

Annual Drinking Water Quality Report for 2011

Saratoga Water Services

Stonebreak Road, PO Box 2109, Malta, NY 12020

Public Water Supply Identification Number NY4511620

INTRODUCTION

To comply with State regulations, Saratoga Water Services will be 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. This report is 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 New York State standards. Our constant goal is and always has been, to provide to you a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and to protect our water resources. If you have any questions concerning this report or concerning your drinking water please contact: *Jean Marcotte, 2 Stonebreak Road, Malta, NY 12020; Telephone (518) 899-6001*. We want our valued customers to be informed about their water service. If you want to learn more, please call us.

WHERE DOES OUR WATER COME FROM?

The Saratoga Water Services draws its water from ground water sources. Groundwater or well water is stored below the surface of the earth in deep, porous rocks called "aquifers." Groundwater is purified naturally as it filters through layers of soil, clay, rock and sand. This process, known as percolation takes years to complete. As a result, groundwater requires less treatment than surface water. We pump this groundwater out through our 4 wells located at the Knapp Road wellfield and 2 wells located at the Cold Spring Road wellfield. The wells range in depth from 35 to 300 feet. The pumping capacity for all 6 wells is approximately 3.0 million gallons per day. At the Fox Wander Pumphouse there is a 300,000 gallon concrete storage tank to meet consumer demand and to provide adequate fire protection. Water pressure is maintained through 5 pressure pumps via a 10,000 gallon hydro-tank. Three pumps are variable speed and the other 2 pumps are not variable speed. At the Cold Spring Road Pumphouse there is a 752,000 gallon, steel/glass lined storage tank which is used to meet consumer demand and to provide adequate fire protection. Water pressure is maintained through 3 pressure pumps via a 300 gallon hydro-tank. All three pumps are variable speed. Pumping capacity from both pumphouses is determined by system pressure. Treatment of the water produced by the wells at each pumphouse consists of chlorination to protect against contamination from harmful bacteria and other organisms.

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 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 EPA prescribe regulations, which limit the amount of certain contaminants in water, provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

FACTS AND FIGURES

The Saratoga Water Services provides water through 2,125 service connections to a population of approximately 7,000 people. Our average daily demand is 421,984 gallons. Our single highest day was 1,034,000 gallons. The total water produced in 2011 was 154,024,000 gallons. Total metered consumption was 145,767,042 gallons or 94.64% of the metered production. Authorized unmetered usage amounts to 2,000,000 gallons from fire and hydrant use or 1.30% loss. Remaining unaccounted for water is 1,800,000 gallons or 1.17 % loss from storage tank leakage. The total unaccounted for water or non-revenue producing water 4,356,958 gallons is 2.83%. Water rates are \$5.34 per 1000 gallons. The average annual water bill is approximately \$350.00 per year.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

In accordance with State regulations, the Saratoga Water Services routinely monitors your drinking water for numerous contaminants. We test your drinking water for inorganic contaminants, radiological contaminants, lead and copper, nitrate, volatile organic contaminants, and synthetic organic contaminants. In addition, we test 8 samples per month for coliform bacteria each month. The table presented on page 3 depicts which contaminants were detected in your drinking water. The state allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old and is noted. For a listing of all the parameters that we must analyze and the frequency of testing for compliance with the NYS Sanitary Code, see Appendix A.

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 pose 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 New York State Department of Health Glens Falls District Office at (518) 793-3893.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table on page 3, our system had no violations. We have learned through our monitoring and testing that some contaminants have been detected; however, these compounds were detected below New York State requirements. MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2011, our system received the following violation:

- ◆ During our annual inspection in October 2011, the NYSDOH issued a violation to the Saratoga Water Services for failure to have a written Cross Connection Control Program. Saratoga Water Services is required to adopt a Cross Connection Control Program under Part 5-1.31 (a) (3) of the State Sanitary Code. The purpose of a Cross Connection Control Program is to protect the public water supply from the backflow of non-potable water into the distribution system from service connections. We corrected the deficiency by developing a written Cross Connection Control Program. Customers will be notified of the important aspects of the Cross Connection Control Program in 2012 and the requirements for compliance.

INFORMATION ON LEAD

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. Saratoga Water Services 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 SAFE FOR EVERYONE?

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 about drinking water 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 microbiological pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

WHAT IS THE SOURCE WATER ASSESSMENT PROGRAM (SWAP)?

To emphasize the protection of surface and ground water sources used for public drinking water, Congress amended the Safe Drinking Water Act (SDWA) in 1996. The amendments require that New York State Department of Health's Bureau of Public Water Supply Protection is responsible for ensuring that source water assessments are completed for all of New York's public water systems. A SWAP summary for our water supply is attached to this report.

WATER CONSERVATION TIPS

The Saratoga Water Services encourages water conservation. There are a lot of things you can do to conserve water in your own home. Conservation tips include:

- ◆ Only run the dishwasher and clothes washer when there is a full load.
- ◆ Use water saving showerheads.
- ◆ Install faucet aerators in the kitchen and the bathroom to reduce the flow from 4 to 2.5 gallons per minute.
- ◆ Water gardens and lawn for only a couple of hours after sunset.
- ◆ Check faucets, pipes and toilets for leaks and repair all leaks promptly.
- ◆ Take shorter showers.

CAPITAL IMPROVEMENTS:

- ◆ Installed Production Well # 9 as a redundant well.

CLOSING

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit our customers. We ask that all our customers help us protect our water sources. Please call our office if you have questions.

SARATOGA WATER SERVICES TABLE OF DETECTED CONTAMINANTS							
Public Water Supply Identification Number NY4522359							
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination	
Inorganic Contaminants (samples from 4/21/08) unless otherwise noted							
Arsenic (sample from 4/27/11)	Fox Wander	N	1.1	ppb	N/A	10	Erosion of natural deposits;
Barium (samples from 4/27/11)	Cold Spring Fox Wander	N	80.1 13.4	ppb	2000	2000	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chloride	Cold Spring Fox Wander	N	8 7	ppm	N/A	250	Geology; Naturally occurring
Copper (samples from 8/18/09-8/26/09) Range of copper concentrations		N	0.22 ¹ 0.02-0.40	ppm	1.3	AL=1.3	Corrosion of household plumbing systems;
Fluoride (samples from 4/27/11)	Cold Spring Fox Wander	N	100 130	ppb	N/A	2200	Water additive which promotes strong teeth.
Iron	Cold Spring Fox Wander	N	240 60	ppb	N/A	300	Geology; Naturally occurring
Lead (samples from 8/18/09-8/26/09) Range of lead concentrations		N	2 ² ND-6	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Manganese	Cold Spring Fox Wander	N	50 20	ppb	N/A	300	Geology; Naturally occurring
Nickel (samples from 4/27/11)	Cold Spring Fox Wander	N	1.3 1.5	ppb	N/A	100	Discharge from steel/metal factories
pH	Cold Spring Fox Wander	N	7.9 7.7	units		6.5-8.5	
Sodium ³	Cold Spring Fox Wander	N	5.8 6.2	ppm	N/A	N/A	Geology; Road Salt
Sulfate (samples from 4/27/11)	Cold Spring Fox Wander	N	27.2 10.6	ppm	N/A	250	Geology;
Zinc	Cold Spring	N	10	ppb	N/A	5000	Galvanized pipe; corrosion inhibitor
Disinfection Byproducts (THM & HAA5 samples from 7/20/10)							
Chlorine (based on daily testing) Range of chlorine residuals		N	0.22 0.20- 0.35	ppm	MRDLG N/A	MRDL 4	Used in the treatment and disinfection of drinking water
Haloacetic Acids (HAA5)	Luther Forest	N	1.6	ppb	N/A	60	By-product of drinking water chlorination.
TTHM[Total Trihalomethanes] Luther Forest		N	3.9	ppb	0	80	By-product of drinking water chlorination
NOTES-							
1. The level presented represents the 90 th percentile of 20 test sites. The action level for copper was not exceeded at any of the 20 sites tested							
2. The level presented represents the 90 th percentile of 20 test sites. The action level for lead was not exceeded at any of the 20 sites tested							
3. Water containing more than 20 mg/l should not be consumed by persons on severely restricted sodium diets;							
<i>Non-Detects (ND)</i> - laboratory analysis indicates that the constituent is not present.							
<i>Parts per million (ppm) or Milligrams per liter (mg/l)</i> - one part per million corresponds to one minute in two years or a single penny in \$10,000.							
<i>Parts per billion (ppb) or Micrograms per liter</i> - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.							
<i>Picocuries per liter (pCi/L)</i> - picocuries per liter is a measure of the radioactivity in water.							
<i>90th Percentile Value-</i> The values reported for lead and copper represent the 90 th percentile. 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 90 th percentile is equal to or greater than 90% of the lead and copper values detected at your water system							
<i>Action Level</i> - the concentration of a contaminant, which, if exceeded, triggers treatment, or other requirements, which a water system must follow.							
<i>Maximum Contaminant Level</i> - The "Maximum Allowed" (MCL) is 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.							
<i>Maximum Contaminant Level Goal</i> The "Goal" (MCLG) is 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.							
<i>Maximum Residual Disinfectant Level (MRDL):</i> 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.							
<i>Maximum Residual Disinfectant Level Goal (MRDLG):</i> 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 contamination.							
<i>N/A-Not applicable</i>							

Appendix A

New York State Sanitary Code Compliance Monitoring Requirements- **Compounds Analyzed that were Below Limits of Detection**

SARATOGA WATER SERVICES TEST RESULTS					
Public Water Supply Identification Number NY4511620					
CONTAMINANT	MONITORING FREQUENCY		CONTAMINANT	CONTAMINANT	MONITORING FREQUENCY
Asbestos	Every 9 years Waiver from monitoring No asbestos pipe		POC's (Volatile Organic Compounds)		
			Benzene	Trans-1,3-Dichloropropene	Monitoring requirement is one sample every 3 years
			Bromobenzene	Ethylbenzene	
Antimony	Monitoring requirement is one sample every 3 years Sample results from 4/27/11 NON DETECT * Fox Wander Only		Bromochloromethane	Hexachlorobutadiene	Sample results from 4/30/09 NON DETECT
Arsenic*			Bromomethane	Isopropylbenzene	
			N-Butylbenzene	p-Isopropyltoluene	
Beryllium			sec-Butylbenzene	Methylene Chloride	
Cadmium			Tert-Butylbenzene	n-Propylbenzene	
Chromium			Carbon Tetrachloride	Styrene	
Cyanide			Chlorobenzene	1,1,1,2-Tetrachloroethane	
Mercury			2-Chlorotoluene	1,1,2,2-Tetrachloroethane	
Selenium			4-Chlorotoluene	Tetrachloroethene	
Thallium			Dibromomethane	Toluene	
			1,2-Dichlorobenzene	1,2,3-Trichlorobenzene	
			1,3-Dichlorobenzene	1,2,4-Trichlorobenzene	
			1,4-Dichlorobenzene	1,1,1-Trichloroethane	
Nitrate	Monitoring requirement is one sample annually, NON DETECT 4/27/11		Dichlorodifluoromethane	1,1,2-Trichloroethane	
			1,1-Dichloroethane	Trichloroethene	
			1,2-Dichloroethane	Trichlorofluoromethane	
			1,1 Dichloroethene	1,2,3-Trichloropropane	
			cis-1,2 Dichloroethene	1,2,4-Trimethylbenzene	
			Trans-1,2-Dichloroethene	1,3,5-Trimethylbenzene	
Color	Monitoring requirement is at State discretion Sample results from 4/21/08 NON DETECT * Fox Wander Only		1,2 Dichloropropane	m-Xylene	
			1,3 Dichloropropane	o-Xylene	
Odor			2,2 Dichloropropane	p-Xylene	
Zinc*			1,1 Dichloropropene	Vinyl Chloride	
			Cis-1,3-Dichloropropene	MTBE	
			Total Coliform / E. coli		Monitoring is 8 samples/ month NON DETECT
HAA5	Sample in July every 3 years (1/source) Cold Spring -Non Detect		Radiological Parameters		
THM			Gross Alpha particle activity	Cold Spring	requirement is one sample every 9 years. Samples from 3/25/04 & 7/8/04 NON DETECT
			Radium 228	Cold Spring & Luther Forest	
Synthetic Organic Chemicals					
Synthetic Organic Chemicals (Group I)			Synthetic Organic Chemicals (Group II)		
Alachlor	Aldicarb		Aldrin	Benzo(a)pyrene	Monitoring requirement is every 18 months NON DETECT Samples 4/27/11 *State waiver does not require monitoring these compounds
Aldicarb Sulfoxide	Aldicarb Sulfone		Butachlor	Carbaryl	
Atrazine	Carbofuran		Dalapon	Di(2-ethylhexyl)adipate	
Chlordane	Dibromochloropropane		Di(2-ethylhexyl)phthalate	Dicamba	
2,4-D	Endrin		Dieldrin	Dinoseb	
Ethylene Dibromide	Heptachlor		Diquat*	Endothall*	
Lindane	Methoxychlor		Glyphosate*	Hexachlorobenzene	
PCB's	Toxaphene		Hexachlorocyclopentadiene	3-Hydroxycarbofuran	
2,4,5-TP (Silvex)			Methomyl	Metolachlor	
			Metribuzin	Oxamyl vydate	
			Pichloram	Propachlor	
			Simazine	2,3,7,8-TCDD (Dioxin)*	

Saratoga Water Services
NY4511620
AWQR SWAP Summary

The NYS DOH has completed a source water assessment for this system, based on available information. Possible and actual threats to this drinking water source were evaluated. The state source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how easily contaminants can move through the subsurface to the wells. The susceptibility rating is an estimate of the potential for contamination of the source water, it does not mean that the water delivered to consumers is, or will become contaminated. See section “Are there contaminants in our drinking water?” for a list of the contaminants that have been detected, if any. The source water assessments provide resource managers with additional information for protecting source waters into the future.

The source water assessment did not identify any significant sources of contamination. However, the well fields draw from sand and gravel aquifers and only one of the wells has overlying soils that can provide protection from potential contamination. The overlying soils for the remaining wells overlying soils are not known to provide adequate protection from potential contamination and are therefore susceptible to potential sources of contamination. Continued vigilance in compliance with water quality protection and pollution prevention programs as well as continued monitoring and enforcement will help to continue to protect groundwater quality. Please note that our water is disinfected to ensure that that the finished water delivered into your home meets New York State’s drinking water standards for microbial contamination.

The county and state health departments 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 can be obtained by contacting us at the number provided in the annual report.