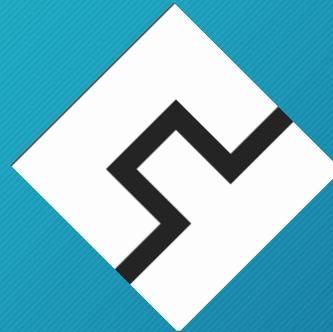


# Aqueous Film-Forming Foam (AFFF) and PFAS

Presented by:

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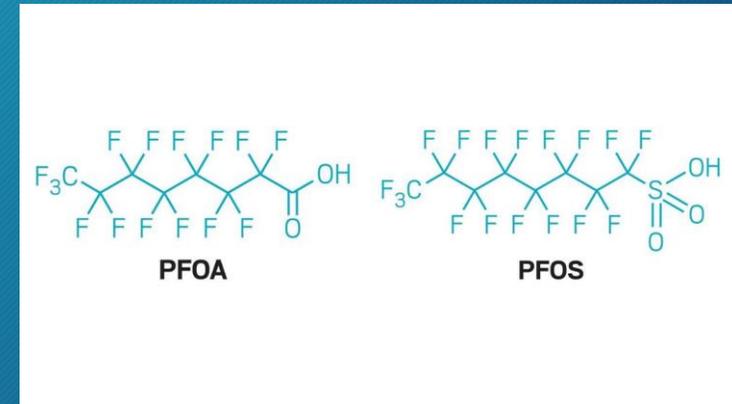


COLE|HUBER<sup>LLP</sup>  
ATTORNEYS

# THE HISTORY: PFAS AND AFFF

# Per- and Polyfluoroalkyl Substances (PFAS)

- “PFAS” = perfluoroalkyl and polyfluoroalkyl substances.
  - PFOS and PFOA are the two most widely studied PFAS chemicals
- The group contains several categories and classes of chemicals and materials with properties that include oil, water, temperature, chemical and fire resistance, as well as electrical insulating properties.
- Because of the strength of the carbon-fluorine bond, these chemicals do not degrade
- PFAS chemicals are **Persistent, Bioaccumulative, and Toxic**



# Early Timeline

1940's

Processes to produce PFAS were first developed

1963

US Navy seeks patent for AFFF containing PFAS to combat complex liquid fuel fires

1950's

3M launched several products containing PFAS, including their Scotchgard product line

1967

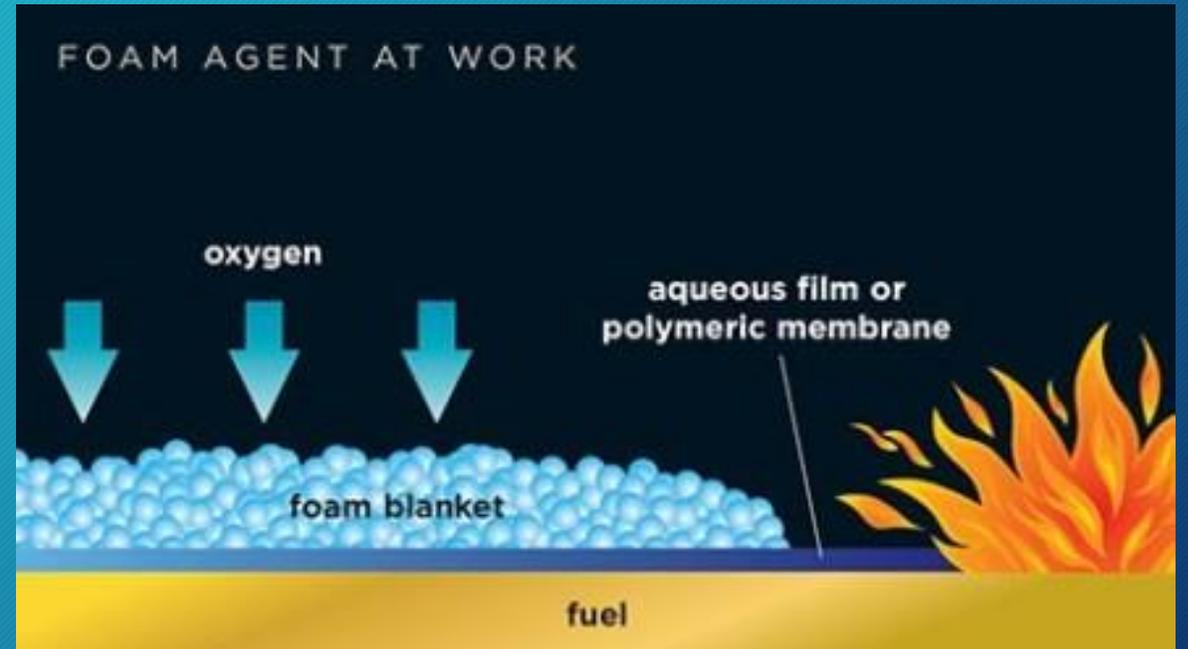
The Navy and Marine Corps require the use of AFFF

# What Products Contain PFAS

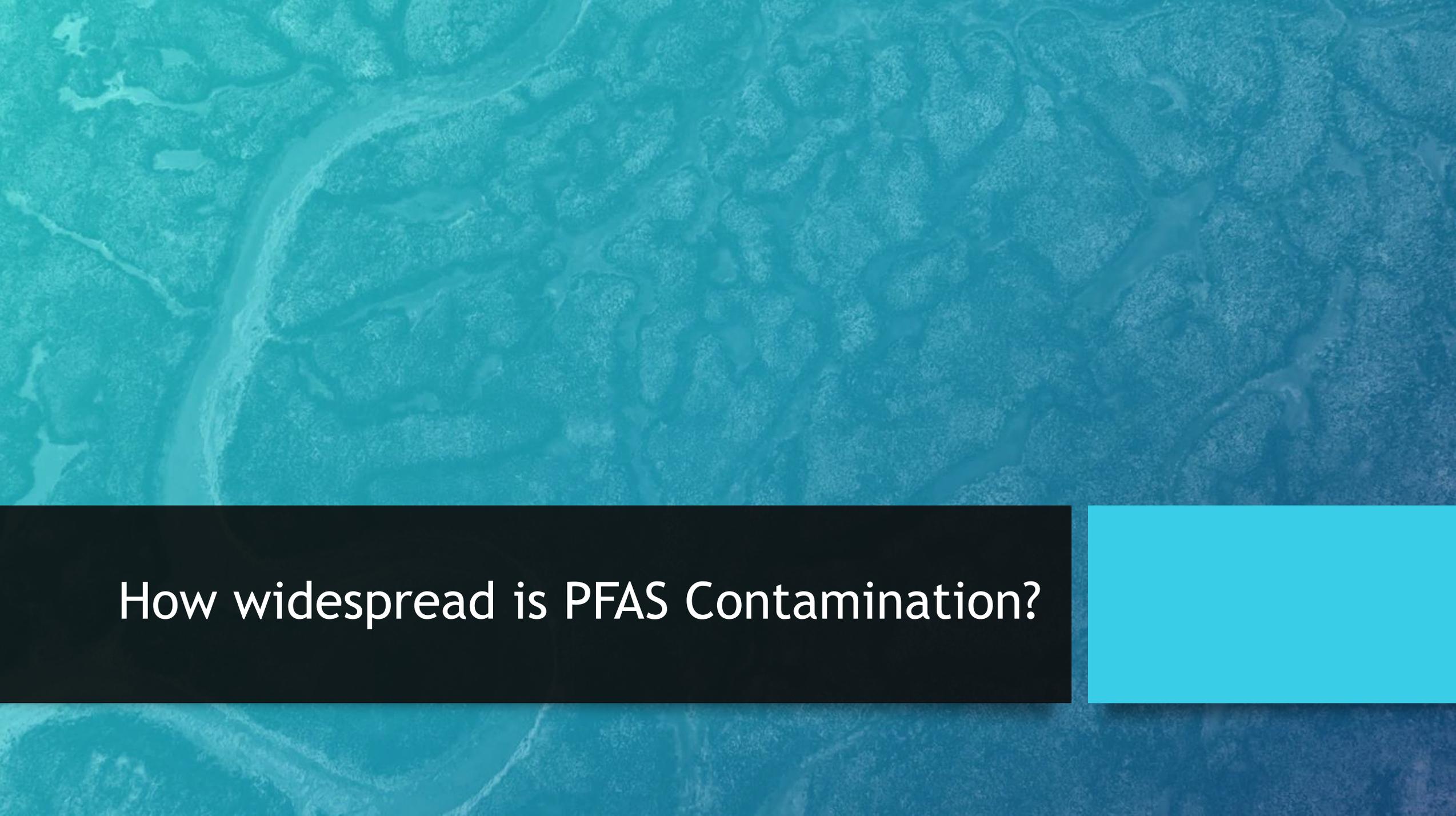
- Food packaging, such as microwave popcorn bags and fast-food wrappers;
- Stain-resistant carpets, rugs, and furniture;
- Non-stick cookware;
- Outdoor gear with a “durable water repellent” coating;
- Shampoo, paint, detergent and other liquid chemicals
- Aerospace, medical, and automotive applications; and
- Many specialty items such as ski wax, industrial applications and firefighting foams.

# How AFFF Works

- When applied to a hazard, AFFF produces an aqueous film that spreads across the surface of the fire to extinguish the flame.
- This film gives AFFF its name, and it works by suppressing flammable liquid vapor, effectively suffocating the fire hazard.
- The foam component of AFFF further suppresses fires by keeping hot fuel from reigniting.





An aerial photograph of a river system, overlaid with a semi-transparent teal color. The river winds through a landscape, with several tributaries and meanders visible. The overall tone is a deep teal, matching the background of the slide.

How widespread is PFAS Contamination?



# Installations Conducting Assessments for PFAS Use or Potential Release

30-Sep-2019



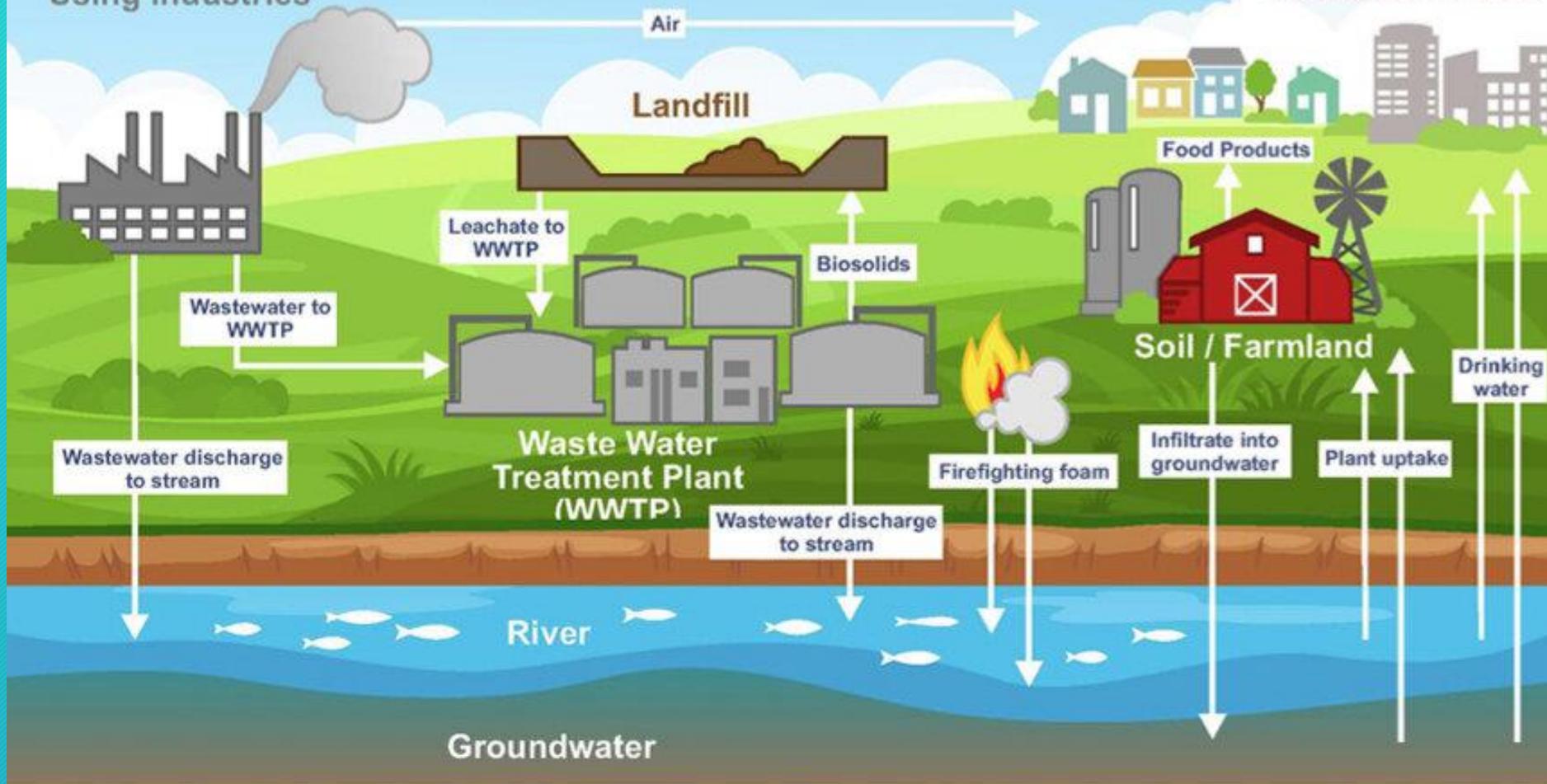
The Department of Defense released a new map on Friday of all 651 military sites where they are investigating PFAS contamination. The number of sites has grown from 401 in 2018. DEPARTMENT OF DEFENSE GRAPHIC

# PFAS Cycle

Household products with PFAS:  
fast food wrappers, non-stick cookware,  
shampoo, paint, detergent, etc.

PFAS Production/  
Using Industries

Homes & Offices



# Multidistrict Litigation

Aqueous Film-Forming Foams (AFFF) Products Liability Litigation

# AFFF Cases

- All involve varied causes of action and claims relating to AFFF containing per- or polyfluoroalkyl substances (PFAS).
- Plaintiffs generally allege that AFFF containing PFOA and/or PFOS contaminated surface water, groundwater and/or soil near various military bases, airports, fire stations, fire training facilities and other industrial sites where AFFFs were used to extinguish liquid fuel fires.

# AFFF Defendants

- AFFF and the fluorosurfactants used in its production were made by numerous manufacturers including:
  - 3M Company
  - DuPont
  - Chemours
  - Corteva, Inc.
  - Buckeye Fire Equipment Company
  - Kidde-Fenwal
  - National Foam
  - Tyco Fire Products
  - Chemguard
  - Dynax Corporation
  - ANSUL
  - And many more...

# Status of Current Litigation



Over 500 cases are currently pending in the MDL



28 depositions of chemists, executives, and other key witnesses have been conducted



Water provider cases will be the first bellwether cases.

# Questions