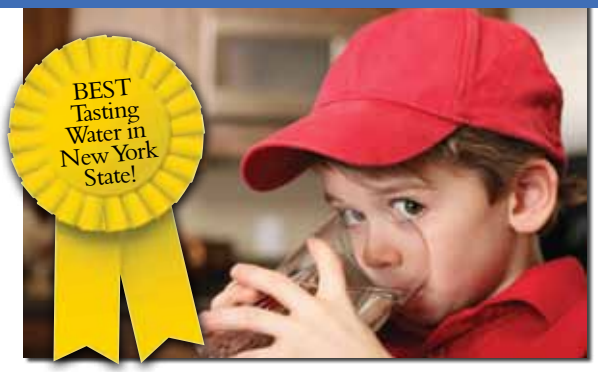
City of Rochester, New York
Dept. of Environmental Services
Bureau of Water

Water Supply ID# **NY2704518**

2013 Water Quality Report

Rochester Wins Gold for Best Tasting Water in New York State!

***The Rochester Water Bureau** is pleased to provide you with this report on the quality of your drinking water. The report provides news on your water system and describes the source of your drinking water, its treatment and test results.*



ROCHESTER WINS TITLE OF BEST TASTING WATER IN NEW YORK STATE!

At the New York State Fair this past August, Rochester brought home the **Gold Medal of Drinking Water- the Best Tasting Water in New York State.** Approximately 250 fairgoers selected Rochester's water from among other surface and ground water sources from all over New York State.

Each year the City of Rochester Water Bureau is proactive in protecting the watershed, ensuring the treatment practices are effective and that the transmission and distribution systems are structurally sound and able to provide you with safe and high quality drinking water. For 2013, the City has again met and/or exceeded all of the drinking water standards set by the Environmental Protection Agency (EPA) and the New York State Department of Health (NYSDOH). The City continues its commitment to quality and providing safe drinking water through its membership in the Partnership for Safe Water, now in our 12th year. The goal of this American Water Works Association (AWWA) and EPA voluntary program is to help water utilities optimize treatment strategies to provide superior water quality to consumers that far exceeds what current regulations require.

WHERE DOES MY WATER COME FROM?

Since 1876, Rochester residents have relied upon Hemlock and Canadice Lakes for their drinking water supply. The City supplements its water supply with Lake Ontario water purchased from the Monroe County Water Authority (MCWA). This water is treated at MCWA's Shoremont Treatment Plant located on Dewey Avenue. During 2013, both systems were in compliance with applicable State drinking water requirements. More information can be found at **www.MCWA.com**.

The NYSDOH has evaluated the susceptibility of water supplies statewide for potential contamination under the Source Water Assessment Program (SWAP). Though their assessment of the Hemlock/Canadice Lake watershed identified several potential sources of contamination, none were particularly noteworthy. The City's extensive testing of these pristine lakes confirms that contamination from human activity is negligible. For more information on the state's Source Water Assessment Program, please call us at **428-6477.**

HOW IS MY WATER TREATED AND DELIVERED?

The Hemlock and Shoremont treatment plants both employ similar treatment processes involving coagulation, filtration and disinfection. During coagulation, chemicals are added to untreated water, causing the natural particulates to clump together into larger particles called floc. The floc is removed by filtration and the water is then disinfected through addition of chlorine. Like many other cities in the U.S., your water is also fluoridated. According to the U.S Centers for Disease Control (CDC), fluoride is very effective in preventing cavities when present in drinking water at an optimal range from 0.7 to 1.2 mg/l. In 2013, fluoride treatment was interrupted for seven days for system maintenance. For the remaining balance of the year with fluoride treatment, 1058 fluoride tests were run, all tests fell within safe limits and 96% of the test results fell within the CDC's optimum range.

Water treated at the Hemlock Filtration Plant flows to the city by gravity through three large pipelines that are more than

HOW CAN I SAVE MONEY ON WATER?

Simple changes in your daily routine can save you money on your water bill and also reduce stress on the environment. Always repair dripping and leaking faucets, toilets and garden hoses. Log on to **http://www.dec.ny.gov/lands/5009.html** for more conservation tips.

Substance	units	MCLG	MCL	Hemlock Average (range)	Ontario Average (range)	Likely Source	Meets EPA Standards
Barium	mg/L	2	2	0.017	0.020 (0.018-0.022)	Erosion of natural deposits	Yes
Chloride	mg/L	250	250	33 (31-35)	24 (23-25)	Natural deposits, road salt, water treatment chemicals	Yes
Fluoride	mg/L	NA	2.2	0.70 (0.49-0.94)	0.80 (0.4-1.1)	Water treatment additive to promote dental health	Yes
Nitrate	mg/L	10	10	0.11 (0.01-0.21)	0.29 (0.20-0.34)	Fertilizers, erosion of natural deposits, septic tank leachate	Yes
Sodium	mg/L	NA	NA	19	11	Natural deposits, road salt, water treatment chemicals	NA
Treatment Requirements (TT)- 95% of samples each month must be less than 0.3 NTU. Range and lowest monthly percentage are listed below. Turbidity is a measure of water clarity and is used to gauge filtration process.							
Turbidity Entry Point	NTU	NA	TT	100% (0.04-0.15)	100% (0.03-0.07)	Soil Runoff	Yes
Bacteria–The distribution system maximum and average % positive are listed below. Total Coliform is a group of bacteria used to indicate the general sanitary conditions in a water system. Most species of this group do not present a health concern, but one species—*E. coli* can be pathogenic. In 1993, the State Health Department granted the City a "biofilm variance," (or exception to) the Total Coliform MCL. Biofilm is a layer of bacteria that can be found on almost all surfaces, including the inside wall of water pipes. The variance does not apply to *E. coli.*							
Total coliform	% Positive	0	5%	1.8% 0.60	0.09%	Naturally occurring	Yes
Disinfectant and Disinfectant By-products (DBPs)–Average and Range from distribution locations are listed below. *Chlorine has a MRDL (Maximum Residual Disinfectant Level) and MRDLG (MRDL Goal) rather than an MCL and MCLG.							
Chlorine (entry point)	mg/L	4*	4*	.93 (0.63-1.31)	1.1 (0.8-1.5)	Required treatment chemical	Yes
Total THMs	µg/L	NA	80	36 (18-58)		By-product of chlorination	Yes
Haloacetic Acids	µg/L	NA	60	26 (9-40)		By-product of chlorination	Yes
Lead and Copper –Test results for 90% of the samples must be less than an Action Level (AL), instead of an MCL. The 90th percentile and the range of results are listed below. Three out of 54 samples tested exceeded the lead AL.							
Lead	µg/L	0	15	9 (ND-28)		Corrosion of plumbing	Yes
Copper	µg/L	1300	1300	93 (14-200)		Corrosion of plumbing	Yes

Definition of Terms

µg/L **Micrograms per liter**– same as parts per billion (ppb); corresponds to one ounce in 7,812,500 gallons of water.

AL **Action Level**– the concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

MCL **Maximum Contaminant Level**– the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible.

MCLG **Maximum Contaminant Level Goal**– the level of a contaminant in drinking water below which there is no known or expected health risk, with allowance for a margin of safety.

mg/L **Milligrams per liter**– same as parts per million (ppm); corresponds to one ounce in 7812.5 gallons of water.

ND **Not Detected**– laboratory analysis indicates that the constituent is either absent or present below current limits of testing.

NA **Not Applicable**

NTU **Nephelometric Turbidity Unit**– a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

100 years old. Along the way, water is sold wholesale to water districts in the towns/villages of Livonia, Lima, Richmond and also to the MCWA, which in turn supplies it to several communities. A large volume of treated water is stored in the City's three reservoirs. It is re-disinfected as it exits each reservoir and enters a complex grid (over 550 miles) of water mains that distribute the water to city customers.

Lake Ontario water is pumped into the city distribution system primarily in the area of Mt. Read Blvd. and West Ridge Rd. The volume of purchase varies from 0 to 26 million gallons per day (MGD). Some areas of the City may receive either Hemlock Lake or Lake Ontario water, or a mixture of both, depending on the season and the prevailing pattern of demand.

WHAT TYPES OF WATER SYSTEM IMPROVEMENTS WERE COMPLETED OR INITIATED IN 2013?

The City initiated construction on a $6.5 million project to modernize approximately 10,000 feet of water transmission conduits along South Clinton Avenue in the Town of Brighton. The project is expected to be completed in the spring of 2014. Some other projects completed were: cleaned and cement-lined over 9.4 miles of aging cast-iron pipes; replaced 2.2 miles of water main; drained, cleaned and inspected Highland Park Reservoir; and performed preventative erosion control on Canadice Dam. The City also created a new pressure zone in the southwest area of the city to increase service pressures by 12-15 pounds per square inch.

2013 STATISTICS

The average production at the Hemlock Filtration Plant was 37 MGD. Consumption in the city averaged 20.9 MGD for its population of 210,000, which represents 57,842 metered accounts. Wholesale sales to upland communities, including MCWA, averaged 16.3 MGD. Lost water, the portion of water put into the system that cannot be accounted for by metered sales or other permitted uses, was 4.7 MGD. The Base Charge for water was $3.31/1000 gallons.

HOW CAN I FIND OUT MORE ABOUT WATER BUREAU ACTIVITIES, FEES AND OTHER WATER RELATED ISSUES?

You may contact a customer service representative, 24 hours a day by calling **311**. People outside of the Rochester city limits may call **(585)428-5990**. For more about Water Bureau activities, fees and other water related issues, visit: **www.cityofrochester.gov/waterbureau/**

SHOULD I BE CONCERNED ABOUT CHEMICAL CONTAMINANTS IN MY WATER?

As the State regulations require, we routinely test your drinking water for numerous contaminants and we have found no contaminants in our water at levels that raise concern. It is important to understand that all drinking water, including bottled water, contains small amounts of impurities. The mere presence of a contaminant does not mean there is a health risk. Some substances such as chlorine and fluoride are added to the water supply for health reasons. More information about contaminants and potential effects on your health can be obtained by calling the EPA Safe Drinking Water Hotline at **1-800-426-4791** or the Monroe County Department of Public Health (MCDPH) at **753-5057**.

HOW DO CONTAMINANTS GET INTO THE WATER?

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and underground aquifers. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and in some cases, radioactive material. It can also pick up contaminants that result from the presence of animals and from human activities. These may include microbial and inorganic contaminants, pesticides and herbicides, organic chemical contaminants, disinfection byproducts and radioactive substances.

WHAT KINDS OF TESTS WERE DONE ON MY DRINKING WATER?

Your water was tested for more than 80 types of regulated microrganisms and chemical compounds in 2013. Samples were collected from all stages of the system, including the source (streams and lakes),

various steps in the treatment process, the storage reservoirs and from the customers' taps. All of our test results were in compliance with State and Federal drinking water requirements.

WERE THE PROTOZOANS *CRYPTOSPORIDIUM* OR *GIARDIA* FOUND IN OUR WATER?

No. All City and MCWA tests for these organisms in source waters and resevoirs were again negative in 2013. However, certain people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people such as those with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and some infants can be particularly at risk for infections. These people should seek advice about drinking water from their healthcare providers. EPA/CDC guidelines on appropriate means to lessen their risk of infection by *Cryptosporidium, Giardia* and other microbial contaminants are available by calling the Safe Drinking Water Hotline **1-800-426-4791** or MCDPH **753-5057**.

IS THERE LEAD IN MY DRINKING WATER?

At-the-tap lead levels in the majority of Rochester households remain below allowable limits. However, the amount of lead present varies by the age and types of plumbing materials found in your home and varies depending on how long the water sits in your pipes before it is used. To minimize your lead intake from water, simply allow the tap to run for one or two minutes before use. Pregnant women, infants and young children are typically more vulnerable to the effects of lead than the general population. If you are concerned about elevated lead levels in water, call us at **428-6477**. For more information about lead in drinking water, call the Safe Drinking Water Hotline at **1-800-426-4791**, or visit: **www.epa.gov/safewater/lead/index.html**.

A complete list of results for all substances tested in 2013 is available from a link at **www.cityofrochester.gov/waterquality/** or by calling **428-6477**.