

# EPA Tools and Resources Webinar: Engaging and Collaborating with States in EPA Research

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# Outline

- Goals and Key State Partners for the EPA Office of Research and Development's (ORD) Engagement with States, ECOS and ASTHO
- Engaging States in EPA's Research
- Sharing EPA's Science and Resources with States – New Web Resources
- Collaborative Projects with State Environmental Health Experts
  - Wildfire Smoke Guide for Public Health Officials
  - Per- and polyfluoroalkyl substances (PFAS) Risk Communication Resources

# Goals for ORD State Engagement

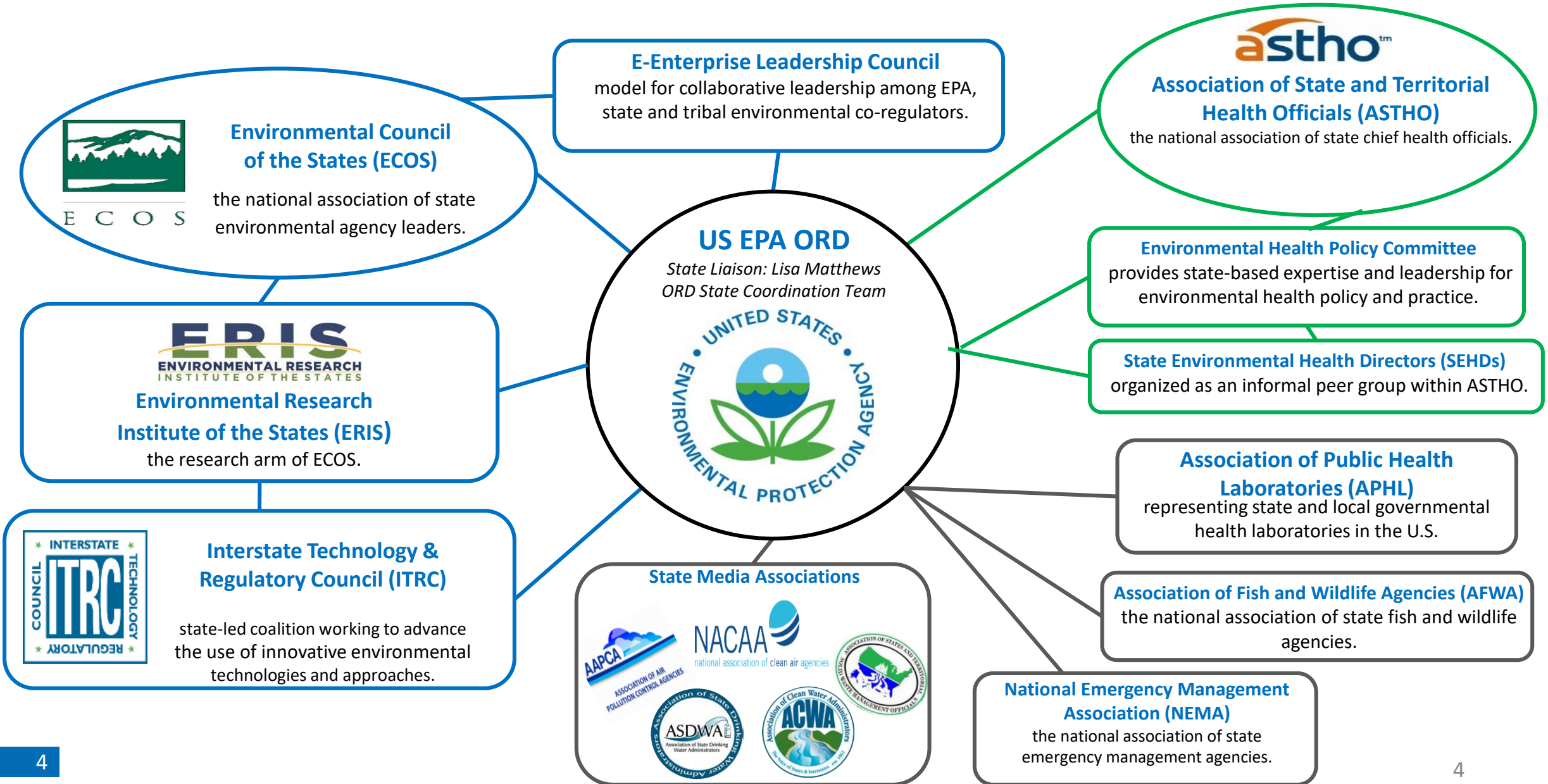


June's theme:  
*Effective Partnerships*

[More info on EPA at 50 campaign.](#)

- **Connect state research needs with Agency priorities** to ensure that EPA's research is useful and practical to help states address on the ground environmental and public health challenges.
- **Engage with states early on in *research planning through implementation*** to ensure that research outputs and products meet the states' needs.
- **Strengthen the states' capacities in science and technology** and share information on EPA's scientific and technical capabilities.
- **Work with state environmental health agencies on joint efforts** that focus on integrating public and environmental health.

# ORD's Key State Partners



# Environmental Research Institute of the States (ERIS)

- ERIS is the research arm of the [Environmental Council of the States](#).
- The ERIS Board works to better connect state environmental agencies to research, provide input to EPA on state research needs, and oversee the Interstate Technology & Regulatory Council (ITRC).
  - ITRC is a state-led coalition working to advance the use of innovative environmental technologies and approaches.
- [www.eristates.org](http://www.eristates.org)



# Association of State and Territorial Health Officials (ASTHO)

- National nonprofit organization representing public health agencies in the United States, the U.S. Territories and the District of Columbia.
- **Environmental Health Programmatic Areas:**
  - Built and synthetic environment
  - Natural environment
  - Water safety
  - Food safety
  - Data partnerships to improve health
  - Tracking environmental health hazards
  - Tribal environmental health
- The [State Environmental Health Directors](#) are an informal peer group supported by ASTHO with the goal of strengthening ties among states and partners and sharing best practices.
- The [ASTHO Preparedness program](#) helps strengthen our nation's public health and healthcare system preparedness and response by identifying and prioritizing policy and programmatic needs of state and territorial public health agencies, and through collaboration with local, state and federal partners.
- [www.astho.org](http://www.astho.org)



# *Engaging States in EPA Research*

# State Environmental Agencies' Research Needs

- ERIS conducts a biennial survey of state environmental agency research needs.
- In 2018, ERIS asked state environmental agency leaders to rank the top 5 areas in which scientific research would help their state address challenges. Of the 38 responses, the **most frequently identified challenges** were:
  1. Toxics and Chemicals of Emerging Concern (including PFAS)
  2. Drinking Water and Wastewater Treatment
  3. Nutrients
  4. Water and Wastewater Infrastructure
  5. Advanced Monitoring and Sensors for Pollutants, Nonpoint Source Challenges, Remediation of Soil and Groundwater (including Vapor Intrusion)
- The ERIS surveys informed the development of ORD's [Strategic Research Action Plans 2019-2022](#).

**Coming soon – 2020 ERIS States'  
Research Needs Survey!**

[Access the ERIS State Research Needs Assessments.](#)



# State Participation in Developing EPA ORD Strategic Research Action Plans 2019-2022

- ORD requested state nominations to participate on teams along with EPA program and regional office partners to **help refine the planned research and identify specific science products geared towards states' science priorities.**
  - 17 state members from 14 states participated on ~1/3 of the teams
- ORD will continue to engage with these state participants on the implementation of the research products.



[Access the Strategic Research Action Plans 2019-2022.](#)

# Strategic Research Action Plans 2019-2022

ORD's National Research Programs developed Strategic Research Action Plans (StRAPs) for FY19-22.  
Research priorities are:

## Safe and Sustainable Water Resources (SSWR)

Water Treatment and Infrastructure  
Nutrients & Harmful Algal Blooms  
Watersheds

## Sustainable and Healthy Communities (SHC)

Contaminated Sites  
Waste & Materials Management  
Healthy Communities

## Human and Environmental Risk Assessment (HERA)

Science Assessments & Translation  
Advancing Practice of Risk Assessment

## Chemical Safety for Sustainability (CSS)

Improved Chemical Evaluation to Support Agency Decisions  
Complex Systems Science to Inform Agency Knowledge of Chemicals  
Solutions and Delivery of Chemical Knowledge to Agency Partners

## Air and Energy (AE)

Science for Air Quality Decisions  
Extreme Events & Emerging Risk  
Next Generation Methods to Improve Public Health & Environment

## Homeland Security Research Program (HSRP)

Contaminant Characterization & Consequence Assessment  
Environmental Cleanup & Infrastructure Remediation  
Preparedness & Response

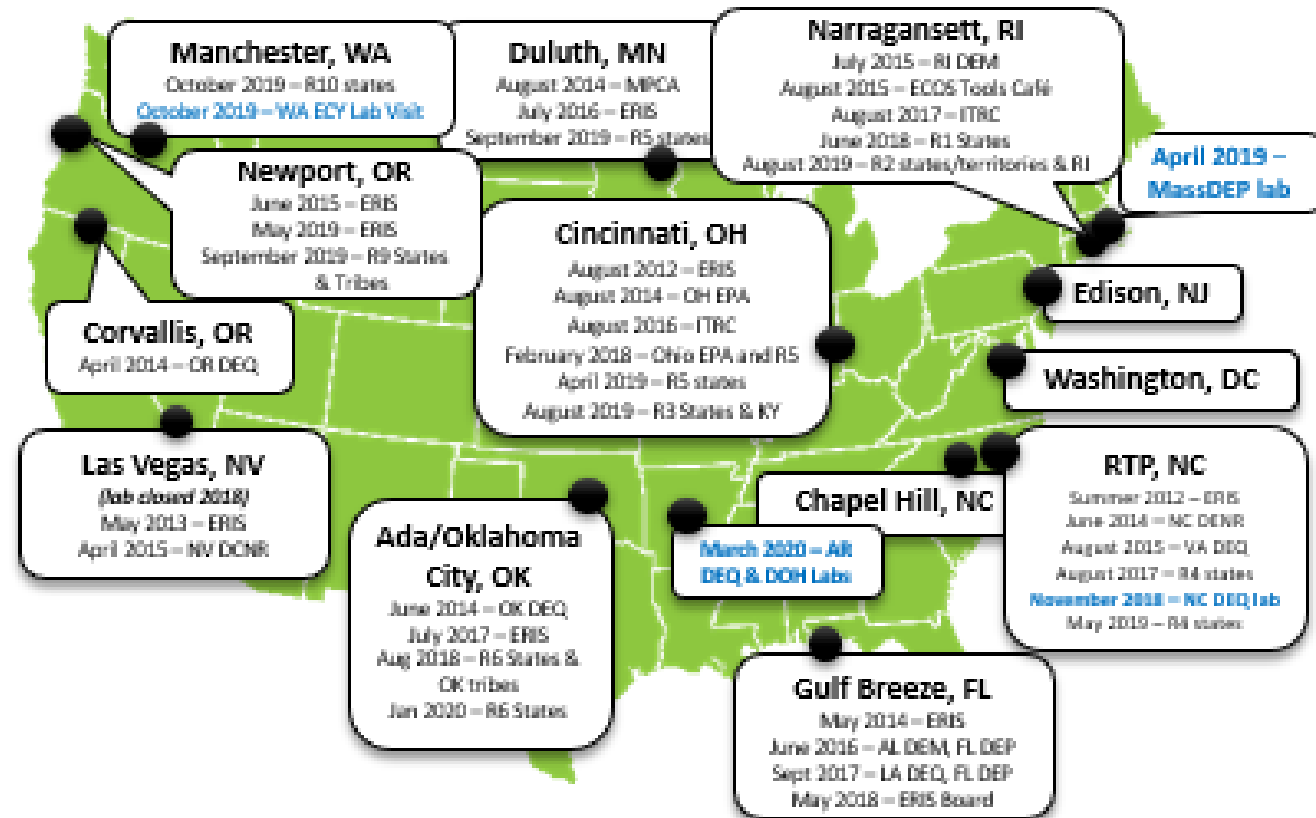


[Access the Strategic Research  
Action Plans 2019-2022.](#)

# ORD-Region-State Meetings

## ORD along with EPA Regions meet face to face regularly with states at ORD and state labs

- Discuss topics of interest to states and their science and technology needs, as well as potential collaborations
- Better understand EPA research and resources available to support regions, states and tribes
- In addition to hosting states at our labs, ORD has visited state labs (NC, MA, WA, AR) for technical discussions



# *Sharing EPA Science and Resources with States*

# EPA Tools and Resources Webinar Series

- ORD hosts a **monthly public webinar series** to share EPA research and resources to inform decision-making by our partners in state and local governments, tribes and communities. In addition, ORD offers in-depth **educational/training webinars** on various science-based tools.
- 48 past presentations are archived (includes presentation slides)
  - Air Quality (6)
  - Ecosystems (5)
  - Health (3)
  - Health Risk Assessment (5)
  - Waste and Materials Management (6)
  - Contaminated Sites Remediation (4)
  - Safer Chemicals (3)
  - Nutrient Management (5)
  - Stormwater Management (3)
  - Water Quality (6)
  - Training Webinars (2)
- [YouTube playlist](#) for **22 available recordings**
- Generally the **3rd Wednesday of every month**, 3-4 PM ET
- [EPA Tools & Resources webpage](#)



# EPA Research State Support Stories

## How can states use these state support stories?

States can see examples of how EPA research and technical assistance have supported states over the years. If a state has a similar environmental challenge, these stories can help them find out what EPA resources are available to assist them.

## What issues do these stories address?

- Water Quality
- PFAS
- Nutrients/Harmful Algal Blooms (HABs)
- Air Quality
- Chemicals
- Homeland Security
- Contaminated Sites
- Habitat
- Waste/Materials Management
- Community Resources

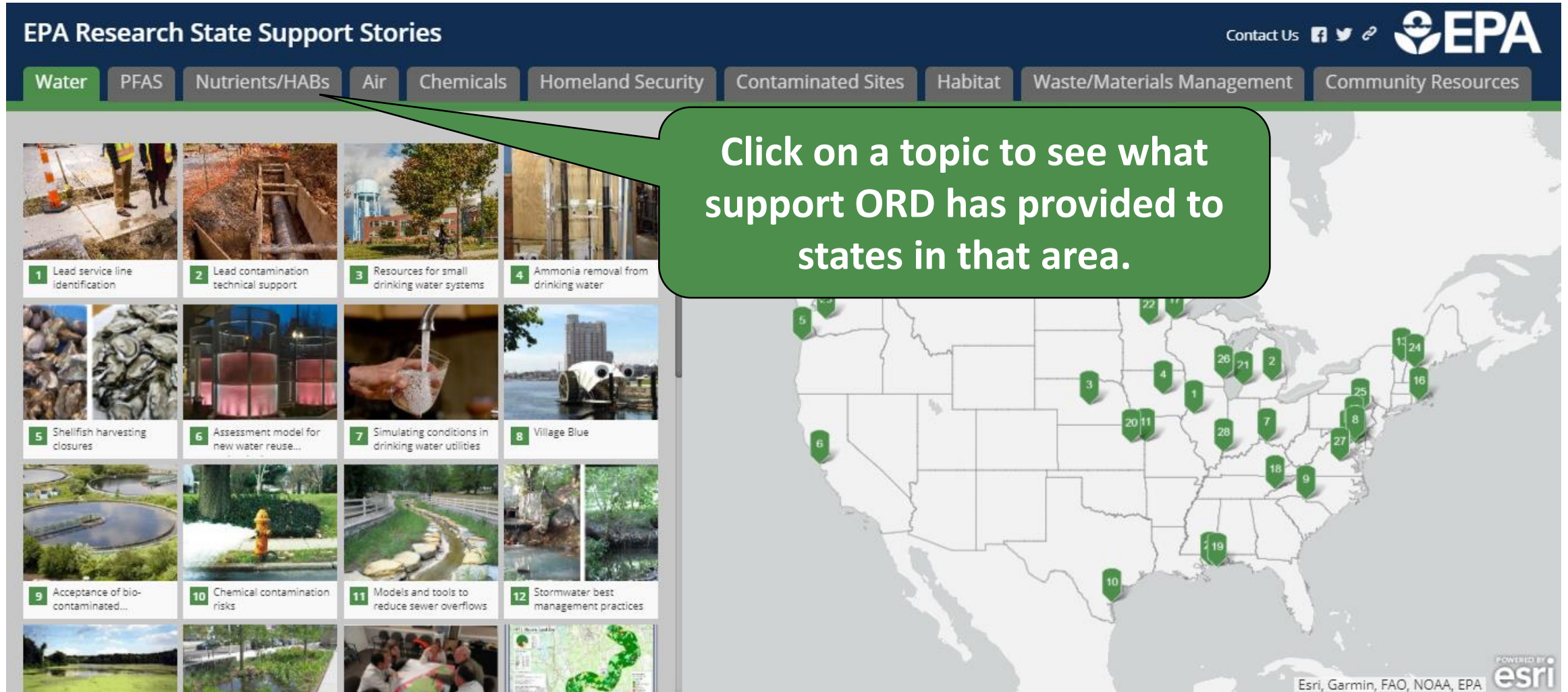


[Access the EPA Research State Support Stories.](#)





[YouTube video explaining how EPA research support states.](#)

# EPA Research State Support Stories

*EPA Research State Support Stories are also available in an interactive story map.*



**EPA Research State Support Stories**

Contact Us    

**Water** PFAS Nutrients/HABs Air Chemicals Homeland Security Contaminated Sites Habitat Waste/Materials Management Community Resources

**1** Lead service line identification

**2** Lead contamination technical support

**3** Resources for small drinking water systems

**4** Ammonia removal from drinking water

**5** Shellfish harvesting closures

**6** Assessment model for new water reuse...

**7** Simulating conditions in drinking water utilities

**8** Village Blue


**9** Acceptance of bio-contaminated...

**10** Chemical contamination risks

**11** Models and tools to reduce sewer overflows

**12** Stormwater best management practices

Click on a topic to see what support ORD has provided to states in that area.

POWERED BY  
Esri, Garmin, FAO, NOAA, EPA 



# EPA Research State Support Stories

*EPA Research State Support Stories are also available in an interactive story map.*



The screenshot shows the EPA Research State Support Stories interactive story map interface. At the top, there is a dark blue header with the EPA logo and the text "EPA Research State Support Stories". To the right of the header are links for "Contact Us" and social media icons for Facebook, Twitter, and LinkedIn. Below the header is a navigation bar with tabs for "Water", "PFAS", "Nutrients/HABs", "Air", "Chemicals", "Homeland Security", "Contaminated Sites", "Habitat", and "Waste/Materials Management". The "Nutrients/HABs" tab is currently selected. The main content area features a grid of nine story cards, each with a thumbnail image and a title. A green speech bubble points to the first card, which is titled "1 Satellite derived measures of...". To the right of the grid is a map of the United States with green numbered markers (1-11) indicating the location of each story. A green callout box with white text says "Click on an image to read the full story!".

**EPA Research State Support Stories**

Contact Us    

Water PFAS **Nutrients/HABs** Air Chemicals Homeland Security Contaminated Sites Habitat Waste/Materials Management

1 Satellite derived measures of...  
2 Managing algal toxins  
3 Managing excessive nutrient runoff causing  
4 Harmful algal bloom limiting drinking water  
5 Development of numeric nutrient criteria  
6  
7 Identifying sources of nitrogen pollution  
8 Managing nutrients in riparian ecosystems  
9 Atmospheric deposition of nitrogen

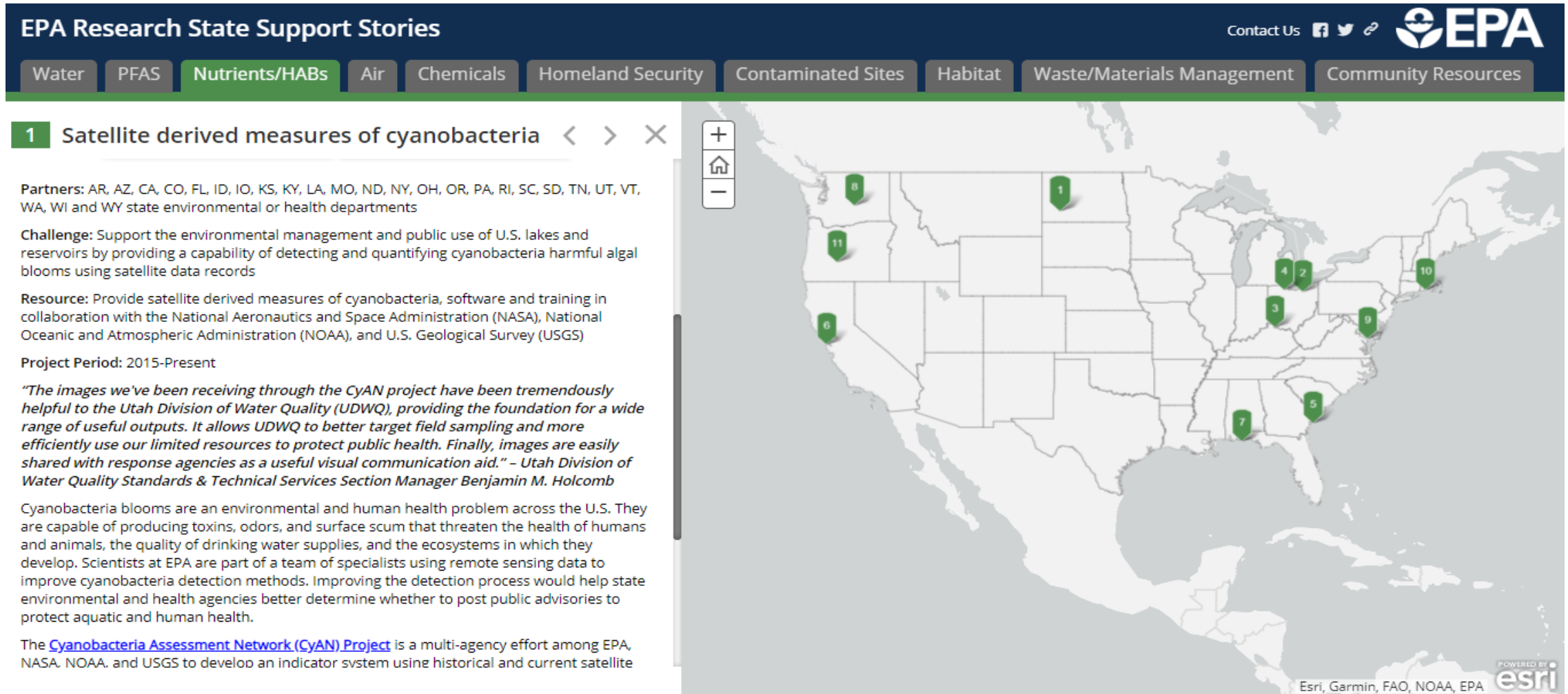
11 8 1 4 2 3 9 7 5 10

**Click on an image to read the full story!**







# EPA Research State Support Stories

*EPA Research State Support Stories are also available in an interactive story map.*



**EPA Research State Support Stories**

Contact Us    

Water PFAS **Nutrients/HABs** Air Chemicals Homeland Security Contaminated Sites Habitat Waste/Materials Management Community Resources

**1** Satellite derived measures of cyanobacteria < > X

**Partners:** AR, AZ, CA, CO, FL, ID, IO, KS, KY, LA, MO, ND, NY, OH, OR, PA, RI, SC, SD, TN, UT, VT, WA, WI and WY state environmental or health departments

**Challenge:** Support the environmental management and public use of U.S. lakes and reservoirs by providing a capability of detecting and quantifying cyanobacteria harmful algal blooms using satellite data records


**Resource:** Provide satellite derived measures of cyanobacteria, software and training in collaboration with the National Aeronautics and Space Administration (NASA), National Oceanic and Atmospheric Administration (NOAA), and U.S. Geological Survey (USGS)

**Project Period:** 2015-Present

*“The images we’ve been receiving through the CyAN project have been tremendously helpful to the Utah Division of Water Quality (UDWQ), providing the foundation for a wide range of useful outputs. It allows UDWQ to better target field sampling and more efficiently use our limited resources to protect public health. Finally, images are easily shared with response agencies as a useful visual communication aid.” – Utah Division of Water Quality Standards & Technical Services Section Manager Benjamin M. Holcomb*

Cyanobacteria blooms are an environmental and human health problem across the U.S. They are capable of producing toxins, odors, and surface scum that threaten the health of humans and animals, the quality of drinking water supplies, and the ecosystems in which they develop. Scientists at EPA are part of a team of specialists using remote sensing data to improve cyanobacteria detection methods. Improving the detection process would help state environmental and health agencies better determine whether to post public advisories to protect aquatic and human health.

The [Cyanobacteria Assessment Network \(CyAN\) Project](#) is a multi-agency effort among EPA, NASA, NOAA, and USGS to develop an indicator system using historical and current satellite

POWERED BY   
Esri, Garmin, FAO, NOAA, EPA

[Access the EPA Research State Support Stories.](#)

# EPA's Research Website and Science Inventory

*EPA puts a wealth of science and engineering resources at your fingertips*

**EPA's Research website** ([www.epa.gov/research](http://www.epa.gov/research)) provides curated, topic-based web pages to guide you to our most current and active research

**EPA's Science Inventory** ([www.epa.gov/science](http://www.epa.gov/science)) provides a searchable catalog of all EPA's published research

➤ Watch our [YouTube video about EPA's Science Inventory](#).



# *Collaborative Projects with State Environmental Health Experts*

# EPA ORD-ECOS-ASTHO Memorandum of Agreement

**GOAL:** Work with state environment and health leaders to *advance our shared mission* of protecting the public's health from environmental threats and advancing health and environmental equity for all citizens.

## Example Projects

- 2019 Update to the [Wildfire Smoke Guide for Public Health Officials](#)
- Case studies on state-level communication of PFAS and HABs
- PFAS Risk Communication Hub – a set of helpful tools, materials and strategies for PFAS risk communication:
  - Available on ECOS webpage
  - Available on ASTHO webpage



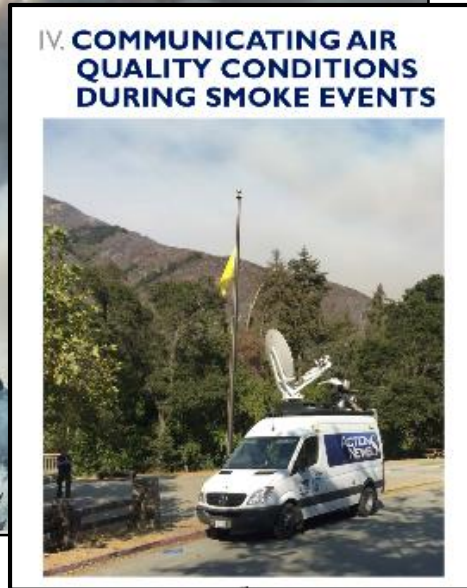
# Background for Wildfire Smoke Guide

- Early versions of guide published in 2002 and 2008 by California Department of Public Health and Office of Environmental Health Hazard Assessment
- Partners included: California Department of Public Health/Office of Environmental Health Hazard Assessment/Air Resources Board, Washington State Department of Health and EPA
- States were interested in additional information about:
  - *Whose health is most affected by wildfire smoke?*
  - *How to reduce exposure to smoke?*
  - *What public health actions are recommended?*
  - *How to best communicate air quality to the public?*
- **EPA ORD partnered with ASTHO and ECOS to review and provide comments to 2016 and 2019 revisions of the Wildfire Smoke Guide**
- EPA also partnered with Association of Air Pollution Control Agencies, National Association of Clean Air Agencies, and Tribal Air Association for review and comment on those revisions



In 2018, smoke from the Camp Fire caused weeks of poor air quality in the San Francisco Bay area

# Wildfire Smoke: A Guide for Public Health Officials



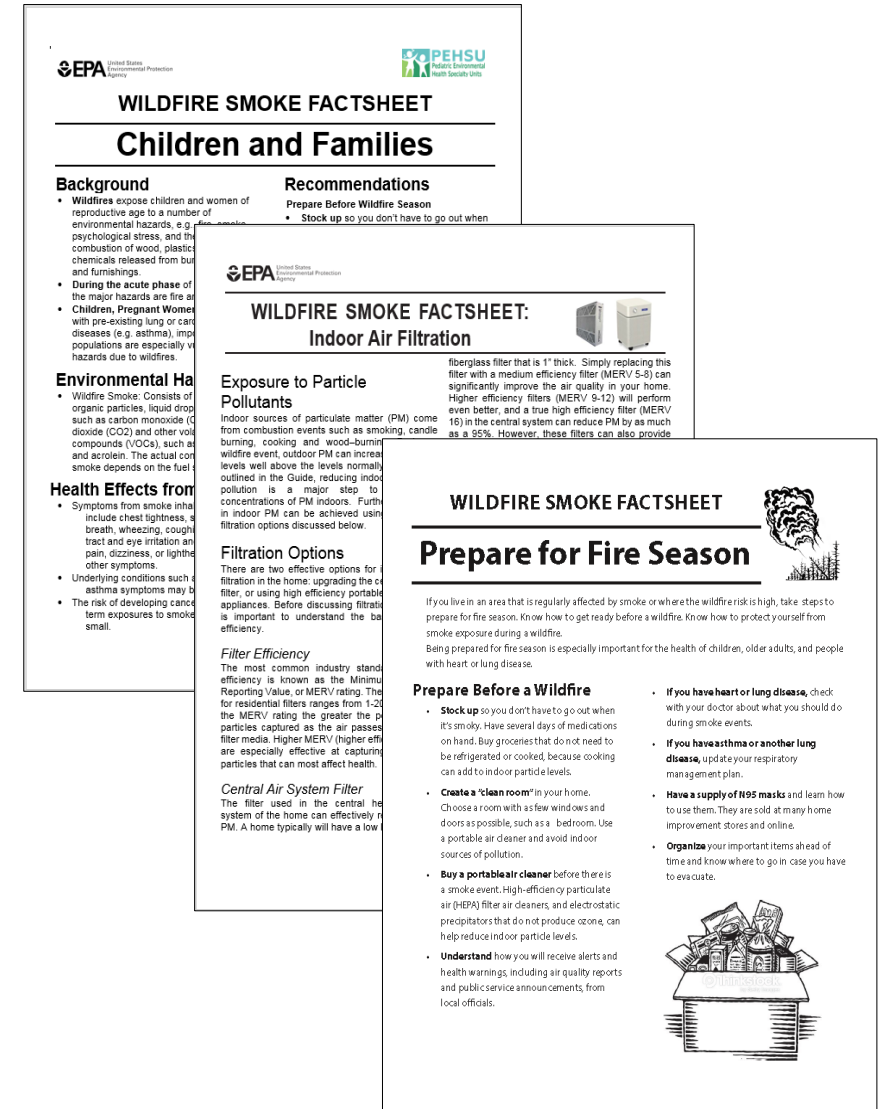
- **Updated Guide published in August 2019**
- **Purpose:** To provide guidance to help communities prepare, respond and recover from wildfires and to provide resources to educate the public about actions they can take to protect their health from smoke and ash.
- **New in 2019 version:**
  - This revision is updated with respect to:
    - Preparedness
    - Exposure reduction strategies
    - Ash cleanup

[Access the 2019 Wildfire Smoke: A Guide for Public Health Officials.](#)

# Wildfire Smoke: A Guide for Public Health Officials

## Stand-alone fact sheets

- Prepare for Fire Season
- Indoor Air Filtration
- Reduce Your Smoke Exposure
- Protect Your Lungs from Wildfire Smoke or Ash
- Protecting Children from Wildfire Smoke and Ash
- Protect Your Pets from Wildfire Smoke
- Protect Your Large Animals and Livestock from Wildfire Smoke
- Protect Yourself From Ash



**WILDFIRE SMOKE FACTSHEET**  
**Children and Families**

**Background**

- Wildfire expose children and women of reproductive age to a number of environmental hazards, e.g. psychological stress, and the combustion of wood, plastic, chemicals released from buildings and furnishings.
- During the acute phase of the major hazards are fire and smoke.
- Children, Pregnant Women with pre-existing lung or cardiac diseases (e.g. asthma), immunocompromised, and other vulnerable populations are especially vulnerable to these hazards due to wildfires.

**Recommendations**

**Prepare Before Wildfire Season**

- Stock up so you don't have to go out when it's smoky.

**Environmental Hazards**

- Wildfire Smoke: Consists of organic particles, liquid droplets such as carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>) and other volatile organic compounds (VOCs), such as benzene and acrolein. The actual composition of wildfire smoke depends on the fuel source, weather conditions, and the intensity of the fire.

**Health Effects from Wildfire Smoke**

- Symptoms from smoke inhalation include chest tightness, cough, throat and eye irritation and pain, dizziness, or lightheadedness.
- Underlying conditions such as asthma symptoms may be worsened.
- The risk of developing cancer from long-term exposures to smoke is small.

**Exposure to Particulate Matter (PM) and Other Air Pollutants**

Indoor sources of particulate matter (PM) come from combustion events such as smoking, candle burning, cooking and wood-burning. During a wildfire event, outdoor PM can increase levels well above the levels normally outlined in the Guide, reducing indoor air quality. Reducing indoor PM is a major step to reduce exposure to PM indoors. Further reduction in indoor PM can be achieved using filtration options discussed below.

**Filtration Options**

There are two effective options for reducing PM in the home: upgrading the central air system, or using high efficiency portable air cleaners. Before discussing filtration options, it is important to understand the basic concepts of filtration efficiency.

**Filter Efficiency**

The most common industry standard for filter efficiency is known as the Minimum Reporting Value, or MERV rating. The MERV rating ranges from 1-20. The higher the MERV rating, the greater the number of particles captured as the air passes through the filter media. Higher MERV (higher efficiency) filters are especially effective at capturing small particles that can most affect health.

**Central Air System Filter**

The filter used in the central air conditioning system of the home can effectively reduce PM. A home typically will have a low efficiency filter that is 1" thick. Simply replacing this filter with a medium efficiency filter (MERV 5-8) can significantly improve the air quality in your home. Higher efficiency filters (MERV 9-12) will perform even better, and a true high efficiency filter (MERV 16) in the central system can reduce PM by as much as 95%. However, these filters can also provide

**WILDFIRE SMOKE FACTSHEET**  
**Indoor Air Filtration**


**Prepare Before a Wildfire**

- Stock up so you don't have to go out when it's smoky. Have several days of medications on hand. Buy groceries that do not need to be refrigerated or cooked, because cooking can add to indoor particle levels.
- Create a "clean room" in your home. Choose a room with a few windows and doors as possible, such as a bedroom. Use a portable air cleaner and avoid indoor sources of pollution.
- Buy a portable air cleaner before there is a smoke event. High-efficiency particulate air (HEPA) filter air cleaners, and electrostatic precipitators that do not produce ozone, can help reduce indoor particle levels.
- Understand how you will receive alerts and health warnings, including air quality reports and public service announcements, from local officials.

**WILDFIRE SMOKE FACTSHEET**  
**Prepare for Fire Season**

If you live in an area that is regularly affected by smoke or where the wildfire risk is high, take steps to prepare for fire season. Know how to get ready before a wildfire. Know how to protect yourself from smoke exposure during a wildfire. Being prepared for fire season is especially important for the health of children, older adults, and people with heart or lung disease.

- If you have heart or lung disease, check with your doctor about what you should do during smoke events.
- If you have asthma or another lung disease, update your respiratory management plan.
- Have a supply of N95 masks and learn how to use them. They are sold at many home improvement stores and online.
- Organize your important items ahead of time and know where to go in case you have to evacuate.



# Wildfire Smoke Guide State Examples

## North Carolina

- In 2016, NC experienced significant amounts of smoke.
- The NC Public Health Preparedness and Response program staff used the Wildfire Smoke Guide for protecting communities across the state.

## California

- During the 2017 wildfire season, the CA Dept of Public Health and CA Air Resources Board collaborated with EPA to use the Wildfire Smoke Guide and developed infographics to help prepare and respond to wildfires.
  - These infographics were adapted from photos and language used in the Guide.

[Access the 2019 Wildfire Smoke: A Guide for Public Health Officials.](#)



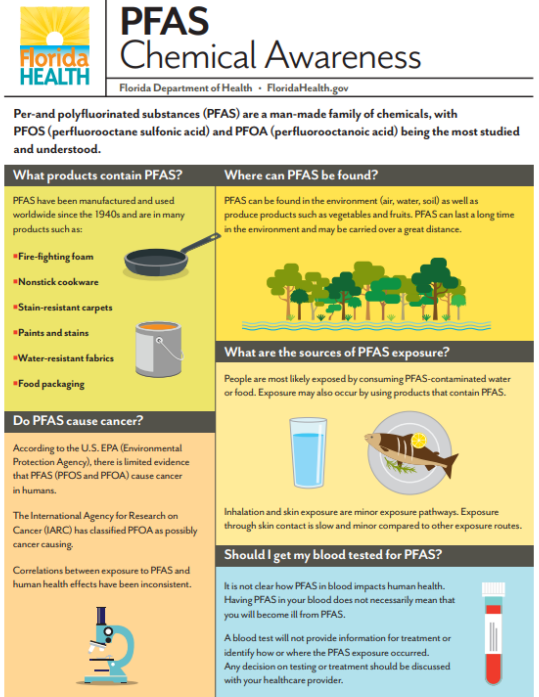
# Background for Case Studies on State-Level Risk Communication of PFAS and HABs

- 2016 EPA Drinking Water Health Advisories for two PFAS compounds - Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS).
- States were interested in additional guidance on risk communication, including information on how other states approached PFAS and HABs risk communication challenges.
- EPA ORD worked with ASTHO and ECOS to conceptualize a risk communication case study project focused on two waterborne contaminants—PFAS and HABs.



# Case Studies on State-Level Risk Communication of PFAS and HABs

- ASTHO and ECOS interviewed health and environmental agency staff from 13 states on their **risk communication strategies and lessons learned** for PFAS contamination or HABs.
- Results were compiled into brief **case studies** that outline the states' overall efforts, risk communication efforts, relevant resources, key messages for the public, and challenges in the states' programs or communications.
- **Webinars** in summer 2018 provided key findings and offered potential considerations to others seeking to implement or improve their risk communication practices.



**Florida HEALTH**  
PFAS  
Chemical Awareness  
Florida Department of Health • FloridaHealth.gov

Per- and polyfluorinated substances (PFAS) are a man-made family of chemicals, with PFOS (perfluorooctane sulfonic acid) and PFOA (perfluorooctanoic acid) being the most studied and understood.

<b>What products contain PFAS?</b> PFAS have been manufactured and used worldwide since the 1940s and are in many products such as: <ul style="list-style-type: none"><li>• Fire-fighting foam</li><li>• Nonstick cookware</li><li>• Stain-resistant carpets</li><li>• Paints and stains</li><li>• Water-resistant fabrics</li><li>• Food packaging</li></ul>	<b>Where can PFAS be found?</b> PFAS can be found in the environment (air, water, soil) as well as produce products such as vegetables and fruits. PFAS can last a long time in the environment and may be carried over a great distance.
<b>Do PFAS cause cancer?</b> According to the U.S. EPA (Environmental Protection Agency), there is limited evidence that PFAS (PFOS and PFOA) cause cancer in humans. The International Agency for Research on Cancer (IARC) has classified PFOA as possibly cancer causing. Correlations between exposure to PFAS and human health effects have been inconsistent.	<b>What are the sources of PFAS exposure?</b> People are most likely exposed by consuming PFAS-contaminated water or food. Exposure may also occur by using products that contain PFAS. <b>Should I get my blood tested for PFAS?</b> It is not clear how PFAS in blood impacts human health. Having PFAS in your blood does not necessarily mean that you will become ill from PFAS. A blood test will not provide information for treatment or identify how or where the PFAS exposure occurred. Any decision on testing or treatment should be discussed with your healthcare provider.

Source: Florida DOH

[Access the Case Studies on State-Level Communication of PFAS and HABs on ECOS' website.](#)

[Access the Risk Communication and Waterborne Contaminants on ASTHO's website.](#)

# State Case Studies

## PFAS Case Studies

### ECOS

- [Michigan Department of Environmental Quality](#)
- [New Hampshire Department of Environmental Services](#)
- [Pennsylvania Department of Environmental Protection](#)

### ASTHO

- [Colorado Department of Public Health and Environment](#)
- [Minnesota Department of Health](#)
- [New York State Department of Health](#)

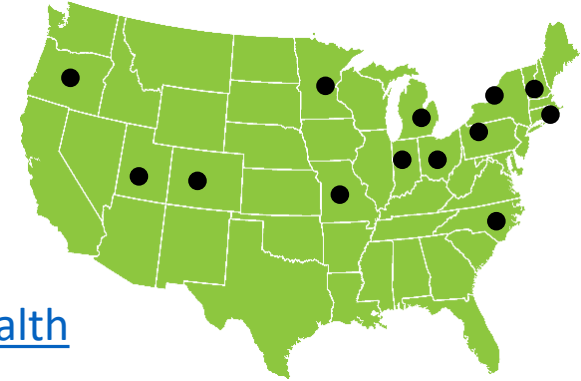
## HABs Case Studies

### ECOS

- [Missouri Department of Natural Resources/Missouri Department of Health and Senior Services](#)
- [North Carolina Department of Environmental Quality](#)
- [Ohio Environmental Protection Agency](#)
- [Utah Department of Environmental Quality](#)

### ASTHO

- [Indiana State Department of Health](#)
- [Oregon Health Authority](#)
- [Vermont Department of Health](#)



# Example: PFAS Risk Communication in Michigan

- **Communication to the Public**

- Weekly communications through all outlets (email, web, conference calls, town meetings, and briefings).
- A [website](#) where the public can find out more information about PFAS contamination and the efforts to mitigate it.
- Open, honest and personalized communications so residents are comforted, confident and understand the state of Michigan's vested interest.
- Send staff to homes in affected communities to answer questions and prevent the public from drinking unhealthy water.
- Pre-meeting planning in conjunction with the military, DHHS, local cities, townships and other departments.
- Involvement of local district staff. Local officials are usually more trusted and equally as vital to successful communication.

- **Gaps and Challenges**

- Use caution in social media. Social media can make controlling the flow of credible information difficult and cause public panic.
- Do not use a website as the main communication tool – work with district staff to share information with the public.
- Be cautious in the use of health advisories. Do not set a “safe” level of PFAS in drinking water and then be forced to change that value as research evolves.
- Educate the public on what PFAS is. Residents often don't understand differences between acute and chronic exposure.
- Strive to overdeliver. Citizens now have a higher expectation of coordinating entities, increasing the need to keep the public aware of issues in their communities.

# Example: HABs Risk Communication in Utah

- **Rollout and Dissemination of Advisory and Relevant Resources**

- Established timeframe of ~48 hours between sample collection and public messaging about contaminated waterbodies.
- Department of Environmental Quality (DEQ) sends sampling data to local health departments (LHDs) who then use joint DEQ-Department of Health (DOH) guidance to determine if the impact on the waterbody warrants an advisory.
  - LHDs have authority over issuing and lifting health advisories for HABs
- LHDs can request Utah Division of Emergency Management to coordinate with state agencies to disseminate information.
- DEQ posts and disseminates information about HAB advisories in press releases and their [website](#).

- **Gaps and Challenges**

- Multi-agency involvement is key, but collaboration only works if agencies identify roles prior to a contamination event.
  - Prearranged messaging ensures no agency is caught off guard when the HABs season arrives.
- Coordinated and succinct messaging is helpful for clarifying risk levels, especially to articulate to the public that their water is still safe to drink.
- Data collection is an arduous process but is critical for issuing advisories and communicating risks.
- Encouraging the media to use calm language and truthful reporting in order to avoid public panic.
- Improve mechanisms for disseminating necessary information on HABs to the public.

# Common Risk Communication Themes Across State Case Studies

- State health and environmental officials need clear, regular, honest language that *builds a level of trust* between state officials and affected communities.
- *Public education* is needed regarding the hodgepodge of quantitative values meant to convey acceptable levels of exposure to emerging contaminants.
- *Multi-agency coordination* is important.
- Be *consistent* and *comprehensive* when communicating with the public.



# PFAS Risk Communications Hub

- Using lessons learned from state case studies, ASTHO and ECOS developed a set of helpful tools, materials and strategies for PFAS risk communication.
- The PFAS Risk Communication Hub includes:
  - **Guidance materials for risk communication:**
    - Toolkits, fact sheets, templates, etc.
  - **Collection of state and federal resources:**
    - State case studies and state/federal PFAS websites
    - Resources in other languages
- The PFAS Risk Communications Hub can also be used to inform efforts on other chemicals of emerging concern.

[Access the PFAS Risk Communications Hub on ECOS' website.](#)

[Access the Risk Communication Models for PFAS on ASTHO's website.](#)

# Additional PFAS Resources for States

EPA researchers are working with our state partners to understand PFAS and reduce risks to the public.

- [Status of EPA Research and Development on PFAS](#) – This webpage contains information on EPA PFAS research and expected timelines for completion.
- [EPA PFAS Data and Tools](#) – EPA has compiled links to data and tools that include information on PFAS and are currently available on the agency’s website.
- [ITRC PFAS Technical and Regulatory Guidance Document](#) – The Interstate Technology & Regulatory Council (ITRC) has created a PFAS guidance document, fact sheets, and training videos.
  - [ITRC PFAS Guidance Document](#)
  - [ITRC PFAS Fact Sheets](#)
  - [ITRC PFAS Training Modules](#)



# Working Together Towards Solutions

EPA ORD, ECOS/ERIS and ASTHO are ***committed to continue to work together towards a healthier environment.***

- Our choices and decisions are impacted daily by facts, assertions and concerns surrounding public health.
- We can carry out our responsibilities in a more effective manner with greater understanding of, and connection to, our peers in environmental health.
- We will place emphasis on our work with state environmental health leaders and on identifying joint efforts that can benefit the public.

# New Collaborative Project: COVID-19 and Wastewater Detection

## *Can wastewater be used to monitor infection in our communities?*

**Challenge:** Early evidence suggests SARS-CoV-2 (strain of coronavirus that causes COVID-19) RNA levels in wastewater may be a leading indicator of rising community infections

**Approach:** EPA, ECOS and ASTHO will work together to develop high-level issue brief on wastewater surveillance to detect community spread of COVID-19. The issue brief will focus on the following:

- Introduction to methodology (with European case studies)
  - How it may be used to track medical and social interventions
  - Sample collection guidelines or best practices
- Areas of potential use in the U.S.
  - Trends in occurrence
  - Assessment of community infection
  - Risk communication and messaging for public
- Looking Ahead
  - Next steps including any planned pilot projects and identify research gaps

# Contacts

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The resources covered in the presentation can be accessed on the [EPA Research to Support States website](#).

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