



Region 1 State Commissioners' Visit to
US EPA Office of Research and Development (ORD)
Atlantic Ecology Division (AED)

June 19, 2018

27 Tarzwell Drive
Narragansett, RI 02882

DRAFT AGENDA (6/5)

- 8:15 am Registration in AED Front Lobby**
US EPA staff will meet you in the main lobby and escort you to the meeting room.
Lisa Matthews, Senior Advisor and State Liaison, EPA ORD
- 8:30 am Welcome and Introductions**
- *Chris Robbins, Acting Deputy Assistant Administrator for Management, EPA ORD*
 - *Paul Mercer, Commissioner, Maine DEP and ERIS Board Member*
 - *Alexandra Dunn, Regional Administrator, EPA Region 1*
 - *Ken Wagner, Senior Advisor to the Administrator for Regional and State Affairs, EPA*
- 8:45 am Overview of US EPA ORD: Science and Technical Capabilities**
Jennifer Orme-Zavaleta, Principal Deputy Assistant Administrator for Science, EPA ORD
- 9:05 am States' Perspectives/Topics of Interest**
States are requested to informally talk about some of their most pressing environmental challenges and related science needs.
- Maine DEP
 - Massachusetts DEP
 - New Hampshire DES
 - Rhode Island DEM
 - Vermont ANR
- 10:00 am Break**
- 10:15 am Nutrients**
- State perspective (Massachusetts DEP)
States will tee up issues for the topic sessions, and if possible, give examples from their state's experiences.
 - EPA research (Anne Rea)
 - Roundtable discussion
- 11:00 am Algal Blooms**
- State perspective (Vermont DEC)
 - EPA research and Cyanobacteria Assessment Network (CyAN) mobile app demonstration (Darryl Keith)
 - Roundtable discussion
- 11:30 pm PFAS**
- State perspective (New Hampshire DES)

- EPA research on human health/toxicity, analytical methods, site characterization, exposure and remediation/treatment (Andy Gillespie)
- Roundtable discussion

12:30 pm **Working Lunch**
Order in, self-pay

1:00 pm **Chemistry Dashboard**

- Brief overview and demonstration of potential use applications (e.g., Endocrine Disrupting Chemicals and PFAS)

Reeder Sams, EPA ORD

1:20 pm **Coastal Resilience**

- State perspective (Maine DEP)
- EPA research (Cathy Wigand)
- Roundtable discussion

1:50 pm **Break**

2:00 pm **ORD Leadership Update**
Jennifer Orme-Zavaleta and Chris Robbins, EPA ORD

- ORD Strategic Plan
- State engagement in ORD's Strategic Research Action Plans refresh
- EPA Science Inventory
- Budget

2:30 **AED Overview**
Wayne Munns, Director, ORD Atlantic Ecology Division

2:45 pm **Facility Tour**
Including analytical laboratories, an estuarine "wet" laboratory, a research greenhouse, boat house, field sampling capabilities and green roof

4:00 pm **Break**

Return to Conference Room

4:15 pm **Recap today's discussion, state feedback and next steps**
Lisa Matthews and Paul Mercer

4:30 pm **Adjourn**

Agenda Topic Descriptions

EPA ORD's Atlantic Ecology Division

The Atlantic Ecology Division (AED), located in Narragansett, RI, is part of EPA ORD's National Health and Environmental Effects Research Laboratory. AED performs research to identify and quantify the ecological effects of anthropogenic stressors on coastal waters and watersheds of the Atlantic seaboard. This research provides data, models, decision support tools and technical support to EPA program and regional offices, state and local governments, and others to support our joint mission to protect human health and the environment. AED's research addresses national scale issues, with special emphasis given to Northeast estuaries and their watersheds, providing information that informs decision making at multiple levels of governance. AED actively promotes science communication, translation and outreach, by hosting and participating in numerous educational events each year. AED laboratory facilities consist of office space, "dry" analytical laboratories, an estuarine "wet" laboratory, a research greenhouse, and field sampling capabilities. Ongoing renovations, aimed at modernizing facility infrastructure and enhancing energy and water usage efficiencies, include installation of solar panels, a glycol solar collector to heat domestic water, and green roofs. Large portions of AED's grounds have been converted to native meadows to promote pollinator health.

Chemistry Dashboard

Information and data on chemicals is used by scientists to evaluate potential health and ecological risks due to environmental exposures. EPA's Chemistry Dashboard helps evaluate the safety of chemicals by providing public access to a variety of information on over 760,000 chemicals currently in use. Within the Chemistry Dashboard, users can access chemical structures, chemistry information, toxicity data, hazard data, exposure information, and additional links to relevant websites and applications. These data are compiled from sources including the EPA's computational toxicology research databases, and public domain databases such as the National Center for Biotechnology Information's PubChem database. EPA's Chemistry Dashboard is available at <https://www.epa.gov/chemical-research/chemistry-dashboard>

Cyanobacteria Assessment Network (CyAN): An early warning indicator for toxic and nuisance blooms using ocean color satellites

Harmful blooms of cyanobacteria (blue-green algae) in drinking water reservoirs and other freshwater systems cause public health concerns and increase drinking water processing costs. Early detection of emerging blooms can inform management actions to minimize these and other adverse effects. The CyAN mobile app, available on Android devices, helps water quality managers monitor cyanobacterial harmful algal blooms (HABs). The app uses satellite data to map the location of cyanobacterial HABs in fresh and coastal waters across US – providing rapid information about concentrations in US water bodies that can be used to inform decisions regarding recreational and drinking water safety. EPA is collaborating with NASA, NOAA, and USGS; the app uses data from the European Space Agency Copernicus Sentinel-3 satellite Ocean. The app provides intuitive ability to scan water bodies for changes in cyanoHAB abundance all without having to filter through numerous satellite images of water bodies not associated with their region of interest. The app allows managers to select a location of interest to quickly visualize the quantified cyanoHAB value, provides a spatial context for the larger water body, and temporal time series capabilities. The app is currently available for beta testing; if interested, contact Blake Schaeffer (schaeffer.biake@epa.gov).