2023 Consumer Confidence Report

Talkeetna Water System
Public Water System AK2225032

The Matanuska-Susitna Borough and Talkeetna Water System Operators are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies.

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?

Talkeetna Water System water is supplied by two ground water wells located at 22111 North C Street in Talkeetna, Alaska. The wells are 160 feet deep into a confined aquifer. The untreated well water exceeds the regulatory Maximum Contaminant Level (MCL) for arsenic and manganese so all well water goes through the Arsenic Treatment Plant. To protect your water source, we have posted signs noting that the area is a source water protection area and that no parking, trespassing, or tampering with facilities is allowed. Failure to comply with these notices is a federal crime. Please help to protect your water and report any suspicious behavior to Matanuska-Susitna Borough at either (907) 861-8347 or (907) 861-7755 or the State Troopers at (907) 352-5401.

A Source Water Assessment was performed in April 2004. The wells received a Very High Natural Susceptibility rating. This rating is a combination of susceptibility rating of very high for the actual wellhead and a very high rating for the aquifer from which the well is drawing water. Identified potential and current contamination sources for the Talkeetna Water System include improperly decommissioned wells, a gasoline station, sewer lines, fuel storage tanks, roads, a rail corridor, a pit toilet, outhouses, a campground, Department of Environmental Conservation (DEC) recognized contaminated sites and Leaking Underground Storage Tank (LUST) sites. These are considered sources of bacteria and viruses, nitrates and/or nitrites, volatile organic chemicals, heavy metals, cyanide and other inorganic chemicals, and other organic chemicals. Combining the natural susceptibility of the well with the contaminant risk, the public water system for Talkeetna received an overall venerability rating of very high for volatile organic chemicals and heavy metals, cyanide, and other inorganic chemicals, a high rating for bacteria and viruses, nitrates and/or nitrites and synthetic organic chemicals, and a medium rating for other organic chemicals. A Source Water Assessment is available at the Matanuska-Susitna Borough Operations and Maintenance Building located at 1420 South Industrial Way, Palmer, Alaska 99645, or the Talkeetna Operations Warm Storage/Office Building at 25150 South Comsat Road, Talkeetna. You may also call (907) 861-8347 to have a copy sent to you.

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.

DESCRIPTION OF WATER TREATMENT PROCESS

Water is treated for elevated arsenic and manganese, exceeding the Maximum Contaminant Level (MCL). Water is first stored in a hydropneumatic tank, used to pressurize the distribution system, before being treated via oxidation and filtration to reduce arsenic and manganese to below the MCL. Water is then disinfected with chlorine prior to distribution to customers. The well house has a primary pump for average usage and a secondary pump for abnormal usage. The water distribution system is approximately 26,000 linear feet of ductile iron piping. Piping depths vary but are typically 10 feet deep with shallower sections covered with foam board insulation or upgraded to arctic pipe.

HOW CAN I GET INVOLVED?

There are several ways in which customers can become more involved in the process of treating and providing healthy drinking water. All customers should watch for activities that may pollute ground water and report these issues to Talkeetna Sewer & Water operators at (907) 861-8347. Customers can also attend public meetings of the Talkeetna Community Council or the Talkeetna Sewer and Water Board of Supervisors. The Board of Supervisors is a group of resident volunteers appointed by the Matanuska-Susitna Borough Mayor to make recommendations on utility operations. The Board of Supervisors meet the first Wednesday of each month at 1:00 pm at the Talkeetna Library. Interested customers can monitor the public meetings calendar at http://www.matsugov.us/publicmeetings.

WATER CONSERVATION TIPS

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Taking shorter showers; a 5-minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Turning off water while brushing your teeth, washing your hair, and shaving can save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save up to 750 gallons a month.
- Running your clothes washer and dishwasher only when they are full can save up to 1,000 gallons a month.
- Fix leaky toilets and faucets; faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet

bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.

CROSS CONNECTION CONTROL SURVEY

The purpose of this survey is to determine whether a cross-connection may exist at your home or business. A cross connection is an unprotected or improper connection to a public water distribution system that may cause contamination or pollution to enter the system. We are responsible for enforcing cross-connection control regulations and ensuring that no contaminants can, under any flow conditions, enter the distribution system. If you have any of the devices listed below, please contact us so that we can discuss the issue, and if needed, survey your connection, and assist you in isolating it if that is necessary.

- Boiler/ Radiant heater (water heaters not included)
- Underground lawn sprinkler system
- Pool or hot tub (whirlpool tubs not included)
- Additional source(s) of water on the property
- Decorative pond
- Watering trough

SOURCE WATER PROTECTION TIPS

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides - they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.

OTHER INFORMATION

Talkeetna Water System was granted a Synthetic Organic Contaminants (SOC) waiver on April 24, 2023. This approval is valid for the 2023 to 2025, three-year compliance period. The waiver will be reexamined during the next compliance period, 2026 to 2028.

ADDITIONAL INFORMATION ON 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. Talkeetna Water System 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.

ADDITIONAL INFORMATION ON ARSENIC

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

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 drinking water contaminants that we detected during the calendar year of this report. 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. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State of Alaska 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 Cl2) (ppm)	4	4	1.05	0.13	1.05	2023	No	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	NA	60	4.5	2.7	4.5	2023	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	9.92	9.15	9.92	2023	No	By-product of drinking water disinfection
Inorganic Contaminants								
Antimony (ppb)	6	6	.0179	NA	NA	2022	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition.
Arsenic (ppb)	0	10	3.2	NA	NA	2023	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2	2	.02	NA	NA	2022	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium (ppb)	100	100	.5	NA	NA	2022	No	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride (ppm)	4	4	.15	NA	NA	2022	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Microbiological Contaminants								

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Total Coliform (RTCR)	NA	TT	NA	NA	NA	2023	No	Naturally present in the environment

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	.0043	2022	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - action level at consumer taps (ppb)	0	15	.21	2022	1	No	Corrosion of household plumbing systems; Erosion of natural deposits

Violations and Exceedances

None.

UNDETECTED CONTAMINATES

The following contaminants were monitored for, but not detected, in your water.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Violation	Typical Source
Nitrate [measured as Nitrogen] (ppm)	10	10	ND	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Radium (combined 226/228) (pCi/L)	0	5	ND	No	Erosion of natural deposits

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)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
% positive samples/month	% positive samples/month: Percent of samples taken monthly that were positive
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.

Important Drinking Water Definitions	
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
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

For more information please contact:

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