Environmental Cleanup Program

PFAS 2025 Rulemaking – PFAS as Oregon Hazardous Substances

Environmental Quality Commission Meeting
July 10, 2025

Agenda

- Introduction to the Cleanup Program
- PFAS in the environment
- Proposed rule changes (OAR 340-122-0115)

DEQ Cleanup Program areas

Purpose: Protect human health and the environment from releases of hazardous substances

- Voluntary
- Brownfields
- Prospective Purchaser Agreement (PPA)
- Industrial Orphan
- Leaking Underground Storage Tank (LUST)
- Site Response

Cleanup Program

Who: Wide variety of parties, individuals, small businesses, multi-national companies

What: Address wide range of contaminants, 800+ hazardous substances

- e.g., petroleum, metals, pesticides, PCBs, solvents, dioxins

How: Most work completed voluntarily, some under enforceable agreements/orders

General cleanup process

- Investigation
- Risk assessment
- Cleanup

Investigation

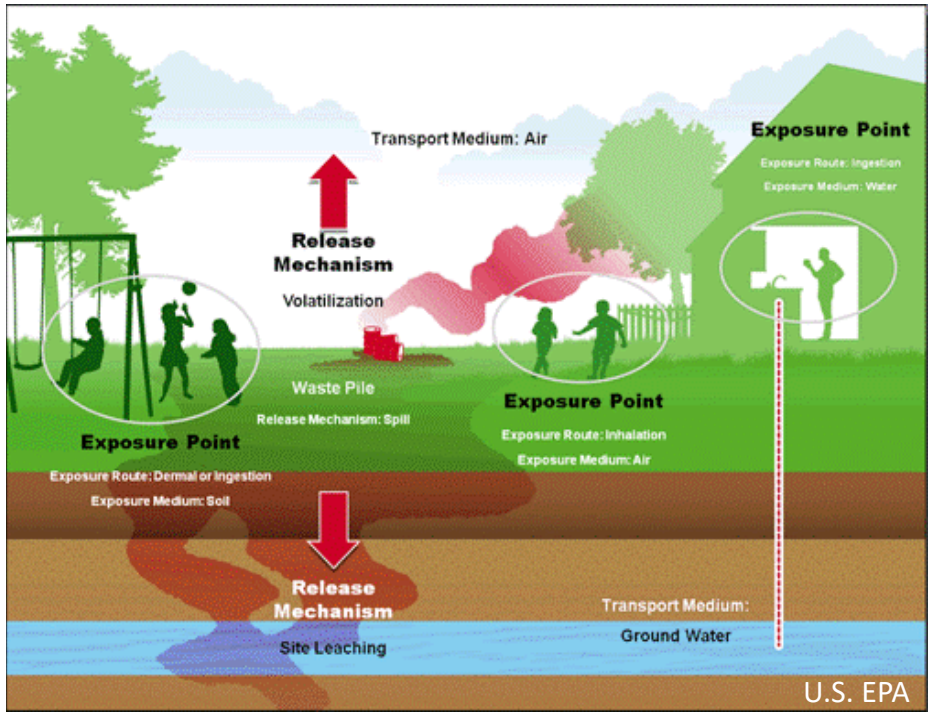
Investigation

- Sampling of soil, groundwater, surface water, etc.
- Identify chemicals released and their extent

Risk assessment

Risk assessment

- Does the release pose an unacceptable risk?
- Magnitude of risk to people and/or wildlife

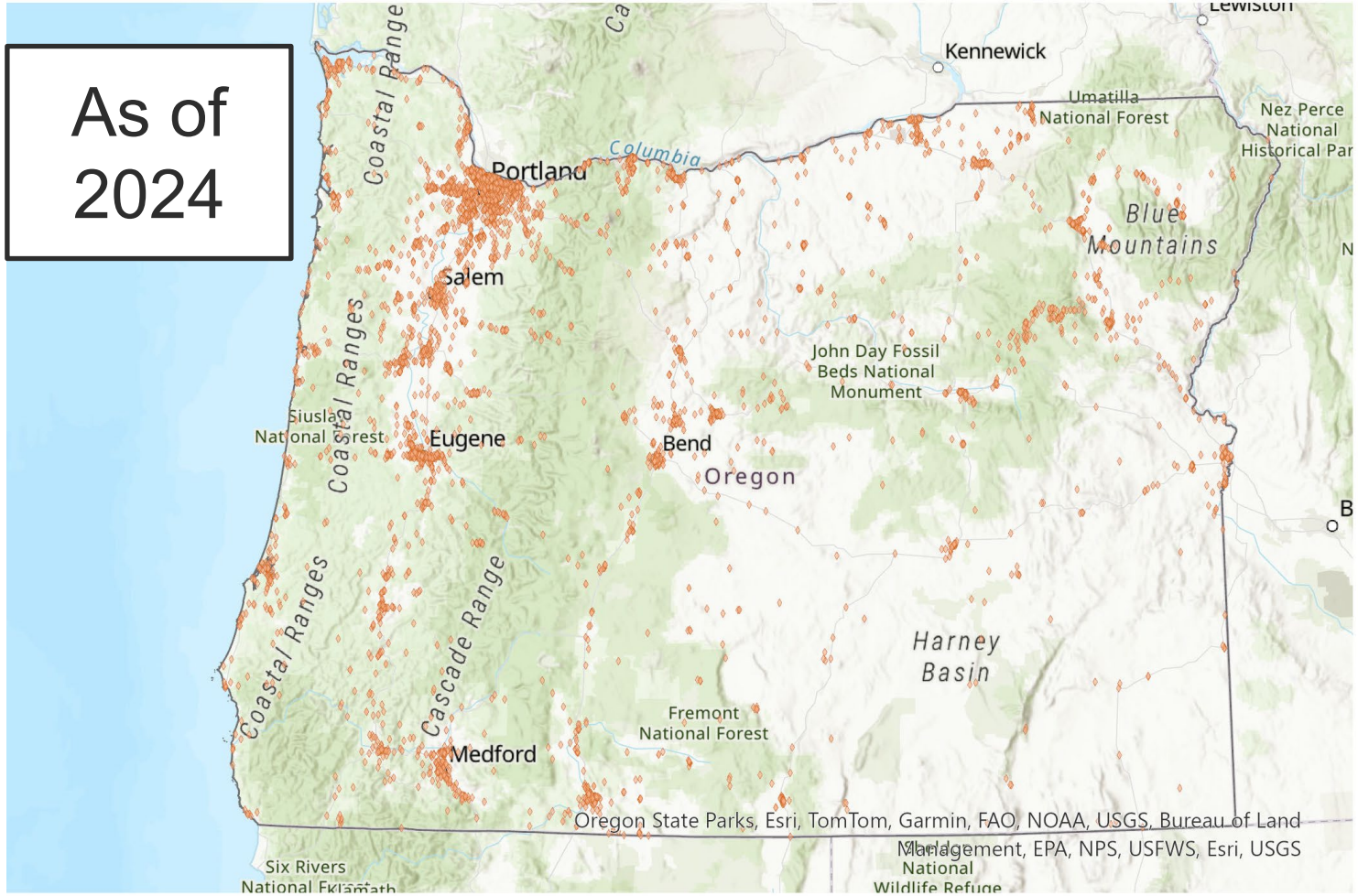


Cleanup action

Cleanup

- Address excess risk through removal, treatment, or isolation
- Must be protective and consider effectiveness, long-term reliability and cost

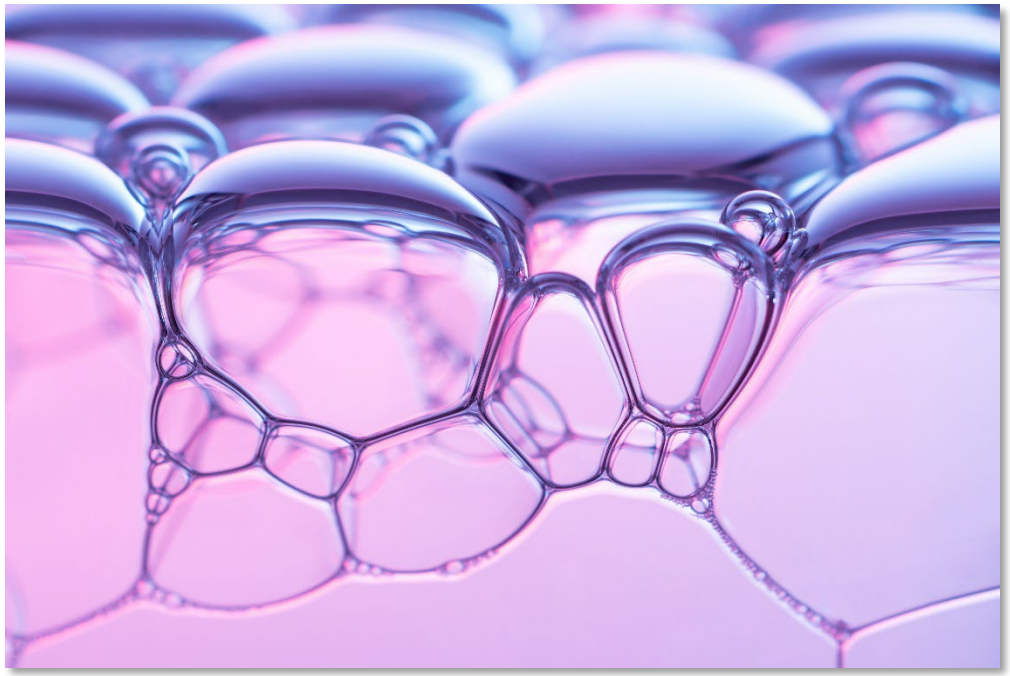
Cleanup Program sites



Dataset generated from Your DEQ Online, October 16, 2024

What are PFAS?

- **P**er- and poly**f**luoro**a**lkyl **s**ubstances
- Class of human-made chemicals
- Manufactured since 1930s
- Called “forever chemicals,” environmentally persistent
- Provides products resistance to oil, grease, stains, water, and heat



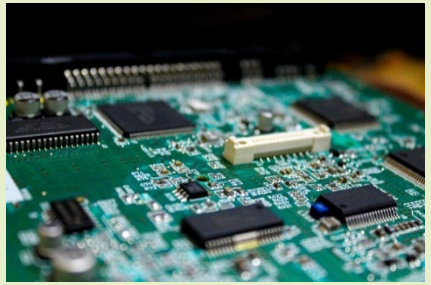
PFAS uses/facilities

Example industry users

Firefighting foams

Metal plating

Bulk fuel storage



Semiconductor manufacturing

Paper products manufacturing

Consumer products manufacturing

Example passive receivers

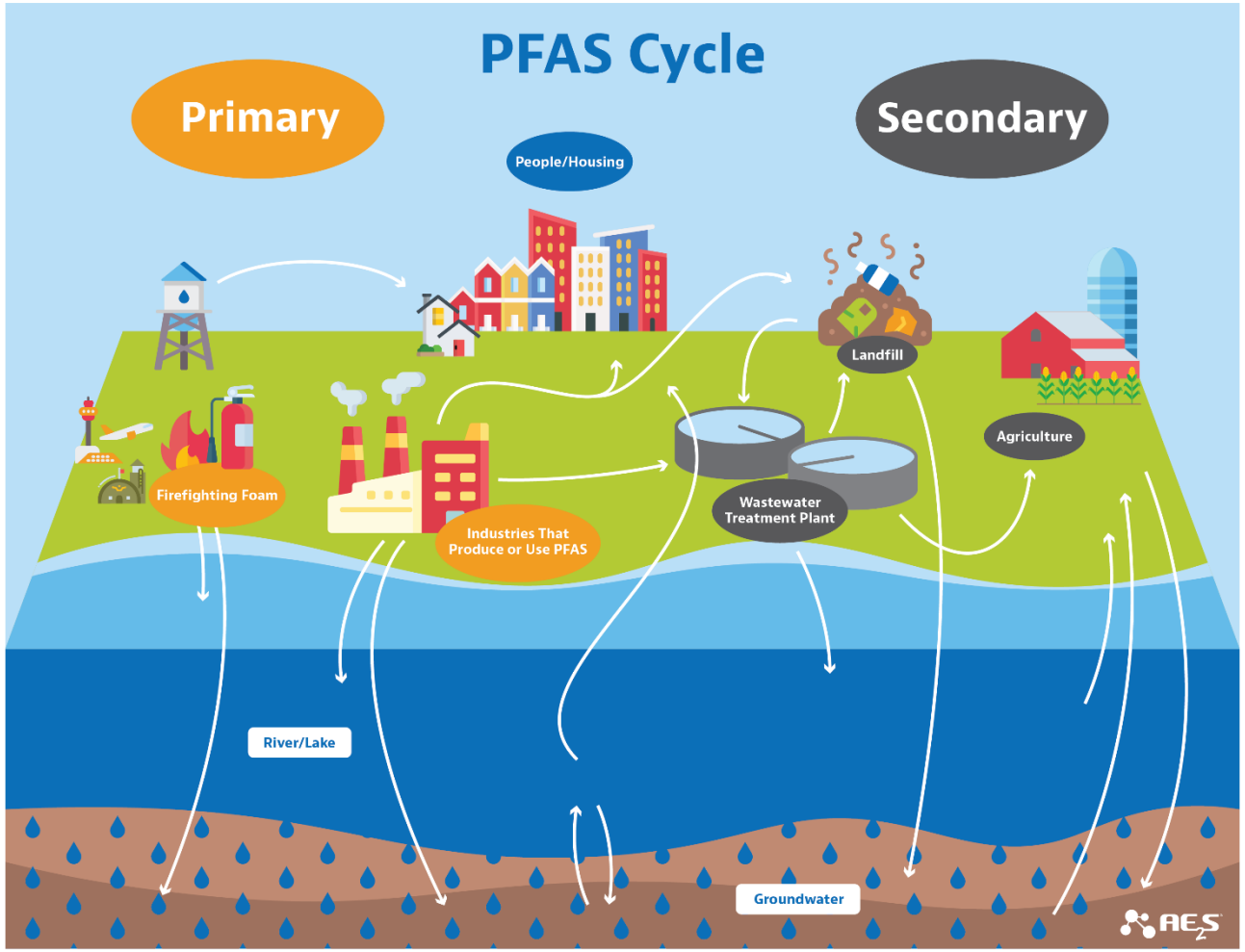
Landfills

Wastewater treatment plants

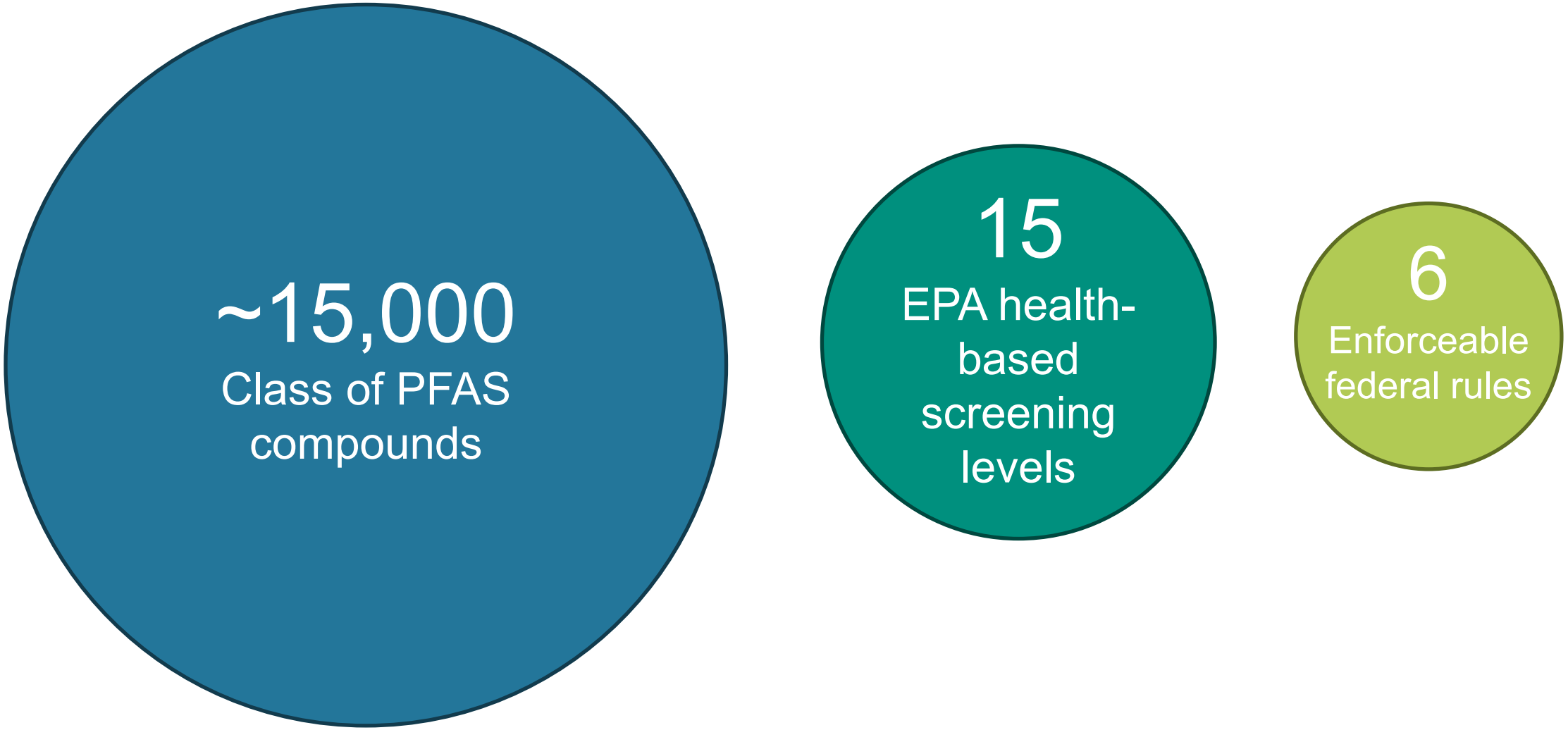
PFAS in the environment

Once released, may travel and impact soil, groundwater, surface water, etc.

- Bioaccumulative and highly toxic
  - Cancer
  - Liver, immunological, endocrine, and cardiovascular damage
  - Low birth weight and developmental impacts to children
- Mobile
- Persistent

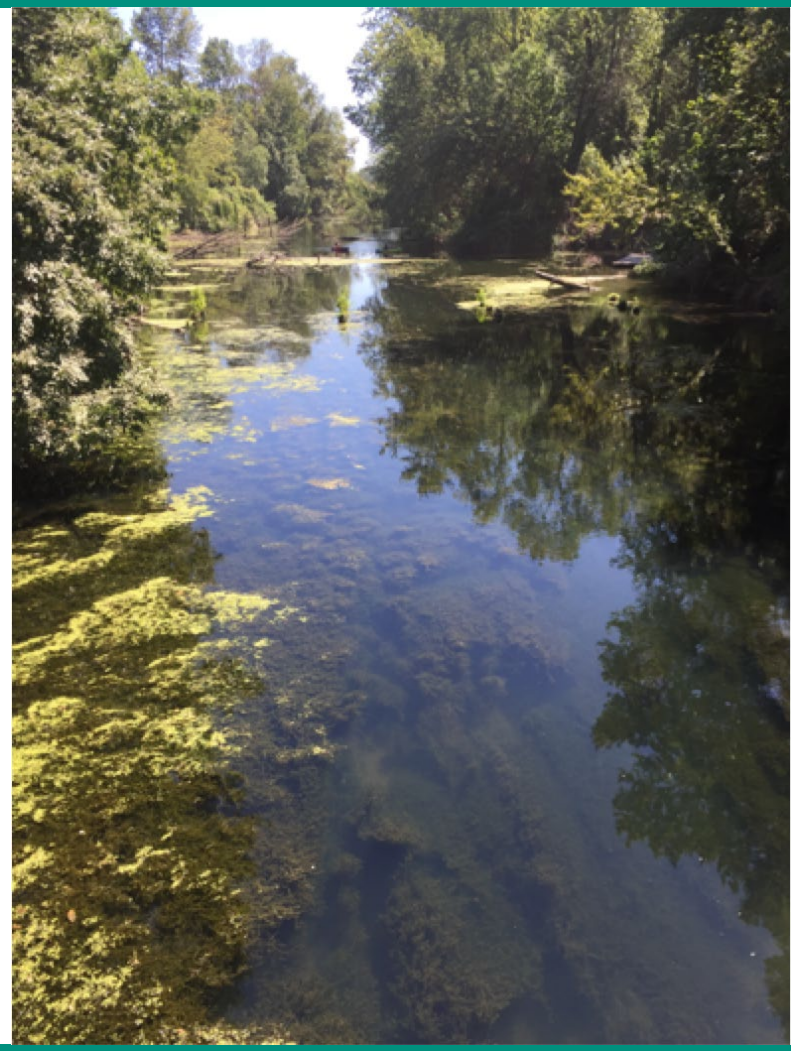


PFAS toxicity information

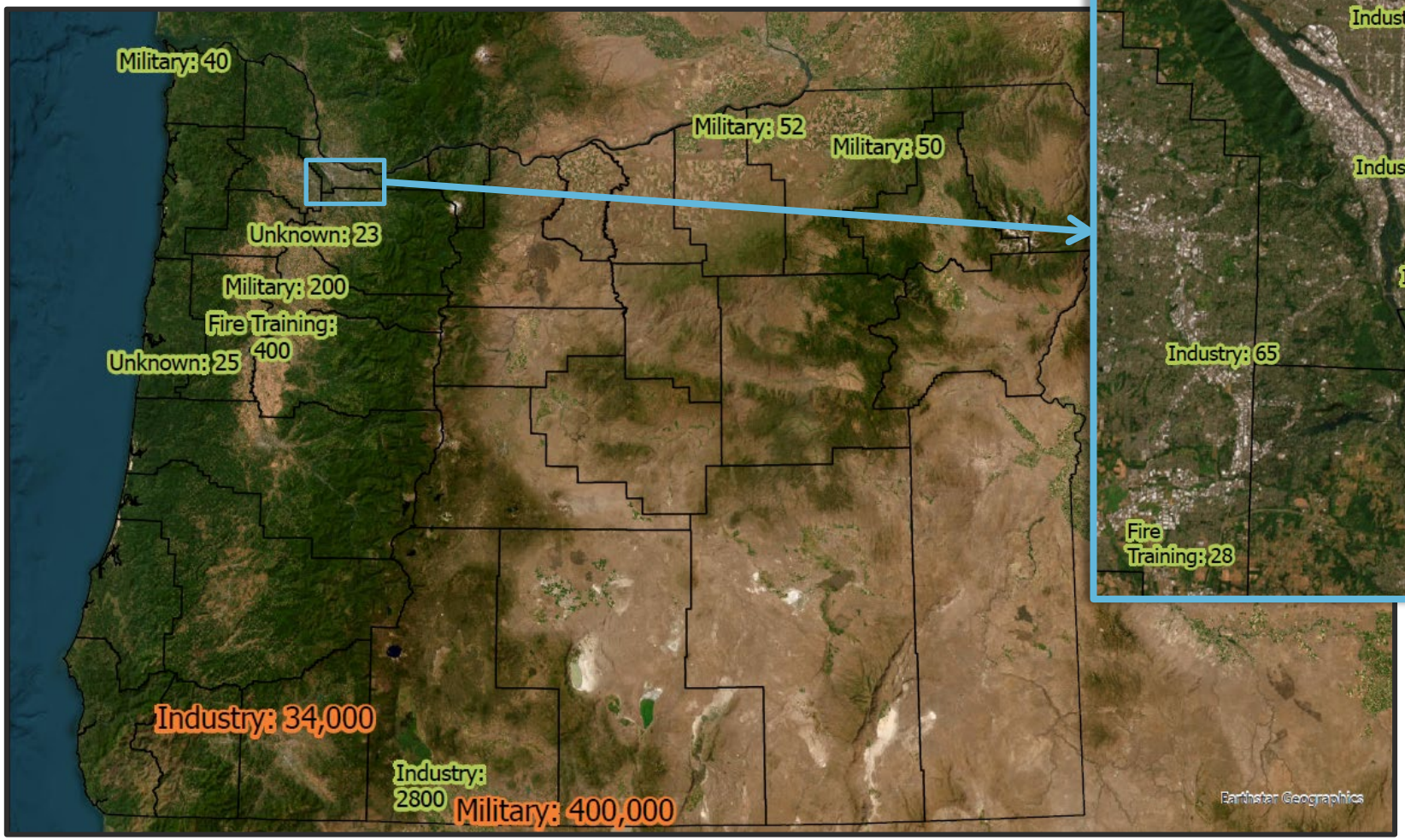


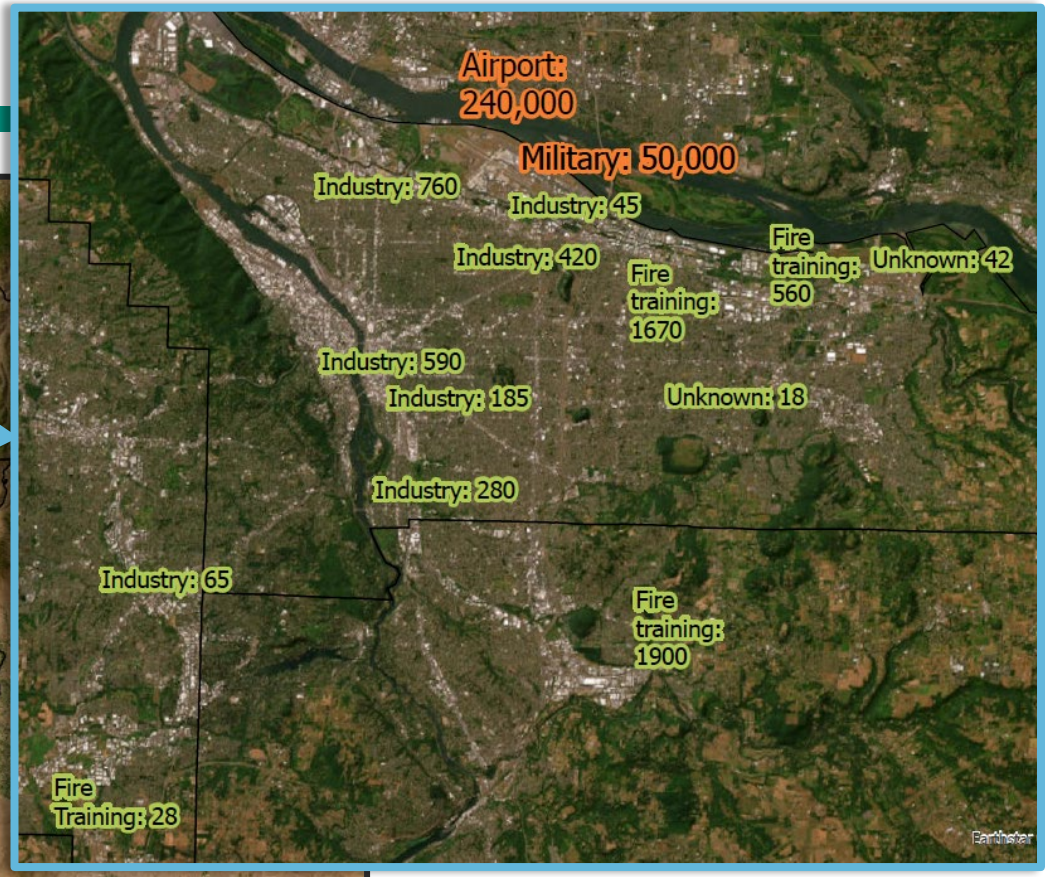
PFAS investigations in the Cleanup Program

- Voluntary testing since 2017
  - DoD, commercial airport, chrome plating, industry, municipal fire training
- PFAS present in soil, groundwater, fish, rivers, and drinking water
- High concentrations at sites using firefighting foams



PFAS in groundwater





- Maximum PFOA+PFOS groundwater concentrations in parts per trillion (ppt)
- Drinking water standards: PFOA 4 ppt, PFOS 4 ppt

Need for rulemaking

- PFAS are found at toxic levels in Oregon
- More sites suspected, DEQ lacks authority to require investigation and cleanup
- Rulemaking is needed to address commonly detected PFAS with established toxicity at cleanup sites

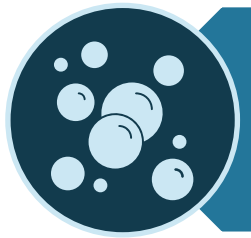
Oregon regulatory authority

EQC has authority (ORS 465.400) to designate hazardous substances if they find that these substances, should a release occur:

*"**may** present a substantial danger to the public health, safety, welfare or the environment"*

DEQ has authority (ORS 465.210) to require investigation and cleanup at sites with releases of hazardous substances

Proposed rulemaking: add six PFAS



Add 6 PFAS as hazardous substances

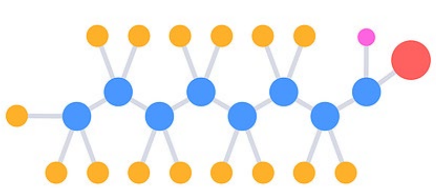
PFOA, PFOS, PFHxS, PFNA, PFBS, GenX (HFPO-DA)

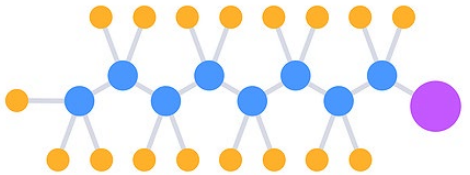
- Toxicological information available
- Frequently regulated by EPA and states
- Commonly detected
- Advisory committee support

Proposed rulemaking: readopt federal list

Readopt federal list of hazardous substances

- Added: PFOA and PFOS





- Added: 1-Bromopropane
  - Solvent: cleaning/degreasing, spray adhesives, dry cleaning
  - No EPA-approved method

- Removed: saccharin and certain metal industry wastes

- No anticipated program impacts (except for PFAS changes)

Health effects for six PFAS

Compound	Health Effects
PFOA	Cancer, liver damage, decreased immune response, reproductive and birth outcomes
PFOS	Cancer, liver damage, increased cholesterol, decreased immune response, reproductive and birth outcomes
PFHxS	Liver damage, thyroid disease, increased cholesterol, low birthweight, decreased immune response, neurodevelopmental
PFNA	Liver damage, increased cholesterol, thyroid disease, decreased immune response, neurodevelopmental
PFBS	Kidney disease, thyroid disease, reproductive and birth outcomes
GenX (HFPO-DA)	Cancer, liver damage, kidney damage, decreased immune response, reproductive and birth outcomes

Example research organizations:

- U.S. Environmental Protection Agency
- Agency for Toxic Substances and Disease Registry
- National Academies of Sciences, Engineering and Medicine
- European Food Safety Authority

EPA actions

As of July 2025:

- Federal hazardous substances
  2 PFAS
- Drinking water standards
  6 PFAS
- Soil and water screening levels
  15 PFAS
- Proposed PFAS as hazardous constituents
  9 PFAS

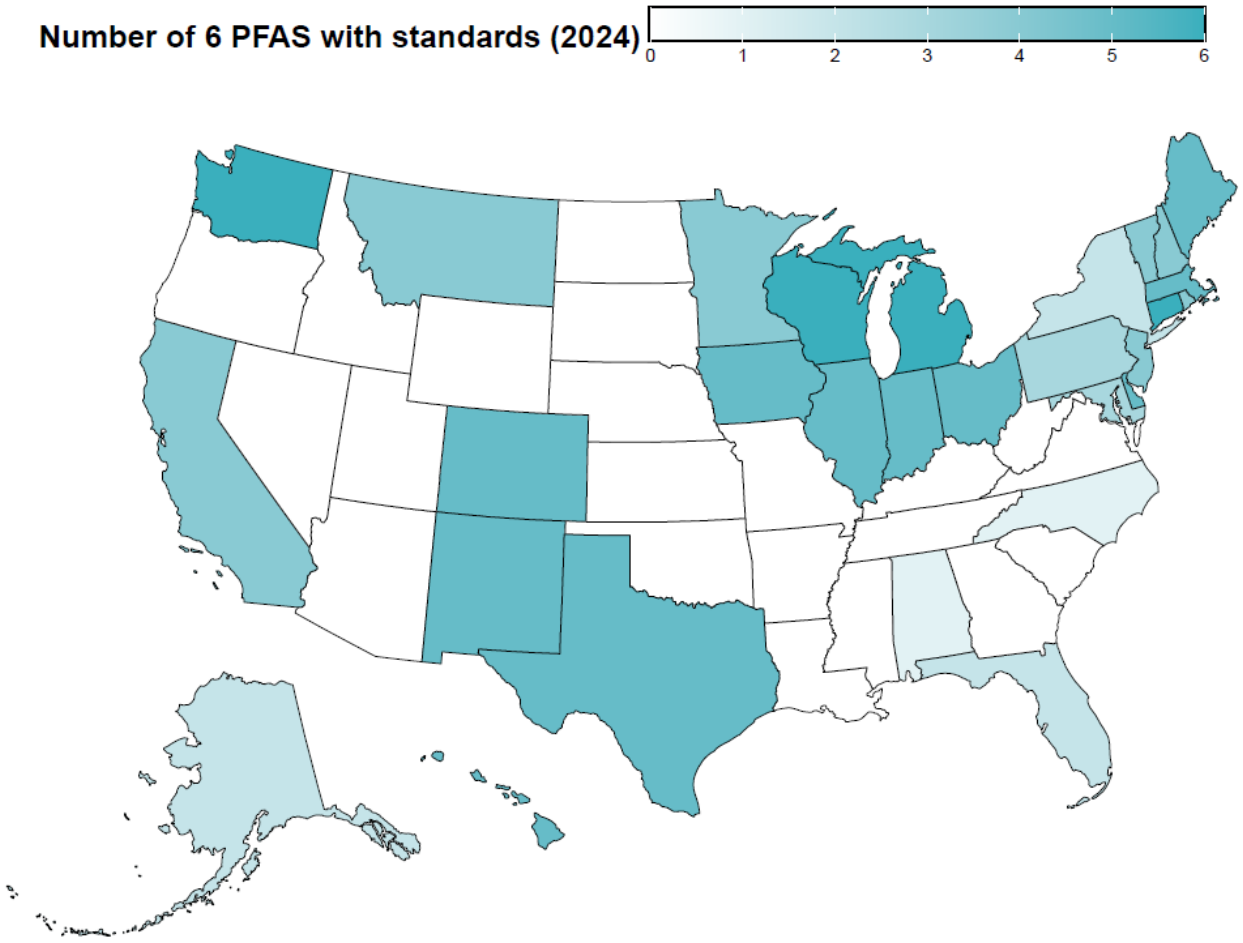
Other state's actions

Washington and Alaska:

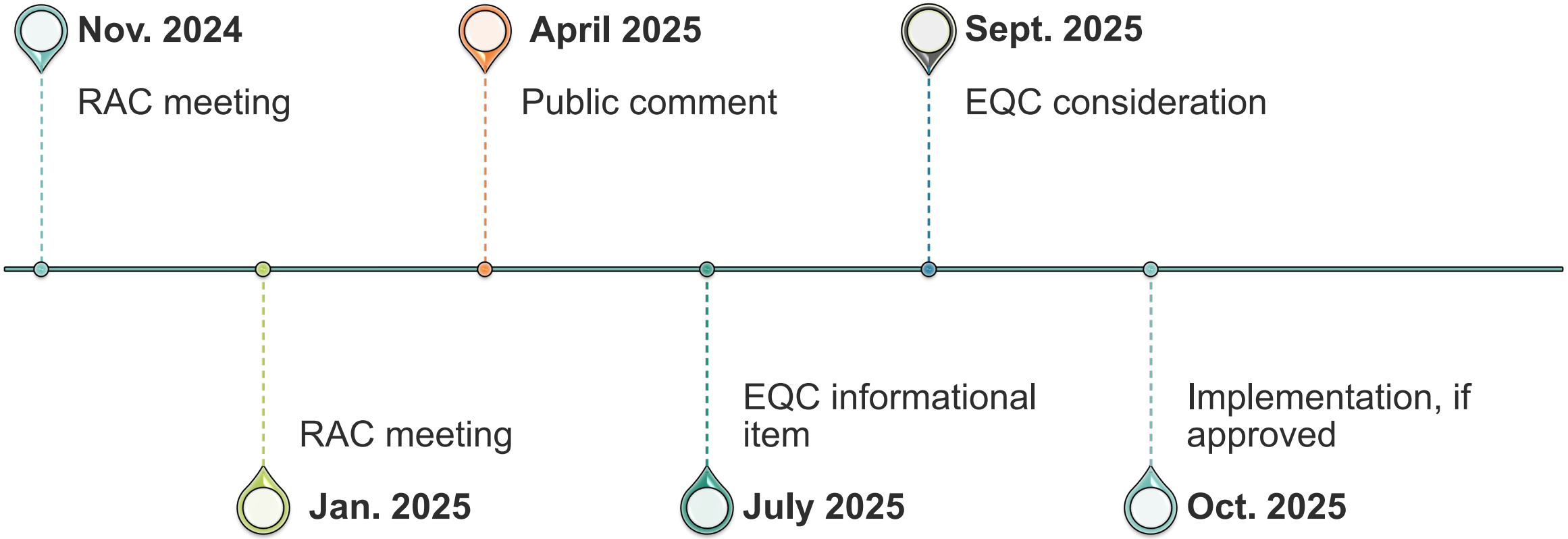
- Authority to broadly regulate PFAS as hazardous substances
- Ten PFAS with Washington cleanup values

California:

- Issued administrative orders requiring certain industries to complete testing



PFAS 2025 rulemaking



Impact of PFAS as hazardous substances

- **Require** responsible parties investigate and cleanup sites with risks to people or environment
- Same cleanup processes as for the other 800+ hazardous substances
- Support data collection, source identification, cleanup
- **Protect Oregon's people and environment**

Thank you!

Questions?

Title VI and alternative formats

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