

## MISSOURI DEPARTMENT OF NATURAL RESOURCES 2018 Drought Response

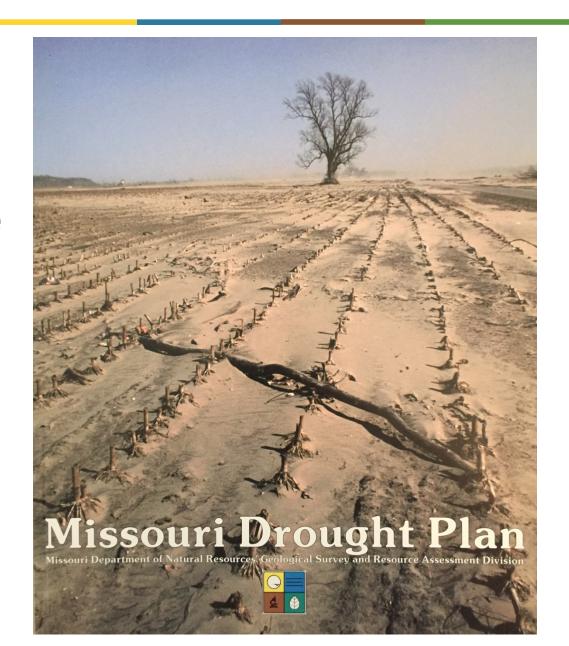


**Jennifer Hoggatt** 

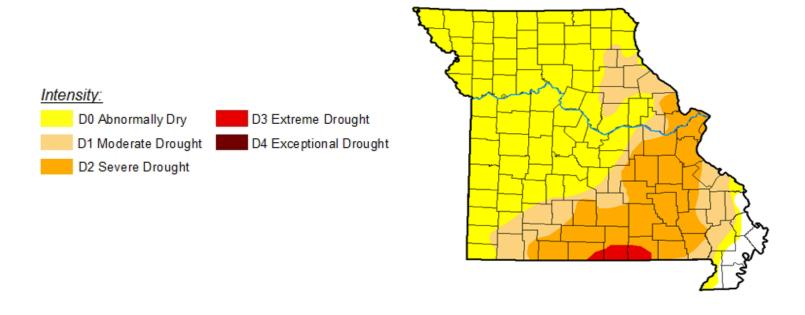
Director, Missouri Water Resources Center



### Missouri Drought Response



### Drought Development 2017/2018



December 26, 2017

- Climate and Weather Committee first met January 29, 2018.
- Conditions subsequently appeared to improve.

### **Drought Development**

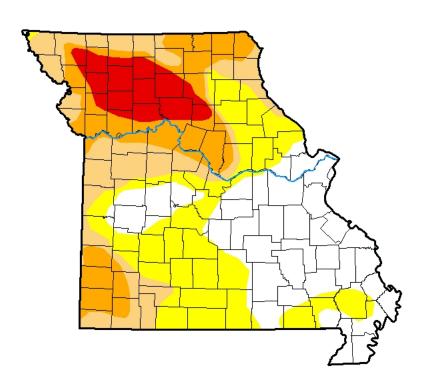
Pat Guinan, State Climatologist, wrote:

"Record May warmth impacted Missouri with preliminary data indicating a statewide average temperature of 72.5°F, or 8.2 degrees above the long-term average. The unprecedented warmth eclipsed the prior record established in 1962. ... The extreme flip in monthly temperature anomalies, from 2<sup>nd</sup> coldest April to 1<sup>st</sup> warmest May, was nothing short of incredible. Missouri experienced a spring where April behaved more like March and May was typical of June."



### **Drought Progression**

U.S. Drought Monitor
Missouri



#### July 10, 2018

(Released Thursday, Jul. 12, 2018) Valid 8 a.m. EDT

Drought Conditions (Percent Area)

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		None	D0-D4	D1-D4	D2-D4	D3-D4	D4
	Current	31.25	68.75	42.21	24.61	8.21	0.00
	Last Week 07-03-2018	31.25	68.75	40.50	17.24	0.00	0.00
	3 Month's Ago 04-10-2018	72.00	28.00	8.23	0.00	0.00	0.00
	Start of Calendar Year 01-02-2018	1.49	98.51	46.34	23.68	1.29	0.00
	Start of Water Year 09-26-2017	35.49	64.51	8.80	0.00	0.00	0.00
	One Year Ago 07-11-2017	94.33	5.67	0.02	0.00	0.00	0.00

#### Intensity:

D0 Abnormally Dry
D1 Moderate Drought
D2 Severe Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

#### Author:

Brian Fuchs National Drought Mitigation Center











#### Drought Response – Executive Action

- Executive Order 18-05 was issued July 18, 2018.
- The order declared a drought alert for all counties experiencing severe, extreme or exceptional drought (D2-D4).
- Counties entering drought alert would remain through the duration of the Executive Order – December 1, 2018.



#### **Drought Assessment Committee**

Office of the Governor

Department of Agriculture

Department of Health and Senior

Services

Department of Conservation

Department of Economic Development

Department of Public Safety

MU – State Climatologist

MU - College of Agriculture, Food, and

**Natural Resources** 

USDA – Farm Services Agency

USDA – Natural Resource Conservation

Service

**USDA - Rural Development** 

U.S. Geological Survey

U.S. Army Corps of Engineers

National Oceanic and Atmospheric

Administration

**National Weather Service** 

U.S. Forest Service

U.S. Environmental Protection Agency,

Region 7

Green Hills Regional Planning

Commission

Northeast Missouri Regional Planning

Commission

Mark Twain Council of Governments

Pioneer Trails Regional Planning

Commission

Mid-MO Regional Planning

Commission

Harry S Truman Coordinating Council

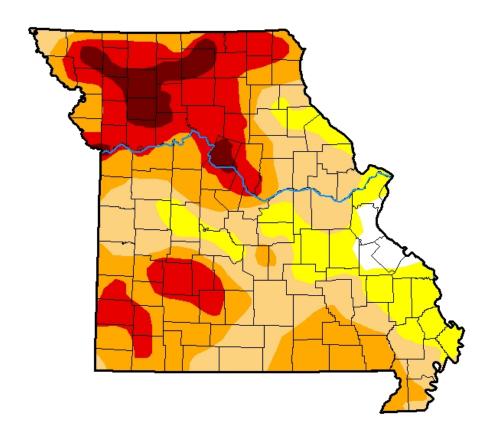
Southwest Missouri Council of

Governments



#### Peak Drought Conditions

### U.S. Drought Monitor Missouri



#### August 14, 2018

(Released Thursday, Aug. 16, 2018) Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	2.24	97.76	83.33	54.45	25.45	5.54
Last Week 08-07-2018	2.24	97.76	78.37	43.70	19.39	0.23
3 Month s Ago 05-15-2018	47.55	52.45	15.25	0.00	0.00	0.00
Start of Calendar Year 01-02-2018	1.49	98.51	46.34	23.68	1.29	0.00
Start of Water Year 09-26-2017	35.49	64.51	8.80	0.00	0.00	0.00
One Year Ago 08-15-2017	82.31	17.69	4.69	0.00	0.00	0.00

#### Intensity:

D0 Abnormally Dry
D1 Moderate Drought
D2 Severe Drought

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Author: Richard Heim NCEI/NOAA











### Drought Action - Drinking Water





### Drought Action – Drinking Water

- Mandatory Conservation Measures
- Emergency Financial Assistance
- Leak Detection





### Drought Action – Agriculture

- Emergency Hay/Water
- MoDNR Soil and Water Practices
- Hay Transportation Restrictions
- USDA Federal Assistance





#### **Water Hauling Access**

- 28 Mo Conservation (MDC) areas; 5 MoDNR state parks
- Up to 5,000 gallons daily, per family farm.
- Water available for livestock only, not for resale.
- Farmers provide pumping/hauling equipment

#### **Hay Lottery**

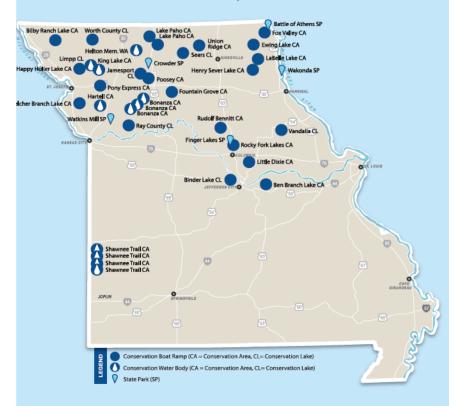
- For farmers to bale hay
- Free of charge
- Farmers provide equipment
- ~900 acres state parks land
- ~475 acres MDC land





#### **WATER HAULING ACCESS**

To make arrangements to pump water, call 573-751-4115, ext. 3209

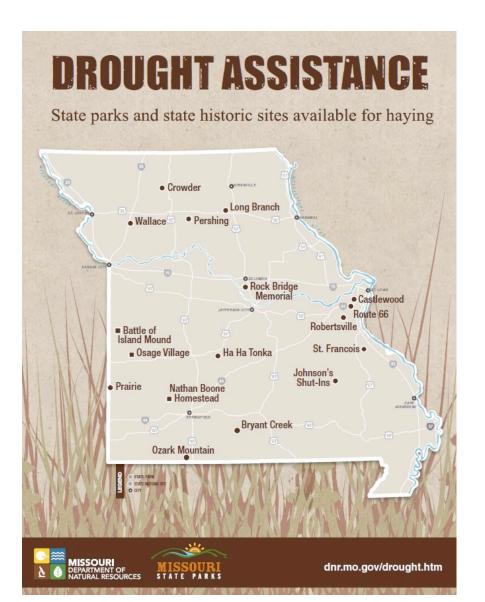








dnr.mo.gov/drought.htm

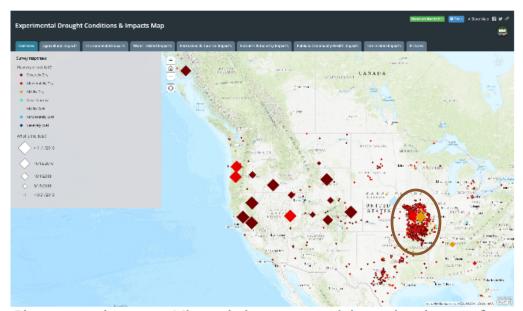




### Drought Action – Impact Reporting



#### **National**

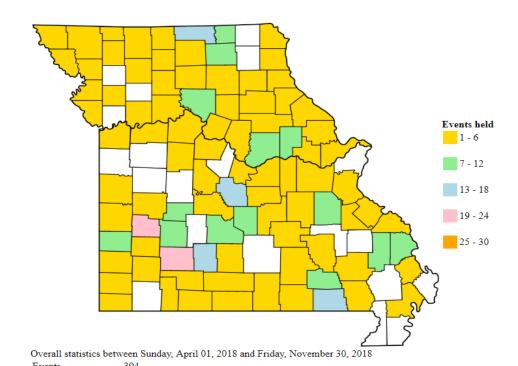


Please note that many Missouri observers used the national report form instead of or in addition to the Missouri Extension report form.



#### **MU Extension Resources**

- More than 40 workshops to address drought issues relating to forages and beef production.
- Other programming efforts jumped to 394 events reaching over 19,000 adults throughout the state.



### **2018 Drought By The Numbers**

### \$8,153,942

Amount of assistance committed to landowners by the Soil and Water Conservation Program

Percent of the state that experienced dry to exceptional drought conditions at the peak of the 2018 Drought

86

1 MILLION

Drought interactions on social media sites

98

Number of counties in severe to exceptional drought at the peak of the 2018 Drought

33

Number of Conservation Area (28) and State Park (5) accesses made available for free water withdrawal by agriculture producers

\$912,568 AND \$2,678,608

Amount of assistance committed to eligible public drinking water projects by the Financial Assistance Center and Department of Economic Development's Community Development Block Grants, respectively

271,679

Number of Twitter Impressions for 2018 Drought

Number of Facebook impressions for 2018 Drought

634,106

1,374

Acres available for emergency haying access at Missouri State Parks (900) and Conservation Areas (474) Acres made available for emergency having under the USDA-NRCS Wetland Reserve Easement Program

**15,000** 

Potential acres of cover crop funded through Emergency USDA-NRCS Environmental Quality Incentive Program

66,000

dnr.mo.gov/drought.htm



# Thank You Questions?

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