

Annual Drinking Water Quality Report for 2010

Town of Long Lake Water District #1 - Raquette Lake, New York 13436

(Public Water Supply ID NY2000130)

Introduction

To comply with State and Federal regulations, Water District #1 annually issues a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year your tap water met all State drinking water health standards. This report provides an overview of last year's water quality. Included are details about where your water comes from, what it contains and how it compares to State standards.

If you have any questions about this report or concerning your water supply, please contact Thomas Murdock, Water Superintendent, at (315)354-4107 or the NYS Department of Health, ("DOH") 41 St. Bernard Street, Saranac Lake, NY 12983 at (518)891-1800. If you want to learn more, please attend any of our regularly scheduled Town Board meetings. They are held the second and last Wednesday of each month unless otherwise specified.

Where does our water come from?

In general, 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, in some cases, 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: microbial contaminants, inorganic contaminants, pesticides and herbicides, organic chemical contaminants and radioactive contaminants. In order to ensure that tap water is safe to drink, the State of New York and the EPA prescribe regulations which limit the amount of certain contaminants found in water provided by public water systems. The DOH and the FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water source is 3 drilled wells located off Sagamore Road, approximately one mile from Route 28. A water treatment building houses chlorination equipment, storage tanks and control equipment. Our water system serves a varying number of people through 71 service connections.

Are there contaminants in our drinking water?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, organic and inorganic compounds, nitrate, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, radiological and synthetic organic compounds. The table presented below depicts which compounds were detected in your drinking water. The state allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore some of the data, though representative of the water quality, is more than one year old.

It should be noted that all drinking water, including bottled drinking water, may be reasonably 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 EPA Safe Drinking Water Hotline (800-426-4791).

Table of Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Radioactive Contaminants							
Radium 228	No	2008	0	PCI/L	0	5 (MCL)	Erosion of natural deposits
Gross Alpha	No	2008	2.1	pCi/L	0	15 (MCL)	Erosion of natural deposits.
Gross Beta	No	2008	2.2	pCi/L	0	50 (MCL)	Decay of natural deposits and man-made emissions.
Microbiological Contaminants							
Total Coliform Bacteria	N	8/3/10	Positive ⁵	na	0	Any confirmed positive sample	Naturally present in the environment
Inorganic Contaminants							
Nitrate	No	3/10	0	mg/L	10	10 (MCL)	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Iron	No	9/03	0.058	mg/L	n/a	0.3 (MCL)	Naturally occurring.
Manganese	No	9/03	0.007	mg/L	n/a	0.3 (MCL)	Naturally occurring.
Chloride	No	9/03	0.68	mg/L	n/a	250	Naturally occurring or indicative of road salt contamination.
Cyanide (as free Cyanide)	No	2/05	2	ug/l	200	200	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories
Fluoride	No	2008	0.8	mg/l	n/a	2.2	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
Sulfate	No	9/03	16.7	mg/L	n/a	250 (MCL)	Erosion of natural deposits.
Sodium ³	No	9/03	7	mg/L	n/a	n/a	Naturally occurring; road salt.
Copper	No	2010	0.19 ¹ 0.033-0.156 ²	mg/L	1.3	1.3 (AL)	Corrosion of household plumbing systems.
Lead	No	2010	0.006 ¹ 0.001-0.006 ²	mg/L	0	0.015 (AL)	Corrosion of household plumbing systems.
Disinfection Byproducts							
Haloacetic Acids (HAA5s)	No	8/09	1	ug/l	n/a	60 (MCL)	By-product of drinking water chlorination
Total Trihalomethanes (TTHMs)	No	8/09	14	ug/L	n/a	80 (MCL)	By-products of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains measurable amounts of organic matter.

NOTES:

1 – The level presented represents the 90th percentile of the 5 sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is the average of the 4th and 5th highest lead and copper values detected at your water system.

2 – The level presented represents a range of the lead and copper samples collected. The action level for lead and copper was not exceeded at any of the 5 test sites.

3 – Water containing more than 20 mg/L of sodium should not be used for drinking by people on very restricted sodium diets. Water containing more than 270 mg/L of sodium should not be used for drinking by people on moderately restricted sodium diets.

5 - A violation occurs at systems collecting less than 40 samples per month when two or more samples collected in the same month are total coliform positive.

Definitions:

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.

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 requirements which a water system must follow.

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

Non-Detects (ND): Laboratory analysis indicates that the constituent is not present.

Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Milligrams per liter (mg/l): Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

Micrograms per liter (ug/l): Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

Pico curies per liter (pCi/L) – Pico curies per liter is a measure of the radioactivity in water

What does this information mean?

As you can see by the table, our system had no violations. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the State.

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 Town of Long Lake 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>.

Is our water system meeting other rules that govern operations?

Last year our system was in compliance with all applicable State drinking water monitoring and reporting requirements. A Boil Water Order was issued however to the Raquette Lake Water District on July 10, 2010 because the yield from our wells could not keep up with the system demand and we connected to the old surface water reservoir. Using unfiltered surface water is a violation of the New York State Sanitary Code. The 2 production wells were redeveloped to increase the yield and a 3rd well, drilled as a test well, was also redeveloped, sampled and connected to the system by August 12, 2010 when the Boil Water Order was lifted.

The New York State Department of Health sets drinking water standards and has determined that the presence of microbiological contaminants is a health concern at certain levels of exposure. If water is inadequately treated, microbiological contaminants in that water may cause disease. Disease symptoms may include diarrhea, cramps, nausea and possibly jaundice, and any associated headaches and fatigue. These symptoms, however, are not just associated with disease-causing organisms in drinking water but may be caused by a number of factors other than your drinking water. The New York State Department of Health has set enforceable requirements of treating drinking water to reduce the risk of these adverse health effects. Treatment such as filtering and disinfecting the water removes or destroys microbiological contaminants.

Do I need to take special precautions?

It should be noted that some people may be more vulnerable to contaminants in drinking water than 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 lesson the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline.

Source Water Assessment Summary

The DOH has completed a source water assessment for this system based on available information. The assessment includes an assigned susceptibility rating based on the risk posed by each possible source of contamination and how easily contaminants can move through the ground to the wells. The susceptibility rating is only a rough estimate of the potential for contamination of the source water and it does not mean that the water delivered to consumers is, or will become contaminated.

As mentioned earlier in this report, our water is derived from 3 drilled wells. The source water assessment has rated these wells as having an elevated susceptibility. No significant sources of contamination were identified. The wells draw water from an unconfined aquifer and overlying soils are not known to provide adequate protection from potential contamination. Please note that our water supply is disinfected to ensure that the finished water delivered to your home meets the New York State's drinking water standards for microbiological contamination.

The DOH will use this information to direct future source water protection activities. These may include water quality monitoring, resource management, planning, and education programs. A copy of the assessment, including a map of the assessment area, can be obtained by contacting us as noted above.

Why save water and how to avoid wasting it?

While it may seem counterintuitive to economize water in an area where lakes, ponds and streams abound, there is still a need to protect and conserve this resource. Our new system has an adequate amount of water to meet demands, but it is not limitless. Climate changes can have a significant effect on the supply and in fact, in the recent past, some scientific data has indicated that the Adirondacks have experienced less annual precipitation. Conserving water preserves a vital resource which our lives depend upon: since it is not endless, it should not be abused.

But there are more reasons why it is important to conserve water. Saving water saves on the costs associated with providing potable water. Saving water reduces energy consumption and the need to construct costly pumping systems. Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential fire fighting needs are met.

You can play a role in conserving water by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It's not hard to conserve water. Conservation tips include:

- Automatic dishwashers use 15 gallons for every cycle: load it to capacity before you run it.
- Turn off the tap when brushing your teeth.
- Take shorter showers.
- When washing dishes or pots & pans by hand, only turn the tap on when rinsing them.
- Check every faucet in your home for leaks and repair them.
- Check your toilets for leaks: put a few drops of food coloring in the tank and watch a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons a year!

- Install water saving devices in your home. For more details, talk to the Water Department.
- Report possible water main leaks to the Water Department.
- Correct conditions in your water service that will prevent the need to run “bleeders” in the winter. (For financial help or incentives to make corrections, read further.)
- Commercial or residential water users whose properties are next to a lake or a pond could rig up a system to pump water from the lake or pond for lawn or garden watering.
- For more information and tips about how to save water, visit www.epa.gov/watersense.

DID YOU KNOW?

A dripping faucet could waste from 1000 to 6000 gallons in a year? A continuous leak from a hole sized as follows, at 60 psi water pressure, would, over a three month period, waste water in the following amounts:

Diameter of stream		Number of Gallons
1/4"	○	1,181,500
3/16"	○	666,000
1/8"	○	296,000
1/16"	•	74,000

A word about “bleeders”. It is the practice of a number of homeowners to run a hose all winter to prevent the freezing of the home’s water lines. In most cases, this practice is the result of a faulty design in the plumbing and it can be corrected. Be advised that in the future, (*date unknown at this time*), the Town will be compelled by regulatory oversight agencies to adopt a law against running bleeders. Those of you who practice this should begin planning how to fix your problem. Remember that the water flowing out of your hose adds cost to the entire District; using the diameter example above, you can calculate how many gallons you are “bleeding”. FYI, there are funds available through the Hamilton County “Home Improvement Program”: some homeowners may qualify for this assistance to remedy a water-line freezing problem. Call Avalon Associates, Inc. at (518)798-0777 if you want to pursue this.

A message from Supervisor Seaman:

As most of you are aware, we encountered a significant problem in 2010 when both the wells in Raquette ran dangerously low on water. We took immediate steps to correct that problem and are continuing to do so today.

In addition to redeveloping the two existing production wells last year, we also redeveloped the unused test well, installed a pump and wellhead on it and put it online. This well adds an additional 17 gallons per minute to the system and reduces the load on the two original production wells. To ensure we have accurate, up to date water level measurements, we installed hydro-transducers in the wells to monitor the water level.

Late last year we started the process of applying for a water supply permit for the test well that is now production well number 3. We have contracted with Delaware Operations Inc. as the engineers to complete this process.

Finally, to ensure we have sufficient funds available for future redevelopment of the Raquette Lake wells, this year the Board started budgeting \$2000 a year to put in a fund for that purpose. From this time forward we will make every effort to be proactive rather than reactive.

Sincerely, Clark Seaman, Town Supervisor

Closing

Thank you for allowing us to continue to provide you and your family with water. The Raquette Lake Water Department works diligently to provide top quality water to every tap. We ask that all our customers do their part in protecting our water sources: this means not only from pollution, but from vandalism or from acts of terrorism. Our water system is at the heart of our community, our way of life and our children's future.

Thomas Murdock, Raquette Lake Water Superintendent