

**CONSUMER CONFIDENCE REPORT for 2016**



The Mass. Dept. of Environmental Protection (MA-DEP) and the U.S. Environmental Protection Agency (EPA) require public water systems to provide an *Annual Consumer Confidence Report*. The report communicates relevant information to customers about the quality of their drinking water and provides an update about water-related activities. The Watuppa Water Board and the Department of Community Utilities, under which the Water Division operates, presents our Report for 2016. Contact John Friar, Director, Room 308, Government Center, or call 508-324-2330, if you have any questions or comments.

*(Photo at left: looking west from top of Bedford Street.)*

**Important statement on the availability of the 2016 CCR**

This report contains important information about your drinking water. Please translate it or speak with someone who can, if needed. Copies of this report in Portuguese or French may be obtained at the Water Department's Offices on the 3<sup>rd</sup> floor at One Government Center or by calling 508-324-2330.

**INDICAÇÃO IMPORTANTE NA DISPONIBILIDADE DO "CCR" DE 2016**

Este relatório contém informação muito importante sobre sua água potável. Por favor traduza-o ou fale com alguém que-lhe compreende. As cópias deste relatório em Português podem ser obtidas no escritório do Departamento de Água no terceiro andar em Government Center, ou chamando 508-324-2330.

**LES INFORMATION IMPORTANTES SUR LA DISPONIBILITE DU "CCR" de 2016**

Ce rapport des informations important concernant la qualite de l'eau de votre communaute. Faites-le traduire, ou parlez-en avec un ami qui le comprend bien. Les photocopies du ce relation peut-etre obtenu de la office du Department de l'Eau, tresieme etage, Government Center, ou, par telephoner a 508-324-2330.

**ADMINISTRATION:** During 2016, the Division's administration section continued its pilot program for meter reading by "fixed-base" radio, evaluation of the overall accuracy of the City's water meters, the Demand Notice program for overdue bills, and the large meter replacement program.

**QUALITY:** The following includes information about the source of your drinking water, what it contains, what other sources of water may contain, and how it compared in 2016 to Environmental Protection Agency (EPA) and Department of Environmental Protection (DEP) standards. We invite customer questions or comments about water quality. Call (508) 324-2725 for more information. Further, the Watuppa Water Board welcomes public input. Please contact (508) 324-2330 for meeting times and locations.

In 2016, thousands of water quality tests performed on samples taken from the City's source water (North Watuppa Pond), water produced in the treatment plant, and from consumer taps, found NO unacceptable levels of contaminants in the water supplied to you. In 2016, the Mass. Dept. of Environmental Protection conducted a Sanitary Survey of the Treatment and Distribution divisions of the Water Dept. The Survey found all aspects of the Department were functioning satisfactorily, and there were no adverse findings.

**SOURCES:** Drinking water for the City of Fall River is drawn from the North Watuppa Pond. When needed, water is pumped from Copicut Reservoir to the watershed of the North Watuppa, from which it flows to the North Watuppa Pond. In addition, the City has other water resources available if needed. These include the South Watuppa Pond, Terry Brook Pond, Sawdy, Stafford and Devol Ponds, and Lake Noquochoke.

Thus, Fall River has an abundant water supply.

An interceptor drain runs the length of Rt. 24 along the North Watuppa Pond's westerly boundary to reduce potential sources of contamination, potentially associated with highway and other runoff. The Fall River Water Department has a Surface Water Assessment Program (SWAP) report. The report can be accessed on the MA-DEP website, or a copy can be requested using the contact information presented herein.

There are no known significant sources of contamination to either the North Watuppa or Copicut Reservoirs. Watershed lands are patrolled by the Fall River Environmental Police Unit to protect both supplies.

Dams control all but one of these resources. In accordance with requirements of the State Office of Dam Safety, work was initiated on the required updated re-inspection of our dams, and design for the rehabilitation of the dam at Stafford Pond.



**DISTRIBUTION:** In addition to its normal activities during 2016, the Distribution and Maintenance Division put the replacement Industrial Park water tank and booster station on-line; and more water mains, valves, hydrants, and residential services were rehabilitated. In addition about 1,000 (40%) of the city's hydrants were flushed twice during the year. Of particular note, the Department installed a second aeration system on the Haskell Hill water storage tank (see photo at left).

This system reduces Trihalomethanes (THMs), thus assuring compliance with EPA and MA-DEP standards. The system is effective, and will be deployed on other tanks.

**QUANTITY:** In 2016, we delivered about 9,500,000 gallons of water per day to residential, commercial, municipal, and industrial customers; and for fire protection. Of that, about 400,000 gallons per day were sold to Tiverton, Westport and Freetown.

**TREATMENT:** The Water Division owns and operates a drinking water treatment plant on the west shore of the North Watuppa Pond. Its maximum registered capacity is 26 million gallons per day. Treatment processes carried out there include disinfection by chlorination, removal of suspended solids by flocculation/sedimentation, and filtration by sand and anthracite coal. Additionally, carbon dioxide and sodium hydroxide are added to reduce

pipe corrosion. Fluoride has been added since 1972 to prevent tooth decay, but was reduced in 2016 from 1.0 to 0.7 parts per million (ppm). All treatment processes comply with Federal and State requirements. After treatment the water is pumped to the City's water distribution system of about 250 miles of water mains, 7 storage tanks, and more than 2,000 hydrants.

In 2016, construction began on the project to use Sodium Hypochlorite for disinfection of our water, rather than Chlorine gas. Although incomplete at year end, temporary equipment had been operating using the hypochlorite for several months in 2016, and the chlorine gas system had been completely removed. The photo below shows a partial view of the new tanks that are used in the process.

Other improvements to the treatment plant include upgrades to the electric system, and treatment computer control system.



### **Important Definitions to help understand the information in this CCR**

**Maximum Contamination Level Goal (MCLG):** 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 Contaminant Level (MCL):** The highest level of contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology.

**Maximum Residual Disinfection Level (MRDL):** The highest level of disinfectant (Chlorine, Chloramines and Chlorine Dioxide) allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfectant Goal (MRDG):** The level of a drinking water disinfectant (Chlorine, Chloramines, Chlorine Dioxide), below which there is no known or expected risk to health. MRDGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**Treatment Technique (TT):** A required process intended to reduce the level of contamination in drinking water

**Action level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

## **Substances Found in Tap Water**

Sources of drinking water (both tap and bottled) 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 activities. To insure that tap water is safe, Mass DEP and the US EPA enforce regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and the Massachusetts Department of Public Health establish limits for contaminants in bottled water that must provide the same protection for public health.

Contaminants that MAY be present in source water include:

**Microbial Contaminants**, such as viruses and bacteria that may come from wastewater treatment plants, septic systems, agricultural livestock activities, wildlife, or even unsanitary or improper procedures by the user.

Under the “Long Term 2 Enhanced Surface Water Treatment Rule (“LT-2”), the City began testing its source water (the North Watuppa Pond), for *Cryptosporidium* in October, 2015. The testing will continue through 2017. Since the water samples were taken before entering the treatment process, and therefore do not reflect the water reaching the customer, results are not presented in this report. However, they are available upon request.

**Inorganic contaminants**, such as salts and metals, that can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

**Organic 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 storm water runoff and septic systems.

**Pesticides and herbicides**, which may come from a variety of sources such as agricultural activities, urban storm water runoff and residential uses.

**Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production or mining activities.

All 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. Call EPA’s Safe Drinking Water Hotline at **800-426-4791** for more information about contaminants and potential health effects.

**Additional information:** Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons, such as persons with cancer, undergoing chemotherapy, who have undergone organ transplants, have HIV/AIDS or other immune system disorders, some elderly and some infants can be particularly at risk from infections. These people or their caregivers should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infections by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at **800-426-4791**.

## **Specific Educational Statement on Lead**

If present, elevated levels of lead can cause serious health problems, especially in pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Fall River Water Division, Department of Community Utilities, is responsible for providing quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has not been run 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>.

As an incentive to reduce the number of lead services in the City, the Watuppa Water Board offers a \$500 bill credit for a customer who removes and replaces any lead service on their private property, and the another \$500 credit for a lead service replaced by the customer on the public property side of a service. Further, lead services on the street side are replaced by the City when the water main in the street is replaced.

### **Specific Educational Statement on Cross-Connections**

A cross connection is a connection between a drinking water pipe and a potential source of contamination. Cross-connections can occur even in your own home. For instance, you hook up a water hose to a sprayer containing fertilizer to spray for your lawn. If the water pressure drops (perhaps because a nearby fire hydrant is used to fight a fire), the fertilizer may be sucked back through the hose into the drinking water pipes. To guard against this, owners need to use a **backflow prevention device**. The Fall River Water Department recommends the installation of devices such as a “hose bib vacuum breaker” on all outside hose connections. The devices can be purchased at most hardware or plumbing supply stores.

When **installed correctly**, this is a great way to protect the water in your home and the City's drinking water system. For additional information on these devices, please contact the Water Department @ 508-324-2330.

In addition to this common concern, there are other sources of cross-connections, and those are subject to Chapter 74, Section 256-258 of the Fall River City Ordinance. This Ordinance covers lawn sprinkler systems, medical devices connected to water, and industrial/commercial equipment, etc. The City employs a full-time cross-connection inspector and backflow device tester to track and test these devices.

### **Information regarding high water bill complaints:**

Your water bill includes charges for water and sewer use\*, which are calculated from the amount of water that you use. Water use is based on readings obtained from your water meter. Leaks and excessive use of water will significantly increase that bill. To avoid high water/sewer charges, property owners should:

1. Make sure that plumbing is properly maintained. **A running toilet can waste 3,000 gallons per day.**
2. Periodically check the water meter when there is no water being used. If the red object near the center of the meter face is moving, then water is passing through the meter and there may be unintended use or leak.
3. Check your quarterly bill to monitor use. Consumption is listed as CCF on the bill. 1 CCF = 748 gallons.

**Water that passes through the meter must be paid for; however, there is an abatement program for excess use due to a running toilet or leaking pipe, or other device.**

\*“Fixed” charges are also levied for collecting and treating storm water, and for water meter servicing/billing.

### **One water quality table follows this narrative.**

The table on the next page is a summary or average of the results of the analysis done in 2016 on our drinking water. If you have any questions call the Director of Treatment and Resources at (508) 324-2724.

## FALL RIVER 2016 CONSUMER CONFIDENCE REPORT DATA TABLE

<u>Contaminant Names</u>	<u>MCL</u>	<u>MCLG</u>	<u>Detection Limit</u>	<u>Fall River Water</u>	<u>Sample date</u>	<u>Violation (s)</u>	<u>Major Sources in Drinking Water</u>
<b>Inorganic Contaminant, ppm</b>							
Fluoride	4	4	0.3	0.3-1.1	daily	none	Water Additive, promotes healthy teeth.
Sodium	20 ppm*		0.5	18.3	7-Mar	none	Naturally present, and added during treatment process
Free Chlorine	4.0 MRDL	4		1.25 - 1.75	daily	none	Added during treatment process (to kill bacteria)
Barium	2.0	2	0.005	0.008	7-Mar	none	Naturally present in source water
*per Office of Research Standards Guidelines							
<b>Nitrate Contaminants, ppm</b>							
Nitrate	10	10	0.03	ND	7-Mar	none	Fertilizer use, septic tanks, erosion from natural deposits
Nitrite	1	1	0.007	ND	2/19/14	none	(Not required in 2016)
<b>Manganese, ppm</b>	<b>(SMCL) 0.05</b>		<b>0.002</b>	<b>0.007</b>	<b>19-Jul</b>	<b>none</b>	<b>Erosion of natural deposits.</b>
<b>Organic Chemical Contaminants, ppb</b>							
Trihalomethanes (THMs)	80	n/a	0.5	20.0-84.4	Quarterly	none (per avg.)	Reaction by-products of chlorine and organics. THMs and HAAs are sampled 4 times per year, as required.
Haloacetic acids (HAAs)	60	n/a	0.5	12.0-32.7	Quarterly	none (per avg.)	
<b>Lead, ppb.</b> (ND = not detected)	<b>15 (AL not MCL)</b>	<b>0</b>	<b>2</b>	<b>ND to 73</b>	<b>Qtr 3, 2015</b>	<b>No violation @ 90th percentile</b>	<b>Next due Q3, 2018; Corrosion of household plumbing.</b>
<b>Copper, ppm</b> (ND = not detected)	<b>1.3 (AL not MCL)</b>	<b>0</b>	<b>0.02</b>	<b>ND to 0.84</b>	<b>Qtr 3, 2015</b>	<b>No violation @ 90th percentile</b>	<b>Next due Q3, 2018; Corrosion of household plumbing.</b>
<b>Turbidity, NTU</b>	<b>TT 5.0</b>	<b>n/a</b>		<b>Single highest=0.46</b>	<b>9/14/2016</b>	<b>none</b>	<b>Suspended organic &amp; inorganic particles from soil runoff</b>
Turbidity, a good indicator of filtration effectiveness; measures cloudiness of water. It is monitored throughout each day.							
<b>Microbial Contaminants</b>							
Total coliform bacteria	5% of monthly samples	0		Highest mo. %=1.0		none	Naturally present in the environment and wastes.
<b>Radioactive Contaminants</b>							
Gross alpha particle emitters, pCi/l	15	0		Next Dep required sampling: 2021		Decay of natural and man made deposits	
Radium 226 pCi/L	5	0		0.99	12/31/2012	none	Erosion of natural deposits.
Radium 228 pCi/L	5	0		0.02	12/31/2012	none	Common trace element in the earth's crust.
				0.04	12/31/2012	none	Common trace element in the earth's crust.
<b>Volatile Organic Compounds</b>							
	Various limits			ND	7-Mar	none	Naturally present, and in man-made Chemicals
<b>Total Organic Carbon, ppm</b>	TT not MCL	2	0.2	Annual avg = 1.9	Monthly	none	Naturally present, and in man-made chemicals.
<b>Perchlorate, ppb</b>	2		0.05	ND	26-Jul	none	Man-made chemical in rocket propellants, explosives, flares and blasting agents.
<b>Required Definitions</b>							
AL	Action Level. See "Important Definitions", above.						
(S)MCL	(Secondary) Maximum Contaminant Level. See above.						
MCLG	Maximum Contaminant Level Goal. See above.						
MRDL	Maximum Residual Disinfectant Level. See above.						
MRDG	Maximum Residual Disinfectant Goal. See above.						
TT	Treatment Technique: a required process intended to reduce the level of a contaminant in drinking water						