



Annual **WATER**
QUALITY
REPORT

Reporting Year 2011



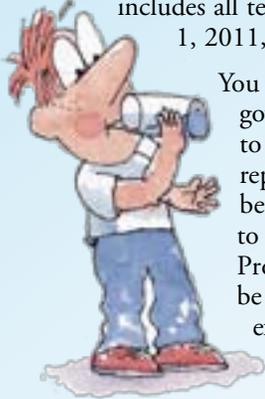
Presented By _____

Providence
Water

PWS ID#: RI1592024

Providence Water — World-Class Drinking Water at a Bargain Price

We at Providence Water are proud to present our annual water quality report to you. This report includes all testing performed between January 1, 2011, and December 31, 2011.

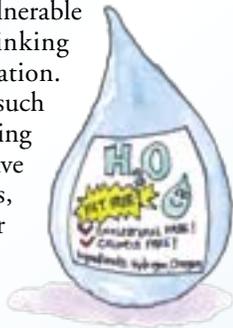


You need to know that the federal government requires water systems to use very specific language in this report — language that can often be confusing or even alarming to some people. Be assured that Providence Water continues to be a safe and reliable source of exceptional drinking water for you and your family.

Please share with us your thoughts or concerns about the information in this report. After all, well-informed customers are our best allies.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug



Administration regulations establish limits for contaminants in bottled water, which 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 these contaminants does not necessarily indicate that the water poses a health risk.

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, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater 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, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Where Does My Water Come From?

Your drinking water comes entirely from surface water reservoirs located in a 92.8 square mile, mostly rural, forested watershed basin in Scituate.

The main source of this water supply is the Scituate Reservoir, which is the terminal reservoir in a network of six interconnected reservoirs: The Scituate Reservoir, Regulating Reservoir, Barden Reservoir, Ponaganset Reservoir, Westconnaug Reservoir, and the Moswansicut Reservoir.



Tap vs. Bottled Water

Did you know that if you drank your recommended eight glasses of water a day from bottled water, it would cost up to \$1400 for a year's supply? That same amount of tap water would cost only about \$0.50 cents.



According to a four-year study by the Natural Resources Defense Council, bottled water is not any safer than tap water. In fact, according to government estimates, 40 percent of bottled water is actually just bottled tap water. Can you believe it?

And the U.S. Food and Drug Administration allows for less rigorous testing and purity standards for bottled water than the U.S. Environmental Protection Agency requires for community tap water. The FDA even exempts bottled water that is packaged and sold within the same state from meeting any standards. That represents 7 out of every 10 bottles sold in the United States.

Check out the eye-opening details of the NRDC study on their website: www.nrdc.org/water/drinking/bw/exesum.asp.

Lead in Home Plumbing

In 2011, Providence Water had an exceedance of the lead action level which required us to conduct public notification and education. Informational brochures were mailed to every Providence Water consumer and delivered to local medical facilities and doctors' offices. Information was also posted on our Web site, and news releases and public service announcements were delivered to local media sources.

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. We are responsible for providing high-quality drinking water, but we 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 3 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 or at www.epa.gov/safewater/lead.

QUESTIONS?

U.S. EPA Hotline: (800) 426-4791

Rhode Island Department of Health, Drinking Water Quality: (401) 222-6867

Providence Water

Water Quality Hotline: (401) 521-6300, ext. 7161

Laboratory: (401) 521-6300, ext. 7332

Billing Department: (401) 521-5070

Emergency Leak: (401) 521-6300, ext. 7150

Message From The General Manager

I do not know how many of our customers take the time to read this brochure, known in the industry as a Consumer Confidence Report (CCR). Providence Water is required to distribute the CCR once a year to all customers. Certain sections of the report are mandated by law, and in some instances exact word-by-word language is prescribed. Therefore, much of the report is highly technical and contains many words not usually encountered this side of Chemistry 101.

Rest assured that Providence Water is not trying to alarm or confuse you. The bottom line is that we want you to have the utmost confidence in the very essential product that is piped into your home or business. Wouldn't it be great if all the products we purchased went through the same "full disclosure" as your water does!

In your CCR, we explain where your water comes from, important health information about your water, and the presence of lead and other contaminants in your water. We explain what regulated substances are detected in your water, the amount detected, the source of the substance, and whether the amount detected exceeds the prescribed maximum level.

One specific problem I want to bring to your attention is scattered reports of discolored water throughout Providence Water's distribution system. Sometimes this condition is temporary and may be caused by hydrant testing or valve exercising in the affected area. In these instances, water will typically return to its clear state in a day or two. There have been areas where the discolored water problem is more persistent, and in these cases, the discoloration is probably caused by corrosion and/or tuberculation of unlined cast iron pipes.

Providence Water is aggressively addressing this problem through a combination approach of replacing water mains, cleaning and lining water mains, the strategic use of unidirectional flushing, and modifications to the water treatment process designed to make the water less corrosive.

I assure you that I am personally committed to focusing Providence Water's entire organization on this problem. Resolution will take time, manpower, and a significant dollar investment in replacing aging infrastructure. Short-term and long-term plans are being developed even as you read this report.

Meanwhile, your patience and understanding in this matter are greatly appreciated. A hotline has been established to help customers who are experiencing discolored water. Please call 521-6300, extension 7161, to report a water discoloration problem.



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General Information

Meetings of Providence Water's Board of Directors are normally scheduled for the third Wednesday of each month and are open to the public. Meetings begin at 5:00 p.m. and are held in the first-floor Walsh Memorial boardroom at our headquarters located at 552 Academy Avenue, Providence, RI.

Join the Providence Water Customer Alert Network for FREE and Stay Informed!



If you haven't joined the FREE Providence Water Customer Notification Alert Network, what are you waiting for?

Give us your contact information, and we'll be sure to send you important water quality messages to any or all phone and computer devices that you use — your home phone, your work phone, texts or voice mail messages on your cell phone and your e-mail accounts!

Visit www.provwater.com, click on the FREE Customer Notification Network link, and instruct us on exactly how you want us to send urgent and immediate information about your drinking water directly to you. We won't share the information with anyone. We simply want you to be well informed about your drinking water and possible water service problems. Don't wait. Sign up today!



What's In My Water?

Providence Water tests thousands of water samples each year to ensure the safety of your drinking water. We want you to know exactly what was detected during these tests and how much of each substance was in your drinking water. The Rhode Island Department of Health allows us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. The most recent sample data are included, along with the year in which the sample was taken. The tables below show only those contaminants that were detected in test samples of your drinking water.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2011	2	2	0.009	NA	No	Erosion of natural deposits
Chlorine (ppm)	2011	[4]	[4]	0.37	ND–1.3	No	Water additive used to control microbes
Di(2-ethylhexyl) Phthalate¹ (ppb)	2011	6	0	3.5	ND–3.5	No	Discharge from rubber and chemical factories
Fluoride (ppm)	2011	4	4	0.97	0.73–0.97	No	Erosion of natural deposits; Water additive that promotes strong teeth
Haloacetic Acids [HAAs]² (ppb)	2011	60	NA	20.9	8.3–24.1	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes]² (ppb)	2011	80	NA	75.8	46.6–85.9	No	By-product of drinking water disinfection
Total Coliform Bacteria³ (% positive samples)	2011	5% of monthly samples are positive	0	1.0	NA	No	Naturally present in the environment
Total Organic Carbon⁴ (ppm)	2011	TT	NA	1.04	0.69–1.35	No	Naturally present in the environment
Turbidity⁵ (NTU)	2011	TT	NA	0.2	0.04–0.2	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2011	TT	NA	100	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE AL/TOTAL SITES	EXCEEDANCE	TYPICAL SOURCE
Copper (ppm)	2011	1.3	1.3	0.06	0/111	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead⁶ (ppb)	2011	15	0	21	20/119	Yes	Corrosion of household plumbing systems; Erosion of natural deposits

UNREGULATED AND OTHER SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Hexavalent Chromium (ppb)	2011	0.022	ND–0.022	Erosion of natural deposits; Discharge from steel and pulp mills
Sodium (ppm)	2011	9.8	NA	Erosion of natural deposits; Runoff from road de-icing operations

¹ DEHP was detected in a single sample of source water. All prior and subsequent test results for this compound have been negative.

² Compliance is based upon the quarterly running annual average, and the range is based upon the lowest and highest individual measurements.

³ This value refers to the highest percentage of positive samples during the year. For 2011, Providence Water collected and analyzed 2,325 samples for Total Coliform Rule compliance. Three of these samples were positive for total coliform bacteria. None were positive for *E. coli* bacteria.

⁴ In order to comply with the U.S. EPA standard, the removal ratio must be greater than 1 as a quarterly running annual average. The detected level is the lowest removal ratio per quarter. Range is the lowest and highest removal ratio per month.

⁵ 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 system.

⁶ For 2011, Providence Water had an exceedance of the lead action level. Although not an SDWA violation, this did trigger a public notification requirement necessitating a pamphlet on the hazards of lead be mailed to all our customers.

Definitions

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

MCL (Maximum Contaminant Level): 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. Secondary MCLs (SMCLs) are set to protect the odor, taste, and appearance of drinking water.

MCLG (Maximum Contaminant Level Goal): 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.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

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