

Narragansett Water Division-North End

2016 Water Quality Report

THE QUALITY OF YOUR DRINKING WATER

We are pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the water quality of 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.

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. As always, we remain committed to ensuring the quality of your water.

Narragansett Water does not hold regularly scheduled meetings; therefore, if you have any questions about this report or the Water Division, please contact Ed Sylvia, Water Superintendent, at (401) 782-0639. You may also call this number to obtain information about proposed or planned system improvements projects, such as main line replacement, new hydrant locations, etc. We want our valued customers to be informed about their water utility.

THE SOURCE OF YOUR DRINKING WATER

We purchase our water from SUEZ Water and the Town of North Kingstown. The water we receive from SUEZ Water comes from six (6) gravel packed wells, plus one emergency well, located in two well fields. Both well fields are located off Tuckertown Road in South Kingstown. These wells can produce up to 7 million gallons of water per day. Both well fields draw water from the Mink Brook Aquifer. SUEZ Water has initiated a very aggressive Wellhead Protection Program which has identified a well protection area around both well fields. SUEZ Water is also conducting an inventory regarding land use within this wellhead area. SUEZ Water uses sodium hypochlorite for disinfection. Water treated at each well field is also aerated to make your water less aggressive. SUEZ Water adds lime for pH adjustment and zinc orthophosphate for corrosion control. This reduces the possibility of lead and copper in household plumbing from dissolving in the water.

The Town of North Kingstown draws its water from eleven (11) municipal wells, which draw water from the Hunt Annaquatucket-Pettaquamscutt (HAP) aquifer system. Average daily water use in 2016 was approximately 2.86 million gallons per day. The HAP aquifer system has been designated a "Sole Source Aquifer" by the US Environmental Protection Agency (USEPA), meaning there is no alternative source of drinking water.

The RI Department of Health, in cooperation with other state and federal agencies, has assessed the threats to SUEZ Water's 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. The assessment found that SUEZ Water and North Kingstown's sources are 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 SUEZ Water and the Town of North Kingstown or the Department of Health at (401) 222-6867.

The Narragansett Water
Division-North End
25 Fifth Avenue
Narragansett, RI 02882
Tel. 401-782-0639

WATER CONSERVATION

The Town of Narragansett offers water conservation kits FREE of charge to any customer requesting one. Please contact the Water Division for further information about this service.



WHY ARE THERE CONTAMINANTS IN DRINKING WATER?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants in the water does not necessarily indicate that the 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 (1-800-426-4791).

In order to ensure that tap water is safe to drink, the 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. Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 (1-800-426-4791).

CONTAMINANTS THAT MAY BE PRESENT IN SOURCE WATER INCLUDE:

MICROBIAL - such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

INORGANIC - 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 & HERBICIDES - which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

ORGANIC CHEMICAL - 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 - which can be naturally occurring or the result of oil and gas production and mining activities.

IMPORTANT LEAD INFORMATION

Testing showed the amount of lead in our drinking water is below the EPA allowed level (see test result table at right). If present in elevated levels 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 Narragansett Water Division is responsible for providing high quality drinking water, but cannot control the variety of materials used in residential 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>.

TEST RESULT TABLE - UNITS & DEFINITIONS:

Not Detected (ND) - Laboratory analysis indicated the contaminant was not present.

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. A violation will occur only if the supplier fails to take corrective action.

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.

Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water.

Maximum Residual Disinfectant Level Goal (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk to health.

2016 Test Results from SUEZ Water & North Kingstown

Unless otherwise noted, test results are from 2016 and the ranges listed are results from SUEZ Water's or North Kingstown's wells, whichever is greatest

Microbial Contaminants	Violation Y/N	Level Detected (Range)	Unit Measure	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria ^{SW} (August 2016) (September 2016)	N N	2 Positive 1 Positive	% of positive monthly samples	Absent	5% of monthly samples	Naturally present in the environment
Fecal Coliform and/or E. coli ^{SW} (September 2016)	N	1 Positive	n/a	0	Routine and repeat samples are total coliform positive and one is also fecal coliform / E.coli positive	Human and/or animal waste
Inorganic Contaminants	Violation Y/N	Level Detected (Range)	Unit Measure	MCLG	MCL	Likely Source of Contamination
Barium ^{SW} (2014)	N	0.012 Range: 0.003-0.012	ppm	2	2	Erosion of natural deposits; discharge of drilling wastes; discharge from metal refineries
Copper* ^{NK} (2016)	N	0.357 Range: 0.09-0.51	ppm	1.3	AL=1.3	Corrosion of household plumbing systems, erosion of natural deposits
Chromium ^{NK} (2014)	N	Ave: 3.0 Range: 0-3	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Lead* ^{SW} (2016)	N	3.0	ppb	15	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nickel ^{NK} (2016)	N	7.0 Range: 5.0-7.0	ppb	100	100	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits
Nitrate ^{NK} (2016)	N	4.88 Range: 0.05-4.88	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Volatile Organic Contaminants	Violation Y/N	Level Detected (Range)	Unit Measure	MCLG	MCL	Likely Source of Contamination
Chlorine ^{NK} (2016)	N	RAA**: 0.28 Range: 0.19-0.33	ppm	MRDLG 4	MRDL 4	Water additive used to control microbes
Haloacetic Acids (HAA) ^{NK} (2016)	N	RAA**: 1.1 Range: ND-1.1	ppb	0	60	By-product of water chlorination
Total Trihalomethanes (TTHM) ^{SW} (2016)	N	RAA**: 41.0 Range: 32-41	ppb	0	80	By-product of water chlorination

2016 Distribution System Test Results Narragansett Water Division-North End

Microbial Contaminants	Violation Y/N	Level Detected (Range)	Unit Measure	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (2016)	N	Absent	# of positive samples	Absent	5% of monthly samples	Naturally present in the environment
Volatile Organic Contaminants	Violation Y/N	Level Detected (Range)	Unit Measure	MCLG	MCL	Likely Source of Contamination
Chlorine (2016)	N	RAA: 0.32** Range: 0.22-0.53	ppm	MRDLG 4	MRDL 4	Water additive used to control microbes
Haloacetic Acids (HAA) (2016)	N	RAA: 2.3** Range: 1.3-4.5	ppb	0	60	By-product of water chlorination
Total Trihalomethanes (TTHM) (2016)	N	RAA: 30.5** Range: 21.2-40.3	ppb	0	80	By-product of water chlorination
Inorganic Contaminants	Violation Y/N	Level Detected (Range)	Unit Measure	MCLG	MCL	Likely Source of Contamination
Copper* (2015)	N	0.33	ppm	1.30	AL=1.30	Erosion of natural deposits; discharge of drilling wastes; discharge from metal refineries
Lead* (2015)	N	9.0	ppb	0	AL=15	Erosion of natural deposits; discharge of drilling wastes; discharge from metal refineries

^{SW} Data representative from the SUEZ Water/United Water RI data.

^{NK} Data representative from the North Kingstown data.

*All sampling results represented at the 90th Percentile.

**RAA: Running Annual Average, is the average of all monthly or quarterly samples for the last year at all sample locations.

LEAD: There were two (2) sites that exceeded the lead action level. **LEAD:** 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 deficiencies in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced or reduced.

E. coli Positive Notification (RTCR)

In 2016, the SUEZ Water testing results for Fecal Coliform and/or E.coli bacteria were positive. They were therefore required to distribute public notification of this event. Public Notification was not completed by the appropriate deadlines and therefore SUEZ Water was issued this notification. They have since completed and submitted all proper paperwork to the Rhode Island Department of Health's Center for Drinking Water Quality and are in compliance with this notification. 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.

UNDERSTANDING OUR WATER QUALITY TEST RESULTS

The table to the left lists all of the drinking water contaminants that were detected through our water quality monitoring and testing. 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. The ranges listed are results from SUEZ Water's and North Kingstown Water's wells.

Maximum Contaminant Levels (MCLs) 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.

The State of Rhode Island requires testing for other contaminants not regulated by the US EPA. The following contaminants were detected:

- SUEZ Water: In 2016, Sodium was detected at 15.3 ppm in Well #6. The range for all the wells was 7.16-15.3 ppm

UCMR Language

The Town of North Kingstown and SUEZ Water's water systems sampled for a series of unregulated contaminants. Unregulated contaminants are those that don't yet have a drinking water standard set by EPA. The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a standard. As our customers, you have a right to know that these data are available. If you are interested in examining the results, please contact Edward Slyvia at 401-782-0639.



The Narragansett Water Division
25 Fifth Avenue
Narragansett, RI 02882
www.narragansettri.gov

2016 Annual Water Quality Report - North End

THE TOWN OF NARRAGANSETT NEWS

RIWIS SYSTEM MAKES TRACKING ONSITE WASTEWATER TREATMENT SYSTEMS (OWTS)-SEPTIC SYSTEMS EASY

RIWIS, Rhode Island Wastewater Information System, is a statewide, internet-accessed system that organizes local information about OWTS (septic systems) and cesspools, including their location and condition, inspection results, and maintenance. This tracking is not only required, but is crucial to protecting water quality and public health. The easy-to-use system was developed by Carmody Data Systems in collaboration with URI, and is provided at a reasonable cost to municipalities in Rhode Island. The Town's septic system tracking needed upgrading and RIWIS has more than met that need. The system eliminates the paper report submission by homeowners. Instead, septic and cesspool pumpers now have the responsibility of submitting the pumping receipt online, and have access to the system free of charge. RIWIS uses passwords to access various levels of data, so homeowners can know that their private information is secure.

CURRENT WATER SYSTEM UPGRADES & IMPROVEMENTS

The Town has completed the repainting of the North End Tank.

For information regarding the Water Division's responsibilities and policies, please go to the Town's website: www.narragansettri.gov and look under the Engineering Department heading.

Visit our webpage www.narragansettri.gov
to learn more about the Water Division