



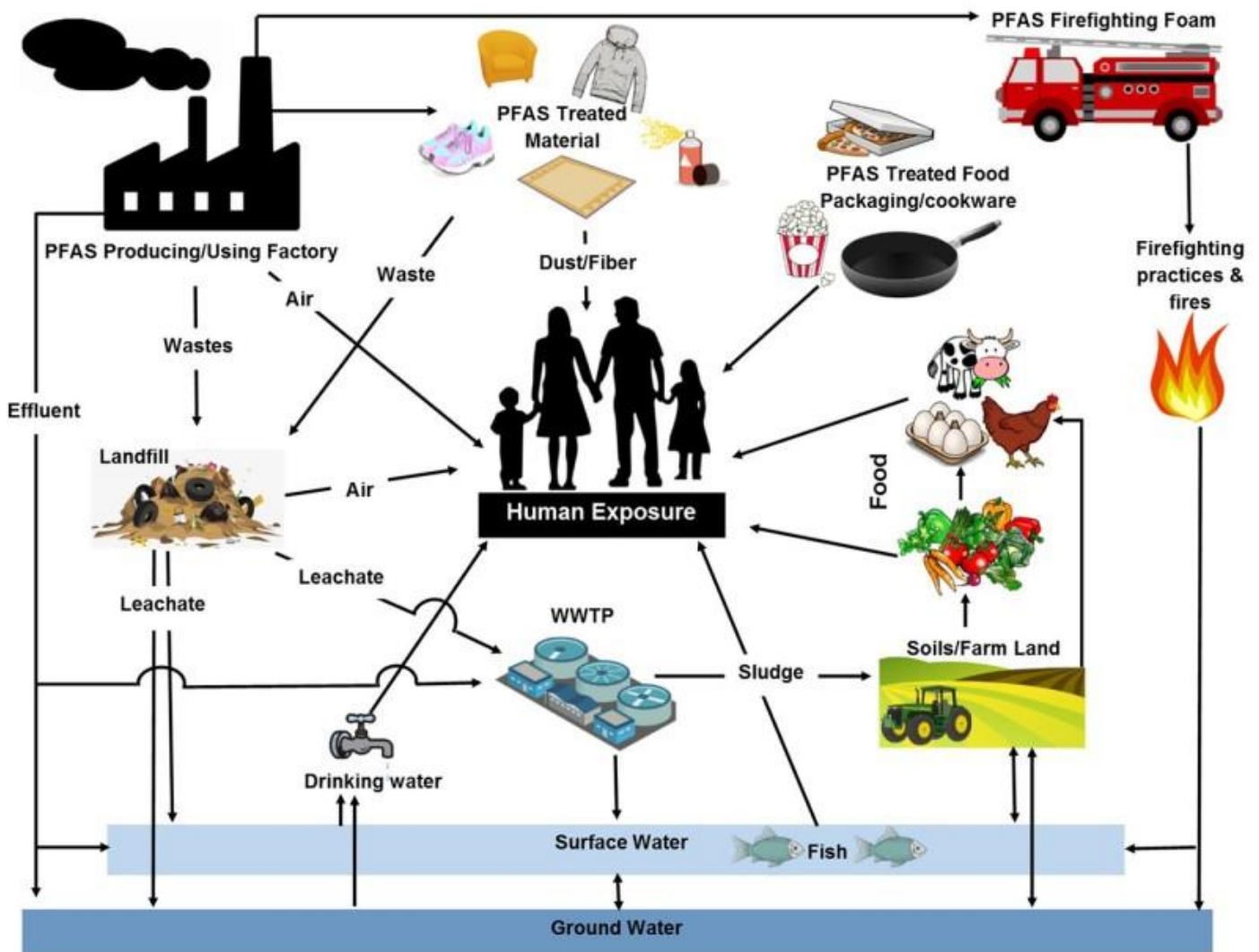
PFAS Resource Guide

for Alaska Tribal Villages

Photo: Flying from Chevak by Jacqueline Shirley, RCAC

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

What is PFAS?

PFAS are a group of manufactured chemicals that have been used in industry and consumer products since the 1940s because of their useful properties. There are thousands of different PFAS, some of which have been more widely used and studied than others.

Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS), for example, are two of the most widely used and studied chemicals in the PFAS group. PFOA and PFOS have been replaced in the United States with other PFAS in recent years.

One common characteristic of concern of PFAS is that many break down very slowly and can build up in people, animals, and the environment over time.

How Are People Exposed to PFAS?

Human exposure to PFAS is widespread but variable by geography and occupation. These manmade chemicals have leached into our soil, air, and water. People are most likely exposed to these chemicals by consuming PFAS-contaminated water or food, using products made with PFAS, or breathing air containing PFAS. Assessments of human exposure are in progress.

One report by the Centers for Disease Control and Prevention's National Health and Nutrition Examination Survey (NHANES) found PFAS in the blood of 97% of Americans. Another NHANES report suggested blood levels of PFOS and PFOA in people have been reduced since those chemicals were removed from consumer products in the early 2000s. However, new PFAS chemicals have been created and exposure to them is difficult to assess.

How Are People Exposed to PFAS?

Multiple health effects associated with PFAS exposure have been identified and are supported by different scientific studies. Concerns about the public health impact of PFAS have arisen for the following reasons:

- **Widespread occurrence.** Studies find PFAS in the blood and urine of people, and scientists want to know if they cause health problems.
- **Numerous exposures.** PFAS are used in hundreds of products globally, with many opportunities for human exposure.
- **Persistent.** PFAS remain in the environment for an unknown amount of time.
- **Bioaccumulation.** People may encounter different PFAS chemicals in various ways. Over time, people may take in more of the chemicals than they excrete, a process that leads to bioaccumulation in bodies.

(Source: National Institute of Environmental Health Sciences)

Websites & links

Alaska Department of Environmental Conservation (ADEC)

- <https://dec.alaska.gov/spar/csp/pfas/>
- https://dhss.alaska.gov/dph/Epi/eph/Documents/PFCs/PFAS_FactSheet.pdf
- https://dot.alaska.gov/airportwater/docs/PFAS-FAQs-Flier_8-22-18.pdf
- <https://dec.alaska.gov/spar/csp/pfas/faq/>
- <https://dot.alaska.gov/airportwater/docs/part-139-cert-alert-21-05-Extinguishing-Agent-Requirements.pdf>

Alaska Community Action on Toxics

- <https://www.akaction.org/>
- <https://pubs.acs.org/doi/10.1021/acs.estlett.0c00255>
- <https://www.akaction.org/wp-content/uploads/CHE-Alaska-PFAS-Presentation-CK-April-2022.pdf>

National Tribal Toxics Council

- <https://tribaltoxics.org/>

Tribal PFAS Work Group:

- <https://www7.nau.edu/itep/main/ntwc/Issues/PFAS>
- <https://www.facebook.com/TribalPFASWorkGroup>

Institute of Tribal Environmental Professionals

- [PFAS Session recording at Tribal Lands Conference August 2022](#)

PACE

- <https://pfas.com/industries-and-entities/tribal-lands/#:~:text=If%20Tribal%20lands%20are%20surrounded,fertilizers%20used%20by%20home%20gardeners>

EPA

- <https://www.epa.gov/pfas>
- <https://www.epa.gov/system/files/documents/2022-01/national-pfas-roadmap-update-for-tribes-indigenous-peoples-webinar-slides-jan-18-2022.pdf>

CDC

- <https://www.atsdr.cdc.gov/pfas/docs/clinical-guidance-12-20-2019.pdf>

Interstate Technology and Regulatory Council

- <https://pfas-1.itrcweb.org/>

National Institute of Environmental Health Sciences

- <https://www.niehs.nih.gov/health/topics/agents/pfc/index.cfm>

Federal Information Center

- <https://www.fedcenter.gov/programs/pfas/>

PFAS New Stories & Case Studies

- <https://www.fda.gov/safety/recalls-market-withdrawals-safety-alerts/bumble-bee-foods-llc-issues-voluntary-recall-375-oz-smoked-clams-due-presence-detectable-levels-pfas>
- <https://www.alaskasnewsresource.com/content/news/Church-near-Dillingham-Airport-tests-high-for-dangerous-fire-suppressing-chemicals-504611531.html>
- https://www.anchorpress.com/news/alaska-community-action-on-toxics-releases-findings-of-pfas-contamination-in-anchorage-lakes/article_ea85375c-cfd9-11ec-b274-abd8b0c427d3.html
- https://www.anchorpress.com/news/alaska-community-action-on-toxics-releases-findings-of-pfas-contamination-in-anchorage-lakes/article_ea85375c-cfd9-11ec-b274-abd8b0c427d3.html
- https://www.washingtonpost.com/business/wisconsin-ag-sues-18-companies-over-pfas-contamination/2022/07/20/5dc0bcfa-0842-11ed-80b6-43f2bfcc6662_story.html
- <https://www.alaskasnewsresource.com/content/news/95M-in-capital-budget-to-study-groundwater-contamination-across-Alaska-511608972.html>
- <https://awwa.onlinelibrary.wiley.com/doi/epdf/10.1002/aws2.1252>
- <https://www.wiscontext.org/what-are-pfas-and-why-are-they-problem#:~:text=PFAS%20is%20a%20catch%20all%20term%20for%20per%2D%20and%20polyfluoroalkyl,a%20wide%20range%20of%20applications>
- <https://www.nashobavalleyvoice.com/2021/07/30/pfas-trahan/>
- <https://www.iatp.org/documents/forever-chemicals-and-agriculture-case-study>
- <https://station-pride.com/2022/01/29/new-iaff-backed-fire-gear-pfas-study-by-oregon-state-discovers-100-times-more-volatile-pfas-than-previously-known/>
- <https://www.sierraclub.org/sierra/ask-ms-green/new-independent-study-confirms-pfas-thinx-other-products>
- <https://pfasproject.com/2020/09/25/la-croix-nestle-among-7-waters-with-elevated-pfas-in-study/#:~:text=%E2%80%9CCarbonated%20waters%20from%20LaCroix%2C%20Topo,a%20report%20from%20Consumer%20Reports>
- <https://www.fight4zero.org/fountainproject>
- <https://www.theguardian.com/environment/2022/feb/25/pfas-us-drinking-water-wells-study>