



“Lidar Profiling of Ozone in the San Joaquin Valley”

CARB Research Seminar for Contract #15RD012

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JUNE 14, 2019

Announcements

Information about the speaker and the presentation can be found at:

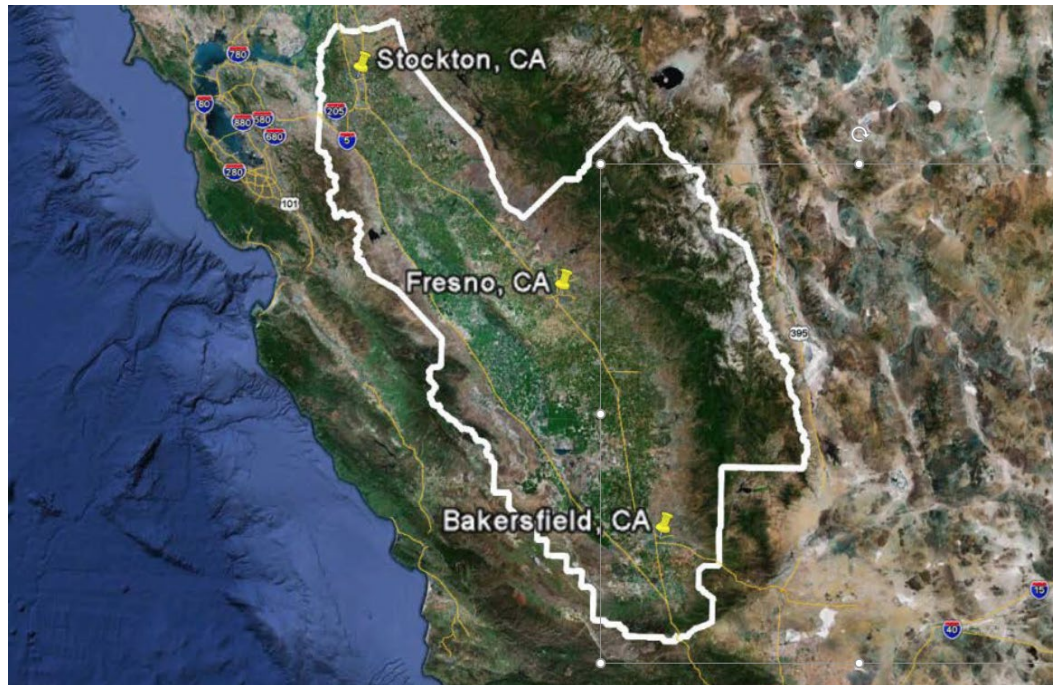
<https://ww3.arb.ca.gov/research/seminars/langford/langford.htm>

For those of you online, questions for the speaker can be submitted to:

sierrarm@calepa.ca.gov

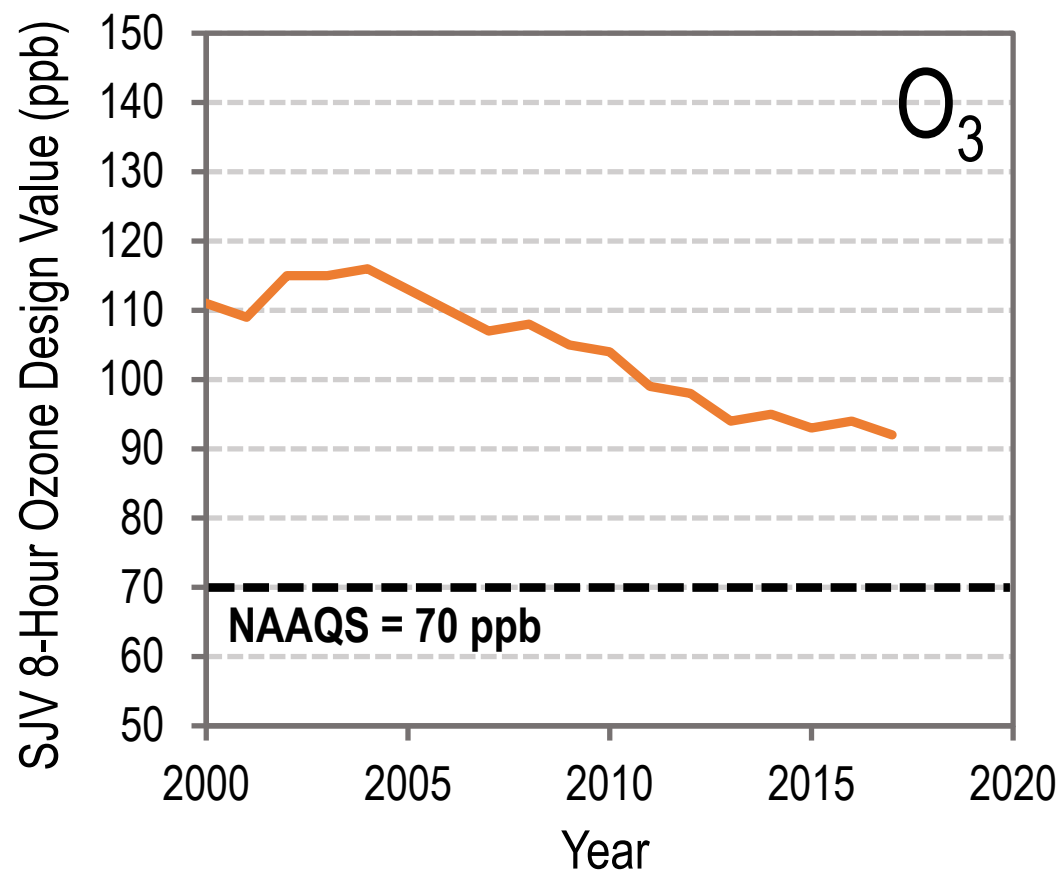
For our in-person audiences: “housekeeping” items

General Overview: San Joaquin Valley



- The San Joaquin Valley (SJV) is a valley approximately 250 miles long and 80 miles wide, and is bounded on the east, west, and south by mountains
- Marine air typically flows into the basin from the San Joaquin River delta but topographic features restrict air movement out of the valley
- Low mixing heights and stagnant conditions limit the vertical and horizontal transport of pollutants
- The unique topographical and meteorological conditions in the SJV present a challenge to regulatory efforts to comply air quality standards

General Overview: Ozone (O₃) Trend



- Air quality management strategies in California have significantly reduced health-affecting ground-level O₃
- O₃ design value in California's SJV remains well above the O₃ National Ambient Air Quality Standard (NAAQS)
- Background O₃ transported over the Pacific toward California exceeds 50 parts-per-billion by volume (ppbv) or 70% of the 8-hour O₃ NAAQS

Today's Speaker: Dr. Andrew Langford

- Dr. Andrew Langford is a research chemist at the Chemical Sciences Division (CSD) of National Oceanic and Atmospheric Administration (NOAA) Earth System Research Laboratory (ESRL)
- He received his B.S. in Physics from Georgia Tech, and earned his Ph.D. in Physical Chemistry from University of California at Berkeley
- Previously he has worked as a Postdoctoral Fellow at the University of Colorado/National Institute of Standards and Technology (NIST) Joint Institute for Laboratory Astrophysics (JILA), and worked at NOAA ESRL CSD and its NOAA Aeronomy Laboratory predecessor since 1985, with joint affiliation with Cooperative Institute for Research In Environmental Sciences (CIRES) until 1992
- His current focus is tropospheric chemistry and transport with an emphasis on background O₃ and air quality.
- For more information, visit: <https://www.esrl.noaa.gov/csd/staff/andrew.o.langford/>