



**Governor Lamont's Interagency
PFAS Task Force
Human Health Committee
Meeting Minutes
August 16, 2019**



This document represent the observations of the note takers. Please refer to the recorded session on CT-N and the CT PFAS Task Force Human Health Committee web page for additional details. A complete recording of the first Human Health committee meeting may be viewed at: <http://www.ctn.state.ct.us/ctnplayer.asp?odID=16619>

WELCOME and INTRODUCTIONS

Co-Chairs: Lori Mathieu, Public Health Section Chief, Department of Public Health Drinking Water Section and Brian Toal, Interim Public Health Section Chief, Department of Public Health, Environmental Health Section welcomed all attendees. The Chairs expressed a desire to listen to all attendees and asked for their best advice on six topics of discussion.

Attendance: Please see the sign in sheets attached to the meeting minutes. Affiliations of those offering comments are noted the first time they speak.

Topic 1: Need for Testing/Monitoring Potential Sources of Human Exposure including drinking water (public and private), bottled water, fish, shellfish, agricultural products and consumer products

The following attendees offered comments and/or clarification on this topic: John Herlihy, Aquarion Water Company/CT Water Works Association (CWWA); Brent Henebry, Fuss and O'Neill; Raymond Frigon, CT Department of Energy and Environmental Protection (CT DEEP); Cheryl Fields, CT Department of Public Health (CT DPH); Eric Weiner, Windsor Climate Action; Vasilis Vasilliou, Yale School of Public Health; Sara Nason, CT Agriculture Experiment Station (CAES); Chris Perkins, University of Connecticut (UCONN); Bonnie Potocki, Weston Solutions; Meg Harvey, CT DPH

- The general consensus of the group was that testing of all potential human exposure sources was an important task to identify major pathways.
- Biomonitoring was identified as a possible method for identifying the extent of exposure and possible geographic concentrations of PFAS exposure
- Laboratory capacity at Yale, UCONN, CT Agriculture Experiment Station was a subject of discussion. All laboratories are developing capacity to test for PFAS in different media and have offered to provide additional information of what their capabilities are. **Attached to these notes is a summary of the capabilities of the CT Agriculture Experiment Station.**
- A majority of the discussion focused on drinking water and blood monitoring
- Testing of consumer products was not a focus of the discussion.
- **This topic received the most votes in the post-meeting poll.**

Topic 2: Consider the Need for Standards or Advisories for drinking water (public and private), bottled water, surface water, biosolids, air emissions, and consumer products

The following attendees offered comments and/or clarification on this topic: Ray Baral, Metropolitan District Commission; Karen Goldenberg, Louriero Engineering; Rich Desrosiers, GZA; Kuper Jones, American Chemistry Council; Mike Elliott, Norwalk First District Water; Yawei Zhang, Yale University; Eric Weiner, Brent Henebry, Sara Nason, Chris Perkins, Bonnie Potocki, Anne Hulick, Clean Water Action; Vasilis Vasiliou

- A majority of the discussion focused on whether and how to establish standards for public drinking water.
 - Water systems need clarity for what is considered safe so it can be communicated to their customers.
 - Standards need to be based upon science
- CT should be mindful of what other states and the US Environmental Protection Agency are doing
- Suggestions that PFAS be regulated individually, not as a family of chemicals
- Regarding establishment of standards from environmental exposure media (drinking water, etc.): Bio-monitoring was mentioned again as a means to assist in establishing said standards. When collecting samples from the media itself (water, food, air, etc.) it is important to also identify which populations are effected and at what levels, such that it becomes possible to narrow down which environmental pathways are more likely contributing to exposure
- Air deposition was identified as a potential concern with drinking water-potential for standards
- Would drinking water standards apply to irrigation water? DEEP has irrigation well location information through the Water Diversion Registrations.
- Standards for surface water, biosolids and air emissions are also a topic of discussion in the Remediation and Pollution Prevention
- There is a need for standardized methods to analyze for PFAS in different media (beyond drinking water) prior to setting standards
- PFAS in consumer products: Seeking more information prior to making a determination. Clean Water Action will share studies on take out containers, food packaging and food service items
- **CT DPH Drinking Water Action Level for PFAS is currently under review**
- **This topic received the third highest votes in the post-meeting poll**

Topic 3: Technical Assistance and Health Education for Stakeholders such as for private well owners, local health, drinking water systems, etc.

The following attendees offered comments and/or clarification on this topic: Deanna D'Amore, Norwalk Health Department; Eric Weiner, Ray Frigon, Vasilis Vasilliou, Anne Hulick, Rich Desrosiers, Kuper Jones, Betsey Gara, CWWA

- Partnerships are important in crafting a unified message: DPH, DEEP and Local Health together
- Much of the conversation of this topic focused on the shortcomings of public notice during the June 8, 2019 Farmington River AFFF spill, as well as suggestions for ways to better-inform the public when events take place
 - No information was pushed to the public initially, and many had to find information on their own.
 - Signage needed to be more illustrative
- The need for a private well database was stressed. Database would allow the state to more efficiently investigate potentially contaminated sources of water supply
- It was suggested that a broader and more efficient communication process is required to help disseminate information more quickly to the public.
- Easier to understand and easier to identify information and signage is very important to helping prevent environmental exposure to the public, however finding a balance between communication and unduly creating fear in the public is another challenge.

Topic 4: Identify Topics where Community Engagement and Health Education is Needed

The following attendees offered comments and/or clarification on this topic: Eric Weiner, Vasilis Vasiliou, Anne Hulick, Rich Desrosiers, Kuper Jones, Debbie Cornman, UCONN; Betsey Gara

- The public expresses concern about which consumer products contain contaminants, and at what levels. Exposure pathways are currently being identified and researched, and certain pathways are being ruled out due to their unlikelihood to contribute significantly to PFAS exposure (e.g. dermal exposure)
- Local health departments have been identified as solid resources for distributing information to the public efficiently; other members of society who may be good resources for distributing information include nursing associations and higher education institutions
- The use of peer-reviewed journals and the best available science was noted in reference to the distribution of information to the public (to help minimize consumer fears). Emphasis put on the distribution of documents which are science-based.
- A question was raised regarding whether there will be an opportunity for public comment on the Action Plan

Topic 5: PFAS Education, Outreach and Communication (Proactive Prevention)

The following attendees offered comments and/or clarification on this topic: Diane Lauricella, Eric Weiner, Kuper Jones, John Herlihy:

- Important to provide clear, understandable information to the public
- Periodic report from DPH and DEEP to notify the public of the status of the action plan

- Updates may provide the public with confidence that the regulatory agencies are actually working on something instead of maintaining the perception of mystique or the perception that the agencies are doing nothing
- A common comment was that CT State Agencies should ensure that they are aware of what is happening in other states
- Education the public should understand a holistic approach to addressing exposure beyond just water
- **This topic received the second highest number of votes in the post-meeting poll.**

Topic 6: Identify PFAS research gaps in any of the areas discussed this afternoon.

The following attendees offered comments and/or clarification on this topic: Ryan Tetreault, CT DPH; Kristin DeRosia-Banick, CT Department of Agriculture; Vasilis Vasilliou, Chris Perkins, John Herlihy, Ray Baral, Diane Lauricella, Mayor's Water Quality Committee, Norwalk; Kristin Ryan, Kleinfelder; Maureen Westbrook, Connecticut Water Company:

- There no one good source to find locations of private wells. This is also an information gap highlighted in the State Water Plan
- Firefighter Exposures to PFAS
- Research into the relationship between exposure and blood levels
- Research into technology to destroy PFAS
- Study of new PFAS formulations before they are introduced to the market
- Data on background levels-cross cutting with the Remediation Committee
- Research on fate and transport of PFAS-Partners at Yale have funding from the Department of Defense to study this topic

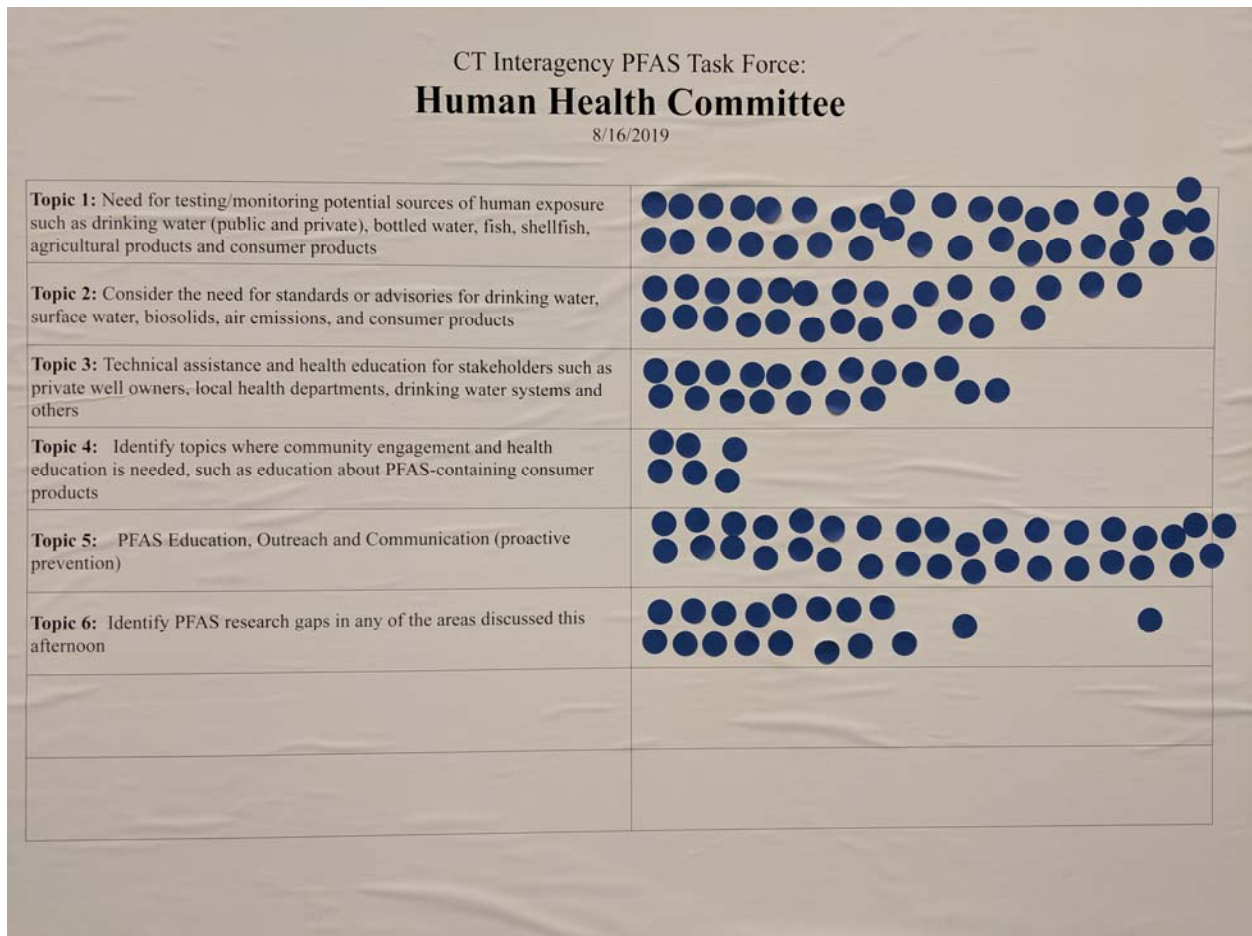
Ideas for further discussion

The following ideas were either not included in the official agenda and were mentioned throughout the meeting or on the agenda, but were not a substantive part of the conversation. These topics are itemized here for future discussion / further consideration:

- Biomonitoring
- Consumer product research, identification, alternatives
- Communication with State and University laboratories
- Communication, education, outreach to the public
- Distribution of science-based research documents, studies, journals
- Public comment period for the October 1, 2019 Action Plan
- Private well locational data
- Air emissions and their impact on surface water contaminant levels
- Action levels, MCLs, economic impacts associated with setting said standards
- Bottled water testing

Dot Polling Results:

- Topic 1:** 37 votes
- Topic 2:** 26 votes
- Topic 3:** 19 votes
- Topic 4:** 6 votes
- Topic 5:** 35 votes
- Topic 6:** 18 votes



**ATTACHMENT 1
SIGN IN SHEETS**

Human Health Committee

August 16, 2019 1:00-3:00 pm

Please Verify Your Information and Initial

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Human Health Committee

August 16, 2019 1:00-3:00 pm

PLEASE WRITE CLEARLY

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Sally Luederica
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ATTACHMENT 2
CT AGRICULTURAL EXPERIMENT
STATION PFAS ANALYTICAL
CAPABILITIES



The Connecticut Agricultural Experiment Station

123 HUNTINGTON STREET, P.O. BOX 1106, NEW HAVEN, CONNECTICUT 06504

*Putting Science to Work for Society
Protecting Agriculture, Public Health, and the Environment*

Founded 1875

1. Current CAES PFAS Analytical Capabilities

- Extraction, preparation, and analysis of soil samples for PFAS
 - Quantitation of 24 compounds, including those in EPA 537
 - Screening for additional PFAS
 - Limit of detection ~ 250 ppt
- Analysis of PFAS in clean water samples
 - Quantitation of 24 compounds, including those in EPA 537
 - Screening for additional PFAS
 - Limit of detection ~500 ppt
- Method development for PFAS analysis in additional solid and liquid matrices
- Note: **Methods at CAES utilize liquid chromatography - high resolution mass spectrometry and specialized software which is essential for screening for “unknown” PFAS compounds**
 - UConn, CESE, and DPH have instrumentation for targeted analysis (looking for “knowns”)
 - Thousands of PFAS analytes exist and can be found in environmental samples

2. Potential CAES PFAS Analytical Capabilities (possible with additional staff time and funding)

- Implementation of EPA 537 and 537.1 for analysis of low levels of PFAS in drinking water
 - ~100x reduction in limit of detection compared to current water analysis method
 - Accreditation of EPA 537 and 537.1
- Extraction, preparation, and analysis for PFAS in sediment, biosolids, wastewater, fish, plant, food, and consumer product samples for PFAS
- These potential methods are similar to ones already implemented and accredited at CAES and we have experience going through the accreditation process

3. Ongoing PFAS Research at CAES

- Investigating the interactions between PFASs and nanomaterials in food crops
- Investigate nanoceria to potentially inhibit PFAS accumulation in food
- Quantification of PFAS in soil and plants from Loring Air Force Base, ME
- Building an internal library for analysis of “unknown” PFAS

Phone: (203) 974-8500

Fax: (203) 974-8502

Toll Free: 1-(877) 855-2237

WWW.CT.GOV/CAES

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4. About the Connecticut Agricultural Experiment Station (<https://portal.ct.gov/caes>)

- Independent state agency- approximately 100 staff; 46 Ph.D. Scientists
- Hosts a combination of research, regulatory and outreach programs in Public Health, Agriculture, and the Environment
- Department of Analytical Chemistry:
 - Primary chemistry laboratory for:
 - CT Department of Consumer Protection (DCP)
 - CT Department of Energy and Environmental Protection (DEEP)
 - CT Department of Agriculture (DOAg)
 - Department head is the State Chemist.
 - Works directly with Department of Public Health (DPH), State Police ESU, FMI WMDD, local law enforcement, and cities/towns on samples as needed.
 - Participates in several federal programs
 - ISO/IEC 17025:2017 accredited for pesticides, heavy metals, and aflatoxins analysis in food and feed
 - Funded in FDA FERN cCAP (Chemical Terrorism) since 2005
 - State EPA FIFRA Laboratory