

RECOMMENDATIONS REPORT

CONTAMINANTS OF EMERGING CONCERN WORKGROUP



Summary presented by Brandon Kernen, NH Department of Environmental Services
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ACWA – Association of Clean Water Administrators

- National, nonpartisan professional organization.
- Association members are the State, Interstate & Territorial officials who are responsible for the implementation of surface water protection programs throughout the nation.
- Serves as a liaison among members & facilitates their communication with the Federal government
- Promotes public education



ASDWA – Association of Safe Drinking Water Administrators

- ASDWA members are the drinking water program administrators in the 50 states, the five territories, the Navajo Nation, & the District of Columbia.
- Support states in their efforts to protect public health through the provision of safe drinking water.
- Collect & make information accessible to all state program administrators to assist them in fulfilling their duties.
- Encourage the exchange of experiences & information among state drinking water programs.
- Promote responsible & feasible drinking water program requirements at the state & Federal levels.
- Provide advice, counsel, & expertise to organizations & entities having an interest in drinking water, including Congress, U.S. EPA, & other Federal, state, & local organizations.



Contaminants of Emerging Concern Workgroup Roster

Name	Organization
Brandon Kernen	New Hampshire Department of Environmental Services
Claire Waggoner	California State Water Resources Control Board
Connie Brower	North Carolina Department of Environmental Quality
Eileen Hack	Indiana Department of Environmental Management
Jennifer Wigal	Oregon Department of Environmental Quality
Leslie McGeorge	New Jersey Department of Environmental Protection
Lisa Daniels	Pennsylvania Department of Environmental Protection
Rebecca Sadosky	North Carolina Drinking Water Protection
Roger Sokol	New York Division of NYS Department of Health
Ron Falco	Colorado Department of Health and Environment
Scott Stoner	New York State Department of Environmental Conservation
Todd Johnson	Minnesota Department of Health

Problem Statement

- States need to respond to the detection of contaminants of emerging concern (CEC) in water
- Recent trend is that states are taking the regulatory lead on CEC
- Often information on toxicity, occurrence or treatment options is lacking. This leaves states & citizens vulnerable to
 - Combination of mixed messages
 - Fear
 - Insufficient actions
 - Mistrust of methods being used to protect public & ecological health
- 40,000+ chemicals in use & more being developed everyday – this pattern will likely continue

Workgroup Approach

- Twelve members from state clean water & drinking water programs (50-50 split)
- Members were individually surveyed & interviewed
- In person meeting to formulate issues & potential recommendations.
- Workgroup members were assign action areas to develop written recommendations
- Several iterations of reviews & group discussions.

Emerging Contaminants of Concern Regulatory Framework

Four Phases



1) Introductory Screening – Prevent entry of harmful substances into the water cycle



2) Monitoring Impact Surveillance – Identify & quantify CEC in drinking water, groundwater, surface water, sediment & fish tissue



3) Formal Risk Assessment Process Initiated – Understand exposure routes & establish aquatic & human health toxicity benchmarks. This phase also encompasses validation & approval of analytical methods



4) Formal Risk Management – Regulatory or voluntary actions to limit CEC exposure

Workgroup Developed Recommendations Across Five Action Areas

1. Establish a National Priority Framework & Research Agenda for Priority Setting
2. Engage Industry to Develop & Improve Access to Comprehensive Chemical Data
3. Increase Coordinated Monitoring Across Water Resource Management Programs
4. Expedite Risk Assessment & Response
5. Improve Risk Communication

Action Area 1 - Establish a National Priority Framework & Research Agenda for Priority Setting

- Improve Federal & State Collaboration Through Existing Vehicles
 - Federal-State Toxicology & Risk Analysis Committee (FSTRAC)
 - Water Quality Standards Managers Association (WQSMA)
- Develop an Evaluation Framework to Organize the Characterization of CEC

• Uses	• Sources	• Fate & Transport	• Persistence
• Treatability	• Occurrence	• Bioaccumulation	• Aquatic Life Toxicity
• Breakdown products	• Analytical methods	• Human Health Toxicity	

- Develop Rapid & Predictive Screening Methods & Tests

Action Area 2: Engage Industry to Develop & Improve Access to Comprehensive Chemical Data

- 1) Determine if recent amendments to TSCA regarding chemical safety/CBI provide adequate access to states & other entities working for states.
 - Health standards are developed when there is substantial information
 - A lack of chemical safety info. means little is done to limit exposure

2) Initiate collaboration between state water managers & industry.

- Estimating risk
- Lab standards
- Understanding chemistry/breakdown products
- CBI
- Treatment
- Analytical methods

Action Area 2: Engage Industry to Develop & Improve Access to Comprehensive Chemical Data (continued)

3) Increase manufacturer responsibility & information sharing

- Life cycle risk analysis for chemicals & associated breakdown products
- Provide lab standards & analytical methods
- Require corporate officers & product managers to annually provide signed statements about new info on toxicity to human or ecological health
- Require manufacturers to fund surveillance monitoring programs for new chemicals that are toxic & may reach the environment.
- Expand the list of chemicals subject to USEPA's Toxic Release Inventory

Action Area 3: Increase Coordinated Monitoring Across Water Resource Management Programs

1) Enhance & link numerous federal water quality databases to comprehensively evaluate CEC

- USGS Datasets
- Non-government data sets
- State data sets
- Safe Drinking Water Information Systems
- Integrated Compliance Information System
- Water Quality Portal

2) Develop process to elevate CEC and/or a group of CEC through the CEC regulatory framework (from initially screening to formally managing risk)

Action Area 4: Expedite Risk Assessment & Response

- Improve state coordination in developing toxicity values & health advisories if the in cases the federal government is not.
- USEPA should engage states during the development process of health advisories & guidance for public water systems – following the approach recently used for Cyanotoxins.
- USEPA should coordinate with ACWA to routinely survey the states to determine which priority CEC require ambient water quality criteria & assist states in developing water quality standards.

Action Area 5: Improve Risk Communication

- 1) Develop a risk communication guidance document for the following scenarios:
 - A chemical is present but there is limited data to describe risk
 - There is a health advisory for a chemical but no guidance on how to respond.
 - States & federal agencies have developed different regulatory values.
- 2) Ensure federal agencies collaborate, support, align & understand the different health & ecological impact numbers they issue for the same chemical (HAs, MRLs, RSL, EMEG, Clean-up Levels Reference Levels)

With No Federal Standards-Each State is Doing Something Different

State PFAS Policies & Practice - Variables

- Guidance/Notification/Standards
- Addressed Separately or Additively
- Waste Site Clean-up/Drinking Water/MCL
- Relative Source Contribution
- Health Studies Relying Upon
- Susceptible Population vs. Adult
- Drinking Water Programs/Waste Site Programs/Both
- Response – “Do Not Drink” vs Notification
- Integrate Sampling & Enforcement Into All Programs/Sites or Only Sometimes
- Number of PFAS Addressed
- Analytical Methods
- Health End Points
- Uncertainty Factors
- Amount of Water Consumed
- Weight of Individual
- Legal authority/No legal authority to regulate
- Consider Health Only or Costs/Health/Technical Feasibility
- Standard Making Process (Agency Only/Governor/ Legislature/Other)

Measures that Need to be Taken to Improve the Regulatory Environment Associated with the Five Action Areas

1) Expand resources to increase the rate of evaluating & responding to CEC

- Increase funding to federal programs reviewing chemical safety & developing risk assessments/standards
- Identify non-federal sources of funding for states to complete this work

2) Federal CEC Response - Strengthen the CEC Response

- Establish an independent body to oversee federal efforts to assess & derive risk management responses to CEC
- Federal facilities should recognize state standards