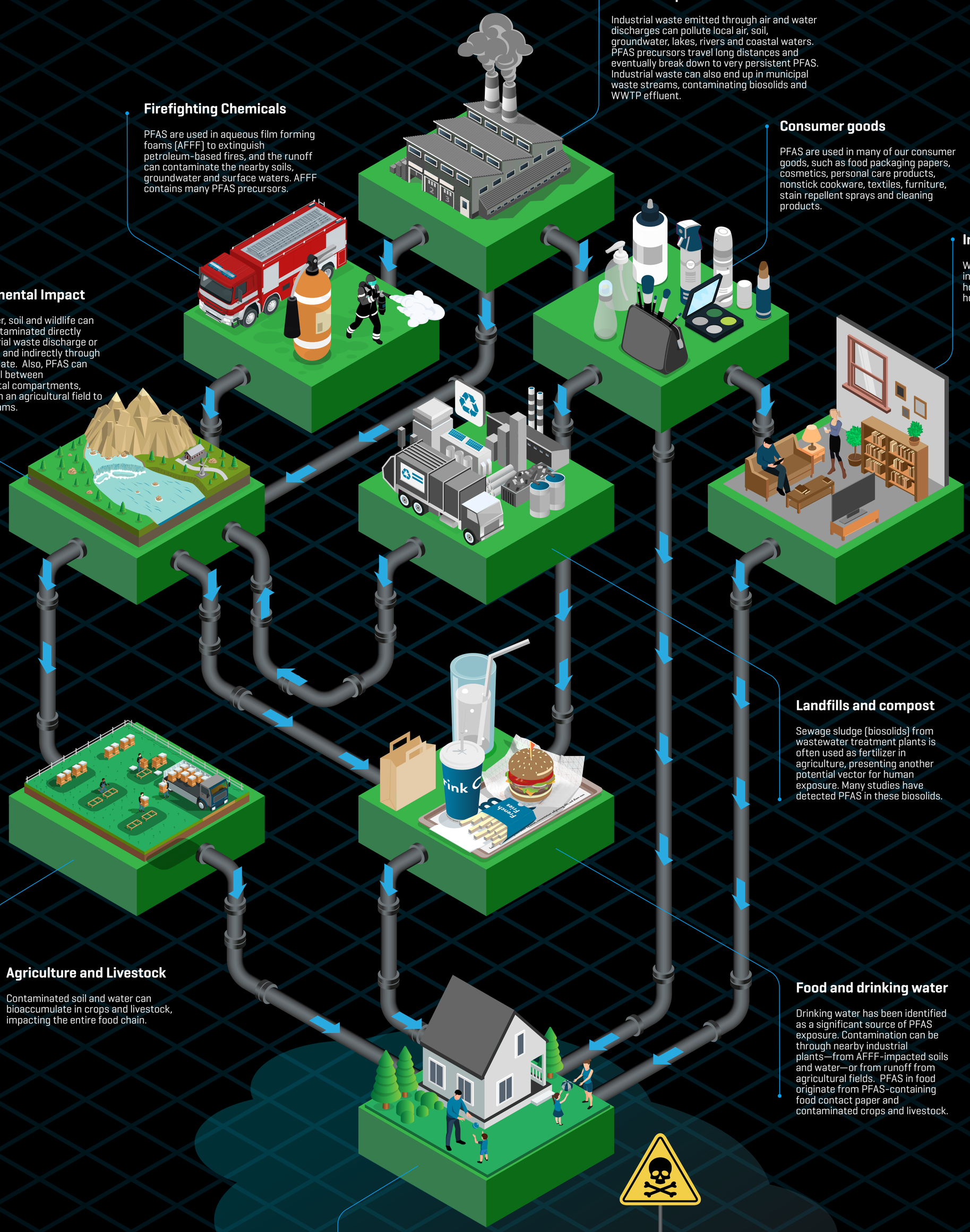
PFAS Exposure areas



Industrial production

Industrial waste emitted through air and water discharges can pollute local air, soil, groundwater, lakes, rivers and coastal waters. PFAS precursors travel long distances and eventually break down to very persistent PFAS. Industrial waste can also end up in municipal waste streams, contaminating biosolids and WWTP effluent.

Firefighting Chemicals

PFAS are used in aqueous film forming foams (AFFF) to extinguish petroleum-based fires, and the runoff can contaminate the nearby soils, groundwater and surface waters. AFFF contains many PFAS precursors.

Consumer goods

PFAS are used in many of our consumer goods, such as food packaging papers, cosmetics, personal care products, nonstick cookware, textiles, furniture, stain repellent sprays and cleaning products.

Indoor environment

We spend most of our time indoors, and the PFAS in our homes can contaminant the house dust and the air.

Environmental Impact

The air, water, soil and wildlife can become contaminated directly from industrial waste discharge or AFFF runoff, and indirectly through landfill leachate. Also, PFAS can readily travel between environmental compartments, such as from an agricultural field to nearby streams.

Landfills and compost

Sewage sludge (biosolids) from wastewater treatment plants is often used as fertilizer in agriculture, presenting another potential vector for human exposure. Many studies have detected PFAS in these biosolids.

Agriculture and Livestock

Contaminated soil and water can bioaccumulate in crops and livestock, impacting the entire food chain.

Food and drinking water

Drinking water has been identified as a significant source of PFAS exposure. Contamination can be through nearby industrial plants—from AFFF-impacted soils and water—or from runoff from agricultural fields. PFAS in food originate from PFAS-containing food contact paper and contaminated crops and livestock.

Exposure to humans

Human exposure to PFAS occurs through multiple exposure pathways, including the ingestion of contaminated drinking water and food, inhalation of indoor air and household dust, and dermal uptake from cosmetics and personal care products.

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