Willamette Toxics Reduction Partnership

Per- and Polyfluoralkyl Substances (PFAS): Oregon Overview and Status

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Kevin Masterson | Oregon Department of Environmental Quality

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Common Uses of PFAS in Products

Used for polymerization, repellence, and surfactant properties

Source: Green Science Policy Institute

Health Effects of PFAS

- Affect growth, learning, and behaviour of infants and older children
- Lower a woman's chance of pregnancy
- Interfere with body's hormones
- Increase cholesterol levels
- Affect the immune system
- Increase the risk of cancer

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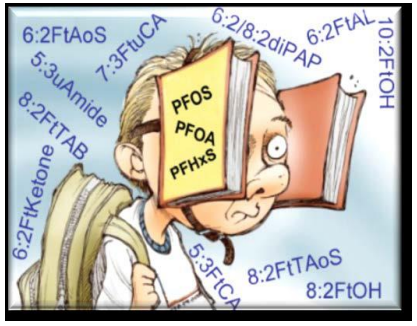
Oregon Health Authority

Why Are There Concerns About PFAS in the Environment?

Specific PFAS Characteristics

- Mobility
- Extreme Persistence
- Bioaccumulation
- Toxicity



Over 4,000-5,000 unique substances

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Oregon PFAS Regulatory Landscape

- With two exceptions, currently no Oregon legislation or regulations addressing PFAS

- Priority Persistent Pollutant (SB 737) Program
  - In 2011 “Initiation Levels” established in rule for 5 PFAS in wastewater effluent
  - One-time monitoring requirement for “major” municipal wastewater plants

- Oregon Toxics-Free Kids Act (2015)
  - PFOS one of 68 “High Priority Chemicals of Concern for Children’s Health” (OAR 333-016-2020)

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PFAS Status in Oregon: Public Drinking Water

- 2013-15 public system monitoring under Round 3 of EPA Unregulated Contaminant Monitoring (UCMR) program
  - 55 largest public water systems, serving >10,000 people
  - 10 smaller systems, a random sample chosen by EPA
  - **No Detections** of the 6 PFAS species tested

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PFAS Status in Oregon: Public Drinking Water – New Developments

- 2017 Drinking Water Monitoring at Army National Guard Installations in Oregon
  - Ten installations had detections at or below 14.3 ppt
  - Contamination assessments underway

- Some municipal drinking water systems voluntarily testing for PFAS

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Known Oregon PFAS Contamination Sites

- Air National Guard Bases, Portland International Airport sites, City Fire Training Center
  - Historical fire-fighting foam use & storage
  - Proactive investigations by responsible entities in close coordination with DEQ

- Emergency response sites (e.g., metals facility in NE Portland)

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Ambient Environmental Monitoring of PFAS in Oregon

- DEQ Lab developing PFAS analytical method
  - EPA Method for surface water, wastewater, groundwater
  - Expect to be operational by Winter 2020

- Current and past fish tissue monitoring
  - USGS-OSU tissue monitoring in Columbia Slough (Samples collected in fall 2019, results in 2020)
  - 2008-09 National Rivers and Stream Assessment

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Municipal Wastewater Agency Monitoring

- Some Oregon wastewater utilities are monitoring **influent**, **effluent**, **biosolids** and **selected industrial discharges**
  - Initial Fall 2019 results show influent & effluent levels consistent with other treatment facilities in the U.S.
  - More detects and higher levels at treatment plants with greater industrial contributions
  - Oregon Association of Clean Water Agencies (ACWA) providing a forum for PFAS information exchange

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Recent DEQ-OHA PFAS Coordination and Communication Efforts

- New PFAS web pages and joint agency fact sheet
  - https://www.oregon.gov/deq/Hazards-and-Cleanup/ToxicReduction/Pages/PFAS-in-Oregon.aspx (DEQ)
  - https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/OPERATIONS /Pages/EmergingContaminants.aspx (OHA)
- Briefing to House Water Committee (11/19/19)
- Communicating and coordinating with Governor's Office on PFAS issues
- Reaching out to other state agencies and considering future steps

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On-Going PFAS Efforts at DEQ & OHA

- Identifying potential risks and sources for future drinking source water protection

- Voluntary consultations on assessments of contaminated sites

- Coordination with other states and EPA on policy and science issues

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PFAS Info Exchange Forums for DEQ

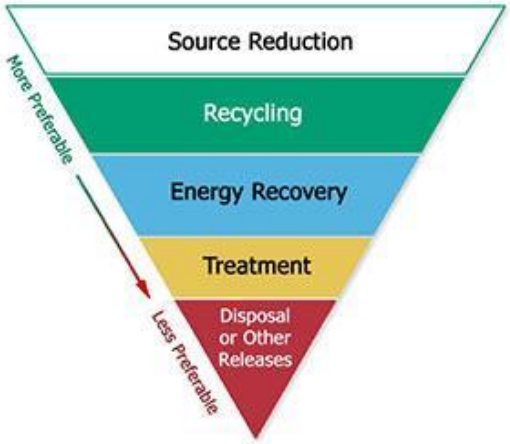
- Environmental Council of States (ECOS)
  - EPA-ECOS workgroup calls (technical topics)
  - ECOS PFAS Caucus (policy focused)
- Interstate Technical & Regulatory Council (ITRC)
- Interstate Chemicals Clearinghouse (IC2)
  - Chemical alternatives/pollution prevention focus
- SETAC conferences and meetings
- EPA Region 10-States' PFAS group
- Association of Clean Water Agencies (ACWA) PFAS workgroup
- Others?

PFAS Source Reduction Efforts

Advancing safer alternative assessments to avoid “regrettable substitutes”

- Food Packaging Assessment “Roadmap”
- Fluorine-Free Fire Foam Alternatives:

  Sharing information through Interstate Chemicals Clearinghouse (IC2)



Northwest Green Chemistry

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PFAS Source Reduction Efforts: State Purchasing Policies

Working with DAS and Corrections Enterprises to reduce PFAS in products the state buys

- Food Ware
  - PFAS-free specification in Janitorial Supplies Contract

- Office Furniture
  - Properties of PFAS not necessary in office seating

- Carpeting
  - Next opportunity

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Questions?

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