COMMITTED TO WATER SAFETY

Backflow Protection Prevents Contamination

As a public water system, preventing contamination from the source to your meter is a 24/7 job. Cross connection control requires backflow assemblies be installed on all new commercial services. On existing commercial services, the degree of hazard, remodeling, upgrading, or change of ownership addresses installation of backflow assemblies. The City is offering a backflow assembly program to existing commercial accounts. If you have questions or want answers relating to cross connections or backflow prevention, contact the Water Quality Office at 942-7474.

Assessments Conducted

Susceptibility Assessments have been conducted for Richland’s Surface, Well Field, and single-well water sources. A high Susceptibility Rating was determined for each source. This rating does not indicate poor water quality, but the potential of becoming contaminated. The City of Richland has programs to help minimize these susceptibilities, which include well head protection, cross connection control, and source water protection programs. A copy of the assessment can be found at www.ci.richland.wa.us or by calling 942-7670.

For more information regarding this report, please contact:
Richland Water
2700 Duportail
Richland, WA 99352
942-7670
richlandwater@ci.richland.wa.us

WHY

WHY AM I RECEIVING THIS WATER QUALITY REPORT?

Richland Water proudly provides this water quality report to comply with state and federal regulations and to share information about our excellent water quality with our customers.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive materials, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which 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.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

MESSAGE FROM THE EPA

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 the 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 (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people such as people 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 drinking water advice from their health care providers. EPA/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 (1-800-426-4791).

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 of Richland is responsible for providing high-quality drinking water and 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.
**RICHLAND WATER PROVIDES HIGH QUALITY WATER FOR YOU**

Richland Water vigilantly safeguards its water supplies in order to continue providing safe drinking water for our residents and add to the livability of our great City. The City of Richland draws water from two major sources, the Columbia River and three groundwater wells located at various sites in the City.

Once again, we are proud to report that last year, as in years past, your tap water met all U.S. Environmental Protection Agency (EPA) and state drinking water health standards.

**CONSERVING**

our natural resources will help the health and longevity of our City as well as save you money. Here are eight tips that will make a difference to your monthly bill and our community:

- **Water** your lawn during the least sunny times of the day. Consider installing low water use landscaping.
- **Fix** toilet and faucet leaks.
- **Take** short showers - a 5 minute shower uses 4 to 5 gallons of water compared to 50 gallons for a bath.
- **Turn** the faucet off while brushing your teeth and shaving: 3-5 gallons go down the drain per minute.
- **Use** high-efficiency toilets and appliances.
- **Wash** full loads in the washer and dishwasher.
- **Conduct** a Home Water Audit.
- **Teach** your kids about water conservation to ensure a future generation that uses water wisely.

**2018 WATER QUALITY RESULTS**

<table>
<thead>
<tr>
<th>Substance (Units)</th>
<th>Goal (MCLG)*</th>
<th>EPA’s Allowable Limits (MCL)*</th>
<th>Average Level Detected</th>
<th>Range Detected</th>
<th>Typical Source</th>
<th>Violation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DISINFECTANTS &amp; DISINFECTION BY-PRODUCTS</strong> (There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haloacetic Acids (HAA5) (ppb) **</td>
<td>RA**</td>
<td>60</td>
<td>19.4 / 35.97</td>
<td>9.9</td>
<td>By-product of drinking water chlorination</td>
<td>No</td>
</tr>
<tr>
<td><strong>TTHMs (Total Trihalomethanes) (ppb)</strong></td>
<td>RA**</td>
<td>80</td>
<td>20.5 / 60.1</td>
<td>12.8</td>
<td>By-product of drinking water chlorination</td>
<td>No</td>
</tr>
<tr>
<td><strong>INORGANIC CONTAMINANTS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitrate (measured at Nitrogen) (ppm) **</td>
<td>10</td>
<td>10</td>
<td>1.3</td>
<td>ND**</td>
<td>Runoff from fertilizer use; Leaching from septic tanks sewage; Erosion of natural deposits</td>
<td>No</td>
</tr>
<tr>
<td>*** Gross Alpha</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>ND**</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>*** Combined Radium</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>ND**</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td><strong>COPPER AND LEAD</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copper - action level at consumer taps (ppm)**</td>
<td>1.3</td>
<td>1.3 (AL)*</td>
<td>0.151</td>
<td>0 of 30</td>
<td>Corrosion of household plumbing systems; Erosion of natural deposits</td>
<td>No</td>
</tr>
<tr>
<td>Lead - action level at consumer taps (ppm) **</td>
<td>0</td>
<td>0.015 (AL)*</td>
<td>0.002</td>
<td>0 of 30</td>
<td>Corrosion of household plumbing systems; Erosion of natural deposits</td>
<td>No</td>
</tr>
</tbody>
</table>

**COLUMBIA RIVER WATER TREATMENT PLANT FINISH WATER**

- **pH**
  - Average Level Detected: 8.1
  - Low: 7.3
  - Range Detected: 8.3
- **Alkalinity**
  - 62 mg/L (ppm)
  - Level Detected: 49 mg/L**
  - Range Detected: 75 mg/L**
- **Hardness**
  - 65.5 mg/L** (3.6-gr/gal)
  - Level Detected: 65.5 mg/L** (3.6-gr/gal)
  - Range Detected: 65.5 mg/L** (3.6-gr/gal)
- **System Free Chlorine Residual**
  - 1.1 mg/L**
  - Level Detected: 0.9 mg/L**
  - Range Detected: 1.2 mg/L**
- **Turbidity**
  - 0.05 NTU**
  - Level Detected: 0.04 NTU**
  - Range Detected: 0.14 NTU**

**2014 / 2015 UCMR3 REPORT RESULTS IN UG/L**

<table>
<thead>
<tr>
<th>Compound</th>
<th>Average Level Detected</th>
<th>Low</th>
<th>Range Detected</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vanadium</td>
<td>1.01</td>
<td>ND</td>
<td>7.08</td>
<td></td>
</tr>
<tr>
<td>Molybdenum</td>
<td>0.28</td>
<td>ND</td>
<td>2.29</td>
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</tr>
<tr>
<td>Strontium</td>
<td>127.22</td>
<td>74.1</td>
<td>365</td>
<td></td>
</tr>
<tr>
<td>Chromium</td>
<td>0.052</td>
<td>ND</td>
<td>0.32</td>
<td></td>
</tr>
<tr>
<td>Hexavalent chromium</td>
<td>0.11</td>
<td>0.056</td>
<td>0.354</td>
<td></td>
</tr>
<tr>
<td>Chloride</td>
<td>2.65</td>
<td>ND</td>
<td>34</td>
<td></td>
</tr>
</tbody>
</table>

**RESULTS OF CRYPTOSPORIDIUM MONITORING**

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water and/or finished water. Cryptosporidium results collected during round one of the U.S.EPA’s (2008-2009) determined the Columbia River source is 0.029 oocysts. This level places this source in Bin 1 and requires no additional treatment for Cryptosporidium. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing a life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to avoid infection. Cryptosporidium must be ingested to cause disease and it may be spread through means other than drinking water. Results of Coliform Monitoring

Coliform samples collected per week - 18

Number of positive Coliform samples - 1

Percentage of positive Coliform samples for month of May 2018 - 5.6 percent

Number of repeat samples positive for Coliform - none

**IMPORTANT DRINKING WATER DEFINITIONS**

- **MCLG** Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health.
- **MCL** Maximum Contaminant Level: The highest level of a contaminant in drinking water that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- **ND** Not Detected
- **NTU** Nephelometric Turbidity Unit
- **AL** Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **TTHM** Trihalomethane.
- **HAA5** Halogenated Acetaldehyde.
- **Ecological Monitoring**
  - *** Gross Alpha
  - *** Combined Radium
- **USEPA’s Allowable Limits (MCL)**
  - **PM** (Parts per Million), **ppb** (Parts per Billion), **pCi/L** (Pico Curies per Liter), **mg/L** (Milligrams per Liter), **NA** (Not Applicable), **ND** (Not Detected)
- **Coliform**
  - Coliform samples collected per week - 18
  - Percentage of positive Coliform samples for month of May 2018 - 5.6 percent
  - Number of repeat samples positive for Coliform - none

**Unregulated Contaminant Monitoring**

Maximum contaminant levels (MCLs) for some contaminants have not been established by either state or federal regulations, nor has the mandatory health effects language. The purpose for monitoring unregulated contaminants is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted. Richland Water conducted monitoring as required by the USEPA’s third Unregulated Contaminants Monitoring Rule (UCMR3) and included the results in the 2015 Annual Water Quality Report.

- **Fluoride:** The City of Richland does not add fluoride to the water system. Fluoride levels are only trace amounts from naturally occurring sources. With the stability of the water throughout the City of Richland Water System, we do not have the need for chemical addition to assist in corrosion control.