

MOA MUNICIPALITY OF ANCHORAGE 2023 Consumer Confidence Report (for publication in 2024)

PWS# AK2210906

Anchorage Water & Wastewater Utility is pleased to present you with its annual Drinking Water Quality Report, also known as the Consumer Confidence Report. This report is about 2023 water quality. The U.S. Environmental Protection Agency (EPA) and the State of Alaska Department of Environmental Conservation (ADEC) require all water agencies to produce for its customers an annual report about the previous year's drinking water quality. AWWU's annual Drinking Water Quality Report details where your water comes from, and what it contains.

The Utility's commitment to water quality excellence results in the production of drinking water that meets and/or exceeds all state and federal drinking water standards for 2023. Your Utility safeguards your public water supplies. AWWU ensures safe and reliable drinking water with the use of efficient and state-of-the-art technology operations. This Water Quality Report contains results of both federal and Alaska regulated drinking water tests, as well as other drinking water information. For more information about your water, contact AWWU's Water Quality Section at (907) 751-2212, or email awwucustomerserv@awwu.biz. Please include "Water Quality Report" in the subject line. To receive a written report by mail, request one by phone at (907) 786-5636

Is my water safe?

Anchorage Water & Wastewater Utility complies with all Drinking Water regulations.

Anchorage Water & Wastewater Utility water samples are collected routinely from source waters, individual homes, and points throughout the distribution system to ensure quality. Certified laboratories verify the water always meets required federal and Alaska standards.

Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing



chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

Where does my water come from?

Source waters for the Anchorage Water System include surface water from Eklutna Lake and Ship Creek, and ground water from 9 active wells in the Anchorage Bowl.

Source water assessment and its availability

The State of Alaska, Department of Environmental Conservation's Drinking Water Program maintains source water assessments on its Drinking Water Watch website, available here:

[DWW - Water System Details \(alaska.gov\)](http://DWW - Water System Details (alaska.gov))

	Eklutna Lake	Ship Creek	Well 9	Well 10	Well 11	Well 25	Well 13	Well 29*	Well 7	Well 12
Wellhead / Intake Susceptibility	Very high	Very high	Low	Low	Low	Low	Low	Low	Low	Low
Aquifer Susceptibility	n/a	n/a	Low	Medium	Medium	Low	Medium	Low	Low	Low
Overall Vulnerability to potential contaminants										
Bacteria and Viruses	High	Medium	Medium	Low	Low	Low	Medium	Low	Medium	Low
Nitrates/ Nitrites	Medium	Medium	Low	Low	Medium	Low	Medium	Low	Medium	Low
Volatile Organic Chemicals	High	Medium	Medium	Low	Low	Low	Medium	Low	Medium	Medium
Inorganics and Heavy Metals	Medium	Medium	Low	Low	Low	Low	Medium	Low	Medium	High
Synthetic Organic Chemicals	Low	Medium	Low	Low	Low	Low	Low	Low	Low	Low



Other Organic Chemicals	Medium	Medium	Low	Low	Low	Low	Low	Low	Low	Low
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- Well 29 is two wells in the same well house, and the small well has remained unused for many years.

Why are there contaminants in my drinking water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791). The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity: microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming; pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses; organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

How can I get involved?

Please contact us or visit us on the web at [Anchorage Water and Wastewater Utility | Home \(awwu.biz\)](http://www.anchoragewaterandwastewaterutility.com)

Description of Water Treatment Process



Your water is treated by filtration and disinfection. Filtration removes particles suspended in the source water. Particles typically include clays and silts, natural organic matter, iron and manganese, and microorganisms. Your water is also treated by disinfection. Disinfection involves the addition of chlorine or other disinfectants to kill bacteria and other microorganisms (viruses, cysts, etc.) that may be in the water. Disinfection is considered to be one of the major public health advances of the 20th century.

Significant Deficiencies

Routine Sanitary Surveys have been conducted in accordance with ADEC requirements and timelines. Capital improvements resulting from deficiencies identified in sanitary surveys continued on schedule in 2023, in agreement with ADEC. The last remaining project was the repositioning of an overflow pipe on a reservoir to achieve adequate air-gap protection. This was completed on October 3, 2023. Appropriate documentation was provided to ADEC and this deficiency has been closed out and no further action is required.

Results of voluntary monitoring

Alkalinity (min, max, average): (40, 110, 76 ppm)
Total Hardness (min, max, average): (82, 159, 108 ppm)
Calcium hardness (min, max, average): (65, 117, 80 ppm)
Magnesium hardness (min, max, average): (17, 41, 28 ppm)
Total Dissolved Solids (TDS) (min, max, average): (110, 290, 147 ppm)
Calcium (min, max, average): (26, 47, 32 ppm)
Magnesium (min, max, average): (4.1, 10, 6.8 ppm)
Sodium (min, max, average): (3.5, 15, 6.3 ppm)
Potassium (min, max, average): (0.27, 1.3, 0.74 ppm)
Chloride (min, max, average): (3.68, 46.5, 9.82 ppm)
Sulfate (min, max, average): (9.46, 48.5, 26.9 ppm)

pH (min, max) (7.06, 8.04)

Aluminum (min, max): (ND, 113 ppb)
Iron (min, max): (ND, 0.37 ppm)
Manganese (min, max): (ND, 55.2 ppb)
Nickel (min, max): (ND, 1.01 ppb)
Zinc (min, max): (ND, 21.6 ppb)



ND = Not detected

ppm = parts per million or milligrams/Liter

ppb = parts per billion or micrograms/Liter

Additional Information for Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. MOA MUNICIPALITY OF ANCHORAGE is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report (2023). Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report (2023). The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.



Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfectants & Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Chlorine (as Cl ₂) (ppm)	4	4	1.44	0.37	1.44	2023	No	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	NA	60	9	ND	9	2023	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	10.9	2.49	10.9	2023	No	By-product of drinking water disinfection
Inorganic Contaminants								
Barium (ppm)	2	2	0.013	0.00329	0.013	2023	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Copper - source water (ppm)	NA		12.7	ND	0.0127	2023	No	Corrosion of plumbing systems; Erosion of natural deposits
Cyanide (ppb)	200	200	6.9	ND	6.9	2023	No	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories
Fluoride (ppm)	4	4	0.75	ND	0.75	2023	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Lead - source water (ppm)	NA		0.000882	ND	0.000882	2023	No	Corrosion of plumbing systems; Erosion of natural deposits
Nitrate [measured as Nitrogen] (ppm)	10	10	1.4	ND	1.4	2023	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (optional) (ppm)	NA		15	3.5	15	2023	No	Erosion of natural deposits; Leaching
Microbiological Contaminants								
Turbidity (NTU)	NA	0.3	100	NA	NA	2023	No	Soil runoff



Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
100% of the samples were below the TT value of .3. A value less than 95% constitutes a TT violation. The highest single measurement was .06. Any measurement in excess of 1 is a violation unless otherwise approved by the state.								
Contaminants	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source	
Inorganic Contaminants								
Copper - action level at consumer taps (ppm)	1.3	1.3	0.046	2021	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	
Lead - action level at consumer taps (ppb)	0	15	1.6	2021	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	

Additional Monitoring

In January 2023 AWWU began sampling for the Environmental Protection Agency’s Fifth Unregulated Contaminated Monitoring Rule list of unregulated contaminants. While this monitoring study is regularly updated every five years, for the first time the EPA began requiring testing for 29 PFAS compounds.

Upon receipt of the data AWWU received in February, we discovered three groundwater wells containing some individual PFAS compounds. Proactively, AWWU discontinued using these wells in production. In March of 2023 the EPA proposed national primary drinking water limits for two compounds, PFOA and PFOS, and a combined Hazard Index limit for four additional PFAS compounds that were included in the UCMR5 monitoring. One of the tested wells exceeded these proposed limits, requiring notification to our customers. This report provides that notification.

AWWU maintains the highest commitment to water quality and fire protection for the Municipality of Anchorage. All our current drinking water production monitoring meets or exceeds the EPA and Alaska Department of Environmental Conservation standards.

PFAS Compound Name	Results Range		Proposed MCL
	Low (ppt)	High (ppt)	



PFOA (perfluorooctanoic acid)	ND	9.14	4.0 ppt
PFOS (perfluorooctanesulfonic acid)	ND	3.77	4.0 ppt
PFBS (perfluorobutanesulfonic acid)	ND	1.8	NA - Part of Hazard Index
PFHxS (perfluorohexanesulfonic acid)	ND	11.2	
PFBA (perfluorobutanoic acid)	ND	2.22	
PFPEA (perfluoropentanoic acid)	ND	1.63	No MCL
PFHXA (perfluorohexanoic acid)	ND	2.81	No MCL
PFHPA (perfluoroheptanoic acid)	ND	0.612	No MCL
PFPES (perfluoropentanesulfonic acid)	ND	0.726	No MCL
PFAS Hazard Index	ND	1.25	1.0 (no units)

Unit Descriptions	
Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
ppt	ppt: parts per trillion, or nanograms per liter (ng/L)
NTU	NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.

Important Drinking Water Definitions	
Term	Definition
MCLG	MCLG: Maximum Contaminant Level Goal: 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.
MCL	MCL: Maximum Contaminant Level: 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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variations and Exemptions	Variations and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.



Important Drinking Water Definitions	
MRDLG	MRDLG: Maximum residual disinfection level goal. 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.
MRDL	MRDL: Maximum residual disinfectant level. 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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

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