

2016 CONSUMER CONFIDENCE REPORT

Prudence Island Water District

Prudence Island,
RI PWS
ID#1592023

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. The District holds meetings at the Hope Brown Center on the Third Saturday of each month at 1:00 PM. These meetings are public, and you are invited.

If after reviewing this report you have any questions, or would like to know more about the Prudence Island Water District, please contact us at 401-683-0011 or info@pih2o.org.

The Quality of Your Drinking Water

Our goal is to provide you with a safe and dependable supply of drinking water. We're proud to inform you that your drinking water meets all Federal and State requirements. We are committed to ensuring the quality of your water.

The Source of Your Drinking Water

Our water source is four wells located throughout the island. In 2016, we only used two of these wells, Indian Spring Well and the Army Camp Well.

The RI Department of Health, in cooperation with other state and federal agencies, has assessed the threats to the Prudence Island Water District'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 ensure that the water delivered to your home is safe to drink. 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 ensure continued water quality. The complete Source Water Assessment Report is available from the Prudence Island Water District 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
		Army Well	Bristol Colony Well	Indian Spring Well #1	Indian Spring Well #4				
Barium (2015)	N	ND	ND	0.002	0.002	ppm	2	2	Erosion of natural deposits
Chromium (2015)	N	2	2	1	2	ppb	100	100	Erosion of natural deposits
Nitrate (as Nitrogen) (2016)	N	0.09	0.27	ND	ND	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

ND = Not Detected

DISTRIBUTION SYSTEM TEST RESULTS						
Microbial Contaminants	Violation Y/N	Level Detected (Range)	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (2016)	N	Absent	Highest monthly # of positive samples	Absent	1 positive	Naturally present in the environment
Inorganic Contaminants	Violation Y/N	Level Detected (Range)	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Copper* (2015)	N	0.12	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead* (2015)	N	4.0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits

*All sampling results represented at the 90th Percentile

Note: The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Not all contaminants are tested for every year due to monitoring waivers and therefore we must use the most recent round of sampling. Some of our data is more than one year old, however, it is limited to no older than 5 years.

Units:

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 - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Micrograms per Liter (µg/l) – a measure of radioactivity in water.

Millirems per year (mrem/year) – a measure of radiation absorbed by the water.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Definitions:

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

Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Million Fibers per Liter (MFL) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

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.

Drinking Water Equivalent Level (DWEL) – A lifetime exposure concentration protective of adverse, non-cancer health effects, that assumes all of the exposure to a contaminant is from a drinking water source.

Maximum Residual Disinfectant Level (MRDL) - 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.

Maximum Residual Disinfectant Level Goal (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Running Annual Average (RAA) - The average of all monthly or quarterly samples for the last year at all sample locations.

Non Detect (ND) - The contaminant was not detected.

Not Applicable, Not Established (N/A)

IMPORTANT INFORMATION

Lead - Major Sources in Drinking Water: Corrosion of household plumbing systems; erosion of natural deposits.

Health Effects Statement: Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Copper - Major Sources in Drinking Water: Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

Health Effects Statement: Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

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 (DWEL: 28ppm): In 2016, sodium was detected in Indian Spring #1 at a concentration of 9.83 ppm and in Indian Spring #4 at 6.59 ppm. Sodium was also detected in Bristol Colony at 10.4 ppm and in Army Well at 6.81 ppm.

As you can see by the table, our system had no violations. We're proud that your drinking water meets all Federal and State requirements. The EPA has determined that your water IS SAFE at these levels.

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 Prudence Island Water District 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>.

The Board of the Prudence Island Water District is continuing to attempt to improve the quality of water and to safeguard the supply of water. To accomplish this, we are implementing the major recommendations in the Facilities Improvement Plan, prepared with funding provided by the United States Department of Agriculture. We expect this plan to guide our planning and development for the next several years. If you have any questions or concerns, please call the office or attend a monthly Board meeting.