

CT Interagency PFAS Task Force

Pollution Prevention Committee
September 11, 2019
DEEP, Gina McCarthy Auditorium
1:30-3:30 pm

DEPARTMENT of PUBLIC HEALTH
DEPARTMENT of ENERGY AND ENVIRONMENTAL PROTECTION



CONNECTICUT DEPARTMENT of PUBLIC HEALTH



Agenda

- Welcome & Introductions
- Recap of August Meeting
- Presentations
- Discussion of Remaining Topics
- Discussion of Potential Actions
- Next Steps
- Public Comment

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Welcome & Introductions

Mission:
**Minimize future releases of PFAS
to the environment.**

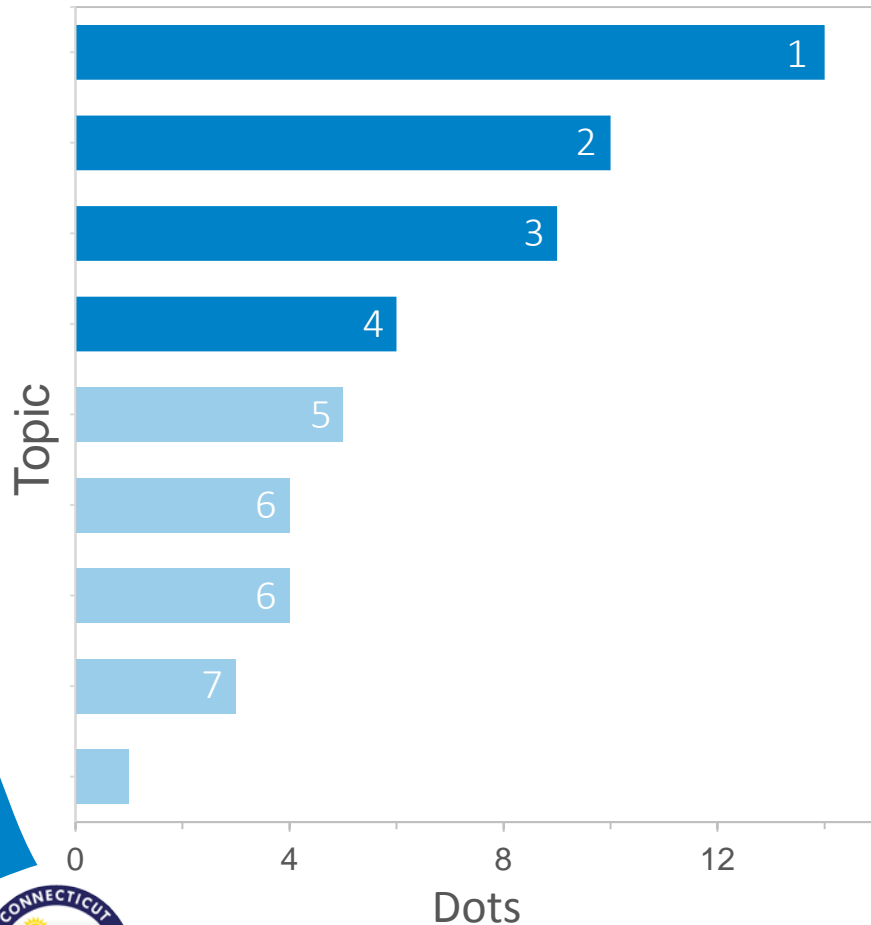
PFAS

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Dot Poll Results - August 15, 2019



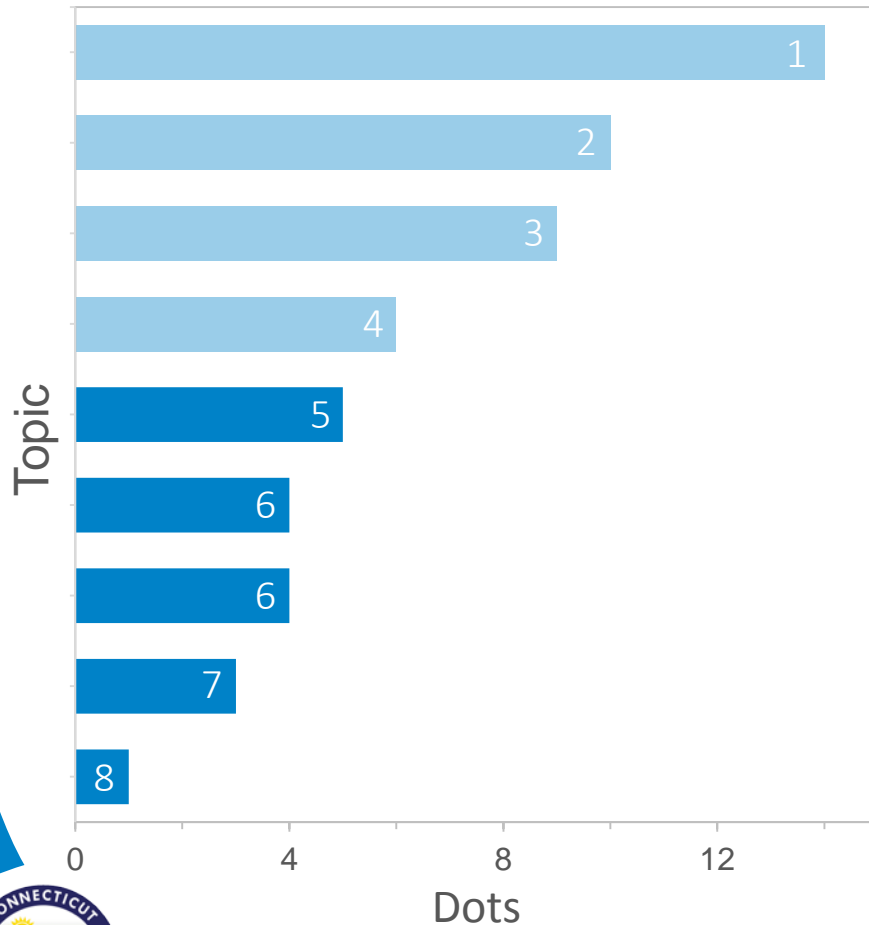
- ① Education, outreach, and communication [14 votes]
- ② PFAS in domestic and industrial wastewaters [10 votes]
- ③ Best management practices for handling and disposal of deployed AFFF and associated impacted media [9 votes]
- ④ Permitting of PFAS-containing wastewaters [6 votes]

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Dot Poll Results - August 15, 2019



- ⑤ Determine universe of potential PFAS sources (including but not limited to consumer products such as microwave popcorn bags, paper products, etc.) [5 votes]
- ⑥ Irrigation of agricultural land using surface waters potentially impacted by PFAS [4 votes]
- ⑥ Alternatives to AFFF [4 votes]
- ⑦ AFFF take-back program [3 votes]
- ⑧ Alternatives to PFAS [1 vote]

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Topics that were most important to you

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AFFF
Education/Outreach/
Communication

PFAS



Topics that need further discussion

Consumer products

Biosolids

PFAS discharges

Steps that Agencies can take to
reduce PFAS pollution

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Information Shared with the P2 Committee

- DESPP – Guidance on AFFF use, results of AFFF inventory, fluorine-free foam (F3) evaluation
 - Update
- CAA – New rescue vehicle training practices, initiatives on AFFF storage/containment and fluorine-free foam
- Military – DoD PFAS Task Force
- American Chemistry Council – PFAS content of consumer products

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Presentations

PFAS



How To Avoid PFAS in Your Food Service Ware

Sherill Baldwin

Wednesday, September 11, 2019





PFAs in Compost

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PFAs in Compost

Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that have been manufactured and used in a variety of industries around the globe since the 1940s, including as stain repellents in fabrics and grease barriers in food packaging. Good evidence has emerged that exposure to some PFAS can lead to adverse human health effects, and while the use of certain PFAS has been phased out, many are actively used and can still end up in our compost.

[SLIDES](#)

[RECORDING](#)



Cary Oshins
USCC



Rhodes Yepsen
BPI



Rooney Kim Lazcano
Purdue University



Ned Beecher
NEBRA

Composting Collaborative Webinar

"Teflon in My Compost: What are PFAS and Why Should You Care? An Introduction for Composters"

December 18, 2018



In this webinar, we will address:

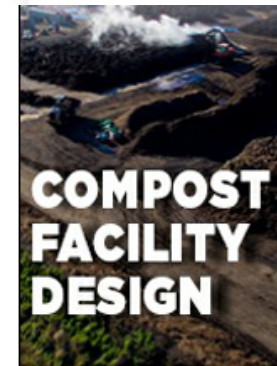
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Upcoming Events

» 9/9/2019 » 9/13/2019

Schools

Bill Banning Styrofoam Trays in Schools Passes State Senate

Under the bill, each school district is required to develop a plan for discontinuing the use of expanded polystyrene trays.

By Jack Kramer, Patch Staff
May 10, 2019 7:00 am ET



Christine Cohen on Senate floor (Supplied photo)

“Under the bill, **each school district is required to develop a plan for discontinuing the use of expanded polystyrene trays.** Each plan must require the district to discontinue the use of expanded polystyrene trays by July 1, 2021.

The state Senate's passage of this legislation comes as cities across the nation are banning this harmful material. Currently, 12 cities have expanded polystyrene bans. On May 1, Maine became the first state to ban food containers made of this non-biodegradable material.

Before passing the state Senate, SB 229 made it out of the Environment Committee by a 20-8 vote on March 18. **The bill now awaits action by the state House of Representatives** and if passed by the House, it will head to Governor Ned Lamont.”

The bill did not pass the House.





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Archived Municipal Recycling Coordinators E-News and Webinars

Monthly online newsletters began in 2017 in an effort to increase communication with municipal recycling coordinators and voluntary recycling and sustainability committees about important information and resources. Around the same time, DEEP began to recognize the need for more professional development as well as sharing of local programs and initiatives between towns. Initially webinars were not recorded, so there are no recordings. Where possible, audio recordings with audio transcripts are provided. Archived e-newsletters often are topical, and provide resources and information of interest to local municipalities.

[Past webinars and workshops](#) | [Archived E-Newsletters](#)

Past webinars/workshops

2019

- [How to Avoid PFAS in Food Service Ware](#)
August 28, 2019
Speakers: Sherill Baldwin, CT DEEP
Sue Chiang, Center for Environmental Health
Julie DesChamps, Greenwich Public Schools
- [What's Working, What's Not: Recycling Education, Promotion and Enforcement](#)
July 23, 2019
Speakers: Sherill Baldwin, CT DEEP
Mitch Goldblatt, Orange
Brian Bartram, Sharon/Salisbury
Alyson Finnegan, Essex
Howard Weissberg, Meriden
- [Expanding Community Composting in Connecticut](#)
May 23, 2019
Speakers: Sherill Baldwin, CT DEEP
Brenda Platt, Institute for Local Self-Reliance
Domingo Medina, Peels & Wheels Composting



Kids Try 100 Years of school Lunches

☰ YouTube

Search



Pickles were cheap,
but considered junk
food at the time.



<https://www.youtube.com/watch?v=C0dZajIWCUs>

Green LEAF Schools: Health & Environment in Schools

- What lunch is served on, is not part of any health, safety or environmental regulations in CT or US?
- CT's Smarter Lunchrooms program focus on behavior and structural change, but from perspective of nutrition only.

<https://portal.ct.gov/SDE/Nutrition/Smarter-Lunchrooms>



Trays and other Foodservice Ware

- Washable & Reusable
 - Ceramic, glass (incl. *Corelle*), stoneware, earthenware
 - Plastic, melamine, polypropylene
 - Metal
 - Bamboo
- Single-use
 - Paper/Fiber
 - *General*
 - *Compostable (PLA, sugarcane, wheat fiber, other ag wastes)*
 - *Other, such as bamboo, wood*
 - Plastic
 - *General*
 - *Expanded polystyrene (aka Styrofoam™)*
 - *Compostable (PLA)*





Center for Environmental Health's research found...

LIKELY to CONTAIN PFAS

- Molded fiber products that tested positive for fluorine, indicate the presence of PFAS
- Wheat fiber
- Blends of plant fibers
- Silver grass (miscanthus)
- Sugarcane byproduct (bagasse)
- Molded recycled paper
- PLA-lined molded sugarcane

UNLIKELY to CONTAIN PFAS

- Bamboo
- Clay-coated paper
- Paperboard
- Clear PLA (polyactic acid)
- Paper-lined with PLA
- Palm Leaf
- Paper with unknown coatings
- Uncoated paper

<https://www.ceh.org/wp-content/uploads/PFAS-in-Foodware-Infographic.pdf>



Recyclable vs. Acceptable

- Residential Mixed Recycling (Single Stream) Program
 - Does NOT accept paper, plastic, ceramic, glass or other type of plates, cups, stemware
 - Does NOT accept any type of utensils – plastic, wood, metal
 - Does NOT accept cloth or paper napkins
 - No expanded polystyrene products



“Compostable” vs. Acceptable

- While meat scraps are compostable, often home composting systems are advised to avoid adding meat and dairy
- While BPI certified compostable ware may be compostable, these products are not intended for home or small scale operations
- Businesses engaged in composting/anaerobic digestion have their own recipes and make their own management decisions

What is BPI Certification?



- North America’s leading certifier of compostable products and packaging. Ensures products and packaging displaying the BPI logo have been independently tested and verified – promoting the best practices for diversion and recovery of compostable materials through municipal and commercial composting.
- CT DEEP recommends, if accepting/composting food service ware, that it be BPI certified.
- BPI just recently started testing for PFAS – they will be able to confirm/validate their products do not contain PFAS by January 1, 2020.
 - Research has found that PFAS does travel and can contaminate compost. Highest levels of concern are from facilities that compost paper mill sludge and food service ware.

Permitted Volume Reduction Anaerobic Digestion and Food Waste Composting Facilities

These facilities hold an individual solid waste permit for the [Construction and Operation of a Solid Waste Facility](#).

Town	Facility Name	Capacity	Types of Materials and Recycling Process	Contact	Phone
BRIDGEPORT 255 Bostwick Ave.	Bridgeport Bioenergy Facility, LLC	900 TPD	Food Waste FOG (fats/oils/grease) Biosolids (sewage sludge) kept separate from food waste Anaerobic Digester (Not constructed to date)	Deo Phagoo Deo.Phagoo@anaergia.com	905-766-3333 ext. 242
ELLINGTON 235 Sadds Mill Rd.	Harvest New England (Thompson Farm Volume Reduction Plant)	43,500 TPY	Leaves, mixed yard waste, ground clean wood, food waste, paper mill sludge/fiber, drinking water treatment residuals, vegetable slurry, horse manure & stable bedding Outdoor Turned Windrow	Chris Field cfield@harvestpower.com	860-674-8855 ext. 104
NEW MILFORD 60 Boardman Rd.	New Milford Farms	151,865 TPY	Food processing waste, yard and wood waste, livestock manures and bedding, food from restaurant and meal preparation establishments, hydrolyzed plant protein from on-site landfill, compostable plastics & coatings meeting ASTM D6400 & ASTM D6868 and certified by BPI. Indoor Turned Windrow with Forced Aeration	Raphael Moura raphael.moura@garick.com	860-210-0250 (facility) or 216-337-8426 (cell)
NORTH HAVEN 250 Universal Drive	City Wide Energy Action, LLC	200 TPD	Food Waste FOG (fats/oils/grease) Anaerobic Digester (Not constructed to date)	Mark Lembo Mark.Lembo@gmail.com	631-271-9292
SOUTHINGTON 111 Spring St.	Turning Earth of Central CT, LLC	265 TPD	Food Waste Clean Wood, Leaves & Grass Clippings Anaerobic Digester (Not constructed to date)	Amy McCrae Kessler amy.kessler@turningearthllc.com	845-259-8400 ext. 2
SOUTHINGTON 49 DePaolo Dr.	Supreme Energy and Recycling	336 TPD	Food Waste, Food processing residue, liquid beverages, FOG (fats/oils/grease) Anaerobic Digester Operational as of December 2016	Mark Vigneault mvigneault@supremeindustries.com	860-485-0349

Small Scale Composting Facilities

These facilities are registered under the General Permit for the [Discharge of Stormwater Associated with Industrial Activity](#).

Town	Facility Name	Capacity	Types of Materials and Recycling Process	Contact	Phone
DANBURY 57 Great Plain Rd.	New England Compost, LLC	5,000 CY/YR	Horse manure & stable bedding (4,000 cy); commercial food waste (1,000 cy) Outdoor Turned Windrow	Jeff Demers jeff.demers@necompostct.com	203-748-6516 (office) 203-948-1497 (cell)

CT Food Waste Composting Facilities

https://www.ct.gov/deep/cwp/view.asp?a=2718&q=325376&deepNav_GID=1645



Invest in a dishwasher

- **Minnesota case study** – looked at replacing single-use/disposable flatware and expanded polystyrene bowls.
 - Purchased washable durable utensils and bowls
 - In first year, school saved approximately \$3000
 - The annual per student costs for food-ware dropped from \$6.89 to \$4.83
 - Reduced about 6000 lbs of on-site solid waste in first year
 - The study estimated a 44% reduction in life cycle greenhouse gasses and similar reductions in water withdrawals and air pollution emissions in first year
- Benefits of reusables increase the longer they are in use.

[The Cost and Environmental Benefits of Using Reusable Food Ware in Schools, a Minnesota case study](#), Minnesota Pollution Control Agency, October 2014



Resources

Center for Environmental Health

www.ceh.org

- Report: Avoiding Hidden Hazards: A Purchaser's Guide to Safer Foodware (2019)
- CEH Foodware Database
- Infographic
- Consumer Tip Sheet
- Webinar slides

<https://www.ceh.org/ceh-report-avoiding-hidden-hazards-purchasers-guide-safer-foodware/>

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Discussion of Remaining Topics and Potential Actions

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Consumer Products

- Food contact items
- Cleaners/waxes
- Others?

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Consumer Products

- **Potential actions**
 - Convene an ad hoc group to review the most current research and national actions regarding food packaging/consumer products.
 - Others?

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Agriculture and Biosolids

- **Biosolids**
 - Use in CT—biosolids imported from other states, commercially available products for homeowners
 - Disposal from wastewater treatment plants
- **Irrigation**

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Agriculture and Biosolids

- **Potential actions**
 - Monitor/conduct research on plant and animal uptake of PFAS
 - Gather more data on biosolids use to identify areas at risk to potential PFAS pollution
 - Others?

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Public Drinking Water Source Protection Measures

The 82 Public Water Systems that prepare Individual water supply plans are required to evaluate the land tributary to their sources of supply for uses are of **immediate concern to water quality**, or have a **significant potential to contaminate** a public drinking water supply, as determined by a public water system.

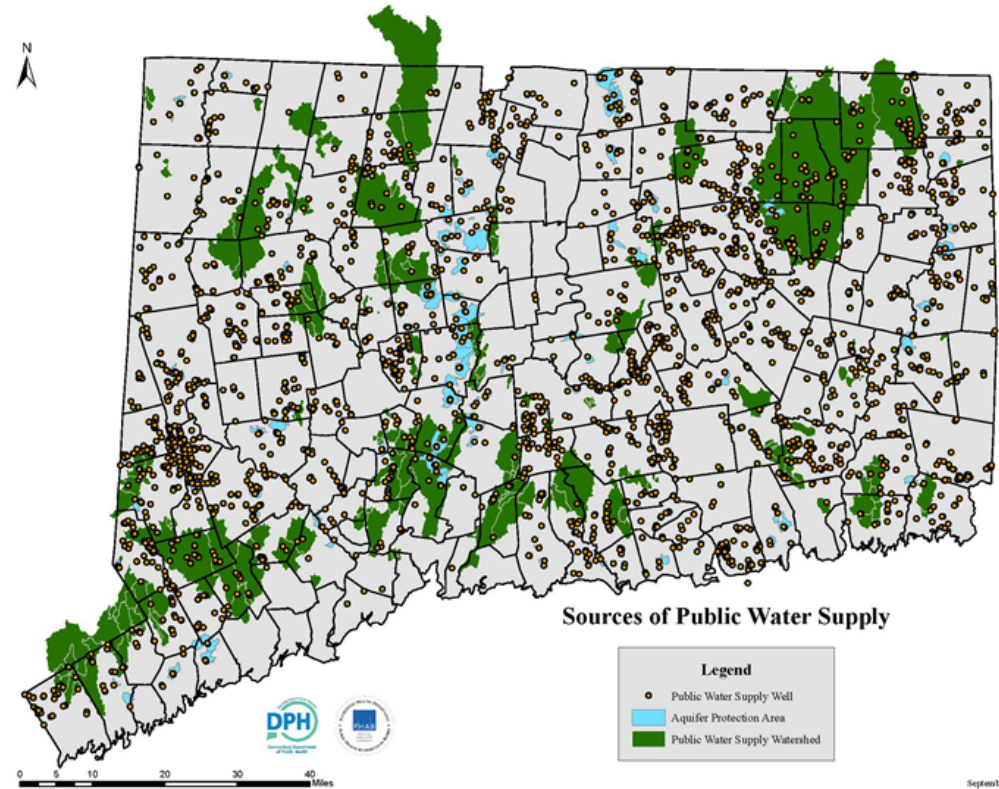
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Public Drinking Water Source Protection Areas

- 18% of the state
- Reservoirs and their watersheds
- Large gravel-packed wells and their aquifer protection areas
- Bedrock wells with their source water protection areas



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Land Use Assessments

- [Circular Letter 2018-20](#) sent on September 27, 2018 directed these PWS to update their land use assessment to include potential PFAS Generators
- Form developed by the CT Section of the American Water Works Association's Source Protection Committee which includes representatives from DPH and DEEP
- Used the [PFAS Fact Sheet](#) series developed by the Interstate Technology Regulatory Council for reference material

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Source Water PFAS¹ Vulnerability Assessment Form

This form is intended to be used to assess and inventory land use activities that are of immediate concern to water quality, or have a significant potential to contaminate a public drinking water supply, for delineated source water protection areas, as required by section 25-32d-3(i)(3) of the Regulations of Connecticut State Agencies (RCSA).

SYSTEM: _____ AQUIFER/WATERSHED: _____
 PWSID#: _____ SANITARY RADIUS: _____
 LOCATION: _____ DATE FORM COMPLETED: _____
 NO POTENTIAL PFAS SOURCES IDENTIFIED FORM COMPLETED BY: _____

Potential Contaminant Source (insert additional rows as needed)	Site Address	Description	Distance to Drinking Water Source ²	Past History
Tier 1 Risk		High risk potential; Sites that use AFFF firefighting foams; Landfills (all types); Industries that use PFAS ³ (metal plating, etching, textiles/leather/carpeting, paper and cardboard products, wire manufacturing, industrial cleaning products, surface coatings/paints/ varnishes/inks, plastics/resins/rubber, adhesives, electronics, semiconductors, photolithography, cosmetics/personal care).		
Military Base				
Airport				
Fire Training Area				
Landfill				
PFAS Industry ³				
Tier 2 Risk		Moderate risk potential; Fire Departments that store AFFF firefighting foams; Wastewater discharges from car washes; Groundwater discharges from major septic systems permitted by DPH or DEEP; Water Pollution Control Facility (WPCF - public sewer system); Sites of significant fires where AFFF firefighting foams were applied (car crash, tanker truck roll-over, gasoline/diesel released to the ground, etc.); AFFF fire suppression systems (possible in large industrial buildings, oil terminals); Application or use of biosolids on agricultural fields.		
Fire Department				
Car Wash				
Major Septic System (>2,000 gal) or Institutional Septic				

Source Water PFAS Vulnerability Assessment Form 01 24 2019

PFAS Discharges

- Industrial and domestic wastewaters, treatment plants
- Landfills
- Air emissions?

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PFAS Discharges

- **Potential actions**
 - Recommend state-sponsored baseline sampling of wastewater treatment plants and surface water bodies
 - Inventory industries based on SIC codes
 - Future permitting (would require standards)

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Steps that State Agencies can take

- Food contact items
- Cleaners/waxes
- Consideration of PFAS-free goods and services in future state contracts
- Others?

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Review of Previously Discussed Actions

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AFFF

- Limitations on AFFF use
- Education/outreach to local fire departments
- AFFF survey for possible take-back program
- Fluorine-free foam recommendation

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Education/Outreach/Communication

- **Outreach**
 - To local FDs regarding AFFF
 - Facilities with AFFF fire suppression systems
 - PFAS industries
 - Farmers regarding biosolids use
- **Coordinated notification and messaging to communities when incidents occur**
 - Use established municipal emergency response plans, webpages, etc.

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Need for Standards

- Standards, especially ambient water quality criteria, needed to set discharge limits
- Could look to other states (VT, NH) as models for resources and time required

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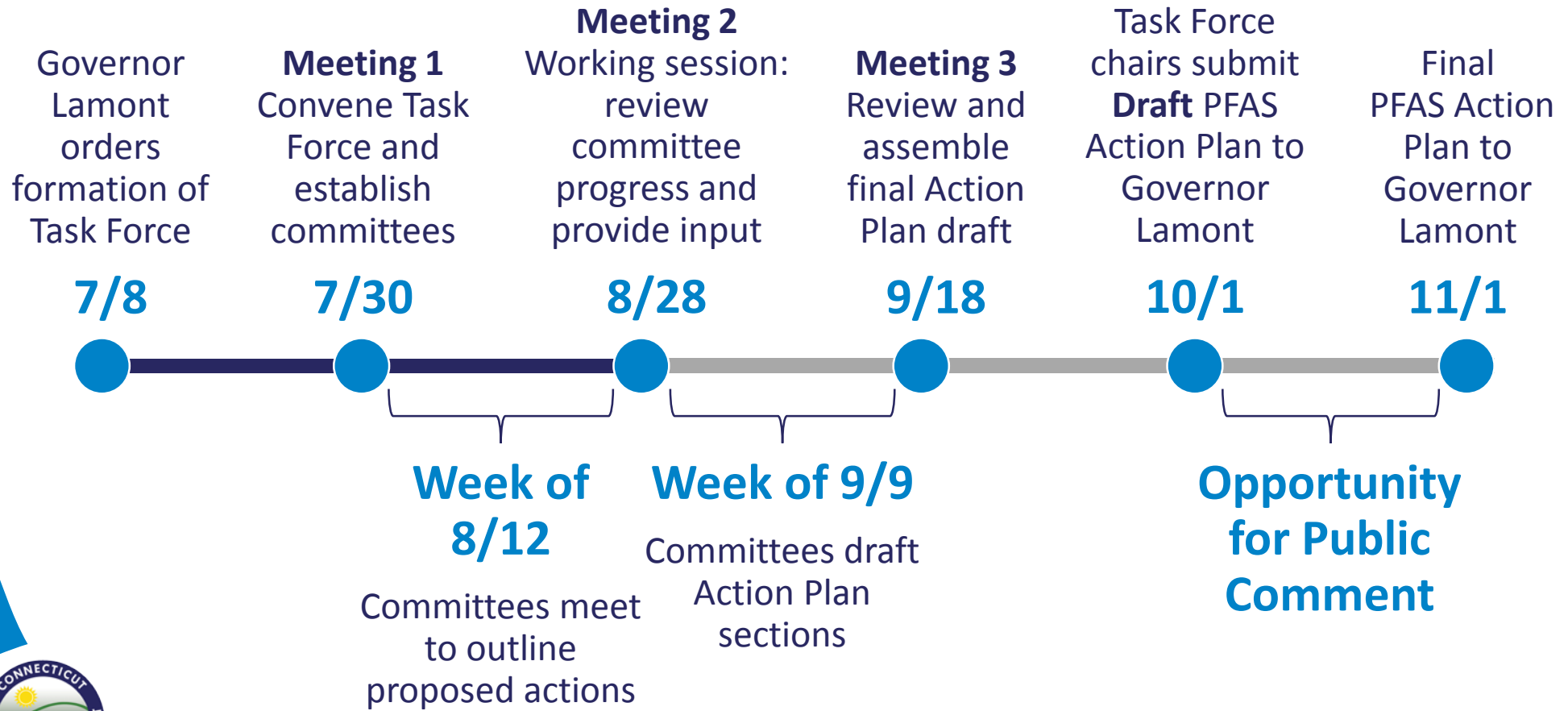
Possible Legislation

- AFFF – Release reporting, secondary containment, discharge and use limitations, take-back program
- Consumer products (food contact items and/or waxes and cleaners)
- Standards and discharge limits

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Task Force & Committee Actions



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Upcoming Meetings

- **Remediation Committee:** 9/12/19, 9:00 AM-11:00 AM Gina McCarthy Auditorium, DEEP
- **Task Force Meeting:** 9/18/19, Hearing Room 1-D, Legislative Office Building

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PUBLIC COMMENT

Please identify yourself and speak into
the microphone

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