

The OK-FIRE Home Page

<https://www.mesonet.org/index.php/okfire/home>

OK-FIRE is accessible from the general Mesonet website by clicking on “Fire Management” on the top menu bar. Upon clicking that, you will see the home page (technically, “landing” page) of OK-FIRE. The module is self-contained and you will stay within it unless you choose to go elsewhere on the general Mesonet website.

The screenshot shows the OK-FIRE home page. At the top is the Mesonet logo and navigation menu. Below is a secondary menu with categories like Weather, Climate, Forecast, etc. The main content area is divided into three sections:

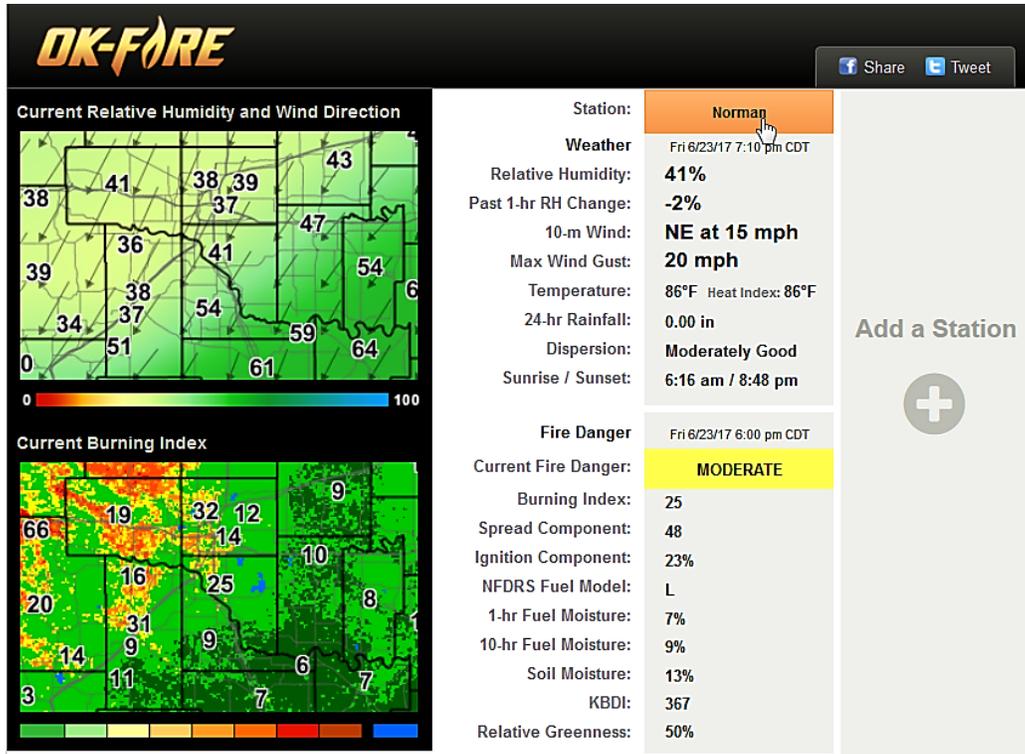
- Left Sidebar:** A list of tools and resources including 'Current Station Conditions', 'Current Maps', 'Past & Forecast Animated Maps', 'Fire Prescription Planner', 'NWS Forecast Chart (Stillwater)', 'Relative Greenness Zoom Map', 'Default Fuel Model Zoom Map', 'Fire Advisories and Outlooks', '3.9 μ Infrared Satellite Map', 'Recent Lightning Activity', 'Oklahoma Burn Bans', 'Additional Resources', 'Contact and Product Information', and 'News'. At the bottom, it shows 'Current Fuel Model for Stillwater' set to 'T-Tallgrass with brush'.
- Top Map:** 'Current Relative Humidity and Wind Direction' map showing RH values (e.g., 41, 45, 46, 49, 50, 52, 53) and wind direction arrows over a geographic area.
- Bottom Map:** 'Current Burning Index' map showing index values (e.g., 62, 20, 16, 14, 8, 12, 11, 12, 14, 12, 12, 6, 11, 1) with a color scale from green (low) to red (high).
- Right Panel:** A comparison table for weather and fire danger between Stillwater and Oilton on Tue 6/27/17 7:05 pm CDT.

| 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 8:00 pm CDT | Tue 6/27/17 8:00 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% |

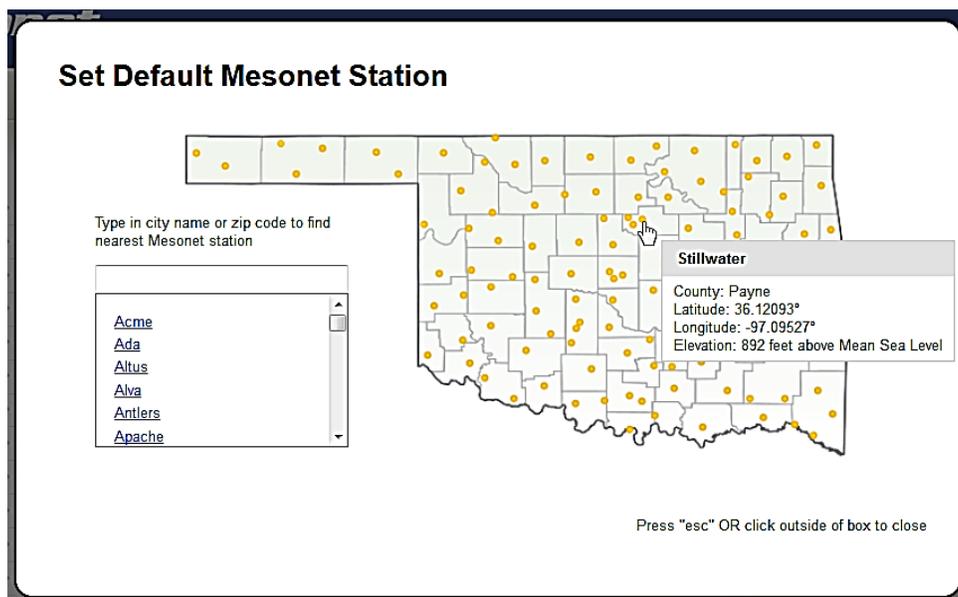
We will now begin to look at the details of the home page and the architecture of the OK-FIRE website.

Current Data Tables for Up to Two Mesonet Stations

OK-FIRE allows for up to TWO stations on the home page. The first one (left column data tables) is called the “primary” station and is the default Mesonet site throughout the OK-FIRE website.



To change the station, just click on the Mesonet station at the top of the column and choose another station (Stillwater in this example) on the Mesonet map that comes up. You can also use the pull-down station menu to choose another station.



To choose a second (“secondary”) station, click on the + icon under “Add a Station” in the rightmost column:

OK-FIRE

Share Tweet

Current Relative Humidity and Wind Direction

Current Burning Index

Station: Stillwater

Weather Fri 6/23/17 7:05 pm CDT

Relative Humidity: **37%**

Past 1-hr RH Change: **+2%**

10-m Wind: **NNE at 17 mph**

Max Wind Gust: **26 mph**

Temperature: **83°F** Heat Index: 82°F

24-hr Rainfall: **0.00 in**

Dispersion: **Moderately Good**

Sunrise / Sunset: **6:12 am / 8:49 pm**

Fire Danger Fri 6/23/17 6:00 pm CDT

Current Fire Danger: **LOW**

Burning Index: **14**

Spread Component: **7**

Ignition Component: **15%**

NFDRS Fuel Model: **T**

1-hr Fuel Moisture: **5%**

10-hr Fuel Moisture: **8%**

Soil Moisture: **22%**

KBDI: **281**

Relative Greenness: **74%**

Add a Station

+

Then choose your “secondary” station (Oilton in this example) in the same manner as the primary station:

Set Secondary Mesonet Station

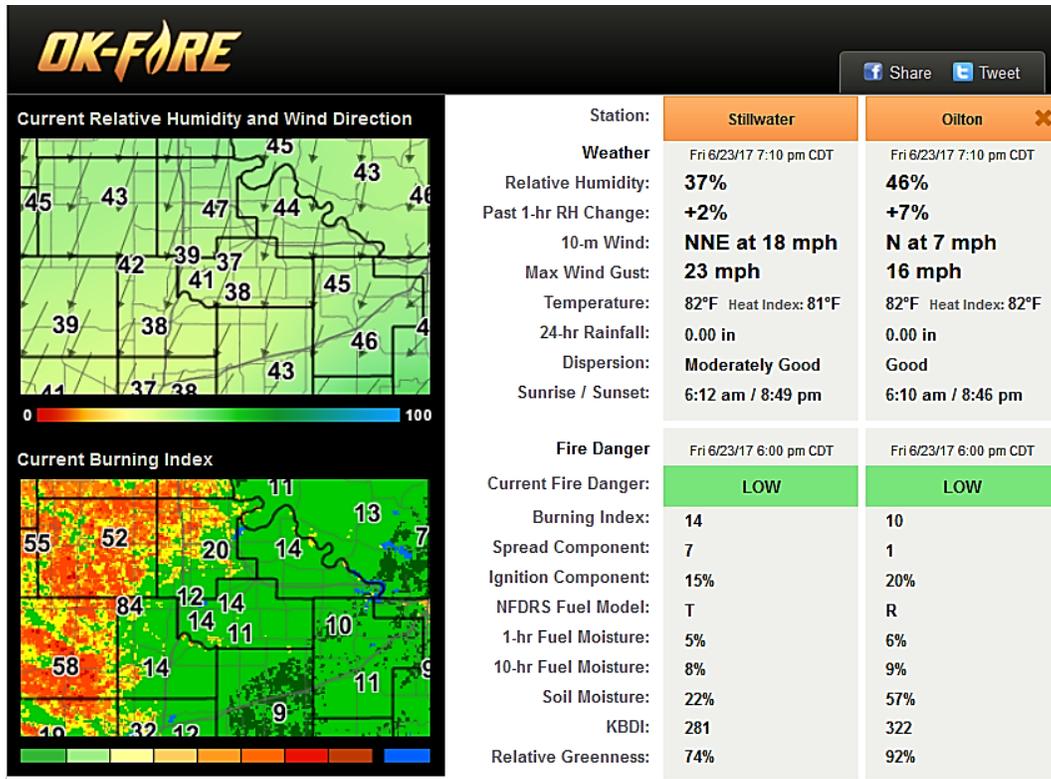
Type in city name or zip code to find nearest Mesonet station

Acme
Ada
Altus
Alva
Antlers
Apache

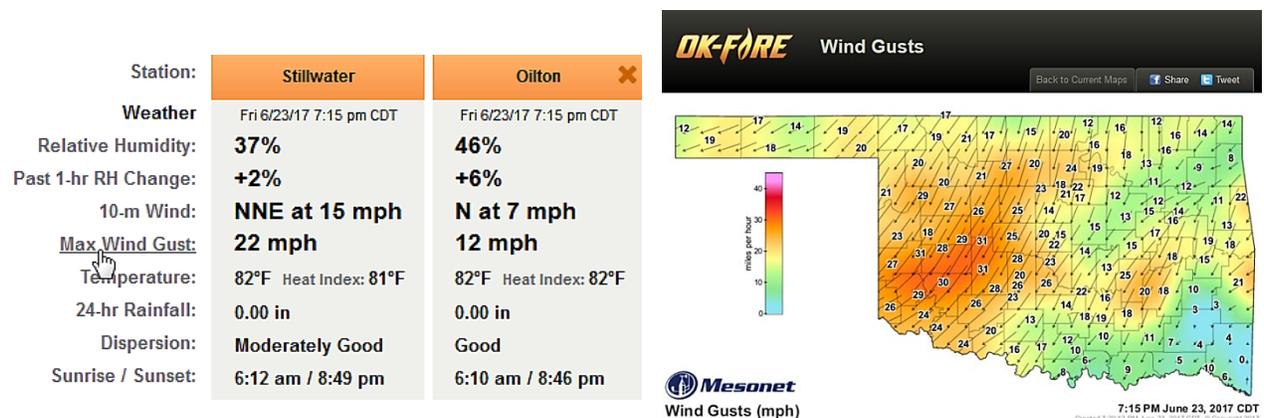
Oilton
County: Creek
Latitude: 36.03126°
Longitude: -96.49749°
Elevation: 837 feet above Mean Sea Level

Press "esc" OR click outside of box to close

Note that your two selected stations will now show up on the home page. In this case, Stillwater is the PRIMARY station and will be the default station throughout the website until changed by the user. Oilton is the SECONDARY station in this example.



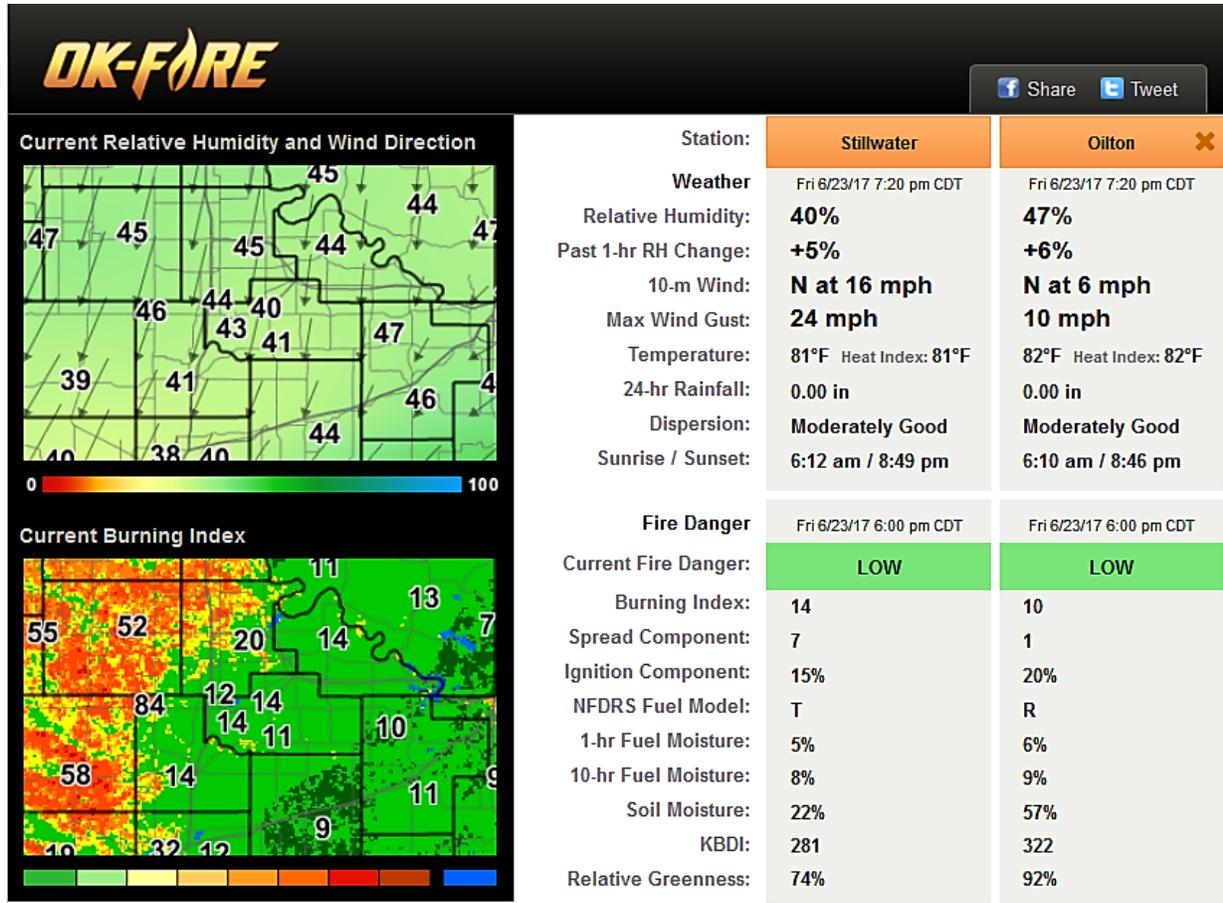
These data tables list the most important fire weather and fire danger variables. A nice feature of these tables is that these variable names are LINKS to the current statewide maps for those variables. Just click on the variable name (in this example, "Max Wind Gust") and a statewide map will come up for that variable.



Click on the OK-FIRE logo above the map to get back to the home page.

Current Regional Maps Centered about the Primary Mesonet Station

To the left of these data tables are current regional maps centered about the primary station for some important fire weather and fire danger variables. As you can see below, the top regional map is for Relative Humidity and Wind Direction, while the second one below it is for Burning Index. Since Stillwater is the primary station, you can see that these regional maps are centered about Stillwater, giving a nice multi-county zoomed-in view that the statewide maps do not afford.



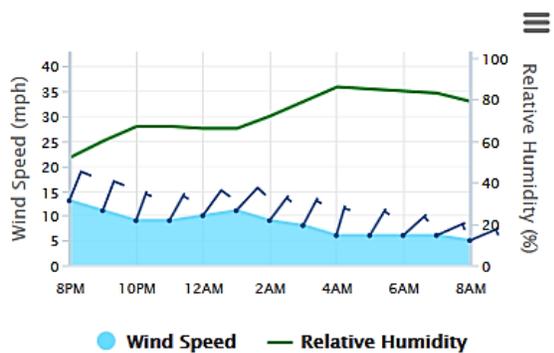
12-Hour Forecast Charts for Primary and Secondary Stations

Below this section (maps and data tables) on the home page are forecast charts over the next 12 hours for the primary station and (if there is one) for the secondary station. The first chart is for Relative Humidity and Winds (the two most important fire weather variables) and the second chart below it is for Burning Index and 1-hr Precipitation. These forecasts are based on the latest 6-hour update of the North American Mesoscale (NAM) model. The text above the graphs within the orange rectangle (*added to the image below*) show what forecast is currently being used and when the next update is expected.

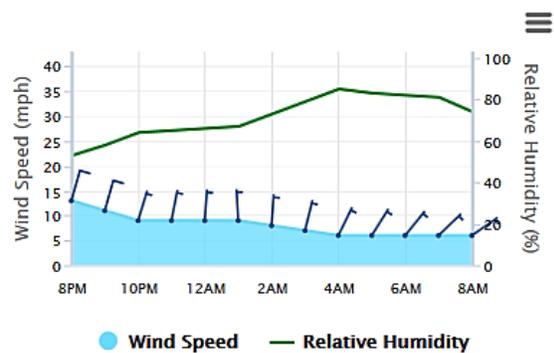
NAM 12-hr Forecast Charts for Stillwater

NAM 12-hr Forecast Charts for Oilton

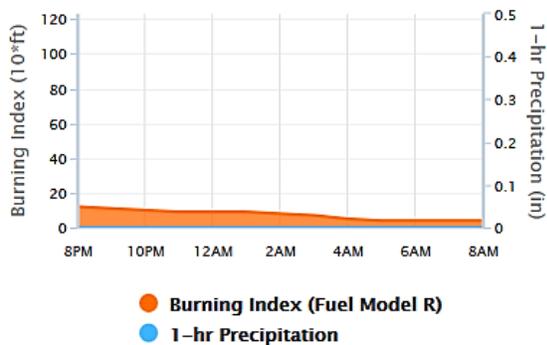
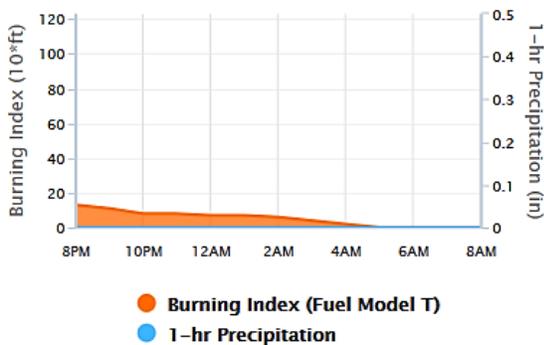
Forecast based on 6 pm UTC 06/23/17 NAM; NEXT forecast update expected 4 am UTC 06/24/17



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Convenient Left Menu Items

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, containing the following items:

- Current Station Conditions >
- Current Maps >
- Past & Forecast Animated Maps>
- Past & Forecast Charts/Tables >
- Fire Prescription Planner >
- NWS Forecast Chart (Stillwater) >
- NWS Forecast Table (Stillwater) >
- Relative Greenness Zoom Map >
- Default Fuel Model Zoom Map >
- Fire Advisories and Outlooks >
- 3.9 μ Infrared Satellite Map >
- Recent Lightning Activity >
- Oklahoma Burn Bans >
- Additional Resources >
- Contact and Product Information >
- News >
- Current Fuel Model for Stillwater
- T-Tallgrass with brush (Default is T)
- Station Fuel Model Options

The main dashboard features the OK-FIRE logo and social media sharing options. It displays two maps: "Current Relative Humidity and Wind Direction" and "Current Burning Index". The right side of the dashboard provides a comparison of weather and fire danger data for two stations: Stillwater and Oilton.

| | Stillwater | Oilton |
|----------------------|-------------------------|-------------------------|
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| KBDI: | 316 | 357 |
| Relative Greenness: | 83% | 93% |

More details on these left menu items are given in the PDF document "Overview of Left Menu Items on OK-FIRE" found in the "Contacts and Learning Tools" section of OK-FIRE.