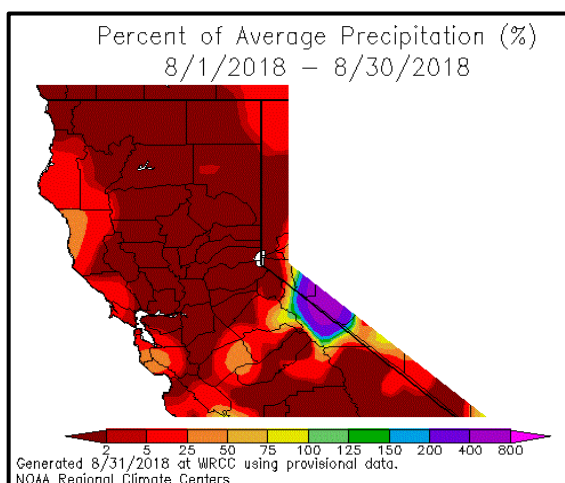


**SIGNIFICANT FIRE POTENTIAL****SEPTEMBER****OCTOBER****NOV-DEC****September - December Highlights**

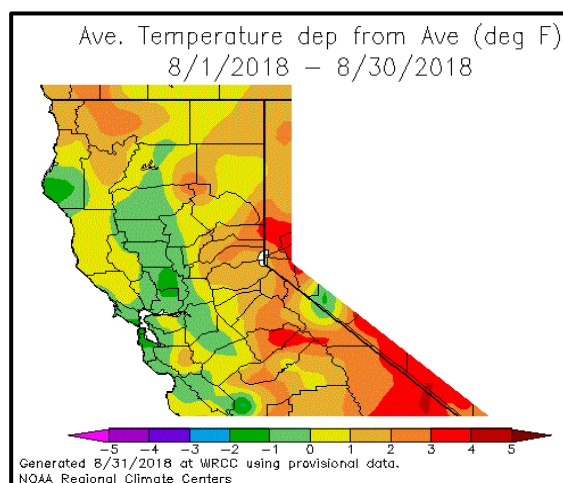
- *Near normal temperatures with below normal precipitation*
- *Dry N-NE/Offshore wind events will increase in frequency and intensity from September through the middle of October*
- *Fuels of all size classes drier than normal and close to record values*
- *Abundant load of fine fuels and brush at mid and lower elevations*
- *Exceptional fire behavior, spread rates, and acreage likely to continue*
- ***Above Normal Large Fire Potential all areas in September***
- ***Areas east of the Cascade-Sierra crest back to Normal in October. Otherwise, continued Above Normal***
- ***All areas Normal in November-December***
- *ENSO neutral currently...increasing chances of El Niño in the fall*

## WEATHER DISCUSSION

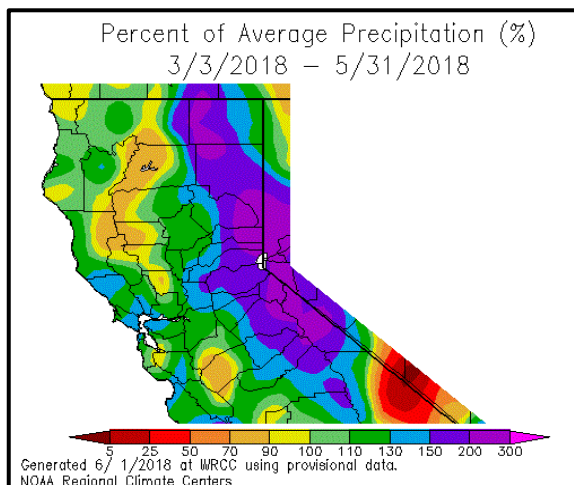
The North Ops region was very dry in August (**Fig 1**). The region saw more time spent under the influence of dry low pressure troughs in August than usual. That, and persistent thick smoke from active wildfires, contributed to fairly mild temperatures and another quiet month in terms of lightning activity (**Fig 2**). Northern and eastern areas tended to be warmer than normal and areas from the Sacramento Valley to the coast were generally near to cooler than normal. The wet spring across the majority of the region (**Fig 3**) led to heavy fine fuel and brush growth at lower and middle elevations. However, the overall 2017-2018 rainy season has been drier than normal, especially west to the Cascade-Sierra ranges (**Fig 4**), allowing the current dry fuels situation. Deeper dry low pressure troughs started arriving in late August, a few weeks ahead of usual. Without moisture, the resulting windy weather accompanying and following the increasingly stronger troughs in September will lead to frequent periods of high fire potential.



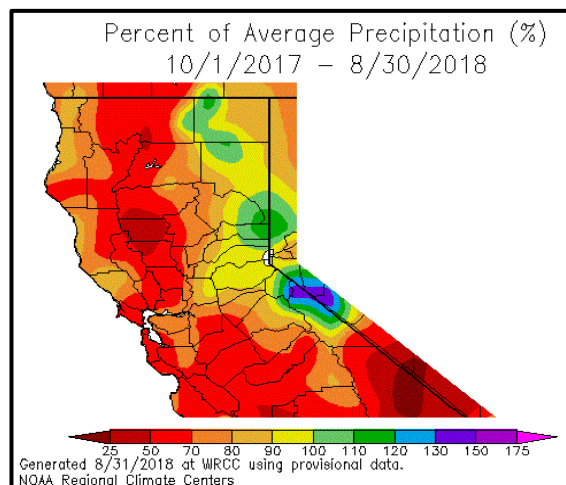
**Fig 1: August Precipitation - % of Ave.**



**Fig 2: August Temperature (Departure from Ave.)**



**Fig 3: Pcpn (% of Ave.) Mar-May, 2018**

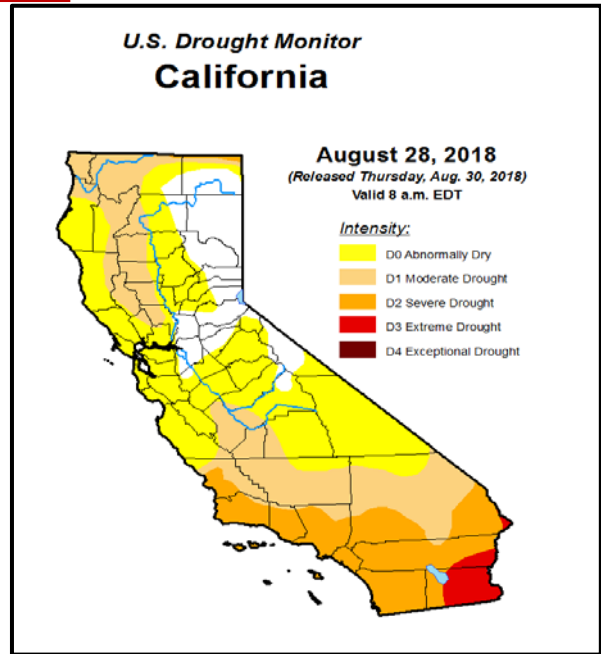


**Fig 4: Pcpn (% of Ave.) since Oct 1, 2017**

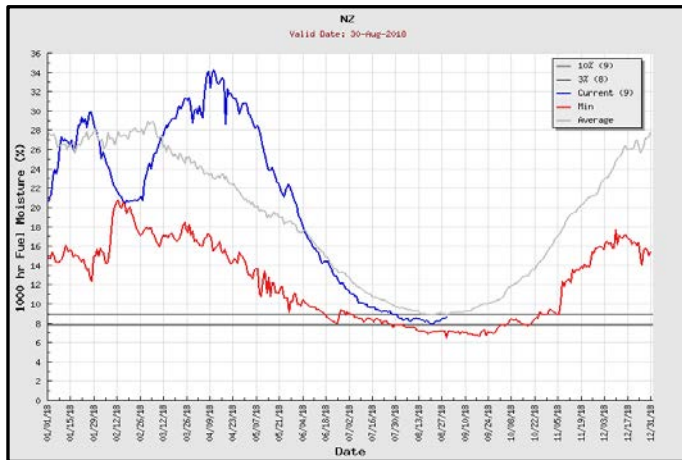


## FUELS AND DROUGHT

The dry rainy season led to a rapid drying of fuels and soils across the region by late spring and early summer. The U. S. Drought Monitor product now shows a large area of "Abnormally Dry" conditions with a growing area of "Moderate Drought" to the west of the Cascade-Sierra crest (**Fig 5**). The wet spring weather was ideally timed to produce a heavier than normal crop of fine fuels and brush growth at mid and lower elevations and a near to slightly above normal green-up phase among perennial live fuels. The University of California Sierra Foothill Research and Extension Center reported that on May 1 the fine fuel crop in the foothills of the eastern Sacramento Valley had reached more than 180% of normal, higher than the 120% reading a year prior. The North Ops average 1000-hr fuel moisture chart shows that the heavier fuels are drier than normal and briefly touched the 3rd percentile value (**Fig 6**), and this includes stations at higher elevations as well. In several cases individual stations and even a few Predictive Service Areas set new records for extreme dryness in August. Live fuels are also at critically dry levels throughout the region. The current very dry state and abundant loading of fine fuels and brush are evident in the photo in **Fig 7**. Extreme fire behavior and rapid fire spread have been observed at elevations below 7000' and these conditions will exist until wetting rains arrive. Such events become more likely in our northern areas in late September and in our southernmost areas in the second half of October.



**Fig 5: California Drought Monitor from August 28, 2018**



**Fig 6: North Ops 1000 hour fuel moisture August 30, 2018**  
blue = 2018 grey = average red = record



**Fig 7: Above normal crop of cured fine fuels with dry ladder fuels in the Sacramento Valley - August 2018**

# NORTHERN OPERATIONS MONTHLY/SEASONAL OUTLOOK

ISSUED SEPTEMBER 1, 2018

VALID SEP. – DEC. 2018



## NORTH OPS OUTLOOK

The overall outlook for September-December is for near normal temperatures with below normal precipitation, although there are smaller month-to-month trends (Fig 8). Low pressure troughs will move through the region with increasing frequency and strength in September, and at this point they are expected to be dry, except in far NW CA during late September when wetting rain chances increase. The very heavy loading of fine fuels and brush growth are accompanied by carry-over fuels from 2017. The very dry fuels condition, combined with the potential of strong gusty winds that will likely accompany and follow dry low pressure troughs, will continue the high potential of significant fire development throughout the North Ops region in September. Wildfire occurrence, behavior, and spread rates have been very high to extreme so far this summer, and until wetting rains arrive new ignitions in even light to moderate winds could resist control. The occasional offshore wind events that impact areas from the western Cascade-Sierra slopes to the coast will continue the high fire potential well into October, and of particular concern are the coastal regions where fine fuels and brush are the dominant fuel type. The eastern and northeastern areas move back to normal in October. Occasional precipitation in Nov-Dec, even if below normal, will bring significant fire potential back to normal in all areas.

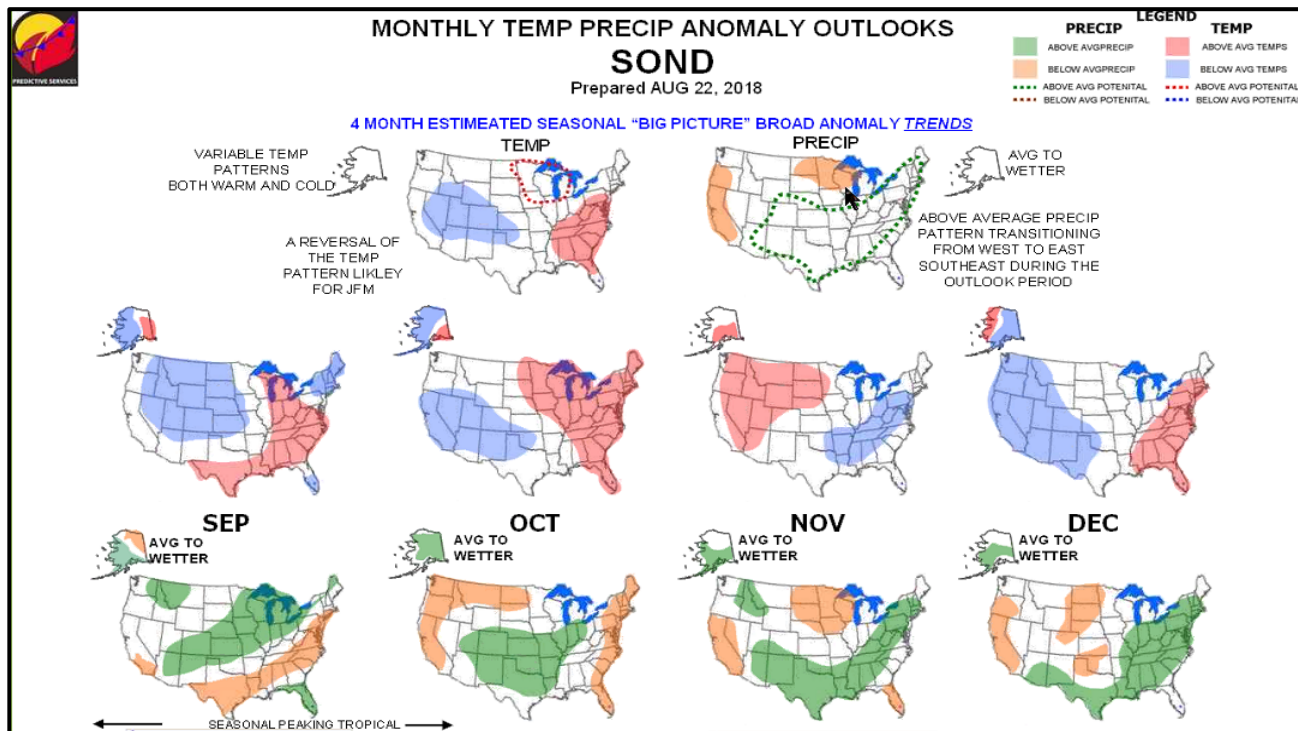
**The North Ops region has Above Normal Significant Fire Potential in all areas in September. In October northeastern and eastern areas drop back to Normal while the remainder of the region is continues in the Above Normal category. All areas drop back to normal for Nov-Dec.**

The normal number of large fires per Predictive Service Area is defined as:

September: 1-3, with highest amounts in the Sacramento Valley/Foothills and NW Mountains.

October: <1 in the north, 1-1.2 elsewhere.

November and December: <1 in all areas.



**Fig 8: Predictive Services graphical Outlook for September through December 2018**