MALIBU COMMUNITY FIRE SEASON BRIEFING

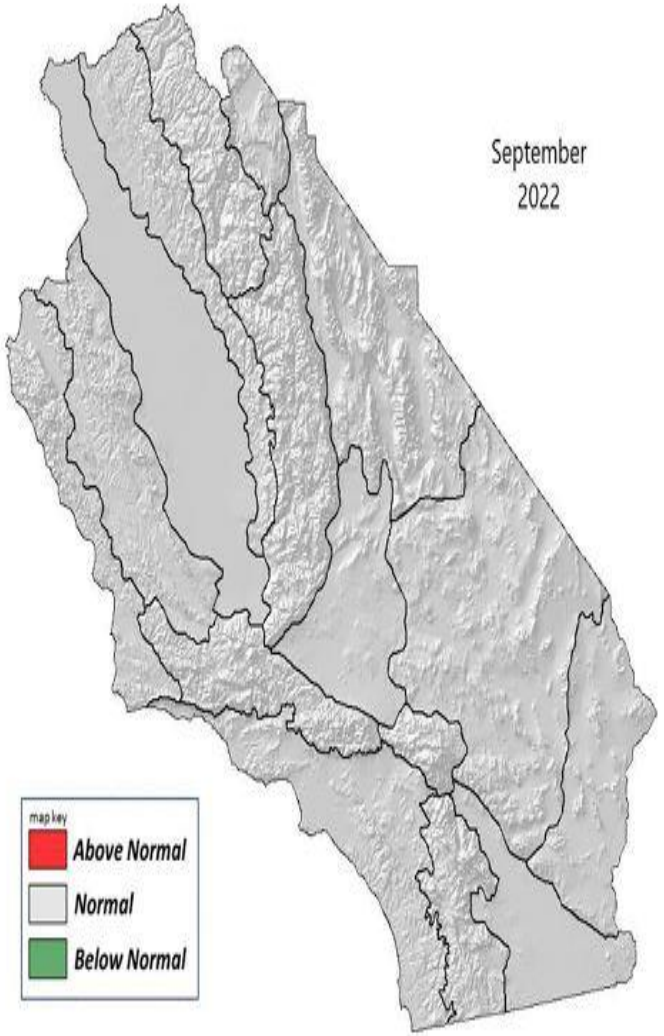
September 13, 2022

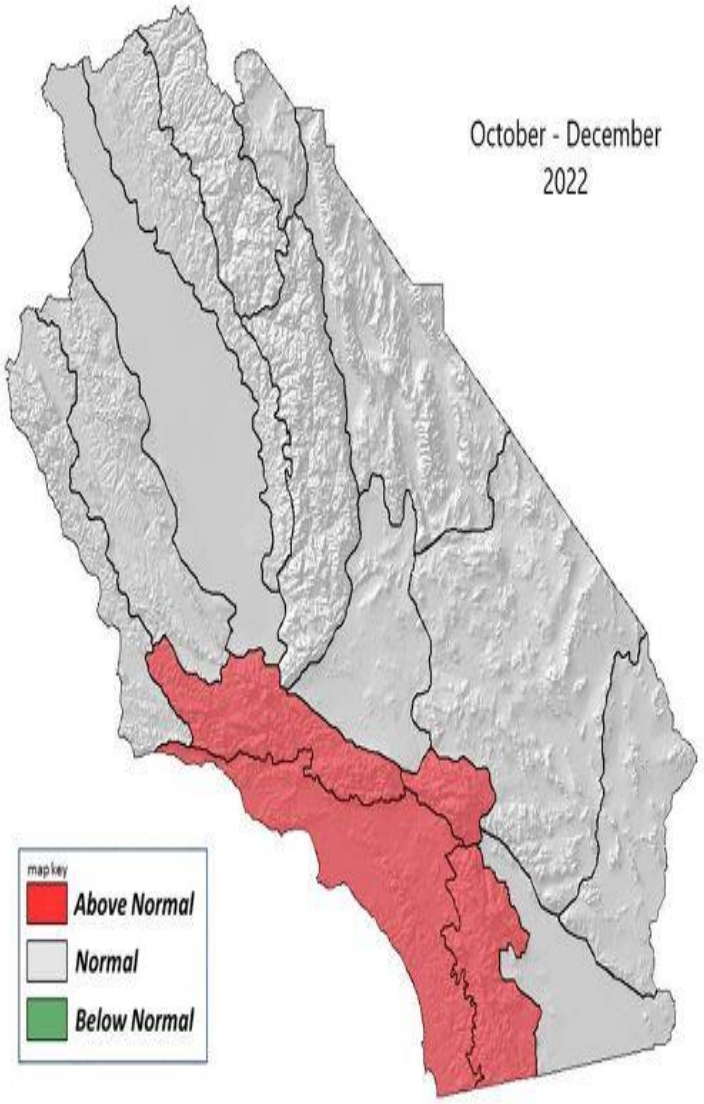
Assistant Fire Chief

Drew Smith:

LAC / FBAN

Fall / Winter Outlook 2022





- Near to above normal monsoonal showers and thunderstorms through mid-September.
- Rainfall will be well below normal late September through December.
- Temperatures will be well above normal through December.
- There will be a near normal amount of Santa Ana wind events October through December.

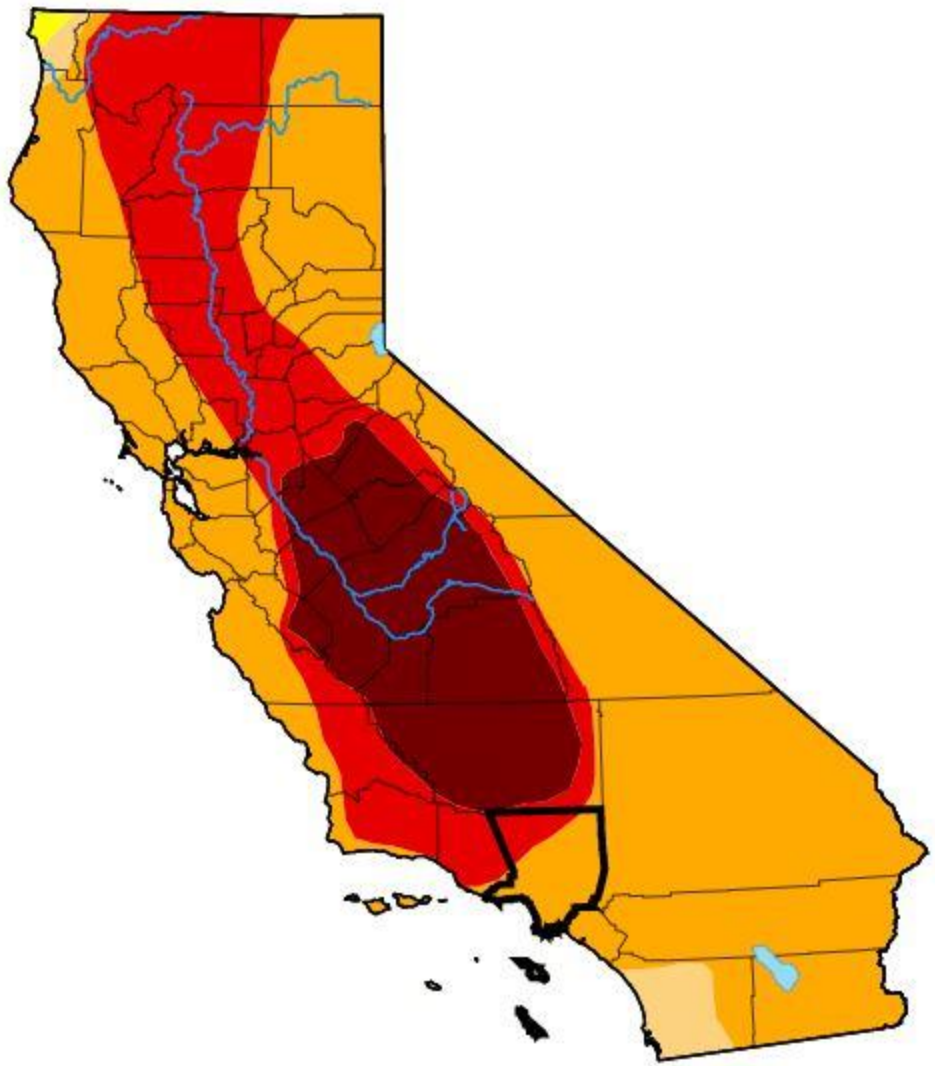
Los Angeles County, CA

Map released: Thurs. September 8, 2022

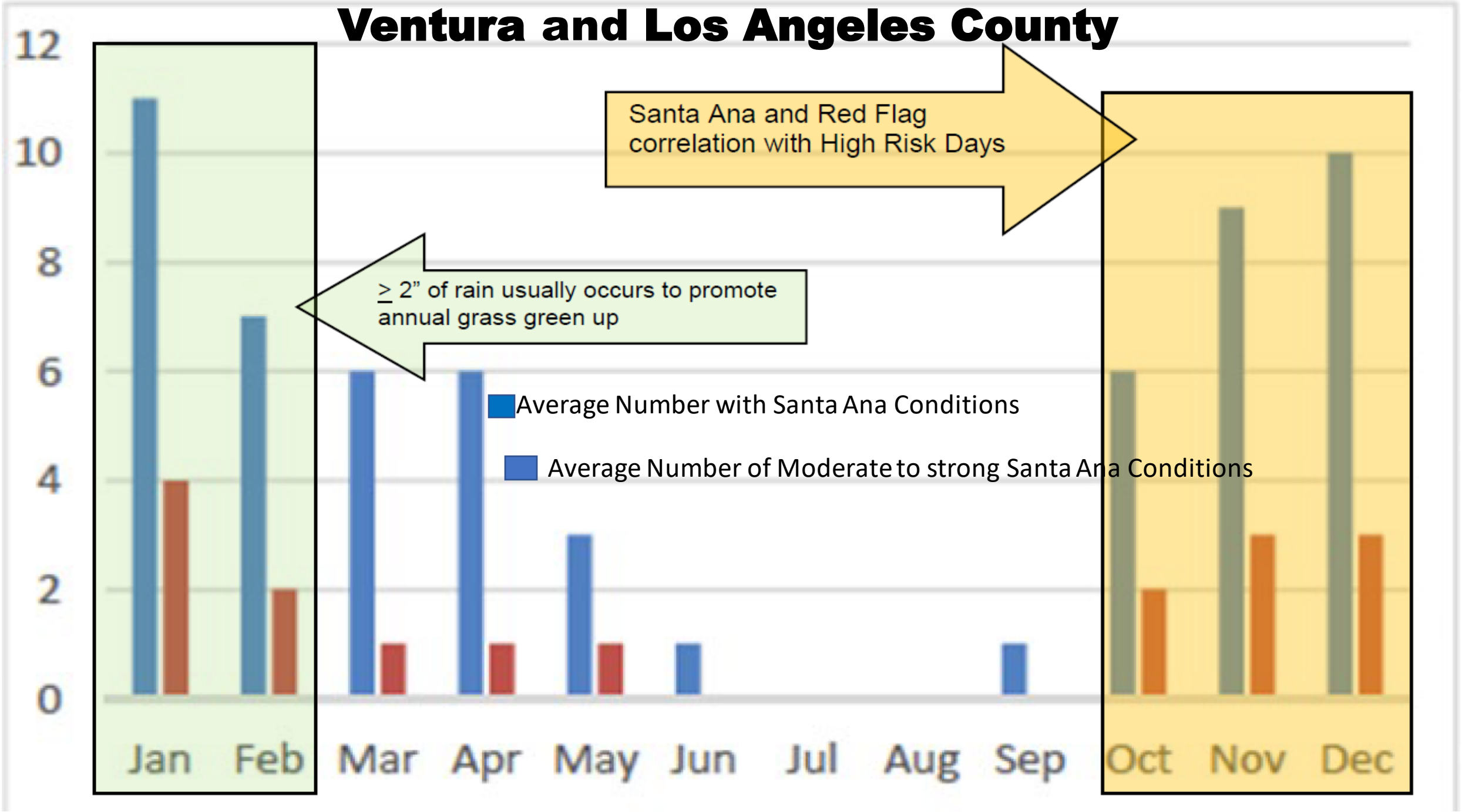
Data valid: September 6, 2022 at 8 a.m. EDT

Intensity

- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)
- No Data



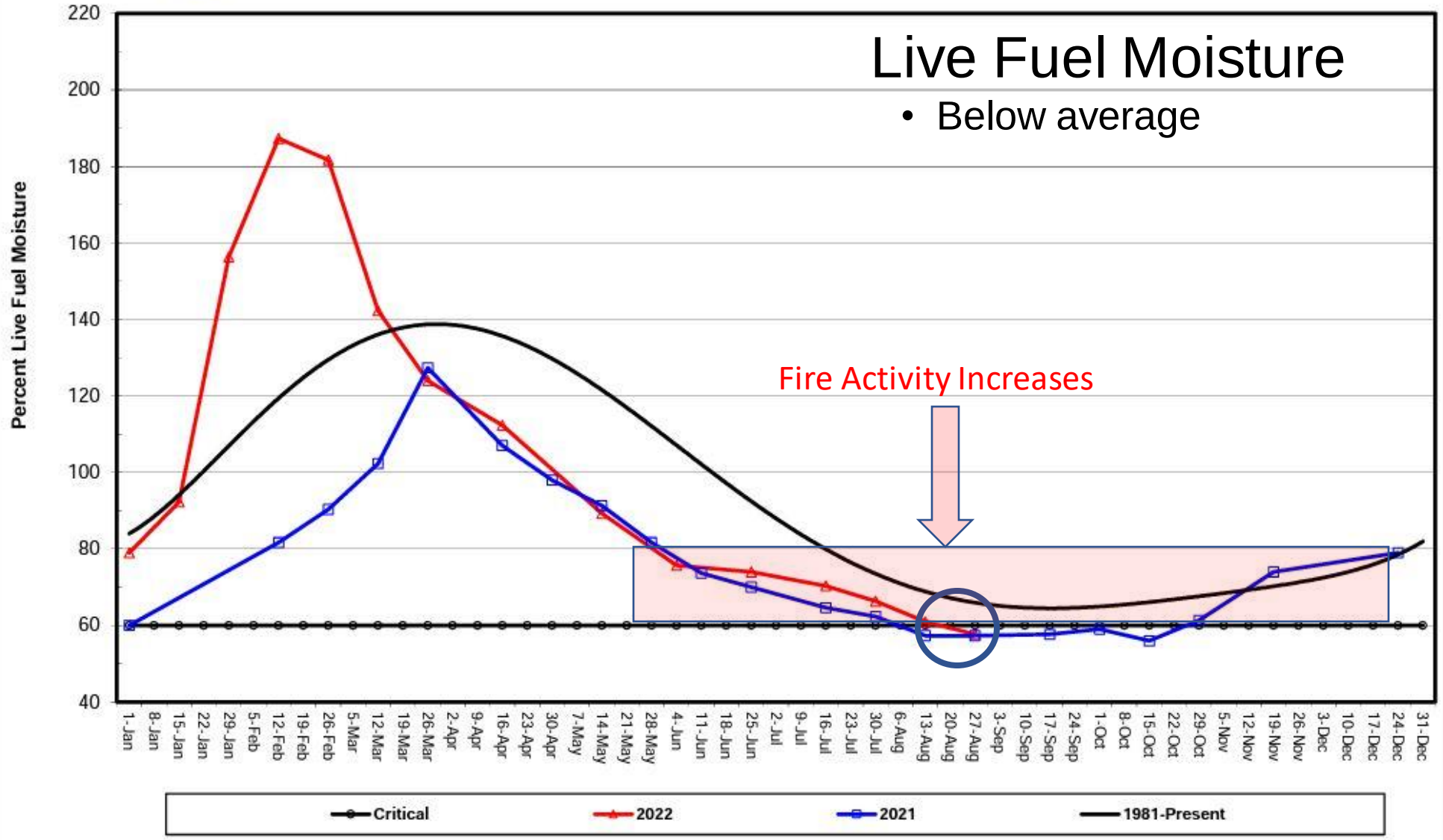
Ventura and Los Angeles County



Watershed Fuel Conditions

- Summer and Fall fuel conditions have been highly supportive for fire start and fire spread. Current dead fuel moistures can be elevated to meet the moisture of extinctions in fine fuels with larger dead and down fuels to take more time to moisten (10, and 100 hour) on routine days.
- Lack of precipitation with the forecasted weather dead and live fuels will be supportive of large fire growth on Santa Ana wind days. Live Fuels will maintain a moisture range of 55%-60% until Late Winter / Spring. Annual grass is abundant and dead. Without green up in annual grass for Fall and Winter initial attack transitioning to extended attack exists on high-risk days. All fuels need to be stimulated to moisten by precipitation to significantly reduce large fire growth on Santa Ana Wind Days. Currently there is no green up in the annual fuel bed.

Vegetation Management Program
Live Fuel Moisture 1981-2022
Santa Monica Mountains Chamise (Adenostoma fasiculatum)



Fire Danger Analysis

- Annual Grass is highly receptive in all areas with sunlight.
- Live fuel moisture is at critical 60%
- There is a moderate chance of probability for frequent initial attack on routine days
- There is a low probability of large fires in the absence of wind.
- A high-risk day is identified as dry conditions coupled with high winds to dry the fuels (12-24 hours) to support a large fire growth day.
- The Burning Index will need analyses in combination with fuel conditions for the support of a high-risk day.

Thresholds for a high-risk day:

- Live Fuel Moisture: < 75%
- Fine Dead Fuel Moisture: < 7%
- 10 Hour Dead Fuel Moisture 7%
- Wind Speed > 35 miles per hour
- Burning Index of 191 or greater

COUNTY OF LOS ANGELES FIRE DEPARTMENT

DAILY FIRE DANGER ANALYSIS

THRESHOLD=206-LA Basin
THRESHOLD=192-Santa Monica Mountains
THRESHOLD=323-Santa Clarita
THRESHOLD=327-High Country
THRESHOLD=111-Antelope Valley
THRESHOLD=177-Catalina

DATE FORECASTED FOR: **September 13, 2022**

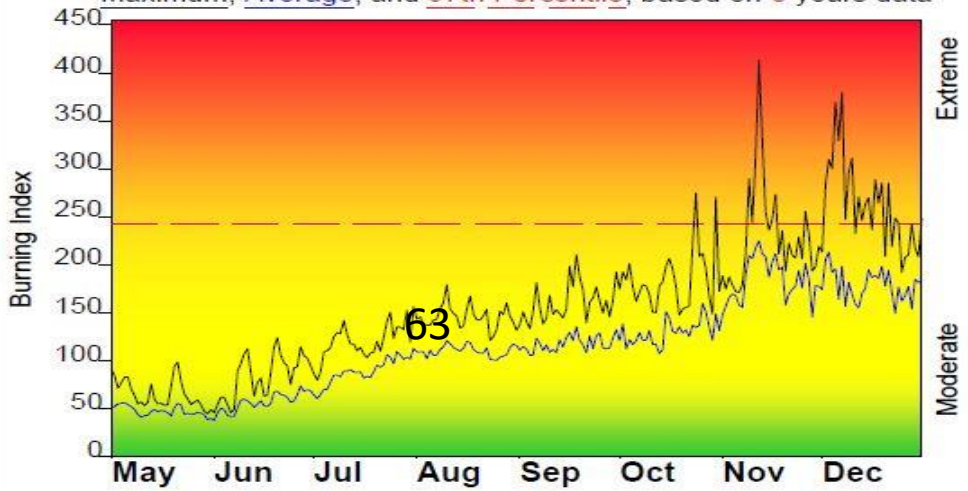
AREA (ZONE)	RAWS NAME	JURIST. FIRE STATION	STA. NO. MODEL	TEMP. (F)	RH (%)	20' WIND (MPH)	10 HR DFM (%)	BURN. INDEX
LA BASIN	SANTA FE DAM	44	045437X	83	51	7	17	130
	HENNINGER FLATS	66	045439X	81	51	8	19	128
	CLAREMONT	62	045443X	82	53	9	17	131
	WHITTIER	28	045446X	82	55	7	16	96
	SAN RAFAEL	19	045451X	84	49	7	16	133
	TONNER CANYON	119	045453X	81	54	9	17	143
AVERAGES				**82**	**52**	**8**	**17**	**127**
						LIVE FUEL MOISTURE		**66**
SANTA MONICA MOUNTAINS	CHESEBORO	125	045313X	82	44	7	15	159
	MALIBU HILLS	70	045433X	78	58	6	13	111
	BEVERLY HILLS	7	045442X	81	53	7	16	144
	LEO CARRILLO	99	045447X	74	74	7	18	32
	MALIBU CANYON	67	045452X	81	53	7	16	87
	TOPANGA	99	045456X	86	39	7	14	138
AVERAGES				**80**	**54**	**7**	**15**	**112**
						LIVE FUEL MOISTURE		**63**
SANTA CLARITA VALLEY	SAUGUS	111	045412X	88	36	10	15	185
	ACTON	80	045438X	81	42	11	17	173
	DEL VALLE	143	045445X	87	38	10	15	184
	NEWHALL PASS	124	045454X	85	37	10	15	184
AVERAGES				**85**	**38**	**10**	**16**	**181**
						LIVE FUEL MOISTURE		**65**
HIGH COUNTRY	CAMP 9	123	045441X	76	52	9	18	162
	WHITAKER PEAK	149	045448X	76	48	9	15	194
AVERAGES				**76**	**50**	**9**	**17**	**178**
						LIVE FUEL MOISTURE		**63**
ANTELOPE VALLEY	POPPY PARK	112	045440V	83	38	15	12	43
	SADDLEBACK	114	045444V	87	34	12	11	41
	LAKE PALMDALE	131	045450V	80	44	15	13	38
AVERAGES				**83**	**39**	**14**	**12**	**39**
CATALINA	CATALINA	55	7B1A2	82	51	7	18	62
AVERAGES					**51**	**7**	**18**	**62**

	LA	SM	SC	HI	AV	CA	Total
ADJECTIVE RATING FOR TODAY:	HIGH	MOD	MOD	LOW	LOW	LOW	
NUMBER OF STATIONS REPORTING:	6	6	4	2	3	1	22
PERCENTAGE REPORTING:	100%	100%	100%	100%	100%	100%	100%

FUEL MODELS: V-Grass, W-Grass/Shrub, X-Brush
RATING: LOW, MODERATE, HIGH, VERY HIGH, EXTREME

FIRE DANGER -- Santa Monica Mountains

Maximum, Average, and 97th Percentile, based on 5 years data



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Fire Danger Area:

- Santa Monica Mountains
- BN 5
- Inland and Costal Areas
  * Meets NWCG Wx Station Standards

Fire Danger Interpretation:

EXTREME -- Use extreme caution

High -- Watch for change

Moderate -- Lower Potential, but always be aware

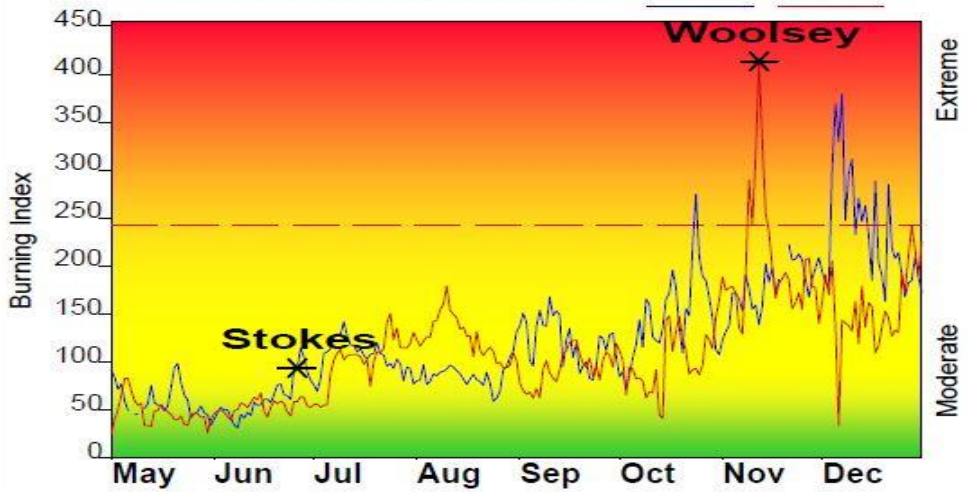
Maximum -- Highest Burning Index by day for 2016 - 2021

Average -- shows peak fire season over 5 years (1203 observations)

97th Percentile -- 3% of the 1203 days from 2016 - 2021 had an Burning Index above 242

Local Thresholds - Watch out: Combinations of any of these factors can greatly increase fire behavior:
20' Wind Speed over 30 mph, **RH** less than 20%,
Temperature over 80, **Burning Index** over 192

Years to Remember: 2017 2018



Fuel Model: X - Brush (2016)

Remember what Fire Danger tells you:

- ☑ Burning Index gives day-to-day fluctuations calculated from 2 pm temperature, humidity, wind, daily temperature & rh ranges, and precip duration.
- ☑ Wind is part of BI calculation.
- ☑ Watch local conditions and variations across the landscape -- Fuel, Weather, Topography.
- ☑ Listen to weather forecasts -- especially WIND.

Past Experience:

Wind Driven Fires Can Produce:
Rates of Spread > 160 ch/hr
Spotting up to 1-3 Mile Ahead of the fire front
Eye Level Wind Speed > 15 MPH
Live Fuel Moistures < 75%
Fine Fuel Moistures < 5%
Active Night Burning Conditions with RH < 30%
Non-Wind Driven Fires: Mature fuel beds 20+ years of growth
Identify the alignment of wind, slope and solar pre heating

Responsible Agency: Los Angeles County Fire
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Design by NWCG Fire Danger Working Team

Santa Monica Mountains Forecast Zone Pocket Card 2022

BI	192	242+	**Extreme Intensity Fire Behavior:**
PERCENTILE	90% to 100%		***Associated with Fire Weather Watch and Red Flag Conditions.***

Fire Behavior: Rapid fire growth should be anticipated with high rates of spread.
Significant spotting up to 3 miles with an exponentially expanding fire environment. Flame Length 50+ feet…
Key Indicators: Temps > 80 degrees; Wind >15 - 35 mph; RH < 15%; 10HR DFM ≤ 3%...LFM 80% -50%
Targeted Months: September thru December
Engagement Tactical Options: Heel and Flank Suppression. Identify Structure Defense and Evacuations.
Fire Size Class: 8000 plus acre potential within the first 4 hours.

BI	150	191	**Moderate Intensity Fire Behavior: Associated with periods of hot, dry weather, light to moderate winds and spotting ½ -1 mile.**

Fire Behavior: Fires are mainly topography driven with Westerly wind alignment features in the summer. Trending into a Fire Weather Watch and light offshore winds in early Fall and Winter with low dead and live fuels will produce an aggressive fire.
Key Indicators: Temps 75- 100 degrees; Wind 5- 15 mph; RH: 15%- 30%.. 10HR DFM >5-7%.. LFM 80% to 60%
Targeted Months: July thru December (October thru December a BI of 175 or greater may be trending toward a Fire Weather Watch)
Engagement Tactical Options: Heel and Flank Suppression. Identify Structure Defense and Evacuations.
Fire Size Class: 250 - 1500 plus acres.

BI	50	149	**Low Fire Behavior Intensity: Routine weather for the area. Spotting up to ½ mile**

Fire Behavior: Fires are mainly topography dominated with slow to moderate rates of spread. Alignment of forces must be identified on routine weather days. Slope, Wind and Solar pre heating.
Key Indicators: Temps > 70 - 90 degrees; Wind 5 - 20 mph; RH < 25%- 50% ; 10 HR DFM 5-12% ; LFM 120% -60%
Targeted Months: May thru December.
Engagement Tactical Options: Heel and Flank Suppression. Fires routinely held to topographic features with suppression activity. Identify Structure Defense needs.
Fire Size Class: 5 - 250 plus acres.

Revision Date: 6//1/2022
By: LAC Fire Behavior Team:
G.Hazleton LTAN / D.Smith FBAN

In Closing

- A high-risk day will need the combination of high winds and dry weather.
- Large scale winds are routinely forecasted in the fall and winter months. High winds and large fire growth is dependent upon spotting ahead of the advancing fire front.
- The current state and forecasted climatology will support spotting. High winds and Live Fuel Moistures below 60% will produce aggressive fire behavior on high-risk days.
- The combination of the two factors will create an advancing fire front with significant spotting. Large fire days in the months of October - December have the potential of 10,000+ acres and are associated with rainfall of 2” or less pre fire start.