

How You Can Help



PICK UP PET WASTE

Pet waste pollutes waterways with bacteria and excess nutrients. All pets must be leashed in the watershed areas.



RESPECTFUL RECREATION

Camping, shooting, recreational mining (except gold panning) and any hazardous substances are prohibited within the watershed boundaries.



REPORT SUSPICIOUS ACTIVITY

Call the Utilities Division at (907) 586-0393 if you see suspicious activity.



GET EDUCATED

Contact the Utilities Division if you'd like more information or a tour of our facilities.



SIGN UP FOR PAPERLESS BILLING

Help the Utility conserve resources by receiving your bill by email!
Sign up at www.bit.ly/cbj-paperless



FOR MORE INFORMATION

Thank you for reading this report and doing your part to protect Juneau's water supply. Please contact us if you have any questions, comments, or are interested in learning more about the CBJ Utilities drinking water system:

Brian McGuire, CBJ Utilities Superintendent
2009 Radcliffe Road • (907) 586-0393

Drinking water test results are available to the public by calling the Utilities Division at (907) 586-0393 or by contacting ADEC at (866) 956-7656.



CBJ Utilities Division

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WATER QUALITY REPORT 2021





Drinking Water Monitoring & Test Results

TEST	UNITS	MAXIMUM CONTAMINANT LEVEL	MAXIMUM CONTAMINANT LEVEL GOAL	LAST CHANCE BASIN	SALMON CREEK	DATE SAMPLED	SOURCE OF CONTAMINANT
Measured Before Treatment							
Turbidity	NTU	0.3	0	N/A	0.011 avg 0.099 max	Continuous	Surface runoff (Values shown 0.029 max do not include days when SC was offline)
Arsenic	mg/L	0.01	0	<0.001	<0.001	2020	Erosion of natural deposits
Barium	mg/L	2	2	0.067	0.053	2020	Erosion of natural deposits
Fluoride	mg/L	4	4	<0.1	<0.1	2020	Naturally present in the environment (CBJ has not added fluoride since Jan. 2007)
Nitrate (as Nitrogen)	mg/L	10	10	0.2	<1.0	2022	Fertilizer runoff; sewage leaching; erosion of natural deposits
Selenium	mg/L	0.05	0.05	<0.002	<0.002	2015*	Erosion of natural deposits
Alpha Particles	pCi/L	15	0	1.1	0.26	2015*	Erosion of natural deposits
Radium 226	pCi/L	5	0	0.44	0.84	2015*	Erosion of natural deposits
Radium 228	pCi/L	5	0	1.8	0.22	2015*	Erosion of natural deposits
Measured in the Distribution System							
Total Coliform Bacteria	count	1 positive sample/month	0	No Violation		Weekly	Runoff from organic material
Haloacetic Acids (HAA5)	mg/L	0.06	N/A	0.002 avg ND-0.0068		Quarterly	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	mg/L	0.08	N/A	0.003 avg 0.0007-0.0076		Quarterly	By-product of drinking water disinfection
Chlorine	mg/L	MRDL = 4	MRDL = 4	0.49 avg		Continuous	Disinfectant used to control microbes
Copper	mg/L	AL = 1.3	1.3	90 th percentile = 0.490		2019	Corrosion of household plumbing systems, erosion of natural deposits
Lead	mg/L	AL = 0.015	0	90 th percentile = 0.0000		2019	Corrosion of household plumbing systems, erosion of natural deposits

*This table presents a summary of the most recent water quality test results for the CBJ water system. ADEC and EPA limit the amount of certain contaminants in drinking water to ensure the safety of public health. Juneau's treated drinking water met all State and Federal standards for public health in 2020. Some data, though representative, is more than a year old. Per State requirements, some contaminants are monitored less than once per year due to infrequent concentration shifts. In 2021, CBJ received an administrative violation for failure to file the results of the 2021 published data – the matter has now been remedied.



ABBREVIATIONS

ADEC	Alaska Department of Environmental Conservation
AL	Action Level – The concentration of a contaminant which, if exceeded, triggers additional treatment or other requirements.
CBJ	City and Borough of Juneau
EPA	U.S. Environmental Protection Agency
FDA	U.S. Food & Drug Administration
LCB	CBJ's Last Chance Basin – Water source
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 treatment technology.
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.
MGD	Million Gallons per Day
mg/L	Milligram per Liter – Or parts per million
MRDL	Maximum Residual Disinfectant Level – The highest level of a disinfectant allowed in drinking water.
N/A	Not Applicable
ND	None Detected at specified level
NTU	Nephelometric Turbidity Unit – The unit of measure for turbidity, or the light scatter created by particles suspended in water.
PCI/L	pico Curies per Liter
PPB	Parts per Billion

EXEMPTIONS AND WAIVERS

The CBJ water system operates under waivers for synthetic organic chemicals and reduced asbestos monitoring as authorized by ADEC.

Potential Water Contaminants

Drinking water, including bottled water, may be reasonably expected to contain small amounts of certain contaminants. Contaminants often enter the source water naturally; as water travels over land or through the ground, it dissolves occurring minerals and may pick up substances from the presence of animals or human activity.

The presence of a contaminant does not necessarily indicate that the water poses a health risk. The EPA limits the amounts of contaminants in public water systems to ensure that water is safe to drink. The FDA establishes contaminant limits for bottled water.



SOURCE WATER PROTECTION

A Source Water Assessment was performed for CBJ watersheds to identify the potential for contamination. LCB received a “Medium” susceptibility designation common to groundwater sources. SC reservoir received a “Very High” susceptibility designation (due to potential exposure by wildlife and recreational uses) common for surface water sources. These ratings do not directly reflect the quality of the drinking water; they provide the Water Utility with information as to how prone the water sources are to possible contamination.

Copies of the Source Water Assessments for LCB and SC are available from the ADEC Drinking Water Program at (866) 956-7656, or the Alaska Resource Library at (907) 272-7547.

CONTAMINANTS THAT MAY BE PRESENT IN DRINKING WATER SOURCES

Microbial Contaminants: These contaminants, such as viruses and bacteria, may come from humans or animals.

Inorganic Contaminants: These contaminants, such as salts and metals, can be naturally occurring, or the results of runoff and inputs from wastewater treatment plants or industrial practices like oil and gas production, mining, or farming.

Organic Contaminants: These contaminants, including synthetic and volatile organic chemicals such as trihalomethanes, form when naturally occurring organics in water react with chlorine based chemicals or petroleum products.

Radioactive Contaminants: These contaminants, such as radium, can occur naturally or as a result of oil and gas production and mining activities.

Lead: Although there is no detectable lead in our source water, if present, lead can cause serious health problems. Lead in drinking water occurs primarily from materials and components of household plumbing. The majority of homes have some risk of lead contamination in water that sits in pipes for more than two hours. The CBJ Water Utility is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. You can minimize lead exposure by flushing your tap for up to 2 minutes before using for drinking or cooking. 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 www.epa.gov/safewater.

For more information about contaminants in drinking water sources and potential health effects, contact the EPA's Safe Drinking Water Hotline (1-800-426-4791) or visit water.epa.gov/drink/contaminants.

Some people may be more vulnerable to contaminants in drinking water. Immunocompromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS, or other immune system disorders, the elderly and infants, can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

What is This Report?

The City and Borough of Juneau, Department of Public Works, Utilities Division, is pleased to present this annual water quality report. In accordance with the United States Environmental Protection Agency's (EPA) National Primary Drinking Water Regulations, all drinking water suppliers are required to provide the public with an annual statement describing the community's water supply and quality. Our goal is to provide the City and Borough of Juneau residents, visitors, and businesses with a safe and dependable drinking water supply.

WHERE DOES OUR WATER COME FROM?

Juneau's drinking water comes from both groundwater and surface water sources. The primary water source is the Last Chance Basin (LCB) wellfield located in the Gold Creek watershed. This groundwater supplies roughly two-thirds of the local water demand. Surface water, collected at the Salmon Creek (SC) Reservoir, comes from snowmelt and rainfall. As the secondary water source, it supplies about one-third of Juneau's drinking water.

HOW IS YOUR WATER TREATED?

Juneau's water sources produce high quality water, requiring very little treatment compared to the rest of the United States. Even so, water from both sources is chlorinated to kill disease causing microorganisms that may be present. Water from SC is additionally run through a filtration unit (as required by the EPA Long Term 2 Enhanced Surface Water Treatment Rule), and is treated with soda ash. Soda ash helps reduce leaching of copper and lead from household pipes into drinking water as it enters the home. As groundwater, LCB does not require filtration. The chemistry of LCB also has slightly different characteristics and does not require the soda ash addition.



Projects & Updates

UPPER BASIN ROAD DIESEL TANK REMOVAL

As part of CBJ's continuing efforts to modernize our water production and distribution system, our Utility team recently removed a 32 year-old diesel tank from the ground near the water treatment plant at .5 mile Upper Basin Rd. The legacy tank posed a significant environmental risk from potential fuel leakage and soils/groundwater contamination and was removed without incident. Diesel fuel supply for backup power generation at the Upper Basin facility is now being stored in a new, double wall, above-ground tank. The upgraded installation will provide greater ease of access, maintenance and protection of the environment.



UPCOMING PROJECTS

Planned updates for the CBJ potable water system include:

Last Chance Basin SCADA Automation

Upgrade of LCB's remote monitoring, control system, and communications for enhanced operations, resilience, and security.

Mill Tunnel Storage

Assessment and upgrade of the 2.3 million gallon storage facility to prevent groundwater seepage and improve access for inspection and maintenance.

Well 3 Upgrade

Replace wooden support structure with metal for animal resistance and upgrade antiquated controller and system electronics.

Wells 1, 2, 4, & 5

Upgrade well systems from original installations to contemporary pumps and controllers.



Katie Koester

ENGINEERING & PUBLIC WORKS DIRECTOR

CBJ's potable water infrastructure has been providing our community with a reliable supply of clean and safe drinking water for many years. And while we work continuously to maintain and improve

CBJ's water production and distribution capacity, the time has come to replace some of our most aged equipment. And with the continued incorporation of new automation for monitoring and control of our water systems, we are now also in the process of upgrading our electronic communications as well. Through these combined efforts, the supply of clean water to all of our taps will remain as reliable and refreshing as we have come to expect.

Fun Facts

ABOUT 80-100 GALLONS

Estimates vary, but, on average, each person uses about 80-100 gallons of water per day, for indoor home uses.

LESS THAN 1%

of the water supply on earth can be used as drinking water.

THERE IS MORE FRESHWATER

in the atmosphere than in all of the rivers on the planet combined.

1.1 BILLION GALLONS

of water are produced by LCB and SC annually.

