**City of Fall River, Department of Community Utilities, Water Division, PWS ID # 4095000**

# CONSUMER CONFIDENCE REPORT for YEAR 2014

The Mass. Dept. of Environmental Protection (MADEP) and the US Environmental Protection Agency (EPA) require Water Departments 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 on water-related activities. The Watuppa Water Board and the Department of Community Utilities, under which the Water Division operates, present our Report for 2014.

## Important statement on the availability of the 2014 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 3rd floor at One Government Center or by calling 508-324-2330.

## INDICAÇÃO IMPORTANTE NA DISPONIBILIDADE DO "CCR" DE 2014

Este relatório contem 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 Departmento de Água no terceiro andar em Government Center, ou chamando 508-324-2330.

## LES INFORMATION IMPORTANTES SUR LA DISPONIBILITE DU "CCR" de 2014

Ce rapport des informations important concernant la qualite de l'eau de votre communaute. Faite-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, deuxieme etage, Government Center, ou, par telephoner a 508-324-2330.

**ADMINISTRATION:** During 2014, the Division's Administration section initiated a pilot program for meter reading by "fixed-base" radio; began evaluation of the overall accuracy of the City's water meters; implemented a Demand Notice program for overdue bills; continued the large meter replacement program; and completed a survey of all hydrants.

**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 to Environmental Protection Agency (EPA) and Department of Environmental Protection (DEP) standards in 2014. We invite customer questions or comments. Call (508) 324-2725 for more information. The Watuppa Water Board welcomes public input. Please contact (508) 324-2330 for meeting times and locations, if you wish to provide input.

In 2014, 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, generally found NO unacceptable levels of contaminants in the water supplied to you.

A marginal exceedance of Total Trihalomethanes' (TTHMs) Locational Running Annual Average (LRAA) occurred during the third quarter at 631 Airport Road. The TTHM Maximum Concentration Limit (MCL) is 80 ppb, and the third quarter LRAA at 631 Airport Road was 84 ppb. At that time, a Public Notice was placed in the Fall River Herald News (1/6/2014) and posted on the City's website. The exceedance resulted in a Notice of Non-compliance (NON), dated March 6, 2014, from MADEP, and an administrative consent order of the same date. A corrective action plan, submitted August 27, 2014, was accepted by DEP in September, 2014.

**DISTRIBUTION:** In addition to its normal activities, during 2014 replacement of the Industrial Park water tank, installation of a booster pump station to serve the Park and Meridian St. areas, and additional water main and valve replacement were undertaken. Also, about 1,000 (40%) of the City's hydrants were flushed twice during the year. Finally, the Division acquired a new service van, dump truck, water service inspector's sedan, and a large service van.

**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. The City has other water resources including the South Watuppa Pond, Terry Brook Pond, Sawdy, Stafford and Devol Ponds, and Lake Noquochoke. Thus, Fall River has an abundant water supply.

Dams control all but one of these resources. The State Office of Dam Safety requires that the dams and associated control structures be maintained. In 2014 work was completed on the 4th St. Quequechan River control structure and started on repair of the culverts flowing under the railroad tracks near Battleship Cove.

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.

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.

**QUANTITY:** We deliver about 10,000,000 gallons of water per day to residential, commercial, municipal, and industrial customers; and for fire protection. Of that, about 400,000 gallons per day are 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. All comply with Federal and/or State requirements. After treatment the water is pumped to the City's water distribution system, which includes 250 miles of water mains, 7 storage tanks, and more than 2,000 hydrants.

## 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.

**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 *Cryptosporidum* 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 high 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.

## 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 on your lawn. If the water pressure drops (perhaps because of fire hydrant use 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 an attachment called a **backflow prevention device**. The Fall River Water Department recommends the installation of backflow 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.

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 inspector 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 by 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 leaking 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 a leak.
3. Check your quarterly bill to monitor use. Consumption is listed as CCF on the bill. 1 CCF = 748 gallons.

**Water that passes though the meter must be paid for; however, there is an abatement program for leaks.**

"Fixed" charges are also levied for collecting and treating storm water, and for water meter servicing/billing.

## Two water quality tables follow this narrative.

In Table 1, below, the U.S. Environmental Protection Agency uses the Unregulated Contaminant Monitoring Rule (UCMR) program to collect data for contaminants suspected to be present in drinking water, but that do not have health-based standards set under the Safe Drinking Water Act (SDWA). Samples are collected at the City's water treatment plant and in the distribution system where the oldest water is. The City monitored for 30 contaminants (28 chemicals and 2 viruses), in July and October. Of the 30 contaminants, 3 were detected in Fall River drinking water.

The second table, next page, is a summary or average of the results of the analysis done in 2014 on our drinking water. If you have any questions call the Director of Treatment and Resources at (508) 324-2724.

**TABLE 1, UNREGULATED CONTAMINANTS MONITORING RULE ("UCMR3")**

| Unregulated Contaminants | Location | Method ID | MRL, µg/L | Fall River water, µg/L | Sample date | Viola-tion(s) | Major Sources in Drinking Water |
|---|---|---|---|---|---|---|---|
| **Chlorate** | EPTDS | EPA 300.1 | 20 | 35.9 | 7/30/2014 | none | "Chlorate" compounds are used in agriculture as defoliants or desiccants, and may occur in drinking waters that use disinfectants such as chlorine dioxide. |
| **Chlorate** | MRTDS | EPA 300.1 | 20 | 36.0 | 7/30/2014 | none | |
| **Chlorate** | EPTDS | EPA 300.1 | 20 | 20.9 | 10/21/2014 | none | |
| **Chlorate** | MRTDS | EPA 300.1 | 20 | 20.1 | 10/21/2014 | none | |
| **Strontium** | EPTDS | EPA 200.8 | 0.2 | 18.1 | 7/30/2014 | none | Strontium, a naturally-occurring element, is used as strontium carbonate in pyrotechnics, as a catalyst in steel production, and as a lead scavenger. |
| **Strontium** | MRTDS | EPA 200.8 | 0.2 | 18.9 | 7/30/2014 | none | |
| **Strontium** | EPTDS | EPA 200.8 | 0.2 | 19.1 | 10/21/2014 | none | |
| **Strontium** | MRTDS | EPA 200.8 | 0.2 | 20.1 | 10/21/2014 | none | |
| **Vanadium** | MRTDS | EPA 200.8 | 0.2 | 0.232 | 7/30/2014 | none | Vanadium, a naturally-occurring element, is commonly used as vanadium pentoxide, a catalyst in the production of other substances. |
| | MRL | Minimum reporting level | | | | | |
| | EPTDS | Entry point to distribution system (from water treatment lant | | | | | |
| | MRTDS | Maximum residence time in distribution system | | | | | |
| | µg/L | Micrograms per liter (parts per billion) | | | | | |

# Table 2, FALL RIVER 2014 CONSUMER CONFIDENCE REPORT DATA TABLE

| Contaminant Names | MCL | MCLG | Detection Limit | Fall River Water | Sample date | Violation (s) | Major Sources in Drinking Water |
|---|---|---|---|---|---|---|---|
| **Inorganic Contaminant, ppm** | | | | | | | |
| Fluoride | 4 | 4 | | 0.9 - 1.1 | daily | none | Water Additive, promotes healthy teeth. |
| Sodium | 20 ppm* | | 0.5 | 20 | 2/24/2014 | 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 | 0.007 | 2/24/2014 | none | Naturally present in source water |
| | *per Office of Research Standards Guidelines | | | | | | |
| **Nitrate Contaminants, ppm** | | | | | | | |
| Nitrate | 10 | 10 | 0.03 | 0.03 | 2/19/2014 | none | Fertilizer use, septic tanks, erosion from natural deposits |
| Nitrite | 1 | 1 | 0.007 | ND | 2/19/2014 | none | |
| **Manganese, ppm** | **(SMCL)** 0.06 | | 0.005 | ND | 5/14/2014 | none | Essential mineral naturally present in food & the environment |
| **Organic Chemical Contaminants, ppb** | | | | | | | |
| Trihalomethanes (THMs) | 80 | n/a | 0.5 | 11.9-76.3 | Quarterly | none | Reaction by-products of chlorine and organics. THMs and HAAs |
| Haloacetic acids (HAAs) | 60 | n/a | 0.5 | 7.1-37.3 | Quarterly | none | are sampled 4 times per year, as required. |
| **Lead, ppb**, (ND = not detected) | 15 (AL not MCL) | 0 | 2 | ND to 20.0 | Last yr. 2012 | No violation @ | Corrosion of household plumbing. |
| | | | | Lead & Copper next due in 2015 | | 90th percentile | |
| **Copper, ppm** (ND = not detected) | 1.3 (AL not MCL) | 0 | 0.02 | ND to 0.70 | Last yr. 2012 | none | Corroson of household plumbing. |
| **Turbidity, NTU** | TT 1.0 | n/a | | Single highest=0.57 | Daily | none | Suspended organic & inorganic particles from soil runoff |
| Turbidity, a good indicator of filtration effectiveness, measures cloudiness of water. | | | | | | | |
| **Microbial Contaminants** | | | | | | | |
| Total coliform bacteria | 5% of monthly samples | 0 | | Highest mo.%=2.5 | 23-Jul | none | Naturally present in the environment and wastes. |
| **Radioactive Contaminants** | | | | Next Dep required sampling: 2021 | | | Decay of natural and man made deposits |
| Gross alpha particle emitters, pCu/l | 15 | 0 | | 0.99 | 12/31/2012 | none | Erosion of natural deposits. |
| Radium 226 pCi/L | 5 | 0 | | 0.02 | 12/31/2012 | none | Common trace element in the earth's crust. |
| Radium 228 pCi/L | 5 | 0 | | 0.04 | 12/31/2012 | none | Common trace element in the earth's crust. |
| **Volatile Organic Compounds** | Various limits | | | Non-detect | 19-Feb | none | Naturally present, and in man-made Chemicals |
| **Total Organic Carbon, ppm** | TT not MCL | 2 | 0.2 | Annual avg = 1.7 | Monthly | none | Naturally present, and in man-made chemicals. |
| **Perchlorate, ppb** | 2 | | 0.012 | <0.05 | 8/25/2014 | none | Man-made chemical in rocket propellants, explosives, flares and blasting agents. |

**Required Definitions**

| | | | |
|---|---|---|---|
| AL | Action Level. See "Important Definitions", above. | mrem/year | millirems per year, a measure of the amount of radiation |
| (S)MCL | (Secondary)Maximum Contaminant Level. See above. | NTU | Nephelometric Turbidity Units: measures solid materials suspended in water |
| MCLG | Maximum Contaminant Level Goal. See above. | pCi/l | picocuries per liter, a measure of radiation. |
| MRDL | Maximum Residual Disinfectant Level. See above. | ppm | parts per million (example: one pound of salt in one million pounds of water) |
| MRDG | Maximum Residual Disinfectant Goal. See above. | ppb | parts per billion, equals ppm multiplied by 1,000" |
| TT | Treatment Technique: a required process intended to reduce the level of a contaminant in drinking water | | |