

# Massachusetts Bureau of Forest Fire Control



## New Fire Totals

Today's Date: **Monday, August 29, 2016**

N/R = Not Reported

*Reporting units that represent more than one unit. Details of fires are broken down by unit on the corresponding Refuge and Park Fire Totals Tab*

### Year to Date Totals

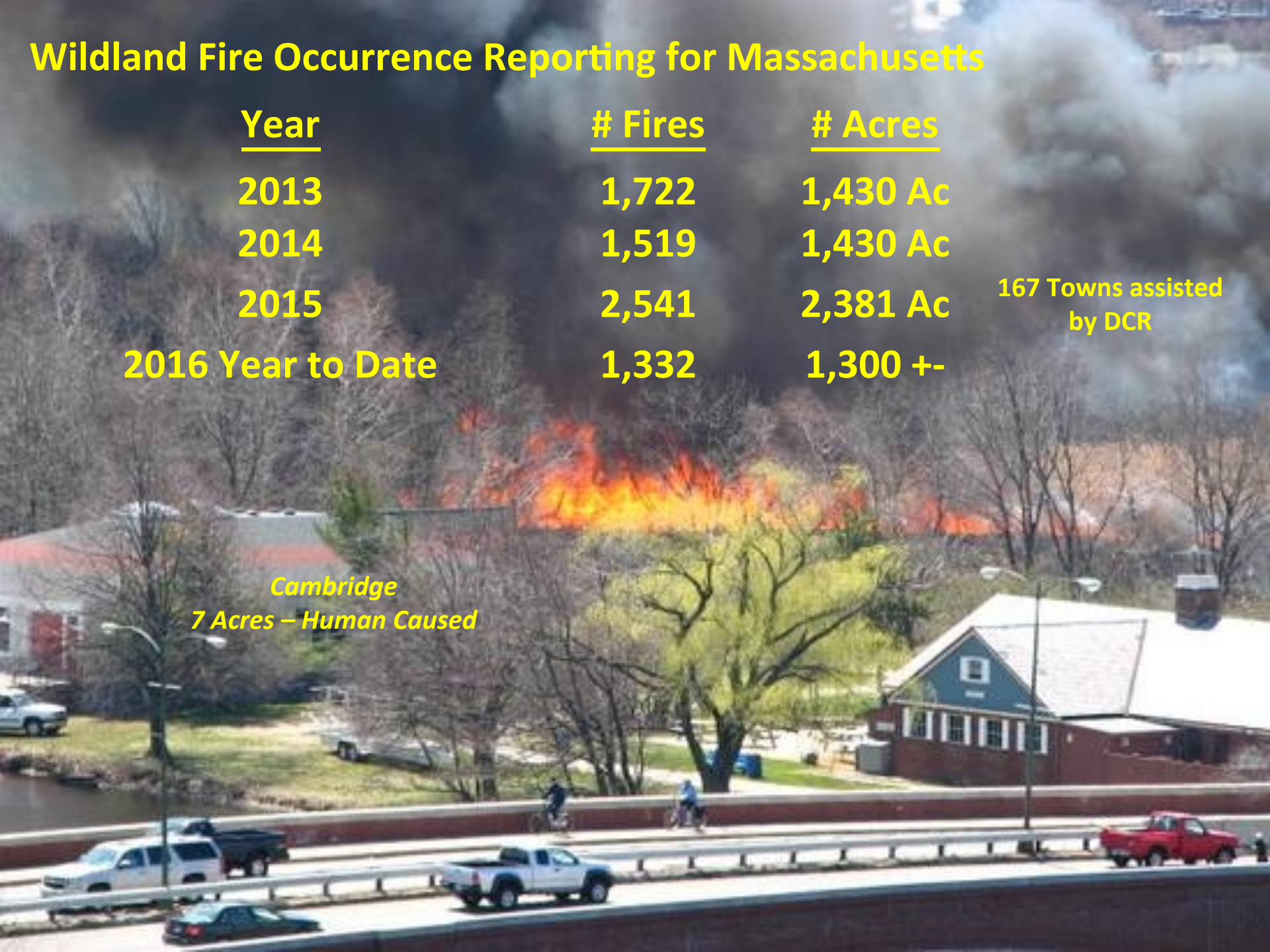
Reporting Unit	Last Updated	Fires Human Caused	Acres Human Caused	Hectares Human Caused	Fires Lightning Caused	Acres Lightning Caused	Hectares Lightning Caused	Total Number of Fires Per Agency	TOTAL ALL ACRES Per Agency	TOTAL ALL HECTARES Per Agency
CT-CTS	08/26/16	200	355.36	143.81	1	6.60	2.67	201	361.96	146.48
MA-CCP*	01/01/16	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
MA-MAS	08/04/16	1,313	1,279.46	517.78	0	0.00	0.00	1,313	1,279.46	517.78
ME-ACP*	01/01/16	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
ME-MES	08/29/16	582	750.70	303.80	26	55.40	22.42	608	806.10	326.22
NB	08/27/16	253	254.80	103.11	10	6.00	2.43	263	260.80	105.54
NH-NHS	07/25/16	117	531.84	215.23	4	12.15	4.92	121	543.99	220.14
NH-WMF	04/17/16	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
NL	08/29/16	75	877.20	354.99	13	26,198.20	10,602.04	88	27,075.40	10,957.03
NS	08/29/16	244	1,880.47	761.00	0	0.00	0.00	244	1,880.47	761.00
NY-NYS	08/05/16	123	2,849.10	1,152.99	13	46.70	18.90	136	2,895.80	1,171.89
PA-DWP*	01/01/16	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
QC	08/29/16	372	563.90	228.20	77	1,323.74	535.70	449	1,887.64	763.90
RI-RIS	04/19/16	7	16.00	6.47	0	0.00	0.00	7	16.00	6.47
USBIA-ER	01/01/16	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
USFWS-R5*	04/25/16	2	1.10	0.45	1	8.60	3.48	3	9.70	3.93
VT-GMF	05/19/16	4	0.50	0.20	0	0.00	0.00	4	0.50	0.20
VT-VTS	08/04/16	130	370.00	149.73	0	0.00	0.00	130	370.00	149.73
<b>Totals</b>	<b>YTD</b>	<b>3,422</b>	<b>9,730.43</b>	<b>3,937.77</b>	<b>145</b>	<b>27,657.39</b>	<b>11,192.55</b>			
<b>Combined Totals</b>		<b>Total All Fires</b>	<b>3,567</b>	<b>Total All Acres</b>	<b>37,387.82</b>	<b>Total All Hectares</b>	<b>15,130.31</b>			

# Wildland Fire Occurrence Reporting for Massachusetts

<u>Year</u>	<u># Fires</u>	<u># Acres</u>
2013	1,722	1,430 Ac
2014	1,519	1,430 Ac
2015	2,541	2,381 Ac
2016 Year to Date	1,332	1,300 +-

167 Towns assisted  
by DCR

*Cambridge  
7 Acres – Human Caused*



# 2016 Fire Behavior Characteristics

## ■ Springtime:

- Surface Fires
- Moderate Rates of spread
- 100 hr Fuels involved by late April
- 1000 hr Fuels burning by end May
- Fires beginning to burn in by early May



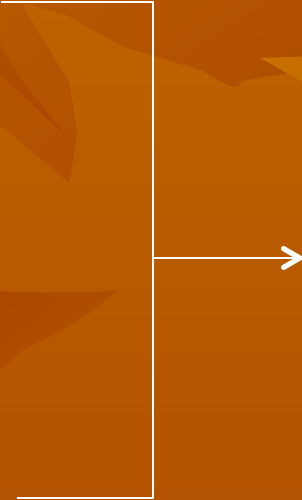
## ■ Summer Season:

- Began by Mid June shortly after green up.
- Surface fires with low to moderate rates of spread.
- Fires burning deep by July.
- Wind driven fires July 4<sup>th</sup> weekend.
- 1000 hr fuel moist very low.



# FIRE BEHAVIOR ENVIRONMENTAL FACTORS

## ■ FUELS

- 
- FUEL TYPE
  - SIZE CLASS
  - FUEL MOISTURE
  - ARRANGEMENT
  - LOADING
  - LIVE OR DEAD

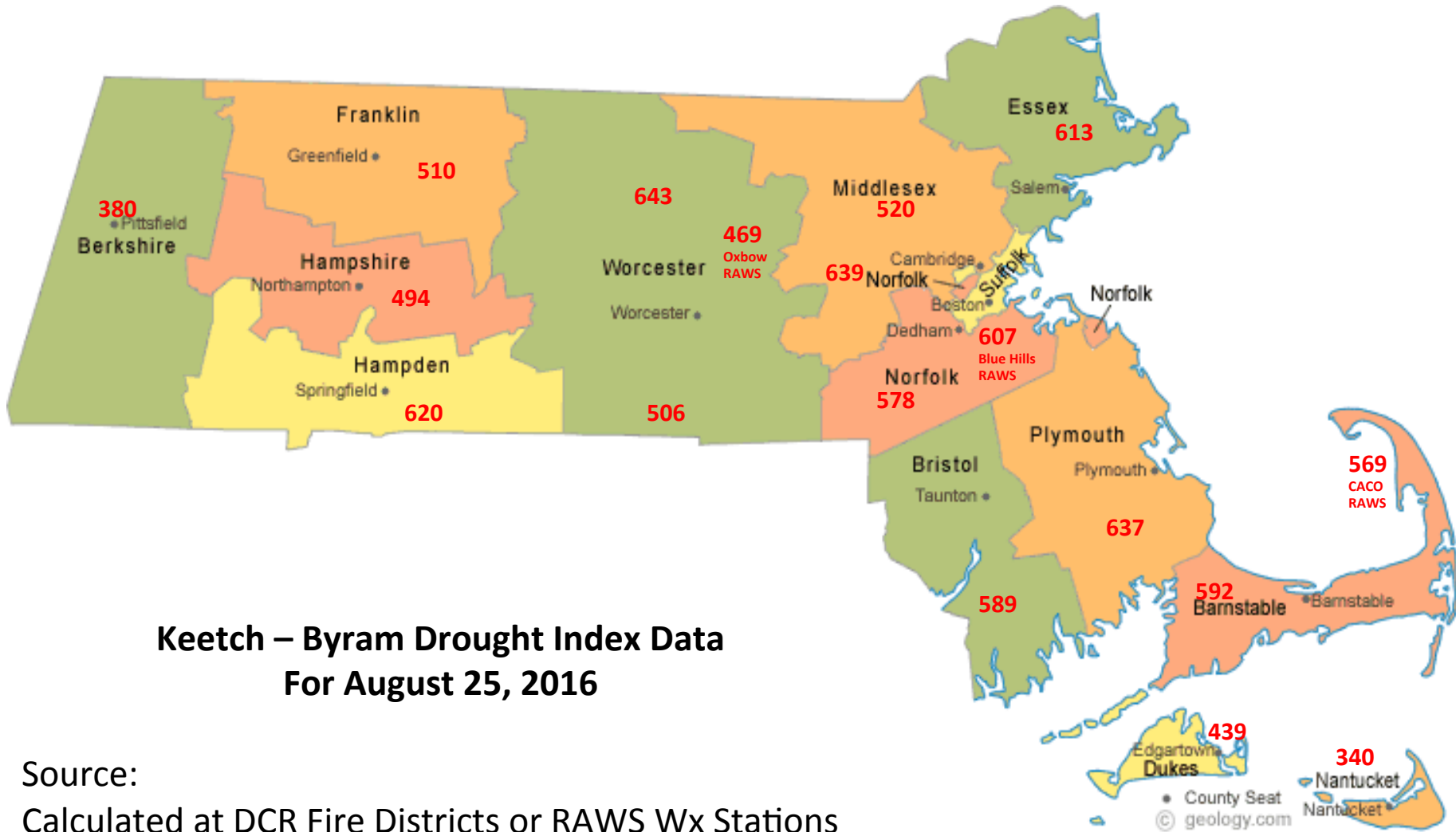
## **FIRE BEHAVIOR ENVIRONMENTAL FACTORS**

### **■ WEATHER**

- AIR TEMP
- WIND Speed/Dir
- RELATIVE HUMIDITY
- PRECIPITATION
- DROUGHT (KBDI)
- INVERSIONS
- T-STORMS / COLD FRONTS
- LIGHTNING ACTIVITY

# **DROUGHT IMPACTS ON FIRE MANAGEMENT:**

- FIRE FIGHTER SAFETY**
- WATER AVAILABILITY FOR FIRE SUPPRESSION**
- DEMANDS TACTICS AND STRATEGY ADJUSTMENTS**
- POTENTIAL DRAIN ON RESOURCES**



Source:  
 Calculated at DCR Fire Districts or RAWS Wx Stations



## Keetch-Byrum Drought Index

**KBDI = 0 - 200:** Soil moisture and large class fuel moistures are high and do not contribute much to fire intensity. Typical of spring dormant season following winter precipitation.

**KBDI = 200 - 400:** Typical of late spring, early growing season. Lower litter and duff layers are drying and beginning to contribute to fire intensity.

**KBDI = 400 - 600:** Typical of late summer, early fall. Lower litter and duff layers actively contribute to fire intensity and will burn actively.

**KBDI = 600 - 800:** Often associated with more severe drought with increased wildfire occurrence. Intense, deep burning fires with significant downwind spotting can be expected. Live fuels can also be expected to burn actively at these levels.

**THANK YOU**

**QUESTIONS???**

**Dave Celino**

**Chief Forest Fire Warden**

**Massachusetts Dept of Conservation and Recreation**

**[David.Celino@state.ma.us](mailto:David.Celino@state.ma.us)**

**(508) 326-2403**