

EPA requires us to monitor for over 90 drinking water contaminants and those that were detected are listed in the table below. Test results are from 2023. The State does allow reduced monitoring for certain contaminants since their levels do not change significantly over time. For this reason, some of the test results may be more than one year old.

Definitions and abbreviations:

- Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- Maximum Contaminant Level Goal or MCLG: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level or MRDL: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- Maximum Residual Disinfectant Level Goal or MRDLG: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- Parts per billion or ppb: 1 ppb is equivalent to adding 1 pound of a contaminant to 999,999,999 pounds of water (about 120,000,000 gallons).
- Parts per million or ppm: 1 ppm is equivalent to adding 1 pound of a contaminant to 999,999 pounds of water (about 120,000 gallons).
- Picocuries per liter or pCi/l: A measure of radioactivity.
- Treatment Technique or TT: A required process intended to reduce the level of a contaminant in drinking water.
- ND: Not Detected
- N/A: Not Applicable
- NTU: Nephelometric Turbidity Units

SOUTHWEST WATER AUTHORITY'S TABLE OF DETECTED REGULATED CONTAMINANTS							
Contaminant (units)	MCLG	MCL	Level Detected	Detection Range	Test Date	Exceedance or Violation?	Major Sources in Drinking Water
Total Organic Carbon (TOC) Removal							
Alkalinity (ppm) Source Water	N/A	N/A	171	143 – 171	2023	N/A	Natural erosion, plant activities, and certain industrial waste discharges
Total Organic Carbon (ppm) Source Water	N/A	TT	4.12	3.17 – 4.12	2023	N/A	Naturally present in the environment
Total Organic Carbon (ppm) Finished Water	N/A	TT	2.81	2.05 – 2.81	2023	N/A	Naturally present in the environment
Microbial Contaminants							
Turbidity ¹ (NTU)	N/A	TT = .3	0.18	N/A	2023	100% of samples met turbidity limit	Soil runoff
Inorganic Contaminants							
Barium (ppm)	2	2	0.0126	N/A	2016	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Copper (ppm)	1.3	AL = 1.3	0.0738	N/A	2022	No sites exceeded the Action Level	Corrosion of household plumbing systems; Erosion of natural deposits
Fluoride (ppm)	4	4	0.92	N/A	2016	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Lead ² (ppb)	0	AL = 15	ND	N/A	2022	No sites exceeded the Action Level	Corrosion of household plumbing systems; Erosion of natural deposits
Nitrate-Nitrite (ppm)	10	10	0.09	N/A	2023	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Radioactive Contaminants							
Gross alpha, Including RA, Excluding RN & U (pCi/l)	15	15	.359	N/A	2018	No	Erosion of natural deposits
Disinfectants							
Chloramines (ppm)	MRDLG = 4	MRDL = 4.0	3.2	2.76 – 3.18	2023	No	Water additive used to control microbes
Disinfection Byproducts							
Total Haloacetic Acids (ppb)	0	60	18	10.73 – 28.3	2023	No	By-product of drinking water disinfection
Total Trihalomethanes (ppb)	0	80	11	7.05 – 13.8	2023	No	By-product of drinking water disinfection
SOUTHWEST WATER AUTHORITY'S TABLE OF DETECTED UNREGULATED CONTAMINANTS ²							
Bicarbonate as HCO ₃ (ppm)	N/A	N/A	208	174- 208	2023	N/A	N/A
Alkalinity, Carbonate	N/A	N/A	6	ND - 6	2022		

¹ Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of our filtration system.
² The EPA requires testing for certain unregulated contaminants, but has not established enforceable drinking water standards for them. They are monitored to determine whether or not future regulation is warranted.

The Perkins County Rural Water public water system purchases 100% of their water from North Dakota.

2023 Table of Detected Regulated Contaminants For Perkins County Rural Water (EPA ID 2228)

Terms and abbreviations used in this table:

- * Maximum Contaminant Level Goal(MCLG): the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- * Maximum Contaminant Level(MCL): the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- * Action Level(AL): the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow. For Lead and Copper, 90% of the samples must be below the AL.
- * Treatment Technique(TT): A required process intended to reduce the level of a contaminant in drinking water. For turbidity, 95% of samples must be less than 0.3 NTU
- * Running Annual Average(RAA): Compliance is calculated using the running annual average of samples from designated monitoring locations.

- Units:
- *MFL: million fibers per liter
- *mrem/year: millirems per year(a measure of radiation absorbed by the body)
- *NTU: Nephelometric Turbidity Units
- *pCi/L: picocuries per liter(a measure of radioactivity)
- *ppm: parts per million, or milligrams per liter(mg/l)
- *ppb: parts per billion, or micrograms per liter(ug/l)
- *ppt: parts per trillion, or nanograms per liter
- *ppq: parts per quadrillion, or picograms per liter
- *pspm: positive samples per month

Substance	90% Level	Test Sites > Action Level	Date Tested	Highest Level Allowed (AL)	Ideal Goal	Units	Major Source of Contaminant
Copper	0.1	0	09/19/22	AL=1.3	0	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead	1	0	09/20/22	AL=15	0	ppb	Corrosion of household plumbing systems; erosion of natural deposits.
Substance	Highest Level Detected	Range	Date Tested	Highest Level Allowed (MCL)	Ideal Goal (MCLG)	Units	Major Source of Contaminant
Fluoride	0.95	0.74 - 0.95	02/07/23	4	<4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Haloacetic Acids (RAA)	33.1		09/12/23	60	0	ppb	By-product of drinking water chlorination. Results are reported as a running annual average of test results.
Total trihalomethanes (RAA)	17.0		09/12/23	80	0	ppb	By-product of drinking water chlorination. Results are reported as a running annual average of test results.

Please direct questions regarding this information to Mr. Eric Newman with the Perkins County Rural Water public water system at (605)244-5608.
* North Dakota test result.