

Overview of Left Menu Items on OK-FIRE

Located within the orange rectangle (*added to the image below*) are links to some of the most important and commonly used items in OK-FIRE, allowing for easy access by the user.

The screenshot displays the OK-FIRE web interface. On the left, a menu is highlighted with an orange border, listing various navigation options. The main content area is divided into three sections: two maps and a data table.

Current Relative Humidity and Wind Direction Map: Shows a map with wind direction arrows and relative humidity values ranging from 38 to 53. A color scale at the bottom indicates values from 0 to 100.

Current Burning Index Map: Shows a map with burning index values ranging from 1 to 72. A color scale at the bottom indicates values from 0 to 100.

Data Table: Compares weather and fire danger data for Stillwater and Oilton stations on Tuesday, 6/27/17 at 7:05 pm CDT.

	Stillwater	Oilton
Station:	Stillwater	Oilton
Weather	Tue 6/27/17 7:05 pm CDT	Tue 6/27/17 7:05 pm CDT
Relative Humidity:	45%	50%
Past 1-hr RH Change:	0%	+3%
10-m Wind:	SSE at 11 mph	SSE at 9 mph
Max Wind Gust:	15 mph	15 mph
Temperature:	89°F Heat Index: 91°F	88°F Heat Index: 90°F
24-hr Rainfall:	0.00 in	0.00 in
Dispersion:	Moderately Good	Good
Sunrise / Sunset:	6:13 am / 8:49 pm	6:11 am / 8:47 pm
Fire Danger	Tue 6/27/17 6:00 pm CDT	Tue 6/27/17 6:00 pm CDT
Current Fire Danger:	LOW	LOW
Burning Index:	12	12
Spread Component:	6	1
Ignition Component:	12%	24%
NFDRS Fuel Model:	T	R
1-hr Fuel Moisture:	6%	6%
10-hr Fuel Moisture:	8%	8%
Soil Moisture:	19%	50%
KBDI:	316	357
Relative Greenness:	83%	93%

Following is an overview of the sections represented by these left menu links.

Current Station Conditions

On the home page data tables, there is not space to list all the various fire weather and fire danger variables for the one or two selected stations; we only show those variables we deem most important for wildland fire management. If the OK-FIRE user would like to see the current values for all the available variables for a given station, that is what the “Current Station Conditions” section provides. The default station on this page is the PRIMARY Mesonet station on the home page, but the user can select any station desired by clicking on the station name at the top of the tables and selecting another. This will NOT change the primary or secondary stations shown on the home page.

OK-FARE Current Station Conditions

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Stillwater

Sunrise 6:13 am / Sunset 8:49 pm

Weather		Fire Danger	
Tue 8/27/17 1:25 pm CDT		Tue 8/27/17 1:00 pm CDT	
Temperature:	87°F	Current Fire Danger: LOW	
Heat Index:	91°F	Burning Index:	8
Dewpoint Temperature:	68°F	Spread Component:	3
Relative Humidity:	54%	Energy Release Component:	3
Past 1-hr RH Change:	-7%	Ignition Component:	7%
Past 3-hr RH Change:	-9%	NFDRS Fuel Model:	T
Today's Maximum RH:	81%	1-hr Fuel Moisture:	8%
10-m Wind:	S at 8 mph	10-hr Fuel Moisture:	10%
Max Wind Gust:	12 mph	100-hr Fuel Moisture:	9%
2-m Wind:	7 mph	1000-hr Fuel Moisture:	8%
24-hr Rainfall:	0.00 in	Live Herbaceous Moisture:	179%
		Live Woody Moisture:	150%
		Soil Moisture:	20%
		KBDI:	306
		Relative Greenness:	74%

Dispersion	
Tue 8/27/17 1:25 pm CDT	
Dispersion:	Good
Temperature Difference (30 ft – 5 ft):	-1°F

Similar to the home page data tables, one can click on the variable name to get to a statewide map for that particular variable.

Current Maps

This section of the website features most of the current maps deemed relevant to wildland fire management and is divided into four sections: Fire Weather, Fire Danger, Satellite, and Local Radar.

OK-FARE Current Maps

Fire Weather Fire Danger Satellite Local Radar

Fire Weather

Current Fire Weather Conditions

[learn more](#)

Relative Humidity and Winds

[learn more](#)

1-hr Relative Humidity Change

[learn more](#)

One can click on any of these subheaders (encircled in orange) at the top and the user will be taken directly to that section of current maps (e.g, Satellite).

In addition, the “learn more” links under each map provide a description of that map and why that map is valuable to wildland fire management. For example here is the description for the “Today’s Maximum Relative Humidity” map:

Today's Maximum Relative Humidity

This map depicts the maximum relative humidity (%) occurring since midnight. This information is useful to see if fuel recovery for 1- and 10-hour dead fuels has had a chance to occur in the overnight hours before sunrise. This map is updated every 5 minutes.

Wind Speed and Direction

learn more

learn more

learn more

This description also appears underneath the map when you click on it to activate it:

OK-FARE Today's Maximum Relative Humidity

Back to Current Maps | Share | Tweet

percent

100
80
60
40
20
0

Mesonet

Today's Maximum Relative Humidity (%)

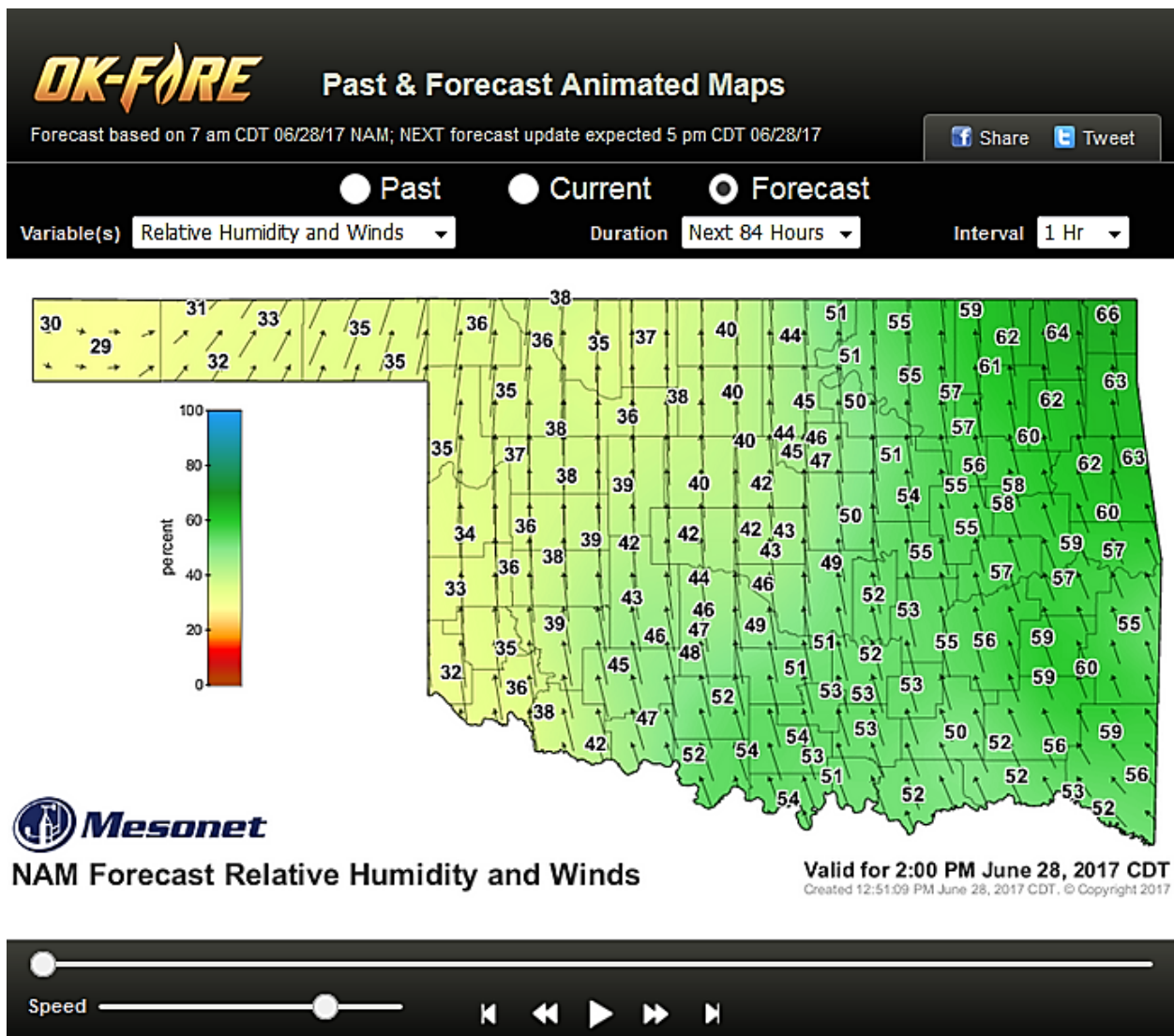
1:35 PM June 27, 2017 CDT
Created 1:41:02 PM June 27, 2017 CDT. © Copyright 2017

This map depicts the maximum relative humidity (%) occurring since midnight. This information is useful to see if fuel recovery for 1- and 10-hour dead fuels has had a chance to occur in the overnight hours before sunrise. This map is updated every 5 minutes.

Past & Forecast Animated Maps

This section provides a user-friendly interface that allows one to animate maps over past and forecast time periods, as well as look at the most current map.


More details on how this page operates can be found in the PDF document “Past & Forecast Animated Maps” in the “Contacts and Learning Tools” section of the OK-FIRE website.



Past & Forecast Charts/Tables

This section allows for the creation of charts and tables for a selected Mesonet station and, similar to the map section just discussed, provides a user-friendly interface to view charts and tables over past and forecast time periods.

More details on how this page operates can be found in the PDF document “Past & Forecast Charts and Tables” in the “Contacts and Learning Tools” section of the OK-FIRE website.



Past & Forecast Charts/Tables

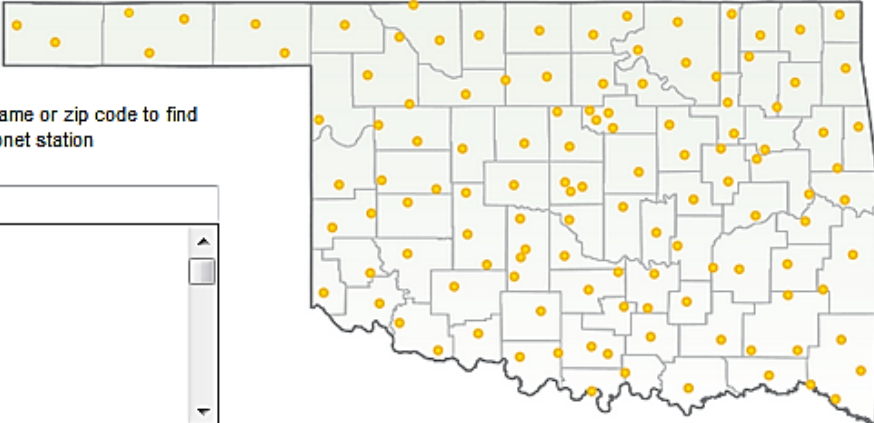
Forecast based on 7 am CDT 06/28/17 NAM; NEXT forecast update expected 5 pm CDT 06/28/17

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Select Mesonet Station

Type in city name or zip code to find nearest Mesonet station

- [Acme](#)
- [Ada](#)
- [Altus](#)
- [Alva](#)
- [Antlers](#)
- [Apache](#)



Display Mode:

Charts Tables

Time Mode:

Past Forecast

Selected Station:

Stillwater

Variable(s)

Duration

Interval

Fire Prescription Planner

The Fire Prescription Planner is a popular tool used by wildland fire managers who conduct prescribed burns. It utilizes the same NAM forecast model as do the other OK-FIRE forecast products. Note at the top of the first page the user has the option to choose “Use Conditions for Beginning Burners” and to “Reset Values” (removes all previously entered values).

Variable	Lower Limit	Upper Limit
Air Temperature (F)	<input type="text"/>	<input type="text"/>
Relative Humidity (%)	<input type="text"/>	<input type="text"/>
Wind Speed (mph)	<input type="text"/>	<input type="text"/>
1-hr Precipitation (inches)	<input type="text"/>	<input type="text"/>
Heat Index [heat stress] (F)	<input type="text"/>	<input type="text"/>
Dispersion Conditions	<input type="text"/>	<input type="text"/>

Wind Direction

** Click on the sectors you wish to prescribe **

One can select a different station than the primary station by going to the bottom of the first page and clicking on the station name at the bottom left. In addition, there is an option to include ALL non-prescribed variables in the final forecast table.

Energy Release Component (BTU/ft ²)	<input type="text"/>	<input type="text"/>
KBDI (0-800)	<input type="text"/>	<input type="text"/>

Stillwater Show: Include All Non-Prescribed Variables Save Settings as Default

A more detailed description of how to use the Fire Prescription Planner is provided in the PDF document “Fire Prescription Planner” in the “Contacts and Learning Tools” section of the OK-FIRE website.

NWS Forecast Chart/Table for PRIMARY Station

Since OK-FIRE utilizes a single numerical forecast model (NAM) for its products, it is always good to check the “official” National Weather Service (NWS) forecasts to see if there are any major discrepancies in the predicted weather conditions between the NAM forecast and theirs. We have included two left menu links:

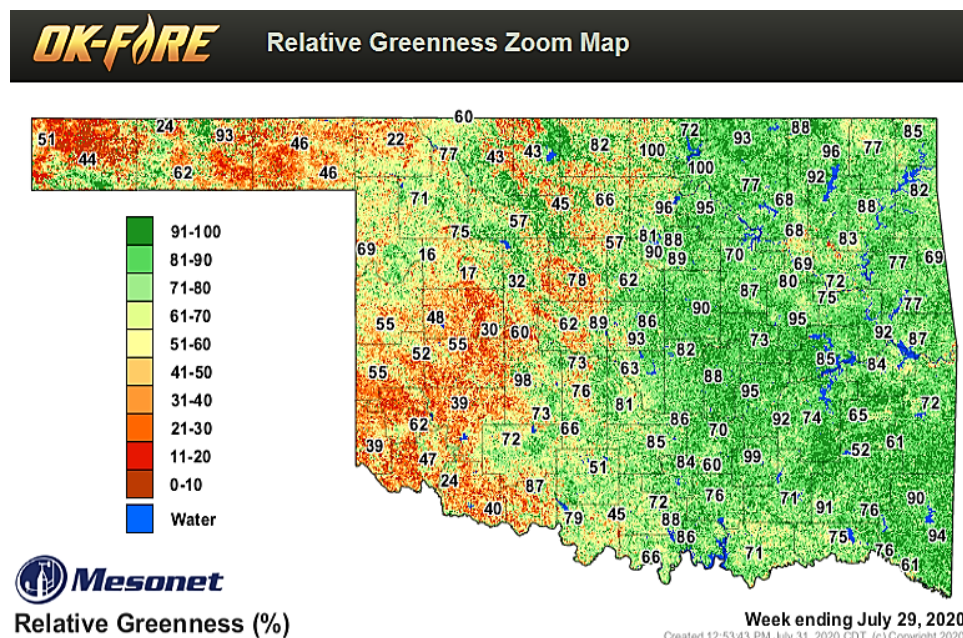
[NWS Forecast Chart \(Stillwater\) >](#)

[NWS Forecast Table \(Stillwater\) >](#)

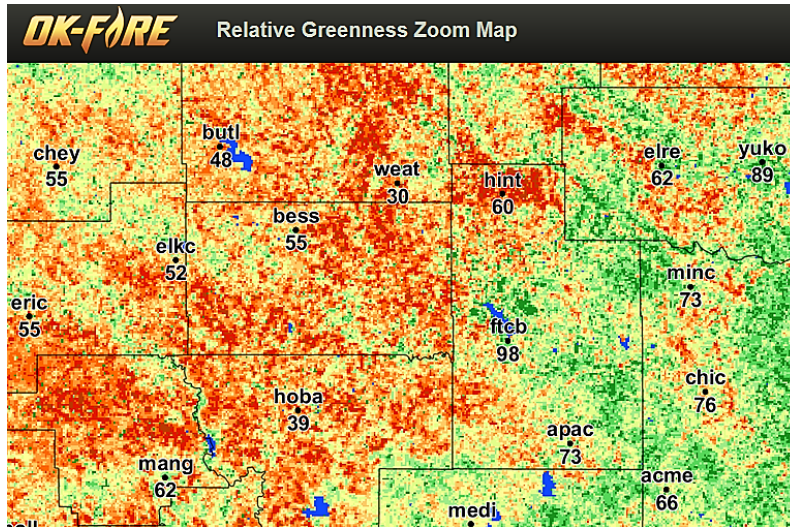
These forecast products will open up in a new tab, which you can close after looking at the forecast. It is beyond the scope of this overview to describe in detail how these forecasts can be navigated, but they are fairly user-friendly.

Relative Greenness Zoom Map

Relative Greenness (RG) is a key variable in the fire danger model. It is a satellite-derived variable from the VIIRS sensor, has a spatial resolution of 500 m, and is updated daily. This is one of the KEY maps that the OK-FIRE user needs to master.



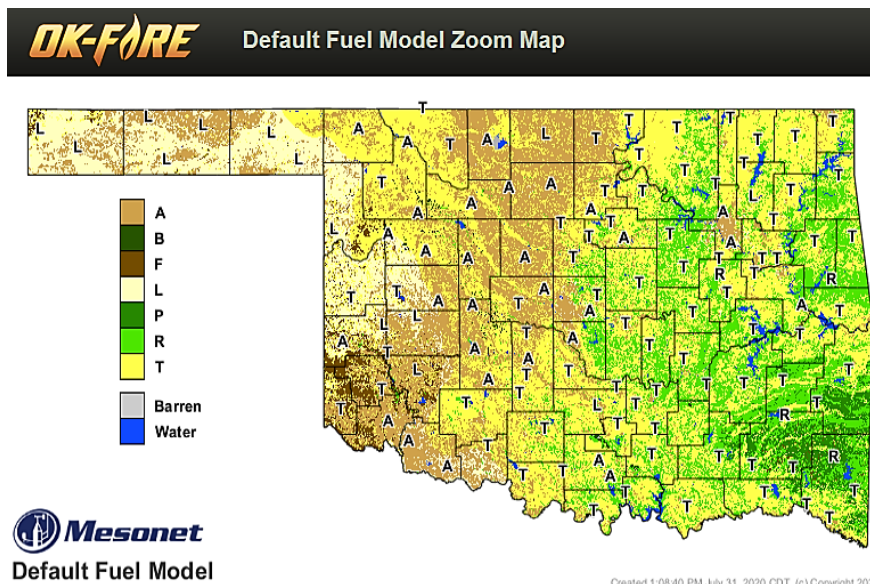
Upon clicking on this link, the statewide map of RG appears with RG values listed at the Mesonet stations. On a desktop or laptop computer, to zoom in, simply left click on the map. At that point you will then see a zoomed-in map centered in western Oklahoma.



On this map you will find the 4-character site names of the Mesonet stations. For desktop and laptop computers, to move to your part of the state, hold down your left mouse button and move your mouse toward the geographical area of interest. Release the mouse button and repeat to continue moving the map until you get where you wish. To zoom in further, move your scroll button forward; to zoom back out, move it backward. Finally to return to the statewide map, just left click on the existing zoomed-in map. For smartphones/tablets, just use the standard method of using your fingers to zoom in and out and to move the map around.

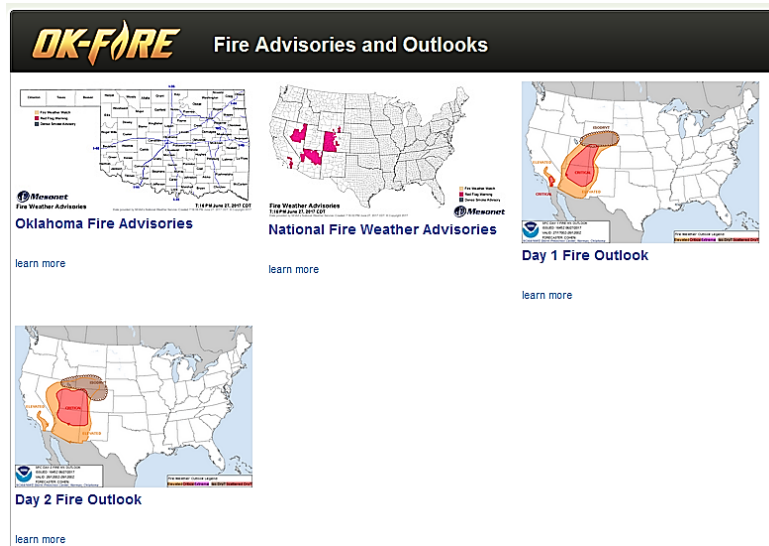
Default Fuel Model Zoom Map

Using the right fuel model for a given Mesonet site is essential for using the fire danger model output correctly. The statewide fire danger maps (i.e., BI, SC, ERC, and IC) are based on a DEFAULT fuel model map, with each 500-m pixel of land assigned a given fuel model. However, the user has the option at any Mesonet site to choose a different fuel model than the default one assigned to that station. Since fuel models are so important, this map is also zoomable. Use the same techniques discussed above.



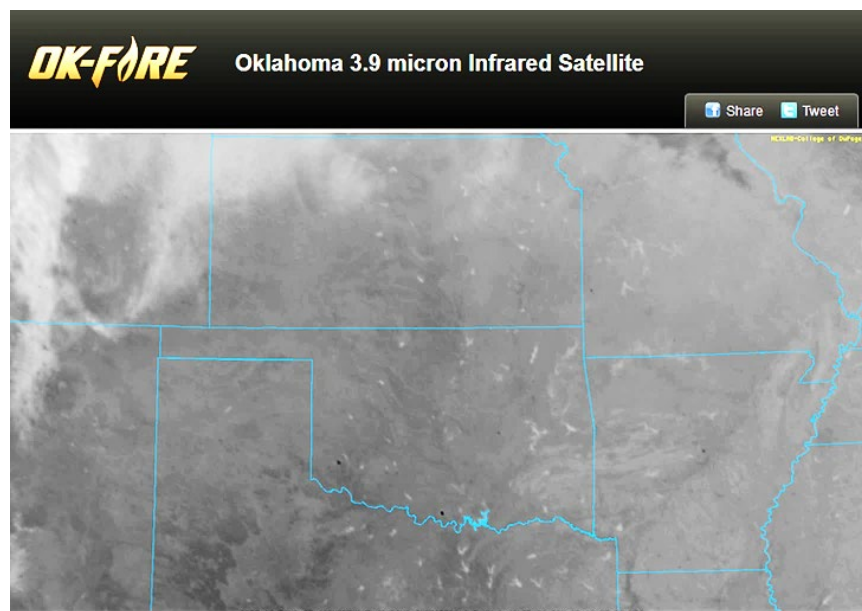
Fire Advisories and Outlooks

The first two maps in this section show any fire weather advisories for Oklahoma and the nation. These advisories are issued by the National Weather Service and include fire weather watches, red flag warnings, and dense smoke advisories. The next two maps show the fire outlooks over the next two days for the lower 48 states; these are issued by the Storm Prediction Center.



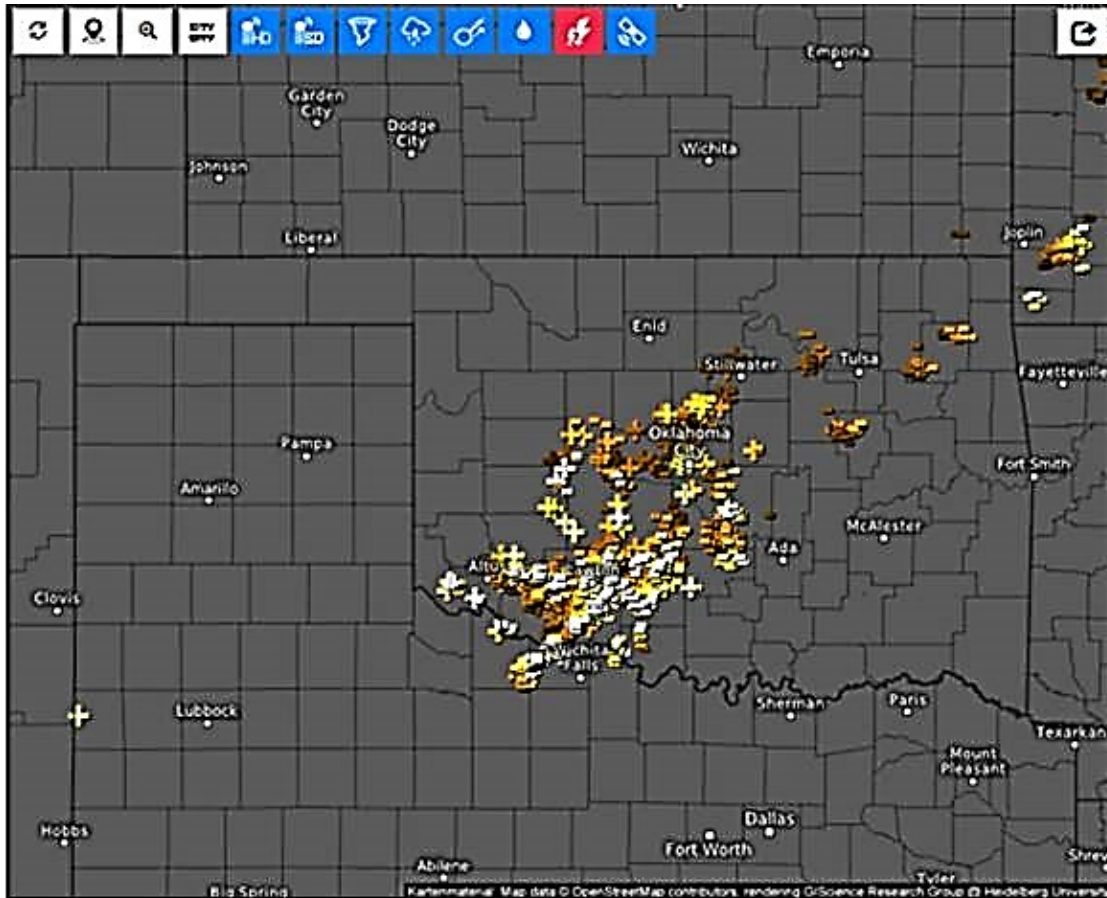
3.9 μ Infrared Satellite Map

This is an important map that is useful for identifying hot spots (wildfires, prescribed fires) over the southern Great Plains. To zoom into Oklahoma, on desktop and laptop computers, hold down the CTRL key while pressing the + key successively. To zoom back out, hold down the CTRL key while pressing the – key successively.



Recent Lightning Activity

Since lightning is important as an ignition source for wildfires, this is an important link to see where lightning has recently occurred. This Oklahoma-centered map shows current lightning strikes as well as strikes going back 60 minutes (see legend below). Strikes in the past 5 minutes are colored white.



Age of lightning (minutes) ⓘ

Fri 06/19/2020, 03:15pm CDT



Oklahoma Burn Bans

This section contains a link to the current burn bans in Oklahoma (governor and/or county declared) as well as links to the current Oklahoma Burn Ban Law and frequently asked questions about it. The two maps in this section contain the information that counties need to know to ascertain if they are even eligible to declare a burn ban (with respect to the weather-based parts of the state law). The Oklahoma Drought Map is important since one's county has to have D2 (severe drought) or higher (D3, D4) to be able to qualify. In addition, no more than 1/2 inch of precipitation must be forecast over the next 3 days. This is where the 3-Day Precipitation Forecast map comes into play. While this map does not have enough resolution to allow the user to zoom into particular counties, one can in general tell whether the precipitation amount is low enough to qualify (the county would need to be in the greens or whites).

OK-FARE Oklahoma Burn Bans


[Current Oklahoma Burn Bans](#)


[Oklahoma Burn Ban FAQ](#)


[Oklahoma Burn Ban Law](#)

[learn more](#)



Oklahoma Drought Map



3-day Precipitation Forecast

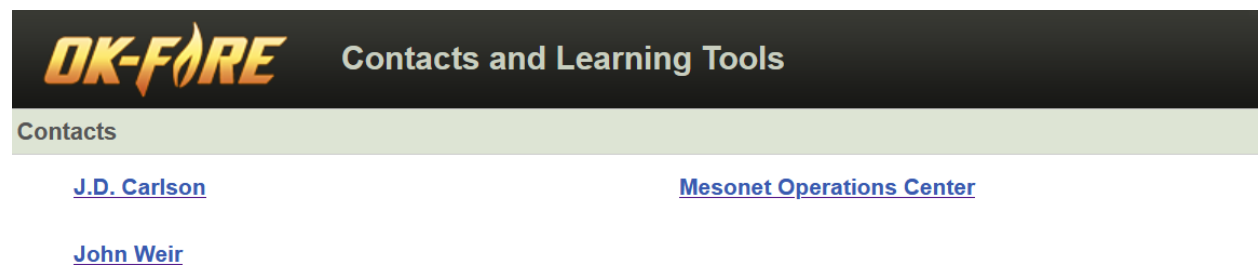
Additional Resources

This section contains a wealth of links to information related to wildland fire management. The major sections are as follows:

- Current National and Regional Conditions
- Recent Lightning Activity
- NWS Fire Weather Forecasts
- NWS Weather Forecasts and Outlooks
- Numerical Weather Forecast Models
- Fire Detection Products and Coordination Centers
- Smoke Dispersion Forecasts
- Air Quality Resources
- National Wildland Fire Resources

Contacts and Learning Tools

The first subsection, “Contacts”, includes a link to the Mesonet Operations Center for submitting messages to Mesonet regarding OK-FIRE or to report problems with the website.



After “Contacts” are the following subsections: “Website and Product Overview”, which contains a variety of useful PDF documents describing aspects of the OK-FIRE website, its products, and its models; “OK-FIRE Basics”, which contains PDFs on how to practically utilize OK-FIRE for wildfire and prescribed fire applications; “Workshop Presentations and Lab Exercises”, which contains the latest PDF presentations from OK-FIRE workshops; “Workshop Training Videos”, which are useful for self-training and feature edited recordings from the December 2022 online OK-FIRE workshop; “OSU Extension Materials”, which contains a video on wildland fuels, drought, and fire danger, as well as PDFs of extension documents related to prescribed burning and smoke management; and finally “Other Educational Materials”.

News

Occasional news items will be placed in this section. They are often referenced by the scrolling ticker on the home page. To get back to OK-FIRE again, just click on the OK-FIRE logo or use your browser back button.

Fall 2024 Training Workshops for OK-FIRE Announced
2024-07-22 00:00:00


OK-FIRE Training Videos Now Available
2024-06-11 14:00:00

Revised OSU Extension Publications on Prescribed Burning and Smoke Management Now Available
2021-07-07 18:00:00

Updated Training Materials for OK-FIRE on Website
2021-02-26 13:00:00

New Update of OK-FIRE Released
2021-02-04 15:00:00

New Fire Danger Model Released Today
2020-06-03 19:00:00



News

Revised OSU Extension Publications on Prescribed Burning and Smoke Management Now Available

Over the past number of years, updates have been made to four OSU Extension publications related to prescribed burning and smoke management:

- NREM-2878** (Fire Prescriptions for Restoration and Maintenance of Native Plant Communities) *Revised Aug 2018*
- E-927** (Using Prescribed Fire in Oklahoma) *Revised Feb 2021*
- E-1008** (Smoke Management for Prescribed Burning) *Revised Mar 2021*
- E-1010** (Oklahoma Prescribed Burning Handbook) *Revised Jun 2021*

Links to these revised publications are conveniently located on the "Contacts and Learning Tools" page of OK-FIRE (see left menu) within the "OSU Extension Materials" section. You can view the PDF publications directly, download them, or print them out. Many of the changes pertain to products within OK-FIRE as well as where to find them within the new website architecture that occurred in October 2017. Also many new links to other relevant OSU extension publications have been added to these revised documents.

Current Fuel Model for PRIMARY Station


At the bottom of the left menu section, the current fuel model chosen for the PRIMARY station on the home page is shown with an option to change it to a different fuel model. Access the pull-down menu to select a different fuel model.

Current Fuel Model for Stillwater

T - Tallgrass with open evergreen t ▼

Default is T

Station Fuel Model Options



2

Current Fuel Model for Stillwater

- T - Tallgrass with open evergreen t ▼
- A - Western annual grasses / annual cropland / urban
- B - Tall dense evergreen brush / eastern redcedar
- F - Intermediate evergreen brush**
- G - Forest with heavy downed fuels
- K - Light slash
- L - Western perennial grasses
- P - Southern pine forest
- R - Hardwood forest
- T - Tallgrass with open evergreen brush

When a different fuel model than the default model is chosen (in this example, Model F), an orange-filled box appears telling you that you are using an alternative fuel model rather than the default:

**Current Fuel Model for
Stillwater**

F - Intermediate evergreen brush ▾

Default is T

Using Alternative Fuel Model!

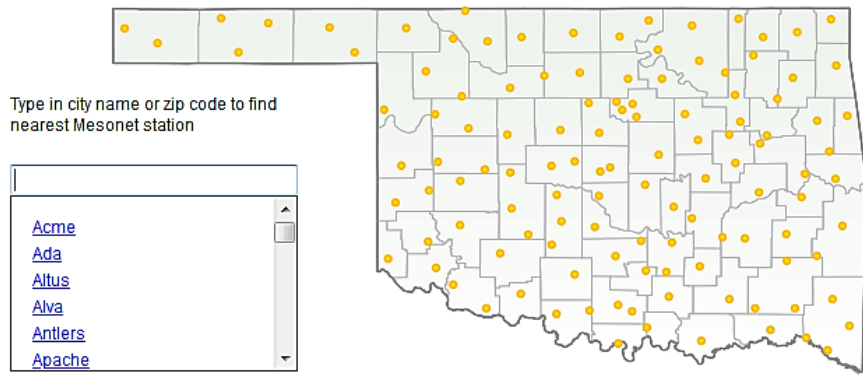
Station Fuel Model Options

This alternative fuel model now becomes the fuel model for the PRIMARY station throughout the website for the chart and table products until the user changes it back or to yet an even different fuel model. Map products from the fire danger model continue to be based upon the default fuel model map.

Station Fuel Model Options

The final left menu item is “Station Fuel Model Options”. This is another important link to a page where you can change the fuel model for ANY Mesonet station.

Select Mesonet Station



Type in city name or zip code to find nearest Mesonet station

Acme
Ada
Altus
Alva
Antlers
Apache

Station: **Stillwater**

Default Fuel Model: **T - Tallgrass with open evergreen brush**

Current Fuel Model: **F - Intermediate evergreen brush**

[Fuel Model Descriptions](#)

Change Current Fuel Model to:

[Set Stillwater to default](#)

A more detailed description of how to use this page is provided in the PDF document “Station Fuel Model Options” in the “Contacts and Learning Tools” section of the OK-FIRE website.