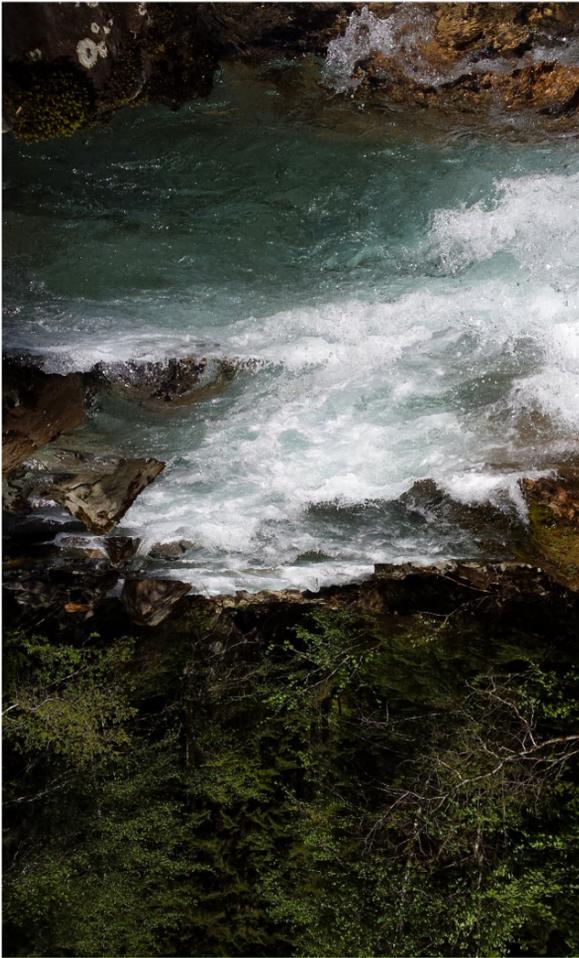


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Here to serve your drinking water needs.



2013 ANNUAL WATER QUALITY REPORT

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY

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CBJ WATER UTILITY

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THESE ARE APPROXIMATELY ONE MILLION MILES OF WATER PIPELINE AND AQUEDUCTS IN THE UNITED STATES AND CANADA, ENOUGH TO CIRCLE EARTH 40 TIMES.

THE FIRST WATER PIPES IN THE US WERE MADE FROM WOOD (BORED LOGS THAT WERE CHARRED WITH FIRE).

THE FIRST MUNICIPAL WATER FILTRATION WORKS OPENED IN PAISLEY, SCOTLAND IN 1832

A GALLON OF WATER WEIGHS 8.34 POUNDS.

WATER VAPORIZES AT 212 DEGREES F, 100 DEGREES C.

IT TAKES MORE WATER TO MANUFACTURE A NEW CAR (39,090 GALLONS) THAN TO FILL AN ABOVE GROUND SWIMMING POOL.

OVER 713 GALLONS OF WATER GO INTO THE PRODUCTION OF ONE COTTON T-SHIRT.

WATER IS THE ONLY SUBSTANCE FOUND ON EARTH NATURALLY IN THREE FORMS: SOLID, LIQUID AND GAS.

AT 1 DRIP PER SECOND, A FAUCET CAN LEAK 3,000 GALLONS PER YEAR.

WATER MAKES UP BETWEEN 55-78% OF A HUMAN'S BODY WEIGHT.



FUN FACTS

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2013 JUNEAU WATER SOURCES

WATER TREATMENT

Water originating from both sources is chlorinated to kill disease causing organisms. In addition, soda ash is added to SC water to raise the pH and alkalinity in order to reduce copper and lead leaching into the water from in-house pipes. LCB water does not require treatment to minimize leaching of copper or lead based on studies the Utility has performed. The CBJ water supply has not been fluoridated since January 2007. Both water sources operate without filtration.

DO I NEED TO TAKE 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 from their health care providers about drinking treated water. EPA and CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from The Safe Drinking Water Hotline (800-426-4791), or at www.epa.gov/safewater/mcl.html.

Local Water History

Salmon Creek Dam is the City of Juneau's secondary water source as well as a source of power generation for AEL&P, and an important source of water for the DIPAC Hatchery.



Last Chance Basin Primary Source

The LCB well field, our primary water source, is a year-round groundwater source which typically supplies about two-thirds of local water demand. The boundaries of the LCB are defined as "all lands within the Gold Creek Watershed between the Gold Creek steel vehicle bridge and the base of Ebner Falls." The Alaska Department of Environmental Conservation (ADEC) conducted a Source Water Assessment for the LCB and assigned it a natural susceptibility rating of "medium". The assessment also assigned vulnerability ratings of "low" for bacteria/viruses, nitrates/nitrites and organic and synthetic organic chemicals; "medium" for volatile organic chemicals; and "high" for heavy metals.

Salmon Creek Secondary Source

The SC water supply operates in conjunction with the Alaska Electric Light and Power Company's (AEL&P's) Salmon Creek hydropower plant. The boundaries of the SC watershed are defined as "all land which is higher in elevation than the Salmon Creek Dam and which drains into the Salmon Creek Reservoir." This is an intermittent surface water source which typically supplies up to one-third of local demand. The SC source is used intermittently because it must be taken off-line during seasonal high turbidity (cloudy water) events and when AEL&P is performing power plant maintenance. The ADEC Source Water Assessment for this surface water source assigned an overall watershed protection area a susceptibility rating of "very high" and assigned vulnerability ratings of "medium" for bacteria/viruses, heavy metals, volatile organic chemicals, and synthetic organic chemicals; and "very high" for nitrates/nitrites.

Copies of the Source Water Assessment reports for both water supplies are available by contacting the Alaska Department of Environmental Conservation Drinking Water Program at 1-866-956-7656 or the Alaska Resource Library at 907-272-7547.

The CBJ area-wide water system is supplied by the Last Chance Basin (LCB) well field and the Salmon Creek (SC) reservoir which continue to meet a local water demand of approximately 3.75 million gallons per day (MGD).

JUNEAU DRINKING WATER QUALITY WAS GOOD IN 2013

The City & Borough of Juneau (CBJ) presents this annual Water Quality Report for the 2013 calendar year in conformance with the Federal Safe Drinking Water Act. This act requires water suppliers to provide annual reports to customers reporting where their water comes from, how the system works, and how we are conforming with federal and state drinking water standards. Our goal is to provide a safe and dependable supply of drinking water and informed users are an important part of achieving this.



2013 DRINKING WATER MONITORING AND TEST RESULTS

The table below presents a summary of the most recent water quality test results for the CBJ water system. The State of Alaska and EPA limit the amount of certain contaminants in drinking water provided by public water systems in order to ensure water safety.

Test	Units	Maximum Contaminant Level (MCL)	Maximum Contaminant Level Goal (MCLG)	Last Chance Basin Wells	Salmon Creek	Sources of Contaminant
CLARITY (Measured Before Treatment)						
Turbidity	NTU	TT = 5 NTU	0	n/a	0.88 avg. for yr.	Source is soil runoff. Note: Values shown do not include days when Salmon Creek was offline, we did not have any turbidity violations in 2013
		TT = % Samples < 1.49 TTU		n/a	50% for lowest month (June)	
MICROORGANISMS, INORGANIC CHEMICALS AND RADIONUCLIDES (Measured After Treatment)						
Total Coliform Bacteria	mg/l	1 positive sample/month	0	1 pos. Jan. 22, 2013	No Violation	Naturally present in the environment.
Total Organic Carbon	mg/l	n/a	n/a	n/a	0.6025 avg 0.51 - 0.74	Naturally present in the environment.
Arsenic	mg/l	0.010	0	Not Detected	Not Detected	Erosion of natural deposits.
Barium	mg/l	2	2	0.0447	0.0378	Erosion of natural deposits.
Fluoride	mg/l	4	4	0.06550	0.050	Naturally present in environment. The CBJ has not added fluoride to system since Jan. 2007.
Nitrate) (as Nitrogen)	mg/l	10	10	0.21	0.1	Fertilizer runoff; sewage leaching, or erosion of natural deposits.
Selenium	mg/l	0.05	0.05	0.00103	0.00077	Erosion of natural deposits.
Alpha Particles	pCi/l	15	0	0.40	0.30	Erosion of natural deposits.
Radium 226	pCi/l	5	0	0.28	0.11	Erosion of natural deposits.
Radium 228	pCi/l	5	0	0.37	0.27	Erosion of natural deposits.

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The results show that CBJ water supply conformed to all state and federal standards for public health protection in 2013.

DISINFECTION BYPRODUCTS AND METALS (Measured in the Distribution System)

Haloacetic Acids (HAA5)	mg/l	0.060	n/a	0.0058 avg 0.00033 - 0.0069	By-product of drinking water disinfection.
Total Trihalomethane	mg/l	0.080	n/a	0.005 avg 0.0043 - 0.0078	By-product of drinking water chlorination.
Chlorine	mg/l	MRDL = 4	MRDL = 4	0.442 avg	Water additive used to control microbes.
Copper	mg/l	AL=1.3	1.3	90th percentile = 0.459 Based on 2013 test results	Corrosion of household plumbing systems; erosion of natural deposits.
Lead	mg/l	AL=15	0	90th percentile = 0.00140 Based on 2013 test results	Corrosion of household plumbing systems; erosion of natural deposits.

CONTAMINANTS NOT DETECTED

Besides the detected chemicals listed in the Drinking Water Quality Report on the previous page, the CBJ Water Utility has tested for Cryptosporidium since January 2013 in the drinking water. Those results were negative for cryptosporidium.

MY WATER LOOKS STRANGE

If your water is discolored when it comes from your tap, it may be because the Water Utility is doing maintenance or hydrant flushing in your area or someone has just used a nearby hydrant. If you notice discoloration of your water, let the water stand for one to two hours, then flush your cold water tap three to five minutes to see if the water is clear. Discolored water is often related to rust or sediment build-up in the pipes and may or may not pose a health risk.

CAPITAL IMPROVEMENT PROJECTS

The CBJ is continually investing to improve the local water system. Improvements in 2013 included replacement of aging water mains and SCADA system upgrades. Future plans include drilling 2 new production wells in LCB, and adding Membrane Filtration to the Salmon Creek Water Treatment Facility.

POTENTIAL WATER CONTAMINANTS

Drinking water sources (both tap and bottled water) include rivers, lakes, streams, reservoirs, and wells. As water travels over land, or through the ground, it dissolves naturally-occurring minerals (including radioactive material in some cases), and can pick up substances originating from the presence of humans and animals.

Contaminants that may be present in source waters include:

Microbial contaminants, such as viruses and bacteria, which may come from humans or animals.

Inorganic contaminants, such as salts and metals, which can be naturally-occurring or originate from mining activity.

Organic contaminants, including synthetic and volatile organic chemicals such as total trihalomethanes, which form when naturally occurring organics in water are chlorinated or from contamination by petroleum and similar products.

The Environmental Protection Agency (EPA) limits the amount of certain contaminants in public water systems to ensure that tap water is safe to drink. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. Contaminants can be in the form of biological or chemical constituents. 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 EPA's Safe Drinking Water Hotline (800-426-4791).

WAIVERS

The overall CBJ water system operates under waivers for Synthetic Organic Chemicals and reduced asbestos monitoring as authorized by the State of Alaska based on historical performance. The SC surface water source also operates under a waiver from the requirement to provide filtration.

WATER CONSERVATION

Water conservation is important. For customers interested in conserving water, we have a limited number of free water conservation kits consisting of flow reduction devices for showers, faucets, and toilet tanks. If interested, contact the Water Utility office at 907-780-6888.

FOR MORE INFORMATION

Thanks for reading this report and doing your part to protect our water supply. Please contact us if you have questions, comments, or are interested in learning more about the CBJ drinking water system. The CBJ Water Utility office is located at 5433 Shaune Drive in the Lemon Creek area. Our phone number is 907-780-6888, and you can visit our web site at www.juneau.org/water.

Drinking water test results are available to the public at the CBJ Water Utility office and through the Alaska Department of Environmental Conservation, 410 Willoughby Avenue at 907-465-5350.

Additional resources are available at EPA's website www.epa.gov.

WATERSHED PROTECTION

The CBJ has programs and ordinances to protect the Last Chance Basin and Salmon Creek watersheds by restricting development within their boundaries and allowing limited public access to them.

Camping is prohibited in the LCB and the SC watersheds. All pets must be leashed, and pet keepers must remove all pet waste left by their dogs. The entrance of the LCB is gated and is posted NO Shooting, Hiking, Dog Walking, Camping, Trespassing of any Kind. Recreational mining with devices other than gold pans is prohibited within the LCB and all of the Gold Creek Watershed above the LCB. Fuels, lubricants, or hazardous substances are prohibited within the SC watershed. Please do your part to protect our drinking water supply.

ABBREVIATIONS

AL	Action Level—The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
CBJ	City and Borough of Juneau
CDC	Centers for Disease Control and Prevention
ADEC	Alaska Department of Environmental Conservation
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 the best available 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. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
ND	None Detected at specified level
NTU	Nephelometric Turbidity Unit
pCi/l	Pico Curies per Liter
ppb	Parts per Billion
SC	CBJ's Salmon Creek water source
SCADA	Supervisory Control and Data Acquisition
TT	Treatment Technique—A required process intended to reduce the level of a contaminant in drinking water.

