

My Air Quality: Using Sensors to Know What's in Your Air

AGENDA

Northern California (N)
Wednesday, November 19, 2014
Elihu M. Harris State Building
1515 Clay Street
Oakland, California 94612

Southern California (S)
Friday, November 21, 2014
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, California 91765

9:00 Welcome & Introductions

N: Jack Broadbent, Bay Area Air Quality Management District (BAAQMD)
S: Barry Wallerstein, South Coast Air Quality Management District (SCAQMD)

9:10 Understanding What Is In the Air

- Major air pollution sources
- Particle and gaseous pollutants
- Spatial and temporal variations (regional v. local)
- Health impacts associated with air quality

N: Phil Martien, BAAQMD
S: Philip Fine, SCAQMD & Rob McConnell, Univ. of Southern California

9:30 Measuring Air Pollution: Monitoring & Sensor Technology

- Monitoring objectives
 - Types of objectives (NAAQS, emission point, localized impacts)
 - Technology used
- Low-cost sensor technology
 - Pros & cons
 - State of the science
 - Technical issues
 - Next Generation Air and Compliance Monitoring

N: Eric Stevenson, BAAQMD
S: Dan Johnson, Great Basin Unified Air Pollution Control District

N: Carlos Nunez, U.S. EPA, Office of Research and Development at Research Triangle Park
S: Gayle Hagler, U.S. EPA, Office of Research and Development at Research Triangle Park

10:00 "Low-cost" Sensor Performance and Data Quality

- Evaluating performance
 - Building a testing center
 - Addressing sensor reliability
 - Communicating results
- Getting good data
 - Issues affecting data quality

N & S: Laki Tisopulos and Andrea Polidori (SCAQMD)

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- Developing QA/QC procedures and documentation

10:30 Break

10:45 Meaning of Sensor Data

- Context
 - What levels are of concern?
- Data limitations
 - Data interpretation & reporting
 - How can these data be used?

N & S: John Vandenberg, U.S. EPA, Office of Research and Development at Research Triangle Park

N & S: Dena Vallano, U.S. EPA, Region IX

11:15 Sensors Deployment and Applications

- Community monitoring
 - Available technology
 - Development of air quality maps
 - Case studies
- Monitoring in high concentration environments
 - Near-field exposure
 - Indoor cook stove
 - Transportation corridors
- Sensor networks
 - Building a “high density” sensor network
 - BEACON project

N & S: Michael Heimbinder, HabitatMap

N & S: David Holstius, BAAQMD

N & S: Ron Cohen, Univ. of California, Berkeley

12:00 Lunch

1:15 Focused Discussions (parallel sessions)

- Community projects using sensors
- Compliance & industrial applications for sensors
- Developing good sensors
- Sensors as educational tools

N: BAAQMD staff and Denny Larson, Global Community Monitor

S: SCAQMD staff and Luis Olmedo Velez, Comite Civico Del Valle

N: BAAQMD staff and Janet Whittick, California Council for Environmental and Economic Balance (CCEEB)

S: SCAQMD staff and Janet Whittick, CCEEB

N: BAAQMD staff and Clinton MacDonald, Sonoma Technologies, Inc. (STI)

S: SCAQMD staff and Clinton MacDonald, STI

N: BAAQMD staff and Ron Cohen, Univ. of California, Berkeley

S: SCAQMD staff and Ron Cohen, Univ. of California, Berkeley

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2:45 **Break**

3:00 **Sensor Technology Demonstration & Posters**

- Three 10 minute presentations plus ½ hour for viewing posters/sensors

Participating organizations/developers/manufacturers will include:
Sonoma Technology Inc. (STI), Perkin Elmer, Valencell, T&B Systems,
Acrobotic, Dylos, Metone, Aeroqual, Horiba, Landtec

4:00 **Next Steps Together on the Path to Sensor Technology**

- A facilitated discussion on sensor issues confronting agencies
 - Engaging/educating the public
 - Communication with communities & developers
 - Consistent agency strategy & message
 - Avoid duplication of work
 - Provide/promote clear & consistent information on sensors, data quality, and expectations
 - Funding for sensor projects

Moderator N & S: Barbara Lee, Northern Sonoma County Air Pollution Control District

Panel: Sector representatives from the Focused Discussions, plus

N: Jack Broadbent or Eric Stevenson, BAAQMD

Michael Benjamin, California Air Resources Board (CARB)

Meredith Kurpius, U.S. EPA, Region IX

S: Barry Wallerstein or Philip Fine or Laki Tisopulos, SCAQMD

Michael Benjamin, CARB

Meredith Kurpius, U.S. EPA, Region IX