

Air Pollution Levels in Sacramento County Due to Camp Fire

Staff has conducted a preliminary analysis of the highest observed daily maximum 24-hour average Air Quality Index (AQI) for particulate matter (PM_{2.5}) in Sacramento County due to the recent Camp Fire event that started November 8, 2018 (Figure 1). Preliminary data shows significant smoke impacts were not observed in Sacramento County until November 10, when the AQI reached 239 (very unhealthy), and the maximum hourly concentration (Figure 2) peaked at 497 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) into hazardous concentration levels. From November 10 through November 19, 2018, the AQI remained at unhealthy or above levels, with a peak 24-hour average AQI on November 15 of 314 (hazardous). As a reference, the applicable ambient air quality standard for fine particulate matter over 24 hours is $35 \mu\text{g}/\text{m}^3$ for an AQI of 99 (moderate level).

For comparison, Figure 3 displays a similar analysis for the Carr Fire that occurred in August of this year, where the peak maximum 24-hour average AQI reached 127 (unhealthy for sensitive groups). Over the last 10 years, the highest observed concentrations in Sacramento County have been due to wildfires. The last highest hourly PM_{2.5} concentration observed was from the statewide 2008 wildfires of $338 \mu\text{g}/\text{m}^3$. The recent Camp Fire has resulted in a new fine particle pollution record of $497 \mu\text{g}/\text{m}^3$.

Figure 1. Sacramento County Daily Max. AQI for PM_{2.5} from Camp Fire (November 2018)

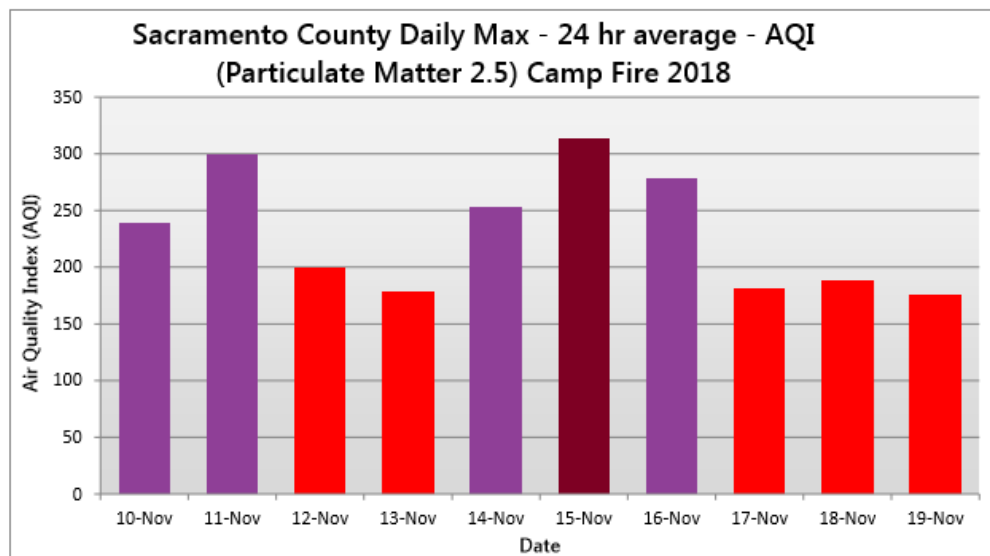


Figure 2. Sacramento County Daily Max. Hourly PM_{2.5} concentrations from Camp Fire (November 2018)

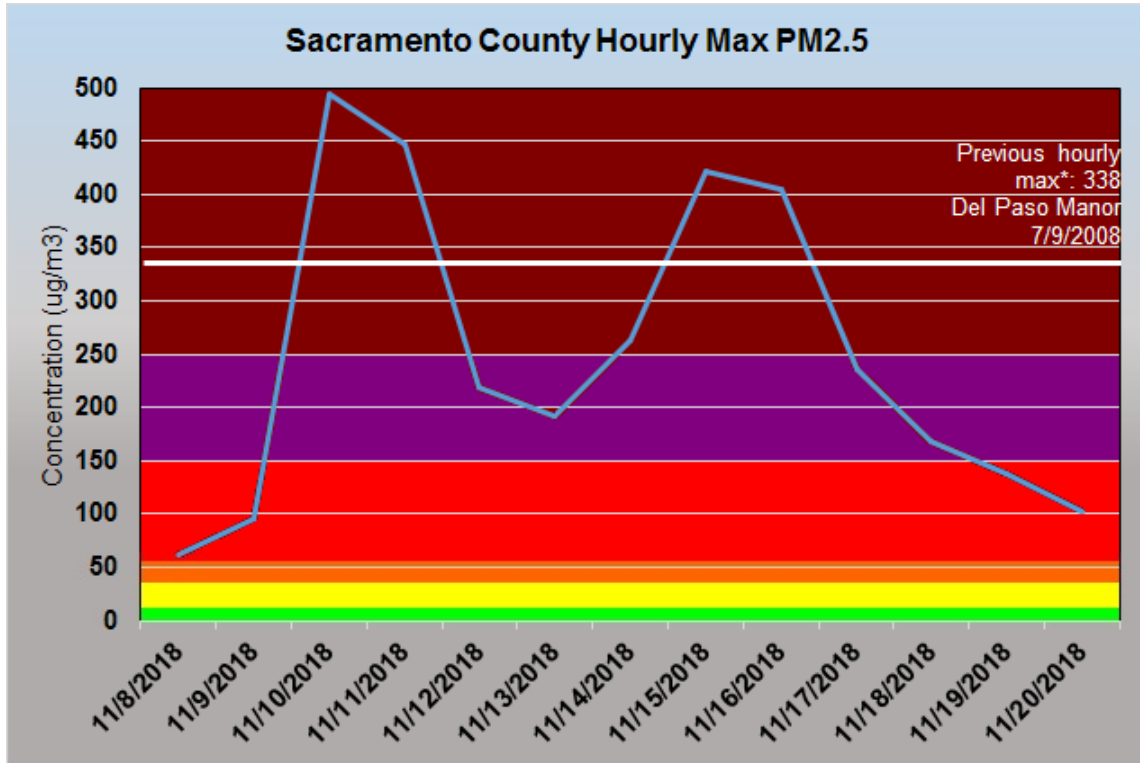


Figure 3. Sacramento County Daily Max. AQI for PM_{2.5} from Carr Fire (August 2018)

