

Water Pollution Concerns - Flagstaff

1. Arsenic

- Levels: Average of ~8 ppb in Flagstaff's water system, nearing the EPA's 10 ppb limit and far above Environmental Working Group (EWG) health-based guidelines.
- Source: Naturally occurring from regional geology, with occasional agricultural/industrial contributions.
- Health Impacts: Long-term exposure linked to skin lesions, cardiovascular disease, diabetes, and certain cancers.

2. Tire- and Brake-Wear Pollutants

- Contaminants: Microplastic particles, zinc, heavy metals, and 6PPD-quinone (a transformation product toxic to aquatic life).
- Pathways: Road runoff carries particulates flowing to and from local bodies of water used for local water supply such as Lake Mary.
- Health & Ecological Risks: Ultrafine particles exacerbate respiratory and cardiovascular issues; toxins threaten fish and invertebrates even at trace levels.

3. PFAS ("Forever Chemicals")

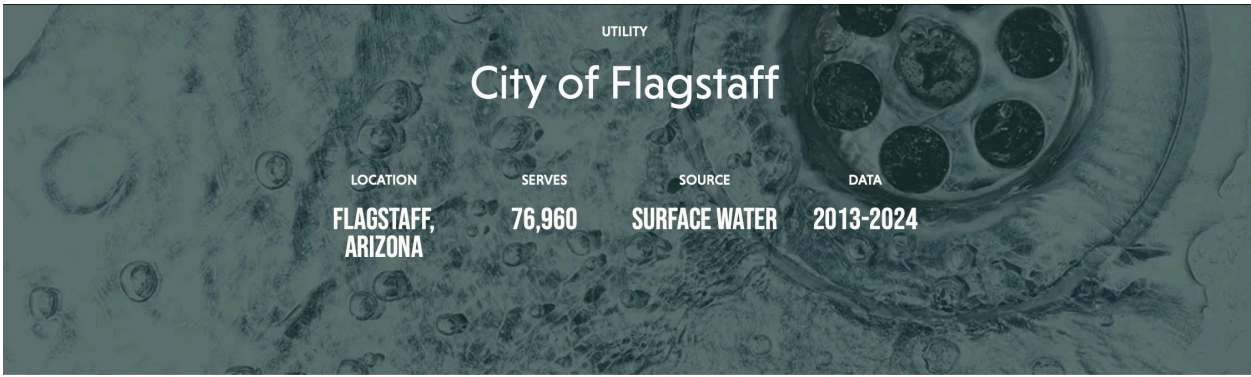
- Occurrence: Detected in nearly half of U.S. water systems; sourced from firefighting foams, industrial sites, and consumer products.
- Persistence: Resistant to degradation—bioaccumulates in humans and wildlife.
- Health Impacts: Associated with immune suppression, endocrine disruption, developmental effects, and increased cancer risk.

4. Microplastics & Plasticizers

- Microplastics occurrence: Found in ~95% of U.S. tap samples, including fibers from laundry, degraded plastics, and tire dust.
- Plasticizers: Phthalates and bisphenols leach from older PVC plumbing and urban runoff.
- Health Impacts: Ingested or inhaled particles provoke inflammation; plasticizers interfere with hormonal systems.

5. Other Notable Contaminants

- Nitrates/Nitrites: From fertilizer runoff—pose risks of methemoglobinemia in infants.
- Disinfection Byproducts: Haloacetic acids and trihalomethanes form during chlorination—linked to long-term cancer risk.
- Heavy Metals: Chromium VI, lead, and cadmium can enter via aging infrastructure or upstream industrial inputs.
- Emerging Toxins: Cyanotoxins during algal blooms and legacy pesticides warrant periodic monitoring.



UTILITY

City of Flagstaff

LOCATION

FLAGSTAFF,
ARIZONA

SERVES

76,960

SOURCE

SURFACE WATER

DATA

2013-2024

8 Contaminants Exceed EWG's Health Guidelines

18 TOTAL CONTAMINANTS

EXPLORE THIS UTILITY

Overview

Contaminants

Find a Filter

Take Action

Overview

EWG's drinking water quality report shows results of tests conducted by the water utility and provided to the Environmental Working Group by the Arizona Department of Environmental Quality, as well as information from the U.S. EPA Enforcement and Compliance History database (ECHO). For the latest quarter assessed by the U.S. EPA (April 2024 - June 2024), tap water provided by this water utility was in compliance with federal health-based drinking water standards.

[LEARN ABOUT LEAD IN THIS UTILITY](#) →

Legal does not necessarily equal safe.

- Getting a passing grade from the federal government does not mean the water meets the latest health guidelines.
- Legal limits for contaminants in tap water have not been updated in almost 20 years.
- The best way to ensure clean tap water is to keep pollution out of source water in the first place.

Contaminants Detected

EXCEED GUIDELINES OTHER DETECTED

Arsenic
Potential Effect: Cancer

This Utility: 8.20 ppb Legal Limit: 10 ppb

2,050x EWG's Health Guideline: 0.004 ppb

Chromium (hexavalent)
Potential Effect: Cancer

This Utility: 1.31 ppb No Legal Limit

66x EWG's Health Guideline: 0.02 ppb

Haloacetic acids (HAA5)
Potential Effect: Cancer

This Utility: 6.17 ppb Legal Limit: 60 ppb

62x EWG's Health Guideline: 0.1 ppb

Haloacetic acids (HAA9)
Potential Effect: Cancer

This Utility: 19.2 ppb No Legal Limit

320x EWG's Health Guideline: 0.06 ppb

Nitrate
Potential Effect: Cancer

This Utility: 0.589 ppm Legal Limit: 10 ppm

4.2x EWG's Health Guideline: 0.14 ppm

Nitrate and nitrite
Potential Effect: Cancer

This Utility: 0.342 ppm Legal Limit: 10 ppm

2.4x EWG's Health Guideline: 0.14 ppm

Radium, combined (-226 and -228)
Potential Effect: Cancer

This Utility: 0.37 pCi/L Legal Limit: 5 pCi/L

7.4x EWG's Health Guideline: 0.05 pCi/L

Total trihalomethanes (TTHMs)
Potential Effect: Cancer

This Utility: 17.3 ppb Legal Limit: 80 ppb

115x EWG's Health Guideline: 0.15 ppb

References

Environmental Working Group. "Flagstaff, AZ0403008." Tap Water Database. <https://www.ewg.org/tapwater/system.php?pws=AZ0403008>

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U.S. Geological Survey. "Tap-Water Study Detects PFAS 'Forever Chemicals' Across U.S." April 29, 2024. <https://www.usgs.gov/news/national-news-release/tap-water-study-detects-pfas-forever-chemicals-across-us>

Hydroviv. "95% of U.S. Tap Water Contains Microplastics." February 12, 2024. https://www.hydroviv.com/blogs/water-smarts/95-us-tap-water-contains-microplastics?srsltid=AfmBOopdW-Y7A-Y_2QxjTizNpMqO6qXkqAgd5qPcqpcpX9cJ7DRfbh96

Environmental Working Group. "Phthalates." Tap Water Contaminant Profiles. <https://www.ewg.org/tapwater/contaminant.php?contamcode=PHTH>

Environmental Working Group. "Flagstaff, AZ0403008 — Detailed Contaminant Report." (Nitrates, Disinfection Byproducts, Chromium VI) <https://www.ewg.org/tapwater/system.php?pws=AZ0403008#contaminantsummary>