



City of New Bedford

2014 Water Quality Report

Jonathan F. Mitchell
Mayor

Introduction:

The New Bedford Department of Public Infrastructure – Water Division (Public Water supply I.D. #4201000) is committed to providing you with safe, clean drinking water. We are pleased to present a summary of the quality of the water provided to you during the past year. Regular monitoring and testing ensures that the water supplied by the New Bedford Department of Public Infrastructure meets, or exceeds all state and federal requirements. This report summarizes the laboratory results for all samples collected and tested. Responsibility for maintaining water quality resides with our staff of certified water treatment plant operators, licensed by the Massachusetts Board of Certification of Operators of Drinking Water Supply Facilities.

Working for You:

In a continuing effort to provide our customers with high quality drinking water, many activities were undertaken and completed in 2014.

- 117 Services replaced or repaired.
- 460 feet of new or replaced water mains installed.
- 393 Valves inspected & exercised.
- Leak detection survey of the entire (miles) system completed.
- Dive inspections of the Water Tower & High Hill Reservoir completed.
- 24 Hydrants repaired/replaced/installed.
- 22 large water main breaks repaired.
- 12 gate valves replaced.
- 1,596 Hydrants flushed.

The Source of Your Water:

The water treated at the Quittacas Water Treatment Plant for the City of New Bedford comes from a surface supply comprised of five ponds. The principal storage area is Little Quittacas Pond, located in the Town of Rochester. The other ponds are Great Quittacas, Pocksha, Assawompsett, and Long Pond situated in the towns of Freetown, Lakeville, and Middleboro. Treatment consists of conventional filtration, disinfection, corrosion control, and fluoridation (as of January 2007). The City of New Bedford also supplies water to parts of Freetown and Acushnet along with Dartmouth on a seasonal basis and Fairhaven on an emergency basis.

The Source Water Assessment and Protection (SWAP) program assesses the susceptibility of public water supplies to potential contamination by microbiological pathogens and chemicals. The Massachusetts Department of Environmental Protection assigned a susceptibility ranking of “high” to the New Bedford Water Division using the information collected during the assessment. The SWAP report notes the key issues of aquatic wildlife, agriculture, transportation corridors, transmission lines, residential land uses, recreation, golf courses, and an oil release site, as existing in the water supply protection area for the five ponds. The complete SWAP report is available at the Water Division Office, 1105 Shawmut Avenue, New Bedford and online at <http://mgcmTraining.mass.gov/eea/agencies/massdep/water/drinking/source-water-protection-for-drinking-water-supplies.html#7>. For more information, contact Charles Kennedy at (508) 763-2231.

Discussion of Detected Impurities:

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. New Bedford DPI 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 (800-426-4791)** or at <http://www.epa.gov/safewater/lead>.

9 of the 55 samples collected for lead analyses in 2014 had results greater than the action level of 15 ppb. The Lead and Copper Rule allows for 5 samples or 10% of the samples to exceed 15 ppb. Infants and children who consume water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight defects in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. The New Bedford DPI has initiated a public education program to explain the health effects of lead and steps that can be taken to reduce exposure to lead in drinking water. Along with this, lead service lines connecting the water mains to homes are systematically being replaced in the City. At the Water Treatment plant, corrosion control treatment has been optimized to minimize leaching of lead from the piping into the water. Continued sampling and testing for lead is ongoing to monitor the levels in the drinking water.

Additional Health Information:

To insure that tap water is safe to drink, The Department of Environmental Protection and EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. Food and Drug Administration and the Massachusetts Department of Public Health regulations establish limits for contaminants in bottled water that 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 EPA’s **Safe Drinking Water Hotline (800-426-4791)**.

The sources of drinking water (both tap & 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 radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- **Microbial:** such as viruses & bacteria, this may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- **Inorganic:** such as salts & metals, this can be naturally occurring or result from urban storm water 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, storm water runoff and residential uses.
- **Organic chemicals;** which include synthetic and volatile organics that are by-products of industrial processes and petroleum production, and can, also, come from gas stations, urban storm water runoff and septic systems.
- **Radioactivity;** which can be naturally occurring or be the result of oil and gas production and mining activities.

Some people may be more vulnerable to contaminants in drinking water than is the general population. Immune-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* are available from the **Safe Drinking Water Hotline (800-426-4791)**.

Addition of Fluoride:

As directed by the New Bedford Health Department, fluoride is now being added to the New Bedford Drinking Water supply. Treatment began January 8th, 2007. The optimum dosage is 1.0 parts per million (ppm) with an operational range of 0.9 – 1.2 ppm. At this level it is safe, odorless, colorless, and tasteless. There are over 3.9 million people in 140 Massachusetts Water Systems and 184 million people in the United States who receive the health and economic benefits of fluoridation.

How to Read the Following Table:

This table shows the results of our water quality analysis. Every regulated contaminant that we detected in the New Bedford Water Supply, even in the most insignificant traces is listed here. The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health (MCLG), the amount detected, the usual sources of such contaminant, footnotes explaining our findings, and a key to units of measurement. Definitions of MCL and MCLG are important. The data present in this report is from testing performed in 2014 or otherwise indicated. All testing was done in accordance with drinking water regulations.

CONTAMINANT	MEETS MCL	RANGE DETECTED	AVERAGE	MCLG	MCL	SAMPLE DATE	TYPICAL SOURCE
Total Trihalomethanes ⁽¹⁾ (ppb)	Yes	23 - 44	44	N/A	80 ⁽¹⁾	2014	By-Products of drinking water chlorination
Haloacetic Acids (ppb)	Yes	20 – 56	48	N/A	60 ⁽¹⁾	2014	By-product of drinking water chlorination
Turbidity (NTU)	Yes	0.07 - 0.41	0.10	N/A	(2)	2014	Soil Runoff
Total chlorine Residual (ppm)	Yes	1.13 – 2.30	1.75	MRDLG ⁽⁷⁾ 4	MRDL ⁽⁸⁾ 4	2014	Product of chloramination
Sodium (ppm)	NA	26	N/A	N/A	N/A ⁽³⁾	1/28/2014	Naturally occurring; by product of Corrosion control
Total Coliform ⁽⁴⁾ (% of monthly positive samples)	Yes	0	0	0	5	2014	Naturally present in the environment.
Barium (ppm)	Yes	0.009	N/A	2	2	1/28/2014	Erosion of natural deposits.
Fluoride (ppm)	Yes	0.8 - 1.1	1.0	4	4	2014	Water additive which promotes strong teeth.
Chromium (ppb)	Yes	N/A	1.1	100	100	1/28/2014	Discharge from steel and pulp mills; erosion of natural deposits.
Nitrate (ppm)	Yes	0.054	N/A	10	10	1/28/2014	Run-off from fertilizer use. Leaching from septic tanks, sewage. Erosion of natural deposits.

Contaminant	Meets Action Level	90 th Percentile	Action Level	#sites above AL	Sample Date	Typical Source
Lead (ppb) See Note 5	No	20	15	9	2014	Corrosion of Household Plumbing Systems; erosion of natural deposits.
Copper (ppm)	Yes	0.05	1.3	0	2014	Erosion of natural deposits; Corrosion of household plumbing systems; leaching from wood preservatives

UNREGULATED CONTAMINANTS: ⁽⁶⁾

Contaminant	Average of Levels Detected	Range of Levels Detected	Sample Date	Typical Sources of Substance
Chlorate (ppb)	148	47 - 280	2014	By-product of drinking water chlorination.
Total Chromium (ppb)	0.29	N.D. - 0.42	2014	Naturally occurring element.
Chromium-6 (ppb)	0.034	N.D. - 0.057	2014	Naturally occurring element.
Strontium (ppb)	28	26 - 31	2014	Naturally occurring element.
Vanadium (ppb)	0.26	N.D. - 0.35	2014	Naturally occurring element.

Footnotes:

(1) Some people who drink water-containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems and may have an increased risk of getting cancer; the MCL is based on average. (2) Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system. Compliance is based on a TT, with no individual samples exceeding 1 NTU and 95% of samples/month less than 0.3 NTU. The lowest monthly percentage was 99%. (3) The Massachusetts Department of Environmental Protection maintains a guideline level of 20 ppm; (4) Of the 109 samples collected per month; all samples indicated the absence of total coliform. (5) In 2014, 55 samples were collected for lead analysis. (6) Unregulated contaminants are those for which the EPA has not established Drinking Water Standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining their occurrence in drinking water and whether future regulation is warranted. (7) The maximum residual disinfectant level goal (MRDLG) is the level of a drinking water disinfectant, below which, there is no known expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants. (8.) The maximum residual disinfectant level (MRDL) is the highest level of disinfection allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for the control of microbial contaminants.

Terms and Abbreviations used in Data Tables:

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 a contaminant that is allowed in drinking water. MCL's are set as close to the MCLGs as feasible using the best available treatment; **Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow; **90th Percentile;** Ninety percent of the samples is below this level. (nine of ten sites samples were at or below this level); **Treatment Technique (TT):** A process aimed to reduce the level of a contaminant in drinking water; **Parts per Million (ppm) or Milligrams per liter (mg/l):** (One penny in ten thousand dollars); **Parts per billion (ppb) or Micrograms per liter (ug/l):** (one penny in ten million dollars); **N/A:** Not applicable; **NTU:** Nephelometric Turbidity Units.

Water Conservation:

Water Conservation measures ensures adequate water reserves for the most critical residential and emergency uses and can also cut the cost of water treatment. **TIPS FOR CONSERVING WATER**

1. Check all household utilities for leaks
2. Take shorter showers
3. Water your lawns sparingly

Questions or Comments:

Do you have questions about information in this report? If you do, please call Charles Kennedy, Asst. Superintendent at (508-763-2231, or visit our office at 1105 Shawmut Avenue. We encourage public interest and participation in our community's decisions affecting drinking water. Find out more about the Department of Public Infrastructure on the city's website at www.newbedford-ma.gov. Water Quality Data for community water systems throughout the United States is available at www.waterdata.com.

Spanish – Este informe contiene informacion muy importante sobre su agua beber. Tradúzalo o hable con alguien que lo entienda bien.

French – Ce rapport des informations concernant la qualite de l'eau de votre communaute. Faites-le traduire, ou parlez-en a un ami qui le comprend bien.

Portuguese – A informacao neste documento e extremamente importante. Para uma traducao completamente em portugues, faca favor de telefonar (508-991-6151 e uma copia, em portugues, sera mandada pelo correlo a sua casa. Obrigado.