THE WATER WE DRINK

NORTH KINGSTOWN'S 2024 DRINKING WATER QUALITY REPORT

May 2025

North Kingstown's Drinking Water

We're pleased to present to you North Kingstown's 2024 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.northkingstownri.gov in the Water Department section as a Water Quality topic.

If you have any questions about this report or concerning your water utility, please contact **Alan Austin at 268-1520 or Justin Blair 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 Conservation Commission. They are usually held on the second 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 2024 North Kingstown Water operated six (6) municipal wells, which draw water from the Hunt-Annaquatucket-Pettaquamscutt (HAP) aquifer system. Average daily water use in 2024 was 2.8 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 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, 2024, to December 31, 2024, but includes observations of constituents less than five years old for which we were not required to test during calendar year 2024.

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)	**Y**	**6 7/2/24-7/25/24 (6)**	**In the month of July, 6.78% of samples returned as positive**	**% Positive Samples**	**0**	**5% of samples TC+: 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**	**0.0019 (90th percentile value)**	**0.002 – 0.0136 mg/l** June 2022	**ppb**	**0**	**AL=15**	**Corrosion of household plumbing systems; erosion of natural deposits**
Copper**	**N**	**0.140 (90th percentile value)**	**0.007 - 0.218 mg/l** June 2022	**ppm**	**1.3**	**AL=1.3**	**Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives**
Chlorine+	**N**	**0.39 (RAA)**	**0.06-1.05 (6/13/2024)**	**ppm**	**4** (MRDLG)	**4** (MRDL)	**Water additive used to control microbes**
++Total Trihalomethanes **Haloacetic Acids**	**N**	**8.5 (9/6/2024)** **ND (9/6/2024)**	**7.2-8.5 (9/6/2024)** **ND (9/6/2024)**	**ppb**	**NA**	**80** **60**	**Byproduct of drinking water disinfection**

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

**In 2022, 30 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. There were no exceedances of lead or copper.

+Chlorine is monitored on a weekly basis; RAA is Running Annual Average, **++** Total Trihalomethanes & Haloacetic Acids are monitored yearly in the third quarter.

Lead Information Statement

Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. North Kingstown Water Supply is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period. If you are concerned about lead in your water and wish to have your water tested, contact Alan Austin at 268-1520 or Justin Blair at 268-1522 of the North Kingstown Water Supply. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at *https://www.epa.gov/safewater/lead [epa.gov]*.

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 2022 a new assessment was completed for North Kingstown's wellhead protection areas; the assessment found that the water source is at LOW to MODERATE 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 North Kingstown website at https://www.northkingstownri.gov/952/Source-Water-Assessments.

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.

TESTING RESULTS (continued)

All 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 #11	Possible Source
Nickel*	N	ppm	Not est.	Not est.	nd	0.014 3/29/23	0.021 3/29/23	0.250 3/24/23	0.065 3/29/23	nd	0.010 3/29/23	nd	0.053 3/29/23	nd	Erosion of natural deposits
Barium*	N	ppm	2	2	0.006 3/29/23	0.005 3/29/23	0.006 3/29/23	0.005 3/24/23	0.007 3/29/23	0.009 4/21/20	0.003 3/29/23	0.003 3/29/23	0.012 3/29/23	0.007 4/27/23	Discharge of drilling Wastes; Discharge from metal refineries; Erosion of natura deposits
Cadmium*	N	ppb	5	5	nd	nd	nd	nd	nd	nd	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	nd	nd	nd	1 4/27/23	1 4/27/23	2 4/21/20	nd	nd	nd	nd	Discharge from steel and pulp mills; erosion of natural deposits
Nitrate-Nitrite (as Nitrogen)	N	ppm	10	10	1.06 3/27/24	1.55 3/27/24	nd 3/27/24	1.84 3/27/24	2.74 3/27/24	1.62 4/25/22	0.15 3/27/24	0.15 3/27/24	3.46 3/27/24	3.40 8/21/24	Runoff from fertilizer use; leaching from septic tanks, sewage erosion of natural deposits.
PFOA	N	ppt	0	Not est.	1.25 11/19/24	1.25 11/19/24	nd	2.97 11/19/24	2.93 11/19/24	7.51 4/7/22	nd	nd	5.76 11/19/24	2.96 11/19/24	
PFOS	N	ppt	0	Not est.	nd	nd	nd	nd	3.30 11/19/24	3.99 4/7/22	nd	nd	2.76 11/19/24	nd	
PFNA	N	ppt	0	Not est.	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
PFDA	N	ppt	0	Not est.	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
PFHxS	N	ppt	0	Not est.	nd	nd	nd	nd	2.16 11/19/24	3.64 4/7/22	nd	nd	2.18 11/19/24	nd	
PFHpA	N	ppt	0	Not est.	nd	nd	nd	1.99 11/19/24	1.46 11/19/24	2.29 4/7/22	nd	nd	1.82 11/19/24	2.04 11/19/24	
TOTAL	N	ppt	20ppt	Not est.	1.25	1.25	nd	4.96	9.85	17.43	nd	nd	12.50	5.00	

Wells 1,2, 6*** and 9 primarily serve areas north of Hamilton-Allenton Road; Wells 4, 5a, & 11 primarily serve Slocum and Saunderstown. Well 6 is permanently out of service and was not sampled in 2024.

*PFAS is state regulated only. Total refers to the sum of the 6 PFAS contaminants: PFOA, PFOS, PFHxS, PFNA, PFHpA, and PFDA

Unregulated Constituents

Contaminant	Violation Y/N	Unit	MCL	Well #1	Well #2	Well #3	Well #4	Well #5a**	Well #6	Well #7	Well #8	Well #9	Well #11
DCPA Degradates*	N	ppb	Not est.	nd	nd	nd	nd	1.1 8/29/23	nd	nd	nd	nd	2.0 12/5/23
Chloroform	N	ppm	100ppm	nd	nd	nd	nd	nd	nd	nd	nd	2.0 3/7/23	nd
PFPeA	N	ppt	Not est.	1.29 3/16/23	nd	nd	3.28 3/16/23	2.9 9/20/23	nd	nd	nd	6.10 9/20/23	nd
PFHxA	N	ppt	Not est.	0.90 11/19/24	0.87 11/19/24	nd	2.58 11/19/24	2.77 11/19/24	nd	nd	nd	4.17 11/19/24	3.43 11/19/24
PFBS	N	ppt	Not est.	1.14 11/19/24	1.15 11/19/24	nd	2.27 11/19/24	2.85 11/19/24	nd	nd	nd	3.13 11/19/24	5.17 11/19/24

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

*Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence unregulated contaminants in drinking water and whether future regulation is warranted as this will ensure that the public notice requirements are satisfied.

▲Breakdown products of DCPA Degradates, 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. *** Well 6 was removed from service in January 2022.

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 Water Hotline (800-426-4791).

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.

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 regulated 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.

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

PFAS, PFOA and PFOS: What are they and why should I care?

PFAS, PFOA and PFOS have received increasing coverage in print, radio, television, and online media sources in the last year or so. The chemical compounds grouped together and identified as PFAS, which includes PFOA and PFOS, are a class of manmade chemicals that includes thousands of compounds. These chemicals have been used since 1949 and are valued for their ability to provide a protective coating on products. Some uses include non-stick cookware, stain resistant fabrics and firefighting foam. Dental floss, cleaners, waxes, and many other products may contain PFAS.

Why is North Kingstown Water Supply Thinking About PFAS?

In June of 2022 a Rhode Island state law was passed that set an interim standard of 20 parts per trillion (ppt) for a combination of six of the most common of these classes of compounds. Since the concentration of these compounds in one of North Kingstown's wells was near this standard, this well was removed from service since the remaining wells have the capacity to serve the town's needs without it. Water suppliers, State officials, and the EPA, continue to follow the developing science.

What we know:

- Our awareness of these chemicals' environmental presence is a result of the increased sensitivity of detection methods. Detection methods can detect these chemicals at the level of 'parts per trillion'.
- The chemical properties that made PFAS effective, contribute to their persistence in the environment. They are not broken down by biological and photo (light) degradation to be rendered harmless.
- PFAS have been found in the environment and in the blood of humans and animals worldwide. Most people in the United States have one or more specific PFAS in their blood, especially PFOS and PFOA.
- Some studies have shown that exposure to some PFAS may be linked to harmful health effects. Additional research is needed to better understand the health effects of PFAS exposure.
- PFAS are currently unregulated by the EPA, meaning the EPA has not established an enforceable limit on the amount of these compounds that may be present in food and water. The EPA has issued a non-enforceable lifetime health advisory of 70 part per trillion (ppt) combined exposure for these compounds. (For perspective, 70 ppt is approximately equivalent to 3.5 drops of water in an Olympic sized-swimming pool). Better understanding of the contribution of sources of exposure (food, water, air) and the relationship of PFAS concentrations in blood and tissue to health effects are being sought prior to setting federal regulatory limits. Many scientists agree that the best way to reduce our exposures to PFAS is to limit their use in consumer products.

What we do not know

We do not know the role in, or contribution of drinking water containing PFAS to human blood levels compared to other sources of these compounds. Nor do we know how much of these compounds (as exposure, ingestion, or blood level) poses potential health risks in humans and their companion animals, or farm animals. Neither do we know how the blending of multiple source wells in a system where not all wells have PFAS detects affect the overall concentrations in the system because the volume contributions of wells and system demand are variable.

If you are concerned

Do not boil your water – this will concentrate this kind of compound if present. Filters are available that can remove some of these compounds, but it is important to follow the manufacturer's use and maintenance instructions. If you wish to filter your water, the National Sanitation Foundation (NSF) maintains a list of products certified to lower the concentrations of PFOA and PFOS in drinking water. There are units that may be installed at a faucet, in a refrigerator (verify that the device is compatible with your model of refrigerator), and pitcher-type units. The ***Listing of NSF Certified products for reducing PFOA/PFOS in drinking water*** is available at **info.nsf.org/Certified/DWTU**