

# The 2002 Annual Water Quality Report

(also known as the 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, David Pasquariello. 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 2002.

The PWSB has resolved the issue on a company for the new water treatment plant and is proceeding with negotiating a contract for the plant. The PWSB is also addressing security issues and continues to make the appropriate changes when necessary.

I trust that you will find the 2002 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*                          | 2002          | ppm         | 4          | 4           | 0.96                            | 0.16-1.40    | Erosion of natural deposits. water additive which promotes strong teeth. Discharge from fertilizer and aluminum factories | No                    |
| Nitrates (as Nitrogen)             | 2002          | ppm         | 10         | 10          | 0.51                            | 0.30-1.80    | Raw water   | 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**                        | 2002          | ntu         | TT         | 0           | 0.62                            | 0.09-0.62    | Soil runoff   | 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)       | 2002          | ppb         | 80         | 0           | 51.36 Running Quarterly Average | 50.31-57.45  | By-product of drinking water chlorination   | No                    |
| Haloacetic Acids (HAA5)***         | 2002          | ppb         | 60         | 0           | 23.54 Running Quarterly Average | 21.34-24.36  | By-product of drinking water chlorination   | No                    |
| <b>Radionuclides</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> |
| Gross Beta/photon Emitters****     | 2002          | pCi/L       | 50         | 0           | 2.48                            | 1.36-2.48    | Decay of natural and man made deposits  | No                    |
| Gross Alpha                        | 2002          | pCi/L       | 15         | 0           | 1.03                            | 0.00-1.03    | Decay of natural and man made deposits  | No                    |
| Radium                             | 2002          | pCi/L       | 5          | 0           | 0.41                            | 0.00-0.41    | Decay of natural and man made deposits  | NA                    |

## **FOOTNOTES:**

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

\*\* 0.62 ntu was the highest single turbidity measurement recorded. The lowest monthly percentage of samples meeting the turbidity limit was 100%. The average turbidity value for 2002 was <0.22 ntu.

\*\*\* 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.

\*\*\*\* Gross Beta/photon Emitters are measured in pCi/L. A result of <50 pCi/L is considered to be in compliance; no further analysis is required. Radionuclide compliance monitoring is conducted every four years.

## **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 23.2 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**.

## SAFE DRINKING WATER **HOTLINE**: ( 800 ) -426 -4791

For more information, call the **Pawtucket Water Supply Board** at ( 401 ) -729 -5000

**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 2002               | 4,769,896,396 Gallons |
| Average daily demand                     | 13,051,771 Gallons    |
| Maximum day demand ..... August 14, 2002 | 21,395,465 Gallons    |

|  |                            |
|--|----------------------------|
| Minimum day demand ..... Dec. 25, 2002 | 9,120,930 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 Pawtucket (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 the northeast portion of the State, treats all the raw water through conventional treatment techniques including carbon filtration, and transmits the treated water to a retail and wholesale transmission and distribution network. The PWSB retails water to city of Central Falls and the town of Cumberland. Wholesale customers include the towns of Cumberland Rhode Island and Seekonk, Massachusetts.

## **SECURITY**

The PWSB has completed a Vulnerability Assessment of its operation, buildings and the watershed area. We have been working on projects to enhance security and protection of the watershed, water supply and buildings of the PWSB. We have already completed many straightforward and common sense projects that increase security and reduce threats from terrorism.

Our Emergency Response Plan is being reviewed, revised and updated to ensure it is current, relevant and conforms to the Vulnerability Assessment recommendations.

As consumers and ratepayers you can assist by being another set of eyes and ears for the PWSB. If you see unusual or suspicious activity on the watershed or around the reservoirs you should immediately call us at 401-729-5023. This is the number of our water treatment plant operators who are on the job 24 hours a day seven days a week. If you feel that something is wrong with your water during normal working hours you should call our laboratory at 401-729-5022. At all other times call our water treatment plant operators at 401-729-5023.

Those of you who have questions can email us at [rnsalois@pwsb.org](mailto:rnsalois@pwsb.org) or contact the Chief Engineer at 401-729-5001.

## **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 will soon be 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.