

2011 WATER QUALITY REPORT
Lincoln Water Commission
96 Old River Road
Lincoln, RI 02865

The Quality of Your Drinking Water

The quality of your drinking water is excellent and your water is **SAFE** to drink. The Lincoln Water Commission (LWC) and all its employees are committed to providing you with high quality drinking water that meets or surpasses all state and federal standards. We continue to make significant investments in our distribution system; we maintain a close relationship with our primary water supplier, the Providence Water Supply Board; we stay in regular communication with state and federal regulatory agencies; we train and test our staff constantly; and we sample the water frequently to insure that it meets all requirements.

Any Questions?

This report is developed in accordance with the Environmental Protection Agency's regulations and as required by the Safe Drinking Water Act. After reviewing this report, if you would like to know more about your water system, or if you have any questions, please call Mr. John Faile, P.E., Superintendent at 401-334-6735. The Lincoln Water Commission office is open 7:30AM–4:00PM, Monday through Friday. You are also invited to attend the Board of Water Commissioners' regular meeting on the second Wednesday of every month. Further information is available on our web site www.lincolnwatercommission.com.

What is the Source of Your Drinking Water?

Providence Water Supply Board (PWSB)

The water delivered to consumers in Lincoln originally comes from the Providence Water Supply Board's Scituate Reservoir system. It is located in a watershed totaling 92.8 square miles of mostly rural, forested lands. When full the reservoir system contains over 41 billion gallons of water. Before delivery to consumers all water is treated at the P. J. Holton Water Purification Plant in accordance with state and federal requirements. The Scituate Reservoir system is the primary supply of drinking water for seventeen communities including the City of Providence. In 2010 the Providence Water Supply Board was the sole supplier of water.

Well Number 4

Well Number 4 is owned and operated by the Lincoln Water Commission and is located in the basin of the Blackstone River identified as the Lower Blackstone-Moshassuck Groundwater Reservoir. Operation of the well ceased in October of 2004 and the well was placed on standby status. Re-activation of the well is possible after successful completion of the testing requirements for community public water supplies. The LWC continues to inspect the well field and watershed area on a regular basis.

Emergency Connections

The Lincoln Water Commission maintains pipeline connections with the surrounding communities of Woonsocket, Cumberland, and Pawtucket to provide water in case of emergencies or during periods of high demand. No water was provided by these sources in 2010.

Source Water Assessment

In 2003 the RI Department of Health and the University of Rhode Island, in cooperation with other state and federal agencies, assessed the pollution threats to LWC Well Number 4. 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; and the sampling history of the water source. The assessment found that this water source is at **MEDIUM** risk of contamination. This means that the well could one day become contaminated. Protection efforts are necessary to assure continued water quality. The complete Source Water Assessment Report is available at the Lincoln Water Commission office and at Lincoln Town Hall.

How is the Drinking Water Delivered?

Drinking water from all sources is delivered to the consumers in Lincoln through a distribution system that includes five (5) pumping stations, five (5) storage tanks, and 133 miles of pipes. Water services to each building include a connection to the main pipe, a shut-off valve, and a water meter. Water is available for fire fighting through more than one thousand public and private fire hydrants.

The Substances that Could be Found in Your Tap 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, potential health effects, and appropriate means to lessen risks can be obtained by calling EPA's Safe Drinking Water Hotline (800-426-4791) or from the EPA web site at www.epa.gov/safewater/hfacts/html. The sources of drinking water (both tap water and bottled water) include rivers, lakes, reservoirs, streams, and wells. As water travels over the land's surface or through the ground, it dissolves naturally occurring minerals and radioactive material, and can be polluted by animals or human activity. Contaminants that might be expected in untreated water include: biological contaminants, such as viruses and bacteria; inorganic contaminants, such as metals and salts; pesticides and herbicides; organic chemicals from industrial or petroleum use; and radioactive materials. To ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that 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 the general population. Immuno-compromised persons such as people undergoing cancer chemotherapy, 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.

LEAD SHORT INFORMATIONAL STATEMENT- 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. The Lincoln Water Commission 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 or at <http://www.epa.gov/safewater/lead>

How do we Know that the Drinking Water is Safe?

We test the water for *regulated* contaminants as required and we monitor for other *unregulated* contaminants considered important by State and Federal agencies. *Unregulated* contaminant monitoring helps EPA to determine where certain contaminants occur and whether they need to regulate them in the future. Our primary supplier, Providence Water, has not detected any *regulated* contaminants in their supplies to Lincoln that exceed state or federal limits.

Regulated Contaminants Testing

The Tables below identify contaminants that have an established limit from EPA and were detected in the water sources from the Providence Water Supply Board or were identified in samples from the water distribution system during 2010. Not listed are more than 100 contaminants that are tested for annually but were not detected. Testing for certain contaminants is conducted less than annually because the concentration remains fairly constant.

SUBSTANCE (Contaminant) (units)	SOURCE TEST PERIOD 2010	DETECTED LEVEL	RANGE OF DETECTION	HIGHEST LEVEL ALLOWED MCL	IDEAL GOAL MCLG	SOURCES OF CONTAMINANT	SDWA Viola- tion
Chlorine (as Cl₂)	LWC	0.44	0.01-0.44	MRDL	MRDLG	Water additive used to control microbes	No
Free Residual (ppm)	PWSB	0.34	0.0-1.6	4.0	4.0		
Barium (ppm)	PWSB	0.01	NA	2.0	2.0	Erosion of natural deposits.	No
Fluoride (1) (ppm)	PWSB	1.98	0.78-1.98	4.0	4.0	Water additive promotes strong teeth. Erosion of natural deposits.	No
Lead (2)(4) (ppb)	LWC	3	0 of 30	AL=15	0	Corrosion of household plumbing. Erosion of natural deposits.	No
	PWSB	21	22 of 111				
Copper (2) (ppm)	LWC	0.2	0 of 30	AL=1.3	1.3	Corrosion of household plumbing. Erosion of natural deposits.	No
	PWSB	0.06	0 of 100				
Total Coliform Bacteria (5) (% positive)	LWC	0.0%	0.0-0.0%	5%	0%	Naturally present in the environment	No
	PWSB	0.5%	0.0-0.5%				
Fecal Coliform/ E. Coli Bacteria (present/absent)	LWC	0	NA	0	0	Human and animal fecal waste	No
	PWSB	0					
Turbidity (3) (NTU)	PWSB	0.30	0.05-0.30	TT	NA	Soil runoff	No
Total Trihalo-methanes (ppb)	PWSB	59.7	34.0-98.6	80	0	By-product of drinking water chlorination	No
Haloacetic Acids (ppb)	PWSB	23.1	7.4-35.6	60	0	By-product of drinking water chlorination	No
Total Organic Carbon (TOC) (removal ratio)	PWSB	1.21	0.90-1.59	TT	NA	Naturally present in the environment	No
Nitrate as N (ppm)	PWSB	0.06	NA	10	10	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits.	

- (1) Providence Water adds Fluoride to the water as an aid in dental cavity prevention in young children
- (2) Monitoring for Lead and Copper is required once every three (3) years due to low detected levels. 90th percentile reported.
- (3) Turbidity is a measure of the cloudiness of the water. It is a good indicator of water quality and the effectiveness of disinfectants.
- (4) Providence Water exceeded the lead action level in 2010. Although not a SDWA violation, this did trigger a public notification requirement. The Lincoln Water Commission did not exceed the action level in its last sample round.
- (5) Reported as the presence of Coliform bacteria in > 5% of the monthly samples. LWC had zero positive samples in 2010.

Units:
 ppm = parts per million (1 cent in \$10,000)
 ppb = parts per billion (1 cent in \$10,000,000)
 NTU = Nephelometric Turbidity Units
 pCi/L = picocuries per liter

Definitions:
 TT = Treatment Technique (A required process intended to reduce the level of a contaminant in drinking water)
 ND= Non Detectable at testing limit

Definitions (continued):
 AL=Action Level (The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow)
 MCL = Maximum Contaminant Level The highest level that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology.
 MCLG = The level of a contaminant in drinking water below which there is no known or expected risk to health

Unregulated Contaminant Monitoring

Two *unregulated* contaminants tested for are the parasites Cryptosporidium and Giardia, tiny single-celled protozoans that are highly resistant to normal disinfection techniques such as chlorination. Providence Water detected none in 2008 and did not conduct monitoring in 2010. You can learn more about Cryptosporidium and Giardia by visiting the Providence Water Supply Board web site at www.provwater.com. One *unregulated* substance (Sodium) was detected in the surface water from Providence and is reported below in a separate table because of the high level of general interest.

UNREGULATED SUBSTANCE	TEST PERIOD	UNITS	HIGHEST LEVEL DETECTED	RANGE OF DETECTION	STANDARD (STD) OR HEALTH ADVISORY (HA)	SOURCES OF CONTAMINANT NOTES
Sodium	PWSB(2010)	ppm	9.8	NA	NA	Erosion of natural Deposits. Runoff from road deicing.

The Lincoln Water Commission (LWC)

The Lincoln Water Commission began in 1955. It was created by an act of the General Assembly as a quasi-municipal agency responsible for building and operating a public water system for the Town of Lincoln. All operating revenue is generated from the sale of water. Originally, the older sections of Lincoln were serviced by three separate water systems; Woonsocket, Pawtucket, and Cumberland. Fire protection from those systems was minimal and some major industrial building fires prompted the need for a Town wide system. It was decided to build a water system that would include a water supply and fire protection for the residents of the Town as well as allow for future growth and development. The Lincoln Water Commission purchased the water lines within the town boundaries from the neighboring communities and over the next 50 years connected them with new water transmission mains, built water storage facilities, drilled large capacity wells, and expanded the distribution network. In 1985, the Lincoln Water Commission connected to the Providence Water system for its primary water supply and discontinued use of its wells. Today, after over half a century, the Lincoln Water Commission system consists of some 133 miles of water mains serving most of the Town. A system of emergency connections to neighboring communities is in place to provide additional water if needed.

Operating a water system today is a complex business. There are countless constantly changing Federal and State regulations to meet. The quality of the water is of prime concern to assure that it is safe to drink and free of contaminants. Maintaining quality throughout a distribution system requires trained and experienced personnel. All Lincoln Water Commission staff are licensed by the Rhode Island Department of Health and are required to take Continuing Education courses. Water quality is regularly monitored throughout the system to meet the strict requirements of the federal "*Safe Drinking Water Act*". The quantity of the water available is also important since, in addition to supplying the daily needs of the consumers, systems must be capable of providing sufficient amounts for fire fighting throughout the town. The Lincoln Water Commission monitors the available water on a daily basis and may institute conservation measures during drought conditions to provide a minimum supply of water to all consumers.

We are proud of the organization that we have built to serve your water needs. The Lincoln Water Commission system has helped provide the foundation for the economic growth needed to support the Town's municipal services and the school system. Even though our water system is small in comparison to large city systems, it must meet the same regulatory requirements, provide well-trained personnel, and provide, safe reliable water at an affordable cost. We continue to provide these services at rates that are lower than most of the public water systems throughout the state.

Further information about the Lincoln Water Commission can be found at www.lincolnwatercommission.com.