

Impacts of Wildfires on Air Quality and Health 2019

Santa Rosa, California, USA
13 - 14 February 2019

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TECHNICAL PROGRAM - Wednesday, February 13

8:00 am - 4:00 pm
Conference Registration
Dry Creek Valley Foyer

8:00 am - 8:45 am
Presenters' Meeting
Dry Creek Valley Ballroom

8:00 am - 8:45 am
Continental Breakfast
Dry Creek Valley Foyer

8:45 am - 9:00 am

Welcome and Introductory Remarks

Chris Rogers, Vice Mayor of the city of Santa Rosa

(ALL SESSIONS WILL BE IN THE DRY CREEK VALLEY BALLROOM)

9:00 am - 9:30 am

Keynote Presentation

Responding to Our Wildfire Smoke Public Health Crisis: Lessons Learned on Protecting Our Future 1
Jack Broadbent, Executive Officer, Bay Area Air Quality Management District

SESSION I: HEALTH IMPACTS OF SMOKE EXPOSURE

Chair: Eric Sergienko, MD, CHO, Mariposa County

9:30 am - 10:00 am

Overview of Smoke Health Effects 13

John Balmes, MD, Professor, University of California Berkeley School of Public Health

10:00 am - 10:30 am

Effects of Exposure 33

Michael Kleinman, Professor, University of California, Irvine

10:30 am - 11:00 am

Health Effects of Wildfire Smoke Exposure: Two Epidemiological Studies from California 43

Sumi Hoshiko, MPH, Research Scientist, Environmental Health Investigations Branch, California Department of Public Health

11:00 am - 12:00 pm

Public Health Effects Exposure Panel: What We Have Seen

Speakers include:

- Dr. Olivia Kasirye, Public Health Officer, Sacramento County
- John Balmes, MD, Professor, University of California Berkeley School of Public Health
- Michael Kleinman, Professor, University of California, Irvine
- Sumi Hoshiko, MPH, Research Scientist, Environmental Health Investigations Branch, California Department of Public Health

12:00 pm - 1:00 pm

Lunch

Russian River Valley Ballroom

SESSION II: WILDFIRE SMOKE MONITORING SYSTEMS AND METHODS

Chair: Eric Stevenson, Director of Meteorology and Measurement, Bay Area Air Quality Management District (BAAQMD)

1:00 pm - 1:30 pm

Fixed Monitoring Systems and Routine Monitoring of Air Quality 90

Eric Stevenson, Director of Meteorology and Measurement, BAAQMD

1:30 pm - 2:00 pm

Mobile Monitoring Systems 97

Charles Pearson, Manager, Incident Air Monitoring Section, California Air Resources Board

2:00 pm - 2:30 pm

Distributed Monitoring Instruments and Systems 105

Timothy Dye, Principal, TD Environmental Services

2:30 pm - 3:00 pm

Networking Break and Display Viewing

3:00 pm - 3:30 pm

Comparing Monitoring Results of PurpleAir Units with Regulatory Systems During California Smoke Events 120

Julia Luongo, Managing Consultant, Ramboll

3:30 pm - 5:00 pm

Measured Levels and Their Use Panel

Speakers include:

- Scott Epstein, Ph.D., Program Supervisor, Air Quality Assessment, South Coast Air Quality Management District
- Eric Stevenson, Director of Meteorology and Measurement, BAAQMD
- Charles Pearson, Manager, Incident Air Monitoring Section, California Air Resources Board
- Timothy Dye, Principal, TD Environmental Services
- Julia Luongo, Managing Consultant, Ramboll

5:00 pm - 6:00 pm

Networking Reception
Dry Creek Valley Foyer

TECHNICAL PROGRAM - Thursday, February 14

8:00 am - 3:00 pm
 Conference Registration
 Dry Creek Valley Foyer

8:00 am - 8:30 am
 Presenters' Meeting
 Dry Creek Valley Ballroom

8:00 am - 8:30 am
 Continental Breakfast
 Dry Creek Valley Foyer

8:30 am - 8:45 am
A&WMA Welcome
 Michele Gehring, President, Air & Waste Management Association

(ALL SESSIONS WILL BE IN THE DRY CREEK VALLEY BALLROOM)

8:45 am - 9:00 am
Sonoma County: Wildfires and the Long Recovery N/A
 Shirlee Zane, Sonoma County Board of Supervisors

SESSION III: FORECASTING SMOKE IMPACTS
 Chair: Trent Procter, Sequoia National Forest, Air Program Coordinator

9:00 am - 9:30 am
Baseline Fire Weather Services: Development, Dissemination and Purpose 136
 Brent Wachter, Fire Meteorologist, North Operations Predictive Services, US Forest Service (USFS)

9:30 am - 10:00 am
Constructing Smoke Forecasts 147
 Susan O'Neill, Research Air Quality Engineer, USFS

10:00 am - 10:30 am
Networking Break and Display Viewing

10:30 am - 10:50 am
The Role of the Incident Air Resource Advisor (ARA) 165
 Kathleen Stewart, Community Toxics Coordinator, US EPA Region 9

10:50 am - 11:10 am
How an Air Resource Advisor (ARA) Develops a Smoke Forecast: Examples from the Camp Fire 177
 Lee Tarnay, Physical Ecologist, US Forest Service, Region 5 Remote Sensing Lab

SESSION IV: CAMP FIRE CASE STUDY
 Chair: Trent Procter, Air Program Coordinator, Sequoia National Forest

11:10 am - 11:30 am
Weather Conditions During and After the Camp Fire 186
 Brent Wachter, Fire Meteorologist, North Operations Predictive Services, USFS

11:30 am - 12:00 pm
Air Quality Impacts of the Camp Fire 197
 ShihMing Huang, Air Quality Scientist/Project Manager, Sonoma Technology Inc.

12:00 pm - 1:00 pm
Lunch
 Russian River Valley Ballroom

SESSION V: COMMUNICATING AIR QUALITY AND HEALTH ADVISORIES
 Chair: Lyz Hoffman, Public Information Officer, Santa Barbara County APCD

1:00 pm - 1:20 pm
Preparations for Fire Season 221
 Peter Brewer, Air Quality Attainment Coordinator, Oregon Department of Environmental Quality

1:20 pm - 1:40 pm
Recent Fire Case Studies in Vancouver, BC 232
 Francis Ries, Sr. Project Engineer, Metro Vancouver

1:40 pm - 2:00 pm
Mitigation Measures in Missoula County 243
 Sara Coefield, Air Quality Specialist, Missoula County Public Health

2:00 pm - 2:20 pm
Recent Fire Case Studies in Butte County, CA 261
 Jason Mandly, Air Quality Planner, Butte County Air Quality

2:20 pm - 3:00 pm
Communications Panel: Answering the Tough Questions

- Speakers include:
- Peter Brewer, Air Quality Attainment Coordinator, Oregon
 - Francis Ries, Sr. Project Engineer, Metro Vancouver
 - Sara Coefield, Air Quality Specialist, Missoula County Public Health
 - Jason Mandly, Air Quality Planner, Butte County Air Quality

SESSION V: AIR AND HEALTH PANEL—WHAT ARE OUR NEXT STEPS?
 Chair: Susan Aitkens, President, Emerge Technologies

3:00 pm - 4:00 pm
Discussion and Direction: A panel of speakers from the conference will be selected to discuss the most important topics identified during the sessions.

4:00 pm
 Conference Adjourns