



South Kingstown Middlebridge Water System

To Our Customers:

Annual Drinking Water Quality Report

We're pleased to present to you this year's Consumer Confidence Report. This report is designed to inform you about your water quality and the services we deliver to you every day. Included are details about where your water comes from, what it contains, and how it compares to standards set by the regulatory agencies. Our goal is to provide you with a safe and dependable supply of drinking water.

We purchase 100% of our water from SUEZ/United Water Rhode Island (SUEZ/UWRI). The water we receive from SUEZ/UWRI comes from seven gravel packed wells located in the central area of South Kingstown. SUEZ/UWRI has initiated a Wellhead Protection Program which has identified a well protection area around their well fields. SUEZ/UWRI has also conducted an inventory regarding land use within this wellhead area.

The RI Department of Health, in cooperation with other State and Federal agencies, has assessed the threats to SUEZ/United Water RI'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 assure that the water delivered to your home is safe and wholesome. 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 assure continued water quality. For a copy of the complete Source Water Assessment Report, please contact our office or the Rhode Island Department of Health at (401) 222-6867.

The Town does not conduct regularly scheduled water supply meetings, but if you have any questions about this report or want to learn more about your water utility, please contact me at (401) 789-9331 Extension 2250 or stop in. The Water Division office is located in the Public Services Building, 509 Commodore Perry Highway (U.S. Route 1), Wakefield, RI 02879.

Sincerely,

Jon R. Schock
Public Services Director

Consumer Confidence Report

Understanding this Report

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 at (800) 426-4791.

In order to ensure that tap water is safe to drink, USEPA prescribes regulations which 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 sources of drinking water (both tap 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 human or animal activity. All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. Contaminants that may be present in source water include:

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 be the result of oil and gas production and mining activities.

Additional Important Information

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. USEPA and Centers for Disease Control (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 at (800) 426-4791.

Term Definitions

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following 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.

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

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 Disinfection 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

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.

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

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 FROM SUEZ/UNITED WATER RHODE ISLAND						
Unless otherwise noted, test results are from 2016 and the ranges listed are results from SUEZ/UWRI's wells						
Microbiological Contaminants	Violation Y/N	Levels Detected	Unit of Measurement	MCLG	MCL	Likely Source of Contamination
¹ Total Coliform Bacteria (August 2016)	N	2 Positive*	% of positive monthly samples	0	5% of monthly samples	Naturally present in the environment
¹ Total Coliform Bacteria (September 2016)	N	1 Positive*	% of positive monthly samples	0	5% of monthly samples	Naturally present in the environment
¹ Fecal Coliform and/or <i>E.coli</i>	N	1 Positive	n/a	0	A routine sample and repeat sample are total coliform positive, and one is also fecal coliform or <i>E.coli</i> positive	Human and animal fecal waste
Please note: South Kingstown-Middlebridge did not have any samples during this period that showed the presence of bacteria. The source of the coliform in SUEZ/UWRI's water was unknown. Sample integrity, sample processing or disturbance of biofilm may have been a possible cause. Additional samples were negative. *Although SUEZ/UWRI shows two positive samples for Total Coliform Bacteria in August 2016 and one positive sample for TCB in September 2016, since they collect more than 40 TCB monthly samples, the calculated percentage fell below the MCL of 5%.						
Inorganic Contaminants	Violation Y/N	Levels Detected	Unit of Measurement	MCLG	MCL	Likely Source of Contamination
¹ Barium (2014)	N	Max: 0.012 Range: 0.003-0.012	ppm	2	2	Erosion of natural deposits; discharge of drilling wastes; discharge from metal refineries
¹ Copper (2015)	N	0.15*	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Chromium (2014)	N	Max: 0.003 Range: 0-0.003	ppm	1	1	Discharge from steel and pulp mills; erosion of natural deposits
¹ Lead (2015)	N	3*	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
¹ Nitrate (2016)	N	Max: 2.28 Range 0.76-2.28	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Volatile Organic Contaminants	Violation Y/N	Levels Detected	Unit of Measurement	MCLG	MCL	Likely Source of Contamination
¹ Chlorine (2016)	N	RAA** 0.22 Range 0.13-0.32	ppm	MRDLG = 4	MRDL = 4	Water additive used to control microbes
Disinfection By-Products	Violation Y/N	Levels Detected	Unit of Measurement	MCLG	MCL	Likely Source of Contamination
¹ Haloacetic Acids (HAA5) (2016)	N	RAA** ND Range ND	ppb	0	60	By-product of water chlorination
¹ Total Trihalomethanes (TTHM) (2016)	N	RAA** 41.2 Range 32.0-41.2	ppb	0	80	By-product of water chlorination

* These results are from SUEZ/UWRI's distribution system. All sampling results represented at the 90th Percentile.

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

¹These results are from SUEZ/UWRI's distribution system. The averages presented are the Running Annual Average and the ranges are the lowest and highest individual detection levels.

2016 DISTRIBUTION SYSTEM TEST RESULTS FROM SOUTH KINGSTOWN-MIDDLEBRIDGE WATER SYSTEM

Inorganic Contaminants	Violation Y/N	Level Detected 90th Percentile	Unit of Measurement	MCLG	MCL	Likely Source of Contamination
Copper (2015)	N	0.23*	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (2015)	N	1.0*	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Volatile Organic Contaminants	Violation Y/N	Level Detected	Unit of Measurement	MCLG	MCL	Likely Source of Contamination
Chlorine (2016)	N	RAA** 0.225 Range 0.09-0.39	ppm	MRDLG = 4	MRDL = 4	Water additive used to control microbes
Disinfection By-Products	Violation Y/N	Level Detected	Unit of Measurement	MCLG	MCL	Likely Source of Contamination
Haloacetic Acids (HAA5) (2016)	N	RAA** 8.0 Single sample	ppb	0	60	By-product of water chlorination
Total Trihalomethanes (TTHM) (2016)	N	RAA** 20.8 Single sample	ppb	0	80	By-product of water chlorination

* All sampling results represented at the 90th Percentile. All samples collected were below the action levels for Lead and Copper.

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

TOWN OF SOUTH KINGSTOWN
Middlebridge Water System
509 Commodore Perry Highway
Wakefield RI 02879

***E.coli* Positive Notification (RTCR) (SUEZ/United Water RI)**

In 2016, the SUEZ/UWRI 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/UWRI 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.

Unregulated Contaminants

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

- **SUEZ/UWRI:** In 2016, Sodium was detected in Well #1 at 7.4 mg/l, Well #2 at 8.06 mg/l, Well #3 at 7.38 mg/l, Well #4 at 9.12 mg/l, Well #5 at 9.27 mg/l, Well #6 at 15.3 mg/l, and Well #7 at 7.16 mg/l. All were single samples.
- **SUEZ/UWRI:** In 2014, Metolachlor was detected in Well #6 at 0.20 ppb.
- **SUEZ/UWRI:** In 2014, Dacthal was detected at 4.4 ppb and DCPA was detected at 7.8 ppb.
- **SUEZ/UWRI:** In 2014, Strontium was detected at 0.34-63.5 ppb, Vanadium was detected at 0.34-1.20 ppb, and Hexavalent Chromium was detected at 0.052-0.08 ppb, Cobalt was detected at <0.33-<0.33 ppb, Molybdenum was detected at <0.33-<0.38 ppb.
- **SK-M:** In 2015, Monobromoacetic Acid was detected at 1.3 ppb, Trichloroacetic Acid was detected at 1.2 ppb.
- **SK-M:** In 2015, Chloroform was detected at 4.54 ppb, Bromodichloromethane was detected at 2.40 ppb, and Dibromochloromethane was detected at 1.02 ppb.

SUEZ/UWRI's water system and Middlebridge water system 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 the right to know that these data are available.

Important Information on Lead

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 South Kingstown-Middlebridge 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 (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

We, at the South Kingstown-Middlebridge Water System, work to provide top quality water to every tap. We encourage all of our customers to conserve and use water efficiently and remind you to help us protect our water sources. Don't hesitate to call our office at (401) 789-9331 Extension 2257 if you have any questions.