THE WATER WE DRINK

NORTH KINGSTOWN'S 2021 DRINKING WATER QUALITY REPORT

May 2022

North Kingstown's Drinking Water

We're pleased to present to you North Kingstown's 2021 Drinking Water Quality Report. This report is designed to inform you about the water quality and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. A copy of this report is available online at www.northkingstown.org.

If you have any questions about this report or concerning your water utility, please contact **G. Timothy Cranston at 268-1520** or **Deb Knauss at 268-1522.** We want you to be informed about your drinking water resources. If you want to learn more, please attend any of the regularly scheduled meetings of the Groundwater Committee. They are usually held on the first Thursday of each month at 7:00 PM in the Municipal Offices Conference Room, 100 Fairway Drive, North Kingstown.

Where does our drinking water come from?

All of the drinking water provided to customers of North Kingstown Water is supplied by groundwater. In 2021 North Kingstown Water operated ten (10) municipal wells, which draw water from the Hunt-Annaquatucket-Pettaquamscutt (HAP) aquifer system. Average daily water use in 2021 was 2.21 million gallons per day. The HAP aquifer system has been designated a "Sole Source Aquifer" by the US Environmental Protection Agency (USEPA), meaning that there is no alternative source of drinking water available.

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. Contaminants that may be present in source water include microbes, organic or inorganic chemicals, or radioactive materials. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. 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. The U.S. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. The presence of contaminants does not necessarily indicate that water poses a health risk.

We thank all our customers for their help in protecting our water sources. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all our customers. These improvements are included within the water rate structure. Thank you for understanding. Please call our office at (401) 268-1520 or 268-1522 if you have questions.

Routine water quality monitoring

The **North Kingstown Department of Water Supply** routinely monitors your drinking water for over 100 constituents according to Federal and State laws. For a complete listing of all the constituents that we are required to test for, contact the Department of Water Supply, or visit the US Environmental Protection Agency's Ground Water and Drinking Water section of their website at https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations. These constituents fall into two categories: regulated constituents where enforceable standards or Maximum Contaminant Levels (MCLs) have been established and un-regulated where only health advisory levels have been set. A listing of *Test Results* for those constituents detected in North Kingstown's water supply wells follows. This report covers the monitoring period from January 1, 2021 to December 31, 2021.

TESTING RESULTS

All of the regulated constituents tested were non-detect (nd) except those listed in this section. A range is indicated if multiple testing rounds were conducted.

Distribution System Test Results

Contaminant	Violation Y/N	Level Detected	Result	Unit	MCLG	MCL	Possible Source
Microbiological Coliform (TCR)*	**N**	**9** 7/20/21 (1) 9/28/21 (1) 10/5/21 (1) 10/7/21 (2) 10/9/21 (1) 10/28/21 (1) 12/14/21 (1) 12/17/21 (1)	In the month of October, 6.41% of samples returned as positive	**% Positive Samples**	**0**	**Treatment Technique Trigger**	**Naturally present in Environment**
Fecal coliform and *E. coli*	**N**	**0**	**NA**		**0**	**A routine sample & repeat sample are total coliform positive, & 1 fecal coliform or *E. coli* positive**	**Human and animal Fecal waste**
Lead**	**N**	**0.6** (90th percentile value)	**0.02 - 5.0** June 2019	**ppb**	**0**	**AL=15**	**Corrosion of household plumbing systems; erosion of natural deposits**
Copper**	**N**	**0.035** (90th percentile value)	**0.04 - 0.0590 mg/l** June 2019	**ppm**	**1.3**	**AL=1.3**	**Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives**
Chlorine+	**N**	**0.28**	**0.01 - 0.76 (1/5/21)**	**ppm**	**4** (MRDLG)	**4** (MRDL)	**Water additive used to control microbes**
+Total Trihalomethanes	**N**	**9.8 (10/1/20)**	**5.5 - 9.8 (9/1/2021)**	**ppb**	**NA**	**80**	**Byproduct of drinking water disinfection**

*During the past year we were required to conduct one Level 1 assessment. One Level 1 assessment was completed. In addition, we were required to take zero corrective actions and we completed zero of these actions [although no problems (sanitary defects) were identified, we were directed to disinfect a storage tank and resample]. 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; no problems ("sanitary defects") were identified by the assessment(s).

**In 2019, 60 homes throughout the distribution system were sampled for lead and copper. If more than 10 percent are above the Action Level of 15 ppb for lead or 1.3 ppm for copper this would be considered an exceedance, but not a violation. An Action Level is defined as the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

+Chlorine is monitored on a weekly basis, Total Trihalomethanes & Haloacetic Acids are monitored yearly in the third quarter.

LEAD INFORMATION STATEMENT

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. *North Kingstown Water* 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 EPA Safe Drinking Water Hotline or at http://water.epa.gov/drink/info/lead/index.cfm.

Source Water Protection Assessment Results

The RI Department of Health and URI Cooperative Extension, in cooperation with other state and federal agencies, have assessed the threats to North Kingstown's water supply sources♦. In our community's case, the assessment found that the water source is at LOW risk of contamination. This does NOT mean that the water cannot be contaminated. Protection efforts are important to assure continued water quality. The complete Source Water Assessment Report is available at the University of Rhode Island's RI Nonpoint Education for Municipal Officials website at https://www.northkingstown.org/DocumentCenter/View/5323/2018-SWAP. You may request hard copy from the North Kingstown Department of Water Supply or the Rhode Island Department of Health, Office of Drinking Water Quality.

♦*Threats to the groundwater (our water supply source) as opposed to water quality in the distribution system.*

TESTING RESULTS (continued)

All of the constituents tested were non-detect (nd) except those listed in this section. A range is indicated if multiple testing rounds were conducted.

Regulated Constituents

Contaminant	Violation Y/N	Unit	MCLG	MCL	Well #1	Well #2	Well #3	Well #4	Well #5a**	Well #6	Well #7	Well #8	Well #9	Well #10	Well #11	Possible Source
Nickel*	N	ppm	**Not est.**	**Not est.**	**0.018** 3/30/20	**nd**	**0.006** 3/30/20	**0.005** 3/20/20	**nd**	**nd**	**0.006** 3/20/20	**nd**	**nd**	**0.087** 4/21/20	**0.02** 4/21/20	Erosion of natural deposits
Barium*	N	ppm	**2**	**2**	**nd**	**nd**	**nd**	**nd**	**nd**	**0.009** 4/21/20	**0.006** 4/21/20	**nd**	**nd**	**0.009** 4/21/20	**0.007** 4/21/20	Discharge of drilling Wastes; Discharge from metal refineries; Erosion of natural deposits
Cadmium*	N	ppb	**5**	**5**	**nd**	**nd**	**nd**	**nd**	**nd**	**nd**	**4** 3/30/20	**nd**	**nd**	**nd**	**nd**	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium*	N	ppt	100	100	**10** 3/30/20	**nd**	**10** 3/30/20	**nd**	**10** 3/30/20	**20** 4/21/20	**10** 3/30/20	**nd**	**nd**	**10** 4/21/20	**10** 4/21/20	Discharge from steel and pulp mills; erosion of natural deposits
Nitrate-Nitrite (as Nitrogen)	N	ppm	**10**	**10**	**1.12** 3/25/21	**1.18** 4/30/21	**0.13** 3/25/21	**1.93** 3/25/21	**2.26** 3/25/21	**2.06** **2.08** 4/22/21	**nd**	**0.14** 3/25/21	**2.04** 3/25/21	**2.84** 4/22/21	**4.29** 9/15/21	Runoff from fertilizer use; leaching from septic tanks, sewage erosion of natural deposits.

Wells 1,2, 6 and 9 primarily serve areas north of Hamilton-Allenton Road; Wells 4, 5a, & 11 primarily serve Slocum and Saunderstown.

Unregulated Constituents

Contaminant	Violation Y/N	Unit	SMCL	Well #1	Well #2	Well #3	Well #4	Well #5a**	Well #6	Well #7	Well #8	Well #9	Well #10	Well #11
DCPA degradates*▲	**N**	**ppb**	**Not est.**	**nd**	**nd**	**nd**	**0.67** 9/1/20	**1.6 - 1.9** 9/1/20	**nd**	**nd**	**nd**	**nd**	**nd**	**(range) 4.3-4.6** 4/21/20
Chloroform	**N**	**ppb**	**100 ppm**	**nd**	**nd**	**nd**	**nd**	**nd**	**nd**	**nd**	**nd**	**1.6** 3/25/21	**nd**	**nd**
Manganese***	**N**	**Ppb**	**0.05 mg/L**	**0.74**	**0.72**	**276**	**1.8**	**0.42**	**43**	**276**	**276**	**2.8**	**5.4**	**1.3**

* Data presented are from the most recent testing done in accordance with drinking water regulations.

▲Breakdown products of DCPA, a fruit & vegetable crop herbicide, it is one of the most commonly found groundwater contaminants in the US.

** Well 5a permanently replaced Well 5 in 2005.

*** data from 2019 UCMR4 testing. Wells 3,7, & 8 were off line in 2021

The following definitions have been provided to help you better understand the terms used in this report:

Non-Detects (nd) – laboratory analysis indicates that the constituent is not present in sufficient quantity to be found by the EPA approved analytical test method.

Parts per million (ppm) or Milligrams per liter (mg/l) – 1 ppm corresponds to 1 minute in 2 years or 1 penny in $10,000.

Parts per billion (ppb) or Micrograms per liter (ug/l) – 1 ppb corresponds to 1 minute in 2,000 years, or 1 penny in $10,000,000.

Parts per trillion (ppt) or nanograms per liter (ng/l) - 1 ppt corresponds to one grain of sand in an Olympic-sizes swimming pool.

Maximum Contaminant Level (MCL) or Residual Disinfectant Level (MRDL) – The Maximum Allowed is the highest level of a contaminant or disinfectant that is allowed in drinking water. A violation, requiring public notice, occurs when a constituent is detected above the MCL. MCLs are set as close to the MCLG (see below) as can be using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) or Maximum Residual Disinfectant Level Goal (MRDLG) – The "Goal" 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.

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

Secondary Maximum Contaminant Level (***SMCL)*** - maximum permissible level established for contaminants that primarily affect aesthetic qualities relating to the public acceptance of drinking water.

Treatment Technique – A required process intended to reduce the level of a contaminant in drinking water.

Not Est. – Not Established – The US Environmental Protection Agency has not yet set an MCL or SMCL for this constituent.

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/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Hotline (800-426-4791).

INFORMATION ABOUT CONTAMINANTS AND POTENTIAL HEALTH EFFECTS CAN BE OBTAINED BY CALLING THE ENVIRONMENTAL PROTECTION AGENCY'S SAFE DRINKING WATER HOTLINE AT:1-800-426-4791, or online at https://www.epa.gov/ground-water-and-drinking-water/safe-drinking-water-information.