

## 2008 CONSUMER CONFIDENCE REPORT

The Mass. Dept. of Environmental Protection and the US EPA requires Water Departments to provide an *Annual Consumer Confidence Report*. The report communicates to customers relevant information 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, are pleased to present our Report for 2008.

During 2008, our program of infrastructure replacement and water quality improvements continued. More water mains were replaced across the city, replacement of lead services continued, water pressure in the Townsend Hill area was increased, and the new 92-foot high water storage tank on Townsend Hill was placed into service. These system improvements continue to be funded through the water rate. In calendar 2009, more water mains will be replaced, and the two tanks at the top of Bedford Street will be taken off-line for maintenance and painting. To date, each phase of the improvement project has been accomplished on time and under budget, and has resulted in dramatic and necessary improvement to the Water System.

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**Previous Consumer Confidence Reports [[link 2007 report here](#)]**

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## Report on Water Quality

The following summarizes the drinking water quality provided during 2008. It includes information regarding the source of your drinking water, what it contains, what other sources of water may contain, and how our water compares to Environmental Protection Agency (EPA) and Department of Environmental Protection (DEP) standards. We invite customer questions or comments. Contact the Director of Water Treatment and Resources at 508-324-2725.

Last year we did thousands of tests for water quality, both on the water as produced in the treatment plant, and as taken from consumer taps. During these tests, and with the exception noted below, we detected no unacceptable levels of contaminants in the water supplied to you. In 2008 we experienced two "Tier 2" and one "Tier 1" violations. A "Tier 2" violation occurs when we do not comply with some regulation applicable to us, but does not constitute an immediate threat to health. Our Tier 2 violations were for late filing of water quality information in April 2007, and for exceeding secondary standards for Total Organic Carbon in March and June of 2007. A "Tier 1" violation includes "failure to comply with an applicable maximum contaminant level (MCL) or maximum residual disinfectant level (MRDL)". We exceeded an MCL in one "repeat" test for E. coli bacteria in July. Public Notice of this Tier 1 event was issued to TV, radio and newspaper on July 11, 2008. The Notice included the relevant information, including that the issue was resolved to the satisfaction of the Mass DEP.

**SOURCES:** Drinking water for the City of Fall River is obtained from the North Watuppa Pond. When needed, supplementary water is pumped from Copicut Reservoir into the watershed of the North Watuppa, from which it flows into the North Watuppa Pond via King Phillip and Blossom Brooks. The City also has additional water resources not currently used for drinking water. These include the South Watuppa Pond, Terry Brook Reservoir, Sawdy and Devol Ponds, and Lake Noquochoke. In summary, Fall River has an abundant water supply.

These water resources, secured by our ancestors, will be very valuable commodities in the future. Current State Regulations from the Office of Dam Safety require that work be performed on the dams and control structures associated with these ponds, and work has commenced.

**QUANTITY:** We deliver about 10,000,000 gallons of water per day to the City. This includes water supplied to residential, commercial, municipal, and industrial customers; and for fire protection. In addition, about 600,000 gallons per day is sold to the neighboring communities of Tiverton, Westport and Freetown.

The maximum capacity of the water treatment facility at the North Watuppa Pond is 24,000,000 gallons per day of finished water. The processes carried out there include disinfection by chlorination, removal of solids contaminants by flocculation/sedimentation, and filtration through sand and carbon for “polishing” and taste and odor removal. In addition, we add carbon dioxide gas to reduce pipe corrosion. The water distribution system contains seven storage tanks, and over 250 miles of distribution pipeline.

## Important Definitions

- Maximum Contamination Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.
- Maximum Contaminant Level (MCL):** The highest level of contaminant that is allowed in drinking water. MCL's are set as close to MCLG's 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 (MRDLG):** The level of a drinking water disinfectant (Chlorine, Chloramines, Chlorine Dioxide) below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- Treatment Technique:** A method by which water is treated in a water treatment facility.
- 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. It can pick up substances resulting from the presence of animals or from human activities. Contaminants that MAY be present in source water include:

**Microbial Contaminants**, such as viruses and bacteria, which 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, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining and fishing.

**Pesticides and herbicides**, which may come from a variety of sources such as agricultural, 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.

To insure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) limits the amount of contaminants in water provided by Public Water Systems. The Food and Drug Administration (FDA) and Massachusetts Department of Public Health (DPH) regulations establish limits on contaminants in bottled water that must provide the same protection for public health.

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.

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

Now that you have the above information, please go to the table on the next page to see results for our water.

## WATER QUALITY DATA - Calendar Year 2008

| Contaminant Names                    | MCL   | MCLG | Fall River Water | Date of sample | Violation (s)   | Major Sources in Drinking Water                                  |
|--------------------------------------|---|------|------------------|----------------|---|--|
| <b>Inorganic Contaminants</b>        |   |      |                  |                |   |  |
| (1) Fluoride (ppm)                   | 4   | 4    | 1                | daily          | none  | Water Additive, promotes healthy teeth.                          |
| (2) Sodium (ppm)                     | n/a   |      | 10               | 29-Jan         | none  | Component of water treatment chemicals                           |
| (6) Free Chlorine (ppm)              | 4.0   |      | 1.75             | daily          | none  | Disinfectant, kills bacteria                                     |
| <b>Nitrate Contaminants</b>          |   |      |                  |                |   |  |
| (3) Nitrate (ppm)                    | 10  |      | 0.12             | 29-Jan         | none  | Fertilizer use, septic tanks, and erosion from natural deposits  |
| <b>Organic Chemical Contaminants</b> |   |      |                  |                |   |  |
| (4) Total Trihalomethane             | 80  | n/a  | 25.3             | 7-Mar          | none  | Reaction by-product of chlorine with residual organic materials. |
| (5) Haloacetic acid (ppb)            | 60  | n/a  | 19.05            | 7-Mar          | none  |  |
| <b>Lead</b>                          |   |      |                  |                |   |  |
|                                      | AL not MCL                                      |      |                  |                | (# of sites found above AL)   |  |
| (7) Lead (ppb)                       | (15)  | 0    | Less than 10     | 19-Jul         | No violation at 90th percentile   | Corrosion of household plumbing.                                 |
| (8) Copper (ppm)                     | (1.3)   | 0    | 0.03             | 19-Jul         | 0   | Corrosion of household plumbing.                                 |
| <b>(9) Turbidity, NTU</b>            | 5.0   | n/a  | 0.07             | 15-Apr         | none  | Soil, clays, treatment chemicals giving cloudiness to water.     |
| <b>Microbial Contaminants</b>        |   |      |                  |                |   |  |
| (10) Total Coliform Bacteria         | >5% of monthly samples                          | 0    | Compliant        | weekly         | 1<br>Occurred Jul 7 - 10, 2009  | Naturally present in the environment                             |
| <b>Radioactive Contaminants</b>      |   |      |                  |                |   |  |
| (11) Beta/photon emitters (mrem/yr)  | 4 mrem/yr                                       | 0    | 1.3              | Next in 2012   |   | Decay of natural and man made deposits                           |
| (12) Gross alpha activity (pCi/l)    | 15pCi/l   | 0    | 0.2              | Next in 2012   |   | Erosion of natural deposits.                                     |
| (13) Radium 226 & 228                |   |      |                  | Next in 2012   |   |  |
| <b>Volatile Organic Compounds</b>    | Various limits                                  |      | Non-detect       | 30-Jan         | none  | Man made Chemicals   |
| <b>Perchlorate</b>                   | 1.0 ppb   |      | Non-detect       | 16-Jul         |   | Manmade Chemical   |
| <b>Total Organic Carbon</b>          | 35% Removal                                     |      | Compliant        | 15-Feb         | none  | Naturally occurring in surface waters.                           |
| <b>Required Definitions</b>          |   |      |                  |                |   |  |
| AL                                   | Action Level. See Important Definitions, above. |      |                  | mrem/year      | millirems per year, a measure of the amount of radiation                          |  |
| MCL                                  | Maximum Contaminant Level. See above.           |      |                  | NTU            | Nephelometric Turbidity Units, a measure of solid material 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, for 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 part of the process of water purification.                 |  |