

PFAS: The Forever Chemical

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Why?

- They are everywhere
- They don't break down in soil or water
- Found in a huge number of industries and products (used in ski wax and found in the Alps!)
- Clean-up of water contamination is/will be a huge cost
- Likely to follow MTBE litigation – suits will be against manufacturers, dumpers, downstream users

Image: <https://securitymea.com/wp-content/uploads/2020/02/Risk-Ahead.jpg>

(Source: Praedicat Interview/Carrier Management:
<https://www.insurancejournal.com/news/national/2020/09/17/582798.htm>)



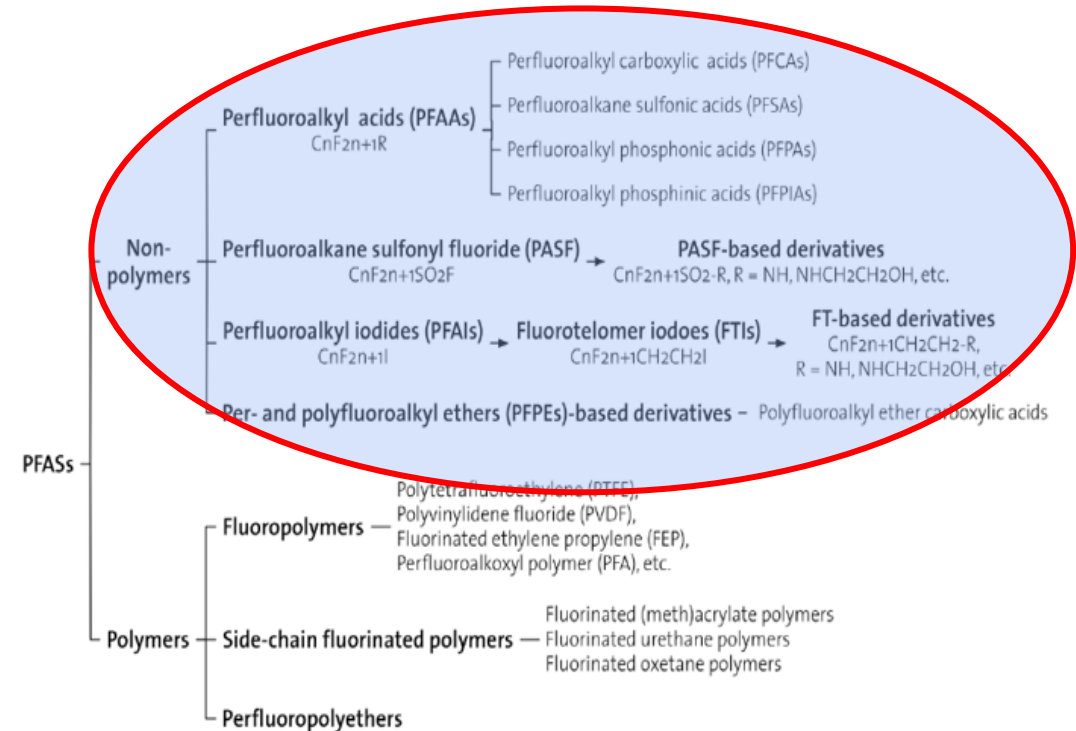
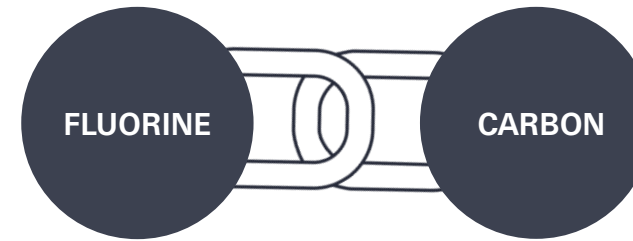
**“The #1
Emerging
Risk”**
(Praedicat)

What are PFAS?

Fluorine + Carbon = PFAS

(Per- and polyfluoroalkyl substances)

- PFAS is an umbrella term to indicate more than 7,000 compounds with very different chemical and physical properties
- Classification based on polymeric vs non-polymeric structure and functional groups
- Focus on *Non-polymer* compounds – most commonly detected and the subject of regulatory scrutiny



http://theic2.org/article/download-pdf/file_name/2019-01-28_The%20PFAS%20Universe%20Webinar%2030Jan2019_FINAL_1p.pdf

Sources and Exposure Pathways



Uses

- **Stain resistant and water proofing treatments** on carpets, textiles, furniture, etc.
- **Additives** in polishes, waxes, paints and cleaning products
- **Food contact surfaces** such as cookware, pizza boxes, fast food wrappers, popcorn bags, etc.
- **Protective coatings and sealants**, additives to hydraulic fluids and lubricants (in products as well as in industrial processes)
- **Cosmetics/personal care**
- **Pesticides**
- **Aqueous Film Forming Foams (“AFFF”)**

Everywhere



PFAS are:

- **Persistent**, remain intact for exceptionally long periods of time (many years);
- **Mobile**, becoming widely distributed throughout the environment as a result of natural processes involving soil, water and air;
- **Bio-accumulative**, in the fatty tissue of living organisms including humans, entering the food chain
- **Allegedly Toxic**, to both humans and wildlife

Everywhere
&
Forever

Alleged Human Health Effects

PFAS: The Forever Chemical, Swiss Re

—— high certainty
----- low certainty

developmental effects affecting the unborn child

delayed mammary gland development

reduced response to vaccines

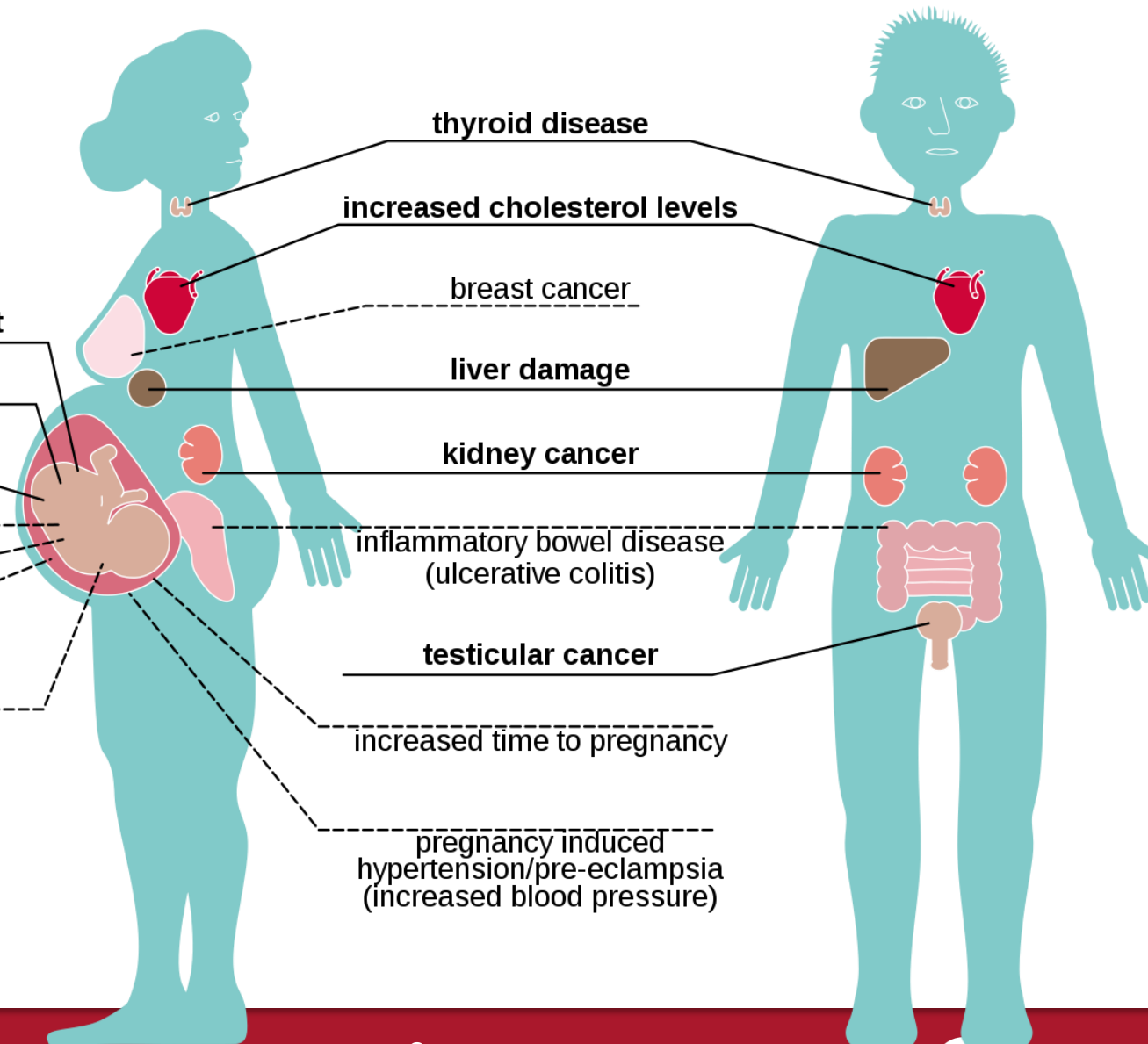
lower birth weight

obesity

early puberty onset

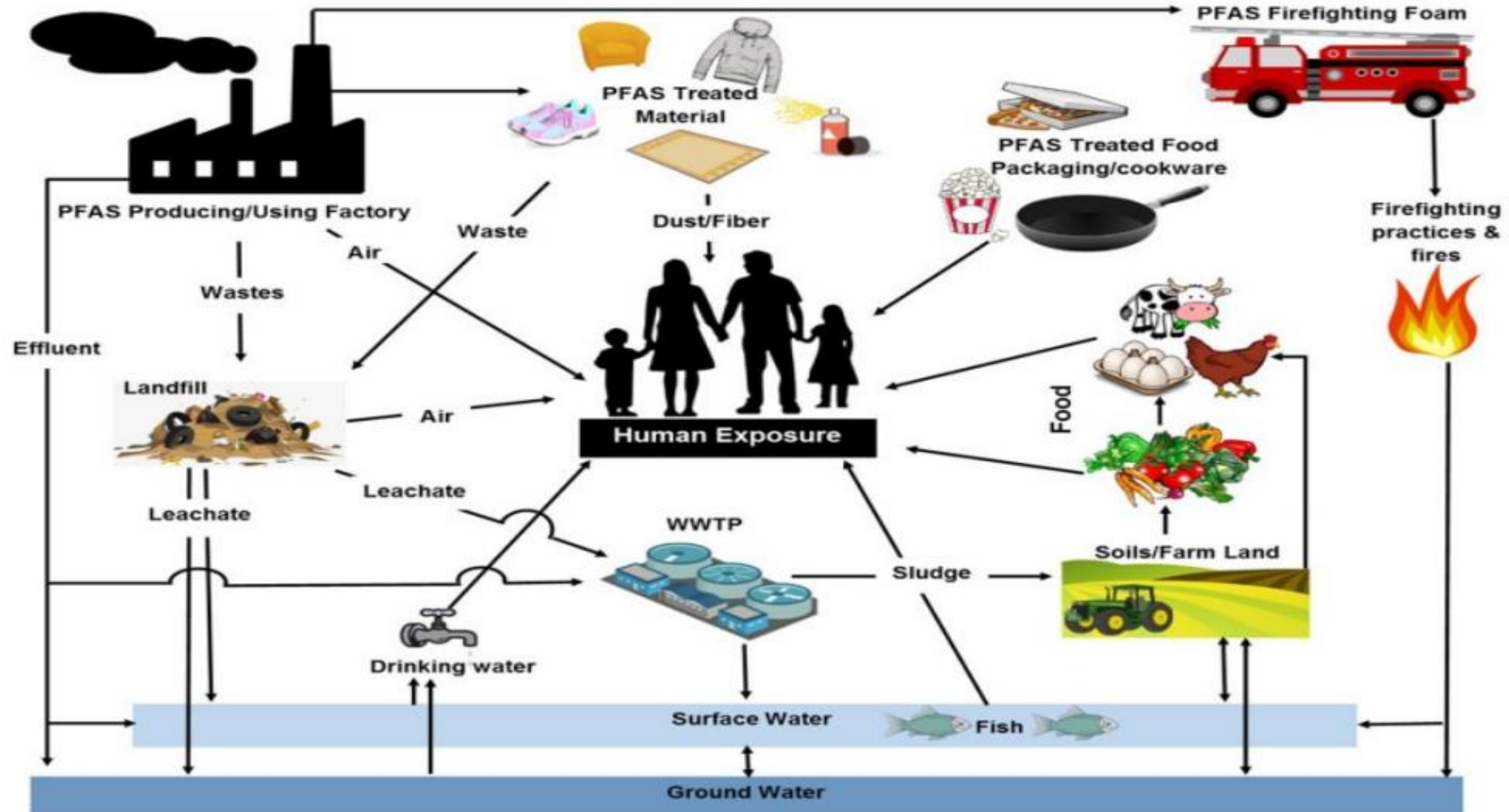
increased miscarriage risk (i. e. pregnancy loss)

low sperm count and mobility



<https://www.eea.europa.eu/themes/human/chemicals/emerging-chemical-risks-in-europe/Effectsofexposureinhumanhealthfinal.png>

PFAS sources and environmental pathways



Human Exposure and sources of PFAS
Image: DWP, adapted from Oliaei et al. 2013.



Challenges

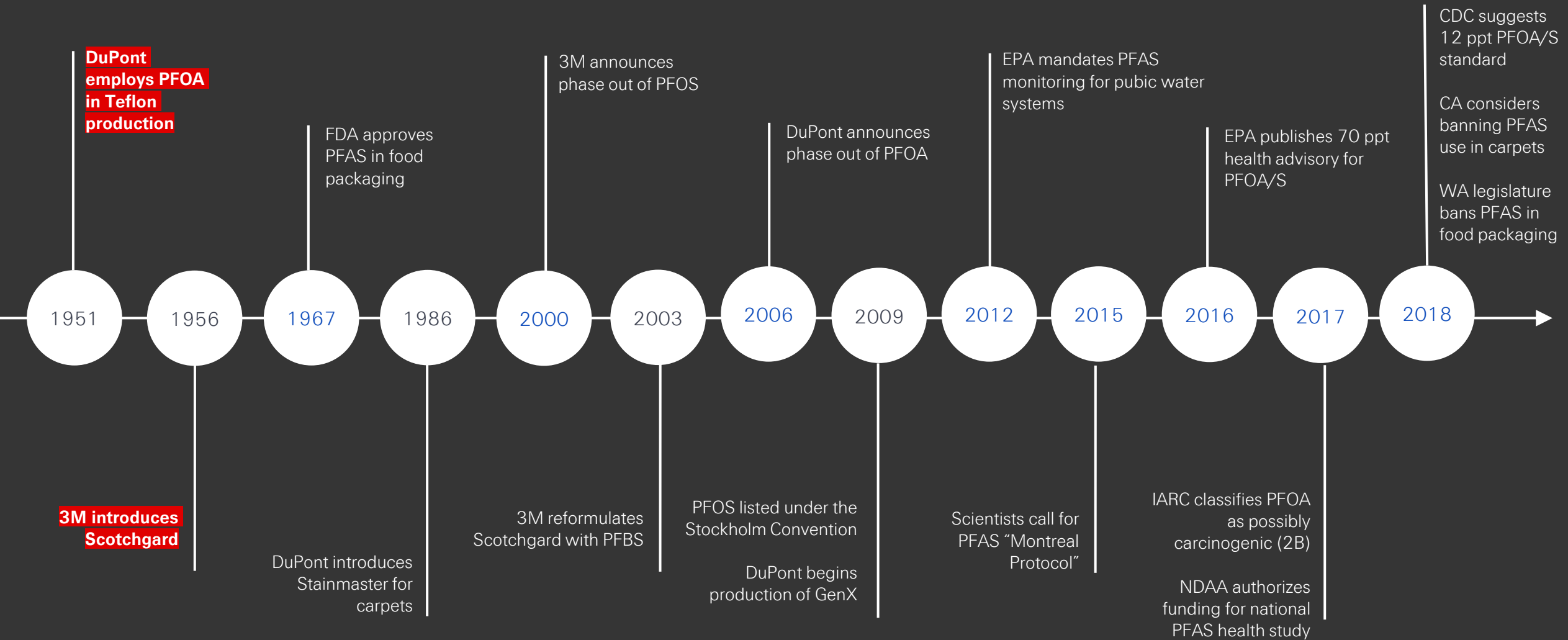
- **Very large family of compounds**
- **Scarcity of data:**
 - Sampling and analytic difficulties
 - Inapplicability of old models
 - Not regulated
- **Complex behaviour in the environment**
- **Costly water clean-up and remediation**

**HIGH
Uncertainty**

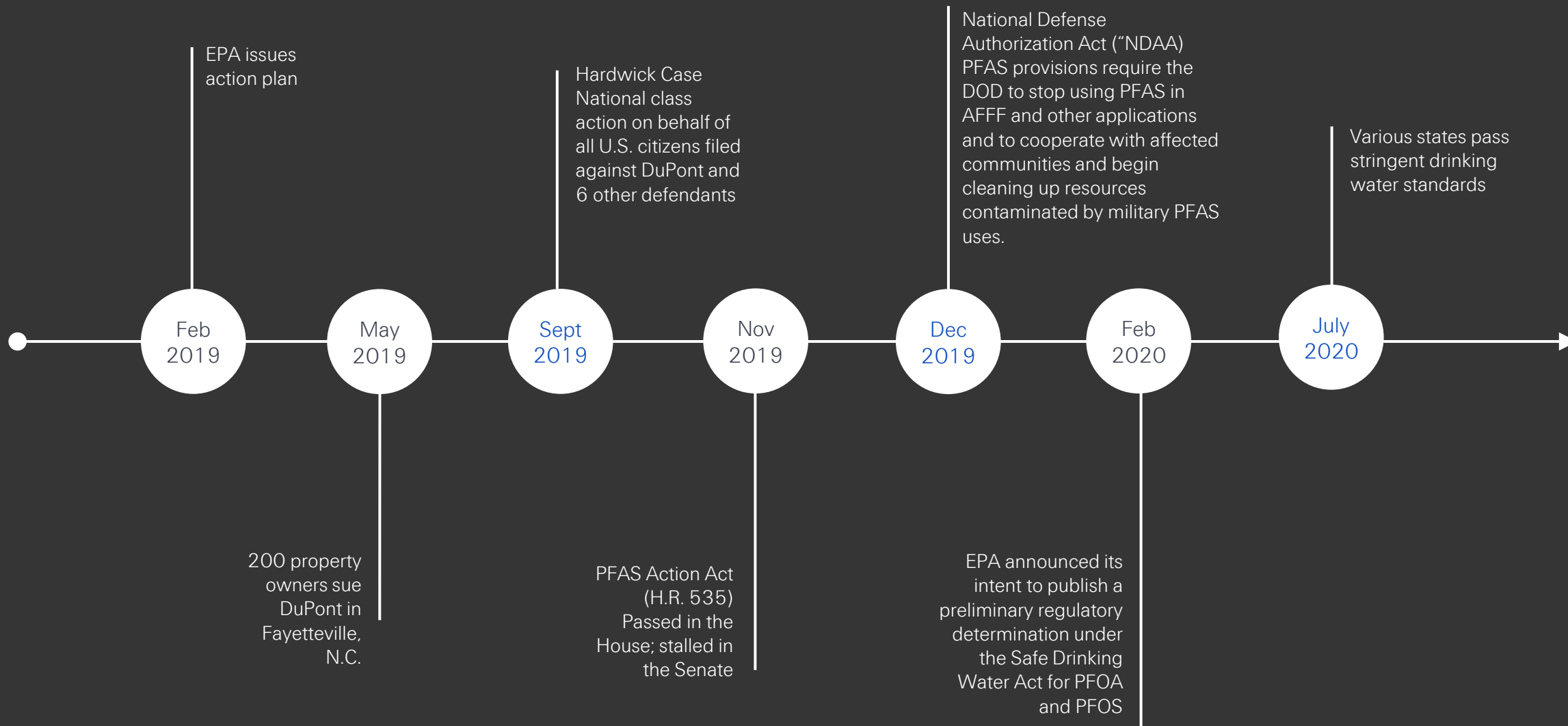
Timeline of events

Historical PFAS timeline

Commercial and Regulatory development



Recent PFAS activity in 2019 and 2020



Litigation landscape

Litigation landscape: the early years “Dark Waters”

1999

Earliest litigation against DuPont in 1999 ID'd causal links to 6 diseases (“Dark Waters”)

Class action settled in 2004 for \$343M and established a panel to study the link between PFOA and disease (C8 Panel).

2011

Panel determines **link between PFOA and 6 illnesses**

Trials begin for thousands of plaintiffs. After several seven figure verdicts, **DuPont settles the remaining 3,500 cases for \$670.7M.**



<https://www.nytimes.com/2016/01/10/magazine/the-lawyer-who-became-duponts-worst-nightmare.html>

Litigation Landscape: 20 Years Later

Minnesota case brought by AG v. 3M for NRD/drinking water settled for **\$850M** in 2018; many other AG cases filed (NH, VT, NY, NJ)

Suits by residents against other downstream users such as paper mills, clothing and carpet manufacturers

2020 Wolverine settlement for **\$69M** for clean-up of water contamination from waterproof boot **manufacturing process**

AFFF MDL Litigation
More than 700 military bases with confirmed or suspected contamination – also impacting airports and adjacent properties

Numerous **AFFF water contamination and PD/BI** cases pending – suits by AGs, municipalities and citizens. Estimated cost of clean-up for military bases alone is \$2B

Litigation Landscape: What to Watch in 2022-2023

Continued shift of
focus to
Downstream users

AFFF MDL
Bellwether Trials
2023

New Targets:
Waste Management
Industry
Cosmetics/Food

More **class**
certifications (see
Hartwick ruling)

Regulatory landscape

A regulatory landscape in flux

No concise federal action until 10/18/21

Hundreds of bills were pending before Congress

Conflicting drinking water standards

States have acted: MI, CA, NH, NY & NJ enacted stringent regulations

EPA was moving at a snail's pace.

10/18/21: EPA announces 3-year PFAS Strategic Roadmap!

12/19: NDAA Phase Out of Military Use of AFFF by 2024

7/20: FDA requests voluntary Phase Out of PFAS in food packaging

EPA's Strategic Roadmap: 2021-2024



What's next?

The next wave

Consumer class actions? Agriculture? Product liability suits?

Kroger and *Nguyen*
putative consumer
class actions filed in
CA

New theory
Plaintiffs rely on
alleged omissions or
representations
about health risks

**Product Liability
Cases**
cosmetics, food
pesticides, other
products

Suits by
farmers/fisheries as
focus on soil/water
continues to evolve

Insurance considerations

Which policies?

Exposure to pre-1986 policies

Aggregates/exhaustion
Prior Settlements
Occurrences
Allocation

PLL policies

PFAS are still being released.
Is a PLL policy triggered or is there a historic/continuous release that triggers legacy policies?

Pollution Exclusion

for post-1986 policies.

Will it apply? (*see Tonoga v. New Hampshire Ins. Co.*)

PFAS exclusions

are being added to current policies

Thank you!



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