

**FIRE DANGER**



# Questions You Should Be Able to Answer by the End of this Module

- What are the three major physical determinants of fire danger?
- What are the differences between dead and live fuels?
- How do 1-h and 10-h dead fuels respond differently to weather conditions than 100-h and 1000-h fuels?
- What is a fuel model and how can I change it on OK-FIRE?
- Why is relative greenness (RG) important to fire danger in OK-FIRE?
- What fire danger variables do fuel model and RG influence in OK-FIRE?

# ***What do we mean by FIRE DANGER?***

**the ability or potential of a  
wildland fire to start, spread,  
resist control, and do damage**



# *Fire Danger*

**FUEL LOADINGS + FUEL MOISTURE + WEATHER**



**FUEL MODEL + GREENNESS LEVEL + WEATHER**



**FIRE DANGER MODEL**



***FIRE DANGER***

# Wildland Fuels

A landscape photograph showing a mix of pine trees and tall, dry grasses on a hillside under a clear blue sky. The text "Wildland Fuels" is overlaid in the center. The foreground is dominated by young, green pine trees and tall, dry, yellowish-brown grasses. In the background, a dense forest of taller pine trees and some bare deciduous trees is visible against a clear blue sky. The overall scene suggests a natural, unmanaged woodland environment.







# Wildland Fuels

- Dead Fuels
- Live Fuels

# Dead Fuels



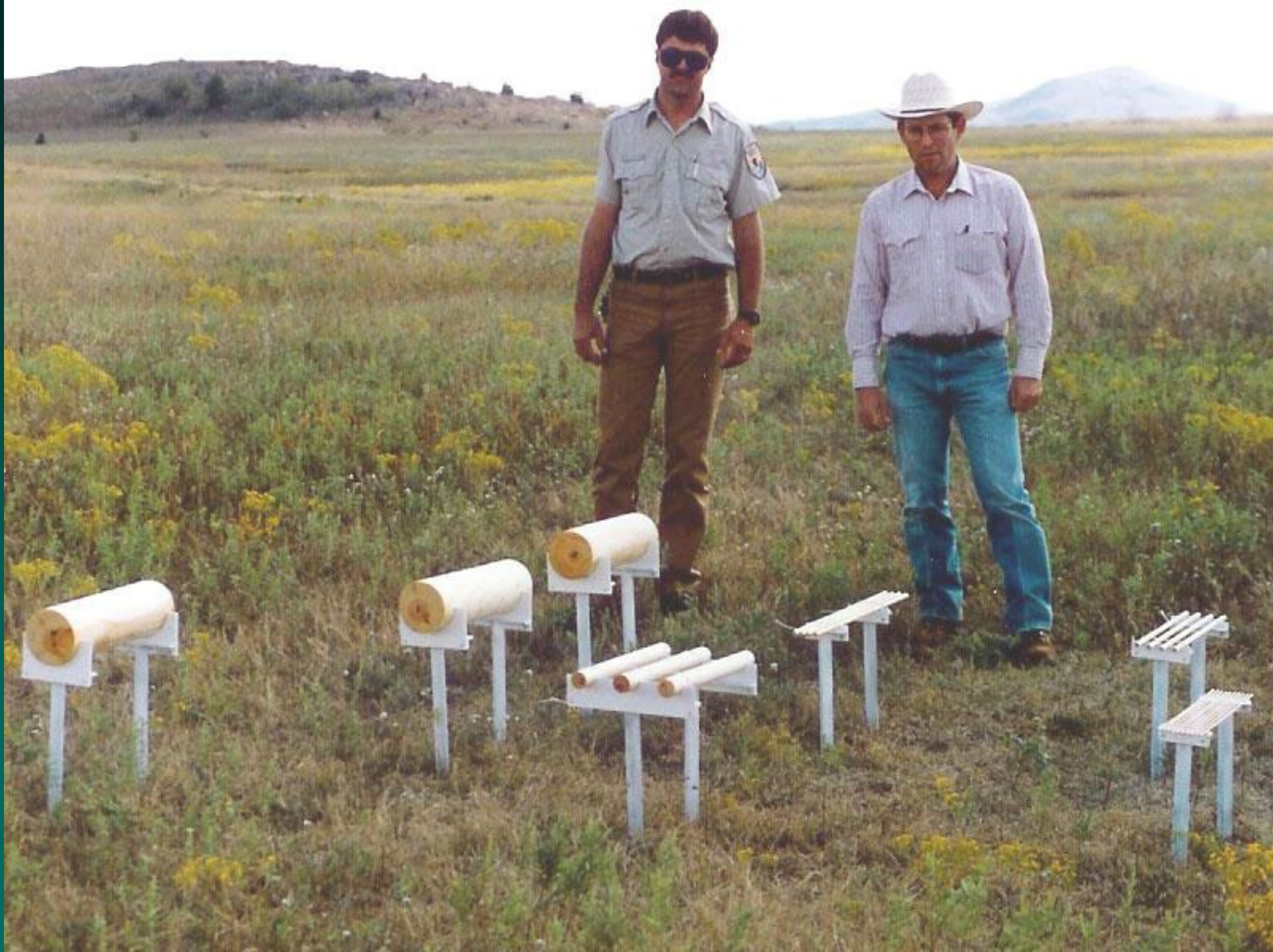
# Dead Fuels

*(moisture content controlled exclusively  
by weather conditions)*

- Dead roundwood
- Cured/dead vegetation
- Litter/Duff

# Classification of Dead Fuels

- 1-hour (dia < 1/4"; depth < 1/4")
- 10-hour (dia = 1/4 - 1"; depth = 1/4 - 1")
- 100-hour (dia = 1 - 3"; depth = 1 - 4")
- 1000-hour (dia = 3 - 8"; depth = 4 - 12")





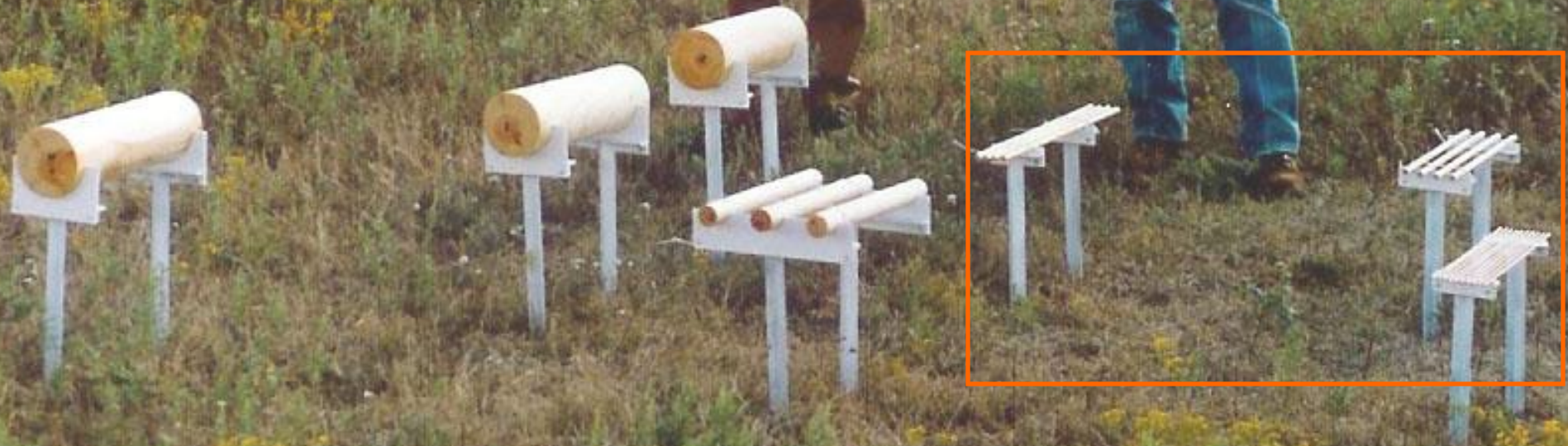


# Dead Fuel Moisture (the “Nelson model”)

- **1-hour**
  - 1-85%
- **10-hour**
  - 1-60%
- **100-hour**
  - 1-40%
- **1000-hour**
  - 1-32%

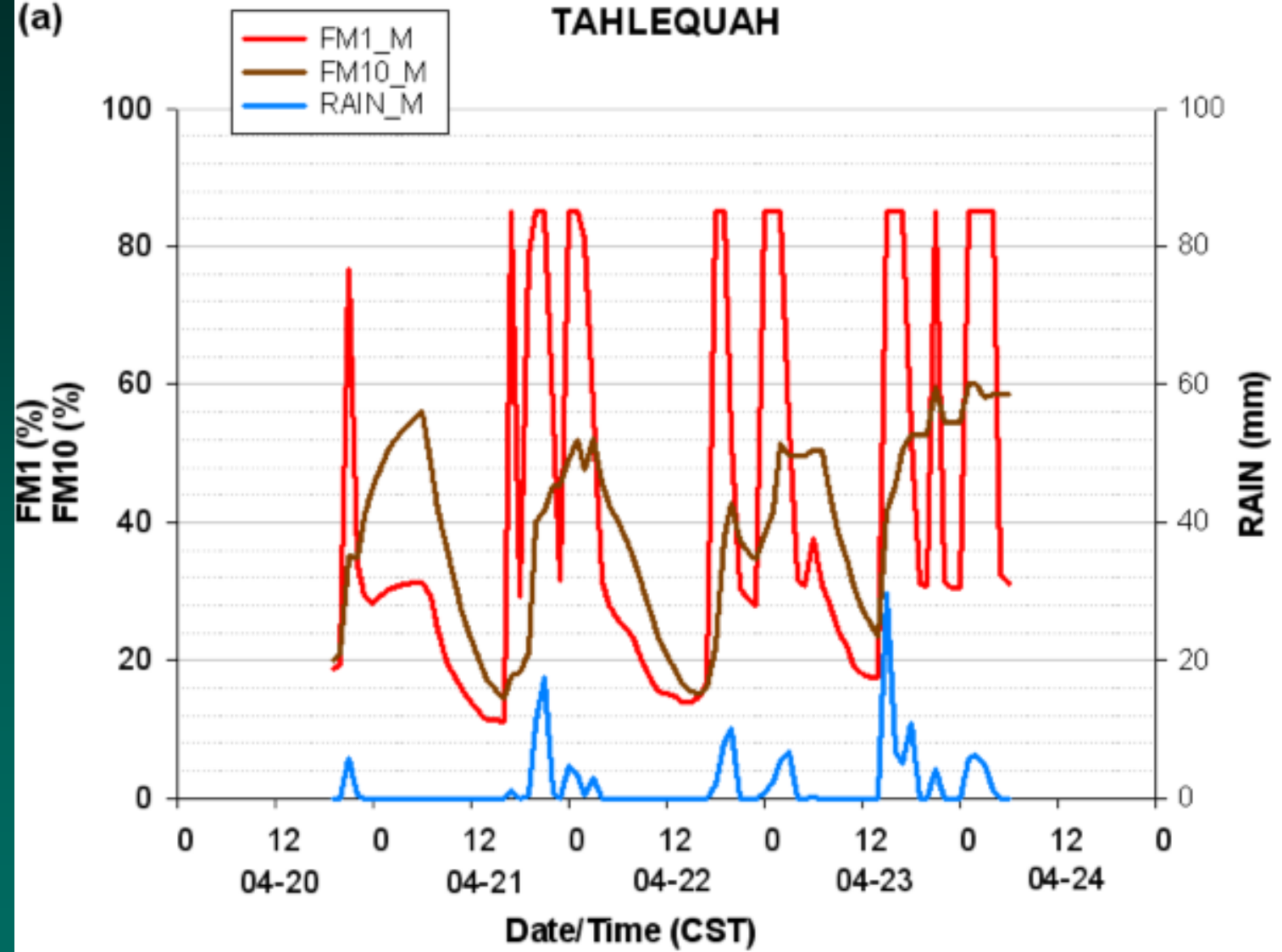


# 1-h and 10-h Dead Fuel Moisture



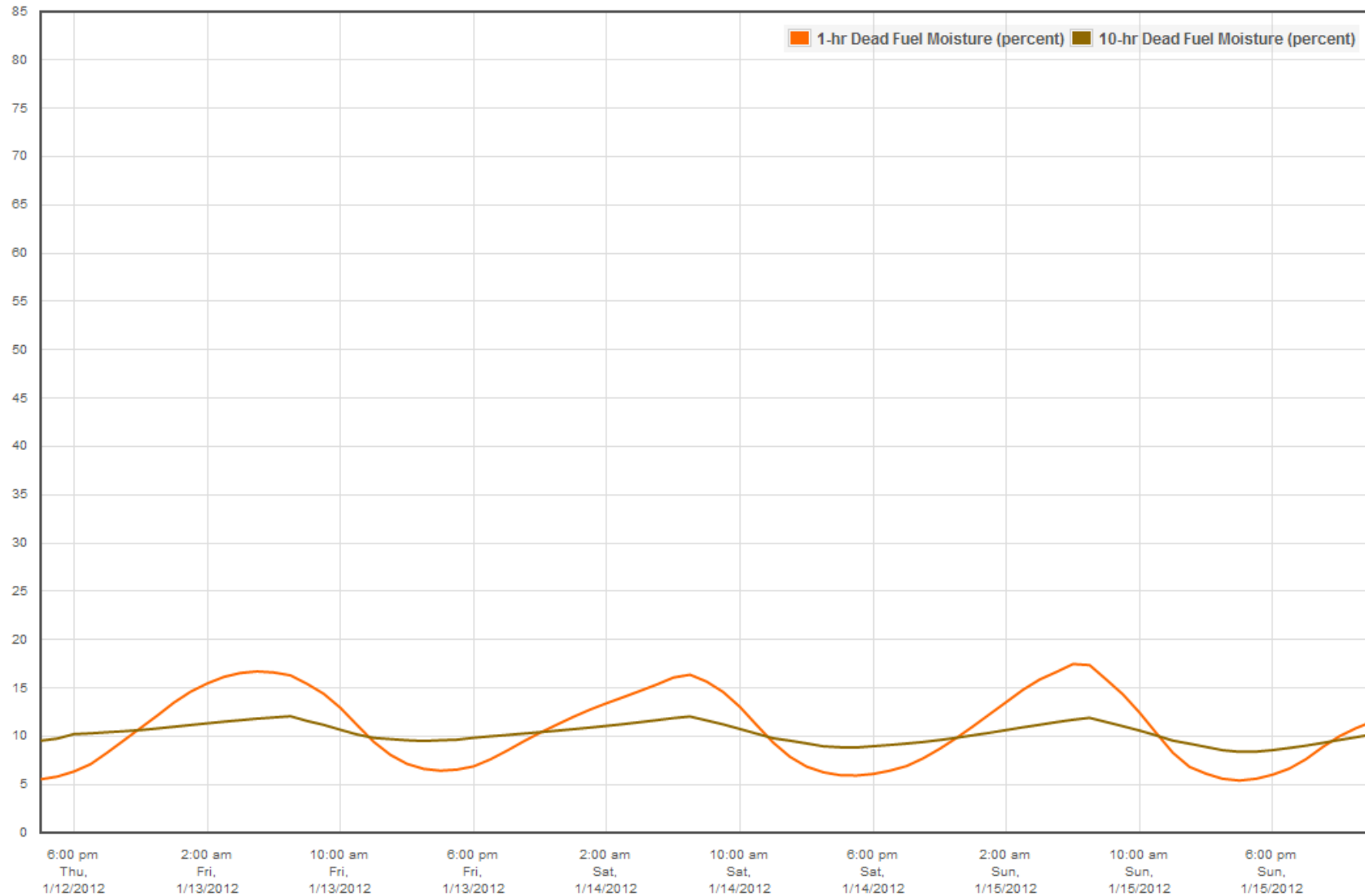
(a)

### TAHLEQUAH



# Typical Daily Pattern when No Rain

## Firegram for Buffalo



# 1 and 10-h Dead Fuel Moisture

## 1-hr fuels

## 10-hr fuels

## Fire Behavior

> 20%

> 15%

Fuels too moist for fire spread;  
heavy smoke possible

7-20%

6-15%

Normal range for prescribed  
burning

5-7%

5-6%

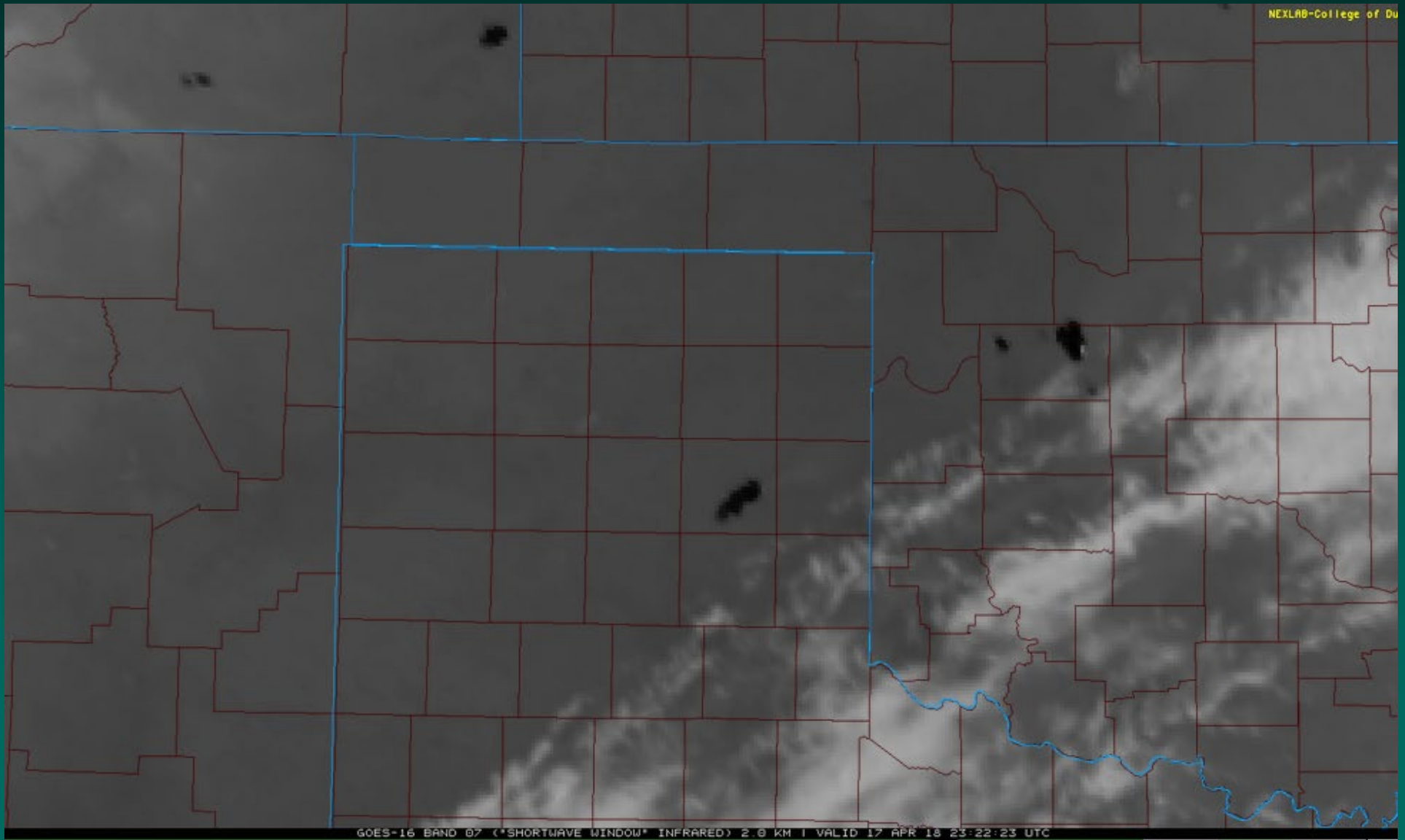
Containment difficult; quick  
ignition; spotfires increase

< 5%

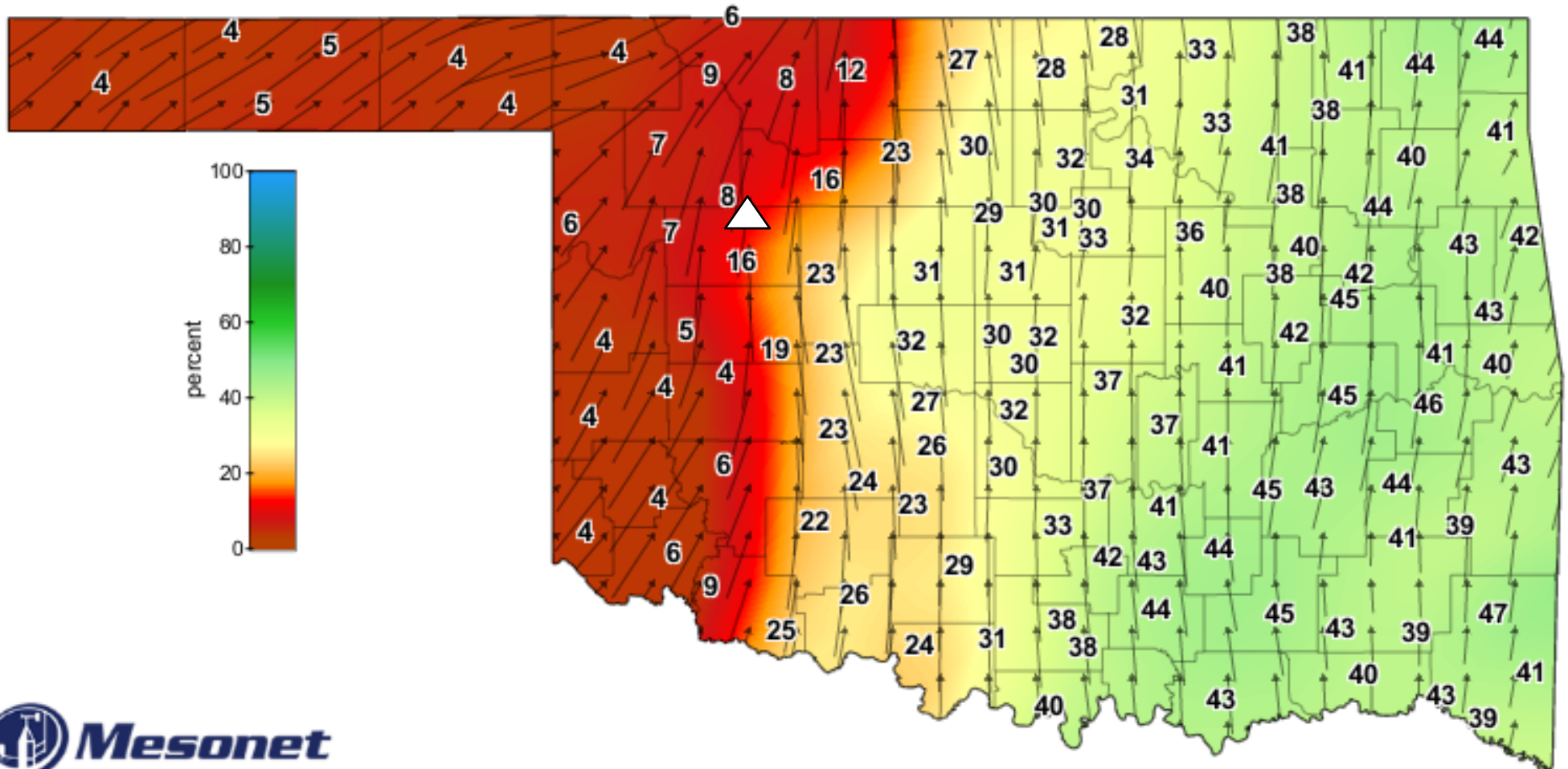
< 5%

Extreme fire behavior;  
spotfires frequent; burn with  
extreme caution

# 3.9 Micron Infrared – April 17, 2018



# Relative Humidity and Winds

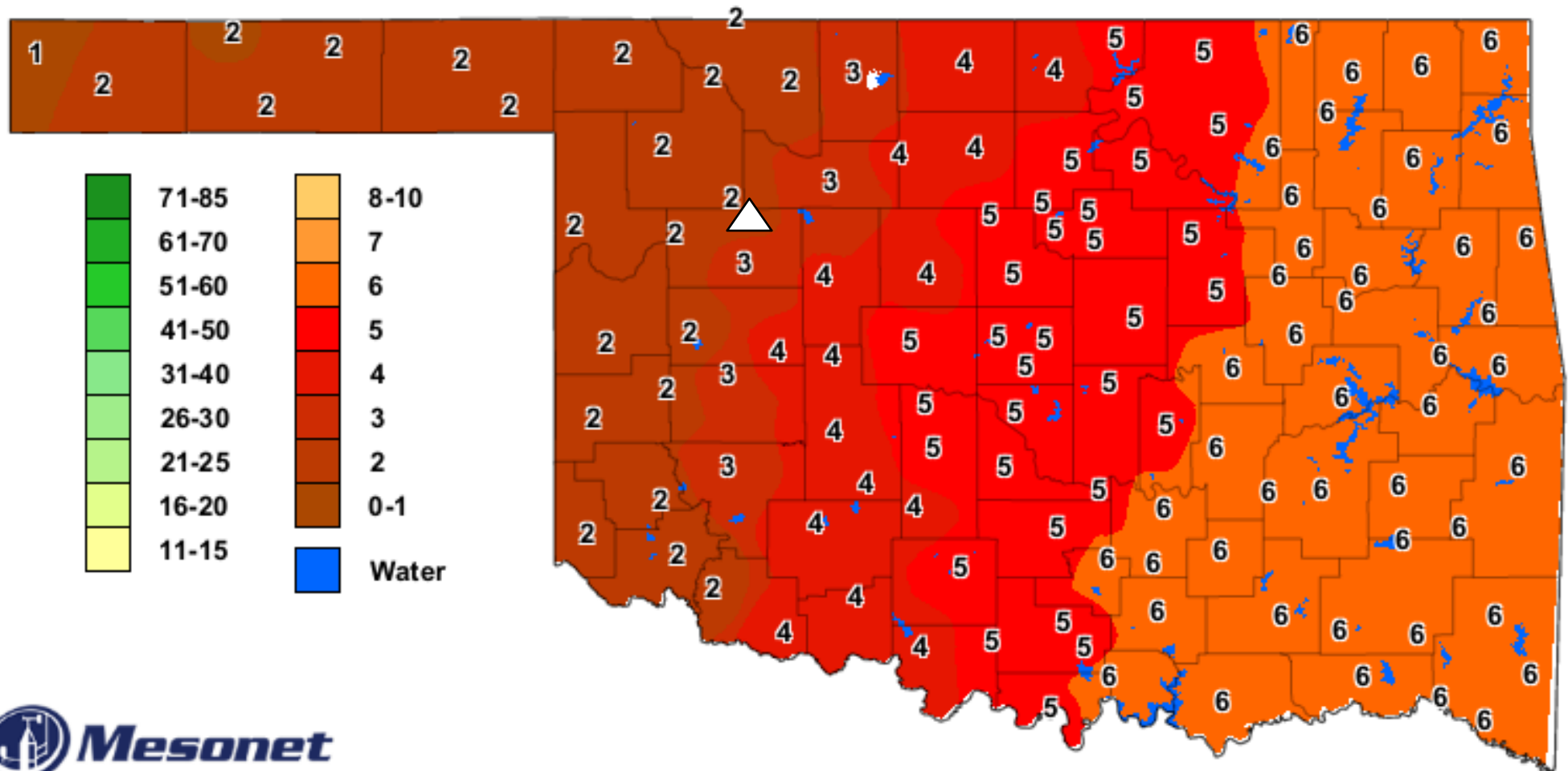


Relative Humidity and Winds

6:00 PM April 17, 2018 CDT

Created 6:05:34 PM April 17, 2018 CDT. © Copyright 2018

# 1-hr Dead Fuel Moisture

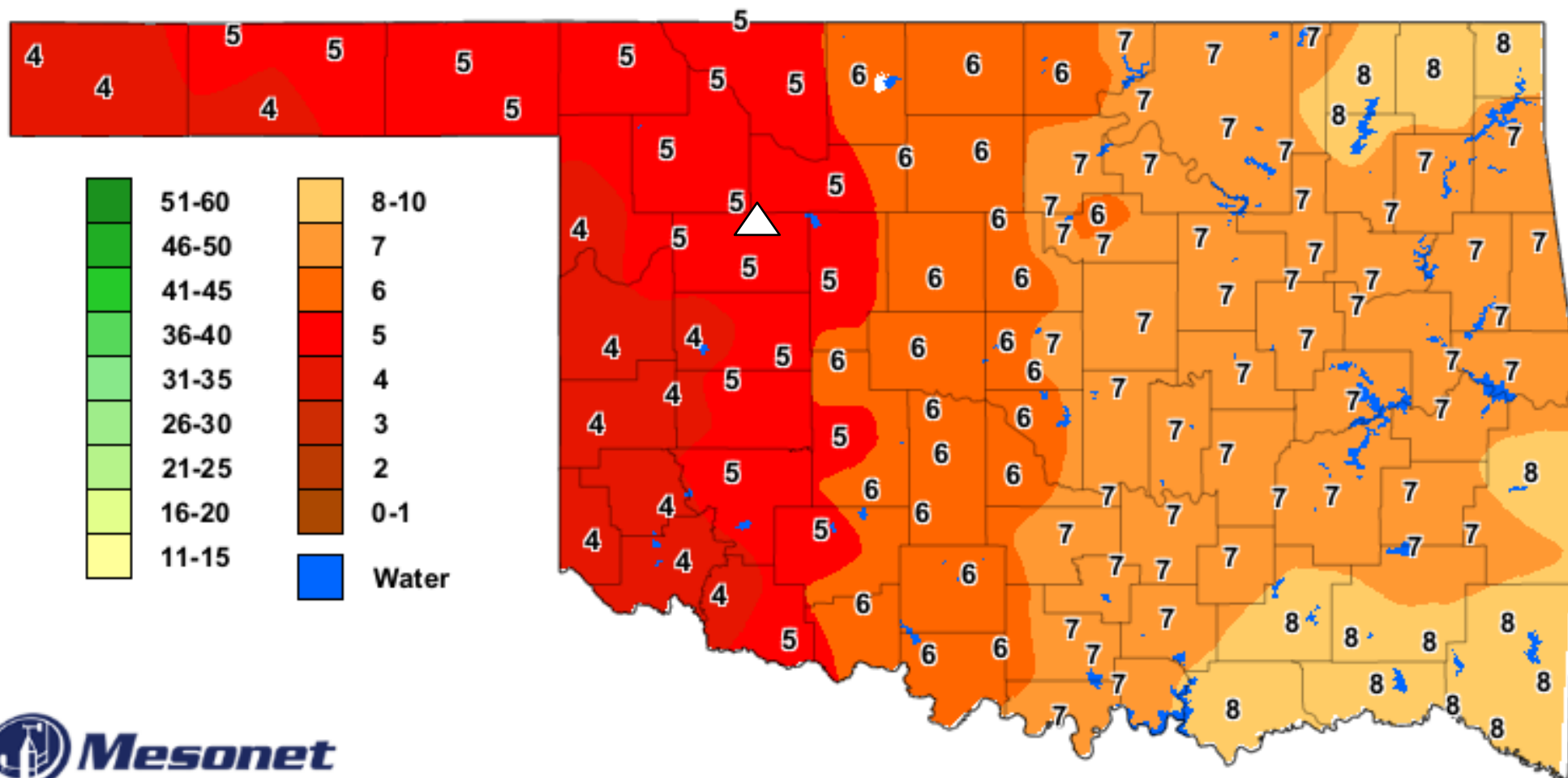


1-hr Dead Fuel Moisture (%)

6:00 PM April 17, 2018 CDT

Created 6:59:07 PM April 17, 2018 CDT. © Copyright 2018

# 10-hr Dead Fuel Moisture



10-hr Dead Fuel Moisture (%)

6:00 PM April 17, 2018 CDT

Created 6:59:07 PM April 17, 2018 CDT. © Copyright 2018

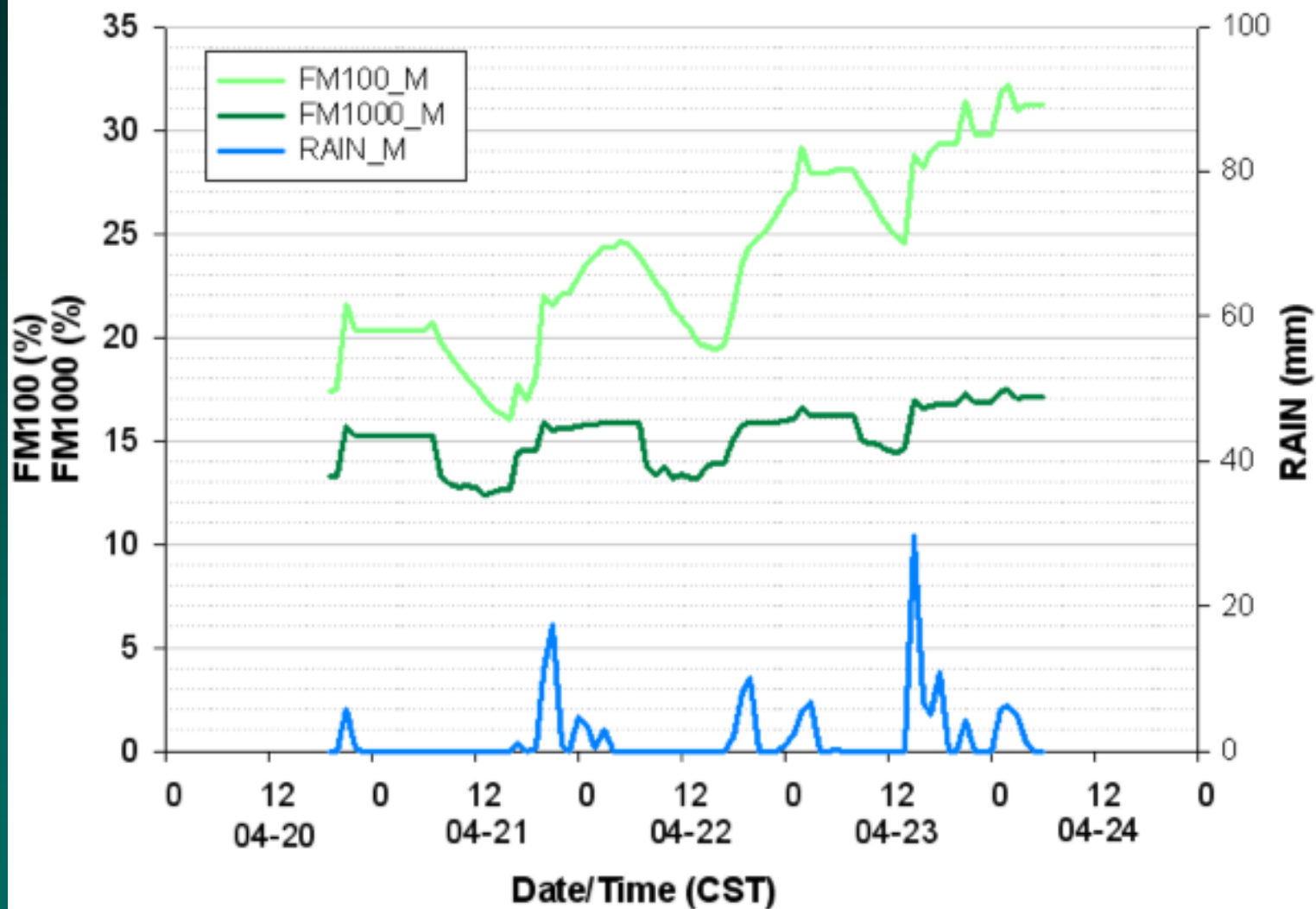


## 100-h and 1000-h Dead Fuel Moisture



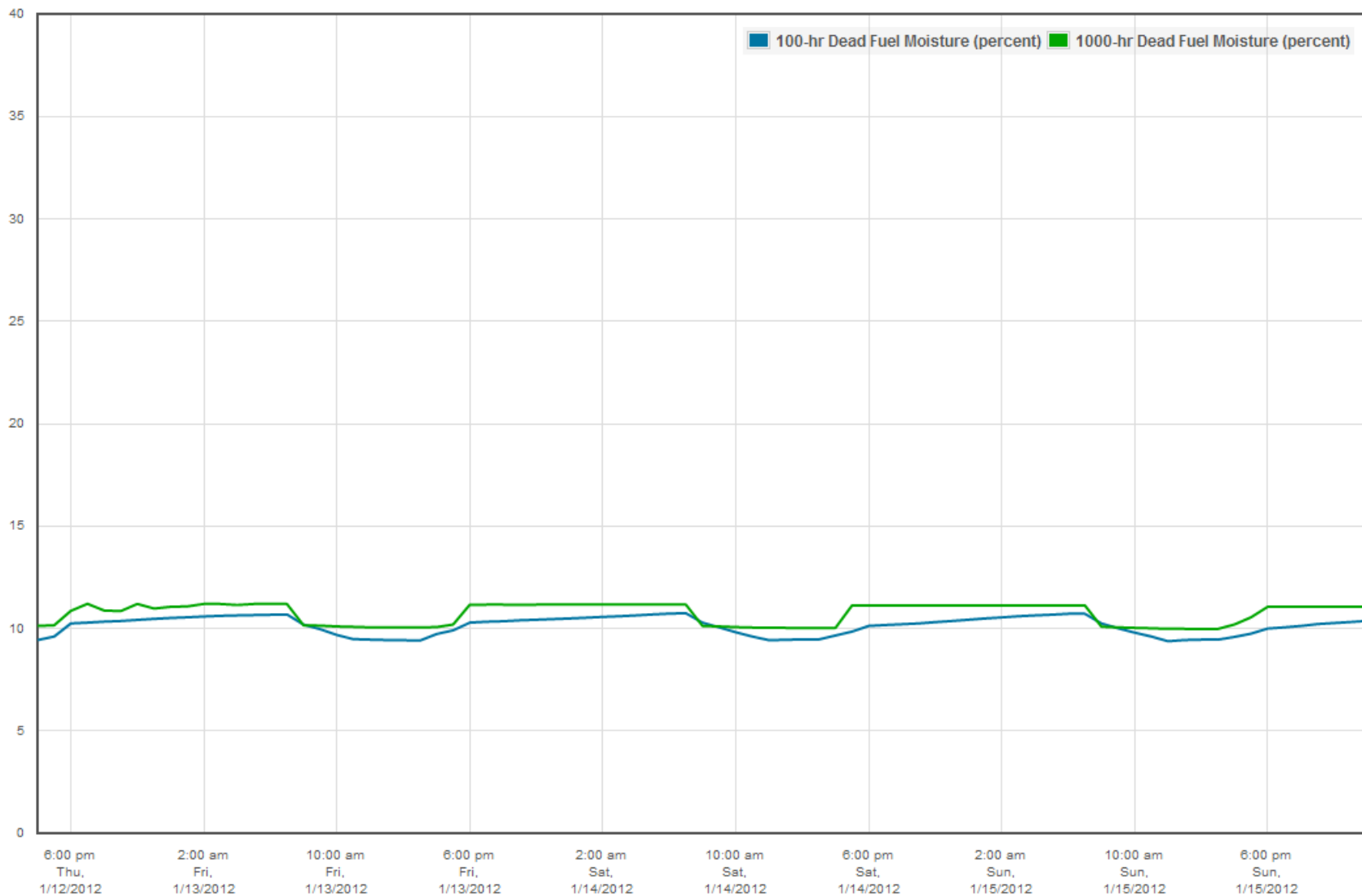
(b)

### TAHLEQUAH

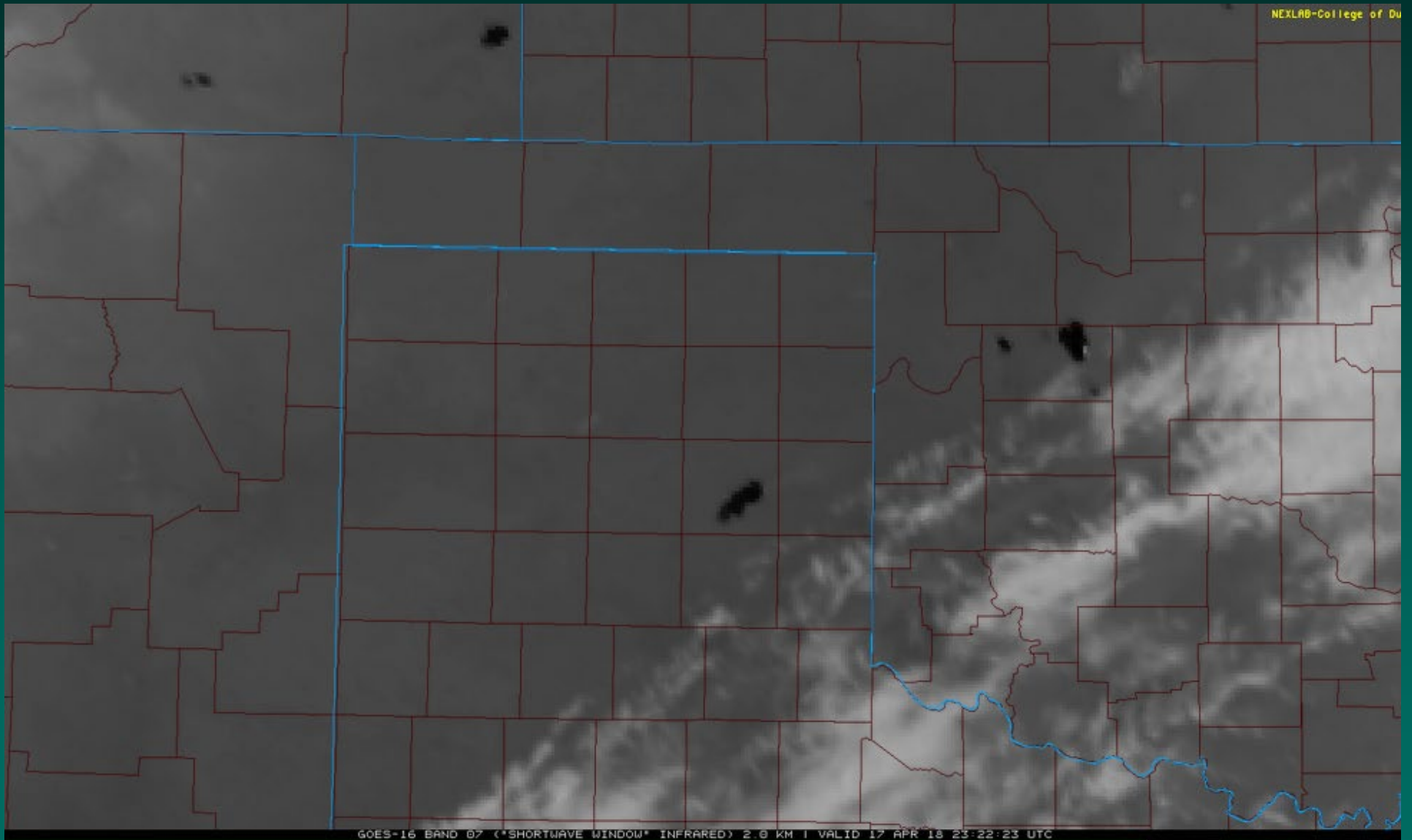


# Typical Daily Pattern when No Rain

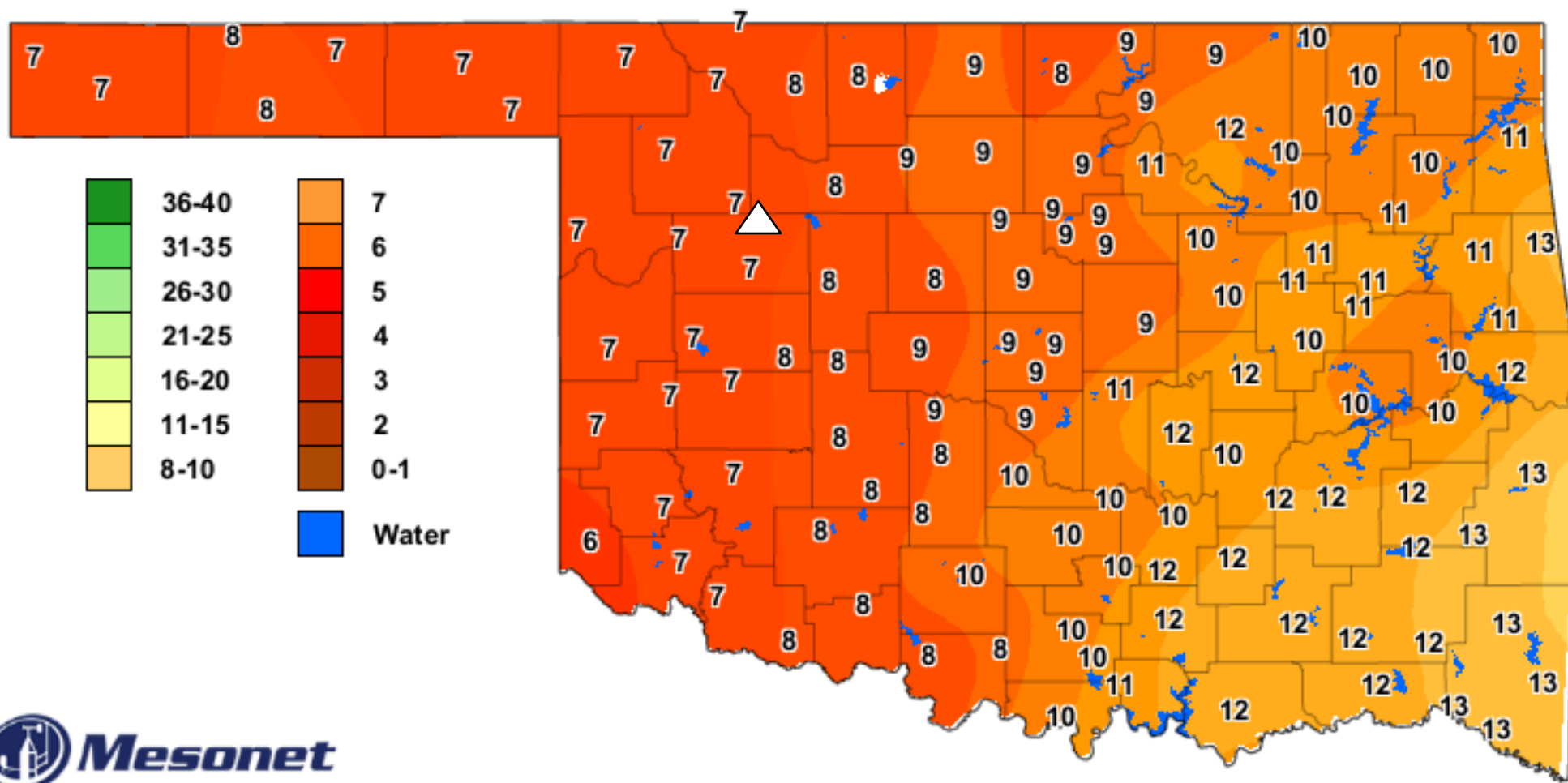
## Firegram for Buffalo



# 3.9 Micron Infrared – April 17, 2018



# 100-hr Dead Fuel Moisture

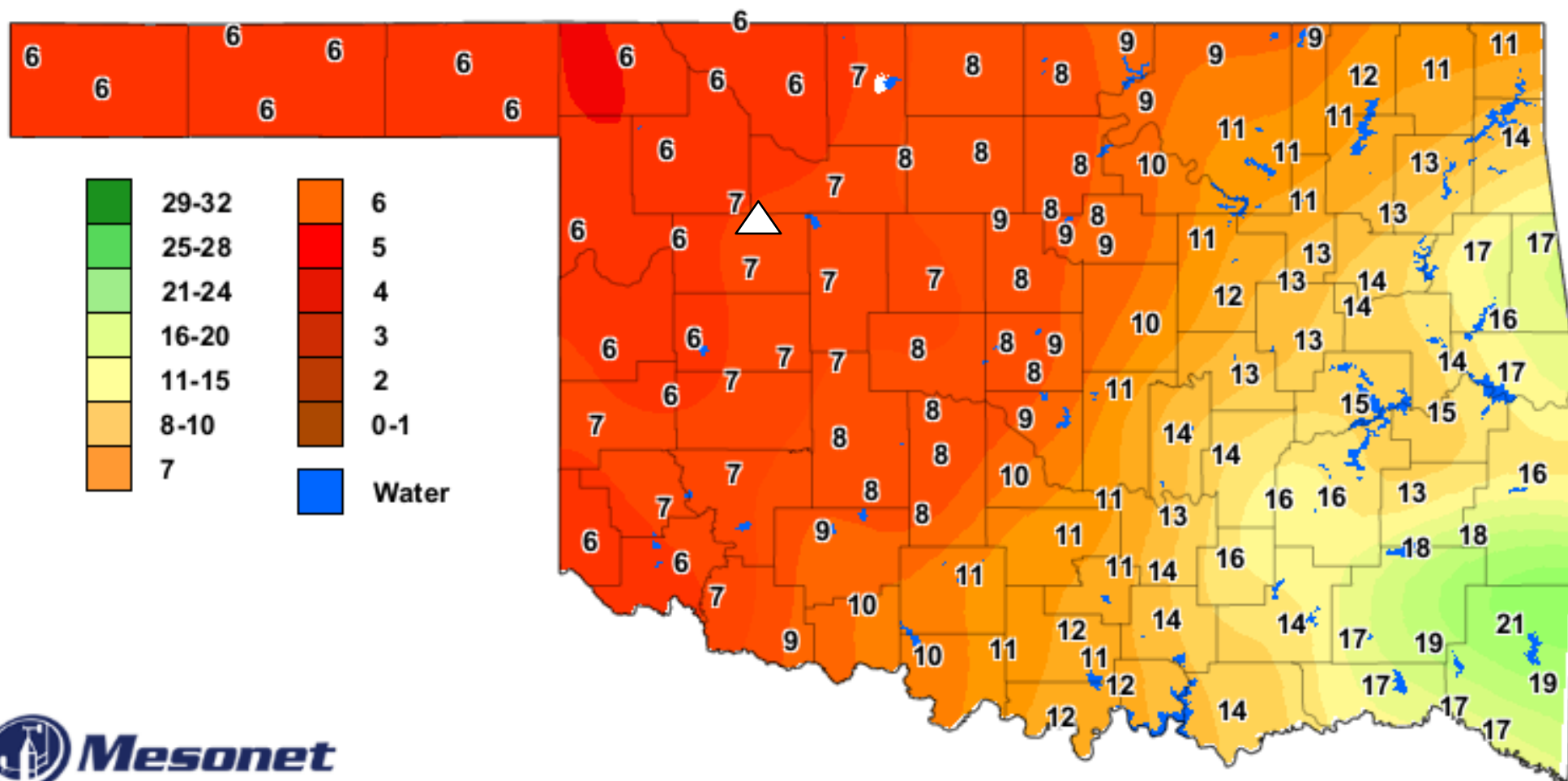


100-hr Dead Fuel Moisture (%)

6:00 PM April 17, 2018 CDT

Created 7:14:08 PM April 17, 2018 CDT. © Copyright 2018

# 1000-hr Dead Fuel Moisture



1000-hr Dead Fuel Moisture (%)

6:00 PM April 17, 2018 CDT

Created 7:14:08 PM April 17, 2018 CDT. © Copyright 2018

# *Cleveland/Mannford Complex*

*August 5-10, 2011*

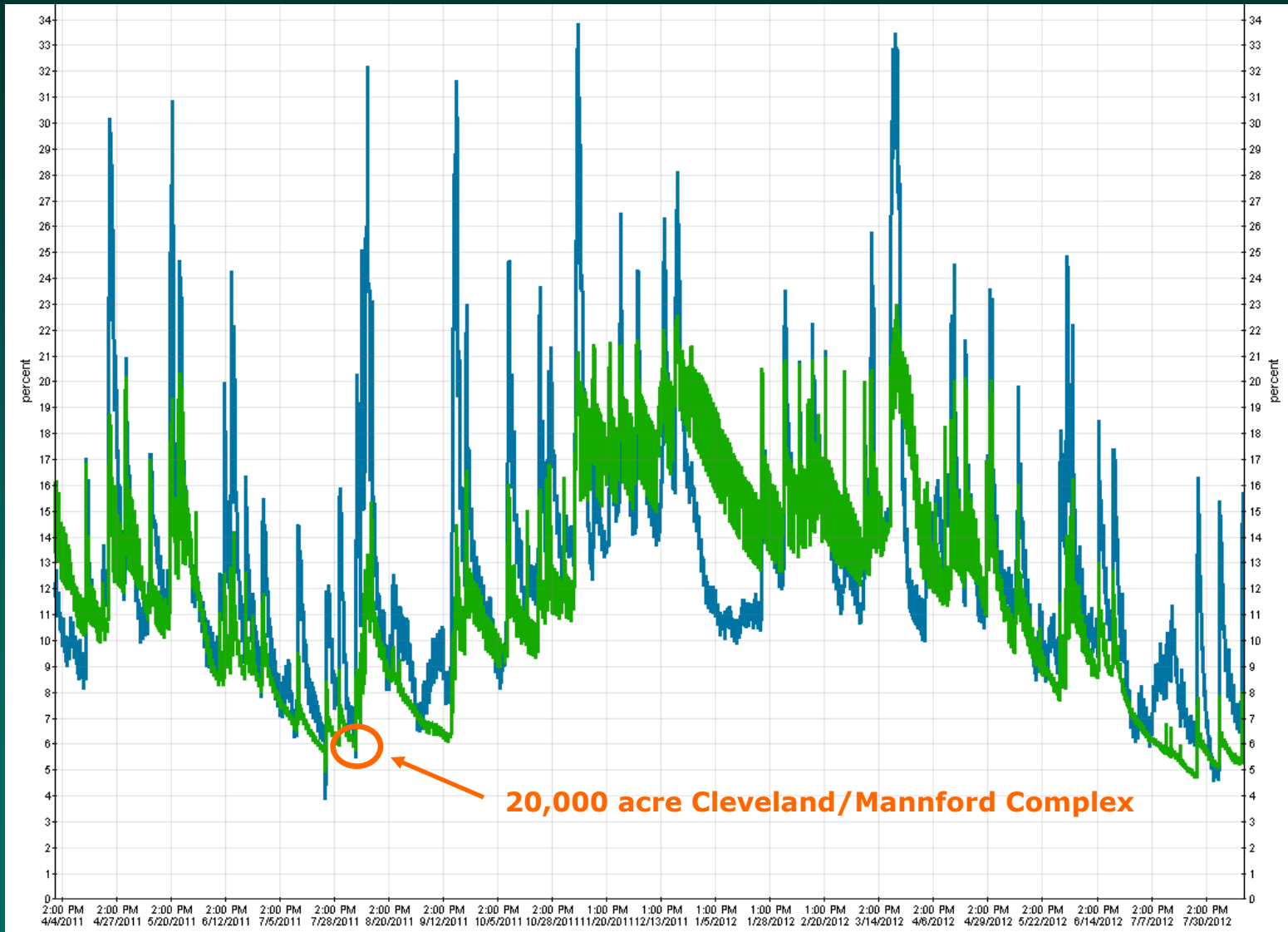
*20,129 acres*

10:02 84°



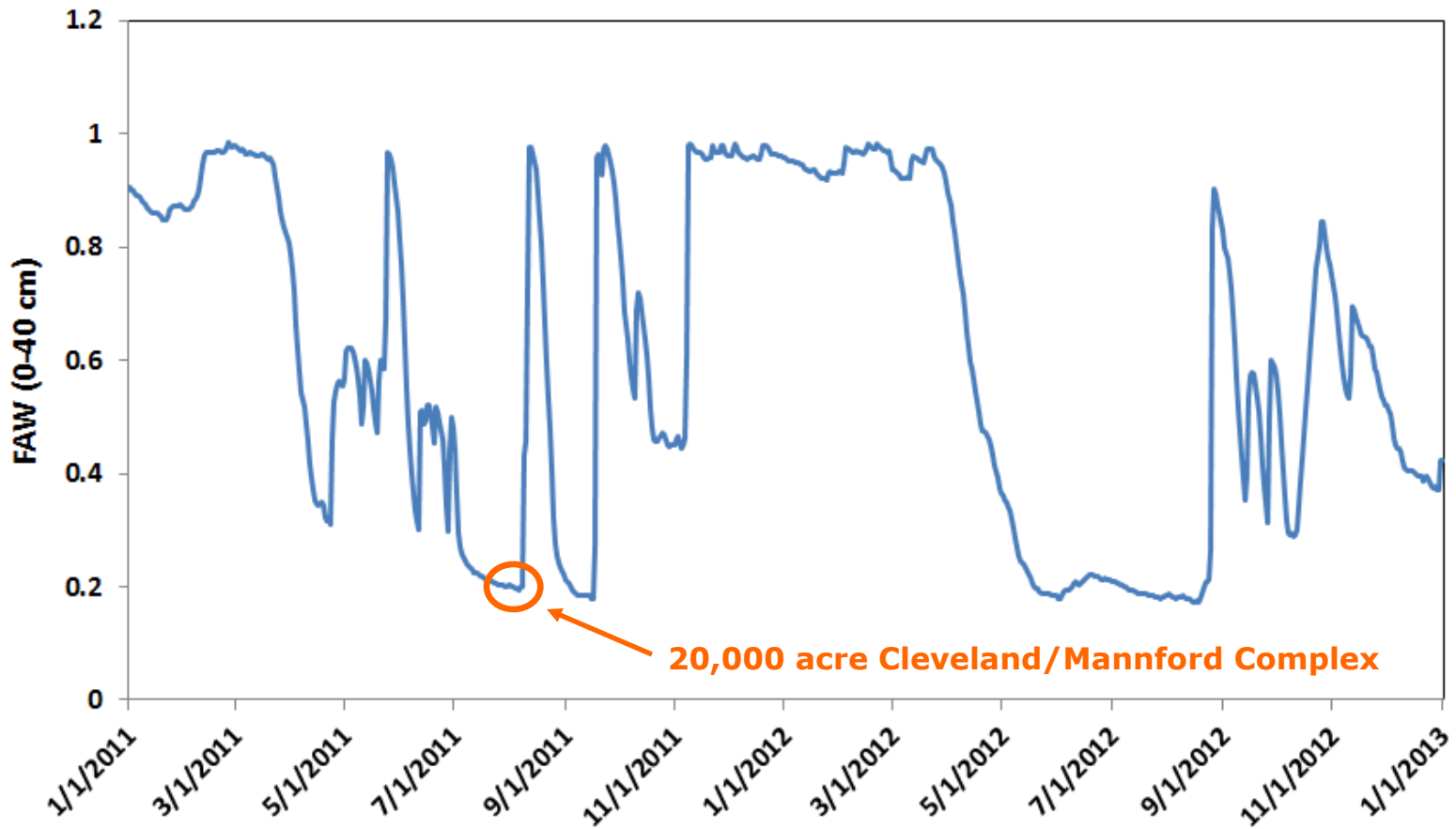
KOTV - DT

# 100-hr (blue) and 1000-hr (green) Dead Fuel Moisture (Oilton)





# 16" Fraction of Plant Available Water (Oilton)



**LIVE**

**ON THE PHONE:**

# Ferguson Fire

*September 1-10, 2011*

*39,907 acres*

COMANCHE COUNTY WILDFIRE

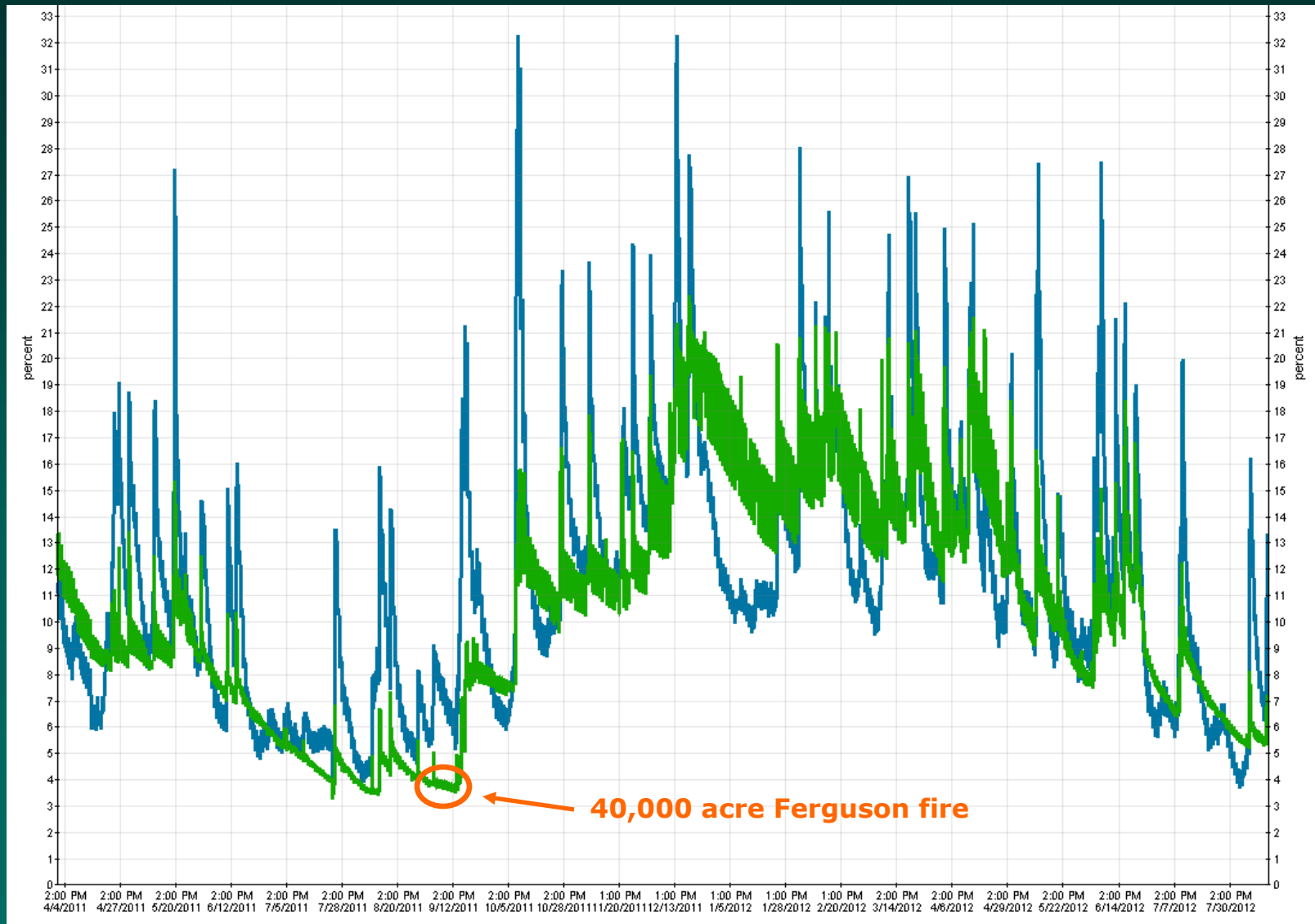
11:01 70°

**RUSTY SURETTE**  
RED CROSS SPOKESMAN

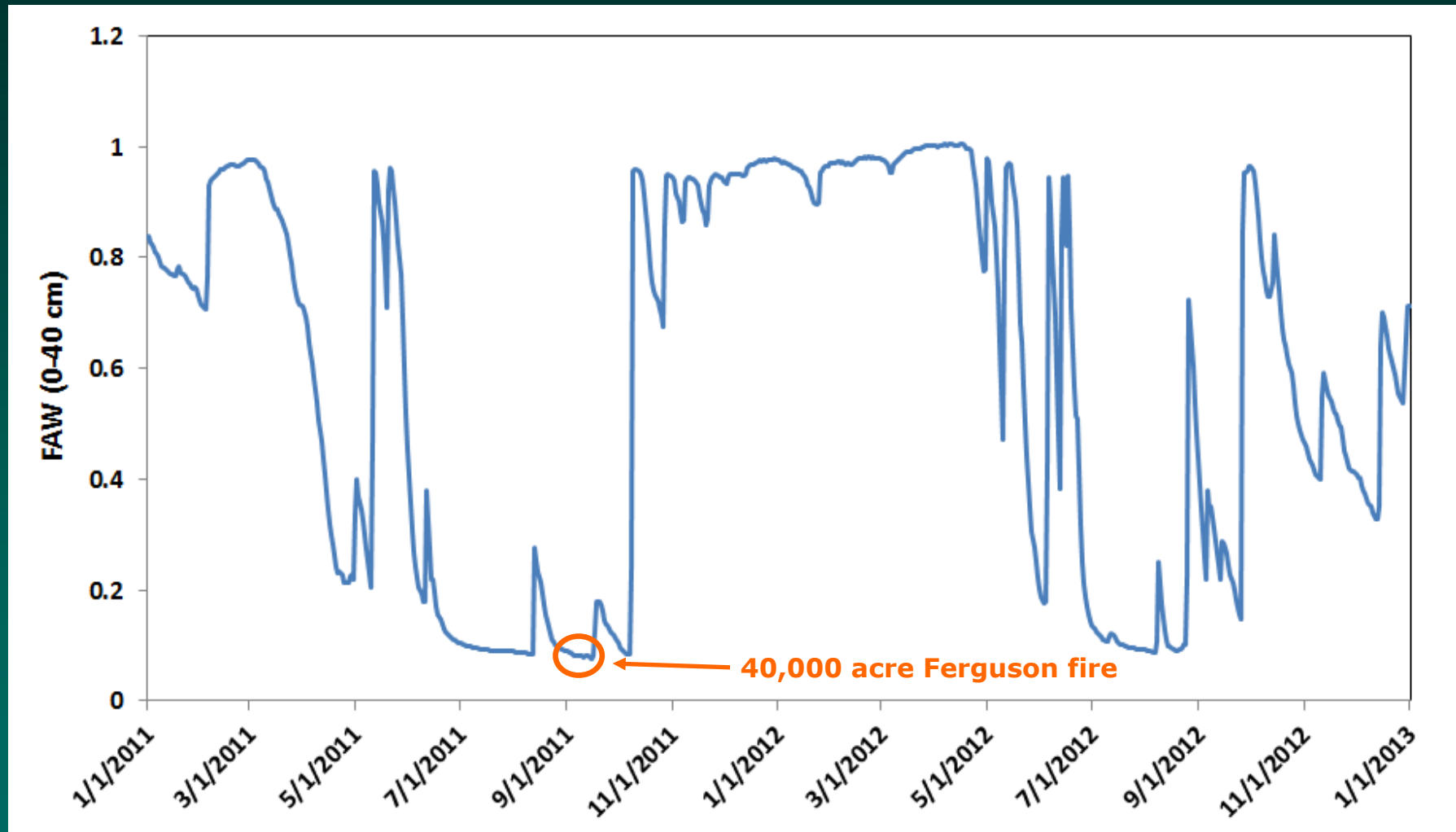


KWTN - DT

# 100-hr (blue) and 1000-hr (green) Dead Fuel Moisture (Medicine Park)



# 16" Fraction of Plant Available Water (Medicine Park)



# Live Fuels





# Live Fuels

*(moisture content based on plant physiology  
and soil moisture)*

- **Herbaceous (grasses/forbs)**
- **Woody (leaves/twigs) – deciduous  
and evergreen**









# Live Fuel Moisture

- **Herbaceous (grasses/forbs)**
  - up to 200%
- **Woody (leaves/twigs)**
  - up to 160%



Deimos Imaging/ UrtheCast

## Napa County, California – October 2017 Fires

A photograph of a forest landscape. In the foreground, there is a dense thicket of dry, yellowish-brown grasses and some green pine trees. The middle ground shows a mix of green pine trees and some bare, brown trees. In the background, a line of trees is visible under a clear blue sky. The text is overlaid in the center of the image.

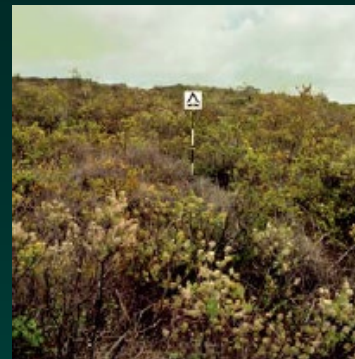
**Web Site Demo:**  
***Fuel Moisture Products in OK-FIRE***

# Fuel Models

A landscape photograph showing a mix of pine trees and tall, dry grasses under a clear blue sky. The text "Fuel Models" is overlaid in the center. The foreground is dominated by young, green pine trees and tall, dry, yellowish-brown grasses. In the background, there is a dense forest of taller pine trees and some bare deciduous trees. The sky is a clear, light blue. The overall scene suggests a natural, uncultivated landscape.

# 1988 NFDRS Fuel Models (20 Models)

- **Loading of Dead Fuels (tons/acre)**
  - 1-hr
  - 10-hr
  - 100-hr
  - 1000-hr
  - drought
- **Loading of Live Fuels (tons/acre)**
  - herbaceous
  - woody

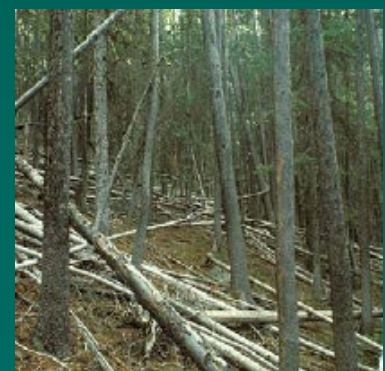
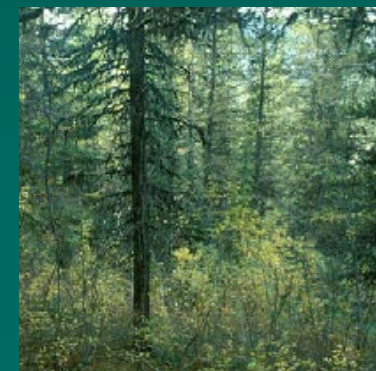


### 1988 NFDRS Fuel Model Descriptions

#### Fuel model

Fuel model  
parameters

|                  | A   | B    | C   | D   | E    | F   | G    | H   | I    | J   | K   | L    | N   | O   | P   | Q*  | R   | S   | T   | U   |
|------------------|-----|------|-----|-----|------|-----|------|-----|------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|
| Load (tons/acre) |     |      |     |     |      |     |      |     |      |     |     |      |     |     |     |     |     |     |     |     |
| 1-hour dead      | 0.2 | 3.5  | 0.4 | 2.0 | 1.0  | 2.5 | 2.5  | 1.5 | 12.0 | 7.0 | 2.5 | 0.25 | 1.5 | 2.0 | 1.0 | 2.5 | 0.5 | 0.5 | 1.0 | 1.5 |
| 10-hour dead     | --  | 4.0  | 1.0 | 1.0 | 0.5  | 2.0 | 2.0  | 1.0 | 12.0 | 7.0 | 2.5 | --   | 1.5 | 3.0 | 1.0 | 5.4 | 0.5 | 0.5 | 0.5 | 1.5 |
| 100-hour dead    | --  | 0.5  | --  | --  | 0.25 | 1.5 | 5.0  | 2.0 | 10.0 | 6.0 | 2.0 | --   | --  | 3.0 | 0.5 | 2.9 | 0.5 | 0.5 | --  | 1.0 |
| 1000-hour dead   | --  | --   | --  | --  | --   | --  | 12.0 | 2.0 | 12.0 | 5.5 | 2.5 | --   | --  | 2.0 | --  | 1.0 | --  | 0.5 | --  | --  |
| Woody            | --  | 11.5 | 0.8 | 3.0 | 1.0  | 7.0 | 0.5  | 0.5 | --   | --  | --  | --   | 2.0 | 7.0 | 0.5 | 3.0 | 0.5 | 0.5 | 2.5 | 0.5 |
| Herbaceous       | 0.3 | --   | 0.8 | 1.0 | 0.5  | 1.0 | 0.5  | 0.5 | --   | --  | --  | 0.5  | --  | --  | 0.5 | 1.0 | 0.5 | 0.5 | 0.5 | 0.5 |
| Drought          | 0.2 | 3.5  | 1.8 | 1.5 | 1.5  | 2.5 | 5.0  | 2.0 | 12.0 | 7.0 | 2.5 | 0.25 | 2.0 | 3.5 | 1.0 | 3.5 | 0.5 | 1.5 | 1.0 | 2.0 |



# Oklahoma Default Fuel Models

- Grassy Models

- Model A

- Model L

- Model T

- Brushy Models

- Model B

- Model F

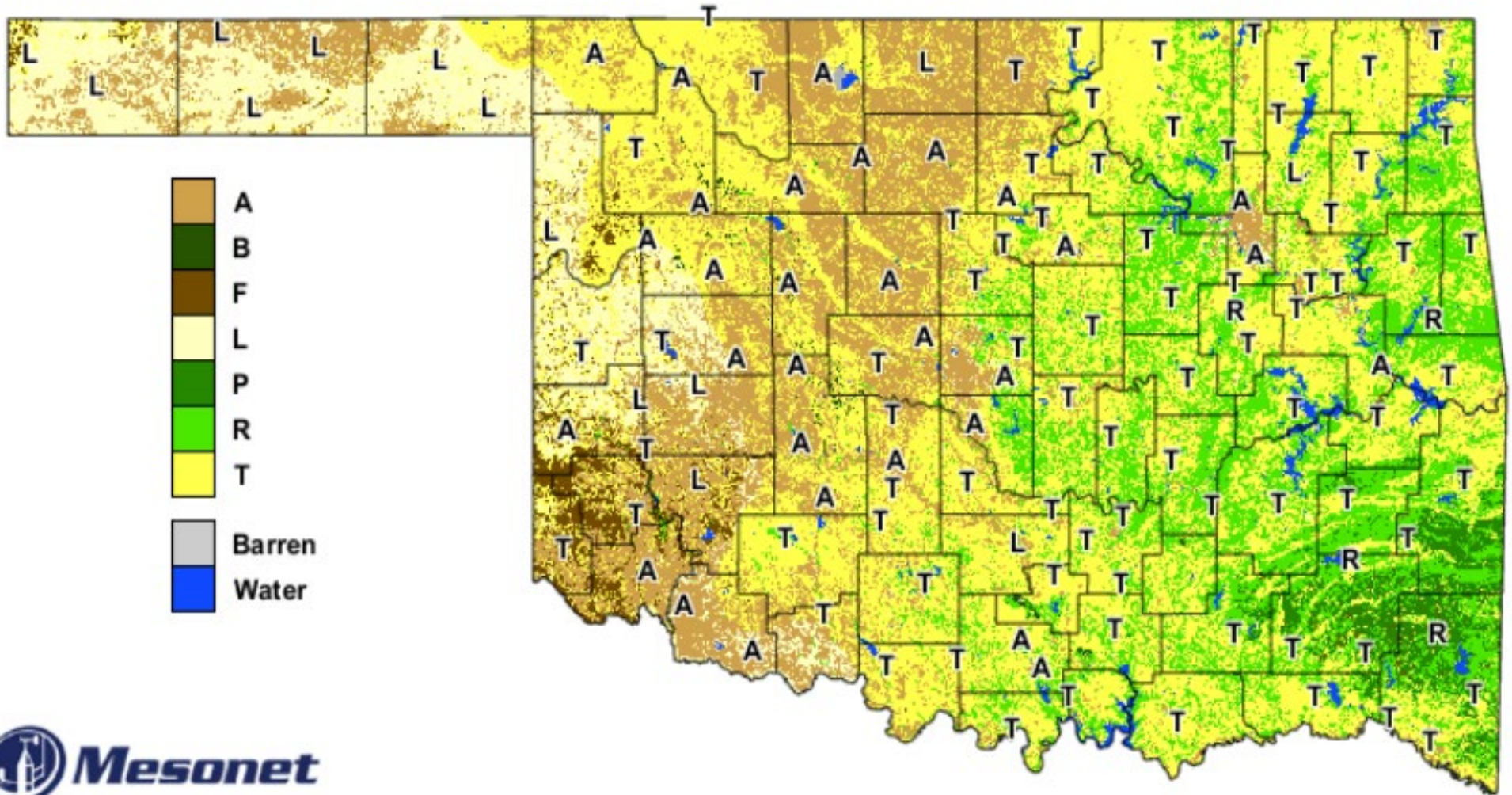
- Forest Models

- Model P

- Model R



# Oklahoma Default Fuel Models



Default Fuel Model

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 >

Contacts and Learning Tools >

News >

Current Fuel Model for Stillwater

T - Tallgrass with open evergreen t

Default is T

Station Fuel Model Options

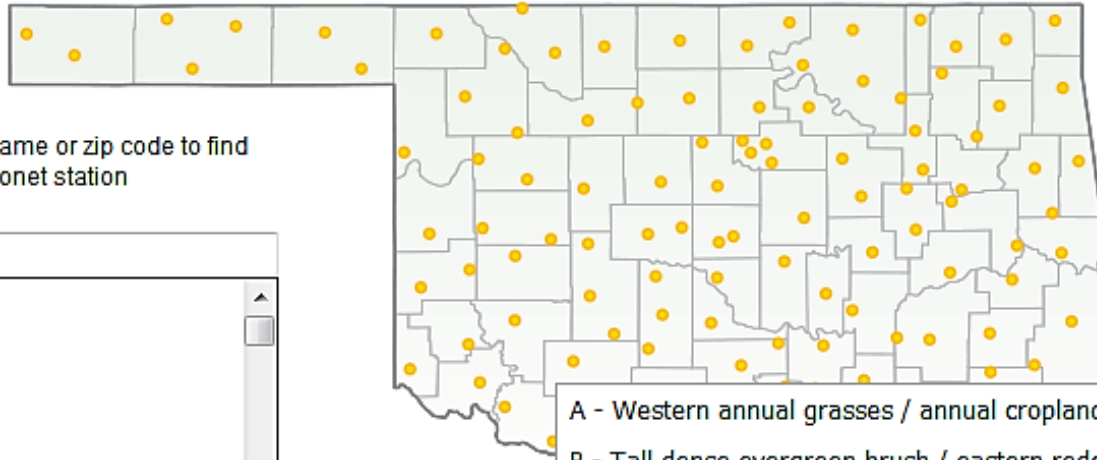


# Station Fuel Model Options

Share Tweet

## Select Mesonet Station

Note that fire MAP products will retain the default models at Mesonet sites



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

- Acme
- Ada
- Altus
- Alva
- Antlers
- Apache

- 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

Station:

Default Fuel Model:

Current Fuel Model:

Fuel Model D

Change Current Fuel Model to:

Save Fuel Model

# Station Fuel Model Options

## Grassy Models

- A - Western annual grasses / annual cropland / urban** *(default model)*
- L - Western perennial grasses** *(default model)*
- T - Tallgrass with open evergreen brush** *(default model)*

## Brushy Models

- B - Tall dense evergreen brush / eastern redcedar** *(default model)*
- F - Intermediate evergreen brush** *(default model)*

## Forest Models

- G - Forest with heavy downed fuels**
- P - Southern pine forest** *(default model)*
- R - Hardwood forest** *(default model)*

## Light Slash

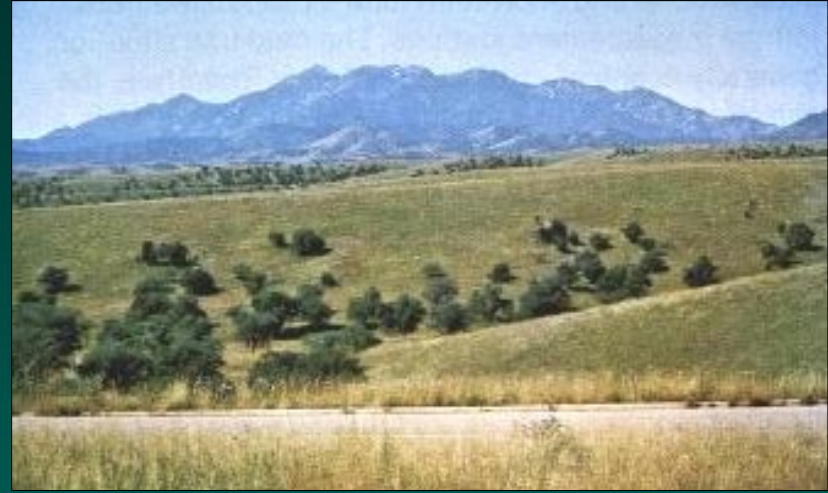
- K - Light slash**

# Grassy Fuel Models

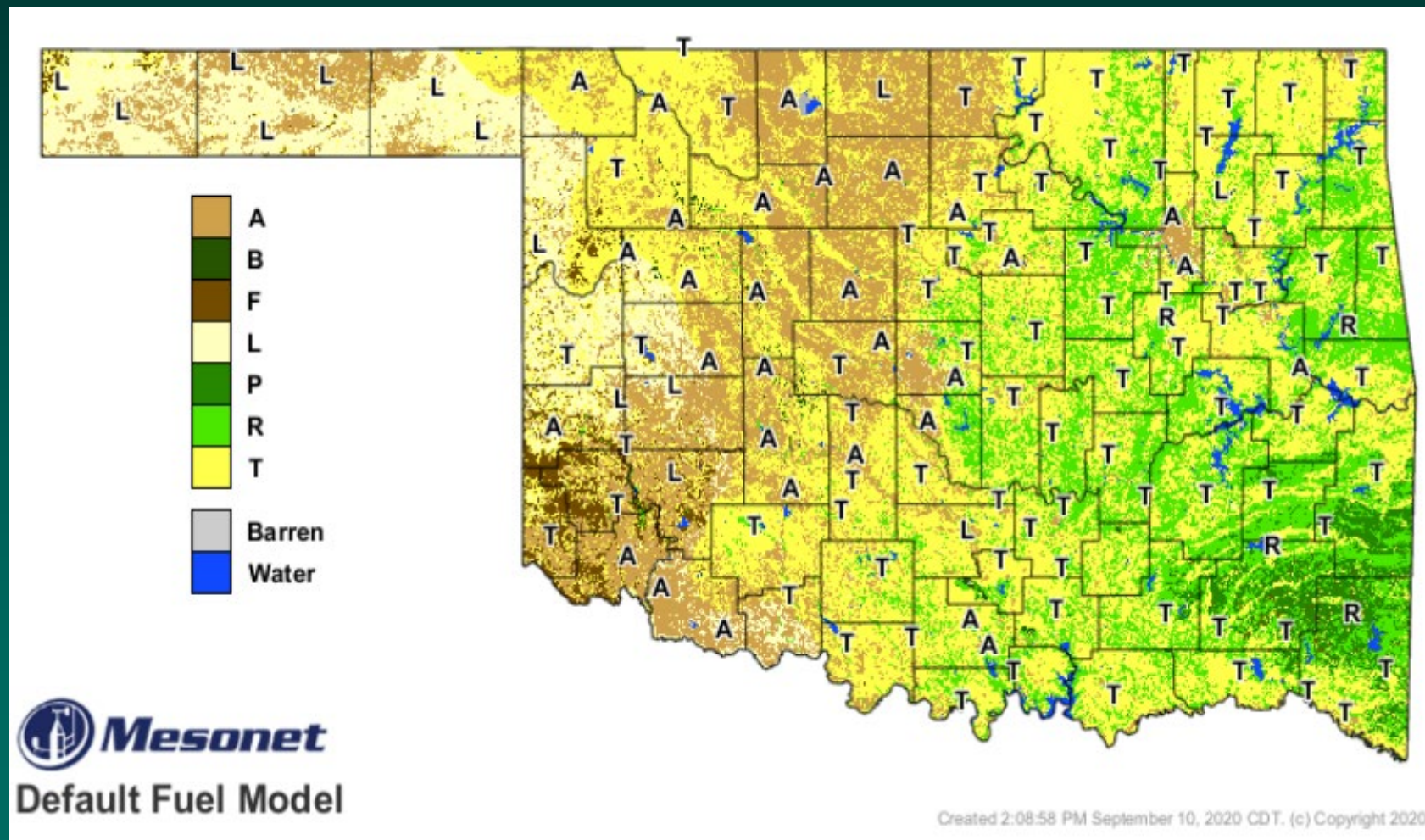
A landscape photograph showing a vast field of tall, golden-brown grasses in the foreground. In the middle ground, there is a dense line of trees with dark, autumnal foliage. The background is a clear, light blue sky. The overall scene is bright and open, typical of a grassy field or prairie.

# Fuel Model A: Western Annual Grasses

*(also used in OK-FIRE for annual cropland and urban areas)*



Please note that a LOT of Mesonet stations are assigned Fuel Model A as their default fuel model. In “Station Fuel Model Options” you may wish to change the fuel model for these stations to one (e.g., Model L, Model T) with heavier fuel loads to represent your wildland fuels.



# Fuel Model L: Western Perennial Grasses



# Fuel Model T: Tallgrass with Open Evergreen Brush





An aerial photograph of a forest. A central path or clearing is filled with dense, yellowish-brown brush, contrasting with the surrounding green trees. The text "Brushy Fuel Models" is overlaid in the center of the image.

# Brushy Fuel Models

# Fuel Model B: Tall Dense Evergreen Brush *(also can be used for eastern redcedar forests)*



# Fuel Model F: Intermediate Evergreen Brush





# Forest Fuel Models

# Fuel Model G: Forest with Heavy Downed Fuels



# Fuel Model P: Southern Pine Forest



# Fuel Model R: Hardwood Forest



# Slash Model





# Fuel Model K: Light Slash

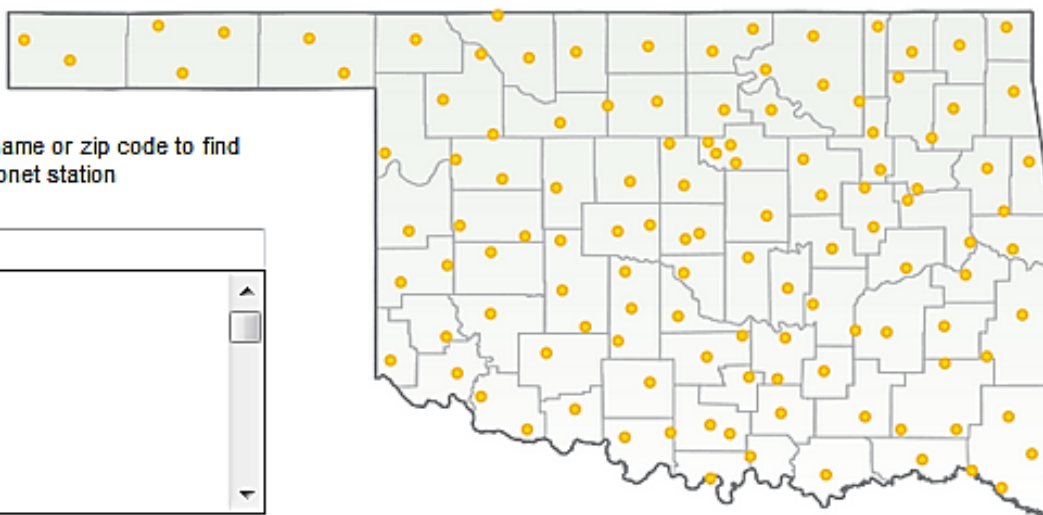


## Select Mesonet Station

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

Default Fuel Model: T - Tallgrass with open evergreen brush

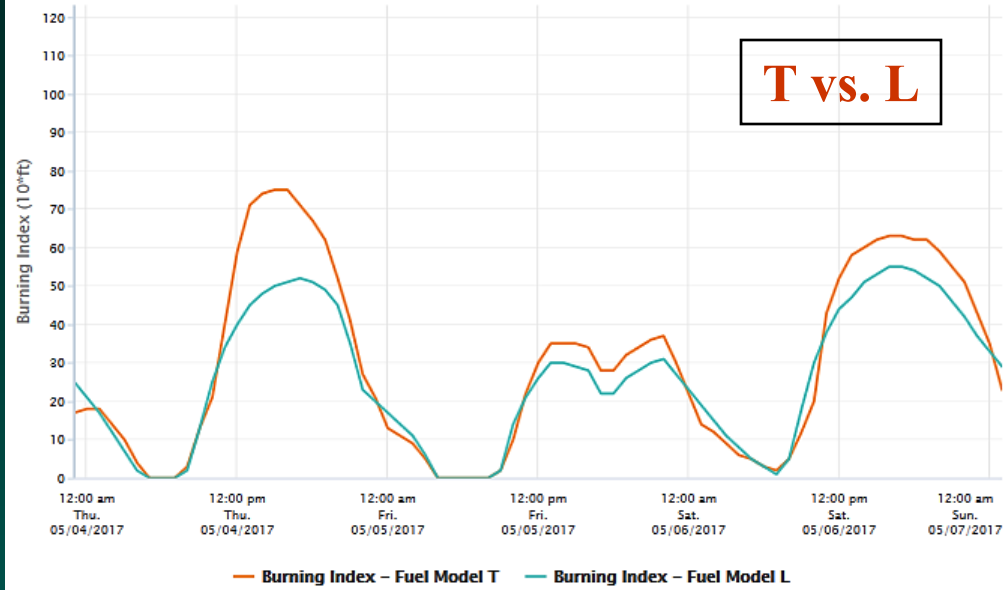
Current Fuel Model: T - Tallgrass with open evergreen brush

[Fuel Model Descriptions](#)

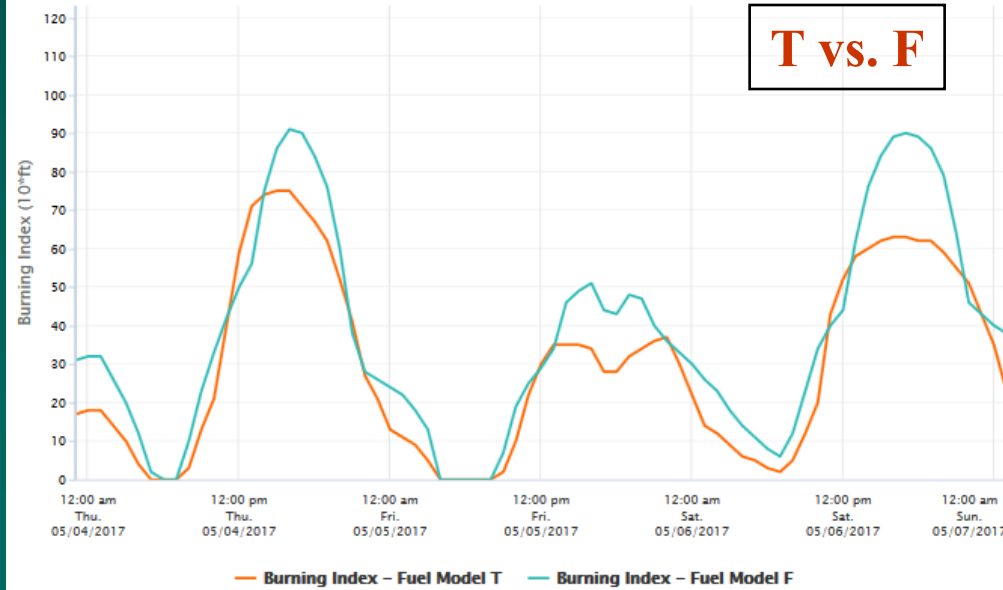
Add Second Fuel Model:

Get Data

Forecast Firegram Chart for Altus



Forecast Firegram Chart for Altus



A photograph of a forest landscape. In the foreground, there are several young pine trees and a field of dry, yellowish-brown grass. The middle ground is filled with a dense forest of taller pine trees and some deciduous trees with bare branches. In the background, a thin utility pole stands against a clear blue sky. The overall scene is a natural, wooded area.

**Web Site Demo:**  
***Fuel Models in OK-FIRE***

**FUEL MODEL + GREENNESS LEVEL + WEATHER**



**FIRE DANGER MODEL**

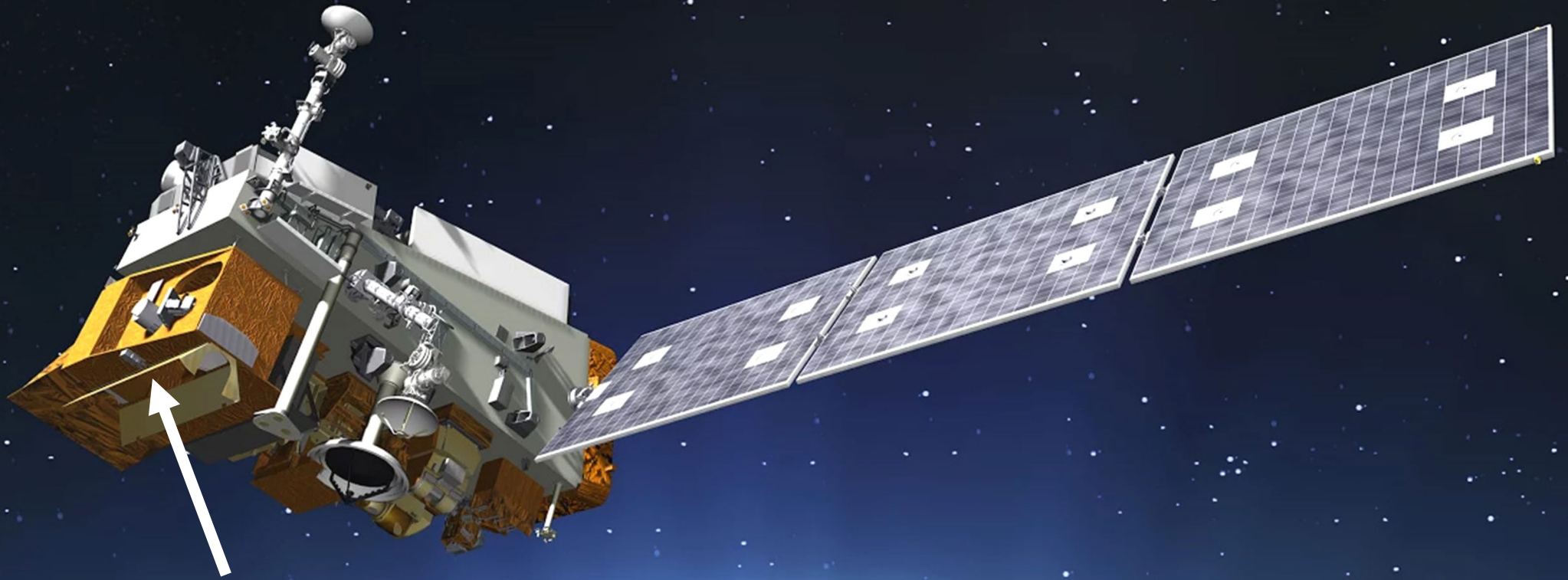


***FIRE DANGER***

A wide-angle photograph of a vibrant green field, likely a meadow or prairie, with a dense line of trees in the background. The sky is clear and blue. The text is overlaid in the center of the image.

# Daily Satellite Assessment of Surface Greenness

# NOAA-20 Satellite



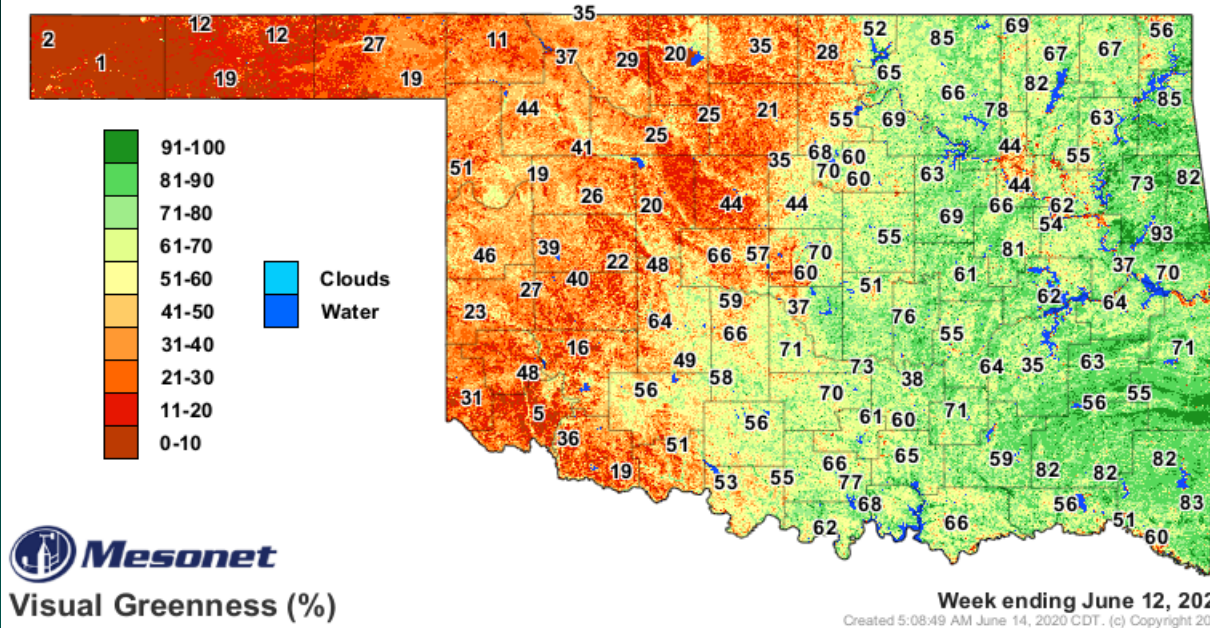
VIIRS

# Utilization of Satellite Data

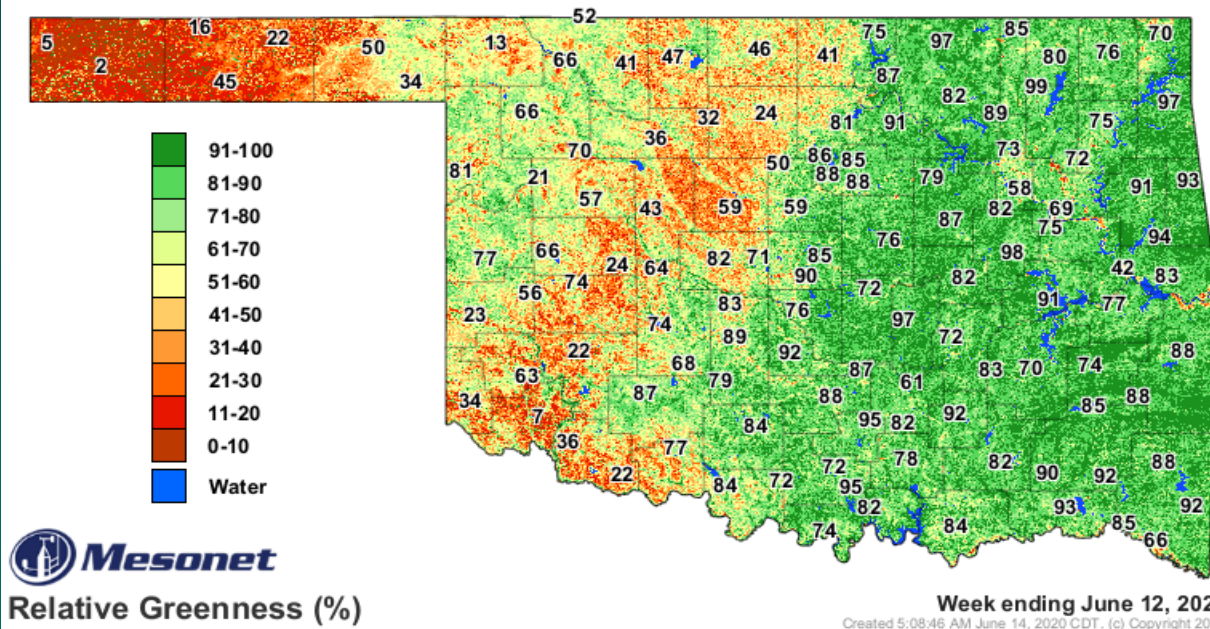
- **Daily updates of NDVI 500-m pixel data from the VIIRS sensor aboard NOAA-20**
  - Past 7-day NDVI composites (highest valid NDVI)
- **Visual Greenness (VG)**
  - Greenness (0-100%) as it would be perceived by the eye
- **Relative Greenness (RG)**
  - Greenness (0-100%) relative to 10.5 year historical range (2012-2022) of NDVI values for that pixel



# VISUAL GREENNESS



# RELATIVE GREENNESS



# How is Relative Greenness Used in our Fire Danger Model?

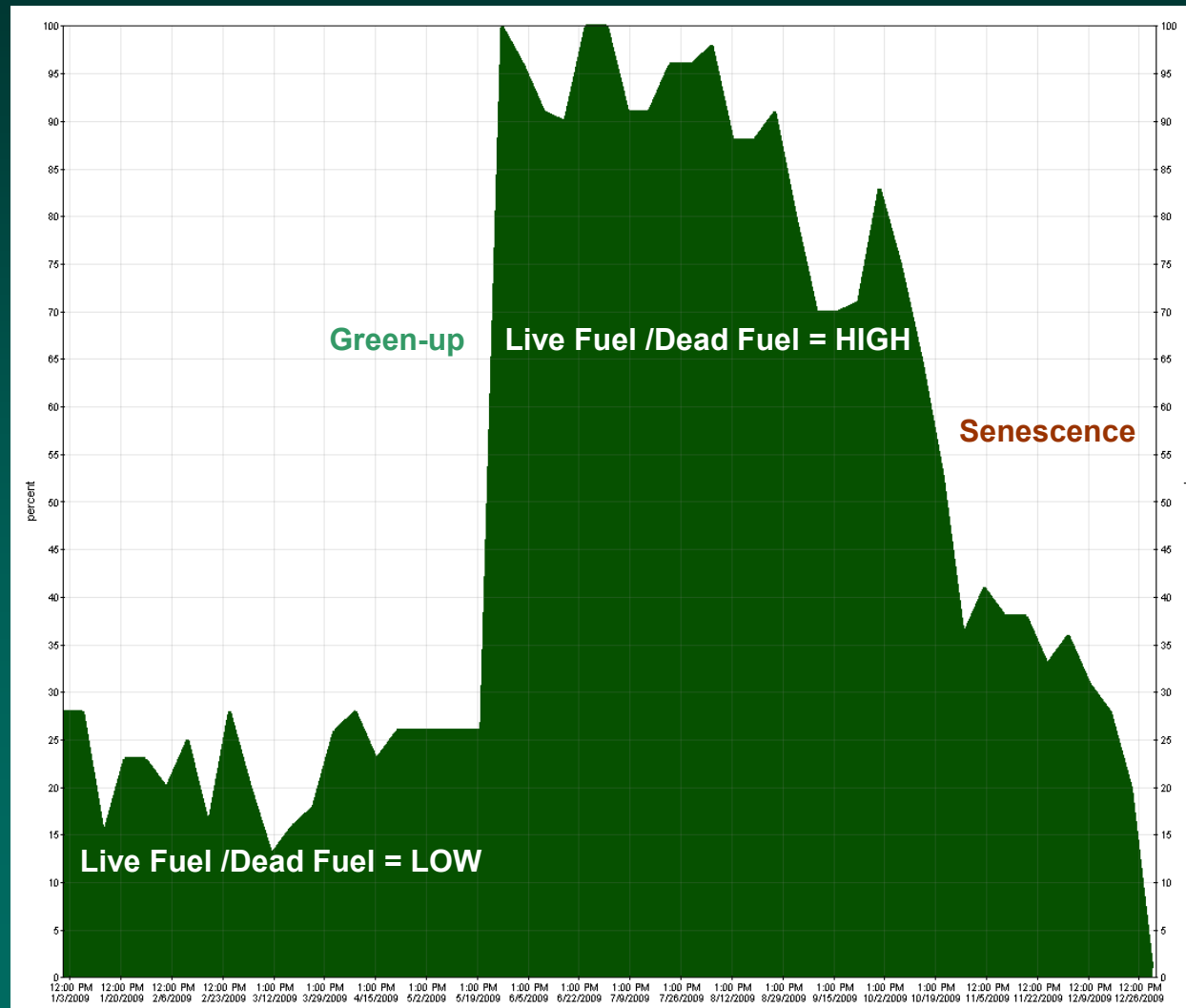
- To calculate live fuel moisture
- To calculate the live-to-dead fuel ratio for herbaceous and deciduous woody fuels, which then is used to determine the actual live and dead fuel loads for these types of fuels



Deimos Imaging/ UrtheCast

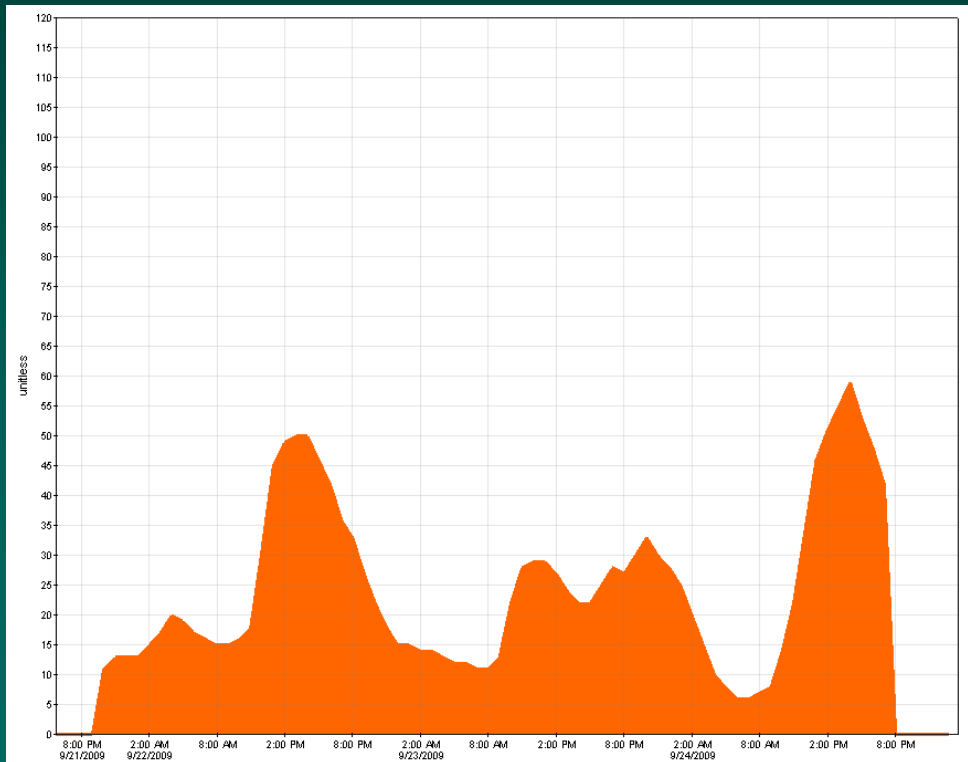
## Napa County, California – October 2017 Fires

# Annual Relative Greenness Cycle: Foraker 2009 (Tallgrass Prairie)

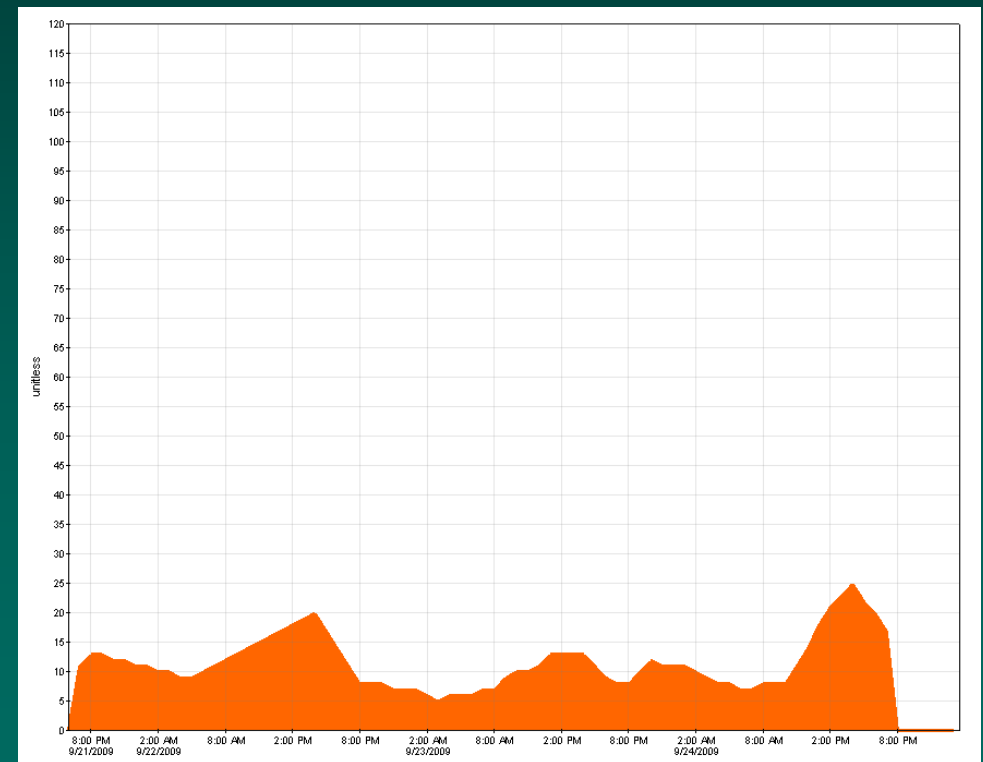



# Forecast Burning Index with Different RG Values (Same Fuel Model = T; Same Weather)

**Lahoma (RG = 21%)**



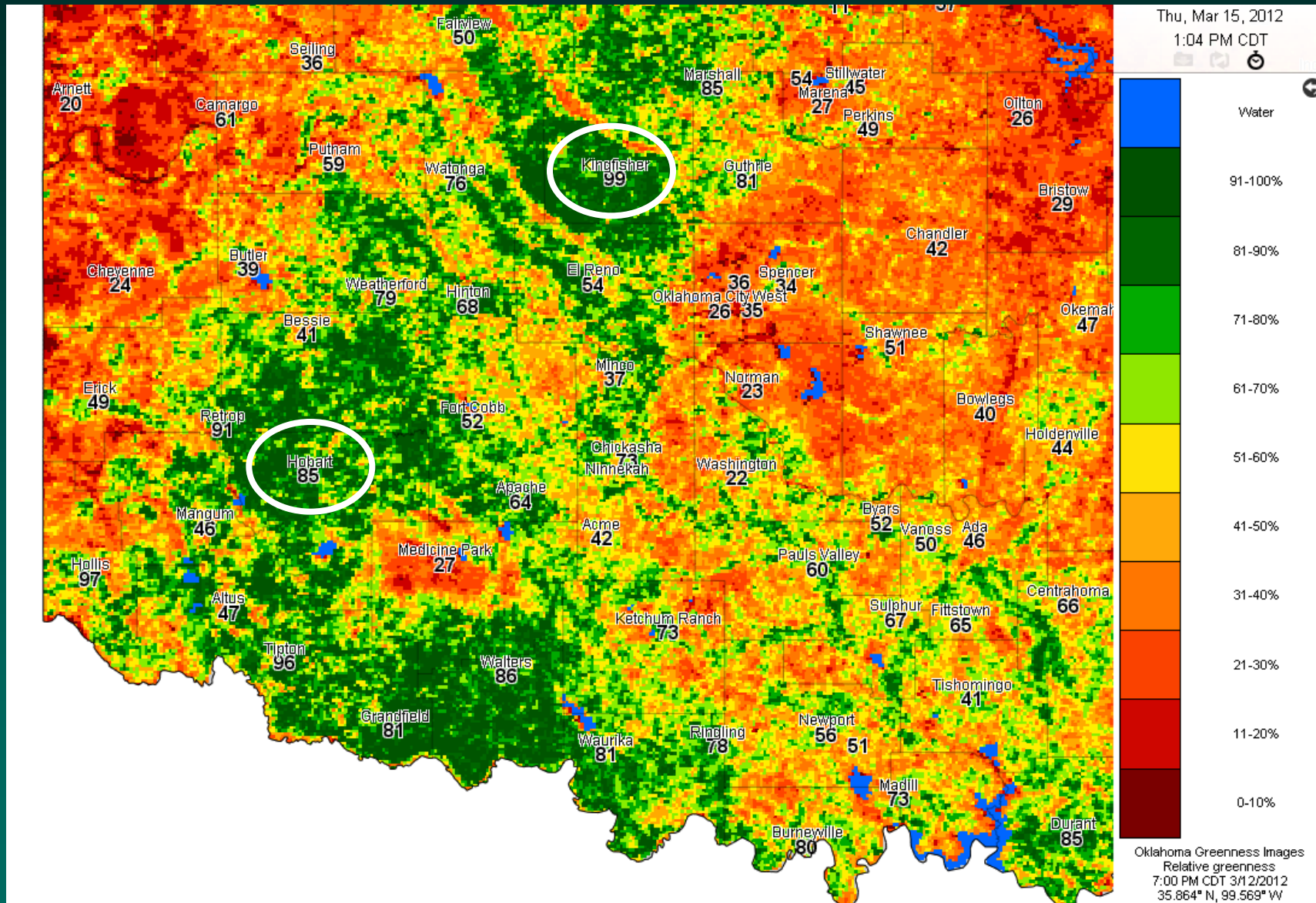
**Blackwell (RG = 59%)**



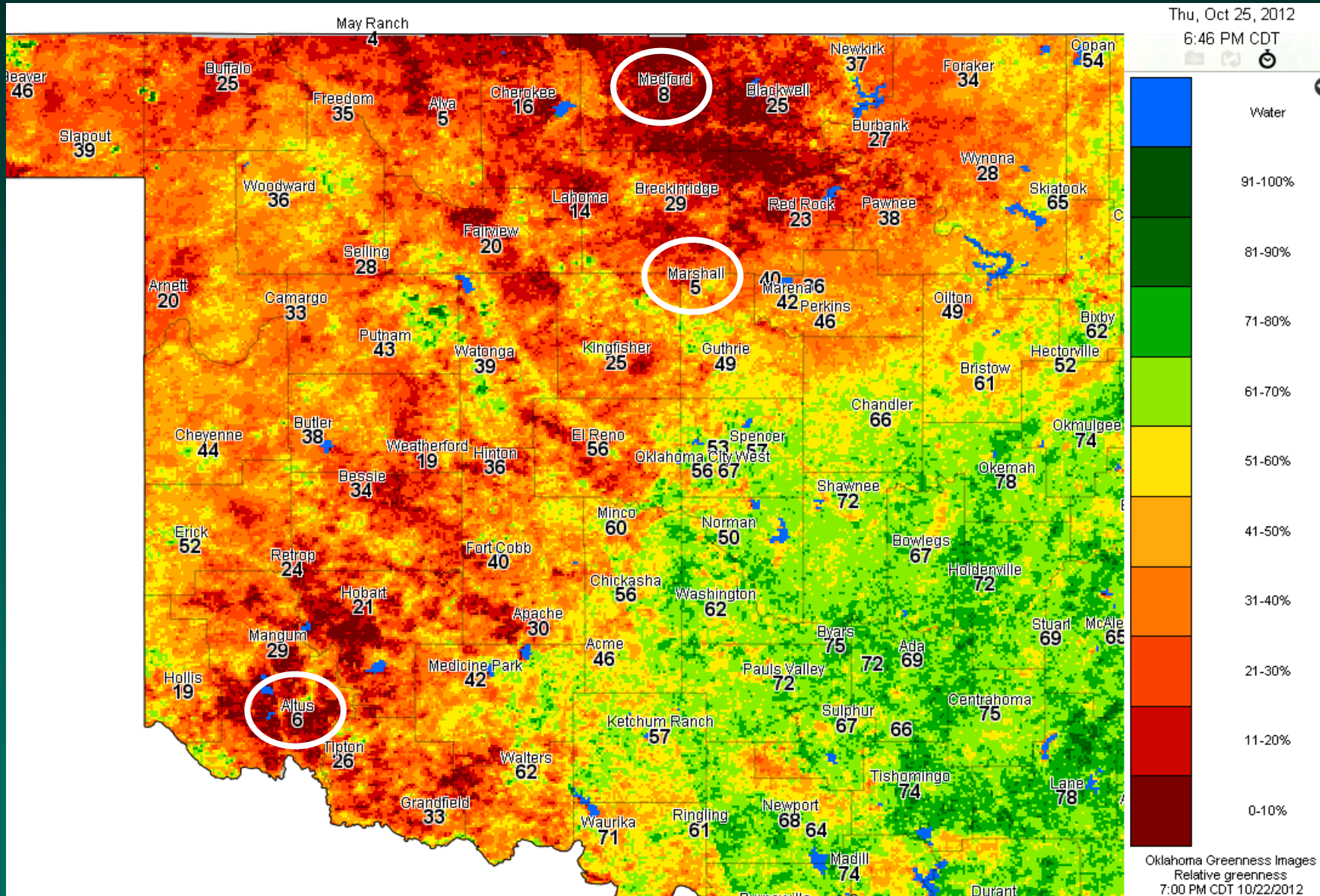
A photograph of a rural landscape. In the foreground, there is a field with patches of green grass and dry, brownish vegetation. A small stream or ditch runs through the lower right corner. In the middle ground, there are several trees, some bare and some with green leaves. A large, dark, cylindrical object, possibly a barrel or a piece of equipment, is lying on the ground. In the background, there are rolling hills under a clear blue sky with a few wispy clouds. The text is overlaid on the image in a bold, yellow font with a black outline.

**Satellite “sees” composite vegetation in each 500-m pixel; if you are in an agricultural or urban area, the nearest Mesonet station RG value may not properly represent the greenness of the wildland fuels in your area**

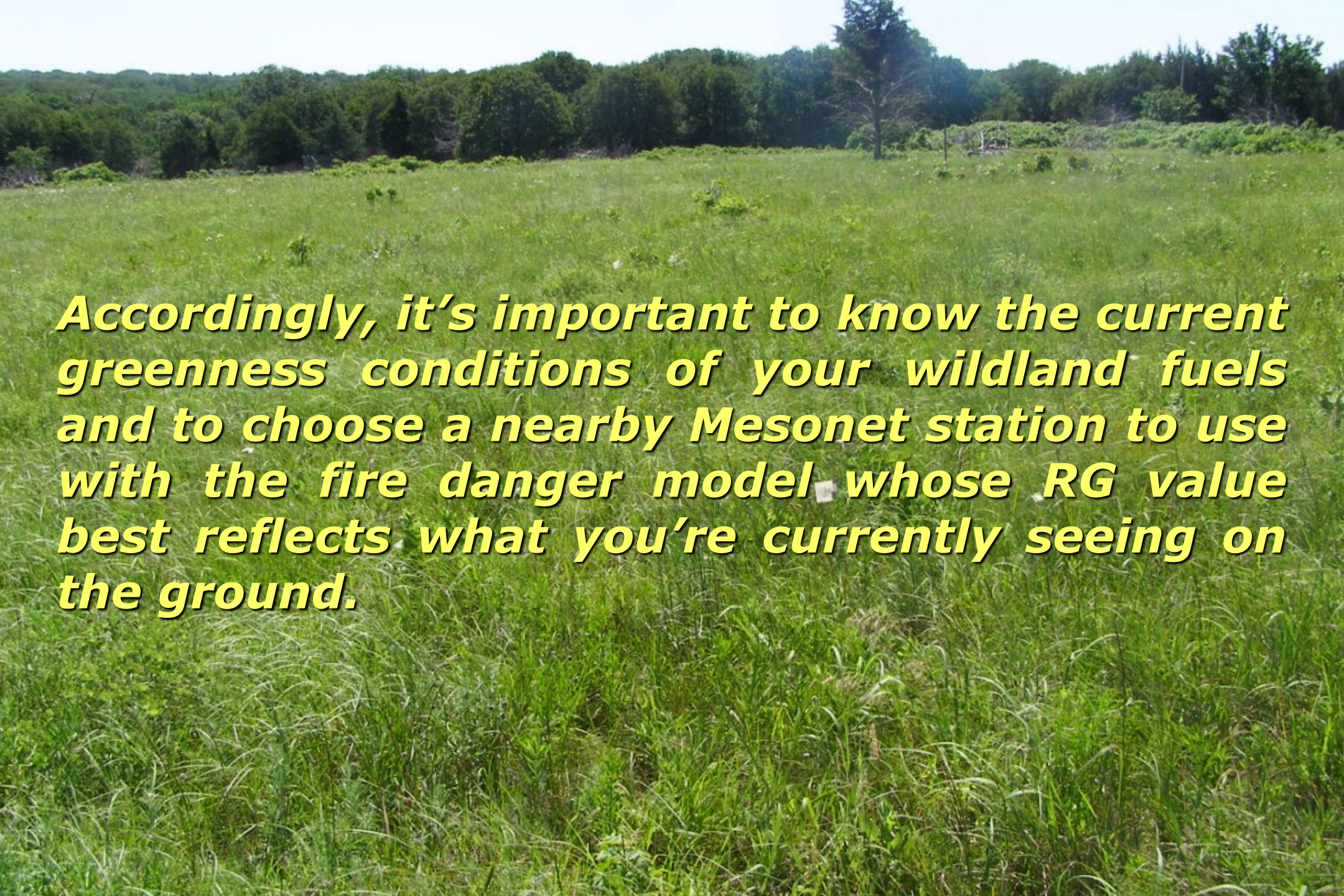
# Agricultural Examples



# Agricultural Examples





A photograph of a lush green field with a dense forest in the background under a clear sky. The field is filled with tall, vibrant green grasses. In the distance, a thick line of trees, including evergreens and deciduous trees, stretches across the horizon. The sky is a pale, clear blue.

***Accordingly, it's important to know the current greenness conditions of your wildland fuels and to choose a nearby Mesonet station to use with the fire danger model whose RG value best reflects what you're currently seeing on the ground.***

A photograph of a forest landscape. In the foreground, there is a dense thicket of dry, yellowish-brown grasses and some green pine trees. The middle ground shows a mix of pine trees and some bare, deciduous trees. In the background, a line of trees is visible under a clear blue sky. A utility pole is visible in the distance.

**Web Site Demo:**  
***Relative Greenness Products in OK-FIRE***

**FUEL MODEL + GREENNESS LEVEL + WEATHER**



**FIRE DANGER MODEL**



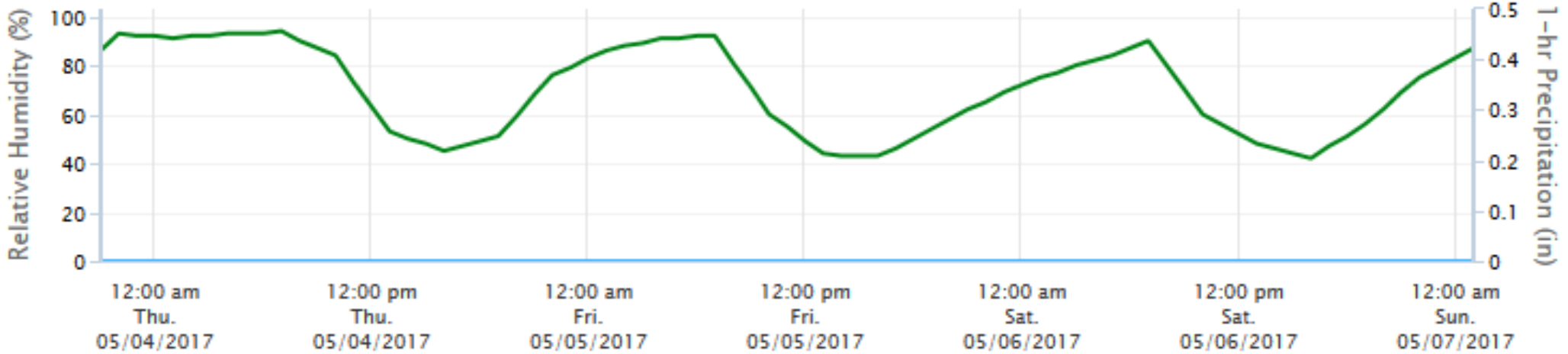
***FIRE DANGER***

# The OKLAHOMA MESONET

*(current and past weather conditions)*



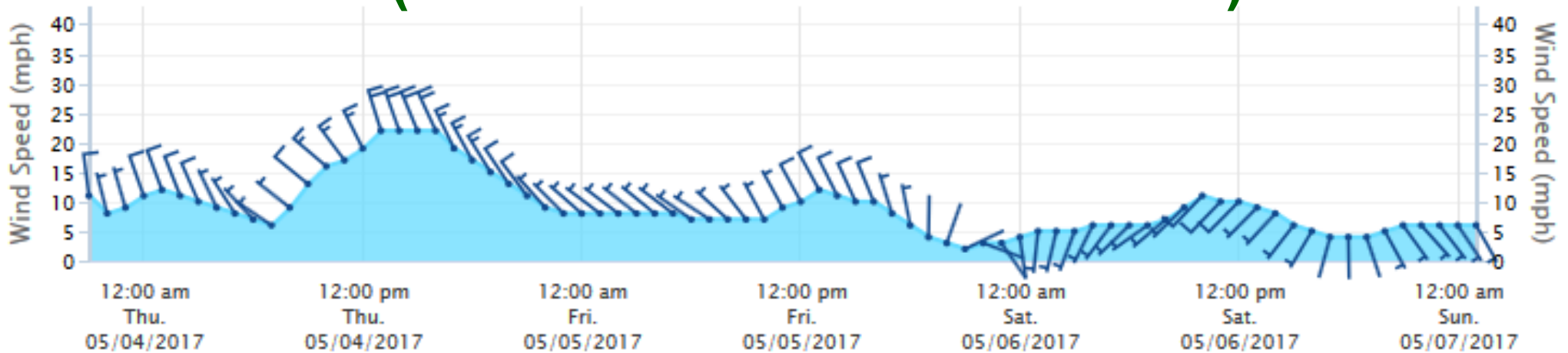
# Forecast Meteogram Chart for Stillwater



— Relative Humidity ● 1-hr Precipitation

## 84-h Output from the NAM Model (forecast weather conditions)

[www.mesonet.org](http://www.mesonet.org)



● Wind Speed ● Wind Barbs

A photograph showing a large fire burning in a field. The fire is intense, with bright orange and yellow flames rising from the ground. In the background, there are several trees, including a large evergreen on the right. The sky is blue with some white clouds. The text "Fire Danger" is overlaid in the center of the image in a bold, yellow font with a black outline.

# Fire Danger

# ***What do we mean by FIRE DANGER?***

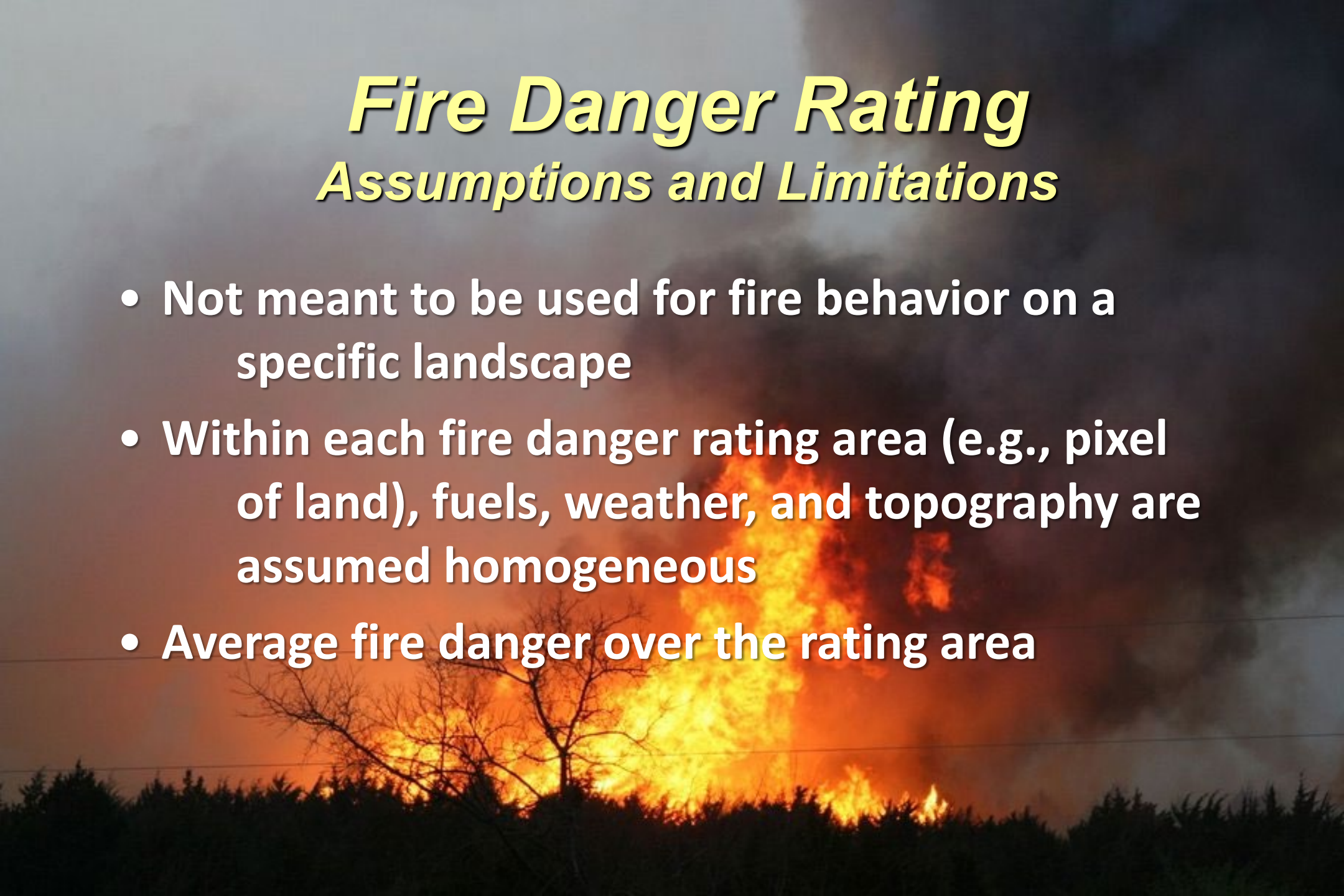
**the ability or potential of a  
wildland fire to start, spread,  
resist control, and do damage**



# ***Fire Danger Rating***

## ***Assumptions and Limitations***

- Not meant to be used for fire behavior on a specific landscape
- Within each fire danger rating area (e.g., pixel of land), fuels, weather, and topography are assumed homogeneous
- Average fire danger over the rating area





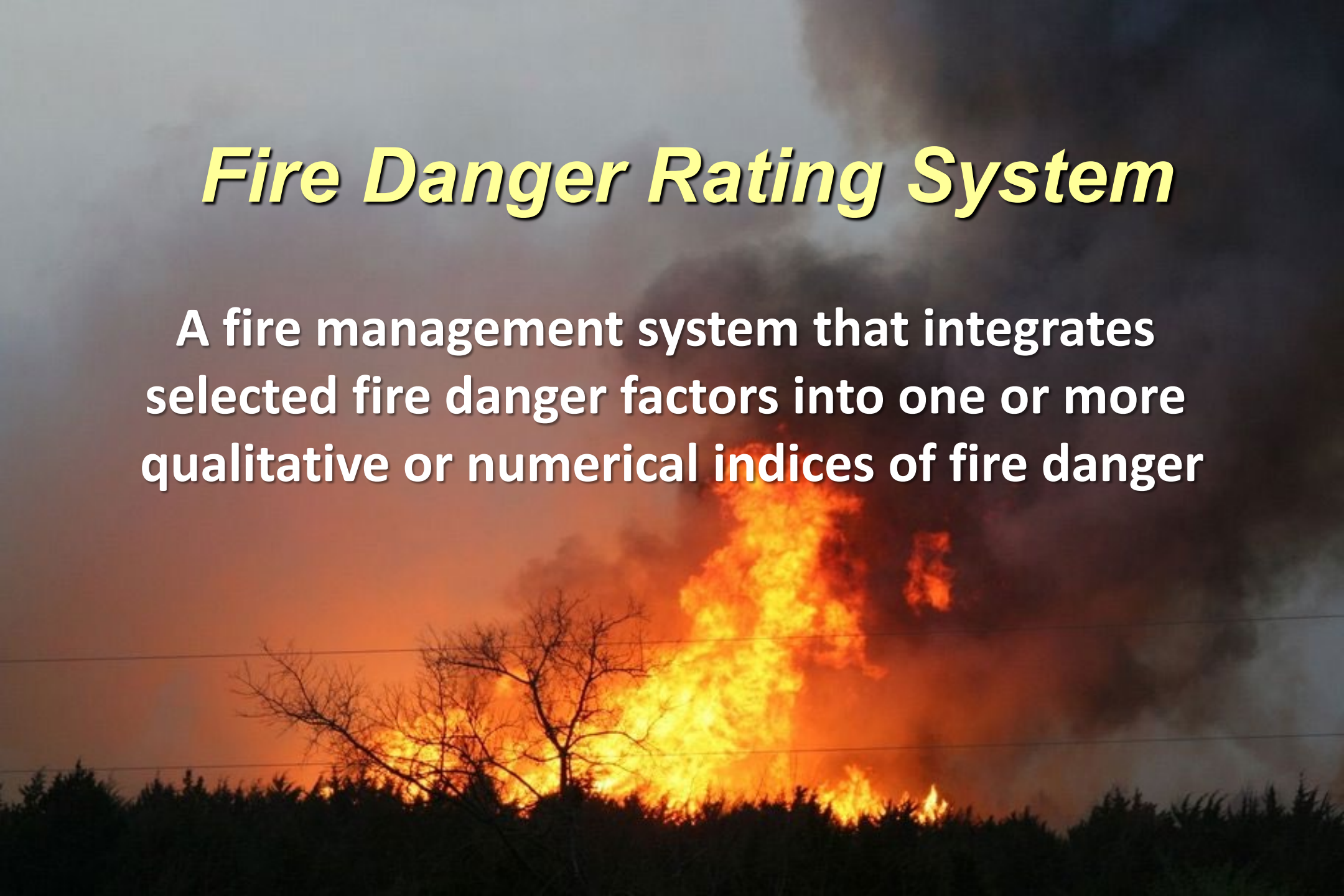
# ***Fire Danger Rating***

## ***Purposes***

- Provide public warnings
- Set preparedness levels
- Provide good indication of the difficulty of fire suppression over wide range of conditions
- Help fire managers make wise management decisions in both real-time and the future

# ***Fire Danger Rating System***

**A fire management system that integrates selected fire danger factors into one or more qualitative or numerical indices of fire danger**



# **National Fire Danger Rating System (*NFDRS*)**

**FUEL MODEL + GREENNESS LEVEL + WEATHER**



**FIRE DANGER MODEL**

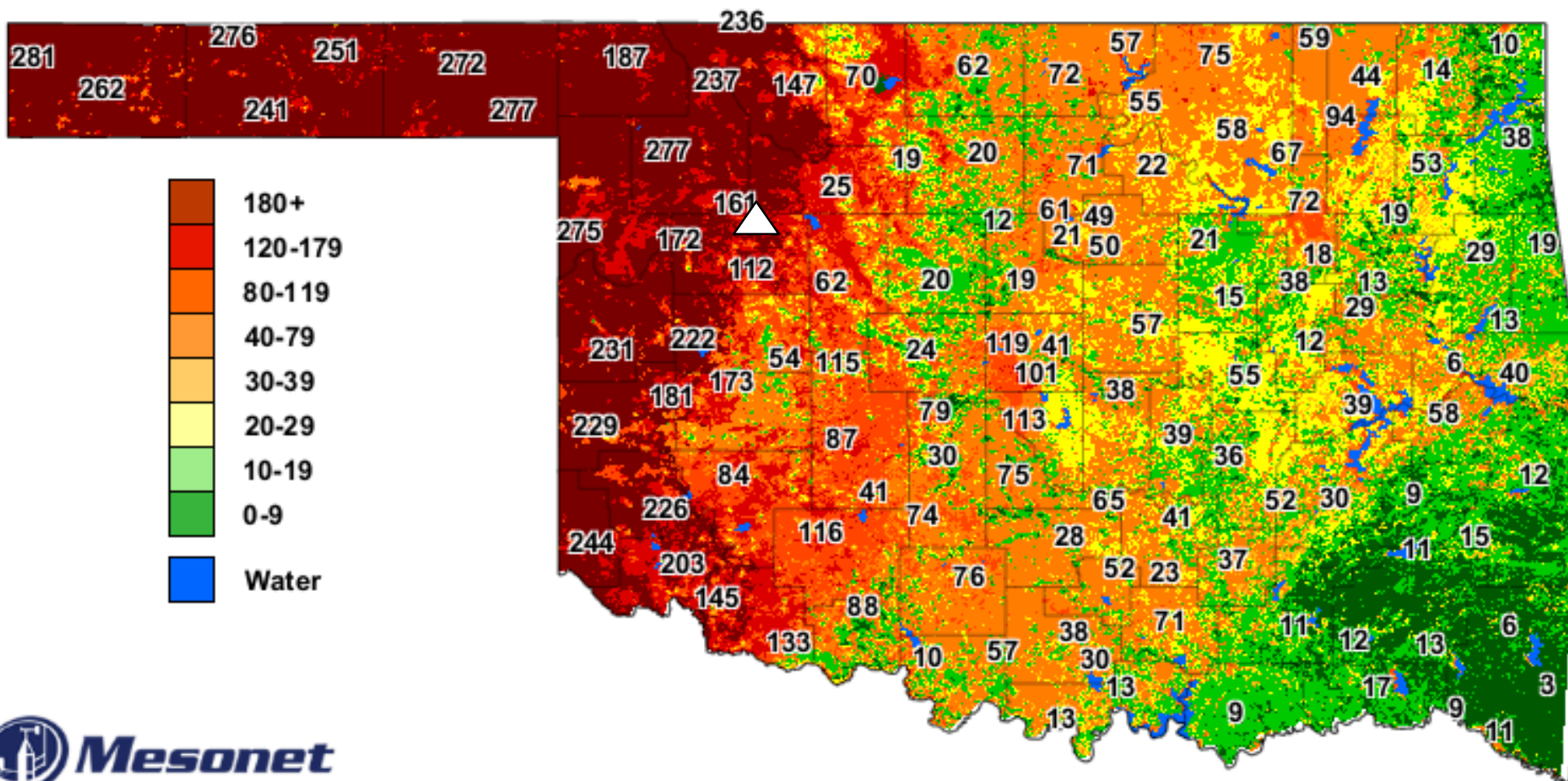


***FIRE DANGER***

# NFDRS Fire Danger Indices

- **Spread Component (SC)**
  - relates to forward speed of fire (ft/min)
- **Energy Release Component (ERC)**
  - relates to heat release per unit area in flaming zone
- **Burning Index (BI)**
  - based on both SC and ERC
  - relates to fireline intensity and flame length (BI/10 ft)

# Spread Component

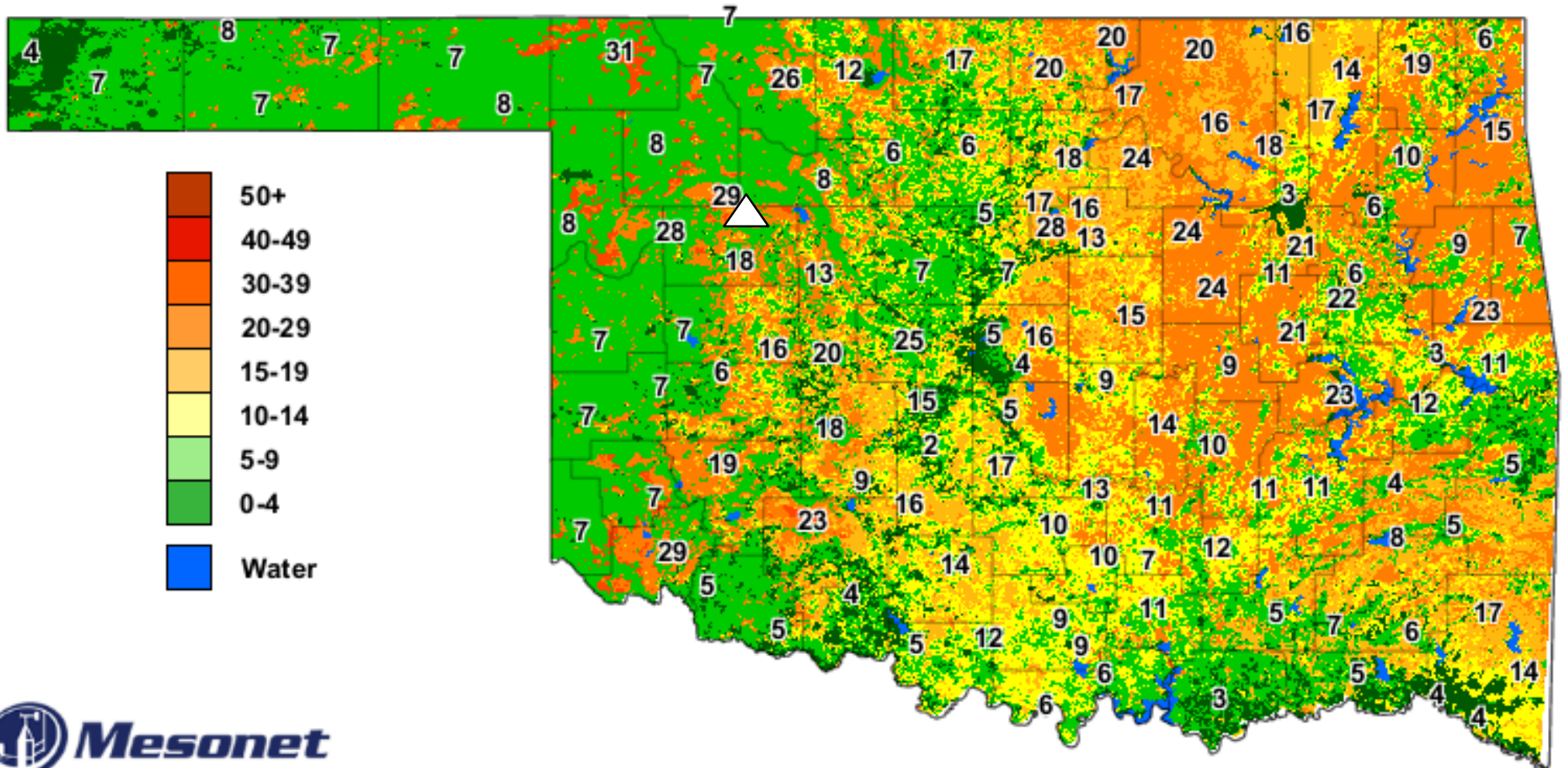


Spread Component (ft/min)

5:00 PM April 17, 2018 CDT

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# Energy Release Component

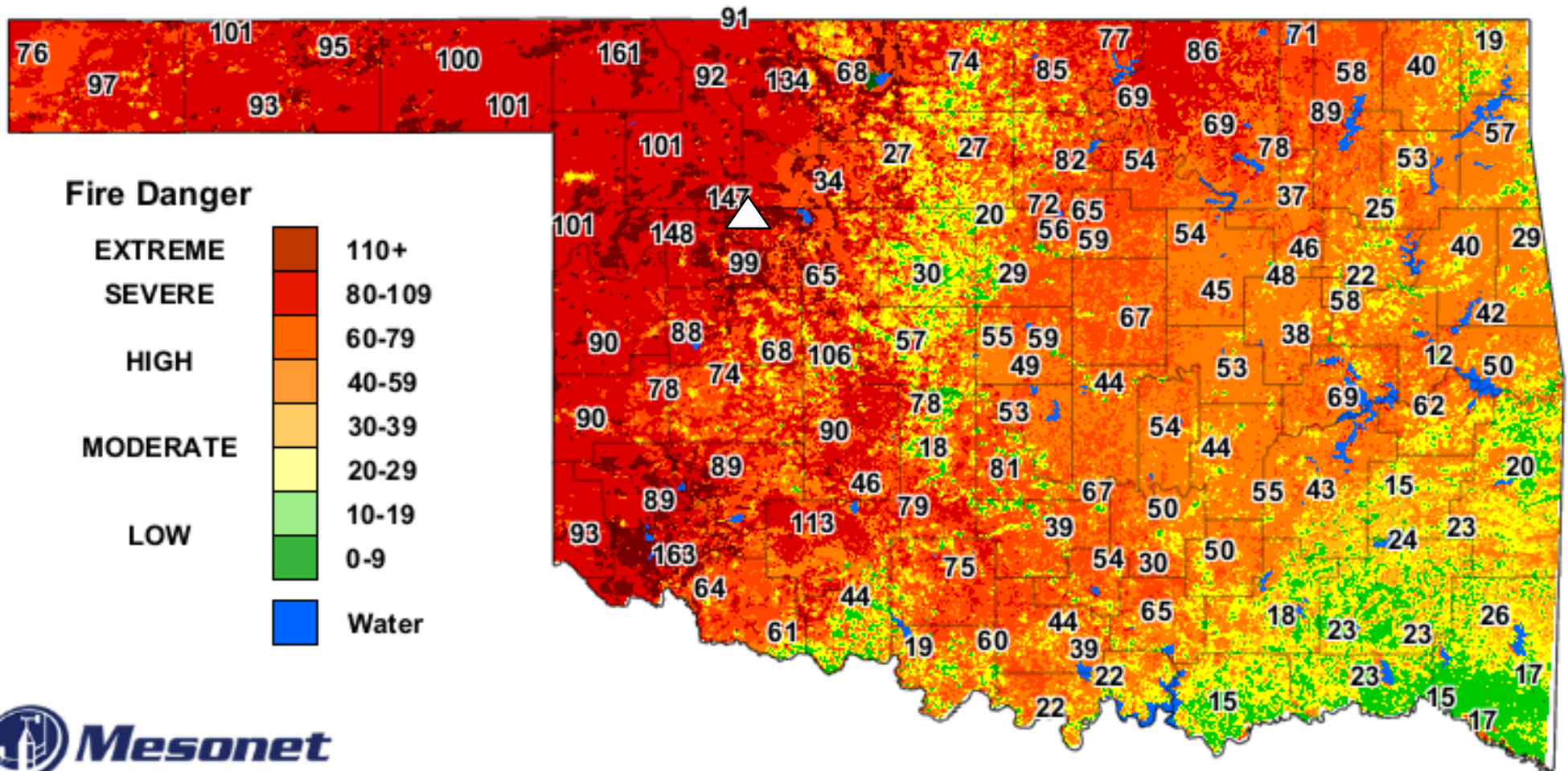


Energy Release Component (BTU/ft<sup>2</sup>)

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# Burning Index



Burning Index (10\*ft)

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# Burning Index Interpretation

## Fire Danger Level

**LOW (0-20) to  
MODERATE (20-40)**  
(BI < 40)

**HIGH**  
(BI = 40-80)

**SEVERE**  
(BI = 80-110)

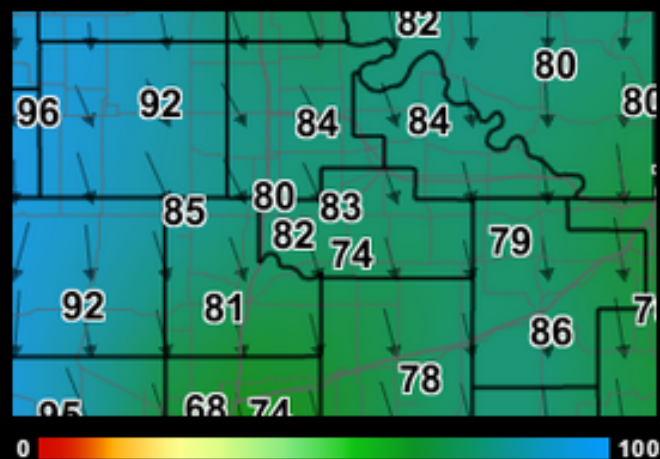
**EXTREME**  
(BI > 110)

| Flame Length (ft)   | Fireline Intensity (Btu/ft/s) | Interpretations   |
|---------------------|-------------------------------|---|
| <4<br>(BI <40)      | <100                          | Fires can generally be attacked at the head or flanks by persons using handtools.<br><br>Hand line should hold the fire.  |
| 4-8<br>(BI=40-80)   | 100-500                       | Fires are too intense for direct attack on the head by persons using handtools.<br><br>Hand line cannot be relied on to hold fire.<br><br>Equipment such as dozers, pumpers, and retardant aircraft can be effective. |
| 8-11<br>(BI=80-110) | 500-1,000                     | Fires may present serious control problems--torching out, crowning, and spotting.<br><br>Control efforts at the fire head will probably be ineffective.   |
| > 11<br>(BI > 110)  | > 1,000                       | Crowning, spotting, and major fire runs are probable.<br><br>Control efforts at head of fire are ineffective.   |

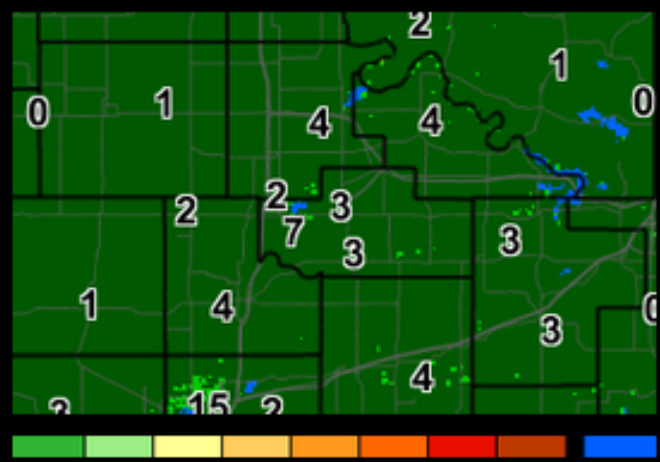


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Current Relative Humidity and Wind Direction



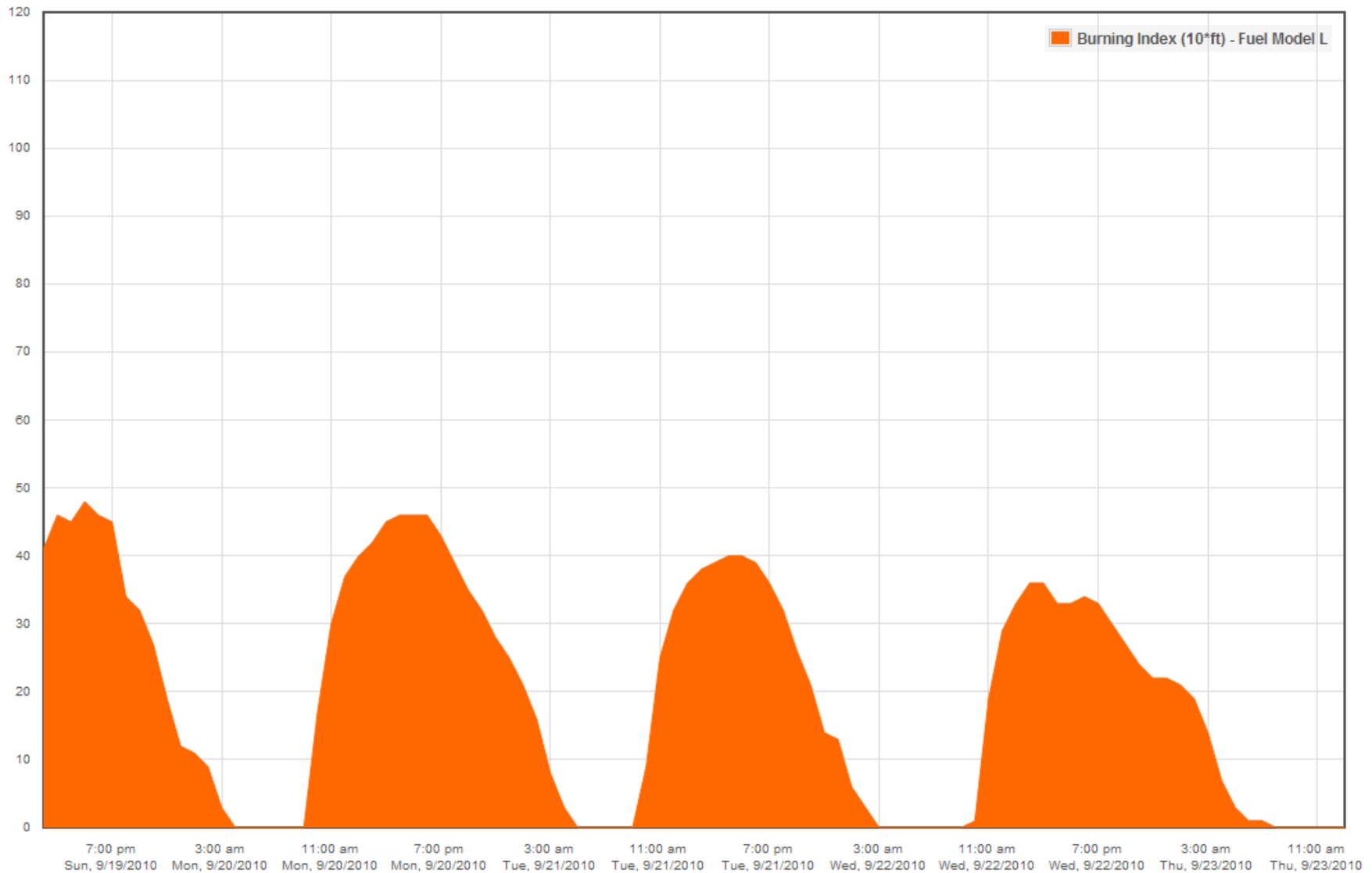
Current Burning Index



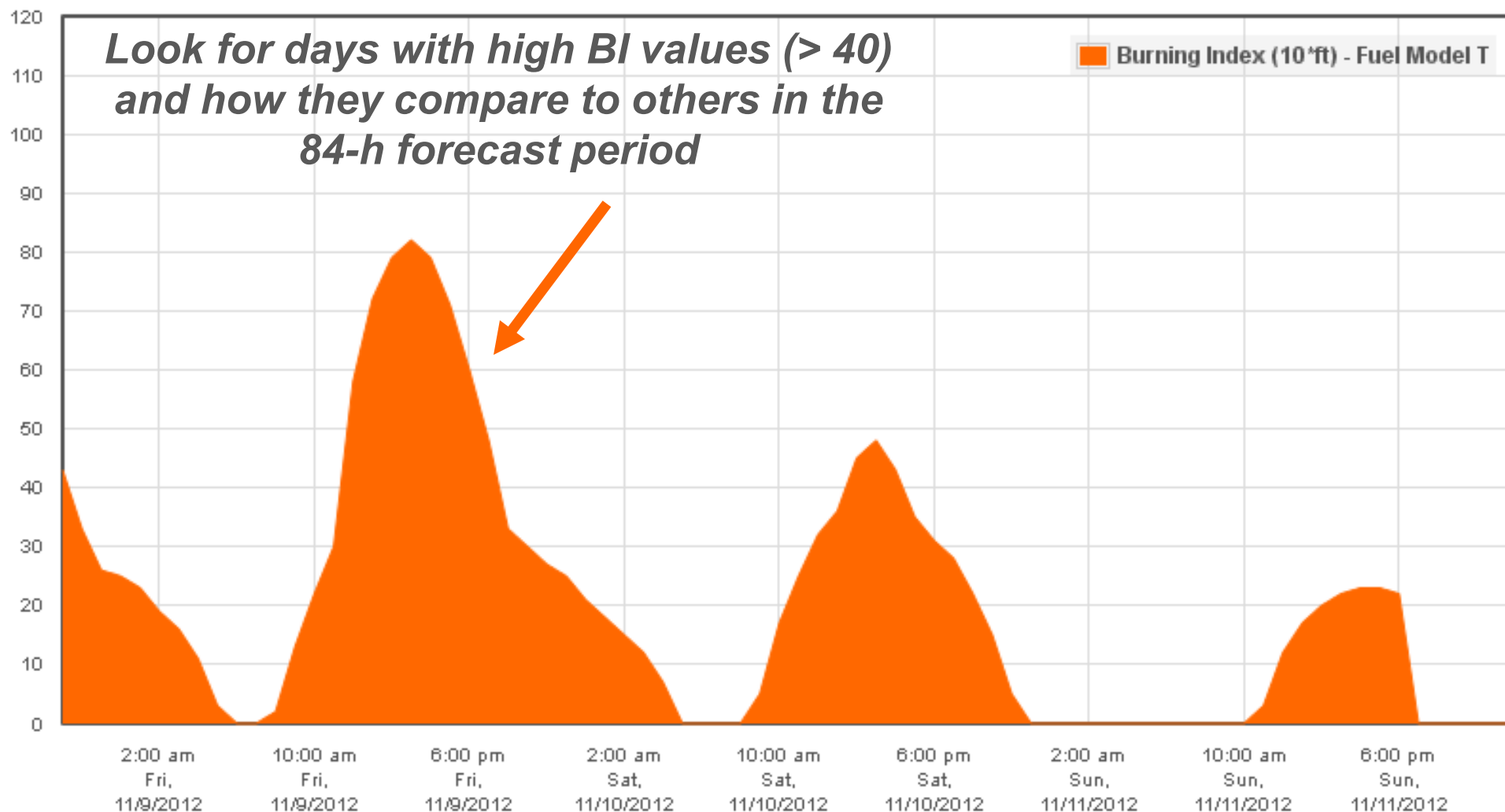
| Station:             | Stillwater               | Oilton <span style="color: orange;">✕</span> |
|----------------------|--------------------------|--|
| <b>Weather</b>       | Wed 5/03/17 10:20 pm CDT | Wed 5/03/17 10:20 pm CDT                     |
| Relative Humidity:   | <b>83%</b>               | <b>79%</b>                                   |
| Past 1-hr RH Change: | <b>+4%</b>               | <b>+1%</b>                                   |
| 10-m Wind:           | <b>NNW at 8 mph</b>      | <b>NNW at 7 mph</b>                          |
| Max Wind Gust:       | <b>10 mph</b>            | <b>14 mph</b>                                |
| Temperature:         | 50°F                     | 50°F   |
| 24-hr Rainfall:      | 0.46 in                  | 0.22 in                                      |
| Dispersion:          | Moderately Poor          | Moderately Poor                              |
| Sunrise / Sunset:    | 6:34 am / 8:17 pm        | 6:31 am / 8:15 pm                            |
| <b>Fire Danger</b>   | Wed 5/03/17 10:00 pm CDT | Wed 5/03/17 10:00 pm CDT                     |
| Current Fire Danger: | <b>LOW</b>               | <b>LOW</b>                                   |
| Burning Index:       | <b>1</b>                 | <b>3</b>                                     |
| Spread Component:    | <b>0</b>                 | <b>0</b>                                     |
| Ignition Component:  | <b>1%</b>                | <b>2%</b>                                    |
| NFDRS Fuel Model:    | <b>T</b>                 | <b>R</b>                                     |
| 1-hr Fuel Moisture:  | <b>14%</b>               | <b>15%</b>                                   |
| 10-hr Fuel Moisture: | <b>16%</b>               | <b>17%</b>                                   |
| Soil Moisture:       | <b>98%</b>               | <b>98%</b>                                   |
| KBDI:                | <b>0</b>                 | <b>16</b>                                    |
| Relative Greenness:  | <b>87%</b>               | <b>89%</b>                                   |

# Typical Daily Cycle (Burning Index)

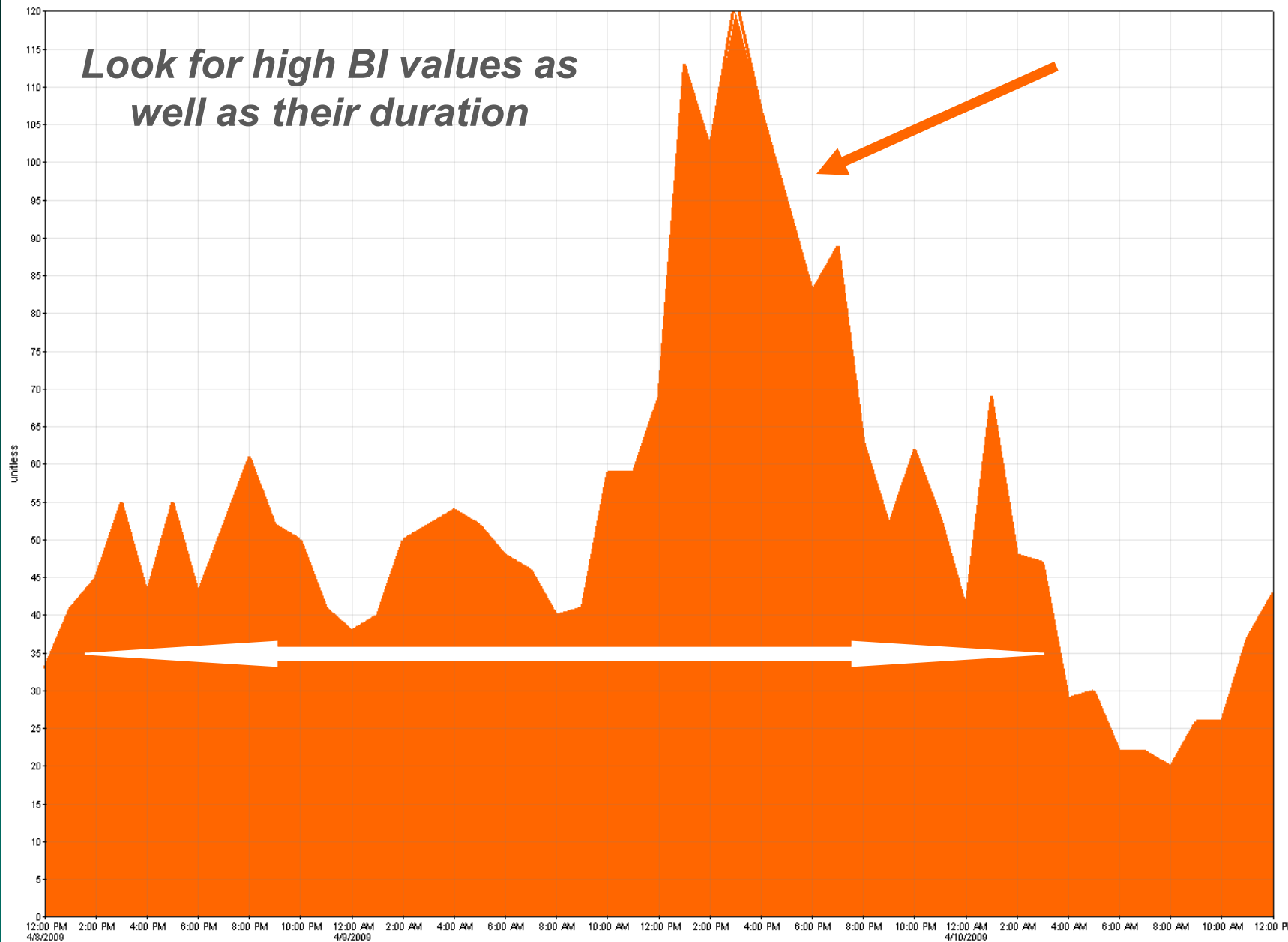
## Firegram for Arnett



## Firegram for Burbank



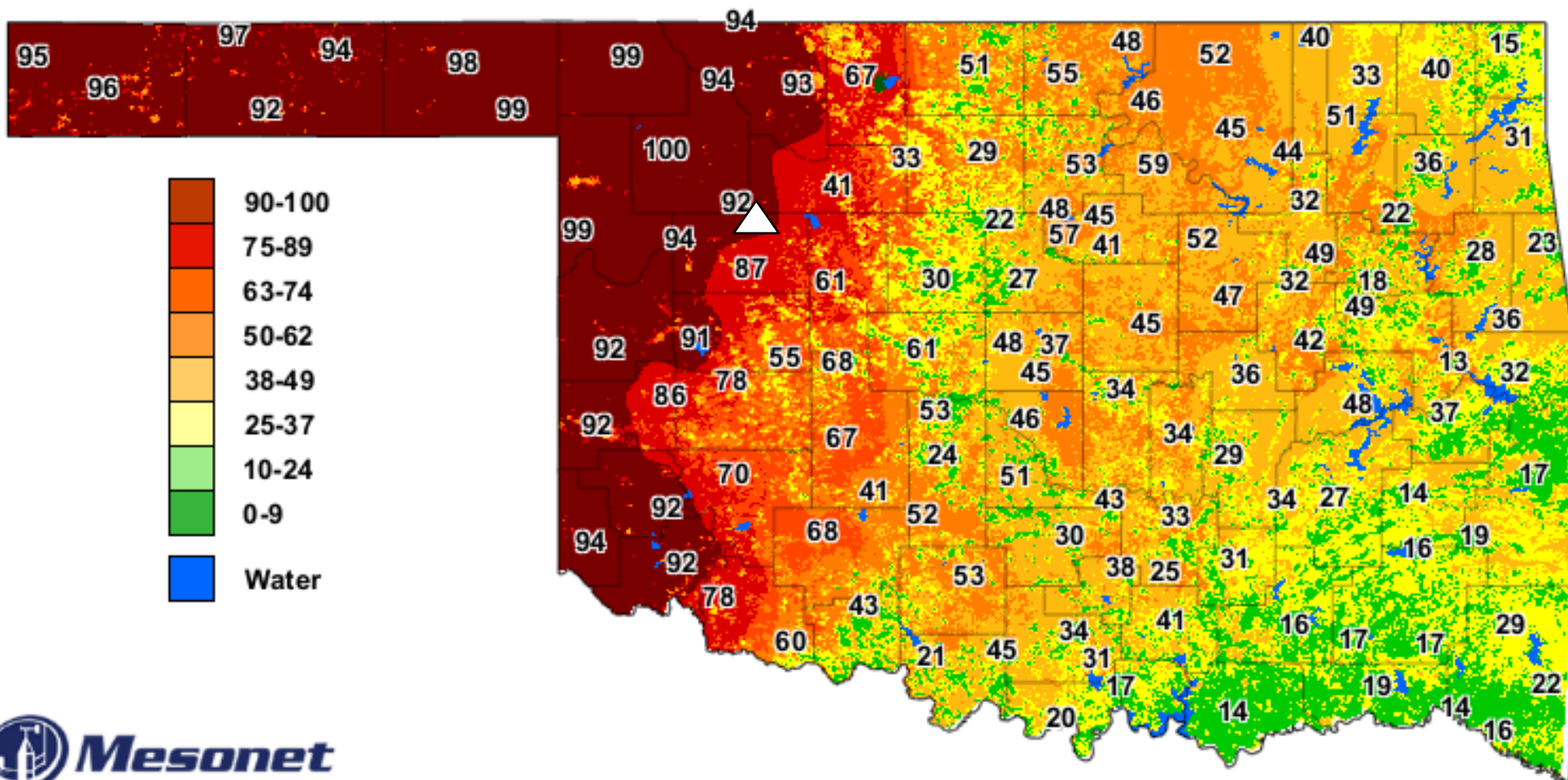
# Waurika: Burning Index (April 9-10, 2009)



# NFDRS Fire Danger Indices

- **Ignition Component (IC)**
  - relates to probability of reportable fire resulting from a firebrand; says nothing of intensity

# Ignition Component



Ignition Component (%)

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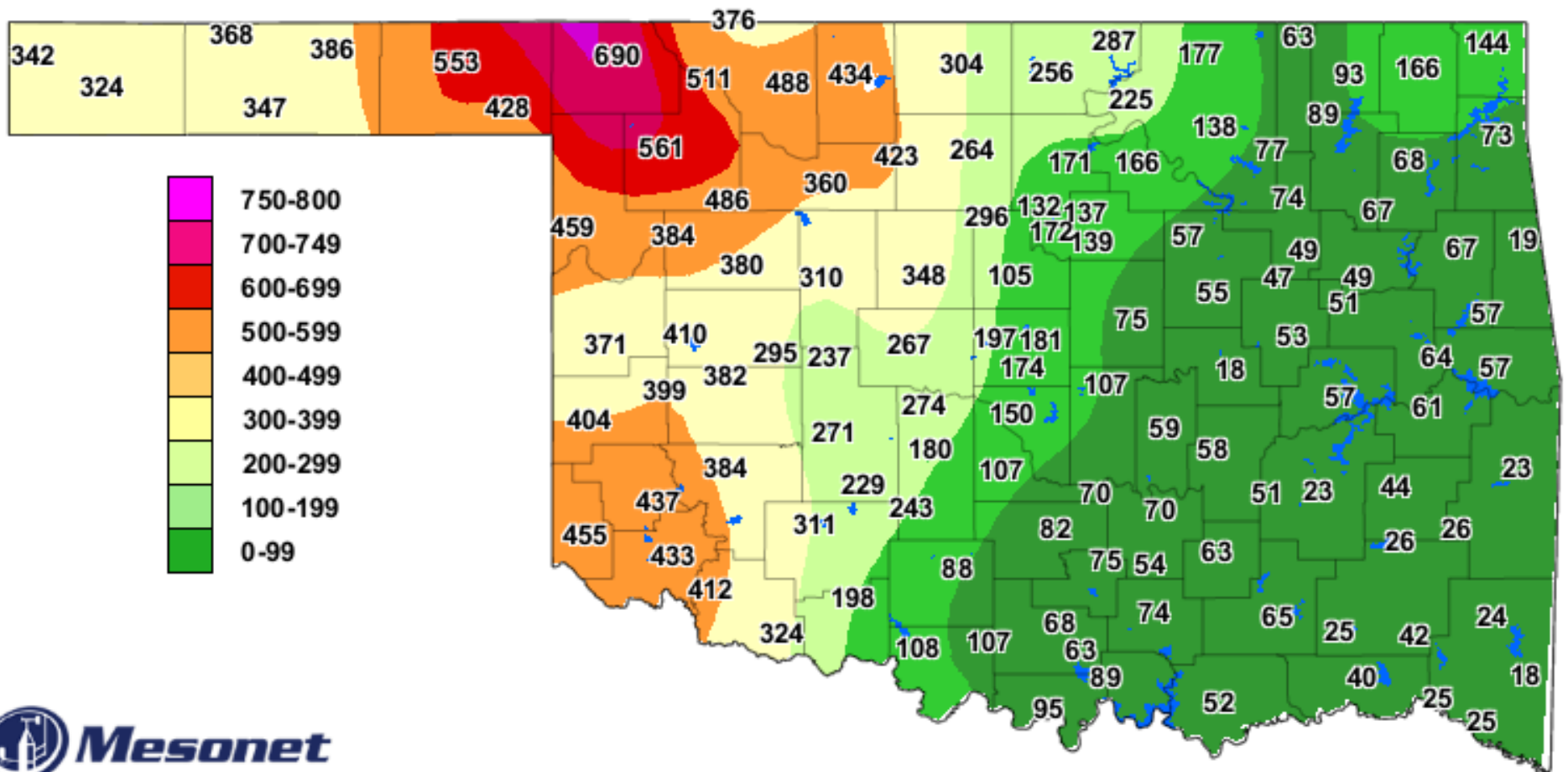
# Keetch-Byram Drought Index

- Index (0-800) added to NFDRS in 1988 based on simple model to estimate water content in soil column

*[ 0 = saturated (8" water); 800 = no water ]*



# Keetch-Byram Drought Index (KBDI)

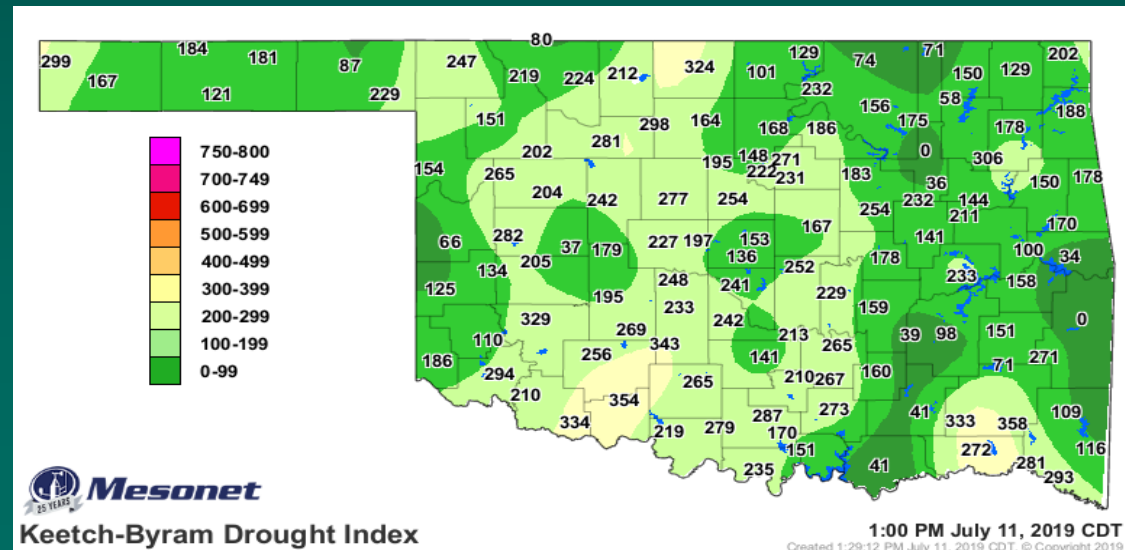
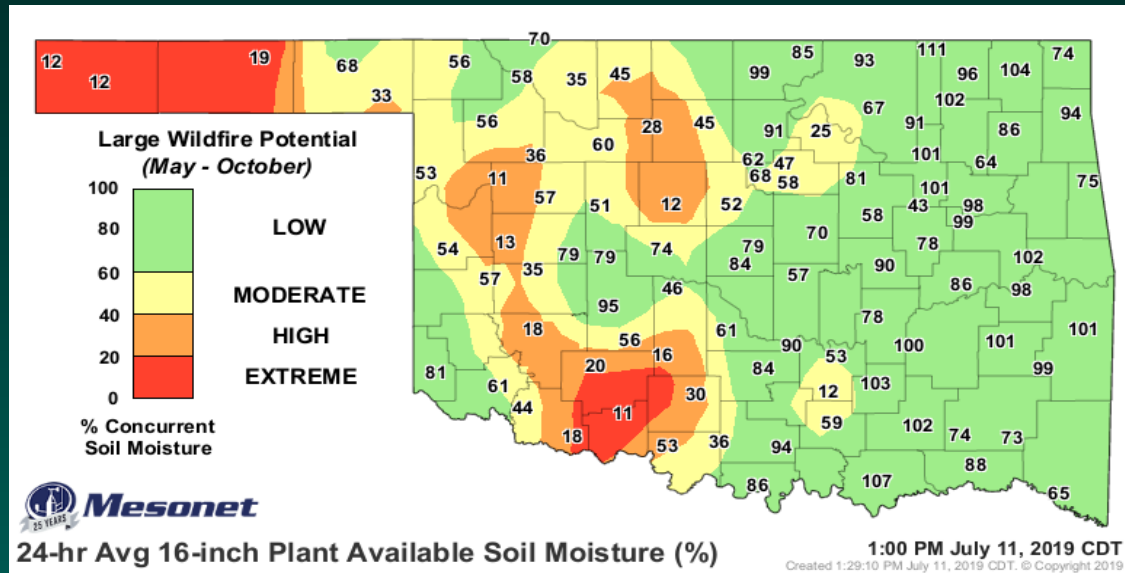


Keetch-Byram Drought Index

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# Comparison of Soil Moisture and KBDI Maps July 11, 2019



A B-24 Liberator bomber aircraft is shown in flight, viewed from a low angle. The aircraft is dark in color and has the number '70' visible on its tail. It is dropping a large, billowing cloud of fire retardant, which appears as a thick, white and grey plume trailing behind the plane. The background consists of a clear blue sky with some light clouds, and a line of bare trees in the foreground. The overall scene suggests a fire suppression operation.

***The Oklahoma Fire Danger Model***

# Oklahoma Fire Danger Model

- Model is run every 15 minutes with Mesonet data
- Colored maps (500-m resolution) of BI, SC, ERC, and IC
- Colored maps of 1-h, 10-h, 100-h, 1000-h dead fuel moisture (every 15 minutes), live fuel moisture (daily), and KBDI (daily)
- Charts and tables for Mesonet sites

# Questions You Should Be Able to Answer by the End of this Module

- What are the three major physical determinants of fire danger?
- What are the differences between dead and live fuels?
- How do 1-h and 10-h dead fuels respond differently to weather conditions than 100-h and 1000-h fuels?
- What is a fuel model and how can I change it on OK-FIRE?
- Why is relative greenness (RG) important to fire danger in OK-FIRE?
- What fire danger variables do fuel model and RG influence in OK-FIRE?



**Web Site Demo:**  
***Fire Danger Model Output***

# QUESTIONS ?

