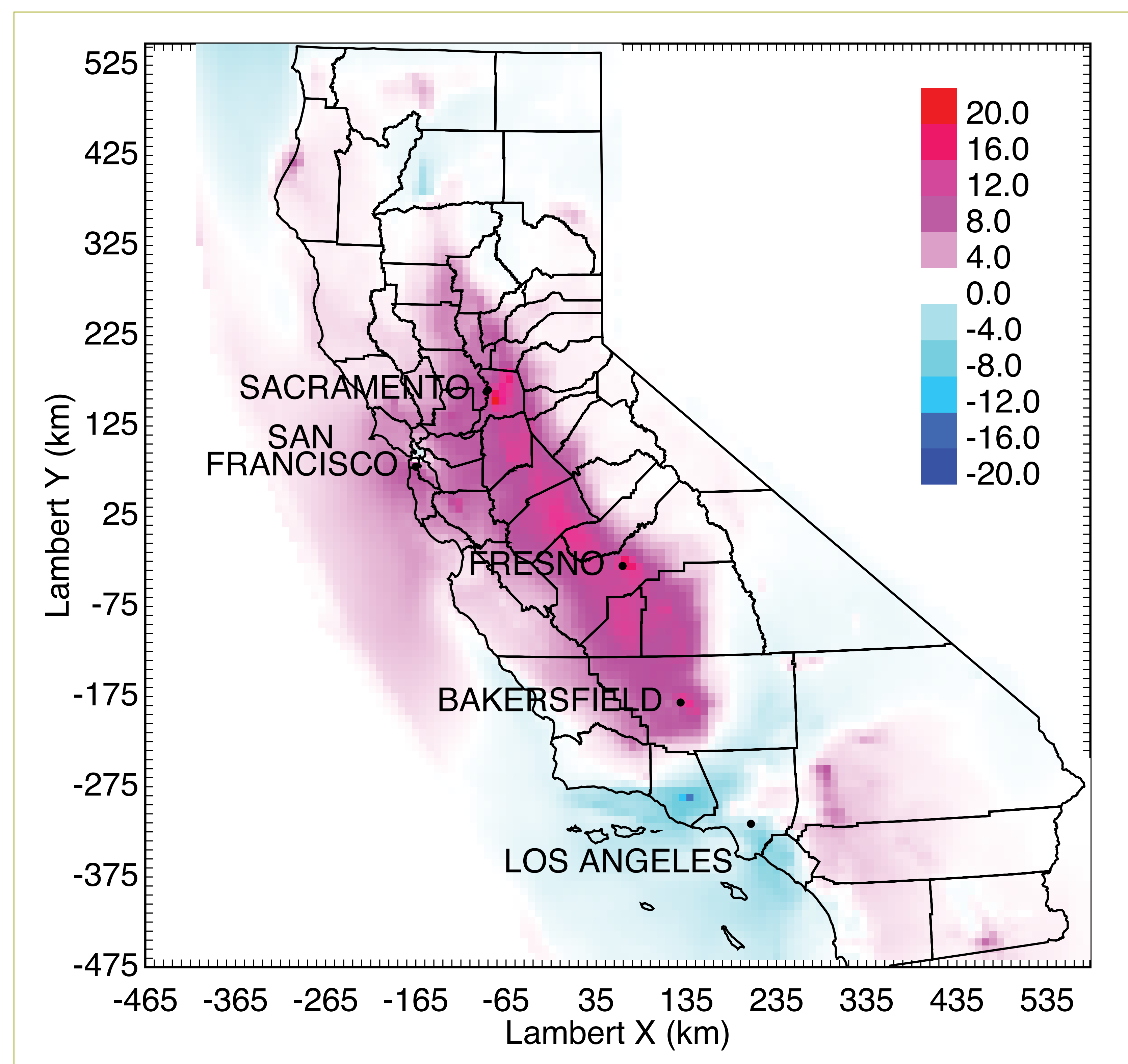


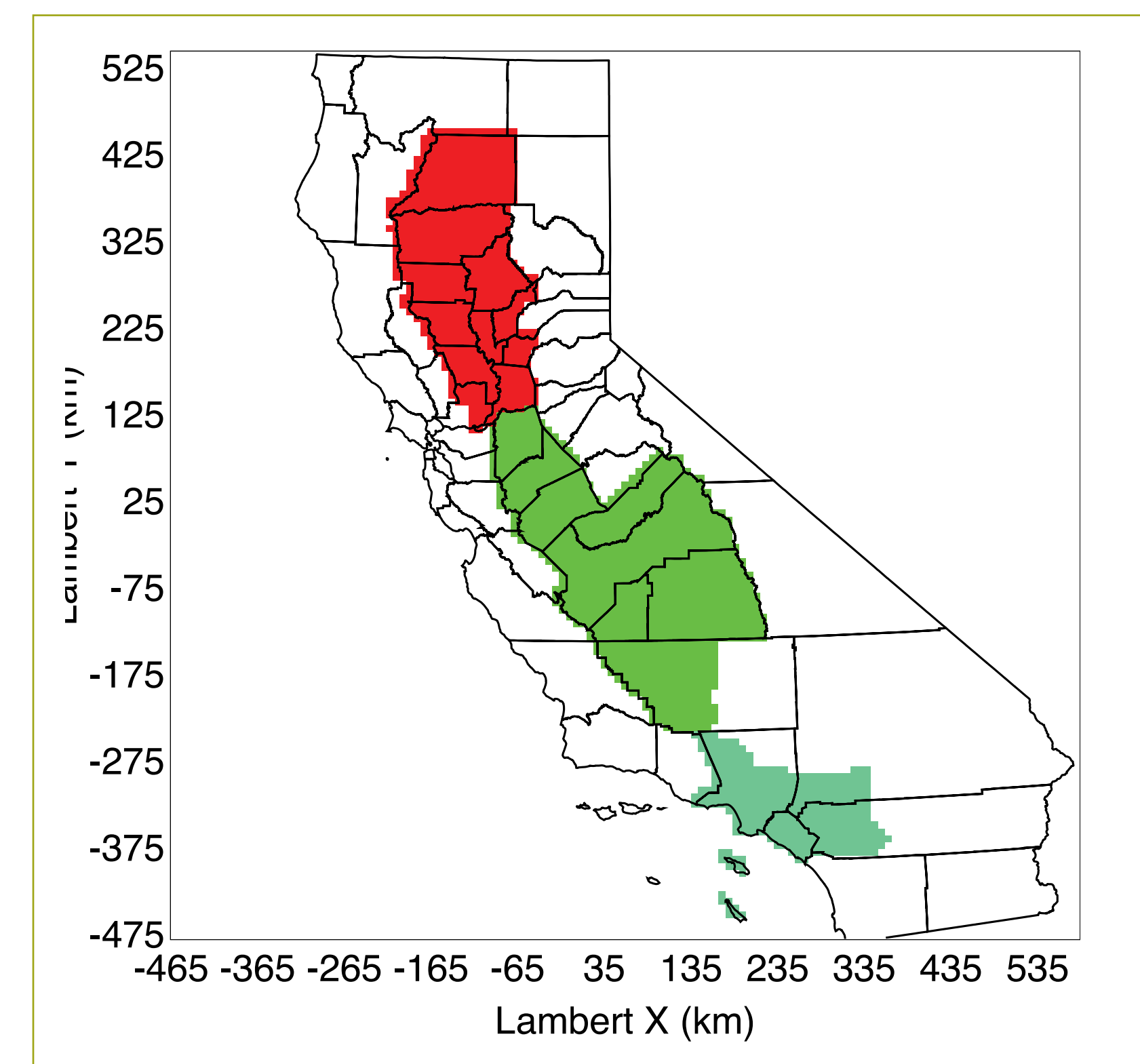
Extreme Air Pollution

Climate change will cause air pollution events to become more extreme in Central California due to reduced wind speed.

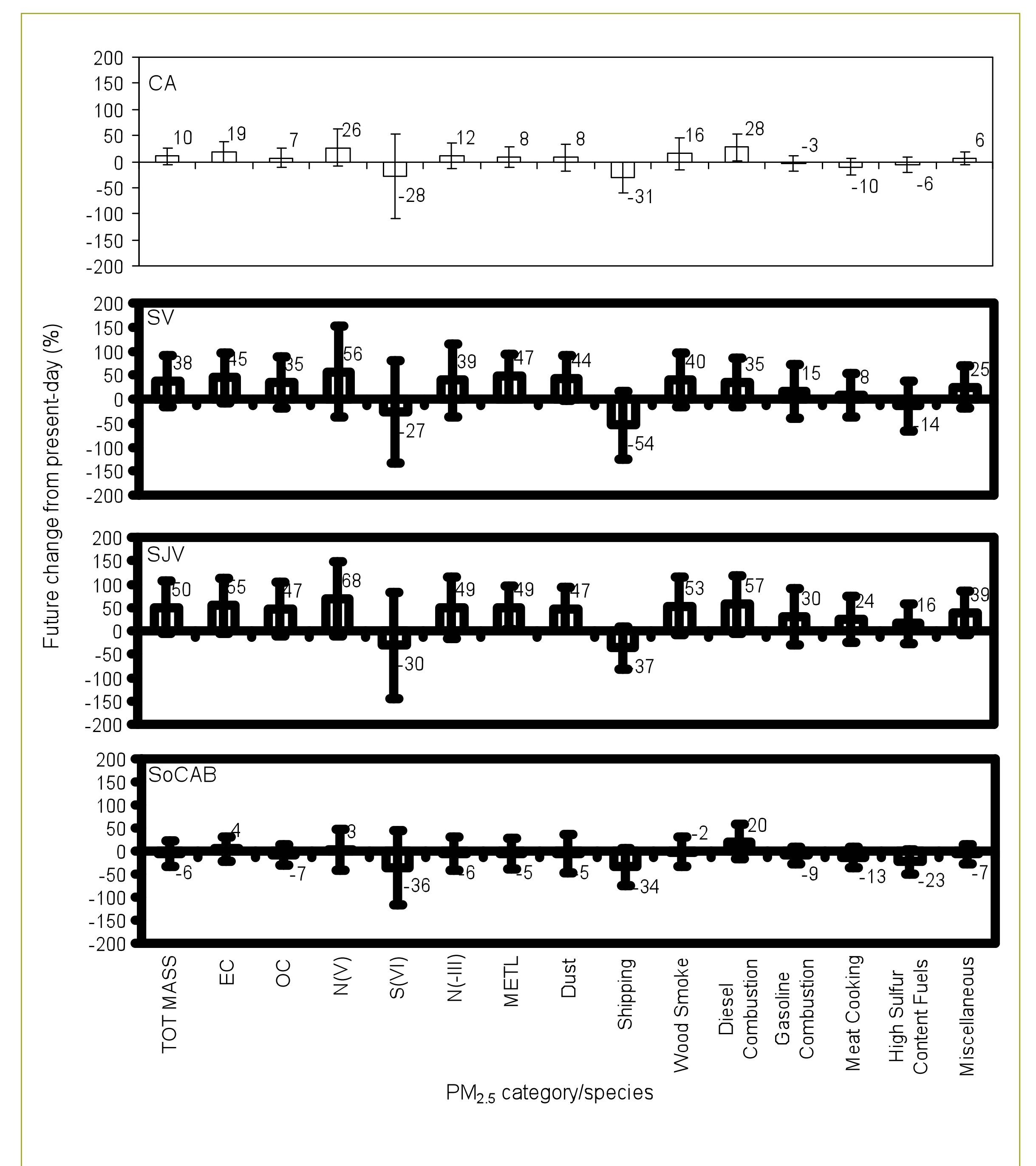
EXTREME PM concentrations were calculated on the 10 most heavily polluted days during present and future climate conditions. Total airborne particle concentrations were ~20 mg m⁻³ higher in the future compared to the present-day in the San Joaquin Valley (SJV) and Sacramento Valley (SV). Population-weighted exposure to airborne particles increased during future extreme events as a result. Averaged across the entire state, exposure to diesel exhaust particles increased with 95% confidence due to climate change. These trends reflect the increased strength of future stagnation episodes, which trap pollutants close to the locations where they were emitted.



▲ Change in future extreme concentrations of airborne particulate matter due to climate change. The 10 most polluted days between 2047-53 were compared to the 10 most polluted days between 2000-07 using constant 2000 emissions.



◀ Air Basins used to evaluate the health implications of extreme events.



▲ Population-weighted increase in future extreme events. Error bars are 95% confidence intervals for change due to climate modification. Exposure to diesel particulate matter is predicted to increase in the future extreme events due to climate change.

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