

# The 2003 Annual Water Quality Report

(also known as the 2004 Consumer Confidence report)

As required by the Environmental Protection Agency - a Department of the US Government

El informe contiene informacion impotante sobre la calidad del agua en su comunidad. Traduzcalo a hable con alguien que lo entienda bien.

## **Pawtucket Water Supply Board**

The Pawtucket Water Supply Board is a semi-autonomous agency of the City of Pawtucket, Rhode Island. The Pawtucket Water Supply Board operates a water system that serves the Cities of Pawtucket and Central Falls and the Valley Falls section of Cumberland. Wholesale customers are Seekonk, MA and Cumberland, RI.

The Pawtucket Water Supply Board of Directors is comprised of six members. Four of those members are appointed by the Mayor of the City of Pawtucket and confirmed by the Pawtucket City Council. The fifth member is the Finance Director of the City of Pawtucket, who serves ex-officio. The sixth member is a City Councilor appointed by the Pawtucket City Council.

The current board is: Mary Tetzner - Chairperson, Donald Barbeau, William Masuck, Pamela Braman, Ronald Wunschel - City of Pawtucket Finance Director, and Thomas Hodge - Pawtucket City Councilor.

## **Excellent Quality Drinking Water**

The PWSB is committed to providing a safe and reliable water supply to its consumers and is happy to provide you with its year 2002 water quality report. This report provides information on PWSB's drinking water quality and what it contains. The report contains some EPA-mandated information that is repeated each year. We are once again proud to report that PWSB's drinking water met or surpassed all requirements of the Federal Safe Drinking Water Act (SDWA) every single day in the year 2003.

The PWSB has entered into a contract with EarthTech for the design, build and operation of a new water treatment plant and for the operation of the existing water treatment plant. PWSB is also addressing security issues and continues to make the appropriate changes when necessary.

I trust that you will find the 2003 water quality report informative and useful.

*Mary E. Tetzner - Chairperson*

## How do I read this table?

It's easy! The table shows the results of our water quality analyses. Every regulated contaminant that we detected in the water, even in the most minute traces, is listed here along with the highest levels allowed by regulation (MCL), the ideal goals for public health, the amounts detected, the usual sources of such contamination, footnotes explaining our findings and a key to units of measurement.

### TABLE KEY

*AL*= Action Level    *MCL*= Maximum Contaminant Level    *MCLG*= Maximum Contaminant Level

Goal    *MFL*= Million fibres per liter

*mrem/year* = millirems per year (a measure of radiation absorbed by the body)    *NTU* = Nephelometric Turbidity Units

*pCi/l* = picocuries per liter (a measure of radioactivity)    *ppm* = parts per million or milligrams per liter (*mg/l*)

*ppb* = parts per billion or micrograms per liter (*ug/l*)    *ppt* = parts per trillion or nanograms per liter    *ppq* = parts per quadrillion or picograms per liter

*TT* = Treatment Technique

### TABLE DEFINITIONS

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

*MCLG*: (Maximum Contaminant Level Goal) 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.

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

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

*Variances and Exemptions*: State or EPA permission not to meet an MCL or treatment technique under certain conditions.

THE DATA IN THIS REPORT IS FROM THE MOST RECENT TESTING DONE IN ACCORDANCE WITH REGULATIONS.

<i>Inorganic Contaminant</i>	<i>Period</i>	<i>Unit</i>	<i>MCL</i>	<i>MCLG</i>	<i>Highest Detected Level</i>	<i>Range</i>	<i>Major Sources</i>	<i>SDWA Violation</i>
Copper	2002	ppm	AL=1.3	1.3	0.170 @ 90th percentile	<0.002-0.319	Corrosion of household plumbing systems. Erosion of natural deposits. Leaching from wood preservatives	No, 90th percentile
Lead	2002	ppb	AL=15	15	<5 @ 90th percentile	<1-24	Corrosion of household plumbing systems. Erosion of natural	No, 90th percentile

							deposits	
Flouride*	2003	ppm	4	4	1.42	0.47-1.42	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.	No
Total Organic Carbon (TOC)	2003	ppm	TT	n/a	5.5	3.1-5.5	Naturally present in the environment	No
<b>Microbiological Contaminant</b>	<b>Period</b>	<b>Unit</b>	<b>MCL</b>	<b>MCLG</b>	<b>Highest Detected Level</b>	<b>Range</b>	<b>Major Sources</b>	<b>SDWA Violation</b>
Turbidity**	2003	NTU	TT	n/a	0.28	Lowest monthly percentage of samples meeting levels = 100%	Soil runoff	No
Total Coliform Bacteria	2003	presence of coliform bacteria in > 5% of monthly samples	n/a	0	0.51%	0.0%-0.51%	Naturally present in the environment	No
<b>Volatile Organic Compounds</b>	<b>Period</b>	<b>Unit</b>	<b>MCL</b>	<b>MCLG</b>	<b>Highest Detected Level</b>	<b>Range</b>	<b>Major Sources</b>	<b>SDWA Violation</b>
Total Trihalomethanes (TTHM)	2003	ppb	80	0	61.71 Running Quarterly Average	37.71-61.71	By-product of drinking water chlorination	No
Haloacetic Acids (HAA5)***	2003	ppb	60	0	26.50 Running Quarterly Average	14.29-26.50	By-product of drinking water chlorination	No
<b>Unregulated Contaminants</b>	<b>Period</b>	<b>Unit</b>	<b>MCL</b>	<b>MCLG</b>	<b>Highest Detected Level</b>	<b>Range</b>	<b>Major Sources</b>	<b>SDWA Violation</b>

Sodium	2003	ppm	100	42.7	32.2-42.7	Erosion of natural deposits; addition of chemical for pH adjustment and coagulation.	No
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**FOOTNOTES:**

\* Pawtucket Water adds fluoride to its treated water as an aid in dental cavity prevention in young children.

\*\* 0.28 ntu was the highest single turbidity measurement recorded. The lowest monthly percentage of samples meeting the turbidity limit was 100%.

\*\*\* These results represent the sum of 5 Haloacetic Acid compounds. HAA5s will become required monitoring under the recently passed Disinfection By-Products regulation scheduled for 12/2001 implementation.

**SODIUM**

Sodium is an Unregulated Contaminant with a Health Advisory level rather than a Maximum Contaminant level. PWSB measures sodium in the raw water (before treatment) at a level of between 32.2 and 42.7 parts per million. The Health Advisory level is 20 parts per million. Individuals with sodium intake problems should consult with their health care provider if they are concerned about the sodium level in PWSB's water.

**ADDITIONAL HEALTH INFORMATION**

To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water.

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 risk and effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline: (800)-426-4791.

The sources of drinking water (both tap water and bottled water) 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 mineral 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:

(A) Microbial contaminants, such as viruses and bacterial, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

(B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or results from urban storm runoff; industrial or domestic wastewater discharges, oil and gas production, mining or farming.

(C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water runoff; and residential uses.

(D) Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.

(E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure the tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems.

Some people may be more vulnerable to contaminants in drinking water than is the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, persons with HIV/AIDS and/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. Environmental Protection Agency/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline: **(800)-426-4791**.

## CONCERNING LEAD IN OUR WATER

Most lead in the home comes from paint and non-water related exposure. Whatever lead is in the water comes from old fixtures, solders and antiquated piping.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water.

Pawtucket Water has an ongoing lead service replacement program. Additional information is available from the Water quality Supervisor who can be reached at **(401)-729-5022**.

**Pawtucket Water has been delivering safe, dependable drinking water, 7 days a week, 24 hours a day since February 2, 1878, when water was turned on to the Town and its 24 mile distribution system.**

## Facts and Figures

Total water pumped in 2003	4,363,594,827 Gallons
Average daily demand	13,064,665 Gallons
Maximum day demand ..... July 8, 2003	17,583,279 Gallons
Minimum day demand ..... Dec. 25, 2003	8,935,768 Gallons

Distribution System	
Services	23,000
Distribution Mains	241.9 Miles
Valves	6,050
Hydrants	1,680
Water Treatment Plant	
Placed in service	1939
Filtration capacity	27,000,000 Gallons per day
Treatment process	Conventional Carbon Media
Abbott Run Watershed Reservoirs	
Storage Capacity	5,009,000,000 Gallons
Watershed Safe Yield	21,500,000 Gallons per day

## **WATER QUALITY REPORT**

Pawtucket Water is pleased to present a summary of the quality of the drinking water provided to you, our customers, during the past year. The Safe Drinking Water Act (SDWA) requires all water utilities to issue an annual "Consumer Confidence" report to its customers. This is the first in a series of reports intended to promote increased consumer awareness of the quality of their water and the actions their utility is taking to insure continued safe drinking water. Our report details where your water comes from, what it contains and how it compares to standards established by the federal government. Rest assured, Pawtucket Water and its employees are committed to providing our customers with the safest and most reliable drinking water possible.

### **THE WATER IS SAFE TO DRINK.**

The PWSB ensures the safety of the drinking water provided to the customer through a program of monitoring and testing. The PWSB Water Quality Laboratory and the RI Department of Health (RIDOH) extensively monitor the water both before and after the treatment process. The water quality is monitored even after it goes through the distribution mains and is delivered to the customer. There are numerous federal and state regulations that govern drinking water. These regulations provide structure on how, when and why samples are to be taken. The regulations tell the water supplier what to monitor for, how often the tests should be run and how much of something can be present in the water. At the present time, there are over 70 regulated contaminants and over 30 unregulated contaminants that must be monitored by the PWSB. The PWSB, with help from RIDOH, tests for over 170 different contaminants in your drinking water. These tests are performed daily, monthly, quarterly or yearly as required.

The water delivered to the customer is monitored daily for turbidity, pH, color, odor, fluoride and bacteriological contamination. The Water Quality Laboratories collect over 20 samples every day with an average of 600 samples taken each month. By sampling so often we are not only meeting federal and state regulations, we are ensuring that the water we provide our customers is SAFE of drink.

The table included in this report only lists those results that had detectable amounts of contaminant. All of the results reported are below the maximum limit set by regulations. If you would like a complete listing of all the analysis done on the water, please call the PWSB Water Quality Laboratory at 729-5022.

## **OVERVIEW**

The PWSB operates the second largest water utility in the State of Rhode Island. The PWSB obtains its water from a series of surface water reservoirs located in Cumberland, RI. The raw water is treated through conventional treatment techniques including carbon filtration, and is transmitted to consumers through a distribution network. The PWSB retails water to the cities of Pawtucket and Central Falls, and the Valley Falls section of Cumberland. Wholesale customers include the Towns of Cumberland, RI and Seekonk, MA.

## **FINANCING OF THE PWSB**

The PWSB operates as an enterprise fund. As such its costs and expenses including debt service are recovered from user charges. The PWSB is required to maintain its books and records in accordance with generally accepted accounting principles as applied to government agencies.

The PWSB utilizes the National Association of Regulated Utility Commissioners system of accounts. This system is audited annually. The PWSB is required to file quarterly and annual reports with the Rhode Island Public Utilities Commission.

The Rhode Island Public Utilities Commission regulates the rates the PWSB charges. Rate increases are granted in the form of gross revenues required to operate the water supply system. The Public Utilities Commission is a three-person quasi-judicial body that rules on proposed rate increases after considering relevant positions and testimony relative to the proposed rate increase. From the date the request to increase rates is filed to the granting of an increase takes up to six months.

Once the rate increase is granted the PWSB can start charging the ratepayers for any water consumed and services provided on the date the new rates become effective.

The PWSB uses a quarterly billing cycle, so with bills payable in thirty days the PWSB does not receive the full effect of the revenue increase for seven months. If you add in the time from the filing date for the PWSB to realize the full effect of the revenue increase it takes thirteen months.

## **SOURCE WATER ASSESSMENT**

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

Our monitoring program continues to assure that the water delivered to your home is safe and wholesome. However, the assessment found that the water source is at "MEDIUM" risk of contamination. Protection efforts are necessary to assure continued water quality. The complete source Water Assessment Report is now available.

### **HOW CAN YOU BE INVOLVED?**

Meetings of Pawtucket's Water Supply Board begin at 5 P.M. on the second Tuesday of every month and are open to the public. Meetings are held in the Board's conference room on the second floor at the Board's 85 Branch Street headquarters in Pawtucket.