

Annual Drinking Water Quality Report for 2006

Village of Colonie

2 Thunder Road □ Colonie, New York 12205

In conjunction with The Latham Water District
(Public Water Supply ID #0100194)



INTRODUCTION

To comply with State and Federal regulations, the Village of Colonie in conjunction with the Latham Water District is annually issuing 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. We are proud to report that our system did not violate a maximum contaminant level or any other water quality standard. 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 drinking water, please contact us. Questions about the Village's system in general should be directed to the Village Superintendent of Public Works, Carl Fleshman at 869-6372. The Superintendent of the Division of Latham Water is John W. Frazer, Jr., P.E. Any questions about the quality of the water or treatment should be directed to him at 518-783-2750. This report can also be found on our website — www.colonievillage.org. We want you to be informed about your drinking water, and the public is invited to participate in the decisions that affect the Division of Latham Water. These decisions are made by the Town Board at their regularly scheduled meetings or at special public hearings. Town Board member Brian Hogan is Latham Water's liaison to the Board. Public notice of all meetings is printed in the Colonie Spotlight and other local newspapers. Generally, Town Board meetings are held on the 2nd and 4th Thursdays of each month.

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 can pick up substances resulting from the presence of animals or from human activities. 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 and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The New York State Health Department's (NYSDOH) and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Latham's raw water sources are a blend of the Mohawk River, Stony Creek Reservoir, and five (5) wells located on Onderdonk Avenue.

The Stony Creek Reservoir is located in the town of Clifton Park, NY and is an infrequently used primary raw water source. Although there has been no recorded contamination of the Reservoir, potential sources can include highway runoff (de-icing chemicals and sand), residential lawn care runoff, agricultural runoff, and accidental spills.

The wells are located on the treatment plant property and are used year-round. One of the wells is used at all times, however, in an effort to "cycle" recharge to the groundwater table. Although there has been no recorded contamination of the Wells, potential sources can include agricultural runoff, industrial discharges and accidental spills.

The quality of our sources before treatment is good, and the treatment plant finishes the job by removing any solids, metals (primarily iron and manganese), color-producing compounds or other organic and inorganic compounds. At the treatment plant, we continuously monitor the clarity and disinfectant level to ensure the bacteriological safety of the water. Chemical treatment consists of oxidation, coagulation, chlorination and pH adjustment. Physical treatment consists of aeration, flocculation, settling and filtration.

SOURCE WATER ASSESSMENTS

The NYS DOH has completed a Source Water Assessment for the Mohawk River upstream of the Latham Water intake and the Stony Creek Reservoir. The assessments are summarized below. The assessments have identified potential contamination. It does not mean that the water delivered to your home is or will become unsafe to drink.

The assessment of the Mohawk River found that the amount of pasture in its watershed results in a potential for protozoa contamination. While there are many facilities present along the Mohawk that are permitted to discharge, they do not represent an important threat to source water quality.

The assessment of the Stony Creek Reservoir found that the amount of agricultural lands and the golf course in its watershed results in a potential for protozoa, phosphorus and pesticide contamination.

Latham's water treatment plant performs multi-level treatment to insure you receive safe drinking water. Additionally, as this annual report shows your water is routinely monitored for a great number of potential contaminants.

FACTS AND FIGURES

The total water produced in 2007 was over 3.77 billion gallons. The Village

water system serves 8,500 people through 3,270 service connections — virtually all of this water is sold through metered connections. A small portion of the water produced by the treatment plant, however, is not billed to our customers. Unbilled water is used for water main testing, fire hydrant flushing, firefighting, water main breaks, etc. We estimate this “unbilled” amount of water to be 9.2%. The daily average of water treated and pumped into the distribution system by Latham is 10,338,953 gallons per day. In 2007, Village customers were charged \$3.19 per 1,000 gallons of water.

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, inorganic compounds, nitrate, nitrite, 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. Some of our data, though representative, are 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’s Safe Drinking Water Hotline (800-426-4791) or the Albany County Health Department at 447-4620.

Latham Water District routinely tests your drinking water for numerous contaminants. Bacteriological and total coliform testing is performed a minimum of 80 times per month and routine physical and chemical testing is performed everyday, sometimes as often as every 4 hours. Turbidity and chlorine residual monitoring is performed continuously, using automated on-line measuring devices. Other contaminants tested for

include: turbidity, inorganic compounds, synthetic and naturally occurring organic compounds, nitrate, lead and copper, volatile organic compounds, total trihalomethanes, and haloacetic acids. None of the compounds we analyzed for were detected in your drinking water above the maximum contaminant level as defined by the State drinking water standards.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

The results of Latham Water District’s water quality testing shows that we were in compliance with all applicable State and Federal drinking water quality requirements. However, we are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During 2007 we did not complete the required monitoring on one daily sample for chlorite and chlorine dioxide and therefore cannot be sure of the quality of our drinking water during that time. The failure to monitor for these constituents is classified as a minor monitoring violation by the Environmental Protection Agency.

Beginning January 1st, 2002, we were required to analyze chlorine dioxide and chlorite at the distribution system entry point once daily. On July 15th, 2007 the sample was not collected and subsequently could not be analyzed. All other daily samples were collected and analyzed as required by law and were below the MCL. In order to prevent this from happening in the future, the Latham Water District has reviewed and revised its sampling policies and procedures.

INFORMATION ON CRYPTOSPORIDIUM

Cryptosporidium is a microbial pathogen found in surface water and groundwater under the influence of surface water. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. During 2007, as part of our routine sampling plan, nine combined Mohawk River and well source water samples were collected and analyzed for Cryptosporidium oocysts. Of

these raw untreated source water samples, three were positive for the presence of Cryptosporidium. Therefore, our testing indicates Cryptosporidium may be present in our raw untreated source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, a gastrointestinal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their health care provider regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

INFORMATION ON GIARDIA

Giardia is a microbial pathogen present in varying concentrations in many surface waters and groundwater under the influence of surface water. Giardia is removed/inactivated through a combination of filtration and disinfection or by disinfection. During 2007, as part of our routine sampling plan, nine combined Mohawk River and well source water samples were collected and analyzed for Giardia cysts. Of these raw untreated source water samples, three were positive for the presence of Giardia. Therefore, our testing indicates Giardia may be present in our raw untreated source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Giardia may cause giardiasis, an intestinal illness. People exposed to Giardia may experience mild or severe diarrhea, or in some instances no symptoms at all. Fever is rarely present. Occasionally, some individuals will have chronic diarrhea over several weeks or a month, with significant weight loss. Giardiasis can be treated with anti-parasitic medication. Individuals with weakened immune systems should consult with their health care providers about what steps would best reduce their risks of becoming infected with Giardiasis. Individuals who think that they may have

TABLE OF DETECTED CONTAMINANTS

CONTAMINANT	VIOLATION YES/NO	DATE OF SAMPLE	LEVEL DETECTED (AVG./MAX) (RANGE)	UNIT MEASUREMENT	REGULATORY LIMIT MCL, AL, OR TT	MCLG	LIKELY SOURCE OF CONTAMINATION
MICROBIOLOGICAL CONTAMINANTS							
Distribution System Turbidity ¹	No	Daily Testing	Max — 11.00 Avg — 0.25 Range — 0.09–11.0	NTU	5.0 (MCL)	N/A	Soil Run-off
Turbidity ¹ Combined Filter Effluent high sample from 9/10/07	No	Continuous	High — 0.43 Low — 0.03 Avg. — 0.06	NTU	TT = 95% of Samples <= 0.3 NTU	N/A	Soil Run-off
Total Coliform ²	No	12/27/07	1 Positive Sample	N/A	Any Positive Sample	>5% positive samples in any month	Naturally present in the environment
INORGANICS CONTAMINANTS							
Copper ³	No	Sept 2006	0.23 Range = 0.05 – 0.36	mg/l	1.3 (AL)	1.3	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead ⁴	No	Sept 2006	3 Range = ND – 17	ug/l	15 (AL)	0	Corrosion of household plumbing systems; Erosion of natural deposits
Sodium ⁵	No	5/14/07	20.9	mg/l	See Note 5		Naturally occurring; Road salt; Water softeners; Animal waste.
Nitrate	No	5/14/07	0.6	mg/l	10.0 (MCL)	10.0	Runoff from fertilizer use; Erosion of natural deposits.
Color (range)	No	Daily	3–16	Units	15 (MCL)	N / A	Color has no health effects. Its presence is aesthetically objectionable.
Chloride	No	Monthly testing	Average — 46 Range — 25 – 66	mg/l	250.0 (MCL)	N / A	No health effects. Naturally occurring or indicative of road salt contamination.
Hardness	No	Weekly	Average — 150.0 Range — 126–174	mg/l	No MCL	N / A	No health effects. Naturally occurring minerals.
Sulfate	No	5/14/07	23	mg/l	250 (MCL)	N / A	Geology
RADIOLOGICALS							
Gross Alpha	No	Every Month on Raw Water	0.9 – 3.3 Average 1.5	pCi/l	15.0 pCi/l	0	Decay of natural deposits and man-made emissions
Gross Beta ⁵	No	Every Month on Raw Water	1.1 – 3.0 Average 2.0	pCi/l	50.0 pCi/l	0	Decay of natural deposits and man-made emissions
Tritium	No	Every Month on Raw Water	70 — 160 Average 110	pCi/l	20,000 pCi/l	0	Decay of natural deposits and man-made emissions
DISINFECTION BYPRODUCTS							
Total Trihalomethanes ⁷	No	Quarterly Samples 3/14/07, 6/6/07, 9/5/07, 12/5/07	58.5 — maximum quarterly average — individual sample range — 22.4–62.2	ug/l	80 ug/l	N/A	By-products of drinking water chlorination. TTHM's are formed when source water contains large amounts of organic matter.
Total Haloacetic Acids ⁷	No	Quarterly Samples 3/14/07, 6/6/07, 9/5/07, 12/5/07	27.0 – maximum quarterly average — individual sample range — 14.5–34.0	ug/l	60 ug/l	N/A	By-products of drinking water chlorination.
Total Organic Carbon ⁸	No	Monthly Samples	Range — 1.2–2.9 Average — 1.2	mg/l	TT	N/A	Naturally present in the environment.
Free Chlorine Residual @ Entry Point	No	Continuous	1.60–2.50 Avg. — 1.98	mg/l	4.0 (MCL)	N/A	Used in the disinfection and treatment of drinking water.
Free Chlorine Residual Distribution System	No	5 days per week	ND — 2.15 Avg. — 1.0	mg/l	4.0 (MCL)	N/A	A measurable residual is required by NYSDOH.
Chlorine Dioxide Residual (range)	No	Daily testing	<0.01 — 0.15 Average — <0.05	mg/l	1.0 (MCL)	N/A	By-product of drinking water disinfection at treatment plants using Chlorine Dioxide.
Chlorite	No	Daily testing	Average — 0.38 Range — ND–0.63	mg/l	1.0 (MCL)	N/A	By-product of drinking water chlorination.
ORGANICS							
Propylene Glycol	No	Weekly	During Airport deicing Average — <50 Range — <50 – 50	ug/l	1000	N/A	Albany International Airport deicing operations

Notes:

- 1—Turbidity is a measure of the cloudiness of the water. We test it because it is a good indicator of the effectiveness of our filtration system. State regulations require that 95% of the combined filter effluent turbidity samples collected have measurements below 0.30 NTU. Distribution system turbidity is collected a minimum of five times a week. A distribution system turbidity violation occurs when the monthly average of the results of all distribution samples collected in any calendar month exceeds the MCL. Our average distribution system turbidity was 0.25 NTU with a single high turbidity measurement of 11.0 NTU. **All levels recorded were well below the acceptable range allowed and did not constitute a treatment technique violation.**
- 2—A violation occurs when more than 5% of the total coliform samples collected in a month are positive.
- 3—The level presented represents the 90th percentile of the 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 equal to or greater than 90% of the copper values detected at your water system. In this case, 43 samples were collected at your water system and the 90th percentile value was the fourth highest sample with a level of 0.23 mg/l.
- 4—The level presented represents the 90th percentile of the 43 samples collected. **The action level for lead was exceeded at 1 of the 43 sites tested.**
- 5—Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely 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.
- 6—The State considers 50 pCi / l to be the level of concern for beta particles.
- 7—The level presented represents the running annual quarterly average calculated from the samples collected.
- 8—Total Organic Carbon itself is not regulated, but its calculated removal and compliance ratio must equal or exceed performance requirements established by USEPA. All levels recorded were well below the acceptable range allowed and did not constitute a treatment technique violation.

Definitions:

- Action Level (AL):** The concentration of a contaminant which, if exceeded triggers treatment or other requirements which a water system must follow.
- 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.
- Maximum Residual Disinfectant Level (MRDL):** 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.
- Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants for control of microbial contaminants.
- 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).
- Picocuries per liter (pCi/L):** A measure of the radioactivity in water.
- Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

been exposed to Giardiasis should contact their health care providers immediately. The Giardia parasite is passed in the feces of an infected person or animal and may contaminate water or food. Person to person transmission may also occur in day care centers or other settings where handwashing practices are poor.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had no violations of the State Sanitary Code. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below New York State requirements.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Although our drinking water met or exceeded state and federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens 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 from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

WHY SAVE WATER AND HOW TO AVOID WASTING IT?

Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- Saving water saves energy and some of the costs associated with both of these necessities of life;
- Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water towers; and
- 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 is not hard to conserve water. Conservation tips include:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank, wait for a few hours 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.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances at bed time and read your meter. Then read your meter again when you wake up in the morning. If it moved, you have a leak.

2007 DISTRIBUTION SYSTEM IMPROVEMENTS

As part of our continued commitment to quality and service, the Village of Colonie plans and implements a number of different projects each year. Construction of new water mains is perhaps the most visible sign of our commitment. New water mains are designed to improve water quality, flow and pressure within the distribution system. Increased levels of system reliability, fire protection and a reduction in unplanned shutdowns are added benefits as well. In 2007, we completed or undertook the following system improvement projects:

- The village updated water mains, hydrants and gate valves along with street paving on the following streets Locust Park from S.Cottonwood to Hunting Road Delafield Dr from Gert La. To Sand Creek Road Walker Way from Jupiter La.to Petra La.
- The Village also started a multi year water main gate valve maintainance

program. This program will include locating and documenting the location of along with checking the operation of every water main valve in the village. Any problems found will be fixed or the valve will be replaced.

ONLY TAP WATER DELIVERS

How often do you think about your tap water? If you're like most, probably not often. And yet tap water delivers so many things that no other water can deliver.

- It delivers public health.
- It delivers fire protection.
- It delivers economic development.
- It delivers quality of life.

For more information go to www.awwa.org or www.drinktap.org/consumerdnn

PLANNED CAPITAL IMPROVEMENTS FOR 2007

- Finish gate valve program and valves.
- Update mains, hydrants on Broderick St, Plant Pl., Oak Circle, Peter Dr from Marini Ct, to Sand creek Rd.
- New water mains gate valves and hydrants will be installed in Colonie Plaza as part of the new Price Chopper Project

CLOSING

The Village of Colonie in conjunction with the Latham Water District delivered safe water in 2007, with no water quality violations. We continually strive to improve our water quality by improving our treatment processes and by implementing capital improvement projects. This water supply statement is being prepared for our customers in accordance with New York State Public Health Law. Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail. This report is being sent to you by the Superintendent of by the Superintendent of Public Works Carl Fleshman. Any questions about this report (or the water system, in general, should be directed to him at 869-6372. Any questions about the treatment or quality of your water should be directed to John W. Frazer, Jr., P.E., Supt. of Latham Water. He may be reached on 783-2750.