery of biennial updated products (LF 2008, LF 2010, etc.). In LF Remap, TSD is added to the fuels data to better represent contemporary conditions, reducing the burden on users. For example: using the LF 2014 data set, a user needed to update the data to represent 2018 effective year conditions by adding 4 years to the TSD. With the new LF “capable” fuels data, LF Remap fuels are delivered as “capable” fuels for the 2019 effective year.

What:

1. LF Remap has been synchronized to account for the TSD for surface and canopy fuels in disturbed areas.
2. LF Remap fuels data in areas mapped as disturbed within the past 10 years (disturbances since 2009) will be delivered with a TSD that accounts for and better represents contemporary conditions.



3. LF Remap fuels data in pixels that have not been mapped as disturbed in the previous 10-year period use LF Remap vegetation data, which represents the landscape circa 2016.

When:

1. Starting with the release of the Southwest GeoArea (which includes Northwest GeoArea fuel products), LF Remap fuels will be delivered as capable fuels for the 2019 effective year.

So, what do I need to know?

For LF Remap, fuels data in disturbed areas include the TSD modification to represent contemporary conditions (e.g. 2019), even though the vegetation circa date is 2016. The LF Remap capable fuel data for the 2019 effective year better represent active and potential wildfire behavior on the landscape when compared to results where all the disturbed areas are circa 2016.

When using LF Remap products for 2019 effective year conditions, you still need to add any disturbances (2017 and 2018), as they were not available during the creation of Remap products.

It's important to remember that disturbed areas time out for fuels-specific adjustments when the TSD reaches 10 years. Disturbances older than 10 years (prior to 2009) are considered non-disturbed vegetation and the type, cover, and height are sourced from LF Remap existing vegetation data.

Where can I find out more information?

Additional information is available to help guide users. Besides this summary, other resources include:

1. [Technical documentation](#): provides details on the capable fuels process.
2. Storyboard(s): provides information and examples. (Coming Soon)
3. [Data Alert](#): provides an overview of capable fuels.
4. [Data Notification](#): announces SW products release and capable fuels process
5. [LF Helpdesk](#)