

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. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. 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 Safe Drinking Water Hotline **(1-800-426-4791)**.

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 **(1-800-426-4791)**.

For questions about the quality of our drinking water or of this report, call the Cumberland Water Department at **658-0666**.

The Cumberland Water Department purchases a portion of its water from the Pawtucket Water Supply Board. If you have any questions with regard to their water quality, please call **729-9050**.

The Cumberland Water Department purchases a portion of its water from the Woonsocket Water Department. If you have any questions with regard to their water quality, please call **767-1411**.

The Cumberland Water Department has sampled for a series of unregulated contaminants in 2015. Unregulated contaminants are those substances that don't yet have a drinking water standard set by the 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 data from these tests are available. If you are interested in examining the results, please contact Christopher Champi at **401-658-0666**.

The Cumberland Water Department vigilantly safeguards its water supplies. This brochure is a summary of the quality of water provided to customers last year. It is a record reflecting the hard work of our employees to bring you water that is absolutely safe.

The Cumberland Water Department is committed to providing you with information about your water supply, because customers who are well informed are our best allies in supporting improvements necessary to maintain the highest drinking water standards.

William S. Murray, Mayor

<i>Robert Anderson, P.E., Public Works Dir.</i>	<i>Chris Champi, Superintendent</i>
<i>Peter Drezek, Foreman</i>	<i>Michael Kuchar, Operator IV</i>
<i>Scott Caldwell, Operator II</i>	<i>Andy Costa, Equipment Operator</i>
<i>Brian Lynch, Operator II</i>	<i>Louis Provencal, Operator II</i>
<i>Raymond Wood, Operator II</i>	<i>Brad Yankee, Operator II</i>
<i>Michael Bouchard, Operator III</i>	<i>Mark Dailey, Clerk III</i>
	<i>Kim Berard, Collections</i>

Source Water Assessment

The University of Rhode Island and the RI Department of Health, in cooperation with other State and Federal agencies, have assessed the threats to the quality of Cumberland'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 Source Water Protection Area (SWPA), and the sampling history of the water.

The assessment found that Cumberland's water sources are at **LOW RISK** of contamination. This does **NOT** mean that the water cannot become contaminated. Protection efforts are important to assure continued water quality. A summary of the Source Water Assessment Report is available from our office, or from the Rhode Island Department of Health, Office of Drinking Water Quality.

Cumberland Water Department

98 Nate Whipple Hwy.

Cumberland, Rhode Island 02864

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2017 Violations

The Cumberland Water Department received three reporting violations in 2017. CWD failed to submit a copy of the 2016 Consumer Confidence Report and the Consumer Confidence Report Certification Form to the RI Department of Health by the required dates resulting in two separate violations. CWD notified all customers of lead testing results which was conducted at their homes however, not all of the customers were notified within 30 days of the department receiving results as outlined in the Lead and Copper Rule, resulting in a violation. CWD has instituted new policies to ensure that reporting requirements to the RI Department of Health are met. CWD also received two monitoring violations in 2017. On a monthly basis CWD is required to collect samples for E.coli, cryptosporidium and turbidity of the untreated surface water, in January of 2017 the required samples for cryptosporidium and turbidity were collected however CWD failed to collect the required sample for E.coli. The second monitoring violation occurred in August of 2017, CWD collected the required monthly samples for E.coli, cryptosporidium and turbidity from our untreated surface water, however the samples were not collected within the approved time period for the month.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Monitoring Requirements Not Met for Cumberland Water Department

PWS# RI 1647530
Cumberland Water Department
98 Nate Whipple Highway
Cumberland, RI, 02864

The Cumberland Water Department (CWD) is required to monitor both drinking water and surface water sources for specific contaminants on a regular basis. Between the dates of 08/01/17 and 08/31/17 CWD failed to collect water quality samples for E.coli and Cryptosporidium from our untreated raw source water within the required time period.

What happened?

Our water system violated a drinking water standard over the past year. Although this was not an emergency, as our customers, you have the right to know what happened and what we did to correct the situation.

The Cumberland Water Department (CWD) is required to collect bacteriological samples for E. coli in conjunction with cryptosporidium and turbidity samples of the untreated surface water on a monthly basis which began in October of 2016. Although the required samples for E.coli, cryptosporidium and turbidity were collected in the required month, CWD failed to collect the samples in the required week; these samples were from an untreated surface water source, not treated drinking water.

What should I do?

There is nothing you need to do at this time. If a situation were to arise where the water was unsafe to drink, you would receive notification within 24 hours.

What is being done?

The CWD has updated their policy on collecting samples required by the LT2 Monitoring Rule to ensure that this does not happen again.

For more information, please contact Christopher Champi at (401)658-0666 or at 98 Nate Whipple Highway, Cumberland, RI 02864.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by the Cumberland Water Department PWS ID#: RI1647530 Date distributed: 6/30/2018

Cumberland Water

We Want You to Know About Your Drinking Water

A Water Quality Report for our Customers

In the Town of Cumberland all areas north of Marshall Avenue including Ashton, Berkeley, Arnolds Mills, Cumberland Hill, and Diamond Hill.

High Quality Drinking Water

The Cumberland Water Department is committed to providing our customers with high quality drinking water 24 hours a day, 365 days a year. To ensure that we deliver this quality product, the Cumberland Water Department has made significant investments in water treatment and distribution facilities, water quality monitoring, water sources, and purchasing protective lands. This report will provide information about the water system such as: where your water comes from; how it is treated; improvements being made to the water system; and other issues that affect the water you drink.

In Cumberland Water's Northern Region there are 6 groundwater wells and 1 surface water treatment plant which withdraws water from our Sneece Pond Reservoir. At the Southern end of our system we have a Booster Pump Station that draws water from the Pawtucket Water Supply Board and at the Northern end of our system there is a

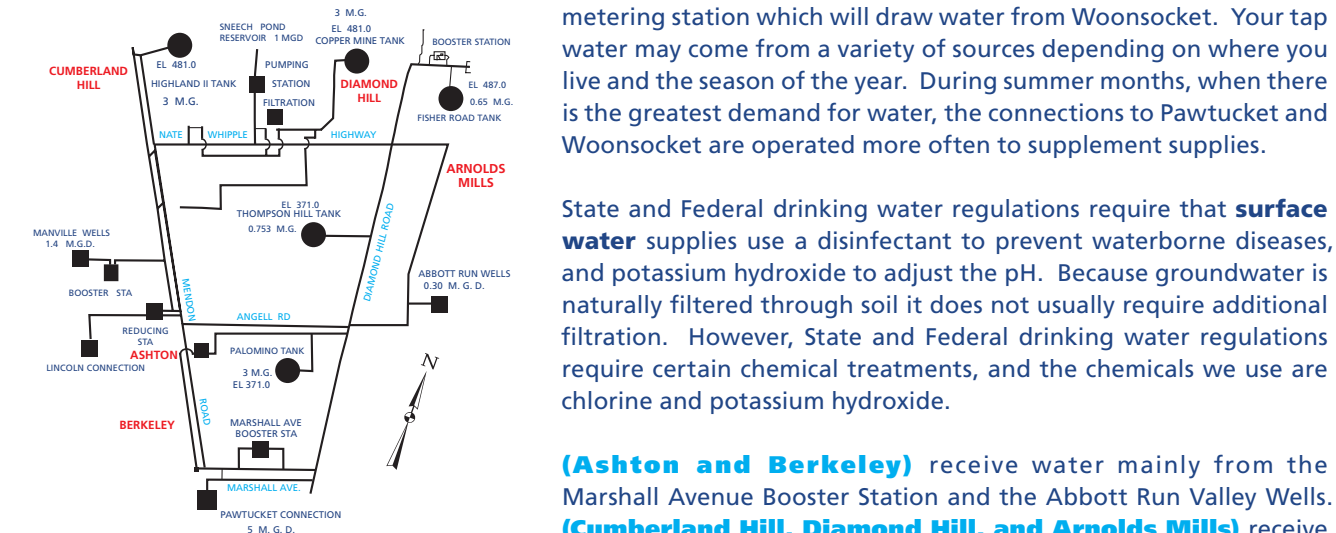


Diagram of the Cumberland Water System

metering station which will draw water from Woonsocket. Your tap water may come from a variety of sources depending on where you live and the season of the year. During summer months, when there is the greatest demand for water, the connections to Pawtucket and Woonsocket are operated more often to supplement supplies.

State and Federal drinking water regulations require that **surface water** supplies use a disinfectant to prevent waterborne diseases, and potassium hydroxide to adjust the pH. Because groundwater is naturally filtered through soil it does not usually require additional filtration. However, State and Federal drinking water regulations require certain chemical treatments, and the chemicals we use are chlorine and potassium hydroxide.

(Ashton and Berkeley) receive water mainly from the Marshall Avenue Booster Station and the Abbott Run Valley Wells. **(Cumberland Hill, Diamond Hill, and Arnolds Mills)** receive water mainly from the Treatment Plant, Manville Wells, Abbott Run Valley Wells and the Woonsocket metering station. At the treatment plant drinking water is filtered to remove contaminants and unwanted taste and odors. Some chemicals are added as part of the treatment process. To satisfy State and Federal drinking water regulations we add chlorine as a disinfectant to prevent waterborne diseases. Alum is used in the sedimentation process to remove particulates and solids. Potassium Hydroxide is used to adjust the pH (a proper pH will help prevent the leaching of lead and copper from household plumbing) and Fluoride is added to promote healthy teeth in growing children.

Substances Detected in Cumberland Drinking Water in 2017								
Regulated Substances	Period	Unit	MCL	MCLG	Highest Det. Level	Range	Major Sources	SDWA Violation
Fluoride ¹	2017	ppm	4	4	0.98	0.25 – 0.98	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizers and aluminum factories.	NO
Barium	2017	ppm	2	2	0.27	0.025 - 0.27	Erosion of natural deposits.	NO
Nitrate	2017	ppm	10	10	3.47	0.86 – 3.47	Run-off from fertilized areas; Leaching from septic tanks; Erosion of natural deposits.	NO
Nitrite	2017	ppm	1	1	< 0.02	< 0.02	Run-off from fertilized areas; Leaching from septic tanks; Erosion of natural deposits.	NO
Chromium	2017	ppb	100	100	2.0	1.0 - 2.0	Erosion of natural deposits.	NO
Nickel	2017	ppb	N/A	N/A	6.0	<5.0 - 6.0	Erosion of natural deposits.	NO
Arsenic	2017	ppb	10	0	1.0	<1.0-1.0	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production waste	NO
Di(2-ethylhexyl) Phthalate	2017	ppb	6	0	1.0	ND - 1.0	Discharge from rubber and chemical factories.	NO
Total Organic Carbon (TOC)	2017	Removal Ratio	TT	N/A	1.09 ⁵	0.73 – 1.24	Naturally present in the Environment.	NO
Total Coliform Bacteria	2017	N/A	Coliform bacteria in ≤5% of monthly samples	0	0.0%	N/A	Naturally present in the Environment.	NO
Turbidity ⁴	2017	NTU	TT (95% of samples <.03 NTU)	0.01	0.29	0.01 – 0.29	Soil run-off.	NO
Chlorine	2017	ppm	MRDL 4	MRDLG 4	0.43 ⁵	0.32 – 0.49	Water additive used for disinfection.	NO
Total Trihalomethanes (TTHM)	2017	ppb	80	N/A	58.8 ⁶	24.1 - 91.3	By-product of drinking water chlorination.	NO
Haloacetic Acids (HAA5) ⁵	2017	ppb	60	N/A	21.0 ⁶	0.0 – 40.3	By-product of drinking water chlorination.	NO
Combined Radium	2017	PCI/L	5	0	0.99	0.057 – 0.99	Erosion of natural deposits.	NO
Lead and Copper	Period	MCLG	Action Level (AL)	90th %ile	# of Sites Over AL	Units	Major Sources	SDWA Violation
Copper ²	2017	1.3	AL=1.3	0.082	0	ppm	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.	NO
Lead ³	2017	0	AL=15	1.3	0	ppb	Corrosion of household plumbing systems; Erosion of natural deposits.	NO
Unregulated Substances	Period	Unit	MCL	MCLG	Highest Det. Level	Range	Major Sources	SDWA Violation
Sodium	2017	ppm	100	N/A	82.8	29.8 – 82.8	Naturally occurring, road salt.	NO
Unregulated Contaminant Monitoring Rule 3 ⁹								
Unregulated Substances	Period	Unit	MCL	MCLG	Average Det. Level	Range	Major Sources	SDWA Violation
Chromium-6	2015	ppb	N/A	N/A	0.067	0.03 – 0.12	Erosion of natural deposits, produced by industrial processes.	NO
Chlorate	2017	ppb	N/A	N/A	132.3	90-230	Disinfecting by-product; ions formed during the slow decomposition of sodium hypochlorite.	NO
Perfluorooctanoic Acid	2017	ppt	N/A	N/A	22	11 – 22	Teflon, fire fighting foam, cleaners, cosmetics, greases, paints.	NO
Strontium	2015	ppb	N/A	N/A	82.4	28 – 270	Erosion of natural deposits.	NO
Vanadium	2015	ppb	N/A	N/A	0.308	0.24 – 0.36	Erosion of natural deposits.	NO
1:4 Dioxane	2015	ppb	N/A	N/A	0.117	0.10 – 0.12	Solvent or solvent stabilizer used in manufacturing processes.	NO

¹ Cumberland Water adds fluoride to its treated water as an aid in dental cavity prevention in young children.

² At 90th percentile, no site exceeding Action Level.

³ At 90th percentile, no site exceeding Action Level. 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. Cumberland 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 drinking 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 online at <http://www.epa.gov/safewater/lead>.

⁴ For 2016, 0.27 ntu was the highest single turbidity measurement recorded. The lowest monthly percentage of samples meeting turbidity limit was 100%.

⁵ Running Annual Average.

⁶ Locational Running Annual Average.

Substances Detected in Pawtucket Drinking Water in 2017								
Regulated Substances	Period	Unit	MCL	MCLG	Detected Level	Range	Major Sources	SDWA Violation
Fluoride ¹	2017	ppm	4	4	0.81	0.59 – 0.81	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizers and aluminum factories.	NO
Copper ²	2016	ppm	AL=1.3	1.3	0.196	0.016 – 0.253	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.	NO
Lead ³	2016	ppb	AL=15	0	2.0	< 1.0 – 95.0	Corrosion of household plumbing systems; Erosion of natural deposits.	NO
Total Organic Carbon (TOC)	2017	Removal Ratio Result	TT	N/A	1.44 ⁶	1.24 – 1.75	Naturally present in the Environment.	NO
Total Coliform Bacteria	2017	N/A	Presence of Coliform bacteria in ≤5% of monthly samples	0	0.00%	0.00%	Naturally present in the Environment.	NO
Turbidity ⁴	2017	NTU	TT	0	0.186	0.033 – 0.186	Soil runoff.	NO
Chlorine	2017	ppm	4	4	1.05 ⁶	0.05 – 1.95	Water additive used to control microbes.	NO
Nitrate	2017	ppm	10	10	3.22	0.44 – 3.22	Erosion of natural deposits. Run-off of fertilizer. Septic systems.	NO
Total Trihalomethanes (TTHM)	2017	ppb	80	N/A	66.7 ⁷	22.2-115.2	By-product of drinking water chlorination.	NO
Haloacetic Acids (HAA5) ⁵	2017	ppb	60	N/A	31.7 ⁷	10.3 – 40.0	By-product of drinking water chlorination.	NO
Arsenic	2017	ppb	10	0	2.0	<1.0-2.0	Erosion of natural deposits.	NO
Nickel	2017	ppb	NA	NA	8.0	<1.0-8.0	Erosion of natural deposits.	NO
Barium	2017	ppm	2	2	0.061	0.025-0.061	Erosion of natural deposits.	NO
Combined Radium 226/228	2009	PCI/L	5	0	1.02	1.02	Erosion of natural deposits.	NO
Unregulated Substances								
Sodium	2017	ppm	100	N/A	73.4	25.4-73.4	Erosion of natural deposits.	NO

¹ Pawtucket Water adds fluoride to its treated water to prevent tooth decay and improve dental health in children.

² At 90th percentile, no site exceeded Action Level.

³ At 90th percentile, no site exceeded Action Level. 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 Pawtucket Water Supply Board 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 online at <http://www.epa.gov/safewater/lead>.

⁴ For 2017, 0.186 ntu was the highest single turbidity measurement recorded. The lowest monthly percentage of samples meeting turbidity limit was 100%.

⁵ These results represent the sum of 5 Haloacetic Acids. HAA5s are required monitoring under the Disinfection By-Product regulation.

⁶ Running Annual Average.

⁷ Locational Running Annual Average.

Key to Table and Definitions

AL = Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

ALG = Action Level Goal: The level of a contaminant in drinking water below which there is no known or expected health risk. ALGs allow for a margin of safety.

MCL = Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water.

MCLG = Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health.

MRDL = Maximum Residual Disinfectant Level: The level of disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for the control of microbiological contaminants.

MRDLG = Maximum Residual Disinfectant Level Goal: The level of 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 microbiological contaminants.

MRL = Minimum Reporting Level

NTU = Nephelometric Turbidity Units: Measurements of the clarity, or turbidity, of water. Turbidity in excess of 5 NTUs is just noticeable to the average person.

pCi/L = Picocuries per liter.

ppm = parts per million or milligrams per liter (mg/l) or one ounce in 7,350 gallons of water.

ppb = parts per billion or micrograms per liter (µg/l) or one ounce in 7,350,000 gallons of water.

ppt = parts per trillion or nanograms per liter (ng/l) or one ounce in 7,350,000,000 gallons of water.

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

N/A = Not Applicable.

ND = Not Detected.

Substances Detected in Woonsocket Drinking Water in 2017								
Regulated Substances	Year Sampled	Units	MCL (MRDL)	MCLG (MRDLG)	Amount Detected	Range Low - High	Typical Sources	Violation
Barium	2017	ppm	2	2	0.055	0.015 – 0.055	Erosion of natural deposits.	NO
Chlorine	2014	ppm	(4)	(4)	0.38	ND – 1.14	Water additive used to control microbes.	NO
Chromium	2016	ppb	100	100	1.0	N/A	Erosion of natural deposits; Discharge from steel and pulp mills.	NO
Di(2ethylhexyl) Phthalate	2017	ppb	6	0	1.0	ND - 1.0	Discharge from rubber and chemical factories.	NO
Fluoride	2017	ppm	4	4	0.94	0.03 – 0.94	Erosion of natural deposits; Water additive which promotes strong teeth.	NO
Haloacetic Acids (HAA5)	2017	ppb	60	N/A	19.8	5.9 – 34.9	By-product of drinking water disinfection.	NO
Nitrate	2017	ppm	10	10	0.61	0.23 – 0.61	Run-off from fertilized areas; Leaching from septic tanks; Erosion of natural deposits.	NO
Nitrite	2013	ppm	1	1	0.02	ND – 0.02	Run-off from fertilized areas; Leaching from septic tanks; Erosion of natural deposits.	NO
TTHM's (Total Trihalomethanes)	2017	ppb	80	N/A	57.0	35.2 – 71.81	By-product of drinking water disinfection.	NO
Total Organic Carbon	2017	Removal Ratio	TT	N/A	1.7	1.0 - 2.0	Naturally present in the environment.	NO
Turbidity ¹	2017	NTU	TT (95% of samples <.03 NTU)	N/A	0.520	0.048 – 0.520	Soil run-off.	NO
Turbidity ¹ (Lowest monthly percent of samples meeting limit)	2017	NTU	TT (95% of samples <.03 NTU)	N/A	99.18%	N/A	Soil run-off.	NO
Lead and Copper	Year Sampled	Units	MCLG	Action Level (AL)	Amount Detected	Sites Above AL / Total Sites	Typical Sources	Violation
Copper	2017	ppm	1.3	AL=1.3	0.032	0 / 32	Corrosion of household plumbing fixtures; Erosion of natural deposits.	NO
Lead	2017	ppb	0	AL=15	2	0 / 32	Corrosion of household plumbing fixtures; Erosion of natural deposits.	NO
Secondary Substances	Year Sampled	Units	SMCL	MCLG	Amount Detected	Range Low - High	Typical Sources	Violation
Aluminum	2017	ppb	200	N/A	216	0 – 814	Erosion of natural deposits; residuals from some surface water treatment processes.	NO
Fluoride	2014	ppm	2.0	N/A	0.32	N/A	Erosion of natural deposits; water additive which promotes strong teeth	NO
Unregulated Substances	Year Sampled	Units	MCL (MRDL)	MCLG (MRDLG)	Amount Detected	Range Low - High	Typical Sources	Violation
Sodium	2017	ppm	100	N/A	99.6	66.0-146.0	Naturally occurring; road salt.	NO
Unregulated Contaminant Monitoring Rule - Part 3 (UCMR3) ³								
Substances	Year Sampled	Units	MCL (MRDL)	MCLG (MRDLG)	Amount Detected	Range Low - High	Typical Sources	Violation
Chlorate	2013	ppm	N/A	N/A	17.61	ND – 83.74	Disinfecting by-product; ions formed during the slow decomposition of sodium hypochlorite.	NO
Hexavalent Chromium	2013	ppb	N/A	N/A	0.025	ND – 0.06	Erosion of natural deposits; produced by industrial processes.	NO
Strontium	2014	ppb	N/A	N/A	59.75	58.848 – 60.642	Naturally present in the environment.	NO
Vanadium	2014	ppb	N/A	N/A	0.701	0.586 – 0.816	Metal used as an alloying addition to iron and steel.	NO

¹ Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system. During the reporting year, a minimum of 97.64 percent of all samples taken to measure turbidity met water quality standards.

² Raw untreated surface water sample.

³ Contains additional RIDOH testing of unregulated contaminants.