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DRINKING WATER QUALITY REPORT – FOR THE YEAR 2023

SITKA, ALASKA
(Public Water System No. AK2 130075)

The City and Borough of Sitka (CBS) Water Department is pleased to present this year's annual Drinking Water Quality Report. This report is designed to inform you about the high quality water and services we deliver every day. Our goal is to constantly provide you with a safe, dependable and high quality supply of drinking water. We want our valued customers to understand the efforts made to continually improve our water system and to protect our water resources. If you have any questions regarding this report, your water utility, or would like to be added to a facility tour list, please contact Environmental Superintendent, Shilo Williams at 747-4060 or at shilo.williams@cityofsitka.org. According to state and federal law, the CBS Assembly makes the ultimate decisions related to the water treatment process. They meet the second and fourth Tuesday of each month at Harrigan Centennial Hall. These meetings are open to the public.

Sitka's primary water source is surface water from Blue Lake. Our secondary water source has been surface water from Indian River, but this is no longer an approved potable water source without filtration and chlorine contact time. Construction on a secondary source from Sawmill Creek was completed in the fall of 2022. Through the Alaska Drinking Water Protection Program, the State of Alaska Department of Environmental Conservation (ADEC) completed a source assessment in 2003 and provided a final source water protection plan in 2004. Copies of this plan can be obtained from your water department.

As water travels to the collection point, either lake or river, it may pick up contaminants it comes in contact with. These contaminants could include microbes, inorganic and organic material, or radioactive substances. 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. Guidelines from the Environmental Protection Agency (EPA) Center for Disease Control (CDC) on the appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791). All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It is important to remember that the presence of these contaminants does not necessarily pose a health risk. The Sitka Public Water System routinely monitors for contaminants in your drinking water according to State and Federal laws and regulations. The following tables show results of that monitoring for the period of January 1st to December 31st, 2023.

In the following tables you will find terms you might not be familiar with. To help you better understand these terms we have provided the following definitions:

NR: Not Regulated – reporting this data is not required.

NA: Not Applicable, Not Available – does not apply or is not available.

ND: Non-Detects – laboratory analysis indicates that the contaminant is not present.

MRL: Method Reporting Limit – the minimum concentration that can be measured.

ppm: Parts per million or mg/l: Milligrams per liter – corresponds to one part per million parts.

ppb: Parts per billion or Micrograms per liter – corresponds to one part per billion parts.

Mfl: Million fibers per liter

NTU: Nephelometric Turbidity Unit – nephelometric turbidity unit is a measure of clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

AL: Action Level – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

MCL: Maximum Contaminant Level – The “Maximum Allowed”: is 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.

MCLG: Maximum Contaminant Level Goal – The “Goal” is 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.

TT: Treatment Technique – Enforceable procedures that drinking water systems must follow

Waivers, or reduced sampling requirements, have been obtained for many of the regulations pertaining to the monitoring of our water system. These waivers were granted after years of test results that were significantly less than the MCLs of the various contaminants. Currently we have waivers for Synthetic Organic Contaminants, Asbestos, Organics/Pesticides, Inorganics,

(Nitrites), and Dioxins; we did not test for them during the time period covered by this report. Monitoring results are tabled below.

2023 TEST RESULTS FOR BLUE LAKE WATER						
<i>Contaminant</i>	<i>MCL Violation</i>	<i>Level Detected</i>	<i>Unit Measurement</i>	<i>MCL Goal</i>	<i>MCL</i>	<i>Likely source of contamination to the best of our present knowledge</i>
Microbiological Contaminants						
Total Coliform Bacteria	None	ND	Colonies per 100 ml	0	0	Naturally present in the environment
Turbidity	None	1.37	NTU	NA	5.49	Natural soil runoff, glacial silt, land slides
Turbidity: Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. Blue Lake’s turbidity is mostly inorganic in nature (glacial silt) and often not directly associated with microbial contamination.						
Total Coliform: Coliforms are bacteria that are used as an indicator that other, potentially harmful, bacteria may be present. None were found.						
Inorganic Contaminants						
Nitrate (as Nitrogen)	None	0.12	ppm	<10	10	Erosion of natural deposits, animal waste
Fluoride (Voluntary)	None	1.0	ppm	2.0	4.0	Water treatment additive, natural deposits
Barium	None	.00971	ppm	2	2	Erosion of natural deposits
Asbestos	None	0.164	MFL	7	7	Erosion of natural deposits
Nitrate: Infants below the age of six months, who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.						
Fluoride: Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth. Note, that your drinking water fluoride level is controlled to the recommended range of 0.7 to 1.2 ppm.						

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. The City and Borough of Sitka water department is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. There are several steps you can take to reduce your risk of exposure to lead through drinking water. When you haven’t used water for several hours, run the cold water tap for a minute or two, until the water gets noticeably colder. The lower temperature indicates you cleared the water that was standing in pipes. (To conserve, catch the flushed tap water for household uses such as watering plants or cleaning.) Use cold water whenever you are preparing food and beverages, including cooking, making ice and preparing instant formula. Hot water dissolves lead faster and is likely to contain higher levels of lead if present. Particles can collect in faucets’ tips, at the aerator screen. Remove and clean aerators every month and replace them each year. 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>. You can also look for potential sources of lead in your service line and household plumbing. You should consider replacing if you find pipes made of lead or galvanized iron, lead solder connecting your household pipes, or brass faucets, valves, and fittings. If you are hiring someone to test, repair or replace your service line, household pipes or fixtures, we recommend using an experienced, licensed plumber.

Prior to 2001, 35 of 40 Sitka households exceeded at least one action level of the lead and copper monitoring program. To reduce the corrosive nature of our drinking water, a sodium carbonate (soda ash) solution has been added since January 2001. This addition has been very successful in reducing the number of lead and copper samples that exceed the action levels of these contaminants. The latest round of sampling was completed in September 2023. Results of this testing are tabulated below. The 2023 monitoring showed the 90th percentile value above the action level for lead. See attached Public Notice for more information.

“At the Tap” Lead & Copper Monitoring September 2023					
<i>Contaminant</i>	<i>AL</i>	<i>MCLG</i>	<i>Unit of Measurement</i>	<i>90th % value</i>	<i>Likely Source of Contamination to the Best of our Present Knowledge</i>
Lead 2023	0.015	0.0	ppm	0.033	Corrosion of household plumbing systems
Copper 2023	1.30	1.3	ppm	0.33	Corrosion of household plumbing systems

Total Organic Carbon (TOC) has no health effects. However, TOC provides a medium for the formation of disinfection by-products. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL over many years may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of cancer. Sitka's results are well below the MCL.

<i>Disinfection Byproducts</i> (TTHM & HAA5 sampled Annually & TOC quarterly)							
<i>Contaminant</i>	<i>MCL Violation</i>	<i>Level Detected</i>	<i>Range Detected</i>	<i>Unit Measure</i>	<i>MCLG</i>	<i>MCL</i>	<i>Likely Source of Contamination to the Best of our Present Knowledge</i>
Total Trihalomethanes (TTHM)	None	33.45	NA	ppb	NA	80	By-Product of Chlorination
Total Haloacetic Acids (HAA5)	None	30.50	NA	ppb	NA	60	By-Product of Chlorination
Total Organic Carbon (TOC)	None	0.763	0.724-0.862	mg/L	NA	NA	Naturally present in Environment

<i>Radioactive Contaminants</i>						
<i>Contaminant</i>	<i>MCL Violation</i>	<i>Level Detected</i>	<i>Unit Measure</i>	<i>MCLG</i>	<i>MCL</i>	<i>Likely Source of Contamination to the Best of our Present Knowledge</i>
Radium – 226	None	0.55	ppm	0	5	Erosion of Natural Deposits
Radium – 228	None	0.63	ppm	0	5	Erosion of Natural Deposits

Waivers: Synthetic Organic Chemical waiver granted for 2023

Sitka's Water Treatment: Blue Lake, our primary water source is very clean in its natural state. We anticipate some water quality changes as the lake adjusts to the new dam elevation. With Blue Lake's watershed and high quality water we are not required to filter it prior to disinfection and distribution to you. Proper disinfection is accomplished by adding a small amount of chlorine to guarantee our drinking water is safe from harmful microorganisms. Ultra Violet (UV) light further improves our water quality by enhancing disinfection of cryptosporidium and by providing a second treatment barrier for microbiological contaminants. Fluoride is added to increase the natural level of fluoride in our drinking water to a level recommended by the Public Health Service and the ADEC. Fluoride addition helps reduce the incidence of tooth decay. Sodium carbonate (soda ash) is added to the drinking water at the Corrosion Control Facility (CCF). Soda ash slightly increases the pH and alkalinity of our treated water thereby reducing the leaching of lead and copper from private plumbing systems into your tap water. The pipe that brings water from Blue Lake to the water plant needs to be drained and inspected on a regular basis. A membrane filtration plant was constructed along with a new water intake in Sawmill Creek to ensure that we can continue to provide safe, reliable drinking water during these inspections. Once the membrane plant is fully commissioned it will be operated quarterly and during times when the penstock is down for maintenance or during periods of high turbidity in Blue Lake.

REMINDERS:

The CBS takes pride in continuing to provide you and your family with clean, quality water. In order to maintain a safe and dependable water supply, improvements continually need to be made to the treatment and distribution systems. These improvements sometimes cause short-term inconveniences and can result in rate structure adjustments. Our hardworking water operators respond to emergencies 24 hours/day, 7 days/week. Thank you for understanding the importance of our drinking water treatment and distribution systems.

Help keep our Blue Lake and Indian River watersheds clean. Water resources are affected by both natural and human activities. Help us preserve and protect the quality of our water by picking up your trash and pet waste. Practice responsible recreation in our watersheds and leave no trace. **Safe drinking water is everyone's business.**

Watershed Control Reports, capital project updates and special reports can be found on the Public Works web site: <http://www.cityofsitka.com/government/departments/publicworks/index.html>

Please help prevent costly back-ups and failures in our wastewater treatment systems. Do not flush anything but bodily waste and toilet paper. Wipes including those marketed as flushable do not breakdown in water like toilet paper does. Do your part, no wipes in the pipes. Fats, oils, and grease (FOG) should be placed in the garbage and not down the drain.

NOTICE TO THE PUBLIC

Important Information about lead in drinking water

This brochure explains the health effects of lead and simple steps you can take to protect yourself by reducing your exposure to lead in drinking water. **The City of Sitka exceeded the Lead Action Level for drinking water. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing.**

The City of Sitka is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components.

The United States Protection Agency (EPA) is concerned about lead in your drinking water. Routine testing found elevated levels of lead in drinking water in some homes/buildings. Lead can cause serious health problems, especially for pregnant women and young children. Please read this information closely to see what you can do to reduce lead in your drinking water.

HEALTH EFFECTS OF LEAD

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.

SOURCES OF LEAD

Lead is a common metal found throughout the environment in lead - based paint, air, soil, household dust, food, certain types of pottery porcelain and pewter. Drinking water is also a possible source of lead exposure. Most sources of drinking water have no lead or very low levels of lead. Most lead gets into drinking water after the water leaves the local well or treatment plant and comes into contact with plumbing materials containing lead. These include lead pipes, lead solder, as well as faucets, valves, and other components made of brass.

HOW LEAD ENTERS OUR WATER

Unlike most drinking water contaminants, lead is unusual in that it seldom occurs naturally in water supplies like rivers and lakes. Lead enters drinking water primarily as a result of the corrosion, or wearing away, of materials containing lead in the water distribution system and household plumbing. These materials include lead-based solder used to join copper pipe, brass and chrome-plated brass faucets, and in some cases, pipes made of lead that connect your house to the water main (service lines). In 1986, Congress banned the use of lead solder containing greater than 0.2% lead, and restricted the lead content of faucets, pipes and other plumbing materials to 8.0%. When water stands in lead pipes or plumbing systems containing lead for several hours or more, the lead may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon after returning from work or school, may contain higher levels of lead. Flushing tap water is a simple and inexpensive measure you can take to reduce your exposure.

WHAT WE ARE DOING

Although some locations have low levels of lead in their drinking water, some taps within the distribution system have lead levels above the EPA action level of 0.015 mg/L for Pb based on 90th percentile level of tap water samples. An action level exceedance is not a violation but can trigger other requirements that include water quality parameter monitoring, corrosion control treatment, source water monitoring/treatment, public education, and lead service line replacement if applicable. Under federal law we are required to have a program in place to minimize lead in drinking water. This program includes: the addition of soda ash to slightly increase the pH and alkalinity of our treated water thereby reducing the leaching of lead and copper from private plumbing systems into your tap water.

STEPS TO REDUCE EXPOSURE TO LEAD IN DRINKING WATER

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Sitka is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. Therefore, 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. Lead levels in some homes or buildings can be higher than others. Testing the water is essential because you cannot see, taste, or smell lead in drinking water. If you are concerned about lead in your drinking water, you may want to have your water tested. For more information on getting your water tested for lead, please call your public water system representative at 907-747-4060

If a water test indicates that the drinking water drawn from a tap in your home contains lead above 0.015 mg/L or if you suspect that your plumbing system components may contain lead, then you should take the following precautions:

1. FLUSH YOUR SYSTEM.

Flushing tap water is a simple and inexpensive measure you can take to protect your family's health. The longer water resides in your home's plumbing, the more lead it may contain. Flushing usually uses less than one or two gallons of water. 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. Although toilet flushing or showering flushes water through a portion of your home's plumbing system, you still need to flush the water in each faucet before using it for drinking or cooking. To conserve water, fill a couple of bottles for drinking water after flushing the tap, and whenever possible use the first flush water to wash dishes or water plants.

2. USE ONLY COLD WATER FOR COOKING AND DRINKING.

Try not to cook with, or drink water from the hot water tap. Hot water can dissolve more lead more quickly than cold water. If you need hot water, draw water from the cold tap and heat it on the stove.

3. REMOVE LOOSE SOLDER AND DEBRIS FROM PLUMBING MATERIALS.

Remove loose solder and debris from the plumbing materials installed in newly constructed homes, or homes in which the plumbing has recently been replaced. To do this, remove the faucet strainers from all taps and run the water for 3- 5 minutes. Thereafter, periodically remove the strainers and flush out any debris that has accumulated over time.

4. IDENTIFY AND REPLACE LEAD SOLDER.

If your copper pipes are joined with lead solder replace the lead solder with lead-free solder. Lead solder looks dull gray, and when scratched with a key looks shiny.

5. HAVE AN ELECTRICIAN CHECK YOUR WIRING.

If grounding wires from the electrical system are attached to your pipes, corrosion may be greater. Check with a licensed electrician or your local electrical code to determine if your wiring can be grounded elsewhere. DO NOT attempt to change the wiring yourself because improper grounding can cause electrical shock and fire hazards

CITY AND BOROUGH OF SITKA
2023
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Do you Hear Water Running in Your Home?

If you hear running water sounds in your home or through your plumbing, you may be hearing a water leak. Many customers do not call because they have adequate water pressure and/or do not see water running on the ground.

Your Water Department encourages you to call – you may be hearing a water leak in your service or in the city main. Please call the Public Works Office at 747-1804 and leave a message or email publicworks@cityofsitka.org.



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