

PORTSMOUTH WATER AND FIRE DISTRICT

1944 East Main Road

P.O. Box 99

Portsmouth, RI 02871

(401) 683-2090

info@portsmouthwater.org

ADMINISTRATIVE BOARD MEMBERS

**Joseph A. Magliocco, Tax Assessor
Chairman**

G. David Crockett, Tax Assessor

William L. Douglas, Jr., Treasurer

Philip T. Driscoll, Clerk

Richard E. Gottlieb, Water Commissioner

Michael W. Nott, Moderator

Gaetano Polselli, Jr., Tax Collector

2000 CONSUMER CONFIDENCE REPORT

Dear Customer

We are pleased to present a summary of the quality of the water provided to District customers during the past year. The Safe Drinking Water Act (SDWA) requires that water utilities issue an annual "Consumer Confidence" report to customers in addition to other notices that may be required by law. This report details where our water comes from, what it contains, and how it compares to EPA and state standards. The Portsmouth Water and Fire District is committed to providing you with the safest and most reliable water supply. Informed consumers are our best allies in maintaining safe drinking water. *Some water customers of the Newport Water Department and the Naval Station Newport water system, particularly in the Redwood Farms, Bay View and Melville areas, in addition to properties with private wells, may receive this consumer notice, even though they are not customers of the District. This over-coverage was unavoidable in our effort to ensure that all potential water users within the District receive this legal notice through a Postal Customer mailing.*

We encourage public interest and participation in our community's decisions affecting drinking water. Regular meetings of the Administrative Board of the Portsmouth Water and Fire District are held on the first and third Tuesday of every month at 7:15 PM, at the District's office at 1944 East Main Road. The public is welcome and encouraged to attend. Minutes of meetings are available upon request. The information in this report is available on the World Wide Web at <http://www.asrwwa.org>.

Overview

The Portsmouth Water and Fire District is a quasi-municipal agency created by the RI General Assembly and is responsible for providing drinking water and fire hydrants for ninety percent of mainland Portsmouth. The District is governed by a seven-member elected Administrative Board and is not affiliated with the Town of Portsmouth government. The District holds an annual election of officers on the second Wednesday in June.

In 2000, the District had an operating budget of \$1.91 million, which was funded by water sales, property taxes and service charges. The District's average daily demand in 2000 was 1.16 million gallons. The District does not own any water supplies and, in 2000, purchased all of its water on a wholesale basis from the Newport Water Department. As part of its efforts to provide a long-term, adequate water supply for Portsmouth, the District has undertaken a fractured bedrock groundwater evaluation and test well program. This study should be complete in 2002.

The Administrative Board's goal is to provide the customers of the District with an adequate supply of the best quality water available, now and into the future. To that end, the District is a member of the Aquidneck Island Partnership's Drinking Water Subcommittee, which is charged with evaluating and recommending methods to protect the island's drinking water supply reservoirs. As part of its commitment to improve water quality, the District continues to require that new water main extensions be looped-in to existing water mains whenever possible. In addition, the Board annually allocates funding for one or more in-house loop-in projects for existing dead-end mains.

Water Source

In 2000, the Portsmouth Water and Fire District purchased its water from the Newport Water Department. The water is treated at Newport's Lawton Valley Water Treatment Plant in Portsmouth, which draws surface water from the Lawton Valley Reservoir, St. Mary Pond, and Sisson

Pond in Portsmouth, Nonquit Pond in Tiverton and Watson Reservoir in Little Compton. In 2000, the District did not purchase water from the Stone Bridge Fire District.

Concerning Lead in Our Water

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. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

Health Effects 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 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 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:

- (a) Microbial contaminants, such as viruses and bacteria, 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 result 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, stormwater 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 stormwater 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 that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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, 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).

The Portsmouth Water and Fire District prepared this report. We'll be happy to answer any questions about the District and our drinking water quality. Contact William J. McGlenn, General Manager and Chief Engineer (401-683-2090).

The Portsmouth Water and Fire District is a proud member and supporter of the American Water Works Association, the New England Water Works Association and the Rhode Island Water Works Association

PLEASE REFER TO THE WATER QUALITY TABLE BELOW

How Do I Read This Water Quality Table?

It's easy! Our water is tested to assure that it is safe and healthy. The column marked Detected Level shows the highest test results during the year. Major Sources shows where this substance usually originates. Footnotes explain important details. Definitions of key terms are:

- Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant 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.
- Action Level (AL):** The concentration of a contaminant, which, if exceeded, triggers treatment, or other requirement that a water system must follow.
- Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

Key to Abbreviations in the Water Quality Table

- AL = Action Level
- MCL = Maximum Contaminant Level
- MCLG = Maximum Contaminant Level Goal
- N/A = Not Applicable
- NTU = Nephelometric Turbidity Units
- pCi/l = picocuries per liter (a measure of radioactivity)
- ppb = parts per billion, or micrograms per liter (µg/l)
- ppm = parts per million, or milligrams per liter (mg/l)
- TT = Treatment Technique

WATER QUALITY TABLE *

CONTAMINANT (FOOTNOTE)	YEAR TESTED	UNIT	MCL	MCLG	DETECTED LEVEL	RANGE	MAJOR SOURCES IN DRINKING WATER	VIOLATION
Microbiological Contaminants								
Total Coliform Bacteria (1)	2000	# of Positive Samples	Presence of coliform bacteria in no more than one sample per month	0	1	N/A	Naturally present in the environment.	NO
<i>E. Coli</i> Bacteria (2)	2000	# of Positive Samples	A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive	0	1	N/A	Human or animal fecal waste.	NO
Turbidity (3) (4)	2000	NTU	TT = 5	N/A	1.5	N/A	Soil runoff.	NO
			TT = 95% of monthly samples < 0.5		95.61% < 0.5			
Radioactive Contaminants								
Beta/photon emitters (5)	2000	pCi/l	50**	0	3.0	1.9 - 3.0	Decay of natural and man-made deposits.	NO
Inorganic Contaminants								
Chromium (5)	2000	ppb	100	100	8	6 - 8	Erosion of natural deposits.	NO
Copper (6)	1997	ppm	AL = 1.3	1.3	0.06	N/A	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.	NO
Fluoride (7) (4)	2000	ppm	4	4	1.73	0.54 – 1.73	Water additive, which promotes strong teeth.	NO
Lead (8)	1997	ppb	AL = 15	0	5.2	N/A	Corrosion of household plumbing systems; Erosion of natural deposits.	NO
Nitrate (5)	2000	ppm	10	10	1.6	0.3 – 1.6	Runoff from fertilizer use; Leaching from septic tanks, sewerage; Erosion of natural deposits.	NO
Nitrite (5)	2000	ppm	1	1	0.02	N/A	Runoff from fertilizer use; Leaching from septic tanks, sewerage; Erosion of natural deposits.	NO
Volatile Organic Contaminants								
TTHMs (Total Trihalomethanes) (9)	2000	ppb	100	N/A	113	31.3 – 202	By-product of drinking water chlorination.	YES
Unregulated Contaminants								
Sodium (5)	2000	ppm	N/A	N/A	17.1	11.2 – 17.1	Erosion of natural deposits; Road-salt runoff.	N/A

* The data presented in this table is from the most recent testing done in accordance with regulations. Test results are from the Portsmouth Water and Fire District's distribution system unless otherwise noted in the footnotes.

** EPA considers 50 pCi/l to be the level of concern for beta particles.

Water Quality Table Footnotes

- (1) In July of 2000, one of 23 routine samples tested positive for Total Coliform Bacteria. As a precaution, system flushing and extra chlorination was performed immediately. Repeat samples taken within 24-hours tested negative for Total Coliform Bacteria. The drinking water was in compliance with standards. All of the 265 other routine samples taken during the year tested negative for Total Coliform Bacteria.
- (2) In July of 2000, the one routine sample that tested positive for Total Coliform Bacteria also tested positive as *E. Coli* Bacteria. Three repeat samples taken within 24-hours tested negative for Total Coliform Bacteria, which indicates the absence of *E. Coli* Bacteria. The drinking water was in compliance with standards.
- (3) Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration systems.
- (4) Measured at the Newport Water Department Lawton Valley Treatment Plant after treatment.
- (5) Measured in the raw (untreated) water of the Newport Water Department reservoirs.
- (6) Copper results are for the 90th percentile value from the sampling of 30 high-risk homes, which are tested at the customer's tap once every three years. None of the 30 homes tested exceeded the Action Level.
- (7) Fluoride is added to the water at a rate of 1.0 ppm to help prevent tooth decay in children.
- (8) Lead results are for the 90th percentile value from the sampling of 30 high-risk homes, which are tested at the customer's tap once every three years. Two of the 30 homes tested exceeded the Action Level. If more than 3 tested homes exceeded the Lead Action Level of 15 bbp, we would be required to take

- appropriate action to reduce the amounts being detected. A violation would occur if we did not take action.
- (9) The reported Detection Level for TTHMs is based on a combined, four-quarter running average for four test sites. The noted violation for TTHMs was for the 3rd and 4th quarters of 2000, only. The higher than normal TTHM levels appear to be the result of increased organics in the raw water and lower flow rates through the Newport Lawton Valley Water Treatment Plant due to system operational changes by the Newport Water Department. To reduce the level of TTHMs in the treated water, the Newport Water Department has switched to year-round use of chlorine dioxide rather than chlorine gas for prechlorination of raw water. In addition, the District has minimized, to the extent possible, its use of sodium hypochlorite for rechlorination of water in its distribution system. More recent test results obtained during the 1st and 2nd quarters of 2001 indicate that the four-quarter running average for TTHMs is 86.7 ppb and 69.0 ppb, respectively, which is in compliance with standards. Also, for the 1st and 2nd quarters of 2001, the TTHM Range, which indicates the lowest and highest result for any quarterly-test at any of the four test sites during the year, is 35.5 ppb to 65.8 ppb. The values in this range are all below the MCL. Some people who drink water containing TTHM's (Total 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.