

CITY OF WATERVLIET  
2006 ANNUAL WATER QUALITY REPORT

PUBLIC WATER SUPPLY 0110127



## **Introduction**

To comply with State and Federal Regulations, the City of Watervliet annually issues a report describing the quality of drinking water provided to you. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Latest testing confirms that our water meets and exceeds all Federal and State regulations. In our testing protocol we examine and test routinely raw water, finished water as well as the distribution system. This report provides an overview of the results of last years water quality sampling. Included are details about where your water comes from, what it contains, and how it compares to State standards. Additional information, including the complete raw and finished water test results are provided in the Annual Report Supplement, which is available at the Watervliet Public Library, 1500 Broadway, Watervliet, NY. If you have any questions regarding this report please contact Mark Gleason, General Manager, at 270-3800 Extension 122.

## **Where Does Your 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 and/or human activity. Contaminants that may be present in source water include: microbial and inorganic; pesticides and herbicides; organic chemical and radioactive contaminants. The NYS Department of Health has completed a draft Source Water Assessment for the Watervliet Reservoir. The assessment when finalized will provide a susceptibility rating based on the risks posed by each potential source of contamination. The rating is an estimate of the potential for contamination, this does not mean the water delivered to your home is or will become unsafe to drink. We provide multi level treatment to insure everyone receives safe drinking water. Additionally as this annual report shows your water is routinely monitored and tested. 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 State Health Department and the FDA's regulations establish limits for contaminants in bottled and tap water which must provide the same protection for public health purposes. Our water source is the Watervliet Reservoir, located in the Town of Guilderland. It receives its water from a watershed that encompasses some 112 square miles. The reservoir has a capacity of 1.7 billion gallons of water. During 2006 our system did not experience any water restrictions.

## Facts and Figures

Our water system serves a population of 10,400 and there are approximately 2,800 service connections. The total water delivered to the City was approximately 1 billion gallons. The daily average usage was 2.6 million gallons. Our highest single day demand was 4 million gallons. The annual water charge for residential users is \$274.00 per unit and for commercial users \$ 2.78 per thousand gallons.

## Are there Contaminants in Our Drinking Water?

As State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coli form, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, and synthetic organic compounds. The supplement to this report contains a complete listing of chemicals tested for. The Table of Detected Contaminants depicts which compounds were detected in your drinking water. The State allows for some testing of contaminants less than once per year because concentrations of these contaminants do not change frequently. Some of our data, though representative, is more than one year old. It should be noted that all drinking water, including bottled water, may reasonably be expected to contain small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and can be obtained by calling the Safe Drinking Water Hotline (800)426-4791 or the Albany County Health Department at 447-4625.

## Definitions

**Maximum Contaminant Level (MCL)**: the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's 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. MCLG's allow for a margin of safety.

**Maximum Residual Disinfection Level (MRDL)**: The highest level of a disinfectant allowed in drinking water.

**Maximum Residual Disinfectant Level Goal (MRDLG)**: The level of a drinking water disinfectant below which there is no known expected risk to health.

**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.

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

**Nephelometric Turbidity Unit (NTU)**: a measure of the clarity of water.

**Milligrams per liter (mg/l)**: corresponds to one part of liquid in one million parts of liquid (ppm)

**Micrograms per liter (ug/l)**: corresponds to one part of liquid in one billion parts of liquid (ppb)

**Nanograms per liter (ng/l)**: corresponds to one part of liquid in one trillion parts of liquid (ppt)

## 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 well below the level allowed by the state. As indicated in the report our system is in full compliance with State and Federal regulations.

## **Is Our Water System Meeting Other Rules that Govern Operations?**

During 2006, our system was in compliance with all State drinking water operating, monitoring and reporting requirements.

## **Do I Need to Take Special Precautions?**

Although our drinking water met State and Federal regulations, some people may be more vulnerable to disease causing micro-organisms or pathogens in drinking water than the general population. Immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone an organ transplant, 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 drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection from cryptosporidium, gardia and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

## **Water Conservation:**

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

- ★ Saving water lessens the strain on the system during a drought, helping to avoid severe water restrictions.
- ★ Saving water reduces the cost to consumers by reducing chemical costs and unnecessary capacity.
- ★ Saving water saves energy and some of the costs associated with both of these necessities of life.

You can play a role in conserving water by becoming conscious of the amount of water your household is using and by using less whenever you can.

Conservation tips include:

- ★ Dishwashers use 15 gallons of water for every cycle, regardless of how many dishes are loaded. So to maximize the conservation benefit, load the dishwasher to capacity.
- ★ Turn off the tap when brushing your teeth.
- ★ Fix all leaking faucets or toilets in your home.
- ★ Install water-saving plumbing fixtures
- ★ Wash only full loads of laundry.
- ★ If you hear water running when no faucet is turned on, call the water department at 785-7082.

## **System Improvements**

During 2006 there were no major capital projects undertaken. A study to examine the potential uses and expansion of the reservoir is continuing. This task will focus on improving raw water quality and increasing the safe yield of the water body.

## **Water Quality**

One does not often think about the role that individuals play in maintaining water quality. Littering, poor pesticide application, motor vehicle bi-products, and a wide range of other every day factors can have a dramatic and detrimental impact on the environment, especially water quality. If everyone disposed of waste in an appropriate manner we would all have a much cleaner place to live.

## **Additional Information**

For more information regarding water quality the following websites and phone numbers may prove to be of benefit:

EPA	<a href="http://epa.gov/safewater">epa.gov/safewater</a>
Department of Health	<a href="http://health.state.ny.us">health.state.ny.us</a>
American Water Works	<a href="http://awwa.org">awwa.org</a>
City of Watervliet	<a href="http://watervliet.com">watervliet.com</a>
County Health Department	447-4625
Watervliet Filter Plant	785-7082
Water Department	270-3800 Ext 122

## **Closing**

Thank you for allowing us to continue to provide you and your family with quality drinking water. We ask that all our customers help us protect our water sources, which is the heart of our community. Please call 270-3800 Ext. 122 if you have any questions or comments.

CITY OF WATERVLIET TEST RESULTS						
Public Water Supply Identification Number NY0110127						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
<b>Microbiological Contaminants</b>						
Turbidity <sup>1</sup> (highest level detected 10/21/06)	N	0.215 NTU 100%		N/A 00	TT=1 NTU TT= 95% samples < 0.3	Soil runoff
<b>Inorganic Contaminants (Sample data from 11/27/06 unless otherwise noted)</b>						
Barium	N	17	ppb	2000	2000	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chloride (average) [range based on monthly samples]	N	71 43-96	ppm	N/A	250	Geology; Naturally occurring
Copper range	N	0.09 <sup>2</sup> ND-1.18	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead range	N	2 <sup>3</sup> ND-8	ppb	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits;
Manganese (average) [range based on monthly samples]	N	27 10-76	ppb	N/A	300	Geology; Naturally occurring
Nitrate as Nitrogen [ range based on monthly samples]	N	ND-0.4	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Odor [range based on monthly samples]	N	ND-1	units	N/A	3	Organic or inorganic pollutants originating from municipal and industrial waste discharges; natural sources
pH [range based on monthly samples]	N	7.1-7.7	units	N/A	6.5-8.5	
Sodium <sup>4</sup> (average) [range based on monthly samples]	N	43 23-71	ppm	N/A	N/A	Geology; Road Salt
Sulfate (average) [range based on monthly samples]	N	33 21-47	ppm	N/A	250	Naturally Occurring,
Zinc (average) (range)	N	145 70-230	ppb	N/A	5000	Galvanized pipe; corrosion inhibitor
<b>Total Organic Carbon</b> (monthly samples from 2006)						
Raw Water (range)	N <sup>5</sup>	2.5-5.5	ppm	NA	TT	Organic material both natural and man made; Organic pollutants, decaying vegetation,
Treated Water (range)		1.6-3.4				
<b>Disinfection Byproducts</b> (quarterly samples from 1/17/06, 4/11/06, 7/11/06 & 10/10/06 unless otherwise noted)						
Chlorine (based on daily samples)	N	0.6 0.4 – 1.2	ppm	MRDLG	MRDL	Used in the treatment and disinfection of drinking water
Range of chlorine residual		00		N/A	4	
Haloacetic Acids [HAA5] (average) <sup>6</sup> Range of values for HAA5	N	50.4 ND-58.2	ppb	N/A	60	By-product of drinking water chlorination