



# THE HANFORD SITE

## Perfluoroalkyl and Polyfluoroalkyl Substances, EPA Rule, and Effect on Hanford

Duane Carter  
Environmental Compliance Division  
Richland Operations Office

*September 10, 2024*

- Perfluoroalkyl and polyfluoroalkyl substances (PFAS) are man-made chemicals that have been used in industry and consumer products worldwide since the 1940s. They are used to make nonstick cookware, water-repellent clothing, stain-resistant fabrics and carpets, some cosmetics, some firefighting foams, and products that resist grease, oil and water.
- During production and use, PFAS can migrate into the soil, water and air. Most PFAS do not break down, so they remain in the environment. Some PFAS can build up in people and animals with repeated exposure over time.

- Public water systems must monitor for PFAS, and have three years to complete initial monitoring (by 2027), followed by ongoing compliance monitoring
- Water systems must also provide the public with information on the levels of PFAS in their drinking water beginning in 2027
- Public water systems have five years (by 2029) to implement solutions that reduce PFAS if monitoring shows that drinking water levels exceed maximum contaminant levels
- Beginning in five years (2029), public water systems that have PFAS in drinking water that violate one or more maximum contaminant levels must take action to reduce the PFAS levels and provide public notification of the violation

- The current Hanford Analytical Services Quality Assurance Requirements Document (HASQARD) does not include PFAS sampling protocols, only laboratory analysis requirements
- Site contractors HMIS and CPCCo sampled Site groundwater sources and drinking water supplies on Dec. 11, 2019; Dec. 14, 2022; and Jan. 25, 2023. No PFAS were detected.

- 148,000 records were reviewed for uses of PFAS at DOE sites, and approximately 1,000 records were deemed significant
- Review identified areas for further evaluation of potential PFAS releases, including Hanford's 100 and 200 Area fire stations, B Plant, Environmental Restoration Disposal Facility, Effluent Treatment Facility and Plutonium Uranium Extraction Plant, and the use of PFAS in atmospheric and groundwater studies

- Conceptual Site Models are being developed for identified areas of interest. The models will be included in a preliminary assessment report currently being drafted.
- Based on a preliminary assessment report, a sample strategy document will be developed in fiscal year 2025
- Samples of relevant environmental media will be collected beginning in 2026 to confirm the presence or absence of PFAS at Hanford locations where high volumes of PFAS releases may have taken place

- Hanford has tested drinking water from all sources for the Site workers, with no PFAS detected
- The historical uses of PFAS at Hanford have been researched and the results are forthcoming
- Focused Site sampling is being planned to collect soil and groundwater samples from locations where PFAS is most likely present, based on the research performed

# Questions?



The Hanford Reach  
White Bluffs Overlooking the Columbia River