

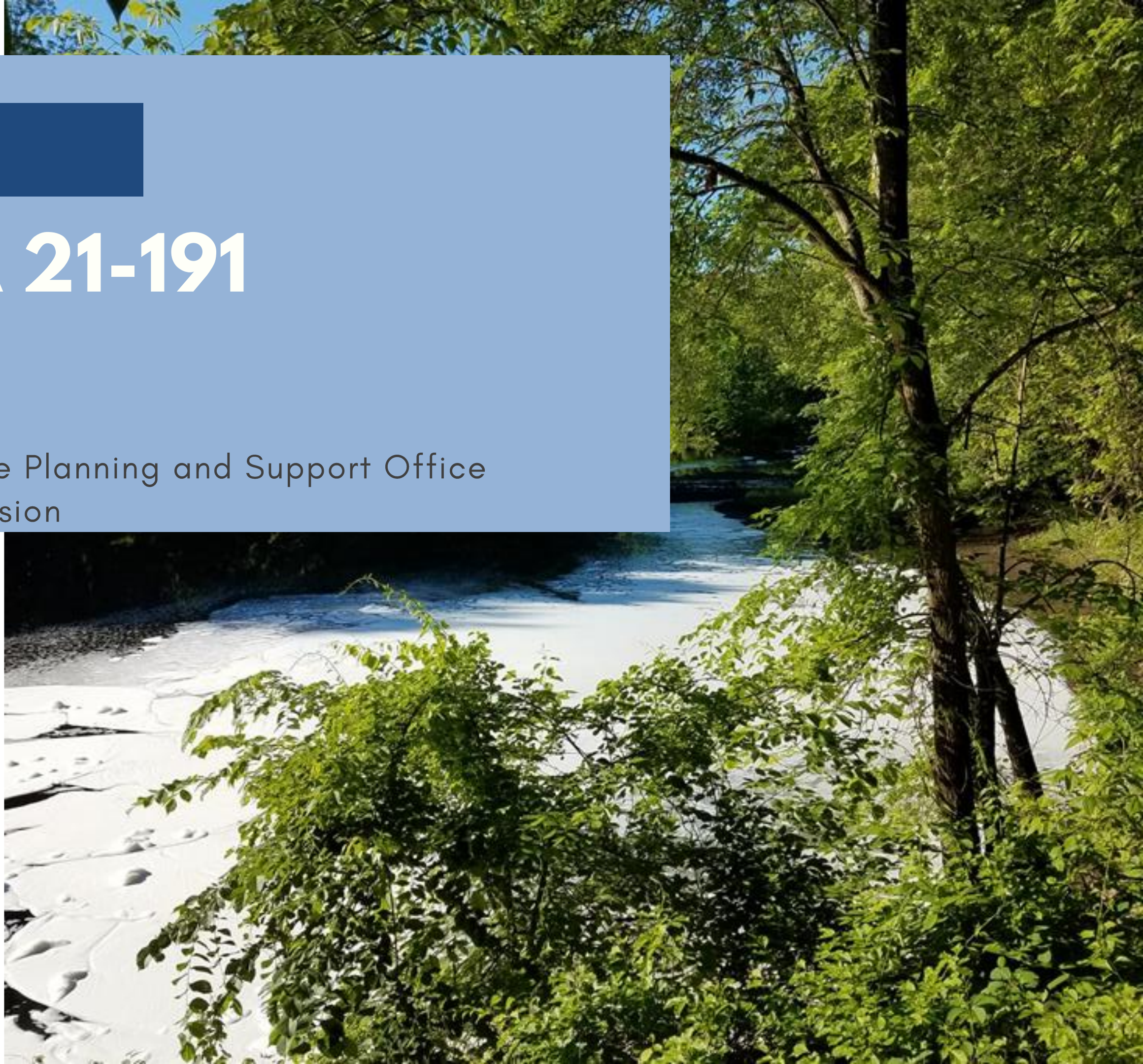
Informational Briefing – 10/15/2021

# New PFAS Law PA 21-191 Takes Effect

Speakers:

Diane Duva, CT DEEP Emergency Response Planning and Support Office

Shannon Pociu, CT DEEP Remediation Division





# AGENDA

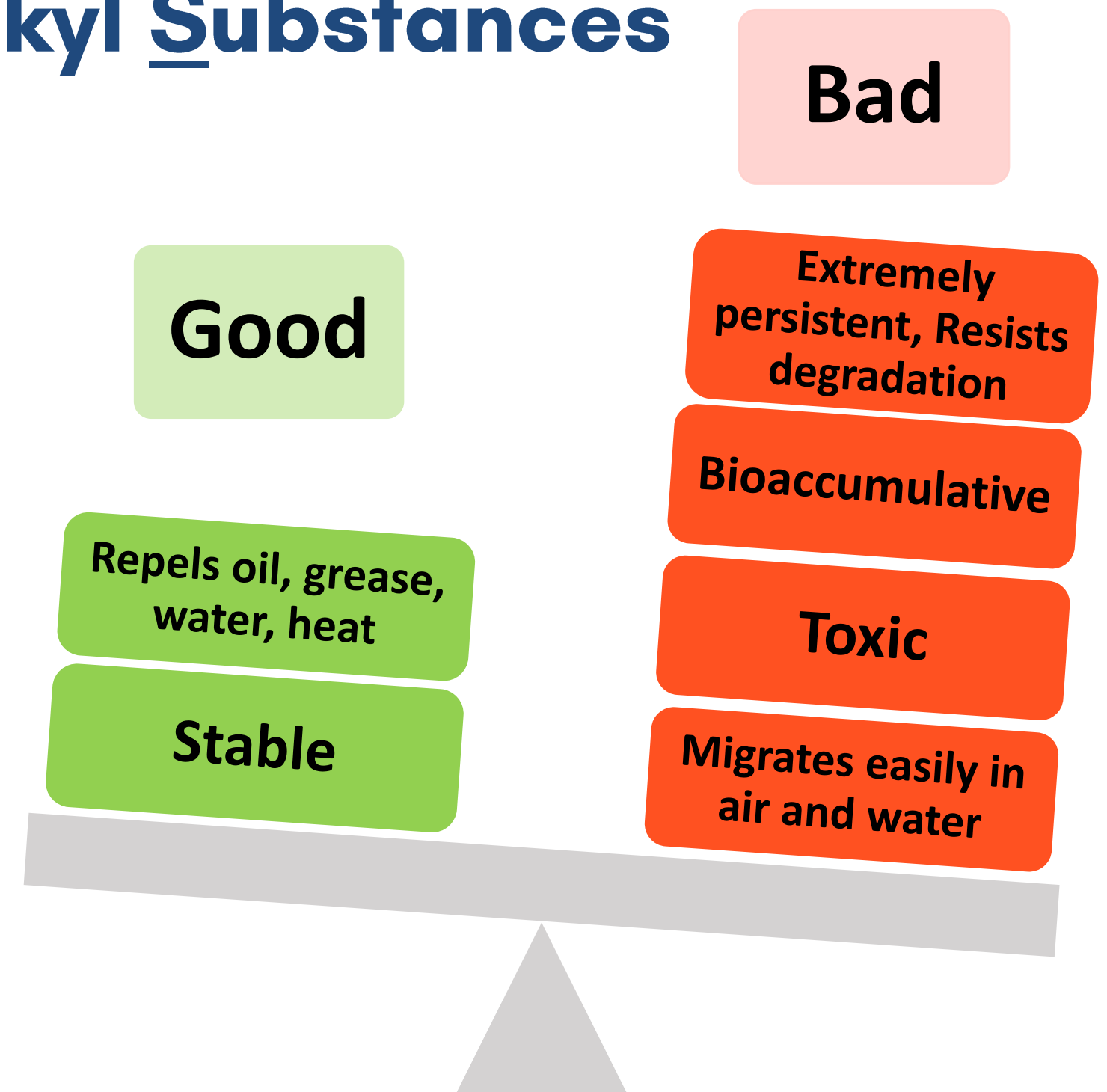
- What are PFAS, and why are they a problem?
- New Legislation – Public Act 21-191
- Extensions for Compliance with Ban
- AFFF Take-Back Program
- Questions



# What are PFAS?

## PFAS = Per- and Polyfluorinated Alkyl Substances

- Family of >5,000 chemicals
- Widely used in industrial processes and consumer products since 1950s
- Common products
  - Non-stick cookware
  - Grease-resistant food packaging
  - Waterproof apparel
  - Stain-resistant fabrics & carpet
  - **Aqueous Film-Forming Foam (AFFF)**



# Problems Caused by PFAS

Health effects on multiple organs and phases of life

Present in human blood worldwide

Polluted drinking water supplies worldwide – now issue in US

Ubiquitous discovery in the environment

Replacement chemicals also a problem



# PFAS Uses and Sources





# Where is AFFF Used?

- Military bases
- Airports
- Crash sites
- Oil terminals and refineries
- Chemical plants
- Firefighting training facilities
- Large petroleum fires
- Fire suppression systems





# Major AFFF Incidents in CT

**Farmington River, June 2019**



**Rainbow Brook, October 2019**





# CT Interagency PFAS Task Force ACTION PLAN OVERVIEW

[www.ct.gov/CTPFASTaskForce](http://www.ct.gov/CTPFASTaskForce)

## HUMAN HEALTH

Minimize human health  
risk for Connecticut  
residents

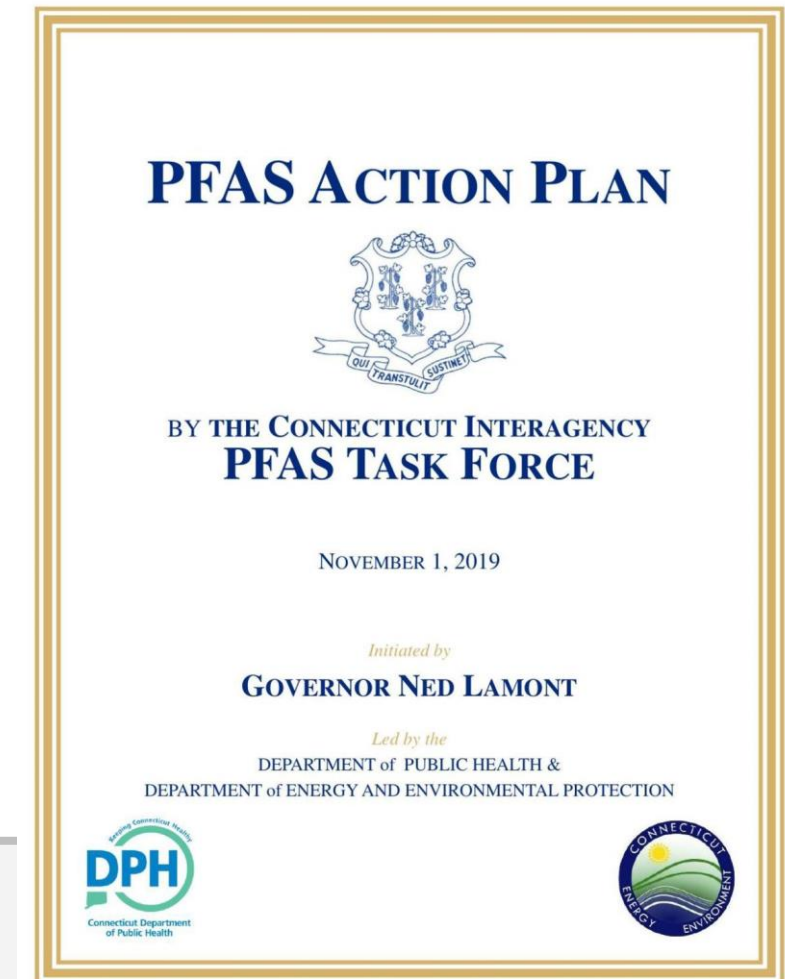
## POLLUTION PREVENTION

Minimize future releases  
of PFAS to the  
environment

## REMEDIATION

Identify, assess, and  
clean up historical  
releases of PFAS to the  
environment

**Education, outreach, & communication**  
**Legislative opportunities**





# Public Act 21-191

## AN ACT CONCERNING THE USE OF PERFLUOROALKYL OR POLYFLUOROALKYL SUBSTANCES IN CLASS B FIREFIGHTING FOAM.

- Signed July 13, 2021
- 2 Sections:
  - Section 1: AFFF provisions
  - Section 2: Bans in-state sale of PFAS-containing food packaging beginning Jan. 2024 – amends CGS Section 22a-255h (not being discussed here)



# Public Act 21-191 – Phased Ban

Effective dates of bans on use of Class B foam containing PFAS.

AFFF USE	EFFECTIVE DATE OF BAN
Testing and training	7/13/2021
Firefighting or vapor suppression	10/1/2021
Airports	10/1/2023
Federally-required uses	Allowed until prohibited by Federal law, or 1 year after Federal law changes no longer requiring use.



# Public Act 21-191 – Section Summary

- **Section 1(b)(1) – Bans testing and training** with Class B foam containing PFAS (AFFF) upon bill passage (7/13/2021).
- **Section 1(b)(2) – Bans use of AFFF for firefighting or vapor suppression after 10/1/2021**, with exceptions, provided DEEP identified alternative by 7/1/2021.
  - National Foam Universal<sup>®F3</sup> Green identified for state use.
  - Other alternatives may be identified by DEEP in consultation with DESPP/CFPC.



# Public Act 21-191 – Alternative Foams

## Acceptable Fluorine-Free Firefighting Foams (F3)

- Must be free of all PFAS (not just PFOA or PFOS, which are two specific chemicals)
- Consult manufacturer to ensure new foam does not contain any intentionally added PFAS.
- Consider GreenScreen™ Certified Fluorine-Free Foam Products.  
[GreenScreen Certified™ for Firefighting Foam | GreenScreen® For Safer Chemicals \(greenscreenchemicals.org\)](https://www.greenscreenchemicals.org)

**DEEP is not formally “approving” any firefighting foams.**



# Public Act 21-191 – Section Summary

## ■ Section 1(b)(3) – Airports

- Must immediately use mitigation measures to prevent releases of AFFF to the environment, using containment, treatment, and disposal.
- Must phase out AFFF use/deployment systems by 10/1/2023.

## ■ Section 1(b)(4) – AFFF Use Required by Federal Law allowed until either:

- Federal law changes and prohibits use of AFFF, or
- 1 year after change in Federal law no longer requiring AFFF use.



# Public Act 21-191 – Section Summary

- **Section 1(b)(5) – Extensions to comply with 10/1/2021 AFFF ban**  
will be allowed for:
  - Chemical plants
  - Oil refineries
  - Terminal, storage, and distribution facilities for flammable liquids
- Must first apply to DEEP for 2-year extension.
  - [Extension of Class B PFAS Firefighting Foam Use \(ct.gov\)](#)
  - Will need to provide:
    - ✓ Justification for request
    - ✓ Containment, treatment, and disposal measures for AFFF



# Public Act 21-191 – Extensions for Compliance

## Request for Extension

DEEP may grant an extension of up to two years if it is determined that such extension is necessary to remove or repurpose a fire suppression system containing PFAS foam.

- Complete the [Request for Extension of Class B PFAS Firefighting Foam Use](#) [2-page fillable form]
- Email completed form to [DEEP.MarineTerminals@ct.gov](mailto:DEEP.MarineTerminals@ct.gov).
- Approvals/rejections will be emailed.
- For more information, contact [Dave Keating](#) ([860-729-4945](tel:860-729-4945)).



Connecticut Department of  
Energy & Environmental Protection  
Bureau of Materials Management & Compliance Assurance  
Emergency Response & Spill Prevention Division

### Request for Extension of Class B PFAS Firefighting Foam Use

Use this form to request an extension of the deadline to cease use of Class B PFAS Firefighting Foam for marine terminals and other potentially impacted industries under [Public Act 21-191](#). Class B PFAS-Containing Firefighting Foam may be labeled [AFFF](#), [AR-AFFF](#), [FFFP](#), [AR-FFFP](#), [FP](#), or [FPAR](#). ("Fluorinated Foam"). Email the completed form to [DEEP.MarineTerminals@ct.gov](mailto:DEEP.MarineTerminals@ct.gov).

Site Name: Location of Fluorinated Foam  
Address: Location of Fluorinated Foam  
Town: Town → CT → Zip: Zip  
Contact Person: Contact Name  
Title: Contact Person Title  
Email: Contact Person email address  
Phone: Contact Person Phone

Type of Facility:  
☐ Chemical plant → ☐ Oil refinery → ☐ Other: Type of facility  
→ Flammable Liquid Facility → ☐ Marine Terminal → ☐ Storage Facility → ☐ Distribution Facility

Type of Fluorinated Foam stored at the site: Type of foam  
Volume stored on site: In gallons  
Location of the Fluorinated Foam onsite: Click or tap here to enter text.  
Site map showing the location of the Fluorinated Foam is attached (required): ☐  
Request extension to: No later than 10/1/2023

Why is this extension necessary (e.g., remove or repurpose Fluorinated Foam system)?  
Click or tap here to enter text.

What measures will be taken to prevent releases of Fluorinated Foam to the environment (i.e., containment, treatment, decontamination, and disposal)?  
Click or tap here to enter text.

End of Protected Section

PFAS-Class-B-Extension

1





# Public Act 21-191 – Section Summary

- Section 1(c) – DEEP shall develop or identify a **Take-Back Program** for municipal AFFF by 10/1/2021
- Section 1(d) – Provisions may be **enforced by DEEP** within available appropriations.



# AFFF TAKE-BACK PROGRAM

- Program administered by DEEP/DESPP, supported by \$2M bond funds
    - ✓ **PFAS-free foam selected** by DESPP with DEEP input for state use: Feb. 5, 2021
    - ✓ **Take-Back program underway** for state/municipal AFFF concentrate (20,000+ gal. collected to date)
- ✓ Phase 1 – Container collection and storage/disposal: **Launched in May 2021; 90% complete**
  - ✓ Phase 2 – Decontamination study: **Initiated Summer 2021**
  - ❑ Phase 3 – Remove AFFF from and decontaminate apparatus: **Begin Fall 2021**





# AFFF Container Collection

- Container collection underway to take-back and safely dispose of aqueous film-forming foam (AFFF) from state and municipal fire departments.
- Goal is to complete collection of containers this Fall.
- Draining and cleaning of apparatus will happen next.
- Contact: [FoamSurvey@ct.gov](mailto:FoamSurvey@ct.gov)





# AFFF TAKE-BACK PROGRAM – Decon Study



- **2 Decon Locations & Cleaning Methods**
  - AECOM/TRS - PerfluorAd
  - Arcadis - V171 (“FluoroFighter”)
- **Sampling Fluorine-Free Foam from municipal fire departments**  
that already replaced AFFF



# QUESTIONS?

[DEEP PFAS Webpage](#)  
[PFAS Task Force Webpage](#)  
[CT PFAS Action Plan](#)  
[CT CFPC Webpage](#)

Contact Information:  
[Shannon.Pociu@ct.gov](mailto:Shannon.Pociu@ct.gov)





# Reference Materials

# AFFF

- **ALL AFFF Contains PFAS**
- 1966 – AFFF patented for Class B fires (highly flammable or combustible liquids/hydrocarbons)
- 1969 – DoD military specification required PFOS
  - Spreads over the surface of flammable liquids and creates a film
  - Blankets the fuel, cools fuel surface, prevents re-ignition by suppressing flammable vapors





# AFFF Manufacturing History

- 1960s – 2000s – 7 AFFF manufacturers
  - 3M, Ansul, National Foam, Angus, Chemguard, Buckeye, Fire Service Plus, Inc.
  - All contain PFAS, especially PFOS (a specific chemical).
- Early 2000s – 2016 – AFFF reformulated to stop use of PFOS and PFOA (C8) and chemicals that breakdown to form them.
  - 3M phased out production from 2000–2002.
  - C8 PFAS replaced with shorter-chain and fluorotelomer PFAS (C6).
  - Replacement PFAS are still problematic to human health and the environment.
- Now – Effective Fluorine-Free Foams (F3) are available.