PFAS 101

August 7, 2019
1:30-3:00

DEPARTMENT *of* PUBLIC HEALTH
DEPARTMENT *of* ENERGY AND ENVIRONMENTAL PROTECTION

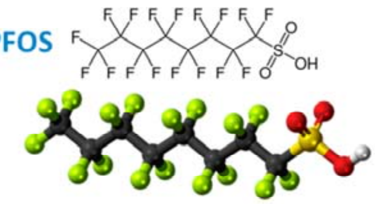
Agenda

PFAS 101

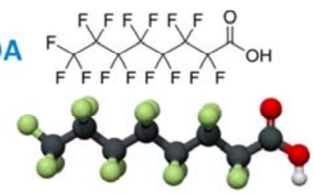
August 7, 2019

- Introduction to DPH and DEEP Programs
- PFAS Overview
- PFAS Challenges
- PFAS Situation in CT
- Task Force

PFOS



PFOA



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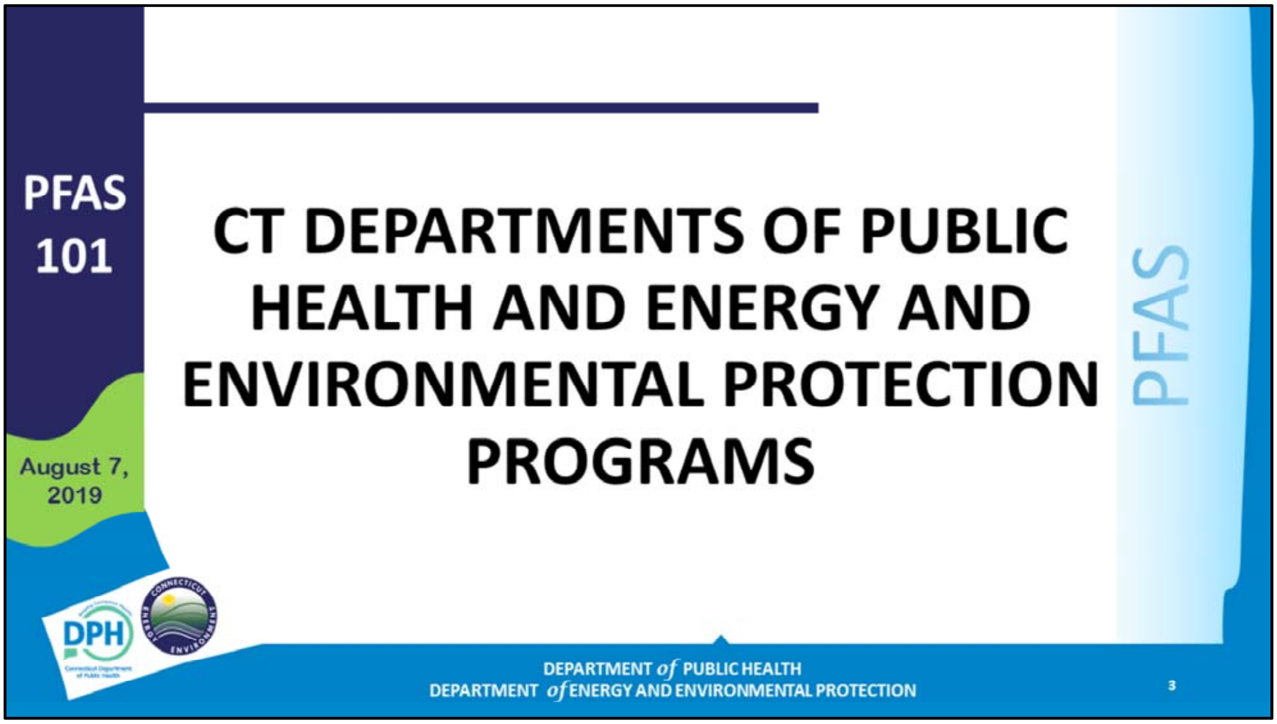
PFAS
101
August 7, 2019
CT DEPARTMENTS OF PUBLIC HEALTH AND ENERGY AND ENVIRONMENTAL PROTECTION PROGRAMS
PFAS
DPH
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Department of Public Health
Healthy People in Healthy CT Communities

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Public Drinking Water

- Implements the Safe Drinking Water Act
- Regulatory Authority for Connecticut's 2,500 public water systems serving 2.8 million people
- Authority over proactive laws & high quality water that protect human health

DPH Katherine A. Kelley Public Health Laboratory

- Provides drinking water analyses (currently exclusive of PFAS substances)

DPH Environmental Health Section

- Provides Health Assessment, toxicology reviews, and public messaging
- Provides education and outreach for residents

Local Health Districts and Departments

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Drinking Water Section

Primacy for Safe Drinking Water Act

- Oversees the 17 rules of the SDWA
- Unregulated Contaminant Monitoring Rule
- Receives 500,000 water sample results every year

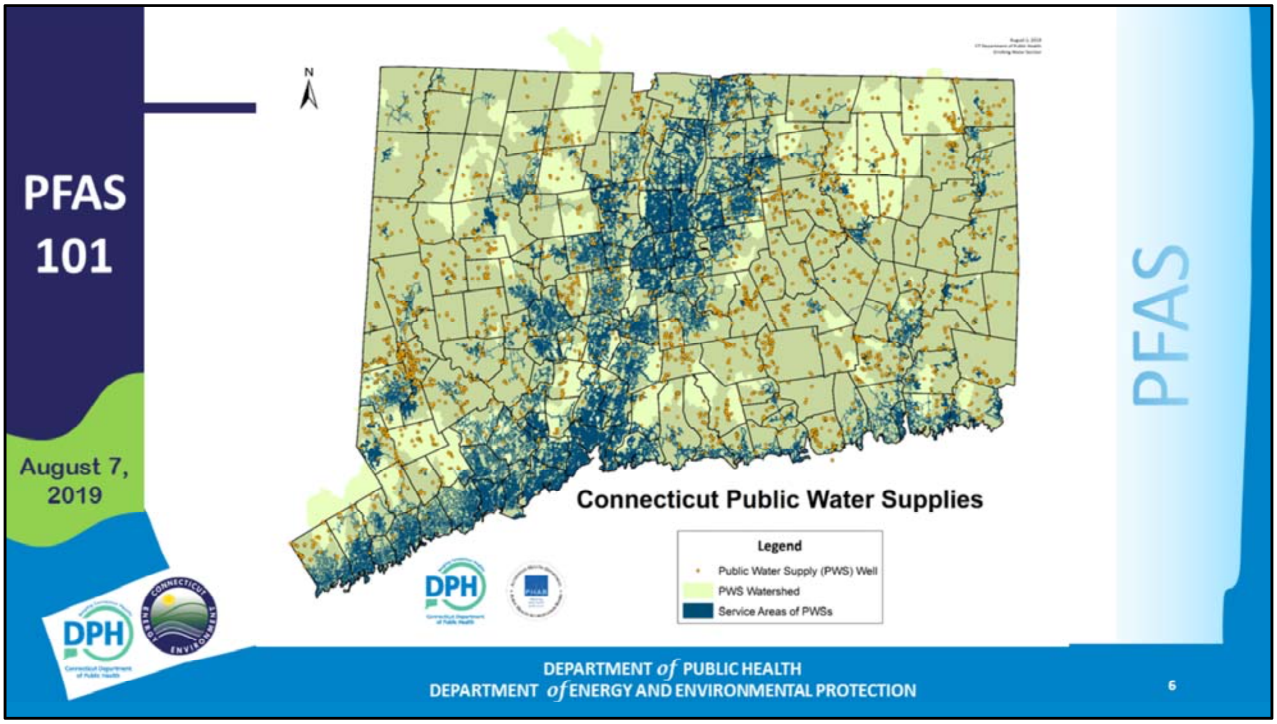
Regulates 2500 public water systems

- 82 Large community public water systems
- 500 Small community public water systems
- 520 Non Transient Non Community including 430 schools and daycares
- 1,425 Transient Non Community

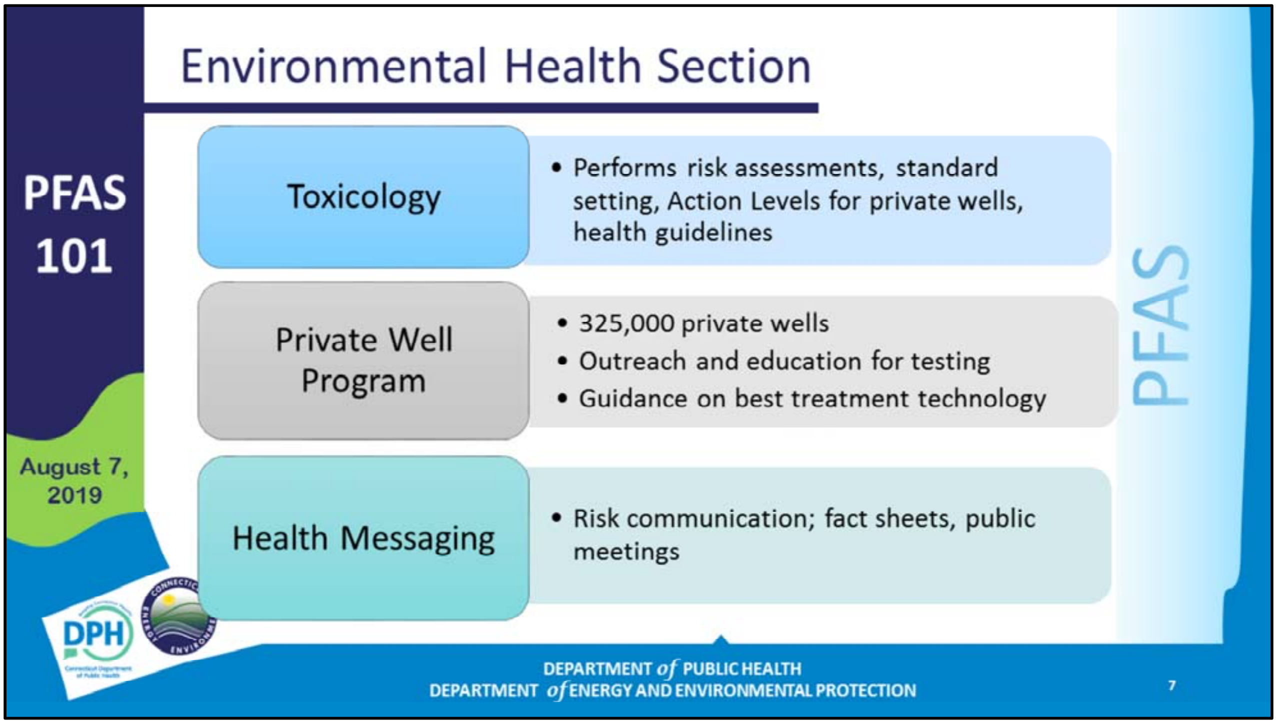
Authority over Proactive Laws

- Water Supply Planning (Systems serving >1000 people)
- Water Company Land Laws

PFAS



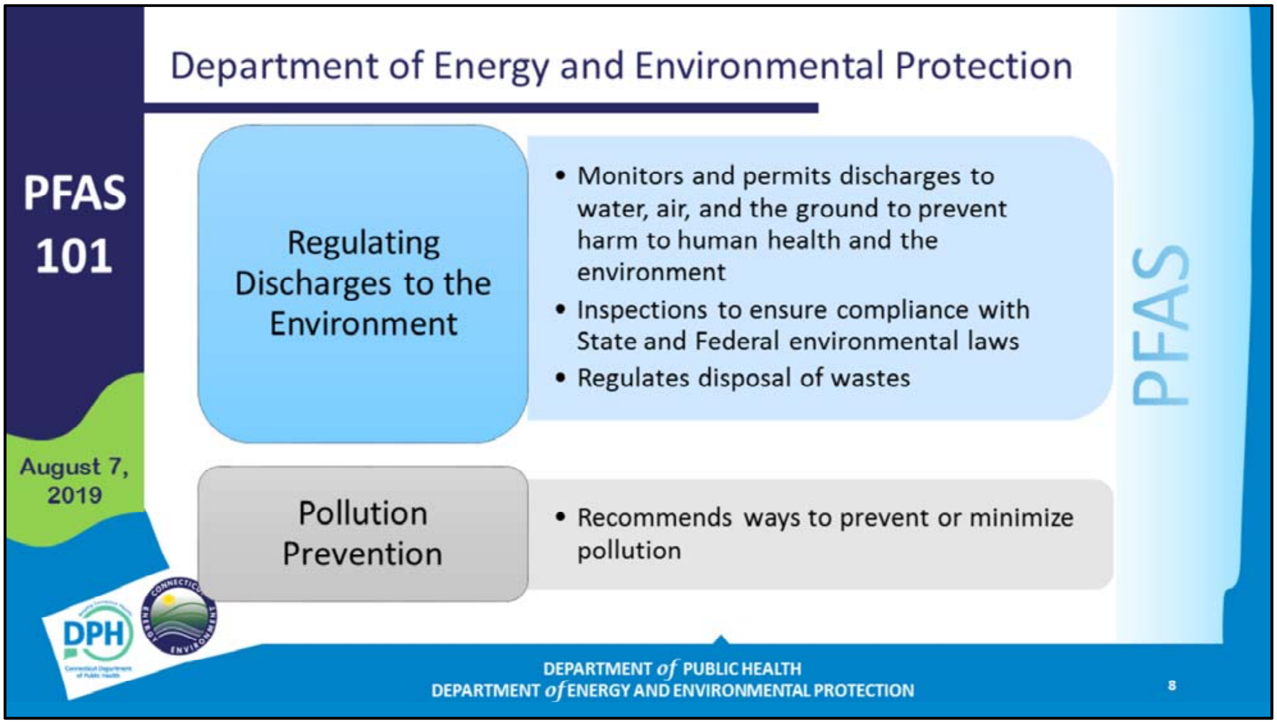
This map displays the complexity of public drinking water in the State of Connecticut. Blue is where large public water systems serve customers. Orange dots are approximate locations of public wells that serve smaller systems and the light green shows reservoir source water areas.



The toxicology unit of the Environmental Health Section performs risk assessments, standard setting, sets Action Levels for private wells, and sets health guidelines (e.g., fish advisories).

DPH estimates there are 325,000 private wells in CT. The Private Well Program provides support to local health departments who have primary jurisdiction over private wells. The Private Well also provides outreach and education about what to test for and what the results mean, as well as guidance on the best available treatment technology.

The EHS section provides Health Messaging in the form of risk communication such as fact sheets and public meeting.



Includes industry, municipalities, and individuals

Department of Energy and Environmental Protection

Remediation Standard Regulations

- Sets standards for the cleanup of soil and groundwater at contaminated sites to protect human health and the environment

Pollution Source Oversight

- Authority to require cleanup
- Authority to require provision of safe drinking water to impacted areas by responsible party or municipality

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PFAS OVERVIEW

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PFAS

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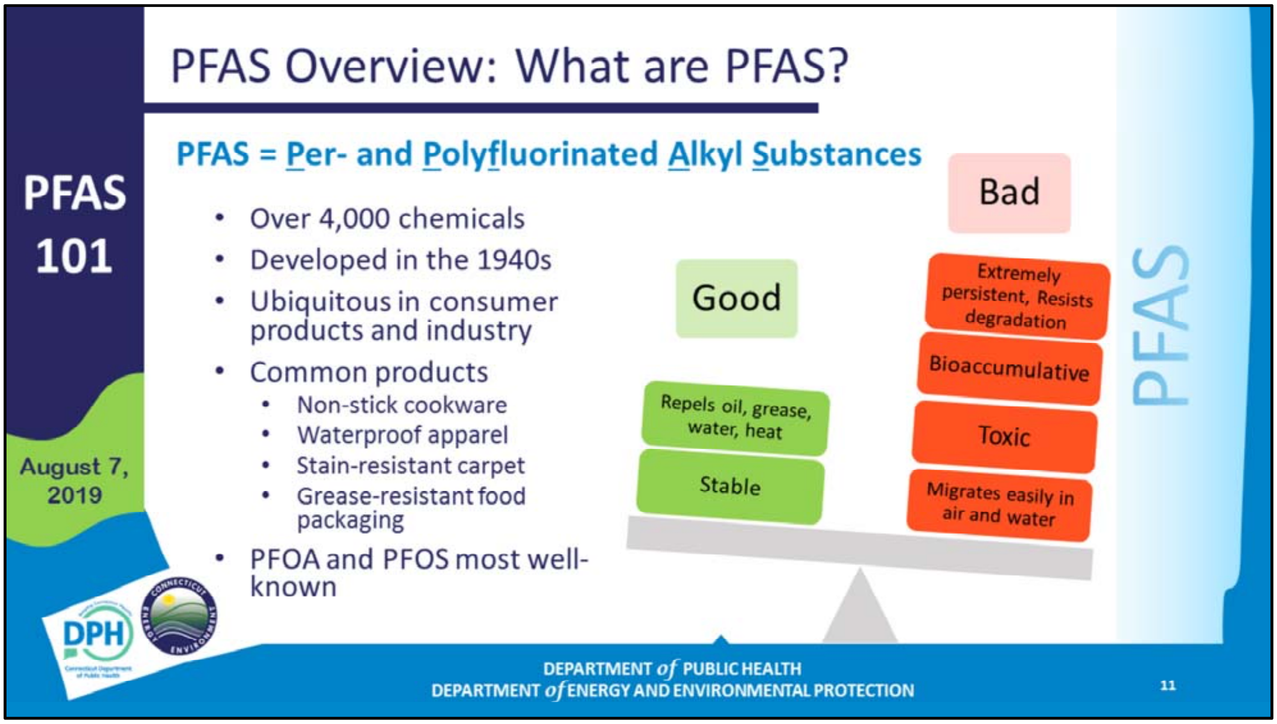
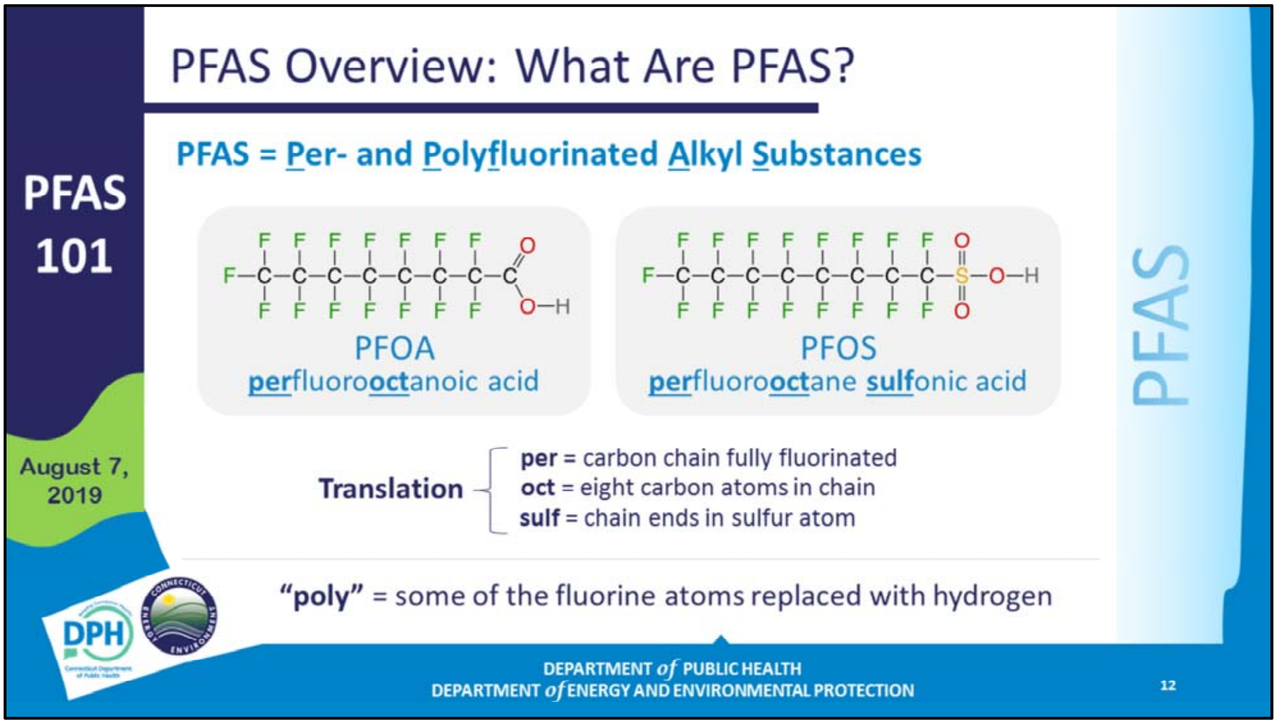


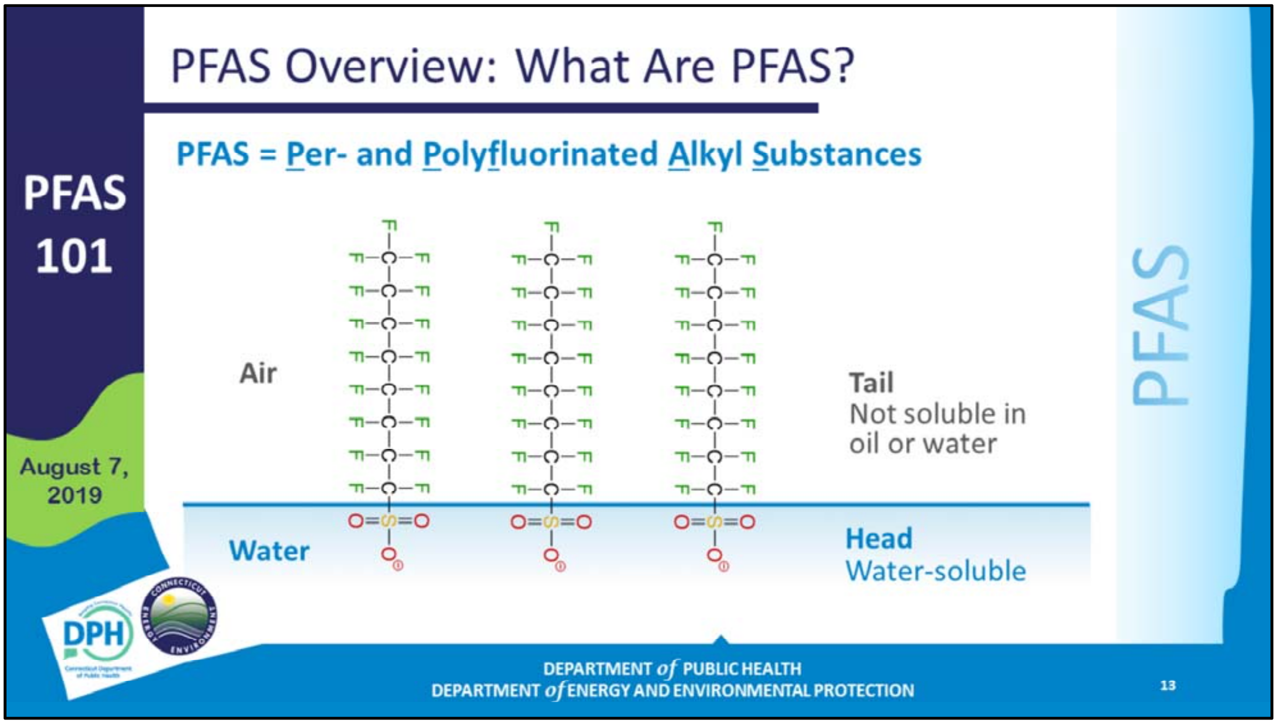
- PFAS is an acronym that stands for per- and polyfluorinated alkyl substances.
- PFAS is not a single chemical—the term refers to a class of >4,000 different manmade chemicals.
- The first PFAS were developed in the late 30s and early 40s, and these chemicals have been widely used in consumer products and industrial processes ever since.
- PFAS all contain many carbon atoms bonded to fluorine atoms, and these carbon-fluorine bonds are incredibly strong. Thanks to this unique chemical composition, PFAS are highly stable and able to repel oil, grease, water, and heat. As a result, PFAS are used in many products that we encounter on a daily basis, such as non-stick cookware, waterproof apparel, stain-resistant carpeting, and grease-resistant food packaging.
- Unfortunately, the same properties that make PFAS useful also cause a host of problems.
- Their carbon-fluorine bonds are so strong that PFAS cannot be broken down by natural processes. This is the reason why many of you have probably heard PFAS referred to as "forever chemicals." Once they get into our bodies or into the environment, they stay there for a very long time.
- Many PFAS compounds bioaccumulate, meaning that they building up in the bodies of animals and humans. Unlike other contaminants, which tend to build up in fat, PFAS build up in protein. This is the reason why there is so much talk about concentrations in fish—which PFAS is present in fish, it's in the filets that we eat.
- This is a problem because it's becoming increasingly clear that PFAS are linked to a host

of health problems.

- PFAS are able to migrate in air and water, meaning that once they get into the environment, they spread.



- The two most well-known and well-researched PFAS are perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS).
- PFAS contain two main components. First, they contain a chain of carbon atoms in which at least one carbon atoms is fully fluorinated. Second, they each contain a head group, such as the carboxylic and sulfonic acid groups shown on the far right of these two structures.
- The names of PFAS compounds provide a lot of information. The prefix "per" means that the carbon chains of these compounds are fully fluorinated, "oct" means that these carbon chains contain eight carbon atoms, and "sulf" means that the carbon chain in PFOS ends in a sulfur atom.
- In other PFAS, when the prefix "poly" is used instead of "per," it indicates that not all of the carbon atoms in the carbon chain are fully fluorinated. These atoms serve as weak points where polyfluorinated PFAS can break down to shorter perfluorinated PFAS. Perfluorinated PFAS do not break down.



- While the head groups in PFAS compounds are water-soluble, the carbon-fluorine tails do not like to absorb in oil or water. This is the reason why PFAS are useful in non-stick, water-resistant, and stain-resistant coatings.
- As a result, PFAS tend to migrate to the air-water interface. This behavior makes PFAS useful in firefighting foams. Certain types of firefighting foam are made up of water containing high concentrations of PFAS. When these foams are sprayed onto a fire, PFAS migrate to the air-water interface and form a barrier that blocks out oxygen, smothering and extinguishing the fire.

Some PFAS uses

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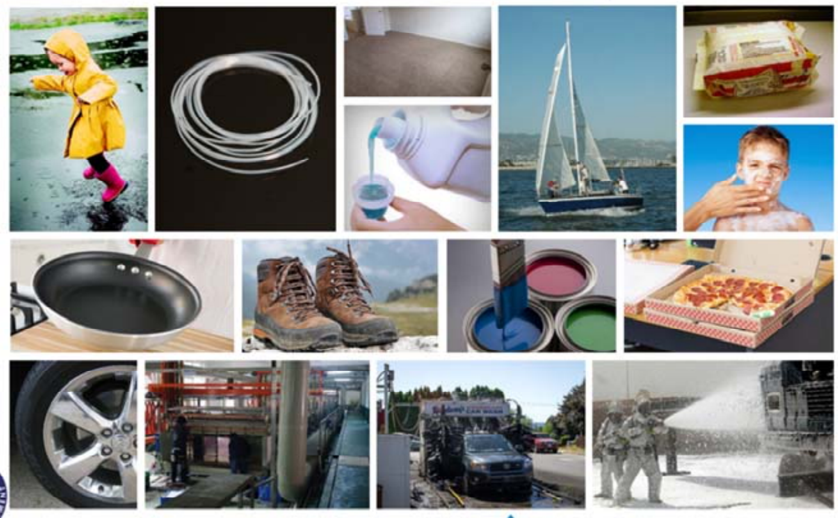

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Places Where We Might Find PFAS

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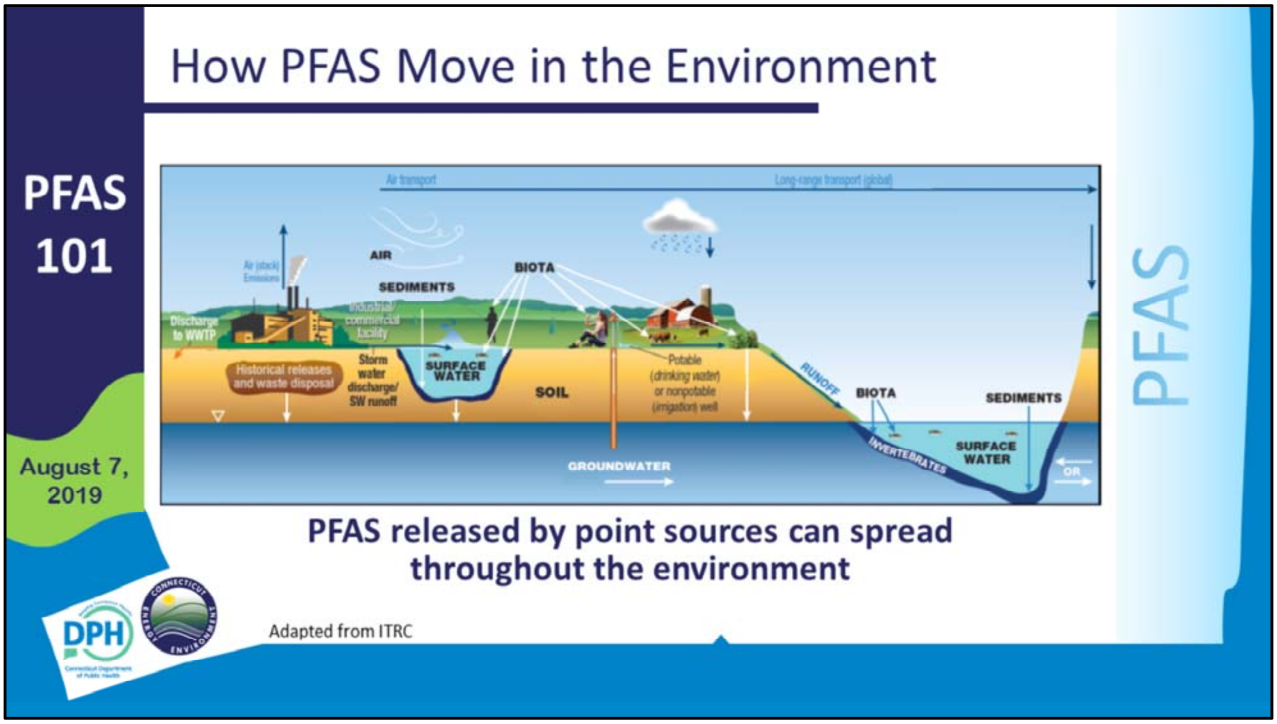
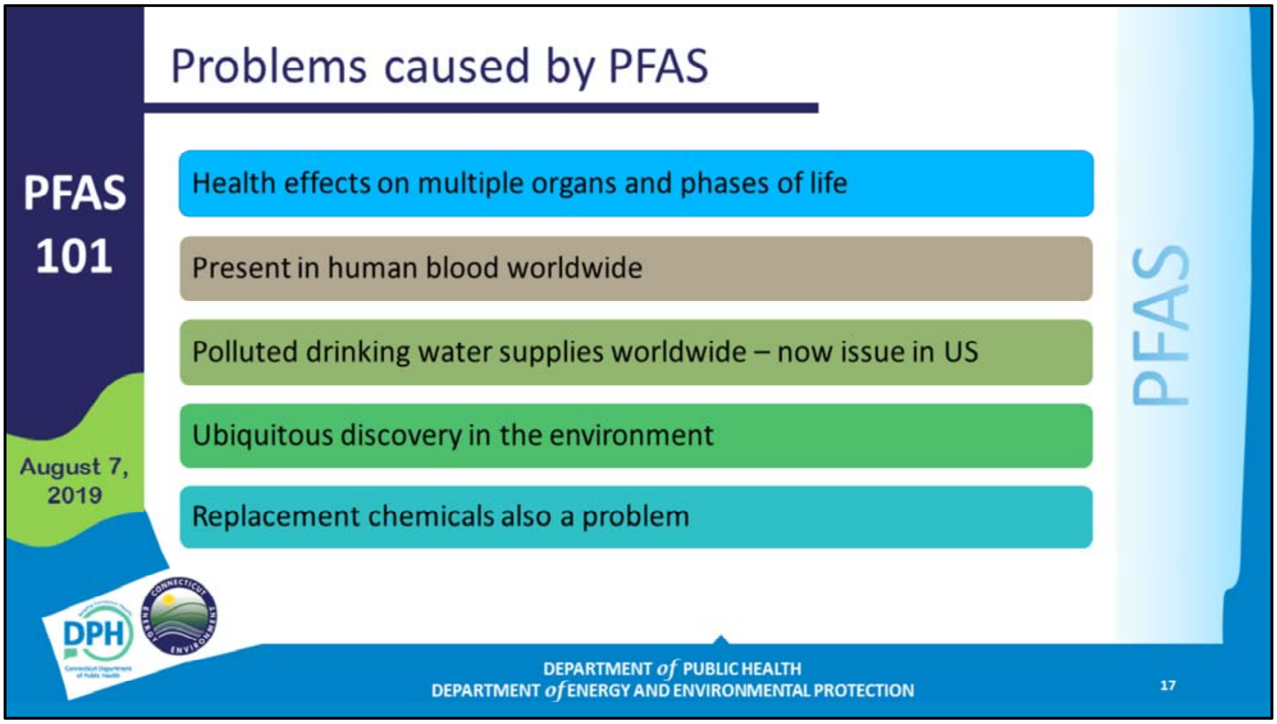


- When sources introduce PFAS into the environment, the PFAS are able to travel and spread.
- PFAS released to the air settle onto the ground nearby, and some travel longer distances.
- Because PFAS dissolve in water, their travel also follows along with the water cycle.
- When PFAS reach the ground, they can dissolve into groundwater and spread in all directions, eventually reaching the water table. This is a problem when there are drinking water wells nearby.
- PFAS reach surface water through the groundwater that feeds them and through surface water runoff.

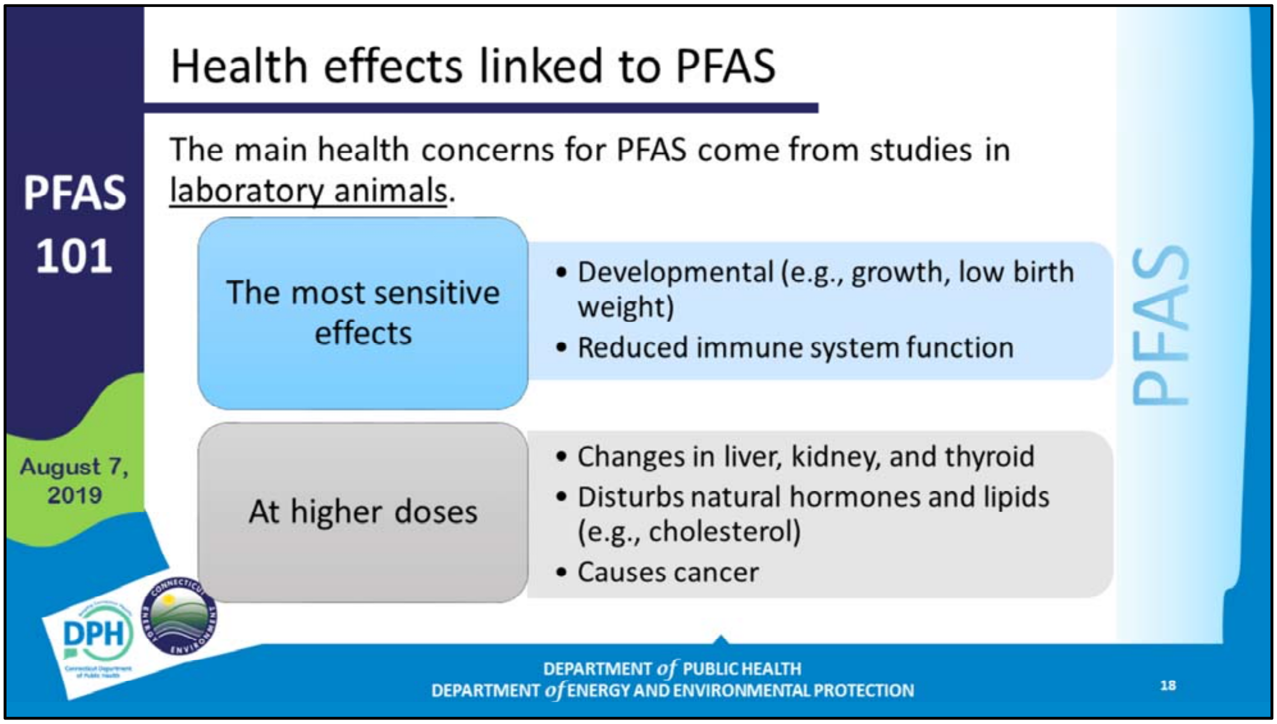


As discussed earlier, PFAS is not a single chemical. It is a group a more than 4,000 related substances. However, only a handful of these chemicals have been studied. The two most well-studied compounds, PFOA and PFOS, appear to be the most toxic.

Our understanding about the potential health effects for PFAS is based largely on findings in studies of laboratory animals that have shown a variety of health effects in multiple species and strains following exposures at different life stages – from development before birth and all the way to and through adulthood.

Of course, there can be no risk to health without exposure.
In studies from around the world, PFAS has been identified in human blood serum in nearly every person that has been tested. This should come as no surprise, given the long-term, widespread use of PFAS in numerous consumer products and it's persistence in the environment, PFAS is now **ubiquitous throughout our environment**, found in water supplies worldwide (including the US), esp. near PFAS industries, fire training areas, and DoD facilities. It has been discovered in drinking water, groundwater, soil, surface water, waste water treatment plants, biosolids, landfills, fish tissue, and plants.
More recently, it has been identified in our food supply (in seafood, meat, dairy products, and eggs). While the two most toxic compounds, PFOA and PFOS, have been voluntarily phased out by the major manufacturers in the US, they are still produced overseas, so people may continue to have some exposure to these compounds, in addition to being exposed to other replacement PFAS.

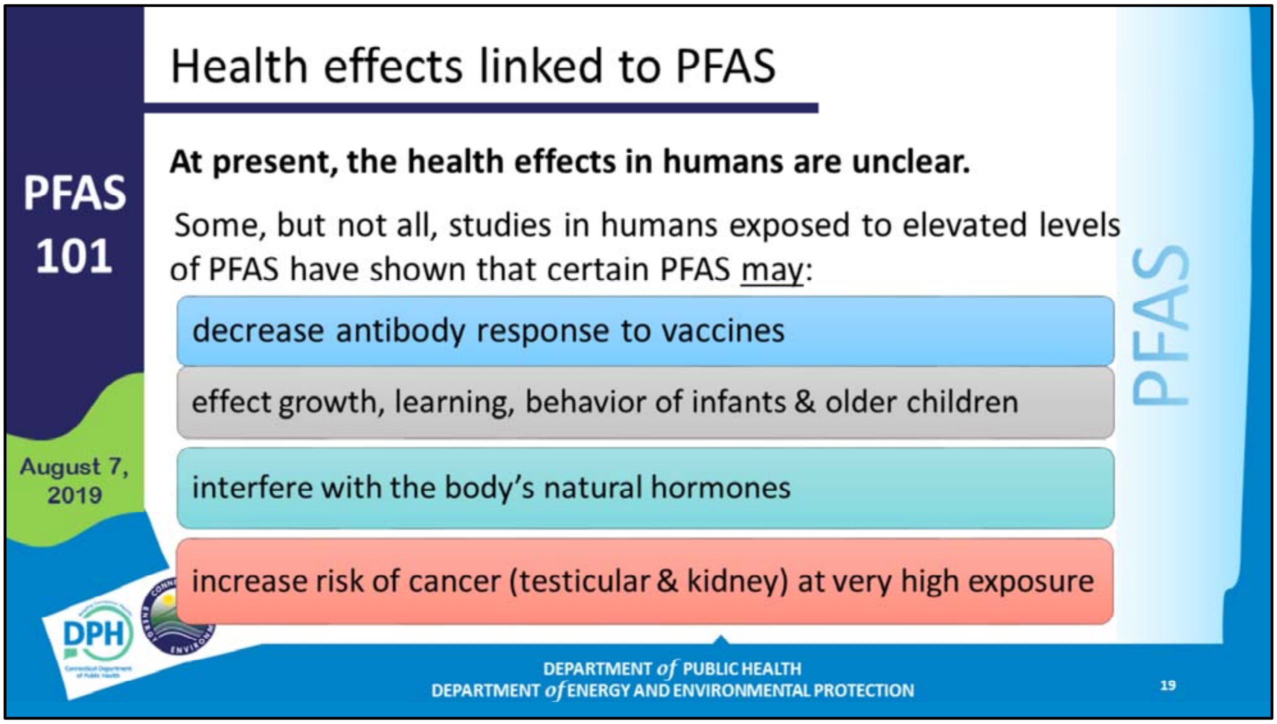
The **replacement PFAS** (GenX and PFBS) seem to be less toxic, however, we have only studied them for a short time.



As mentioned earlier, our understanding about the potential health effects for PFAS is based largely on findings in studies of laboratory animals that have shown a variety of health effects.

The most sensitive effects, by that I mean harmful effects that occur at the lowest doses, are developmental effects that include findings of low birth weight and delayed and accelerated puberty, and reduced immune system function, where animals showed a reduced response to vaccination.

At higher doses, PFAS exposure causes changes in the liver, kidney, and thyroid, disturbs natural hormones and lipids, and causes cancer (liver, testicular, and pancreatic cancer) in rodents.

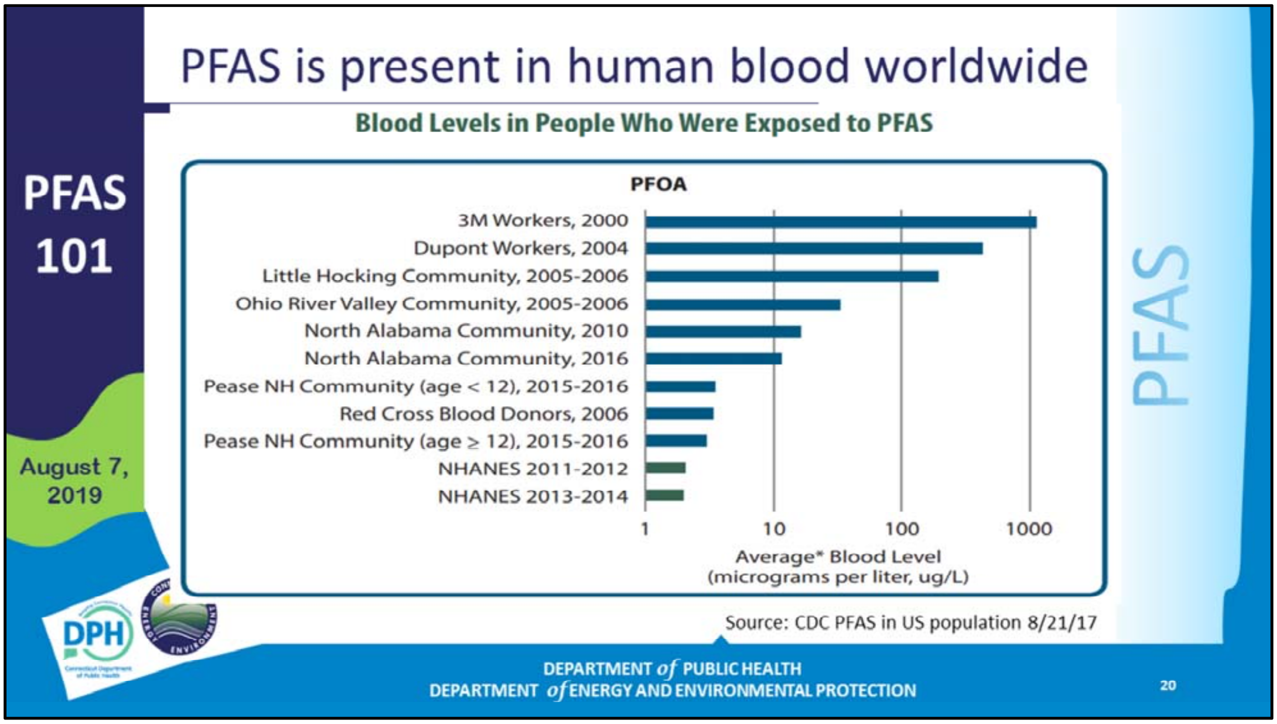


Now what about humans? The science linking PFAS exposures with human health effects is still evolving. We do have some human data, and for the most part, the human data generally supports the findings in animal studies.

Some, but not all, studies in humans exposed to elevated levels of PFAS have shown that certain PFAS may:

- decrease antibody response to vaccines
- effect growth, learning and behavior of infants and older children
- interfere with the body's natural hormones and lipids
- and at very high levels of exposure, a few studies have found an increased risk of certain types of cancer (testicular and kidney)

Researchers are still evaluating the scientific data to better understand the differences and similarities between how animals and humans respond to PFAS.



Now you may be wondering, how does the dose, that is the blood serum level, associated with the most sensitive outcome in animals compare to blood PFAS levels seen in humans?

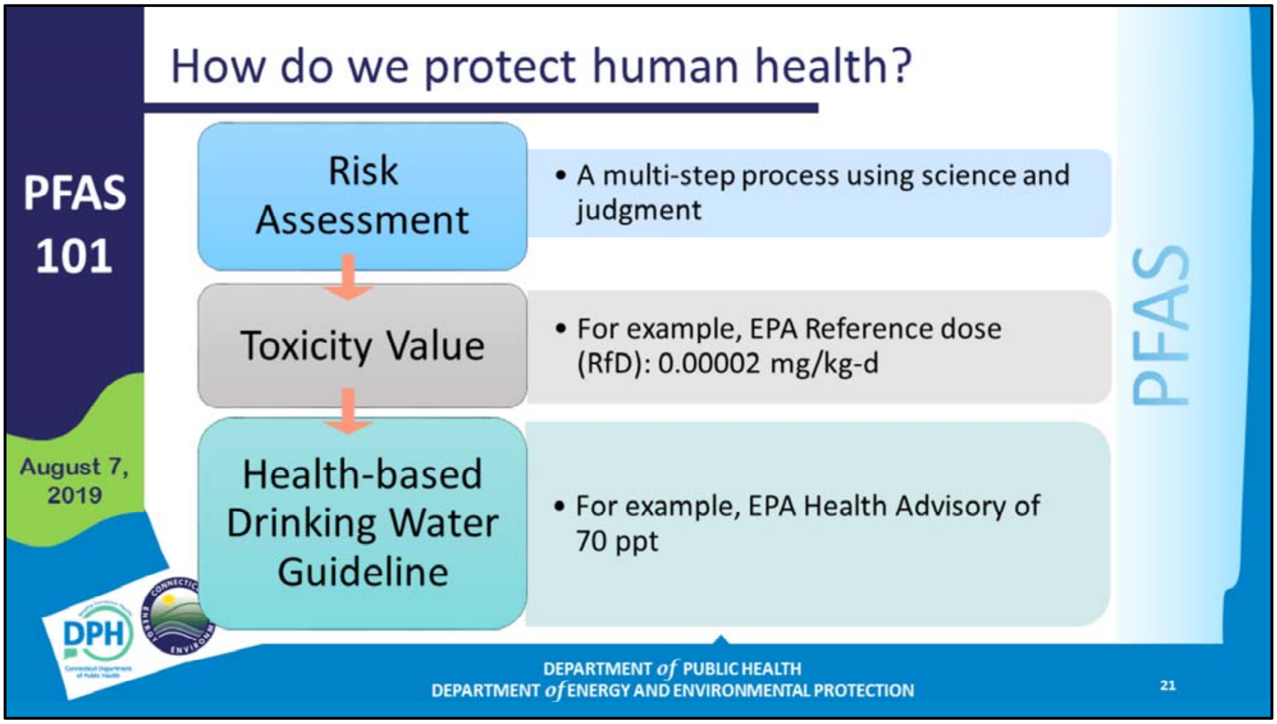
This slide gives some perspective on the ranges of PFOA blood serum levels across the 3 main *sources of human data* that have been examined to understand the possible human health effects of PFAS, that is

- Studies of highly exposed workers,
- Studies of communities exposed to PFOA-contaminated drinking water, and
- Studies of the general population,

As you can see, blood levels of PFOA vary more than two orders of magnitude across these populations. The highest levels are seen in occupationally-exposed workers, where average levels exceeding 1000 µg/L and the lowest levels in the general population (1.9 µg/L in 2013-14, and slightly lower at 1.6 µg/L in 2015-16, data not shown here).

In animal studies, the lowest PFOA blood serum level associated with developmental deficits in mice was a maternal blood serum levels of 38,000 µg/L. So much, much higher that the levels seen in workers. Although human exposure is much lower exposures that that seen in animals, we do appear to be more sensitive to the effects of PFAS, and PFOA in particular.

The most highly exposed community in the US is Little Hocking, where residents average PFOA levels around 350 µg/L. This community participated in the largest epidemiological study of PFAS to date, known as the C-8 study, which evaluated health effects in a community of nearly 70,000 men, women and children who had consumed PFOA-contaminated drinking for over 50 years. Researchers examined the “probable link” between PFOA exposure and any human disease. By probable link, I mean that among the study participants, a connection exists between PFOA exposure and a particular human disease. That study found probable links between PFOA exposure and only a handful of diseases (i.e., high cholesterol, thyroid disease, pregnancy-induced hypertension and preeclampsia, a type of autoimmune disease, and kidney and testicular cancer).



So how do we take what we know from animal and human studies and turn that information into drinking water guidelines that are protective of human health?

All of the states and the EPA use a standardized process referred to as Risk Assessment. This process involves multiple steps and uses science-based professional judgement to determine a toxicity value. For example, EPA-Reference dose (RfD) for PFOA of 0.00002 milligrams per kilogram of bodyweight per day. The goal is to identify a number that can be used as a basis for toxicologists to determine how much exposure to a substance is unlikely to result in an unacceptable risk of developing health effects over a defined period of time, typically a lifetime. Toxicity values are based on a critical study or studies and

- Some of the steps in that process of developing a toxicity value include the identification of the most sensitive adverse effect in laboratory animals and the dose associated with that effect, and the application of safety factors which include accounting for the uncertainty related to variability among humans, and the potential differences between humans and animals.

Once we have that toxicity value, we make additional decisions to get to a drinking water level that can be used as a guideline to protect human health. For example, EPA's Lifetime Health Advisory of 70 parts per trillion.

- Those decisions involved in determined a drinking water level include determining the water ingestion rate for target population. For example, if the substance may be more harmful to children than adults than it would be important to use a child exposure scenario to protect that target population.

So through this standardized process, we are able to translate an internal dose (mg/kg-d) into an concentration in drinking water (ppt) that is intended to be protective against all health effects over a lifetime of exposure.


EPA Action on PFAS
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May 2018 – PFAS National Leadership Summit
February 2019 – National PFAS Action Plan
1. Initiate Maximum Contaminant Level (MCL) process for PFOA and PFOS in drinking water
2. Enforcement Strategy
• Process for listing PFOA/PFOS as "hazardous substances" under CERCLA
• Rely on States' regulatory enforcement authority first
➢ States in our region are acting in advance of EPA
- VT, NH, MA, RI, NY, NJ, and others nationwide
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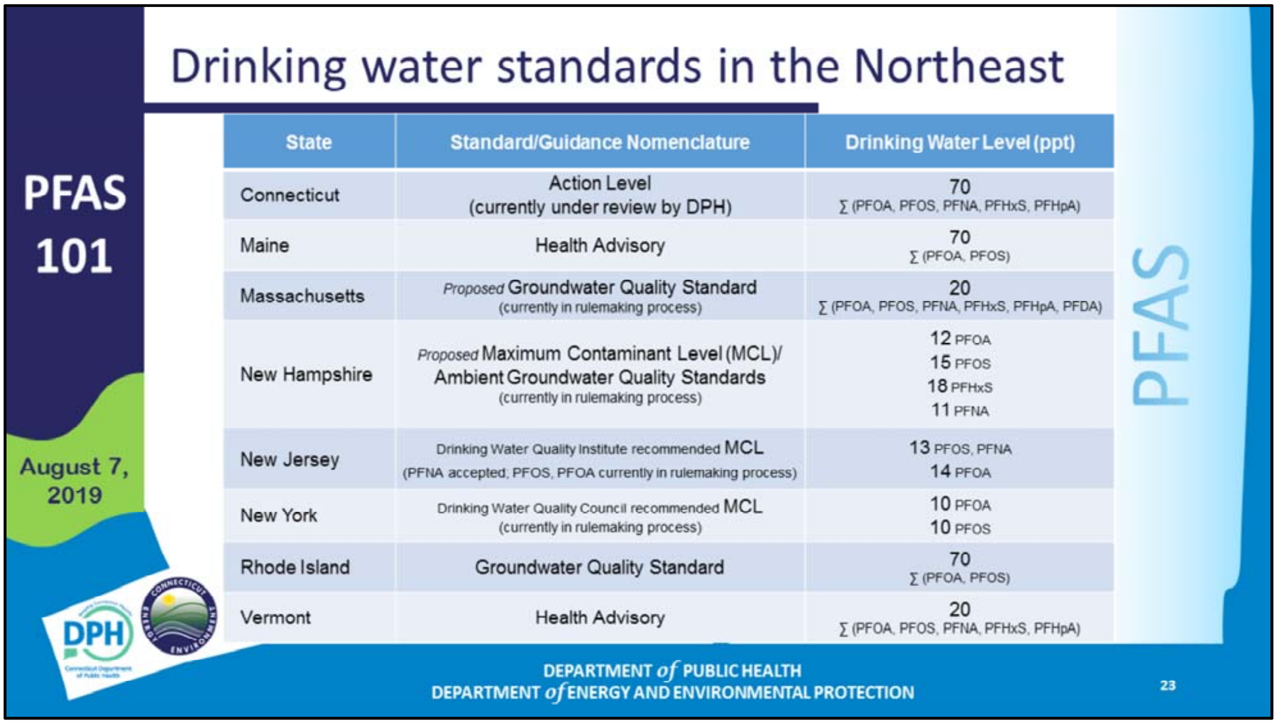

State	Standard/Guidance Nomenclature	Drinking Water Level (ppt)
Connecticut	Action Level (currently under review by DPH)	70 ∑ (PFOA, PFOS, PFNA, PFHxS, PFHpA)
Maine	Health Advisory	70 ∑ (PFOA, PFOS)
Massachusetts	*Proposed* Groundwater Quality Standard (currently in rulemaking process)	20 ∑ (PFOA, PFOS, PFNA, PFHxS, PFHpA, PFDA)
New Hampshire	*Proposed* Maximum Contaminant Level (MCL)/ Ambient Groundwater Quality Standards (currently in rulemaking process)	12 PFOA 15 PFOS 18 PFHxS 11 PFNA
New Jersey	Drinking Water Quality Institute recommended MCL (PFNA accepted; PFOS, PFOA currently in rulemaking process)	13 PFOS, PFNA 14 PFOA
New York	Drinking Water Quality Council recommended MCL (currently in rulemaking process)	10 PFOA 10 PFOS
Rhode Island	Groundwater Quality Standard	70 ∑ (PFOA, PFOS)
Vermont	Health Advisory	20 ∑ (PFOA, PFOS, PFNA, PFHxS, PFHpA)

This next slide depicts the range of drinking water guidelines proposed by different states in the Northeast. In the absence of a federally enforceable drinking water guideline for PFAS, individual states have been conducting their own risk assessments to determine health-protective guidelines. **As data on PFAS exposure and toxicity continue to emerge,** the science, what we know, is changing so fast that states and agencies are struggling to keep up with it... **states and agencies are working fastidiously to revise and develop their guidelines accordingly**.

For example, the state of New Hampshire presented new drinking water guidelines for PFAS in January of this year, and has since revised those guidelines last month.

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PFAS CHALLENGES

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Unique PFAS management challenges

Public Drinking Water	• No Safe Drinking Water Act enforceable standards • Sampling is challenging • Treatment options are limited and expensive
Health Standards	• Published research into health effects is moving faster than the government can act
Remediation	• No EPA lab methods for PFAS testing in media other than drinking water • Sampling is expensive and challenging (cross-contamination) • Limited cleanup options

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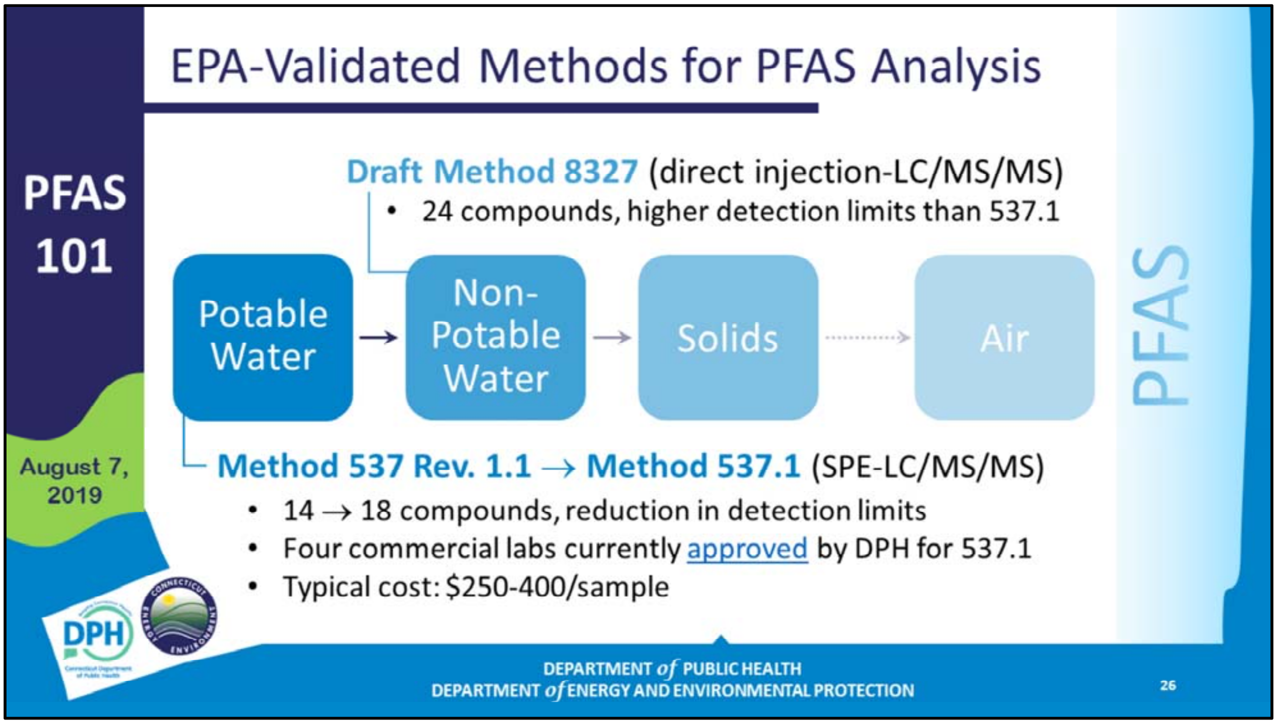

- In studies of any contaminant, it's helpful for different labs to use the same standardized methods. To support such efforts, the EPA validates and publishes laboratory methods for measuring the concentrations of a wide variety of different compounds in different types of samples. In the case of PFAS, which are especially tricky to measure, this process has proven slow, and this has presented a major roadblock.
- EPA-validated methods for PFAS analysis in potable water, or drinking water, have been around since 2009, when Method 537 revision 1.1 was first published. This method concentrates samples using solid-phase extraction and measures the concentrations of 14 PFAS compounds using liquid chromatography with tandem mass spectrometry, or LC/MS/MS. In November of 2018, this method was updated to Method 537.1, which has lower detection limits and measures four additional PFAS, including GenX. This is helpful because the more information we have about the specific PFAS present at a given site, the more information we have about the PFAS sources potentially in play.
- At this point, four commercial labs have been approved by DPH to perform Method 537.1. Costs for this method typically range from $250-400, but we expect this cost to come down as more labs are approved.
- In June 2019, the EPA published Draft Method 8327, which can be used for non-potable water. This method uses direct injection instead of solid phase extraction, and measures 24 PFAS compounds. However, there has been some concern that detection limits are higher than for the potable water methods. This draft method is still in the public

comment phase, which runs until late August.

- At present, there are still no EPA-validated methods for measuring PFAS concentrations in solid samples, such as soil and biosolids, which presents a significant challenge. Many labs do analyze solid samples and non-potable water using modified versions of Method 537.1 that incorporate isotope dilution, but there is no standardized process from lab to lab. We are hopeful that these methods will be published within the next year.
- Since we know that PFAS are able to travel in air and that stack emissions can present a significant source of PFAS, it is also crucial for the EPA to publish methods for measuring their concentrations in air. Unfortunately, there are no indications that this will happen in the near future.

Potable Water Sample Collection

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High potential for cross-contamination
→ Collect PFAS samples first

- Sample Container – 250 mL polypropylene bottles & caps, Trizma preservative
- Wash hands, wear nitrile gloves & change often
- Need for field reagent (pour) blanks
- Put samples in individual sealed plastic bags
- Recommendations for follow-up sampling

EPA EIASOP-EPA537-0

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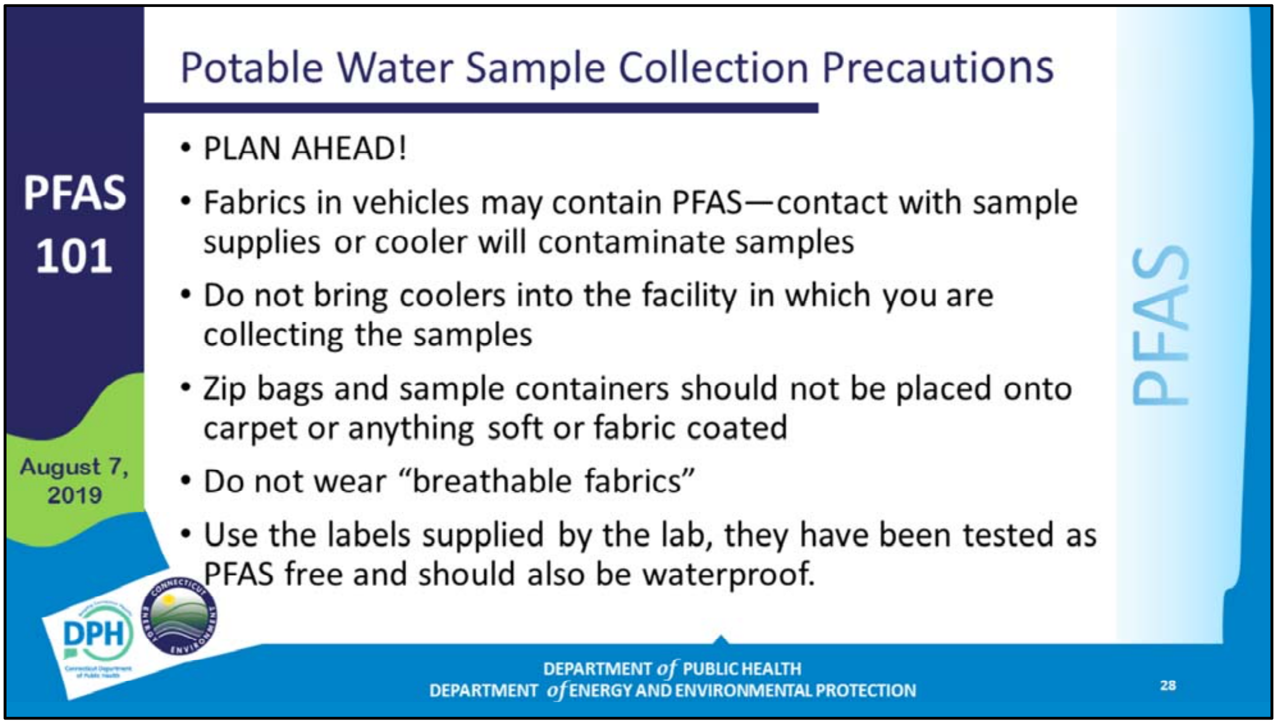
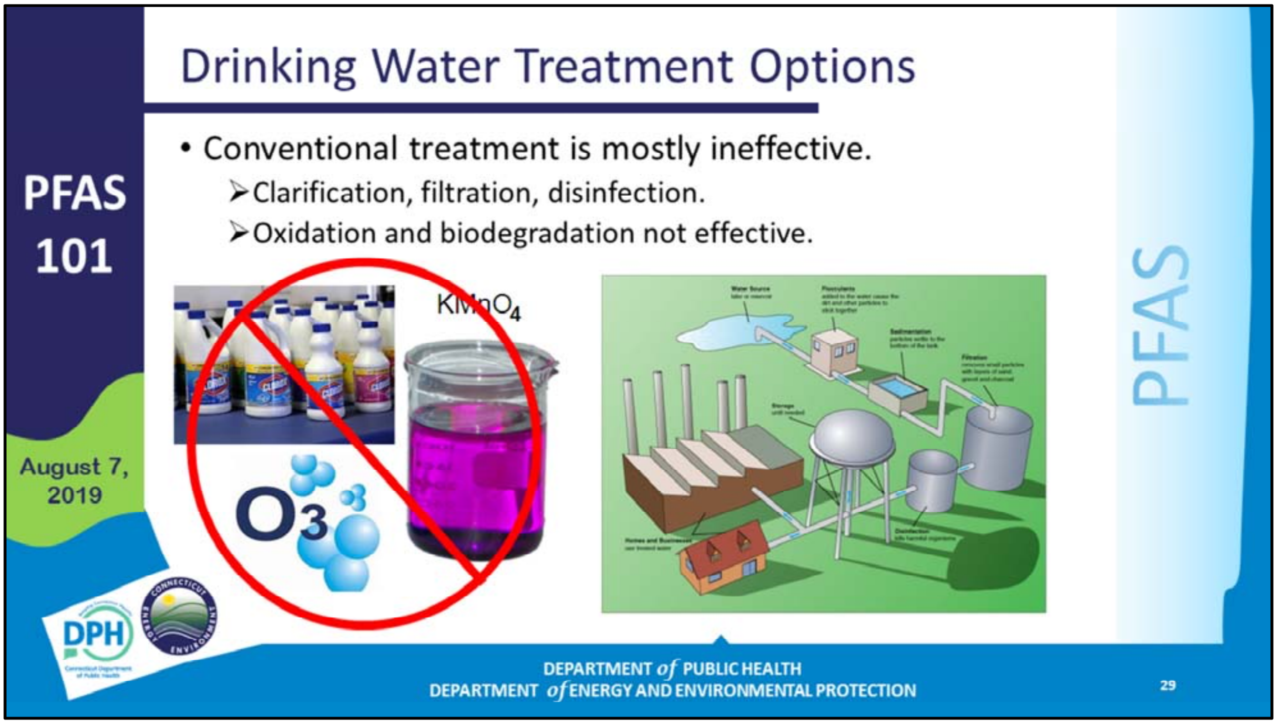


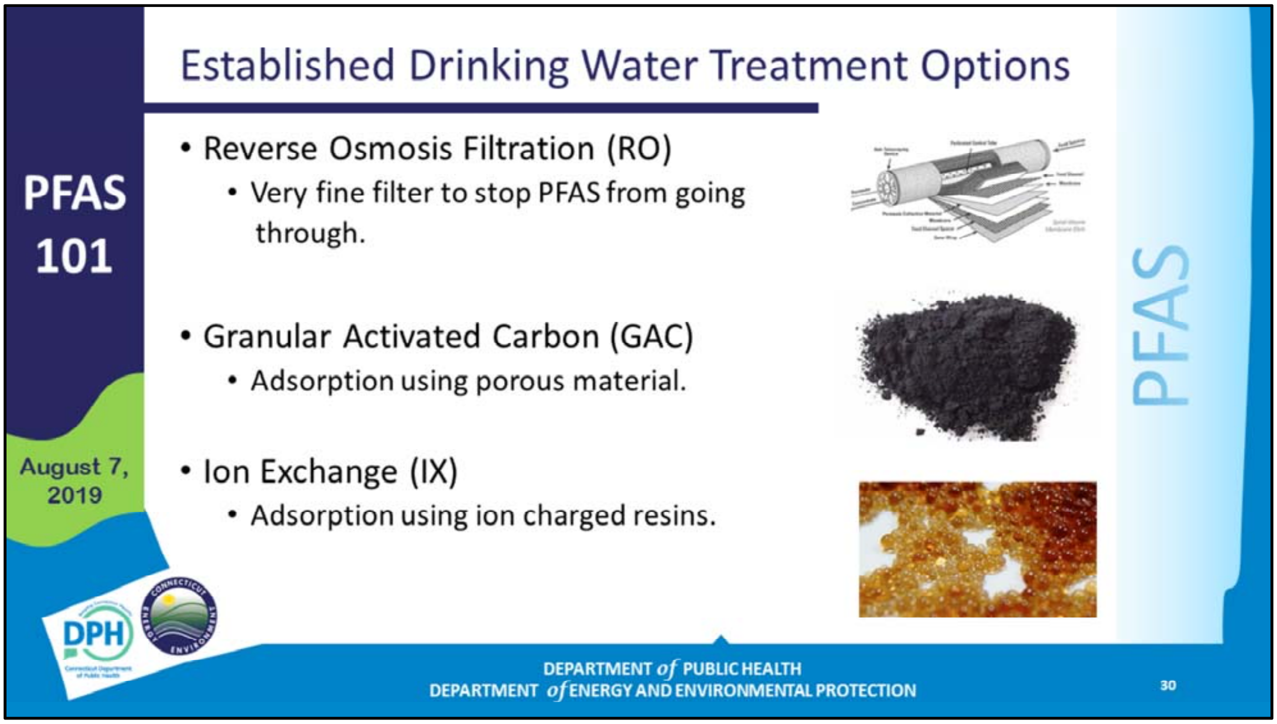
Because PFAS is used in so many consumer products, and the laboratory detection limits are in the single digit parts per trillion; it is easy to cross contaminate while collecting samples. These are some of the most frequent ways samples can be cross contaminated.



Per- and polyfluorinated substances move right through most conventional treatment processes. Conventional treatment is associated with surface water treatment for community public water systems.

Oxidants such as chlorine, potassium permanganate and ozone are also not very effective at treating for PFAS.

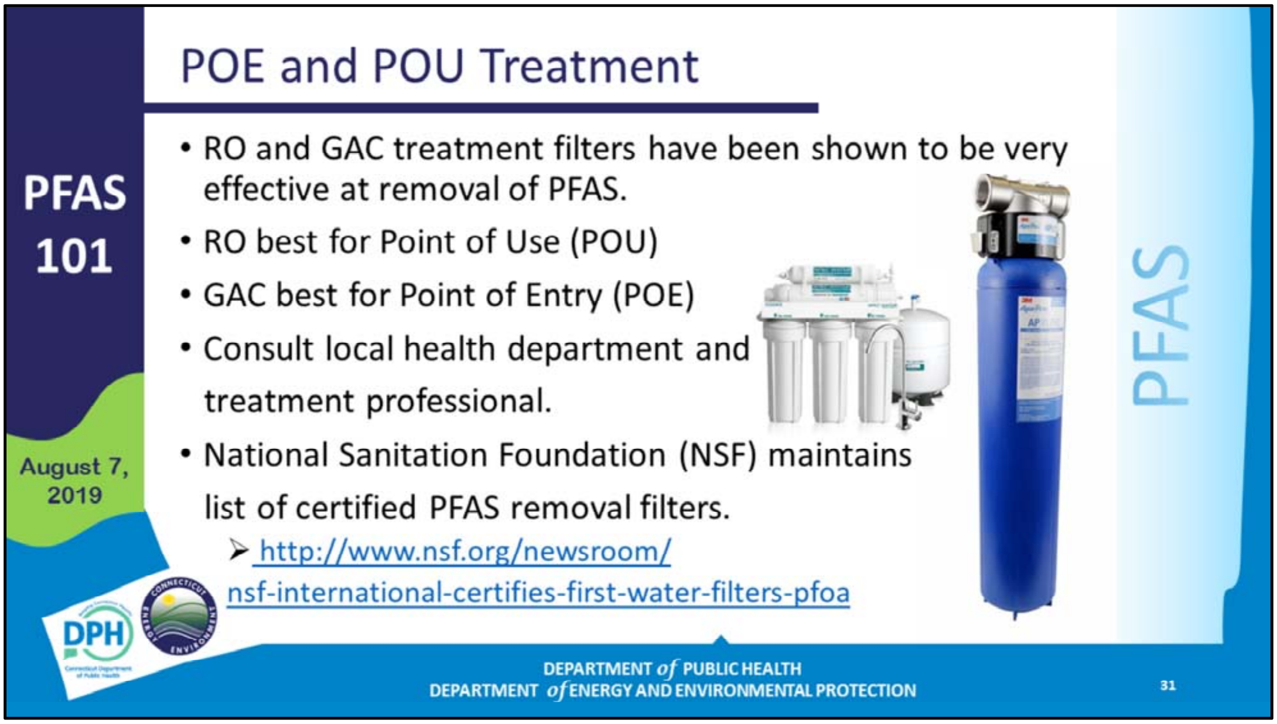
Some treatment processes such as biological treatment can even increase the concentration of PFAS due to the break down of the larger precursor chemicals.



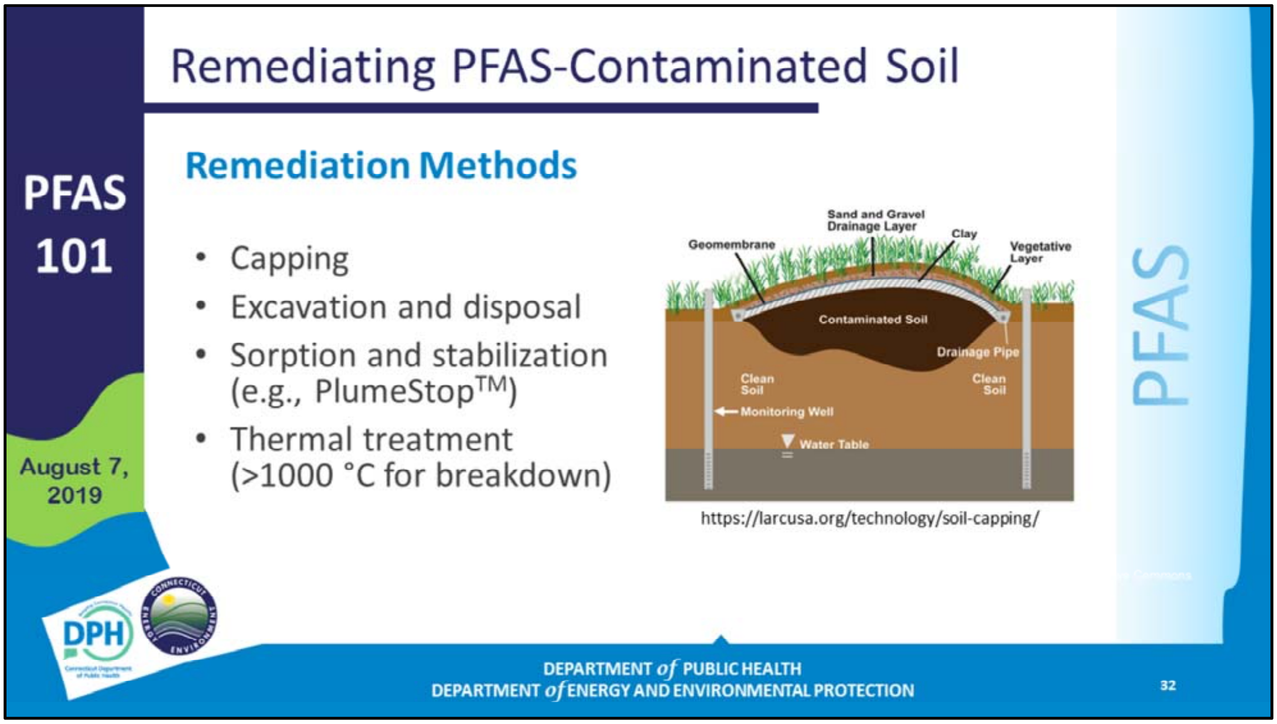
RO: a process by which a solvent passes through a porous membrane in the direction opposite to that for natural osmosis when subjected to a hydrostatic pressure greater than the osmotic pressure.

GAC: adsorbs natural organic compounds, taste and odor compounds, and synthetic organic chemicals. Adsorption is the physical and chemical process of accumulating a substance at the interface between liquid and solids phases. Activated carbon is an effective adsorbent because it is a highly porous material and provides a large surface area to which contaminants may adsorb.

IX: the exchange of ions of the same charge between an insoluble solid and a solution in contact with it, used in water-softening and other purification and separation processes.

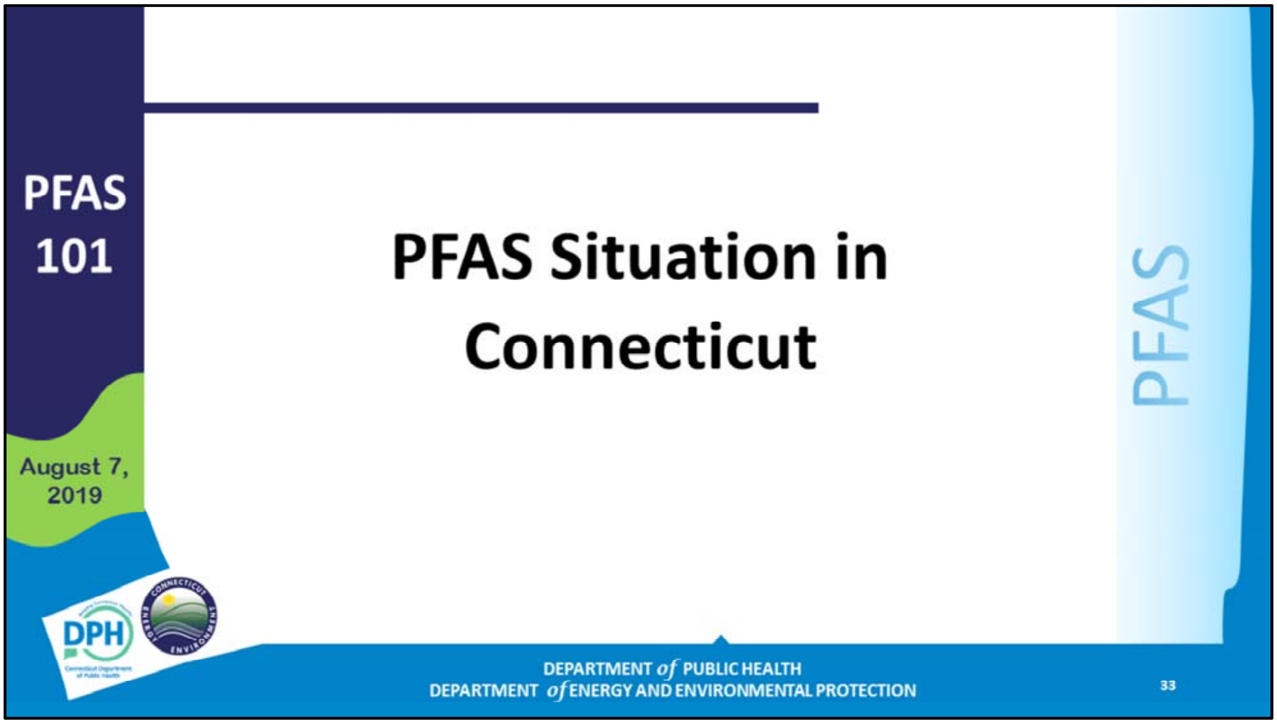


The Point of Entry water filtration system is an option for treating all of the water that comes into the building.
Point of Use systems are installed on individual sources of water such as a kitchen sinks.
Typically RO is more appropriate as point of use systems (under kitchen sink) due to elevated cost of larger units and large quantity of reject wastewater that needs to be disposed of.
GAC is more appropriate for point of entry systems (whole house or building treatment).
Important to consult a water treatment professional or certified operator for public water system, to determine best means of treatment.
Important to consult with local health on permit requirements for discharge of wastewater from treatment backwash.



Slow action from EPA, therefore states need to regulate
Multitude of sources

Thermal—temperature range required (desorption vs. breakdown), concerns about airborne effluent
*Look back at other methods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Evolution of PFAS Knowledge in CT

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2013-2015
- EPA-mandated testing of large public drinking water systems; no PFAS detections reported

2016
- EPA Health Advisory and CT DPH Drinking Water Action Level
- EPA testing at two Superfund sites

2017
- Contamination in Westchester County, NY

2018
- Testing & public outreach in Greenwich
- Windham fire training area tested
- DPH requires land use risk assessments by 80 PWS
- DESPP and DEEP form committee to select alternative to AFFF

2019
- DPH requires testing at proposed public wells
- DEEP samples near MIRA landfills
- AFFF release at Bradley Airport hangar
- DESPP and DEEP issue AFFF Use Bulletin

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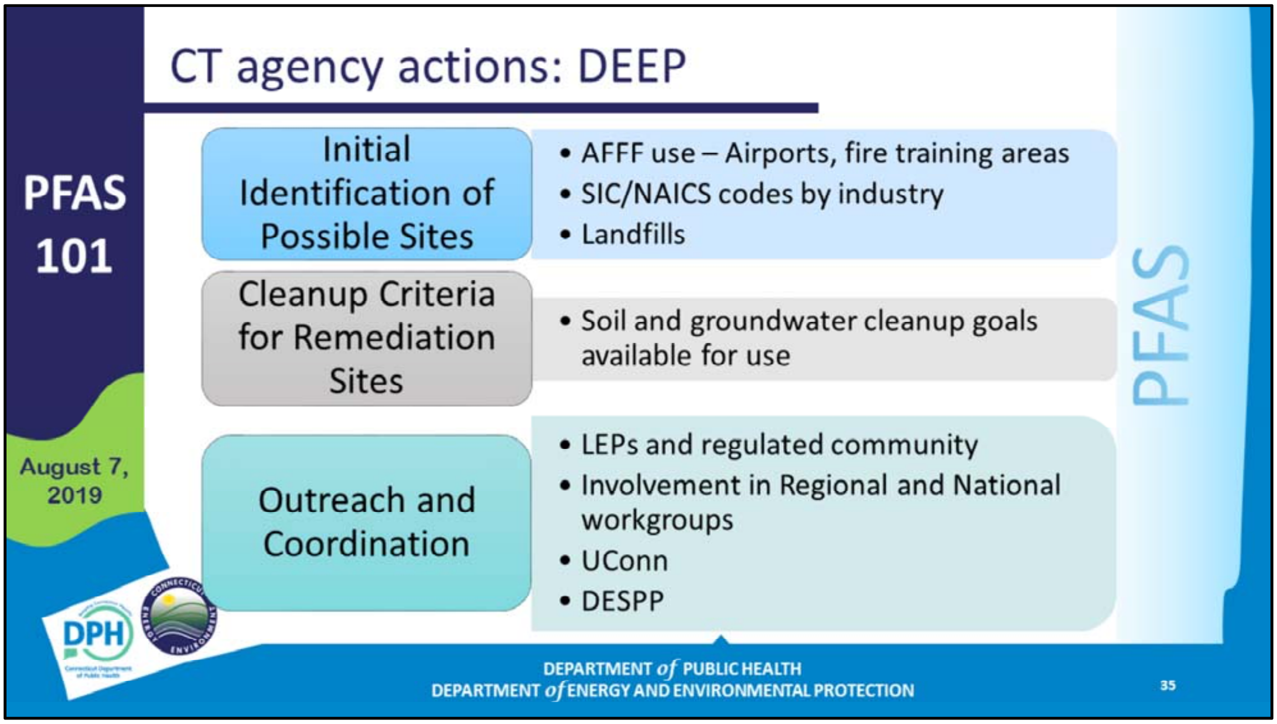
CT agency actions: DEEP
PFAS 101
August 7, 2019
Initial Identification of Possible Sites
• AFFF use – Airports, fire training areas
• SIC/NAICS codes by industry
• Landfills
Cleanup Criteria for Remediation Sites
• Soil and groundwater cleanup goals available for use
Outreach and Coordination
• LEPs and regulated community
• Involvement in Regional and National workgroups
• UConn
• DESPP
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Remediation Standard Regulations

- **If PFAS are COCs based on site history/operations, they should be included in site characterization.**
- PFAS must be addressed as **Additional Polluting Substances** at Remediation Sites.
  - Utilize EPA's RfD of 0.00002 mg/kg/day
  - Soil Direct Exposure Criteria – use equations in RSR Section 22a-133k-2(b)(5)
  - Groundwater Protection – Adopts CT DPH's DWAL of 70 ppt for ∑ PFOA, PFOS, PFHxS, PFNA, and PFHpA
- **OR Calculate Site-Specific Criteria for DEEP review and approval**

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Additional Polluting Substance Criteria

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August 7, 2019

Remediation Standard	Criterion
Residential Direct Exposure Criterion	1.35 mg/kg
Industrial/Commercial Direct Exposure Criterion	41 mg/kg
GA Pollutant Mobility Criterion	1.4 μg/kg
GB Pollutant Mobility Criterion	14 μg/kg
Groundwater Protection Criterion (adopting DPH's Drinking Water Action Level for ∑ PFOA, PFOS, PFHxS, PFNA, and PFHpA)	70 ng/L
Surface Water Protection Criterion	In Development

Criteria apply to ∑ PFOA, PFOS, PFHxS, PFNA, & PFHpA

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Significant Environmental Hazards

CGS Section 22a-6u(c) – Drinking Water Well has Contamination Detected at Any Level

After July 1, 2015, if a TEP **in the course of investigating and remediating pollution on or emanating from a parcel** determines **pollution has affected** a public or private drinking **water supply well…with any substance** from the release **for which there is no RSR criterion,**

- **TEP shall notify client and owner of property within 7 days** of finding well contamination.
- **Owner of parcel that is source of pollution** to a drinking water well shall
  1. **Notify Commissioner in writing within 30 days** of becoming aware, and
  2. **Perform confirmatory sampling of well and submit report to Commissioner with a plan for further action within 30 days**.

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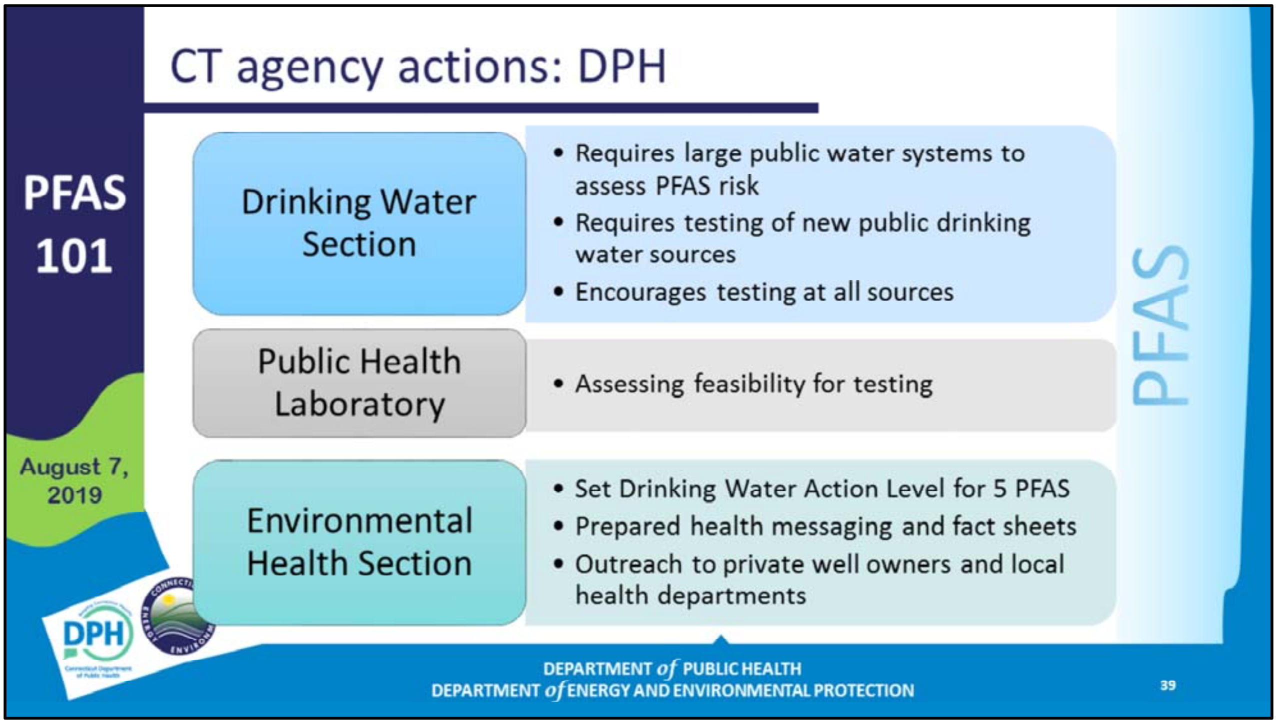

DPH actions focus on human health, reducing exposure risks and developing educational material. Using Land use vulnerability assessments prepared by water utilities to map and identify areas where communities are vulnerable to PFAS contamination. Maintaining subject matter expertise. Working directly with Local Health Departments to provide community focused messaging.

Land Use Assessments

- Collaborated with the CT Section of the American Water Works Association's Source Protection Committee
- Using the PFAS Fact Sheet series developed by the Interstate Technology Regulatory Council for reference material

Source Water PFAS[1] 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-1(f)(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

Circular Letter 2018-19

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- Sent to all Public Water Systems, Directors of Health, Chief Elected Officials and Certified Water System Operators on September 27,2018
- Notified the public that the DWS is using the DPH Drinking Water Health Advisory
- Notified the public that the DWS is requiring all proposed sources of public drinking water supply to test for PFAS prior to receiving approval for use.
- Let the public know that the DWS has experience sampling and working with public water systems at risk for PFAS contamination.

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CT Actions: Interagency Collaboration

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Information Sharing
- Geographic Information System Mapping
- Remediation activity information
- Public Drinking Water Information

Response
- DPH and DEEP employees are trained to collect drinking water samples
- Responded to identified contamination in Greenwich
- Collaborated during identified contamination in Windham

Public Outreach
- Developing communication tools and webpages
- Correspondence with DESPP and CAA
- Presenting to industry groups, health associations and the public
- Rely on Local Health Depts. to lead community level communications
- Attending public outreach events

DPH, DEEP & Local Health Coordination

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August 7, 2019

Residents Ask Tough Questions on PFAS Contamination of Well Water

Greenwich

Windsor

State officials seek to reassure public on health risks from Farmington River chemical spill

By GREGORY B. HLADKY | HARTFORD COURANT

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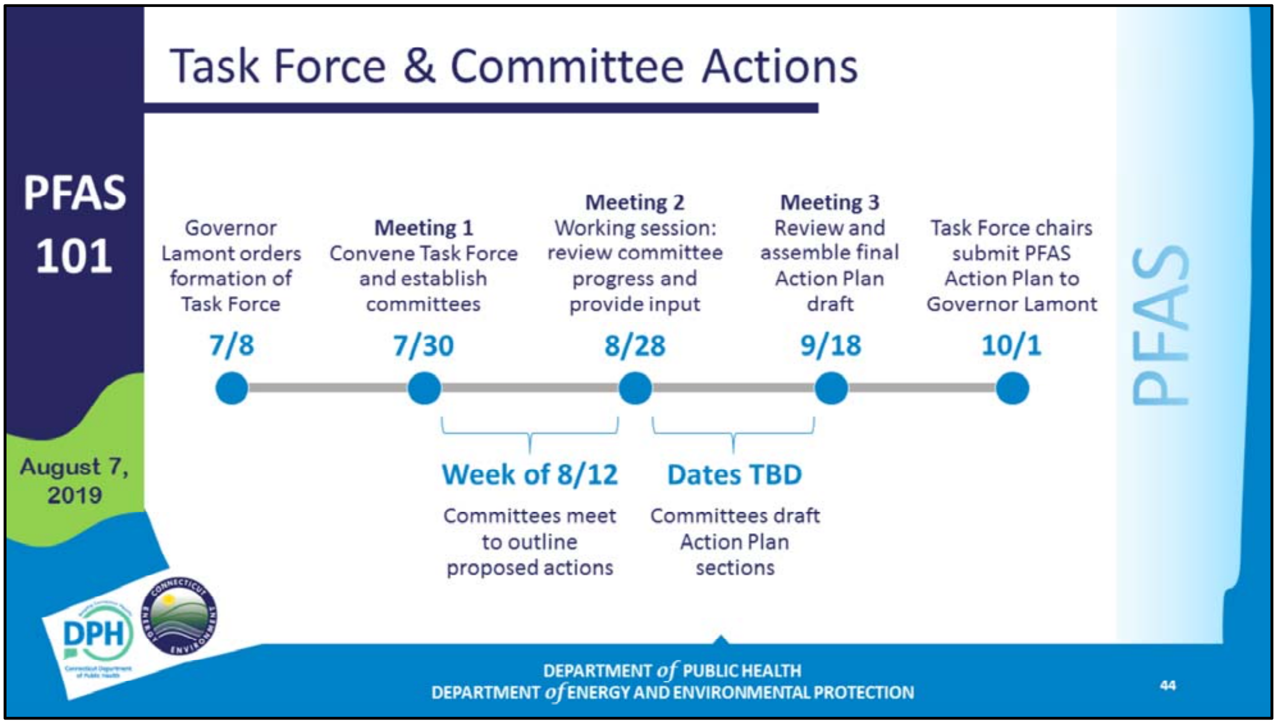

Task Force & Committee Actions
PFAS 101
August 7, 2019
Governor Lamont orders formation of Task Force
7/8
Meeting 1
Convene Task Force and establish committees
7/30
Meeting 2
Working session: review committee progress and provide input
8/28
Meeting 3
Review and assemble final Action Plan draft
9/18
Task Force chairs submit PFAS Action Plan to Governor Lamont
10/1
Week of 8/12
Committees meet to outline proposed actions
Dates TBD
Committees draft Action Plan sections
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Governor's Interagency PFAS Task Force

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August 7, 2019

- Visit the Task Force Web Site: https://www.ct.gov/deep/cwp/view.asp?a=2715&Q=609572&deepNav_GID=1626
- Stay informed—sign up for the List Serve
- Look for the upcoming Committee Meetings
- Email questions to CTPFAS@ct.gov

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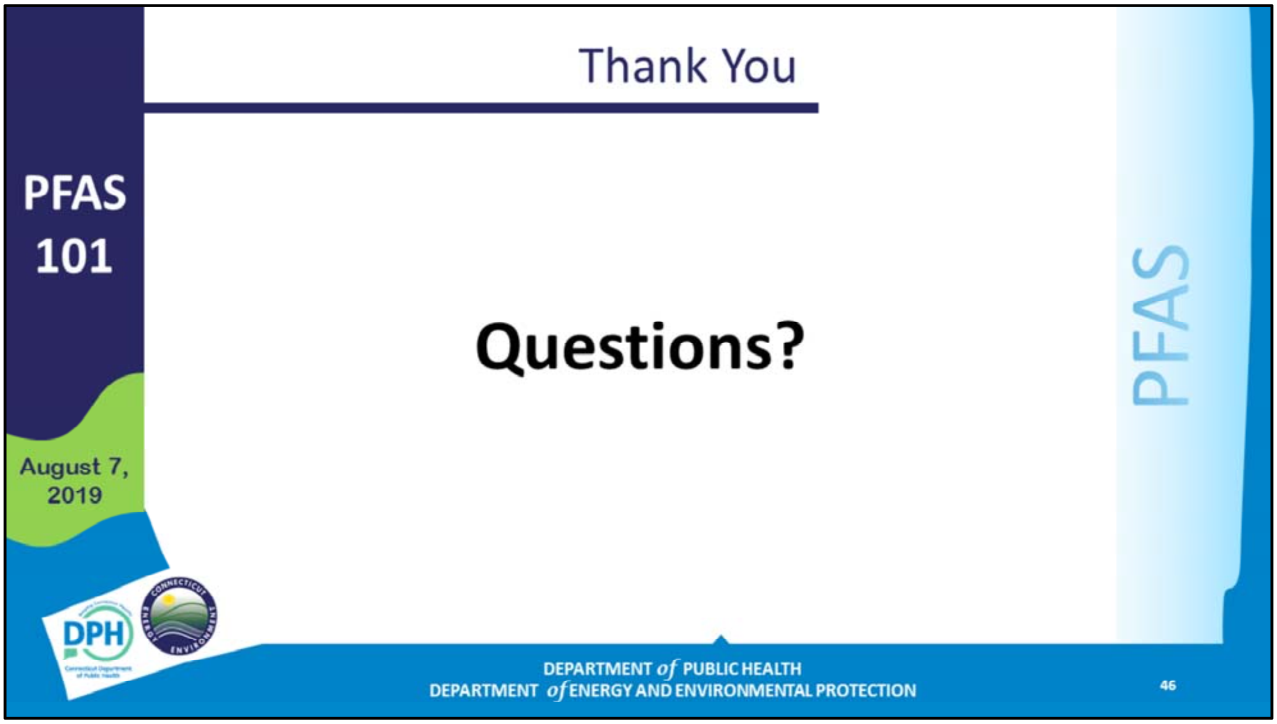
Thank You
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Questions?
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