

PRESCRIBED FIRE IN NEW MEXICO

MOVING FORWARD WITH PRESCRIBED FIRE AFTER THE 2022 WILDFIRE SEASON

Presentation to the Water and Natural Resources Interim Committee
September 29, 2022
Laura McCarthy, State Forester
Laura.McCarthy@emnrd.nm.gov

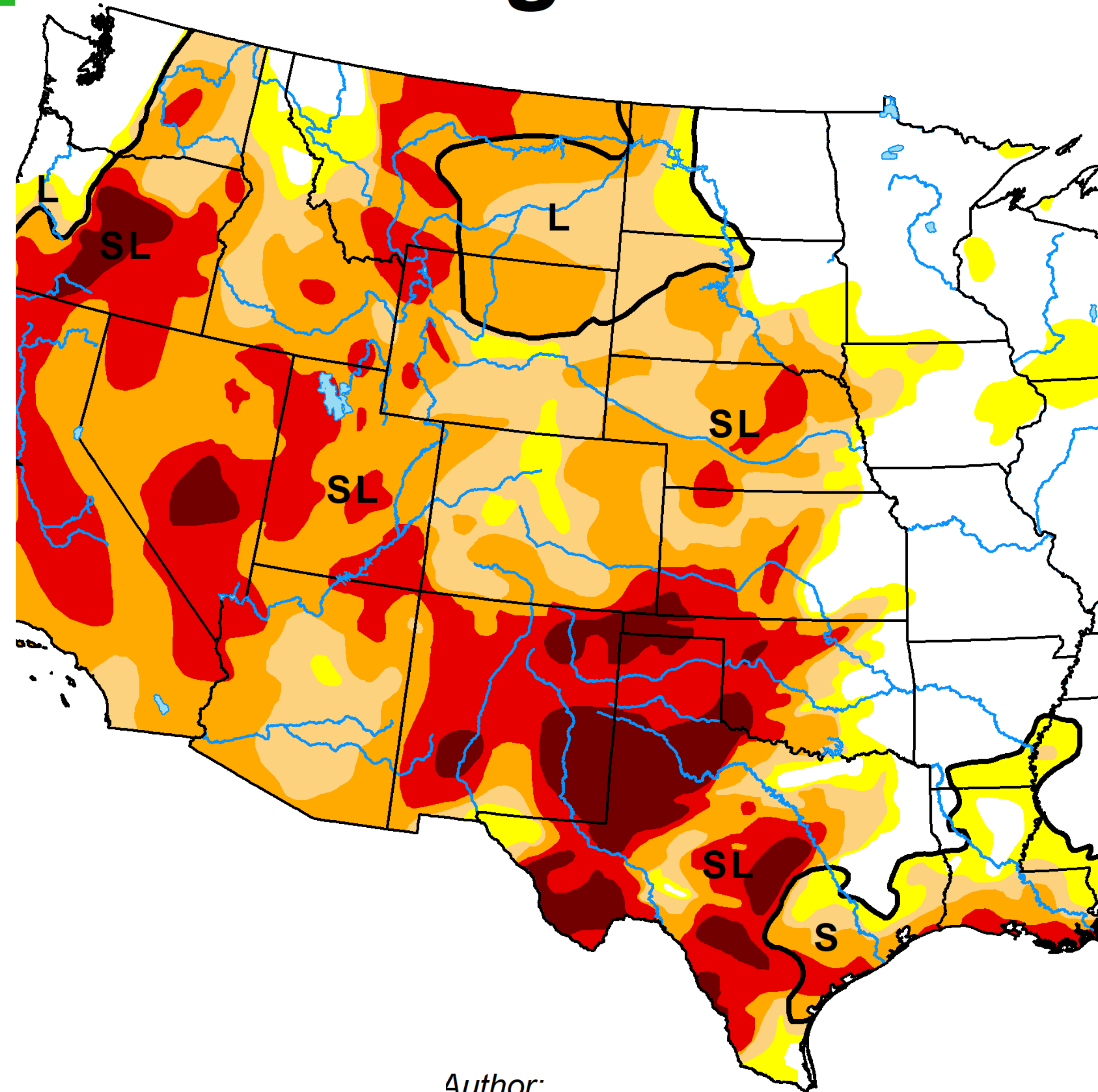




U.S. Drought Monitor

Prescribed Fire Prescriptions for the 21st Century

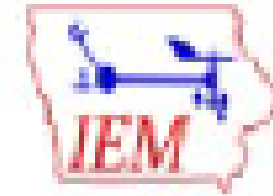
- Windy
- Higher temperatures
- Past is a less useful guide



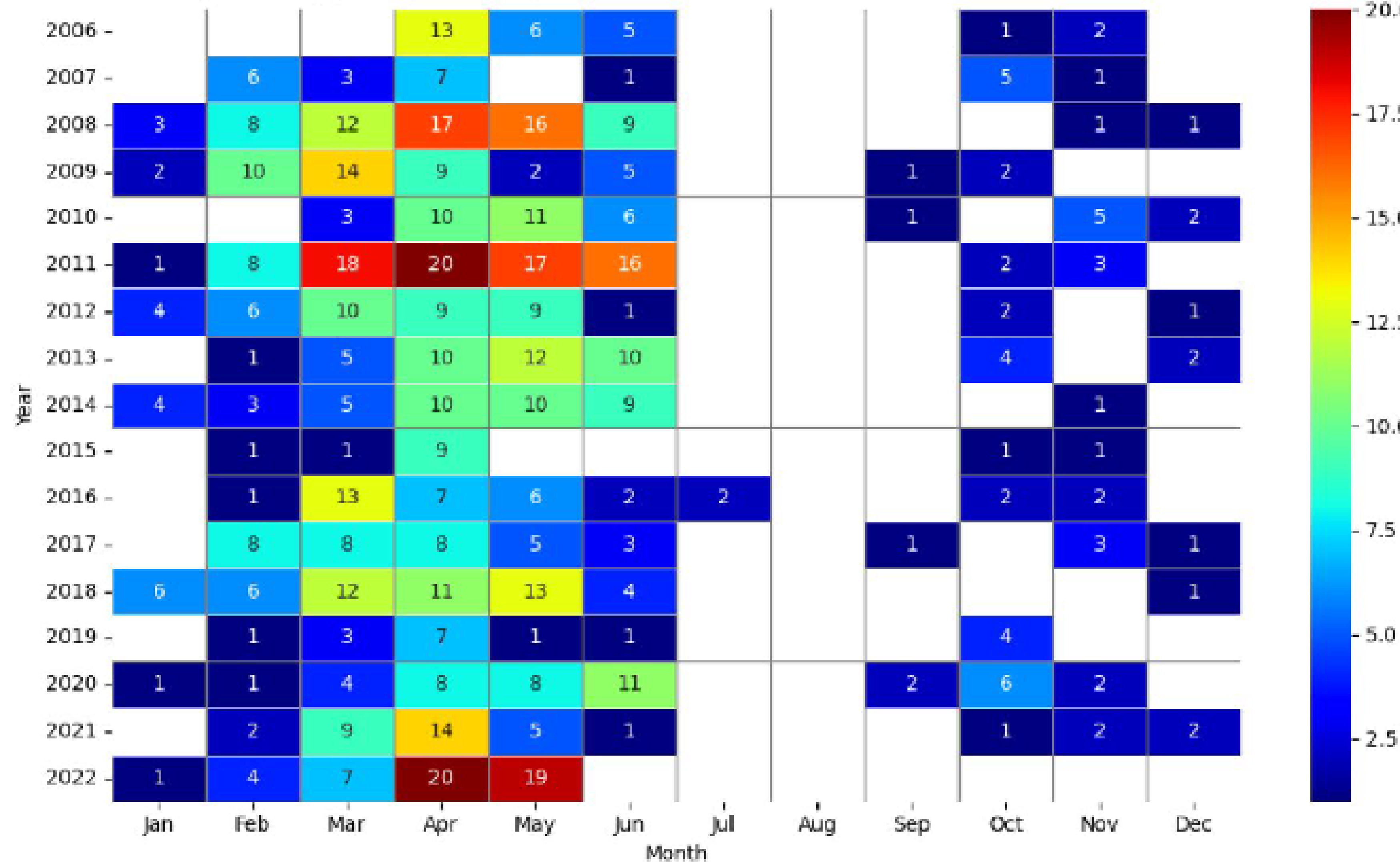
Author:
David Simeral

How Windy?

- 2006 to 2022
- 2011 most wind
- 2015 and 2019 had the least wind



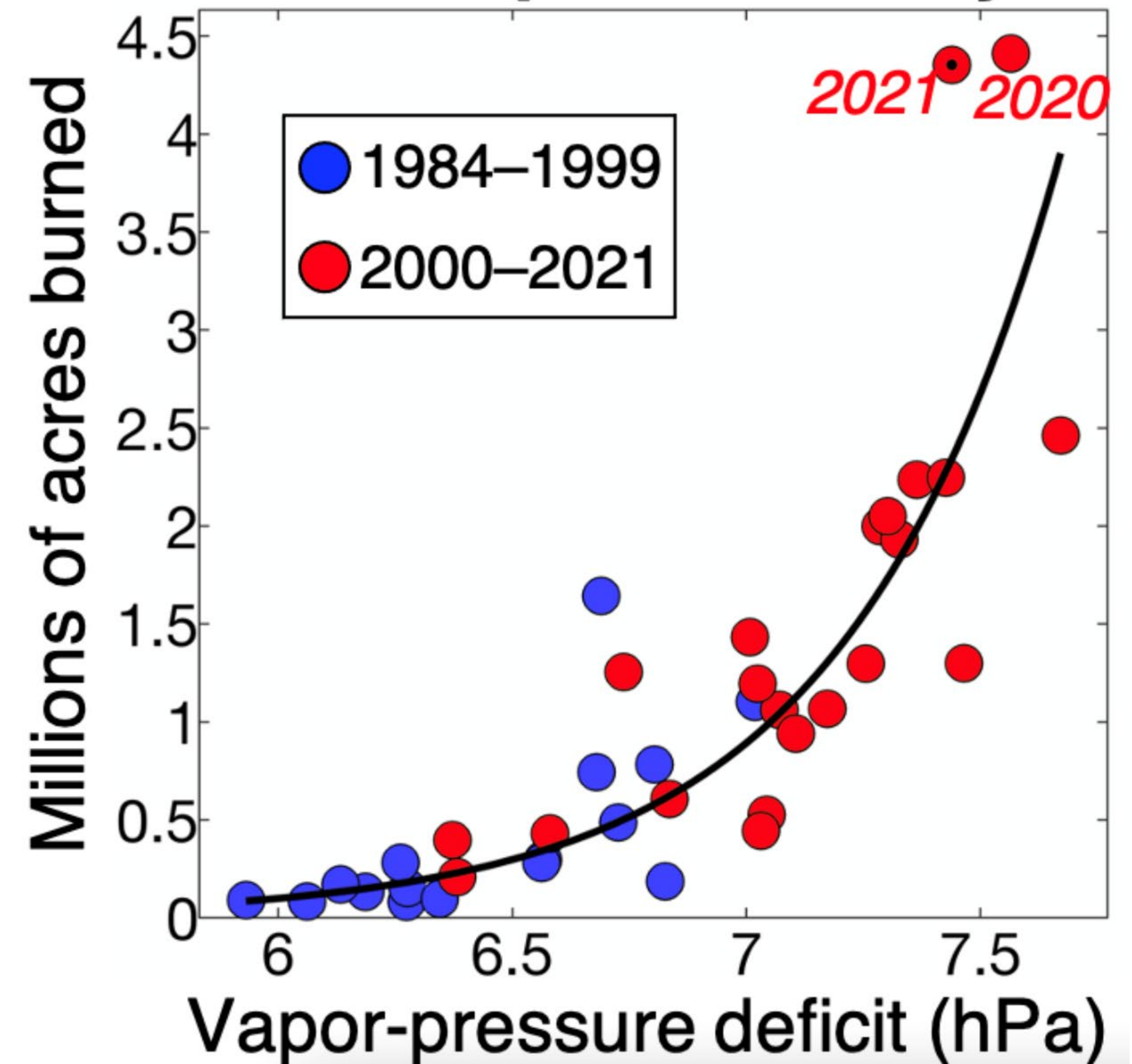
NWS [ABQ] Albuquerque
Red Flag Warning (FW.W) Issued by Year, Month



Hot, Hot, Hot

- Increasing temps driving extreme fire behavior and the total quantity of acres burned
- Temperature variability makes burn windows even narrower at higher elevation
- Hotter temps also move fire windows earlier in the season

Western US annual forest-fire area versus atmospheric aridity



Forecast made Thursday, May 5 - IMET Gary Zell

<i>Conditions</i>	Fri	Sat	Sun	Mon	Tue	Wed
<i>at 7500 FT</i>	6-May	7-May	8-May	9-May	10-May	11-May
Highlights	Elevated Fire Wx - Breezy	Critical Fire Wx Conditions - Windy to Very Windy - Low Daytime RH's Poor Overnight RH Recoveries				
Clouds/Smoke @ 1500 (%)	45	10	5	5	5	25
Average Max Temp (F)	81	84	82	83	80	78
Min Humidity (%)	7	5	6	6	8	7
Max Humidity (%)	40	35	20	24	32	37
Haines Index	6	6	6	6	6	5
Exposed Wind (mph)	19G33	30G50	37G60	35G55	28G48	30G50
Wind Direction*	WNW	WSW	WSW	WSW	SW	SW
Precip Chance (%)	0	0	0	0	0	0

KEY:

	Moderate Burning Conditions	Take Caution - Critical Burning Conditions	Extreme Burning Conditions
Clouds	> 31 %	15 to 30 %	< 15 %
Avg Max Temp	< 74 F	74 to 80 F	> 80 F
Min Humidity	> 20 %	16 to 20 %	< 15 %
Max Humidity	> 39 %	25 to 39 %	< 25 %
Ridge Wind	< 15 mph	15 to 25 mph	> 25 mph
*Wind Direction	Criticality of wind direction highly dependent on burn operations and/or structures threatened		
Haines Index	< 4	4 to 5	> 5

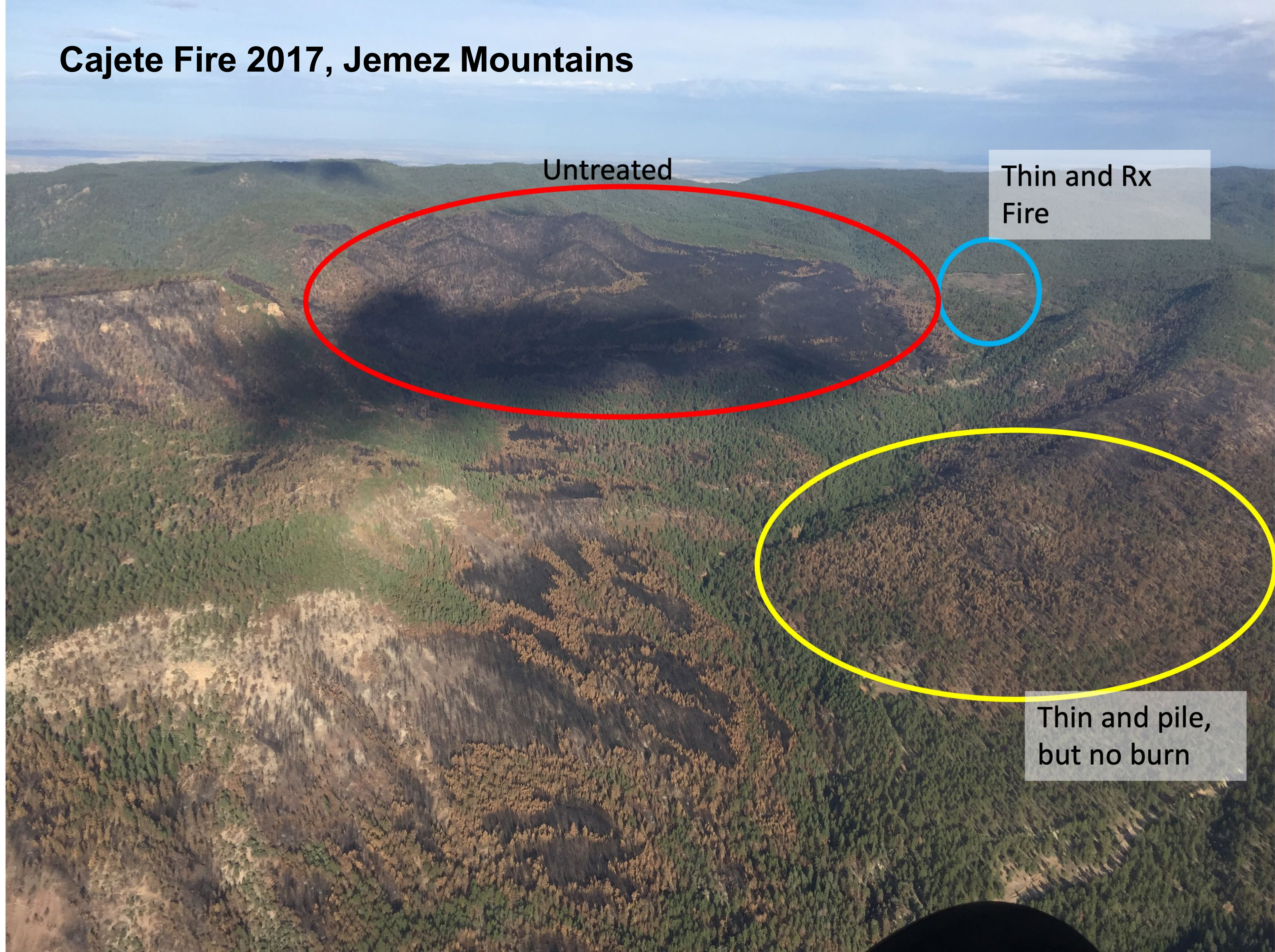
4 or more EXTREME blocks in a day equals the potential for a Critical Weather Day

Cajete Fire 2017, Jemez Mountains

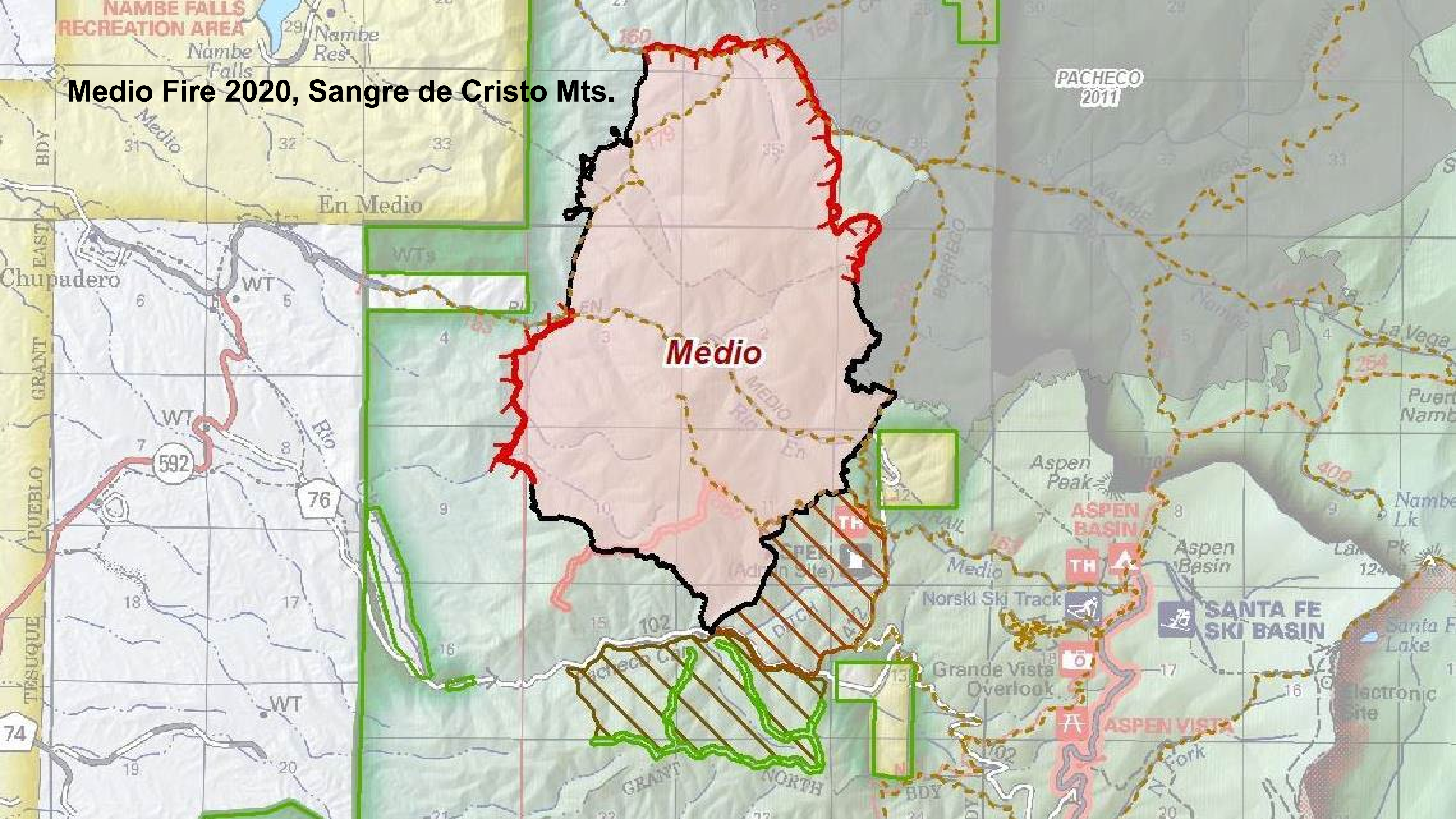
Untreated

Thin and Rx
Fire

Thin and pile,
but no burn



Medio Fire 2020, Sangre de Cristo Mts.



Prescribed Burning Act

- Enacted in 2021 (HB 57)
- Establishes private landowner right to burn
- Clarifies liability with simple negligence standard
- Creates certified prescribed burn manager program
- Requires Division to create a prescribed burn manager certification, including rules related to same
- The two types of certifications and related rules are in process (goal to finalize is Spring 2023)



Pile Burn Certification

- Low complexity
- Burn activity fuel from property
- A good entry into prescribed fire



Broadcast Burn Certification

- Higher complexity
- Larger scale land management
- Opportunity for contractors and rural business development



Prescribed Burn Trailers

- NM Prescribed Fire Council has a trailer
- State funding to Soil and Water Conservation Districts to purchase trailers and safety equipment to loan to ranchers and burners

