PRUDENCE ISLAND WATER DISTRICT RI1592023

Consumer Confidence Report – 2022

Covering Calendar Year – 2021

This brochure is a snapshot of the quality of the water that we provided last year. Included are the details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. We are committed to providing you with information because informed customers are our best allies. If you would like to learn more about our decision-making processes that affect drinking water quality, please call the PIWD at 401-683-0011.

Your water comes from:

Source Name	Source Water Type
ARMY WELL	Ground Water
INDIAN SPRING #1	Ground Water
INDIAN SPRING #4	Ground Water

In 2021, PIWD used all three of these wells. In the past, the RI Department of Health, in cooperation with other state and federal agencies, has assessed the threats to the 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.

The assessment found 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 RI Department of Health at (401) 222-6867.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those 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/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).

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 EPA's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) included 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.

Contaminants that may be present in sources water before we treat it include:
Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, livestock operations and wildlife.
Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water 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 storm water run-off, agriculture, and residential users.
Radioactive contaminants, which can be naturally occurring or the result of mining activity.
Organic contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also come from gas stations, urban storm water run-off, and septic systems.

In order to ensure that tap water is safe to drink, EPA prescribes regulation which limits 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.

Our water system is required to test a minimum of 1 sample per month in accordance with the Total Coliform Rule for microbiological contaminants. 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.

Water Quality Data

The following tables list all of the drinking water contaminants which were detected during the 2021 calendar year. The presence of these contaminants does not necessarily indicate the water poses a health risk. Unless noted, the data presented in this table is from the testing done January 1- December 31, 2021. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old. **Our water system makes every effort to provide you with safe drinking water.**

Terms & Abbreviations

Maximum Contaminant Level Goal (MCLG): the "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to human health. MCLGs allow for a margin of safety.
Maximum Contaminant Level (MCL): the "Maximum Allowed" 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.
Secondary Maximum Contaminant Level (SMCL): recommended level for a contaminant that is not regulated and has no MCL.
Action Level (AL): the concentration of a contaminant that, if exceeded, triggers treatment or other requirements.
Treatment Technique (TT): a required process intended to reduce levels of a contaminant in drinking water.
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.
Non-Detects (ND): lab analysis indicates that the contaminant is not present.
Parts per Million (ppm) or milligrams per liter (mg/l)
Parts per Billion (ppb) or micrograms per liter (µg/l)
Picocuries per Liter (pCi/L): a measure of the radioactivity in water.
Millirems per Year (mrem/yr): measure of radiation absorbed by the body.

Monitoring Period Average (MPA): An average of sample results obtained during a defined time frame, common examples of monitoring periods are monthly, quarterly and yearly.

Nephelometric Turbidity Unit (NTU): a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person. Turbidity is not regulated for groundwater systems.

Running Annual Average (RAA): an average of sample results obtained over the most current 12 months and used to determine compliance with MCLs.

Locational Running Annual Average (LRAA): Average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

Testing Results for: PRUDENCE ISLAND WATER DISTRICT

Microbiological	Result	MCL	MCLG	Typical Source	Violation
COLIFORM (TCR)	In the month of November, 3 sample(s) returned as positive	Treatment Technique Trigger	0	Naturally present in the environment	No
COLIFORM (TCR)	In the month of July, 2 sample(s) returned as positive	Treatment Technique Trigger	0	Naturally present in the environment	No

Regulated Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source	Violation
FLUORIDE	3/1/2021	0.075	0 - 0.075	ppm	4	4	Natural deposits; Water additive which promotes strong teeth	No
NITRATE	3/2/2021	0.15	0 - 0.15	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	No

Lead and Copper	Monitoring Period	90th Percentile	Range (low/high)	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2019 - 2021	0.13	0.0067 - 0.59	ppm	1.3	0	Corrosion of household plumbing systems
LEAD	2019 - 2021	1.8	0 - 4.6	ppb	15	0	Corrosion of household plumbing systems

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. Your water 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.

Radiological Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source	Violation
GROSS ALPHA, INCL. RADON & U	3/12/2018	9.87	0 - 9.87	pCi/L	10	0	Erosion of natural deposits	No

Please Note: Because of sampling schedules, results may be older than 1 year.

Unresolved Deficiencies		
Date Identified	**Facility**	**Comments**
03/31/2020	DISTRIBUTION SYSTEM	There is no backflow prevention device for 0124 John Oldham Rd (where the sample was collected).Previous Level 2 Assessments have identified the lack of backflow prevention devices as a sanitary defect. A February 2019 Consent Order requires that all service connections must be equipped with proper backflow prevention devices. The PWS is currently in the process of installing these devices on all service connections, which must be completed by the August 1, 2020 deadline.
08/21/2019	BRISTOL COLONY	L2A (6/NWSI/2019) Item #6: The PIWD must provide reasoning for maintaining the Bristol Colony Well (WL001). This well has a capacity of less than 3 gallons per minute and has not been used since 2008. Allowing this well to remain physically connected to the PIWD allows for potential cross-connection contamination of the system due to long term stagnation. If the PIWD is unable to provide a valid reason that is agreeable with this office, the well must be physically disconnected and properly decommissioned.
11/29/2018	DISTRIBUTION SYSTEM	The Level 2 Assessment noted that there would be a meeting between PIWD and RIDOH regarding the Cross-Connection Control Plan. A meeting did take place on 11/30/2018 where it was discussed that PIWD would like to install proper back-flow devices and meter pits on all service connection instead of adding treatment to the system. It has been proposed that improper shutdown of seasonal connections is creating a cross-connection hazard where bacteria may be contaminating the distribution system. A Consent Order providing additional information and due dates will be forthcoming from the Rhode Island Department of Health.

Plan for addressing the unresolved deficiencies listed above:

Backflow Prevention - Backflow prevention devices are now present on all active service connections. Any additional cross-connections identified through on-going cross-connection survey efforts will be addressed by the PIWD as outlined in a corrective action plan submitted to the RIDOH (dated Nov. 6, 2020). A revised compliance date for that work (originally set for May 31, 2025) is to be determined.

Bristol Colony Well – As noted in the 2019 CCR, this well has been physically disconnected from the system. Additional actions in 2020 included the removal of the electric supply and conversion to a monitoring well (with the written permission of the RIDOH). It is now in use only for that purpose.

Distribution System – Improper shutdown of seasonal connections using compressed air no longer presents a cross-connection hazard. However, other potential cross-connections may exist within the distribution system and these need to be identified and addressed by the PIWD as resources permit. The RIDOH has determined that the PIWDs efforts to implement its cross-connection plan are incomplete and has mandated system chlorination and treatment. The PIWD has secured a funding source, engaged an engineer, and is waiting for RIDOH plan approval before proceeding with these projects.

During the 2021 calendar year, we had the below noted violation(s) of drinking water regulations.

Federal Compliance Period	Analyte	Comments
12/4/2021 - 12/10/2021	PUBLIC NOTICE	Failed to issue public notice or failed to provide a copy of the notice and certification to the state

Explanation of Violation of RTCR listed above:

Per the current consent order, a Tier 1 Public Notice (boil water notification) must be sent out to customers every three months. The deadline for the final quarter of 2021 was December 3, 2021. The public notice was posted on December 1, 2021 and mailed to all customers on December 10, 2021. The public notice certification form was submitted on 12/10/2021 and the PIWD has returned to compliance with this violation.

Tier 1 Public Notice:

Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we are doing to correct this situation.

The PIWD is required to publicly post and send out Boil Water notices every three months until the boil water advisory has been lifted by the RIDOH.

What should I do?
You do not need to do anything. The Boil Water notice was publicly posted on December 1, 2021 and mailed to all PIWD customers on December 10, 2021.

What does this mean?
The PIWD did not meet the Tier 1 Public Notice deadline for the December 3, 2021 notification.

What is being done?
PIWD returned to compliance with the December 1, 2021 public posting and December 10, 2021 customer mailing and public notice certification to the state.

Additional Required Health Effects Language:

Coliforms are bacteria that 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.

There are no additional required health effects violation notices.

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.

During the past year two Level 2 assessments were required to be completed for our water system. Two Level 2 assessments were completed. In addition, we were required to take four corrective actions and we completed four of these actions.