

PFAS IN NEW MEXICO

PFAS have been found at Cannon and Holloman Air Force bases in New Mexico.¹²

Milk at dairies surrounding these sites were found to have PFAS levels above the water health advisory, and milk tested above the limit was pulled from shelves.

In February of 2019, the EPA announced a PFAS Action Plan which included re-evaluating the MCL levels of PFAS in New Mexico.

Regulatory action has been made by the NMED against the airforce base, and there is ongoing monitoring by the NMED across the state.¹³

According to the Environmental Protection Agency (EPA): "There may still be some foam containing PFOS held or in use around the country, including at airports, bulk fuel terminals and other locations which handle large quantities of liquid hydrocarbon fuels."⁴

HEALTH EFFECTS

- Lowered chance of pregnancy
- Interference with hormone levels (hormone disruption)
 - Increased cholesterol levels
 - Increased risk of cancer
 - Immune effects¹¹

According to the Agency for Toxic Substances and Disease Registry (ATSDR), PFAS "are present at low levels in some food products [organic and otherwise] and in the environment (air, water, soil, etc.) so you probably cannot prevent PFAS exposure altogether."⁴

RESOURCES & REFERENCES

ELECTRONIC

Agency for Toxic Substances and Disease Registry (ATSDR)

- ⁹ atsdr.cdc.gov/
- ⁵ atsdr.cdc.gov/pfas/docs/pfas_fact_sheet.pdf

American Chemical Society (ACS)

- ¹¹ pubs.acs.org/doi/full/10.1021/acs.estlett.6b00260

Center for Disease Control (CDC)

- cdc.gov

Environmental Protection Agency (EPA)

- ⁴ epa.gov
- ⁶ epa.govt.nz/news-and-alerts/alerts/managing-fire-fighting-foams-manufactured-with-pfas-chemicals/

Environmental Working Group (EWG)

- ewg.org/pfasfound

Interstate Technology Regulatory Council (ITRC)

- ¹ pfas-1.itrcweb.org/fact-sheets/

New Mexico Environment Department (NMED)

- ^{10, 12, 13} env.nm.gov

Per- and polyfluoroalkyl substances in source and treated drinking waters of the United States

- ² doi.org/10.1016/j.scitotenv.2018.10.245

Polyfluoroalkyl Chemicals in the U.S. Population

- ³ [doi: 10.1289/ehp.10598](https://doi.org/10.1289/ehp.10598)

Toxic Free Future

- ⁸ toxicfreefuture.org/new-study-finds-pfas-chemicals-in-takeout-food-packaging/

United States Forest Service (USFS)

- ⁷ fs.fed.us/rm/fire/wfcs/foam.htm

World Health Organization (WHO)

- who.int

PHYSICAL

New Mexico Department of Health (NMDOH)
Harold L. Runnels Bldg.
1190 St. Francis Dr.
Santa Fe, NM

New Mexico Environment Department (NMED)
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1190 St. Francis Dr.
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PFAS

The Forever Chemicals

Facts & Resources

AMIGOS
BRAVOS

Because Water Matters

amigosbravos.org
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Amigos Bravos is a statewide water conservation organization guided by social justice principles and dedicated to preserving and restoring the ecological and cultural integrity of New Mexico's water and the communities that depend on it. While rooted in science and the law, our work is inspired by the values and traditional knowledge of New Mexico's diverse Hispanic and Native American land-based populations, with whom we collaborate.

WHAT ARE PFAS?

Per- and poly-fluorinated substances, or PFAS, are a family comprised of hundreds of organic, man-made chemicals.

PFAS are known as forever chemicals as they do not easily break down in the environment due to their strong carbon-fluorine bond.

Additionally, these chemicals may remain in the human body for years as PFAS cannot be metabolized, they may bio-accumulate (i.e. they accumulate and stay in the body) by easily binding to proteins, and can have negative impacts on health.¹

Due to their chemical structure and physical properties such as oil and water-repelling capabilities, PFAS are manufactured extensively and used worldwide in industrial applications, and common household products and appliances.

PFAS have been found in:

- air | • drinking water | • humans
- soil | • irrigation water | • rivers and lakes
- land & water dwelling animals
- nearly all agricultural products—organic and otherwise—including plants and animals²

Due to the persistent and ubiquitous nature of PFAS, approximately 98% of the population in the United States carries and/or has been exposed to some type of PFAS.³

As of February 2019, the EPA set the Maximum Contaminant Level (MCL) for PFAS chemicals at 70 ppt (parts per trillion).⁴

That is the maximum lifetime exposure allowed for an individual.

EXPOSURE & PROTECTION

HOW YOU CAN BE EXPOSED

- drinking contaminated water
- eating food that had been harvested by PFAS contaminated soil or water
- accidentally swallowing contaminated dust or soil
- using consumer products that contain PFAS⁵

PFAS CAN BE FOUND IN...

- agricultural products (e.g. animals, food, liquids, natural fibers, & plants)
- cleaning agents & fabric softeners
- clothing, carpets, & manufactured textiles
- compostable bowls, cups, & plates (certain brands)
- fabric protection chemicals
- adhesives | • dyes & inks
- hydraulic fluids | • non-stick cookware
- paints & varnishes | • paper & packaging
- pesticides & herbicides | • polishes & waxes
- ski & snowboard waxes | • sporting equipment
- medical products (e.g. bandages, plastic tubing)
- paper based coatings (e.g. microwave popcorn bags)
- personal care products (e.g. cosmetics, dental floss, hair conditioners, shampoo, sunscreen, toothpaste)
- waterproof & stain-resistant fabrics

REDUCE EXPOSURE

- check for advisories in waters where you fish⁵
- read consumer and product labels and actively avoid those that include PFAS
- use an alternative or treated water source for any activity in which you might swallow water

PFAS ARE NOT FOUND IN...

- fire extinguishers for office or home use⁶
- long-term fire retardant: water Enhancing, or Class-A fire fighting foams used by the US Forest Service for wildland fires.⁷
- some disposable bowls, cups & plates made of (uncontaminated or uncoated): bamboo, bio-wax coated, clay, polylactic acid (PLA, made from corn)⁸

MANUFACTURING HISTORY AND USE

PFAS chemicals have been produced and used in manufacturing since the mid-20th century, and over their development, their uses have changed.

While certain PFAS chemicals, like PTFE, were used in the 1950s to create non-stick coatings, others, such as PFOS, were used in the 1950s and 1960s in the creation of stain and water resistant products.¹

In the 2000's, the U.S. reduced commercial production of PFOS, PFOA, PFNA, and other select chemicals from this group, however, fluorotelomers, which are categorized in the PFAS group, remains the predominant form of firefighting foam to fight liquid hydrocarbon military base fire sites.⁶

The data and long term effects of PFAS on human or environmental health is still widely unknown as PFAS were not widely documented in environmental samples until the early 2000's.²

The EPA is required to make amendments to drinking water standards every five years.

PFAS ARE REGULATED

This process includes developing a contaminant candidate list of unregulated chemicals that are known to and can occur in public water systems, as well as specifically including the MCL of these chemicals.¹¹

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund)

Safe Drinking Water Act (SDWA)

- allows the EPA to set an MCL for certain chemicals found in drinking water.

Toxic Substances Control Act (TSCA)

- requires EPA to report, record, and test chemicals or chemical mixtures that may pose threats to human health.¹⁰