

2016 CONSUMER CONFIDENCE REPORT

Richmond Water Supply System

Richmond, RI
PWS ID#1000040

We are very pleased to provide you with this year's Consumer Confidence Report. This report provides you with information on the water and services that we delivered to you in 2016. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies.

We want our valued customers to be informed about their water utility. There are no regularly scheduled meetings, therefore; if after reviewing this report you have any questions, or would like to know more about the Richmond Water Supply system, please contact our water system operations company LaFramboise Water Services at 1-800-624-2327.

The Quality of Your Drinking Water

Our goal is to provide you with a safe and dependable supply of drinking water. We are committed to ensuring the quality of your water.

The Source of Your Drinking Water

Our water source is two gravel packed wells located on the premises. We treat our water with sodium hydroxide for corrosion control.

The RI Department of Health, in cooperation with other state and federal agencies, has assessed the threats to Richmond Water Supply System's water supply sources. The assessment considered the intensity of development, the presence of businesses and facilities that use, store or generate potential contaminants, how easily contaminants may move through the soils in the Source Water Protection Area (SWPA), and the sampling history of the water.

Our monitoring program continues to assure that the water delivered to your home is safe to drink. However, the assessment found that the water source is at LOW RISK of contamination. This does NOT mean that the water cannot become contaminated. Protection efforts are necessary to assure continued water quality. The complete Source Water Assessment Report is available from the Richmond Water Supply System or the Department of Health at (401) 222-6867.

Why Are There Contaminants in My Drinking Water?

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 that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

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

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

- **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 the result of oil and gas production and mining activities.

Water Quality Test Results

The table below lists all of the drinking water contaminants that were detected through our water quality monitoring and testing. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from the January – December 2016 monitoring period. For those contaminants that are monitored less frequently the most recent test results are listed.

Maximum Contaminant Levels (MCL's) are set at very stringent levels. The Maximum Contaminant Level Goal (MCLG) is set at a level where no health effects would be expected, and the MCL is set as close to that as possible, considering available technology and cost of treatment. A person would have to drink 2 liters of water every day, as recommended by health professionals, at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

2016 TEST RESULTS

Inorganic Contaminants	Violation Y/N	Level Detected (Range: single samples)		Unit Measurement	MCLG	MCL	Likely Source of Contamination
		Well #1	Wells #2				
Barium (3/11/14)	N	0.008	0.004	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (3/11/14)	N	0.27	0.27	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (as Nitrogen) (2016)	N	0.17	0.09	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits

ND = Net Detected

DISTRIBUTION SYSTEM TEST RESULTS

Microbial Contaminants	Violation Y/N	Level Detected (Range)	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (July 2016)	N	1 Positive (0-1)	Highest # of monthly positive samples	Absent	1 positive	Naturally present in the environment
Total Coliform Bacteria (September 2016)	Y	4 Positive (0-4)	Highest # of monthly positive samples	Absent	1 positive	Naturally present in the environment

* Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

Definitions:

Level 2 Assessment: A Level 2 assessment is a very detailed study of the water systems to identify problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water systems on multiple occasions.

Inorganic Contaminants	Violation Y/N	Level Detected (Range)	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Copper** (1/1/13-12/31/15)	N	0.234	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead** (1/1/13-12/31/15)	N	8.0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits

**All sampling results represented at the 90th Percentile. Of the 41 samples collected for Lead, we had only 3 AL exceedances. Our resulting 90th percentile for Lead still fell below the acceptable AL of 15ppb.

Parts per million (ppm) or Milligrams per liter (mg/L) - One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter (ug/L) - One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Action Level (AL) - The concentration of a contaminant which if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Contaminant Level (MCL) - The MCL 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.

Maximum Contaminant Level Goal (MCLG) - The MCLG 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.

The State of Rhode Island requires testing for other contaminants not regulated by the US EPA. The following contaminant was detected in our well water:

- **Sodium:** In 2016, Sodium was detected in the Well #1 at 24.1 ppm and in Well #2 at 14.5 ppm.

Total Coliform Bacteria Monitoring/Reporting Violation

During the monitoring periods of July and September 2016, our water system failed to test and report total coliform bacteria results to the Rhode Island Department of Health's Center for Drinking Water Quality, and therefore we cannot be sure of the quality of our drinking water during that time. Since this violation was issued, Public Notification has been distributed to our customers. To resolve this issue, we collected our Total Coliform Bacteria at a later time. All results have been evaluated and the presence of these tests is reflected here in this report. Coliforms are bacteria, which are naturally present in the

environment and are used as an indicator that other potentially harmful bacteria may be present. Since this violation, routine monitoring has resumed on schedule and we are in full compliance with this order. Subsequent tests have been negative.

Acute Total Coliform Bacteria Monitoring/Reporting Violation

During the monitoring periods of July to November 2016, our water system failed to test and report fecal coliform bacteria and/or *E. coli*. results to the Rhode Island Department of Health's Center for Drinking Water Quality and therefore we cannot be sure of the quality of our drinking water during that time. Since this violation was issued, Public Notification has been distributed to our customers. To resolve this issue, we collected our fecal coliform bacteria/*E.coli* samples at a later time. Fecal coliforms and *E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems. Coliforms were found in more samples than allowed and this was a warning of potential problems. Subsequent tests have been negative for fecal coliform and *E. Coli* bacteria. Since this violation, routine monitoring has resumed on schedule and we are in full compliance with this order.

Total Coliform Bacteria MCL Violation

During the September 1, 2016 to September 30, 2016 monitoring period, our water testing results were positive and at least 1 recheck sample was positive for the presence of coliform bacteria. To resolve this problem, we chlorinated our wells and the distribution system. Public notification was not posted or distributed to all concerned residents within the appropriate amount of time. However, this task as completed. Coliforms are bacteria which are naturally present in the environment and are used as an indicator that other, potentially-harmful bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems. Subsequent tests have been negative. **Total Coliform:** The Total Coliform Rule requires water systems to meet a stricter limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio. To comply with the stricter regulation, we have increased the average amount of chlorine in the distribution system.

Total Coliform Bacteria Public Notification Violation

Our system was required to provide Public Notification to the system's customers regarding the Total Coliform Bacteria Maximum Contaminant Level (MCL) violation during the September 1, 2016 to September 30, 2016 monitoring period. Our system was also required to submit to the Rhode Island Department of Health's Center for Drinking Water Quality, a copy of the public notice and a certification that it was in full compliance. Our system failed to submit public notification to its customers and a copy of the public notice and certification to the Rhode Island Department of Health's Center for Drinking Water Quality by the required deadline. Since the issue of this violation, our system has distributed and submitted the all appropriate paperwork and is in full compliance.

Lead and Copper Monitor/Reporting Violation

During the monitoring period of January 1, 2014 to December 31, 2016, our water system failed to test and report Lead & Copper results to the Rhode Island Department of Health's Center for Drinking Water Quality. The collection and testing of twenty (20) samples for Lead and Copper will resume in 2017, and results will be made available in future reports. We will comply with the testing schedule in compliance with the Department of Health's regulations.

For most people, the health benefits of drinking plenty of water outweigh any possible health risk from these contaminants. However, 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. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Water Drinking Hotline (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 Richmond Water Supply System is responsible for providing high quality drinking water, but 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 for drinking or cooking. 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>.

We at the Richmond Water Supply System work to provide top quality water to every tap. We encourage all of our customers to conserve and use water efficiently and remind you to help us protect our water sources, which are the heart of our community, our way of life and our children's future. Please do not hesitate to call our office with any questions.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

**Monitoring Requirements Not Met for Richmond Water Supply System
PWS# RI1000040**

The Richmond Water Supply system violated a drinking water standard over the past year. Even though this was not an emergency, as our customers, you have the right to know what happened and what we did to correct the situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the monitoring period of June 1, 2016 to September 30, 2016 we did not monitor for lead and copper and therefore cannot be sure of the quality of our drinking water during that time.

What should I do?

There is nothing you need to do at this time.

The table below lists the contaminants we did not properly test for during the last compliance period, how often we are supposed to sample for these contaminants, how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which replacement samples will be taken.

Contaminant	Required Sampling Frequency	Number of Samples Taken	When All Samples Should Have Been Taken	When Samples Were or Will Be Taken
Lead (Pb) & Copper (Cu)	Ten (10) samples per year as first draw from separate taps	None	6/1/16 to 9/30/16	6/1/17 to 9/30/17

What Happened? System Operator failed to collect samples during the proper time period

What is being done? 20 lead and copper samples are scheduled to be collected June 1 – September 30 2017. We are working closely with RI DOH regarding the Town's sampling

For more information, please contact LaFramboise Water Services at 1-800-624-2327

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.