2013 JUNEAU WATER SOURCES

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).

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 about additional measures they should take to protect their health. EPA and CDC guidelines are 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.

2013 JUNEAU WATER QUALITY WAS GOOD IN 2013

The City and Borough of Juneau (CBJ) presents this annual Water Quality Report for the 2013 calendar year in accordance 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 customers are an important part of achieving this.
### 2013 DRINKING WATER MONITORING AND TEST RESULTS

**CLARITY (Measured Before Treatment)**

<table>
<thead>
<tr>
<th>Source</th>
<th>Maximum Contaminant Level (MCL)</th>
<th>Maximum Contaminant Level Goal (MCLG)</th>
<th>Last Chance Basin Wells</th>
<th>Salmon Creek</th>
<th>Sources of Contaminant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turbidity</td>
<td>NTU</td>
<td>TT = 5 NTU</td>
<td>0</td>
<td>n/a</td>
<td>0.88 avg. for yr.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TT = % Samples &lt; 1.49 TTU</td>
<td>0</td>
<td>n/a</td>
<td>50% for lowest month (June)</td>
</tr>
</tbody>
</table>

**MICROORGANISMS, INORGANIC CHEMICALS AND RADIONUCLIDES (Measured After Treatment)**

<table>
<thead>
<tr>
<th>Source</th>
<th>Test</th>
<th>Units</th>
<th>Maximum Contaminant Level (MCL)</th>
<th>Maximum Contaminant Level Goal (MCLG)</th>
<th>Last Chance Basin Wells</th>
<th>Salmon Creek</th>
<th>Sources of Contaminant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Caliform Bacteria</td>
<td>mg/l</td>
<td>1 positive samples/month</td>
<td>0</td>
<td>1 pos.</td>
<td>Jan. 22, 2013</td>
<td>No Violation</td>
<td>Naturally present in the environment.</td>
</tr>
<tr>
<td>Total Organic Carbon</td>
<td>mg/l</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>0.6025 avg</td>
<td>0.51 - 0.74</td>
<td>Naturally present in the environment.</td>
</tr>
<tr>
<td>Arsenic</td>
<td>mg/l</td>
<td>0.010</td>
<td>0</td>
<td>Not Detected</td>
<td>Not Detected</td>
<td>Erosion of natural deposits.</td>
<td></td>
</tr>
<tr>
<td>Barium</td>
<td>mg/l</td>
<td>2</td>
<td>2</td>
<td>0.0447</td>
<td>0.40</td>
<td>Erosion of natural deposits.</td>
<td></td>
</tr>
<tr>
<td>Fluoride</td>
<td>mg/l</td>
<td>4</td>
<td>4</td>
<td>0.06550</td>
<td>0.050</td>
<td>Erosion of natural deposits.</td>
<td></td>
</tr>
<tr>
<td>Nitrate</td>
<td>mg/l</td>
<td>10</td>
<td>10</td>
<td>0.21</td>
<td>0.1</td>
<td>Fertilizer runoff, sewage leaching, or erosion of natural deposits.</td>
<td></td>
</tr>
<tr>
<td>Selenium</td>
<td>mg/l</td>
<td>0.05</td>
<td>0.05</td>
<td>0.00103</td>
<td>0.00077</td>
<td>Erosion of natural deposits.</td>
<td></td>
</tr>
<tr>
<td>Alpha Particles</td>
<td>pCi/l</td>
<td>15</td>
<td>0</td>
<td>0.40</td>
<td>0.30</td>
<td>Erosion of natural deposits.</td>
<td></td>
</tr>
<tr>
<td>Radon 226</td>
<td>pCi/l</td>
<td>5</td>
<td>0</td>
<td>0.28</td>
<td>0.11</td>
<td>Erosion of natural deposits.</td>
<td></td>
</tr>
<tr>
<td>Radon 228</td>
<td>pCi/l</td>
<td>5</td>
<td>0</td>
<td>0.37</td>
<td>0.27</td>
<td>Erosion of natural deposits.</td>
<td></td>
</tr>
</tbody>
</table>

**Microorganisms**

- **Total Coliform Bacteria**: 1 positive sample/month
- **Total Organic Carbon**: n/a
- **Barium**: 2
- **Fluoride**: 4
- **Nitrate**: 10
- **Selenium**: 0.05
- **Alpha Particles**: 15
- **Radon 226**: 5
- **Radon 228**: 5

**Inorganic Chemicals**

- **Total Caliform Bacteria**: 1 positive samples/month
- **Total Organic Carbon**: n/a
- **Barium**: 2
- **Fluoride**: 4
- **Nitrate**: 10
- **Selenium**: 0.05
- **Alpha Particles**: 15
- **Radon 226**: 5
- **Radon 228**: 5

**Radionuclides**

- **Total Caliform Bacteria**: 1 positive samples/month
- **Total Organic Carbon**: n/a
- **Barium**: 2
- **Fluoride**: 4
- **Nitrate**: 10
- **Selenium**: 0.05
- **Alpha Particles**: 15
- **Radon 226**: 5
- **Radon 228**: 5

**Disinfection By-Products and Metals** (Measured in the Distribution System)

- **Haloacetic Acids (HAAs)**: 0.06 mg/l, 0.0038 mg/l
- **Total Trihalomethane**: 0.080 mg/l, 0.005 mg/l
- **Chlorine**: MRDL = 4, 0.442 mg/l
- **Copper**: AL = 1.3 mg/l, 1.3 mg/l
- **Lead**: AL = 15 mg/l, 90th percentile = 0.459 mg/l, Based on 2013 test results

**Watershed Protection**

- **Natural Protection**: 2013 test results show no increases or decreases in contaminant levels.

**Potential Water Contaminants**

- **Drinking Water**: including bottled water; may be regulated or not regulated. Source of contamination: natural or人为.
- **Naturally Occurring Contaminants**: may be present in source waters.

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**Additional Resources**

- [EPA’s website](www.epa.gov)
- [CFI’s Water Utility](www.cbjwater.org)

**Abbreviations**

- **AL**: Action Level
- **CBJ**: City and Borough of Juneau
- **CDD**: 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
- **MCLG**: Maximum Contaminant Level Goal
- **MRDL**: Maximum residual disinfectant level
- **ND**: None Detected at specified level
- **NTU**: Nephelometric Turbidity Unit
- **PCU/I**: Parts per Million
- **ppb**: Parts per Billion
- **SC**: CBJ’s Salmon Creek water source
- **SCADA**: Supervisory Control and Data Acquisition
- **TT**: Treatment Technique

**Contaminants Not Detected**

- **Cryptosporidium**: Tested since January 2013 in the drinking water. Results were negative for cryptosporidium.

**My Water Looks Strange**

- **If your water is discolored**: may be because the Water Utility is doing maintenance or hydroflushing in your area or someone has used a yard hydrant. If you notice discolouration of your water, let the water stand for one to two hours, then flush your cold water tap for two to three minutes to see if the water is clear. Discoloured 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.

**Water Conservation**

- **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.

**Disinfection By-Products**

- **By-product of drinking water disinfection**: Halocetic Acids (HAAs), Total Trihalomethane, Chlorine, Copper, Lead.

**Water Quality**

- **Erosion of natural deposits**: May be present in source waters.
- **Naturally Occurring Contaminants**: may be present in source waters. Source of contamination: natural or人为.

**Inorganic Contaminants**: such as salts and metals, which can be naturally-occurring or originating from mining activity.

**Organic Contaminants**: including synthetic and volatile organic chemicals such as total halogenated hydrocarbons, which are naturally occurring or originate 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. Federal and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

**Watershed Protection**

- **The CBJ has programs and ordinances to protect the Last Chance Basin and Salmon Creek watersheds, by restricting development within the boundaries and allowing limited public access to them.**
- **Contaminants are prohibited in the LCB and the SC watersheds. All pets must be leashed, and pet owners must remove all pet waste left by their dogs.**
- **The use of the LCB is general is posted NO SHOOTING, HIKING, Dog Walking. Campers, Treypassing are restricted.**
- **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.