



## 2022 NATIONAL AMBIENT AIR MONITORING CONFERENCE

David L. Lawrence Convention Center – Pittsburgh, PA

August 22-25, 2022

### AGENDA

#### SUNDAY, AUGUST 21, 2022 –EARLY REGISTRATION

5:00pm – 7:00pm Registration

#### MONDAY, AUGUST 22, 2022 –TRAINING SESSIONS

7:00am – 5:00pm Registration  
 8:00am – 5:00pm Optional Trainings  
 1:00pm – 7:00pm Exhibitor Set Up

#### 8:30am – 12:00pm Training Sessions

| ROOM: 315-316  | ROOM: 317-318   | ROOMS: Various   | ROOM :303-304   |
|--|---|--|---|
| <b>AIR QUALITY SYSTEM (AQS)</b><br><i>Robert Coats</i>   | <b>QUALITY ASSURANCE</b><br><i>EPA/OAQPS/Regions and invited speakers</i>   | <b>Vendor-led Training - PM</b><br><i>Start in 301-302</i>   | <b>PAMS</b><br><i>EPA staff and invited speakers</i>  |
| <p>There will be a maximum of 60 attendees, that will be required to work in pairs. Training will involve both lectures and hands-on exercises.</p> <p><u>Ambient Air Monitoring Background</u></p> <p><u>General description of AQS and its operation, including the AQS Data Mart</u></p> <p><u>User-IDs and Security:</u><br/>                     AQS user-ids<br/>                     Exchange Network user-ids<br/>                     Data Mart user-ids<br/>                     New user registration and the EPA Gateway<br/>                     Security Roles and Access Control</p> <p><u>The AQS Forms User Interface</u></p> | <p><b>8:30am</b> - QA 101, An Intro to Quality Assurance – Greg Noah (EPA)</p> <p><b>9:15am</b> - Technical Improvements for Part 58<br/><i>Greg Noah and Doug Jager (EPA)</i></p> <p><b>10:15am BREAK</b></p> <p><b>10:30am</b> - Ozone Technical Assistance Document Revision – <i>Scott Hamilton (EPA)</i></p> | <p><b>8:30 – 8:50am - Room 301-302</b><br/>                     Welcome and overview of vendor-led training period – <i>Tim Hanley (EPA)</i></p> <p><b>8:50 -9:00am</b> – Transition to vendor rooms below</p> <p><b>Participating vendors of PM equipment will be set up in individual rooms to provide overviews of their hardware and engage on instrument operations, including:</b><br/> <i>Principles of operation, Operational processes, User interfaces, Maintenance routines, and Troubleshooting. Plus, vendors specific topics.</i></p> <p><b>Durag (Grimm)</b> – Room 308<br/> <b>Magee</b> – Room 309<br/> <b>MetOne</b> – Room 305<br/> <b>Teledyne-API</b> – Room 406<br/> <b>Thermo Fisher</b> – Room 301-302</p> | <p><b>8:30am</b> Programmatic update – <i>Corey Mocka (EPA)</i></p> <p><b>8:45am</b> PAMS Dart and Dashboard Demo - <i>Jennifer DeWinter &amp; Ningxin Wang (STI)</i></p> <p><b>9:15am</b> Auto-GC Overview – <i>Doug Turner (Battelle)</i></p> <p><b>9:45am</b> PAMS planning, measurements, and data validation – <i>Carol Meyer (Orsat) &amp; Doug Turner (Battelle)</i></p> <p><b>10:15am BREAK</b></p> <p><b>10:45am</b> PAMS QA – <i>Doug Turner (Battelle)</i></p> <p><b>11:15am</b> Ceilometry – <i>Ruben Delgado (UMBC)</i></p> <p><b>11:45am</b> Open Forum</p> |

12:00pm – 1:30pm

LUNCH – on your own

1:30pm – 5:00pm

Training Sessions

| ROOM: 315-316  | ROOM: 317-318  | ROOMS: Various   | ROOM: 303-304   |
|--|--|--|---|
| <b>AIR QUALITY SYSTEM (AQS) (Continued)</b><br><i>Robert Coats</i>   | <b>QUALITY ASSURANCE</b><br><i>EPA/OAQPS/Regions and Invited Speakers</i>  | <b>Vendor-led Training – Criteria Gases</b><br><i>Start in Room 301-302</i>  | <b>Data Analysis &amp; Tools</b><br><i>EPA Staff &amp; Invited Speakers</i>   |
| <i>Training continues from the morning session...</i><br><br><u>Submitting data to AQS</u><br>Overall data flow (both from ENSC and full Exchange Network Nodes)<br>Data Formats<br>Hands-On Exercises<br><br><u>The AQS “Retrieval Subsystem” – Reports and output files</u><br>Reports User Interface<br>Hands-On Exercises<br><br><u>AQS Advanced Topics</u> (e.g. Certification and Exceptional Events)<br><br><u>The AQS Data Mart and Public Data Access</u> | <i>Training continues from the morning session...</i><br><br><b>1:30pm</b> - Air Toxics Quality Assurance - <i>Doug Turner (Battelle)</i><br><br><b>2:30 pm</b> Data Visualization Tools Demo<br><br><b>3:00pm BREAK</b><br><br><b>3:15pm</b> - Best Practices for Review and Validation of Ambient Air Monitoring Data <i>Verena Joerger/ Greg Noah (EPA)</i><br><br><b>4:45</b> - Q&A Time | <b>1:30-1:50 pm - Room 301-302</b><br>Welcome and overview of vendor-led training period – <i>Joann Rice and Neelson Watkins (EPA)</i><br><br><b>1:50 -2:00pm</b> – Transition to vendor rooms below<br><br><b>Participating vendors of criteria gas monitors and supporting equipment will be set up in individual rooms to provide overviews of their hardware and engage on instrument operations, including:</b><br><i>Principles of operation, Operational processes, User interfaces, Maintenance routines, and Troubleshooting. Plus, vendors specific topics.</i><br><br><b>American Ecotech</b> – Room 305<br><b>Teledyne API</b> – Room 406<br><b>Thermo Fisher</b> – Room 301-302 | <b>1:30pm</b> Chemical Speciation Network (CSN) Dart tool - <i>Alex Murrain (UC Davis), Nicky Smith (UC Davis), and Jennifer DeWinter (STI)</i><br><br><b>2:45pm</b> CSN/IMPROVE Data Viewer Demonstration - <i>Sean Raffuse (UC Davis)</i><br><br><b>3:20pm</b> Break<br><br><b>3:30pm</b> Air Trends tool - <i>Brett Gantt (EPA)</i><br><br><b>4:00pm</b> EPA’s Air Toxics Screen tool – <i>Jeanette Reyes (EPA)</i><br><br><b>4:30pm</b> EPA’s Air Data website - <i>Brett Gantt (EPA)</i> |

TUESDAY, AUGUST 23, 2022 – PLENARY SESSION  
BALLROOM A

|        |   |                                    |
|--------|---|------------------------------------|
|        | 7:00am – 5:00pm   | Registration open                  |
|        | 7:00am – 7:00pm   | Exhibit Hall (Ballroom B & C) open |
| 8:30am | <b>Welcome and Logistics</b><br><i>Neelson Watkins, EPA Office of Air Quality Planning and Standards (OAQPS), Air Quality Assessment Division, Ambient Air Monitoring Group</i>   |                                    |
| 8:40am | <b>AAPCA and NACAA Welcome</b><br><i>Ryan Biggerstaff, Environmental Programs Manager, Air Quality Division, Oklahoma Department of Environmental Quality, and AAPCA Ambient Monitoring Committee co-chair</i><br><br><i>Sam Rubens, Manager, Akron Regional Air Quality Management District, and NACAA Monitoring Committee co-chair</i> |                                    |
| 8:50am | <b>EPA Welcome and OAQPS Priorities</b><br><i>Chet Wayland, Division Director, Air Quality Assessment Division (AQAD), EPA Office of Air Quality Planning and Standards (OAQPS)</i>   |                                    |
| 9:10am | <b>Featured EPA Speaker</b><br><i>Janet McCabe, Deputy Administrator of the EPA</i>   |                                    |
| 9:35am | <b>Ambient Air Monitoring Overview</b><br><i>Kristen Benedict, Group Leader, Ambient Air Monitoring Group (OAQPS)</i>   |                                    |

**TUESDAY, AUGUST 23, 2022 – PLENARY SESSION (continued)**  
**BALLROOM A**

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- 10:00am **BREAK** – Exhibit Hall / Ballroom B & C)
- 10:30am **Keynote Address – Emerging and Novel Measurement Methods to Support NAAQS Enforcement and Environmental Justice**  
*Dr. Albert Presto, Research Professor, Carnegie Mellon University.*
- 11:05am **COVID-19 & Ambient Air Quality Monitoring** – *Joann Rice, Ambient Air Monitoring Group, and Brett Gantt, Air Quality Analysis Group (OAQPS)*
- 11:35am **NAAQS Overview** – *Tim Hanley, Ambient Air Monitoring Group (OAQPS)*
- 12:00pm **LUNCH** – *on your own*
- 1:30pm **EPA Office of Research and Development (ORD) Update**  
*Lara Phelps, EPA - ORD – Center for Environmental Measurements*
- 1:55pm **EPA Office of Atmospheric Programs (OAP) Update**  
*Melissa Puchalski, EPA - OAP – Clean Air Markets Division*
- 2:15pm **EPA Office of Transportation Air Quality (OTAQ) Update**  
*Rich Baldauf, EPA – OTAQ – Assessments and Standards Division*
- 2:35pm **EPA Tribal Air Monitoring Support (TAMS) Center Update**  
*Hayden Hardie, EPA – TAMS, and Mike Natchees, Ute Indian Tribe*
- 2:55pm **National Tribal Air Association (NTAA) Update**  
*Steven Smith, Shinnecock Indian Nation*
- 3:15pm **BREAK** – Exhibit Hall / Ballroom B & C
- 3:45pm **Agenda Review (discuss logistics of Wednesday and Thursday)**  
*Nealson Watkins – EPA-OAQPS*
- 4:00pm **Regional Meet & Greet Session** – *State, Local, and Tribal Agencies can take this opportunity to meet and talk with their EPA Regional Representatives and each other.*

*Room Assignments:*

|                           |                       |                           |                              |                            |
|---------------------------|-----------------------|---------------------------|------------------------------|----------------------------|
| Region 1<br>Room: 301-302 | Region 2<br>Room: 311 | Region 3<br>Room: 315-316 | Region 4<br>Room: 317-318    | Region 5<br>Room: 305      |
| Region 6<br>Room: 308     | Region 7<br>Room: 309 | Region 8<br>Room: 310     | Region 9<br>Room: Ballroom A | Region 10<br>Room: 303-304 |

- 5:00pm **Regional Meet & Greet Session Adjourns**
- 5:30pm – 7:00pm **POSTER SESSION/NETWORKING RECEPTION** – Ballroom B & C

## WEDNESDAY, AUGUST 24, 2022 – TECHNICAL SESSIONS

7:00am – 5:30pm Registration open  
7:00am – 5:30pm Exhibit Hall (Ballroom B & C) open

### 8:00am – 10:00am Technical Sessions

| Room: Ballroom A   | Room: 301-302   | Room: 303-304  | Room: 315-316  | Room: 317-318   |
|--|---|--|--|---|
| <b>AIR TOXICS</b><br>Moderator –<br><i>Nealson Watkins (EPA)</i>   | <b>Community Monitoring</b><br>Moderators – <i>Colin Barrette &amp; Corey Mocka (EPA)</i>   | <b>PM - Speciation</b><br>Moderator – <i>Melinda Beaver (EPA)</i>  | <b>QA</b><br>Moderators – <i>Trisha Curran (EPA) &amp; Yousaf Hameed (Clark Co., NV)</i>   | <b>Tribal Monitoring</b><br>Moderator – <i>James Payne (EPA)</i>  |
| <p><b>8:00am</b> Ambient Air Toxics Program Overview - <i>Nealson Watkins (EPA)</i></p> <p><b>8:20am</b> NATTS Assessment Overview and TAD Update - <i>Doris Chen (EPA)</i></p> <p><b>8:50am</b> EPA's Hazardous Air Pollutant (HAP) Ambient Monitoring Archive - <i>Regi Oommen (ERG)</i></p> <p><b>9:10am</b> How ERG is developing interactive apps (via Qlik Sense) to facilitate air toxics data review- <i>Jaime Hauser (ERG)</i></p> <p><b>9:30am</b> Challenges for VOC and Carbonyl Sampler Certifications - <i>Randy Bower (ERG)</i></p> | <p><b>8:00am</b> Unfair Air in the District of Columbia - <i>Kane Samuel (DC)</i></p> <p><b>8:20am</b> Health and Equity in the Historic West End Green District: A case study of community-led citizen science - <i>Daisha Williams and Denise Bruce (Cleanaire NC)</i></p> <p><b>8:40am</b> Development of community and fence-line monitoring network to measure air toxics and other pollutants in communities near refineries - <i>Jason Low (SCAQMD)</i></p> <p><b>9:00am</b> Insights from development and implementation of a community air monitoring project using a mobile monitoring platform in Richmond-N. Richmond-San Pablo, California - <i>Daniel Alrick and Jack Connor (BAAQMD)</i></p> <p><b>9:20am</b> Spatiotemporal Variations of Carbon Dioxide (CO<sub>2</sub>) at Urban Neighborhood Scale: Characterization of Distribution Patterns and Contributions of Emission Sources - <i>Zhong-Ren Peng (Univ. of Florida)</i></p> | <p><b>8:00am</b> Chemical Speciation Network Overview and Updates - <i>Melinda Beaver (EPA)</i></p> <p><b>8:20am</b> Source-specific emission factors of BC and OC considering 2 major urban aerosol sources: traffic and domestic heating - <i>Balint Alföldy (Aerosol)</i></p> <p><b>8:40am</b> Water Soluble Nitrogen – <i>Kevin Mishoe (Wood)</i></p> <p><b>9:00am</b> A Low-Cost, High Performance, Industrial Grade Carbon Sensor - <i>David Gobeli (Met One)</i></p> <p><b>9:20am</b> An Interlaboratory comparison of elemental loadings on PM<sub>2.5</sub> samples via energy-dispersive XRF and single quadrupole ICP-MS - <i>Colleen Rosales (UC Davis)</i></p> <p><b>9:40am</b> Suspected Stainless Steel Contamination on CSN filters - <i>Sean Raffuse (UC Davis)</i></p> | <p><b>8:00am</b> National QA Program Updates - <i>Greg Noah (EPA)</i></p> <p><b>8:30am</b> Station Operation by the Numbers – <i>Juan Garcia and Ricardo Morales (SCAQMD)</i></p> <p><b>9:00am</b> Investigation of Gaseous Pollutant Transport Efficiency as a Function of Tubing Material - <i>Robert Yaga (EPA)</i></p> <p><b>9:30am</b> NATTS/PAMS VOC/Carbonyl Manifolds - Leak identification, corrective actions, reoccurrence minimization, and lessons learned - <i>Brandon Feenstra (SCAQMD)</i></p> | <p><b>8:00am</b> Building Federal-Tribal Partnerships through Air Quality and Atmospheric Deposition Monitoring - <i>Melissa Puchalski (EPA)</i></p> <p><b>8:30am</b> Tribal Air Quality Monitoring Programs - <i>Tiffany Wolfe (Pechenga Band of Luiseno Indians)</i></p> <p><b>9:00 – 10:00am</b><br/>Tribal discussion forum: Tribal attendees, TAMS staff, NTAA, and EPA.</p> |

10:00am – 10:30am

**BREAK (Exhibit Hall / Ballroom B & C)**

## 10:30am – 12:00pm Technical Sessions

| Room: Ballroom A  | Room: 301-302  | Room: 303-304   | Room: 315-316   | Room: 317-318   |
|---|--|---|---|---|
| <p><b>Toxics</b><br/>Moderator – Susan Kilmer<br/>(Michigan EGLE)</p>   | <p><b>Community Monitoring</b><br/>Moderator – Denise Bruce<br/>(CleanAirNC) &amp; Colin Barrette (EPA)</p>  | <p><b>PM</b><br/>Moderators – Tim Hanley (EPA)<br/>&amp; Rene Bermudez (SCAQMD)</p>   | <p><b>QA</b><br/>Moderator – Verena<br/>Joerger (EPA) &amp; Namita<br/>Verma (VA DEQ)</p>   | <p><b>AQS &amp; AirNow</b><br/>Moderator – Robert Coats &amp;<br/>Brad Johns (EPA)</p>                        |
| <p><b>10:30am</b> Air Toxics Trends in Seattle and Tacoma WA - Preliminary Results - <i>Matt Harper (PSCAA)</i></p> <p><b>11:00am</b> Air Toxics Trends in the South Coast Air Basin - Multiple Air Toxics Exposures Study V – <i>Monna Trinh (SCAQMD)</i></p> <p><b>11:30am</b> Use of Air Data in Health Consultations by the Agency for Toxics Substances Registry (ATSDR) and State/Local Health Agencies - <i>Motria Caudill (CDC/ATSDR)</i></p> | <p><b>10:30am</b> Community Air Monitoring Project for VOCs in South Portland/Portland, Maine - <i>Andy Johnson (Maine DEP)</i></p> <p><b>10:50am</b> AQEarth: Providing turn-key air monitoring to cities, tribes, and community groups – <i>Story Schwantes (TDE)</i></p> <p><b>11:10am</b> New Tools and Approaches for Approaching Localized Community Air Monitoring as implemented in AB 617 - <i>Jason Low (SCAQMD)</i></p> <p><b>11:30am</b> Air Monitoring in Mexicali, Mexico. The evolution of air pollution monitoring in a border city - <i>Jose Landeros (SCS Engineers)</i></p> | <p><b>10:30am</b> 10 years of Ncore: PM2.5 FEMs vs FRMs - <i>Brett Gantt (EPA)</i></p> <p><b>11:00am</b> Continuous PM: Road to Transition - <i>Rene Bermudez (SCAQMD)</i></p> <p><b>11:30am</b> Indoor and Outdoor PM in 6 Asian Cities - <i>Anil Namdeo (Northumbria Univ.)</i></p> | <p><b>10:30am</b> Getting 0.3% difference: Calibrating a multi-gas calibrator to generate calibration gas concentrations under 1 ppb accurately- <i>Matthew Shrensel (Oregon DEQ)</i></p> <p><b>11:00am</b> Protocol Gas and Protocol Gas Verification Program (PGVP) - <i>Doug Jager (EPA)</i></p> <p><b>11:30am</b> Certifications - Best Practices (Gases, Calibration, Equipment, SRP) - <i>Trisha Curran (EPA)</i></p> | <p><b>10:30 AM – 12:00 PM</b><br/><b>Planned Unified Ambient Air Data System – The Vision and Concept</b></p> |

**12:00pm – 1:30pm**

**LUNCH – on your own**

## 1:30pm – 3:00pm Technical Sessions

| Room: Ballroom A  | Room: 301-302   | Room: 303-304   | Room: 315-316  | Room: 317-318  |
|---|---|---|--|--|
| <p><b>Air Toxics – Lightning Talks</b><br/>Moderator – Ned Shappley (EPA)</p>   | <p><b>Sensors</b><br/>Moderators – Daniel Johnson (OR DEQ) &amp; Corey Mocka (EPA)</p>  | <p><b>PM</b><br/>Moderators – Tim Hanley (EPA) &amp; Rene Bermudez (SCAQMD)</p>   | <p><b>QA</b><br/>Moderators – Will Wallace (EPA) &amp; Matt Harper (PSCAA)</p>   | <p><b>AQS &amp; AirNow</b><br/>Moderator – Robert Coats &amp; Brad Johns (EPA)</p>   |
| <p><b>1:30pm</b> Continuous Multi-metals monitoring - Krag Petterson (Cooper Environmental/SCI)</p> <p><b>1:40pm</b> New measurement method for reactive, particle-bound and gaseous oxidized Mercury - Sarah Dunham-Cheatham (Univ. of Nevada - Reno)</p> <p><b>1:50pm</b> Collection and extraction of PFAS using styrene-divinylbenzene resin and accelerated solvent extraction - Jason Hoisington (Restek)</p> <p><b>2:00pm</b> Complimentary monitoring of online PAMS and HAP VOCs - Allen Chou (Tricorntech)</p> <p><b>2:10pm</b> Cavity Ring-down Spectroscopy - James Hargrove (ALTI (Activated Light))</p> <p><b>2:20pm</b> AROMA: Realtime EtO measurements in ambient air - Aurelie Marcotte (Entanglement Technologies)</p> <p><b>2:30pm</b> Systems for continuous, ambient monitoring of Ethylene Oxide – Updates from the field – Updates from the field- Dave Miller (Picarro)</p> <p><b>2:40pm</b> Realtime measurements of EtO - Scott Herndon (Aerodyne)</p> <p><b>2:50pm</b> Continuous VOC Monitoring for Emissions Location and Sample Acquisition - Jacob Melby (Sensit)</p> | <p><b>1:30pm</b> Sensor evaluations: The impact of PM monitor type – Karoline Barkjohn (EPA)</p> <p><b>1:45pm</b> Atlanta Rail and Port Sensors Project: An Air Quality Pilot Study – Daniel Garver (EPA)</p> <p><b>2:00pm</b> Long-term evaluation of low-cost particulate and gaseous air sensors in Middle Tennessee - Michelle Oakes (Tenn. DEC)</p> <p><b>2:20pm</b> The Sensor Verification System - A novel way to check performance of air sensors anywhere - Tim Dye (TDE)</p> <p><b>2:40pm</b> Can Low-cost NO2 sensors be used to aid in understanding ozone formation – Joshua Uebelherr (Maricopa)</p> | <p><b>1:30pm</b> State of the art ambient ultrafine particle monitoring: the blind spot of current methods – Tim Wright (TSI)</p> <p><b>1:50pm</b> A low-cost, high performance, industrial grade particle counter for simultaneous PM1, PM2.5, PM4, and PM10 Measurements – David Gobeli (Met One)</p> <p><b>2:10pm</b> Quantifying Salton Sea's Harmful PM During High Wind Events - Sergio Valenzuela (SCS Engineers)</p> <p><b>2:30pm</b> A difference-in-differences approach for assessing the effectiveness of dust mitigations at the Oceano Dunes - Karl Tupper (San Luis Obispo APCD)</p> | <p><b>1:30pm</b> Embrace the Change: The Data Validation Journey - Gina Curvin (Alabama DEM)</p> <p><b>2:00pm</b> DQOs in the PM2.5 National Ambient Air Monitoring Network - Bob Lordo (Battelle)</p> <p><b>2:30pm</b> T640 &amp; T640x Validation Templates - Tim Hanley (EPA)</p> | <p><b>1:30 – 3:00PM</b></p> <p><b>Unified Ambient Air Workshop Series: Who Are You?</b></p> <p>Help us shape the future of the EPA’s Air Quality System and AirNow System by joining us for this hands-on, facilitated discussion with members of the design team. Your input will be heard and applied as we reimagine the future of these systems. Our design researchers will be aiming to understand what job functions you are performing when interacting with the Ambient Air systems, how you use the systems, and what value you would want from a new unified system</p> |

3:00pm – 3:30pm

**BREAK (Ballroom B & C)**

### 3:30pm – 5:30pm Technical Sessions

| Room: Ballroom A   | Room: 301-302   | Room: 303-304  | Room: 315-316  | Room: 317-318   |
|--|---|--|--|---|
| <p><b>Air Toxics</b><br/>Moderator – <i>Doris Chen (EPA)</i></p>   | <p><b>Sensors</b><br/>Moderator – <i>Daniel Johnson (OR DEQ) &amp; Colin Barrette (EPA)</i></p>   | <p><b>Near-road</b><br/>Moderator - <i>Ben Davis (Maricopa Co., AZ)</i></p>  | <p><b>Ozone</b><br/>Moderator – <i>Jim Norris (NIST) &amp; Joann Rice (EPA)</i></p>  | <p><b>AQS &amp; AirNow</b><br/>Moderator – <i>Robert Coats &amp; Brad Johns (EPA)</i></p>   |
| <p><b>3:30pm</b> Initial assessment of a pilot program for measuring PFAS in wet deposition in the eastern US - <i>John Offenburg (EPA)</i></p> <p><b>3:50pm</b> Fenceline monitoring applications and measurement technology - <i>Ned Shappley (EPA)</i></p> <p><b>4:10pm</b> Determination of an EPA Method 325B uptake rate for Chloroprene - <i>David Berkowitz (Montrose)</i></p> <p><b>4:30pm</b> Low volume sampling indicates increased efficiency in PAH capture - <i>Benjamin Ayres (Oregon DEQ)</i></p> <p><b>4:50pm</b> Spatial and temporal variability of PAHs in the ambient air – <i>Xianqiang Fu (Univ. of Memphis)</i></p> <p><b>5:10pm</b> Comparison of PTR-ToF-MS against four other VOC methods using standard techniques in fence-line monitoring - <i>Antonios Tasoglou (RJ Lee Group)</i></p> | <p><b>3:30pm</b> Real-time air quality modeling driven by measurement data – <i>Ali Akherati (Ramboll)</i></p> <p><b>3:50pm</b> Lessons Learned from Air Sensor Loan Pilot Programs <i>Andrea Clements, (EPA)</i></p> <p><b>4:10pm</b> Improving Tribal and Citizen Science with Low-cost Air Sensor Collocation Shelters - <i>Ryan Brown (EPA)</i></p> <p><b>4:30pm</b> Air Sensors for Education and Community Engagement - <i>Olivia Ryder (STI)</i></p> <p><b>4:50pm</b> Communities in Action - <i>Jason Low (SCAQMD)</i></p> <p><b>5:10pm</b> Lightning Talk - A low-cost handheld sulfur dioxide tester with a hybrid nanomaterials-based sensor chip - <i>Yale Wang - (NanoAffix Sci)</i></p> <p><b>5:20pm</b> Lightning Talk- Combustion focused monitoring with wireless AQ networks - <i>Julien Caubel (Dist. Sensing Tech.)</i></p> | <p><b>3:30pm</b> Monitoring of 3 criteria air pollutants at an international port of entry - <i>Wen-Whai Li (Univ. of Texas El Paso)</i></p> <p><b>4:00pm</b> Mobile and sensor measurements to assess community impacts and mitigation strategies for transportation sources - <i>Rich Baldauf (EPA)</i></p> <p><del><b>4:30pm</b> Three dimensional diffusion of traffic related air pollutants on the roadside based on unmanned aerial vehicle monitoring - <i>Zhong-Ren Peng (Univ. of Florida)</i></del></p> <p><b>4:30 pm</b> Contributions of non-tailpipe emissions to PM2.5 and PM10 near highways - <i>Xiaoliang Wang (DRI)</i></p> | <p><b>3:30pm</b> VOC and O3 Measurements at Carlsbad Caverns National Park - <i>Barkley Sive (NPS)</i></p> <p><b>4:00pm</b> Integration of Nafion sample conditioner into existing FEM ozone monitor - <i>Bryan Bibeau (Teledyne API)</i></p> <p><b>4:30pm</b> Updating the Absorption Cross-Section for Surface Ozone Measurements- <i>Joann Rice (EPA)</i></p> | <p><b>3:30 – 5:30 PM</b></p> <p><b>Unified Ambient Air Workshop Series: Buy a Feature!</b></p> <p>Join us in this hands-on, interactive session to help us determine what a new, unified ambient air system should be! We will be facilitating a series of gamified activities and discussions around the prioritization of user-identified features for a future unified ambient air system. This is an opportunity to get a sneak peek at many of the features being considered in our future system as well as have a direct impact on which features are chosen to implement.</p> |

## THURSDAY, AUGUST 25, 2022 – TECHNICAL SESSION

7:00am – 3:00pm      Registration open  
7:00am – 10:30am      Exhibit Hall open

### 8:00am – 10:00am Technical Sessions

| Room: Ballroom A   | Room: 301-302   | Room: 303-304  | Room: 315-316  | Room: 317-318   |
|--|---|--|--|---|
| <b>Air Toxics – EtO Session</b><br>Moderator – Joann Rice (EPA)  | <b>Wildfire Impacts</b><br>Moderator -Gwen Yoshimura (EPA)  | <b>Near-road</b><br>Moderator - Rich Baldauf (EPA)   | <b>PAMS</b><br>Moderator – Corey Mocka (EPA) and Lara Hrobak (NH DES)  | <b>AQS &amp; AirNow</b><br>Moderator - Robert Coats & Brad Johns (EPA)  |
| <p><b>8:00am</b> Ambient EtO Monitoring Challenges – Sara Waterson (EPA)</p> <p><b>8:30am</b> Georgia’s Experience in EtO Monitoring – DeAnna Oser (GA EPD)</p> <p><b>9:00am</b> Status of EtO Source Measurements – Peter Kariher (EPA)</p> <p><b>9:30am</b> Analysis of EtO by TO-15 – Kyle Rasmus (ERG)</p> | <p><b>8:00am</b> Ambient Monitoring of Wildland Urban Interface Fires - Amara Holder (EPA)</p> <p><b>8:20am</b> Air Quality Monitoring during extreme events: Observations during record-breaking smoke and heat events in Oregon - Zach Koch (Oregon DEQ)</p> <p><b>8:40am</b> Comparison of tools to quantify wildfire smoke influence ozone concentrations - Cari Gostic (STI)</p> <p><b>9:00am</b> Characterization of PM collected zhonusing passive samplers during wildfire episodes - Gary Casuccio (RJ Lee Group)</p> <p><b>9:20am</b> Community-Facility-Fire visible emissions monitoring: Estimating PM and volatile concentrations remotely over wide areas - Shawn Dolan (Virtual Technology)</p> | <p><b>8:00am</b> Diesel particulate source apportionment study - Benjamin Ayres (Oregon DEQ)</p> <p><b>8:30am</b> Characterizing nitrogen oxides and fine PM near major highways in the U.S. using the national near-road monitoring network - Brett Gantt (EPA)</p> <p><b>9:00am</b> Non-parametric trajectory analysis of high time resolution PM2.5 data from EPA's near-road monitoring network - Janet Burke (EPA)</p> <p><b>9:30am</b> Exploring near-road data with the near-road dashboard - demonstration - Charles Scarborough (STI)</p> | <p><b>8:00am</b> PAMS Program Update - Corey Mocka (EPA)</p> <p><b>8:20am</b> Long-term air quality trends and an evaluation of VOC measurements in the District - Joseph Jakuta (DC)</p> <p><b>8:40am</b> Data analysis of measurements collected under an Enhanced Monitoring Plan (EMP) to better understand Long Island Sound ozone - Lucas Valin (EPA)</p> <p><b>9:00am</b> Two years of CAS Auto-GC PAMS Monitoring: Successes and Challenges in Software/Hardware Implementation, Monitoring, and Data QC - Crystal McClure (STI)</p> <p><b>9:20am</b> Unified Ceilometer Network: Aerosol Profiling and Planetary Boundary Layers Retrievals in Support of PAMS - Ruben Delgado (Univ. Maryland - Balt. Co.)</p> <p><b>9:40am</b> SUMMA and PUF sampling in support of characterizing ozone formation in Maricopa County - Joshua Uebelherr (Maricopa Co.)</p> | <p><b>8:00 – 10:00am</b></p> <p><b>Unified Ambient Air Workshop Series: Buy a Feature!</b></p> <p>Join us in this hands-on, interactive session to help us determine what a new, unified ambient air system should be! We will be facilitating a series of gamified activities and discussions around the prioritization of user-identified features for a future unified ambient air system. This is an opportunity to get a sneak peek at many of the features being considered in our future system as well as have a direct impact on which features are chosen to implement.</p> |

10:00am – 10:30am

BREAK



## THURSDAY, AUGUST 25, 2022 – Round-table Discussions

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10:30am

Roundtable Topic Discussions (Drop in to ask questions or have a chat)

|   |  |   |   |   |  |
|---|--|---|---|---|--|
| <b>Air Toxics<br/>(TO-15 / NATTS<br/>TAD / EtO)</b><br><i>Doris Chen, Joann<br/>Rice, Ned<br/>Shappley</i><br><b>Ballroom</b> | <b>Air Toxics<br/>Screening Tool</b><br><i>Jeanette Reyes</i><br><b>Room 315-316</b> | <b>Sensors</b><br><i>Andrea Clements,<br/>Karoline<br/>Barkjohn, Corey<br/>Mocka, &amp; Colin<br/>Barrette</i><br><b>Room 303-304</b> | <b>PM – Networks &amp;<br/>Data</b><br><i>Tim Hanley &amp;<br/>Brett Gantt</i><br><b>Room 301-302</b> | <b>PM - Speciation</b><br><i>Melinda Beaver,<br/>Nicky Smith, Alex<br/>Murrain, Justin<br/>Knoll, &amp; Hayley<br/>Curilla</i><br><b>Room 305</b> | <b>Quality<br/>Assurance</b><br><i>Greg Noah,<br/>Trisha Curran,<br/>Doug Jager</i><br><b>Room 317-318</b> |
| <b>CASTNET</b><br><i>Melissa Puchalski<br/>&amp; Tim Sharac</i><br><b>Room 308</b>  | <b>TAMS/Tribal</b><br><i>James Payne &amp;<br/>Hayden Hardie</i><br><b>Room 309</b>  | <b>PFAS</b><br><i>John Offenburg &amp;<br/>David Gay</i><br><b>Room 310</b>   | <b>Wildfire Impacts</b><br><i>Amara Holder &amp;<br/>Gwen Yoshimura</i><br><b>Room 311</b>            | <b>Grants</b><br><i>Tim Roberts, Ned<br/>Dowdell, Ashley<br/>Thompson</i><br><b>Room 312</b>  |  |

11:30am – 1:00pm

**Lunch on your own**

## THURSDAY, AUGUST 25, 2022 – CLOSING PLENARY SESSION BALLROOM A

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1:00pm

**Responding to the Government Accountability Office Report on Ambient Monitoring  
Networks: Asset Management**  
*Nealson Watkins, EPA - OAQPS*

1:30pm

**Responding to the Government Accountability Office Report on Ambient Monitoring  
Networks: Modernization**  
*Nealson Watkins, EPA - OAQPS*

1:40pm

**Using Satellite Data: Overview of Tropospheric Emissions: Monitoring of Pollution  
(TEMPO) mission and data product validation plans**  
*Jim Szykman, EPA - ORD*

2:10pm

**Lessons learned from major updates and expansions in a statewide air monitoring  
program**  
*Matthew Shrensel, Oregon DEQ*

2:40pm

**Modernization – Open Discussion Forum**  
*Audience participation*

3:15pm

ADJOURN

THANK YOU!