May - August 2020 North Ops Highlights

• Dry 2019-2020 rainy season winding down. Many areas 50-70% of ave. Light snow pack to melt off by early June, weeks earlier than usual

• Dead fuel moisture values below average, comparable to early June

• Low elevation (< 3000 ft) grass crop - above normal fuel loading again. Curing throughout May. Initial Attack increasing late in May

• Below average green up expected at mid/upper elevations, becoming critically dry several weeks earlier than usual

• Warmer and drier than normal May-August

• Some May/June lightning. Below average summer lightning. More than average number of N-NE/Offshore wind days through June

• Normal Significant Fire Potential all areas through May

• Above Normal many areas below 6000 ft elevations in June

• Most areas above 3000 ft increasing to Above Normal in July-August
WEATHER DISCUSSION

Low pressure systems moved through the North Ops region with rain and mountain snow often enough in early April to cause a slight improvement in seasonal rainfall and the snow pack. The second half of April was warmer and drier. The monthly total precipitation ended up above normal only in southern and southeastern areas and one small area in the northern Coast Range (Fig 1). Precipitation since the rainy season began on October 1, 2019 remains well below average (Fig 2). Much of the region is at 50-70% of normal for the season as we enter the final and driest months of the rain year. Temperatures were above average in most areas, with the warmest areas in the Sacramento Valley and over to Mendocino County (Fig 3). The equatorial Pacific is currently in the ENSO-neutral category, but close to the El Niño threshold. It is expected to cool over the next several months, but still remain neutral (Fig 4). Current outlooks show some disagreement in the weather outlooks, and there are signs that a La Niña event is possible in the fall and winter.

Fig 1: April Precipitation (% of Ave.)
Fig 2: Pcpn (% of Ave.) Since Oct 1, 2019
Fig 3: April Temp. (Dept. from Ave.)
Fig 4: ENSO Status - Expected to remain neutral into the summer
The U. S. Drought Monitor for California shows the impact of the warm, dry, and occasionally breezy weather in the past three months. Portions of NW CA are now considered to be in Extreme Drought, and the majority of the remainder of the region is in Moderate or Severe Drought (Fig 5). To the west of the Cascade-Sierra crest a new green grass crop came in more robust than usual, and it is now beginning to rapidly cure out. Middle and upper elevations are seeing dead fuels continue to dry, and green-up is expected to be weak, with relatively low peak live fuel moisture values coming several weeks earlier than usual. The North Ops average 1000-hr fuel moisture chart (Fig 6) shows that dead fuel moisture values are below normal and comparable to values typically seen in early June. The drying of dead fuels in most areas is happening at a more rapid pace than usual. The high elevation snow pack peaked in early April at 66% of the average peak, and it has melted rapidly since then. As May begins the northern section is at only 25% of normal for the date (Fig 7). Occasional wet weather in the coming weeks will only serve to temporarily slow the pace of fuel-drying and snow-melting. Early season storms came with low snow levels, leaving soils and dead fuels beneath the snow pack fairly dry, and this will lead to lighter runoff amounts and less moisture available for the green-up phase. In general, fuels at all elevations will reach critically dry levels about a month earlier than usual, and up to two months earlier than in 2019.
NORTH OPS OUTLOOK

The official Predictive Services outlook, produced in mid April, calls for drier and warmer than average conditions in the North Ops region during May-August (Fig 8). A transitory weather pattern is expected, meaning that low and high pressure systems move through the region at a greater frequency than usual. Occasional frontal systems are expected to move through during May-June, bringing a chance of showers and thunderstorms. N-NE/Offshore wind events are also expected to develop more often than usual through June, and possibly into early July. The annual fine fuel crop, with above normal fuel loading again this year, is expected to cure enough to be able to spread fire easily beginning in June, so N-NE/Offshore wind events could easily produce a high risk of large fires beginning in June. The SW Desert monsoon pattern is expected to be weaker than normal this summer and impact the North Ops region less than usual. This would lead to less than the usual amount of lightning in July-August. In general, however, any lightning below 6000 ft elevation will pose a threat of large fires beginning in June due to very dry fuels, and the same applies to elevations above 6000 ft beginning in July. The North Ops region has Normal Significant Fire Potential in all areas in May, although Initial Attack will likely increase late in the month. A large area of the region, mainly west of the Cascade-Sierra crest and below 6000 ft, has Above Normal Potential in June, followed by most areas at 3000 ft and above in July and August.

Normal is defined as less than 1 large fire per PSA in May. In June Normal is 2 or more large fires in the East Side, Sacramento Valley/Foothills, and Diablo-Santa Cruz PSAs, and 1.2 or fewer large fires in the Nrn Sierra and all other PSAs. In July Normal is 2-3 large fires in the Sacramento Valley and NW Mts PSAs, and 1-2 large fires in all other PSAs. In August the Bay Area averages around 1 large fire in each PSA, while the remainder of the PSAs average between 2 and 6 large fires.

Fig 8: Predictive Services graphical Outlook for May - August 2020

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