| Date:                    | July 1, 2025   |  |  |  |  |
|--------------------------|--|--|--|--|--|
| То:                      | Environmental Quality Commission   |  |  |  |  |
| From:                    | Leah Feldon, Director  |  |  |  |  |
| Subject:                 | Agenda item F, Informational item: Cleanup Program PFAS 2025 Rulemaking July 10-11, 2025, EQC meeting  |  |  |  |  |
| Purpose of<br>item       | DEQ will inform the commission about the Environmental Cleanup Program and<br>proposed rulemaking to designate some PFAS as Oregon Hazardous Substances for<br>which DEQ will request EQC action in September 2025.  |  |  |  |  |
| Prior EQC<br>involvement | The Environmental Cleanup Program has not previously engaged with the commission regarding regulating PFAS. The program has not conducted rulemaking since 2006 when methane was added to the Oregon hazardous substances list.  |  |  |  |  |
| Background               | <ul> <li>Environmental Cleanup Program (Cleanup Program) protects human health and the environment from known or suspected releases of hazardous substances. The program accomplishes this by investigating sites known or suspected to be contaminated with hazardous substances, assessing whether they pose an unacceptable risk to people or the environment and, if they do, overseeing the cleanup of contamination. Most sites enter the program voluntarily when property owners or operators approach DEQ for a No Further Action determination, asserting that cleanup requirements are satisfactorily addressed to meet DEQ standards. DEQ may also learn of potentially contaminated sites through complaints, reports of spills, information shared by other agencies, or known site uses. DEQ can require cleanup of a site if there is an unacceptable risk to people or the environment.</li> <li>Sites in the Cleanup Program typically undergo a process of investigation, risk assessment and cleanup. Investigation is needed to determine the extent of contamination present. Initial site investigations include limited initial sampling, while a more comprehensive investigation may consist of extensive soil, groundwater, sediment, and fish tissue sampling. If no release or risks are identified, no additional work is required.</li> </ul> |  |  |  |  |

If a release is identified, DEQ evaluates the risks to people and the environment based on the sampling results, the toxicity of the chemicals and the exposure routes. If the site does not pose an unacceptable risk, as <u>defined in state statute</u>, cleanup is not required. In cases where a past release of hazardous substances poses a significant threat to people or the environment, DEQ will require cleanup. Under emergency conditions, a removal action may be needed to stabilize the site and prevent further, immediate contamination.

If cleanup is required, DEQ will consider the feasibility of different approaches. Staff evaluate and select a cleanup option based on the following criteria: effectiveness, ability to implement, long-term reliability, implementation risk and reasonableness of cost. DEQ oversees the cleanup action, which may include activities such as removing, treating, stabilizing or isolating the contamination. If contamination is left in place, institutional and engineering controls may be required. These controls are documented in a deed restriction registered with the county recorder and apply to all future property owners. A site receives a No Further Action designation when DEQ determines that the site poses no current or future unacceptable risk to people or the environment.

The <u>Cleanup Program</u> has many different subprograms including <u>Site Assessment</u>, <u>Brownfields</u>, <u>Voluntary Cleanup</u>, <u>Industrial Orphan</u>, <u>Prospective Purchaser</u> <u>Agreements</u>, <u>Leaking Underground Storage Tanks</u> and <u>Heating Oil Tanks</u>. More detailed information on these subprograms and their specific processes is available on <u>DEQ's website</u>.

## **State Cleanup Authority**

Oregon's Environmental Cleanup law (ORS 465.200 et seq.) was modeled on the federal Comprehensive Environmental Response, Compensation and Liability Act of 1980, commonly known as "Superfund" (42 U.S.C. § 9601 et seq.). The Environmental Cleanup law was enacted by the Oregon Legislature in 1987, charging DEQ with identifying and cleaning up sites contaminated with hazardous substances. In 1995, the Legislature amended the Environmental Cleanup law to adopt a risk-based approach to cleanups, replacing the initial goal of cleaning up contamination to pre-industrial "background" levels if feasible.

Oregon Administrative Rules 340-122-0010 through 0590 establish the standards and procedures for DEQ to implement the cleanup statutes to address hazardous substance releases to the environment. Oregon hazardous substances are defined in OAR 340-122-0115(30) and are the compounds for which DEQ can conduct or require parties to conduct an investigation, risk assessment and cleanup. The list references and includes federal hazardous substances as well as additional compounds; it currently comprises over 800 compounds.

ORS 465.400 gives the EQC the authority to designate hazardous substances. To do so, the commission must find that the substance or class of substances may pose a present

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or future hazard to human health, safety, welfare or the environment should a release occur based on the substance's quantity, concentration, or physical, chemical or toxic characteristics. The commission last updated the hazard substance definition in 2006. The current definition of hazardous substances does not include any PFAS compounds or reflect recent scientific evidence demonstrating that many PFAS are toxic, mobile in the environment and persistent.

#### **Federal Authority**

Hazardous substances are designated by the U.S. Environmental Protection Agency under CERCLA. Like Oregon hazardous substances, federal hazardous substances are the compounds for which the EPA can require parties to conduct investigation, risk assessment and cleanup.

## PFAS

PFAS are a large class of fluorinated chemicals that have been manufactured since around the 1940s. Many are highly toxic, mobile, and persistent in the environment and readily bioaccumulate in fish and animals. A wide range of adverse health impacts have been linked to PFAS exposure, such as cancer, high cholesterol, low birth weight, developmental effects on children, and liver, immunological, endocrine, and cardiovascular damage. PFAS have been widely used in industrial, commercial and consumer products due to their stability and water-, grease- and stain-resistant properties. PFAS are most commonly associated with fire training, prevention and response activities using firefighting foam called aqueous film-forming foam or AFFF. Examples of other facilities that may be sources of PFAS to the environment include bulk fuel storage sites, plating and metal finishing facilities, electronics manufacturers, paper mills and paper products manufacturers, textile and leather processors, and aviation manufacturers.

In 2024, the EPA added two PFAS compounds (PFOA and PFOS) as federal hazardous substances under CERCLA. For these changes to be incorporated into Oregon's hazardous substances list, rulemaking is needed to readopt the current list of federal hazardous substances. Otherwise, the federal designation alone would not allow DEQ to require parties to address these compounds if released to the environment. Additionally, Oregon is not required to adhere to the list of federal hazardous substances; the EQC can and has designated hazardous substances beyond those listed federally.

In 2024, the EPA also established drinking water standards for six PFAS under the Safe Drinking Water Act, including PFOA, PFOS, PFHxS, PFNA, HFPO-DA or GenX and PFBS). These are legally enforceable drinking water standards to which public water systems nationwide will be required to comply. These standards establish the quality of water that public water systems can distribute to their customers but do not address sources of contamination. Hazardous substances designations support public

water systems by allowing regulatory agencies to address contamination that impacts drinking water systems.

This rulemaking proposes to add the six PFAS with drinking water standards to Oregon's list of hazardous substances. These PFAS have well-documented health impacts, health-based screening levels, and analytical methods and have been detected in the environment in Oregon.

 Table 1. Overview of federal regulatory actions and detections in Oregon for the six

 PFAS proposed in this rulemaking.

|         | CERCLA<br>hazardous<br>substance<br>(2024) | EPA<br>drinking<br>water<br>standards<br>(2024) | EPA<br>screening<br>levels | Detected<br>in<br>Oregon? | Detected<br>in Oregon<br>drinking<br>water? | Detected<br>in Oregon<br>fish tissue? |
|---------|--|---|----------------------------|---------------------------|---|---------------------------------------|
| PFOS    | Х  | Х   | Х                          | Х                         | Х   | Х                                     |
| PFOA    | Х  | Х   | X                          | Х                         | Х   | Х                                     |
| PFBS    |  | Х   | Х                          | Х                         | Х   | Х                                     |
| PFHxS   |  | Х   | Х                          | Х                         | Х   | Х                                     |
| PFNA    |  | Х   | Х                          | Х                         |   | Х                                     |
| HFPO-DA |  | Х   | Х                          | Х                         | Х   |                                       |
| (GenX)  |  |   |                            |                           |   |                                       |

# Need for rulemaking

Oregon statutes and rules provide DEQ with the authority to require investigations and remedial actions where hazardous substances have been released to protect human health and the environment. Adding these six PFAS as hazardous substances in Oregon rule is needed to allow DEQ to address releases of these compounds to protect human health and the environment, protect drinking water and other important natural resources, and ensure that costs related to testing, treatment and cleanup are placed onto parties responsible for causing the contamination, rather than Oregon's communities. Completing this rulemaking would bring Oregon more in line with neighboring states, such as Washington and California, that already regulate the proposed PFAS, as well as the approach taken by the Department of Defense at PFAS-contaminated sites. DEQ needs this rulemaking to ensure communities around other sites in Oregon receive the same protection.

PFAS have been detected in Oregon's drinking water, fish, groundwater, surface water, soil and sediment, in many cases exceeding health-based screening levels. To date PFAS have been detected in approximately 36 Oregon public water systems, with approximately 24 systems exceeding drinking water standards. The Cleanup Program supports clean drinking water by addressing contaminants at sites that may contribute to drinking water contamination. However, drinking water itself and its quality is overseen by the Oregon Health Authority. The DEQ Drinking Water Protection

Program, in conjunction with the Oregon Health Authority, completes initial assessments to evaluate potential contaminant sources when public water systems have detections of compounds above drinking water standards.

Consistent with findings in other parts of the country, sites with a history of firefighting foam use or training generally have high levels of PFAS contamination, particularly in groundwater. The Cleanup Program is cataloging other potential PFAS release sites based on known historical operations, starting with industries most known for PFAS use and release. Many additional sites have been identified where no information is available to determine whether a release occurred or if people or the environment may be impacted. Without this rulemaking, DEQ is unable to require parties to complete testing at these sites. This rulemaking would support data collection to better understand PFAS sources and impacts in Oregon.

In recent years, the Cleanup Program has overseen voluntary investigation of PFAS by multiple parties, including municipalities, the Department of Defense and businesses. Oregon's first large PFAS investigation began in 2017 under a voluntary agreement with the Port of Portland. Under DEQ oversight, multiple phases of investigation have been completed to determine the nature and extent of PFAS releases at Portland International Airport from historical fire training activities, including the identification of a large PFAS groundwater plume. DEQ continues to support its efforts to assess and address contamination while performing activities critical to airport operations, including their recent \$2 billion terminal expansion project and pending fuel facility construction. The Cleanup Program, however, cannot rely solely on voluntary testing.

Without this rulemaking, DEQ would be unable to require parties responsible for contamination to investigate, assess risk and clean up the contamination, even if an unacceptable risk to human health or the environment is known. As a result, the burdens of addressing adverse health conditions, as well as testing and treatment costs fall to communities and municipalities.

### **Rulemaking process**

DEQ held two Rulemaking Advisory Committee meetings on Nov. 19, 2024, and Jan. 22, 2025. The committee included representatives from various sectors, including wastewater management, municipal water providers, landfills, environmental advocacy, Tribal interests, environmental consulting, academia, business and industry, military, government and aviation. DEQ's public notice period for this proposed rulemaking was active from April 1 to May 9, 2025. DEQ held two public hearings on April 22, 2025, one in the morning and one in the evening.

Key issues The Rulemaking Advisory Committee discussed and advised on several key issues, including the following:

- 1) The number of PFAS compounds included: Most advisory committee members supported the rulemaking including the six PFAS with drinking water standards. However, some committee members preferred maintaining the initial proposal of listing two compounds (PFOA and PFOS). Conversely, some committee members preferred adding the entire PFAS chemical class. Adding the six PFAS would be more protective than two because the six are among the best studied and understood, most commonly detected and highly concentrated PFAS compounds. These compounds can be analyzed and treated using the same methods and technologies, and notable cost differences are not expected for investigation and cleanup of the two versus six compounds. DEQ acknowledges there is research indicating additional PFAS compounds, and perhaps the entire class, have toxic characteristics. Currently there are not sufficient tools available to investigate and cleanup the entire class of compounds, such as analytical methods to quantify all compounds and screening levels based on toxicity data.
- 2) Changes at the federal level: Some committee members were concerned about potential changes to the federal list of hazardous substances, such as the removal of PFOA and PFOS, would impact this rulemaking. While these proposed rule changes were prompted by the addition of certain PFAS to the federal list of hazardous substances, the Oregon definition of hazardous substances is distinct from federal regulation. Any future changes at the federal level would not impact the inclusion of these compounds as Oregon hazardous substances under Oregon law.
- 3) Permitted facilities: Committee members raised concerns around how permitted facilities, such as landfills and wastewater treatment plants, may be impacted by this rulemaking. Facilities that are permitted by other DEQ programs are not expected to be directly impacted by this rulemaking. The Cleanup Program defers to DEQ's permitting programs for addressing releases to the environment from these facilities. The Cleanup Program may, however, become involved at unpermitted sites, such as historic solid waste landfills not subject to DEQ's permitting rules.
- 4) Financial impacts: DEQ heard concerns around potentially high costs of investigations and cleanup actions. Parties that have used, stored or manufactured products containing PFAS that have resulted in releases or possible releases to the environment are expected to incur the greatest costs resulting from this rulemaking. These responsible parties may be required to investigate, assess and cleanup PFAS contamination. Costs for cleanup would only occur if environmental releases pose unacceptable risk to people or the environment. Costs for PFAS investigations and cleanups are anticipated to be similar to other types of contaminants already regulated and commonly

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> encountered, such as chlorinated solvents, dioxins and petroleum products. DEQ recognizes that investigation and cleanup actions can be costly. However, these actions are needed to ensure that communities and vulnerable ecosystems are not adversely harmed by these PFAS chemicals. Those expected to financially benefit the most from this rulemaking are communities, particularly communities disproportionately impacted by environmental contamination.

5) **Implementation concerns:** Some committee members raised concerns around how the Cleanup Program will implement this rulemaking, if finalized. This rulemaking does not include any changes to the Cleanup Program's processes or procedures in place for the approximately 800 hazardous substances already regulated. The need for environmental investigation and cleanup will be assessed on a site-by-site basis, with priority placed on sites with the highest likelihood of release and potential impact to people and the environment. Certain industries have known or highly likely PFAS use and potential for release. Conversely, for many or most sites in the Cleanup Program, PFAS are unlikely to be of concern because they either do not have a history of PFAS use or environmental releases are not expected to have occurred.

EQCDEQ intends to bring this rule proposal for commission action at the September 2025involvementEQC meeting.

| Supporting | A. Notice of Proposed Rulemaking             |
|------------|--|
| materials  | B. <u>Cleanup Program general fact sheet</u> |
|            | C. PFAS in Cleanup fact sheet                |

D. PFAS 2025 Rulemaking web page

Report prepared by Sarah Van Glubt and Franziska Landes Cleanup Program, Land Quality Division

# **Translation or other formats**

<u>Español</u> | <u>乾국어</u> | <u>繁體中文</u> | <u>Pycский</u> | <u>Tiếng Việt |</u> 800-452-4011 | TTY: 711 | <u>deqinfo@deq.oregon.gov</u>

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