

# *A Message from the Commissioner*

May 2016

Dear City Resident,

In January 2013, the EPA changed the requirements for the delivery of the Annual Water Quality Reports. New York State now allows water suppliers to distribute the AWQR electronically to their customers. We have provided a direct link [www.saratoga-springs.org/wq](http://www.saratoga-springs.org/wq) to the report, on the City's website. If a customer does not have access to the city's website, you may contact the Utilities Office at (518) 587-3550 x2502 or email at [wq@saratoga-springs.org](mailto:wq@saratoga-springs.org) and request either a printed copy to be mailed to you, an email with a message containing the direct URL link to the AWQR, or an email with the AWQR as an attachment.

This report is mandated by the State and is issued to you as an informational summary of the operations of the City's water supply system. Our current water system is perhaps the City's most important resource. While we recognize that protection and good management of our water resources is in everybody's best interest, public cooperation is essential if we are to succeed in promoting sensible water conservation ideas.

I would like to take this opportunity to explain the City Water Source Capacity, Treatment and Distribution System improvements for 2016. The Department of Public Works will continue with the program to upgrade aging water infrastructure, including water main replacement, updates to the main City Water Plant on Excelsior Avenue and other facilities, and improvements at the Woodlawn Avenue Water Storage Impoundment.

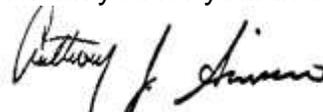
In late 2015, the City completed the upgrade of the Washington Street water main, which had frozen solid the previous winter. This year, we will be completing the replacement of the aging and undersized water main on Woodlawn Avenue. This is a costly, but necessary project to improve pressure and fire flow in this area. We expect upgrades to this main to be completed by the end of the year. Improvements at the Water Plant will include new intake valves to better control water from Loughberry Lake. We also plan to install a chlorine booster station at the Woodlawn Water Storage Impoundment to assist with maintenance of Water Quality.

Lastly, we hope to be issuing an RFP to update previous studies of the water quality of Loughberry Lake. The Department of Public Works is continuously investing in the maintenance and upgrade of the City's Water Supply, Treatment and Distribution System Resources so that we can have plenty of high quality water for many years to come.

Every quarter for 2014 the City of Saratoga Springs tested for unregulated contaminants in all three of our water systems. There were no detectable results for PFOA (Perfluorooctanic Acid) contaminants in our drinking water when measured in parts per billion (ug/L).

If you wish a paper copy be mailed to you, please check the box on the remittance section of your Quarterly utility bill. We encourage customers to take the time to read this report.

Thank you for your interest,



Anthony J. Scirocco  
Commissioner of Public Works

**Annual Drinking Water Quality Report for 2015**  
**City of Saratoga Springs**

**Geyser Crest Subdivision - Public Water Supply ID #4500178**  
**Interlaken Water Works - Public Water Supply ID #4500168**  
**Loughberry Lake Watershed - Public Water Supply ID #4500168**

**INTRODUCTION**

To comply with State regulations, the City of Saratoga Springs issues an annual 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 health related maximum contaminant level. 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 concerns regarding your drinking water, please call Mr. Brett Johnson at (518) 587-3550, extension 2472. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled city council meetings. The meetings are held on the first and third Tuesday 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 State Health Departments and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The City of Saratoga Springs receives its water from three sources; surface water from the Loughberry Lake Watershed and ground water from the Geysers Crest and Interlaken well systems. Water is also pumped into Loughberry Lake from Bog Meadow Brook during the high demand summer months to help maintain the lake level. The Loughberry Lake source is treated conventionally at the Excelsior Avenue treatment plant with flocculation, sedimentation, and filtration. It is then disinfected with a combination of ultra violet light and sodium hypochlorite application. The water is then pumped to the city.

Seven wells at Geysers Crest and three wells at Interlaken supply the ground water sources. Each of these sources are disinfected with sodium hypochlorite and pumped to the city. We add orthophosphate/ polyphosphate blended product to the Interlaken system to sequester the Iron to keep it in solution and to minimize staining issues. This compound is approved by the National Sanitation Foundation (NSF) for use in drinking water.

Although all three systems are interconnected, Loughberry Lake is our primary source and supplies most of the City. The Geysers Crest wells supply the Geysers Crest Subdivision and a portion of the southwest section of the City. The Interlaken wells supply Interlaken Development and its vicinity. All three sources are fluoridated to attain the optimal level of fluoride in the finished water to aid in preventing tooth decay.

**FACTS AND FIGURES**

Our water system serves approximately 28,000 people through 9,680 service connections. The total water produced in 2015 was 1,615,676,000 gallons. The city's daily average was 4,427,000 gallons. Our highest single day consumption was 6,734,000 gallons on August 5, 2015. The amount of water delivered through metered sales was 1,216,590,476 gallons. This leaves an unaccounted for total of 399,085,524 gallons. These losses came from city operations, flushing mains, fighting fires, water main breaks, and unauthorized use (adding up to approximately 24.7% of the total amount produced). In 2015 water customers were charged a sliding scale rate with most customers paying approximately \$12.90 per 1,000 cubic feet of water consumed (or approximately \$1.72 per 1,000 gallons).

The NYS DOH has completed source water assessments for the Bog Meadow Brook, Geysers Crest Subdivision, Interlaken Water Works and Loughberry Lake Watershed systems based on available information. Possible and actual threats to these drinking water sources were evaluated. The State source water assessments include a susceptibility rating based on the risk posed by each potential source of contamination and how easily contaminants can move through the environment. 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 Bog Meadow Brook assessment found a moderate susceptibility to contamination for this source of drinking water. The amount of row crops in the assessment area results in a medium susceptibility to pesticides, and there is reason to believe that land cover data

may overestimate the percentage of pasture in the assessment area. No permitted discharges are found in the assessment area. There is also noteworthy contamination susceptibility associated with other discrete contaminant sources, and these facility types include: mines. Finally, it should be noted that relatively high flow velocities make river drinking water supplies highly sensitive to existing and new sources of microbial contamination.

The Geyser Crest Subdivision assessment rated our water source as having an elevated susceptibility to microbials, nitrates, industrial solvents and other industrial contaminants. These ratings are due primarily to the close proximity of the wells to a permitted discharge facility (industrial/commercial facilities that discharge wastewater into the environment and are regulated by the state and/or federal government), a hazardous waste site, and the residential land use in the assessment area. In addition, the wells draw from fractured bedrock and the overlying soils may not provide adequate protection from potential contamination. While the source water assessment rates our wells as being susceptible to microbials, please note that our water is disinfected to ensure that the finished water delivered into your home meets New York State's drinking water standards for microbial contamination.

The Interlaken Water Works assessment rated our water source as having an elevated susceptibility to microbial and nitrate contamination. These ratings are due primarily to the close proximity of the well to a permitted discharge facility (industrial/commercial facilities that discharge wastewater into the environment and are regulated by the state and/or federal government) and the associated activities in the assessment area. In addition, the wells draw from fractured bedrock and the overlying soils may not provide adequate protection from potential contamination. While the source water assessment rates our wells as being susceptible to microbials, 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 Loughberry Lake Watershed assessment found an elevated susceptibility to contamination for this source of drinking water. The amount of pasture in the assessment area results in a medium potential for protozoa contamination, and the amount of residential lands in the assessment area results in an elevated potential for microbials contamination. A single non-sanitary wastewater discharge is unlikely to contribute to contamination. There are no noteworthy contamination threats associated with other discrete contaminant sources. Finally, it should be noted that hydrologic characteristics (e.g. basin shape and flushing rates) generally make reservoirs highly sensitive to existing and new sources of phosphorus and microbial contamination.

The State Health Department will use this information to direct future source water protection activities. These may include water quality monitoring, resource management, and planning and education programs. A copy of the assessment can be obtained by contacting us, as noted below.

#### **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 bacteria, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, radiological aspects 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 New York State Department of Health, Glens Falls Regional Office at (518) 793-3893.

**Table of Detected Contaminants – Loughberry Lake Watershed**

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Average) (Range)	Unit of Measure	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
<b>Microbiological Contaminants</b>							
Turbidity	No	9/15/15	0.184 <sup>4</sup>	NTU	N/A	TT = 1	Soil runoff
Turbidity	No	2015	100%	NTU	N/A	95% < 0.3	Soil runoff
<b>Inorganic Contaminants</b>							
Alkalinity, Total (Raw Water)	No	Quarterly 2015	136 (118 – 147)	mg/L	N/A	N/A	Naturally occurring.
Barium	No	12/7/15	47	µg/L	2000	MCL = 2000	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Copper	No	6/16/15 thru 6/17/15	0.236 (0.006–0.726)	mg/L	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.

**Table of Detected Contaminants – Loughberry Lake Watershed (Continued)**

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Average) (Range)	Unit of Measure	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Fluoride	No	12/7/15	0.604	mg/L	N/A	MCL = 2.2	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
Lead	No	6/16/15 thru 6/17/15	11 <sup>2</sup> (ND – 39.0)	µg/L	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits.
Nitrate (as Nitrogen)	No	12/7/15	1.09	mg/L	10	MCL = 10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Organic Carbon, Total (Distribution)	No	Quarterly 2015	1.7 (1.2 – 2.3)	mg/L	N/A	N/A	Naturally occurring.

**Stage-1 Disinfection Byproducts**

Haloacetic Acids (HAA5s)	No	Quarterly 2015	Denny's 24.2 <sup>5</sup> (14.6-31) <sup>6</sup> Hilton Garden 23.6 (18.2-28) DPW 21.8 (12-30) Skidmore 32.5 (21-35)	µg/L	N/A	MCL = 60	By-product of drinking water disinfection needed to kill harmful organisms.
Trihalomethanes (TTHMs)	No	Quarterly 2015	Denny's 47.5 <sup>5</sup> (36-68) <sup>6</sup> Hilton Garden 48.8 (41-54) DPW 39.5 (35-50) Skidmore 69.8 (58-86)	µg/L	N/A	MCL = 80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.

**NOTES – LOUGHBERRY LAKE WATERSHED:**

1 – The level presented represents the 90<sup>th</sup> percentile of the 30 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 90<sup>th</sup> percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, 30 samples were collected at your water system and the 90<sup>th</sup> percentile value was 0.236 mg/L. The action level for copper was not exceeded at any of the sites tested.

2 – The level presented represents the 90<sup>th</sup> percentile of the 30 samples collected. The 90<sup>th</sup> percentile is equal to or greater than 90% of the lead values detected at your water system. In this case, 30 samples were collected at your water system and the 90<sup>th</sup> percentile value was 11.0 µg/L. The action level for lead was exceeded at three (3) of the sites tested.

3 – The Health effects language for sodium is as follows: “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.”

4 – 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. Our highest single turbidity measurement (0.184 NTU) for the year occurred on September 15, 2015. State regulations require that turbidity must always be below 1 NTU. The regulations also require that 95% of the turbidity samples collected have measurements below 0.3 NTU. In 2015 100% of our measurements met that requirement.

5 – Compliance for TTHM and HAA5 MCLs is based on a locational running annual arithmetic average, computed quarterly, of quarterly averages of all samples. For example, the 1<sup>st</sup> Quarter 2015 Running Annual Average was calculated using data collected during the 1<sup>st</sup> Quarter 2015, the 4<sup>th</sup> Quarter 2014, the 3<sup>rd</sup> Quarter 2014 and the 2<sup>nd</sup> Quarter 2014. The highest locational running average is shown for each sample site.

6 – The level presented represents the Range of Detects of the four quarterly samples collected in 2015.

<b>Table of Detected Contaminants – Geyser Crest Subdivision</b>							
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Range)	Unit of Measure	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
<b>Inorganic Contaminants</b>							
Barium (Entry Point)	No	12/5/14	36	µg/L	2000	MCL = 2000	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Copper	No	6/23/15	0.093 (0.009–0.171)	mg/L	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Fluoride	No	12/5/14	0.0.83	mg/L	N/A	MCL = 2.2	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
Lead	No	6/23/15	ND <sup>2</sup> (ND – 5)	µg/L	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits.
Nitrate (as Nitrogen)	No	12/7/15	0.966	mg/L	10	MCL = 10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
<b>Stage-1 Disinfection Byproducts</b>							
Haloacetic Acids (HAA5)	No	7/15/15	10.8	µg/L	N/A	MCL = 60	By-product of drinking water disinfection needed to kill harmful organisms.
Trihalomethanes (TTHMs)	No	7/15/15	18.0	µg/L	N/A	MCL = 80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.

**NOTES – GEYSER CREST SUBDIVISION:**

1 – The level presented represents the 90<sup>th</sup> percentile of the 20 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 90<sup>th</sup> percentile is equal to or greater than 90% of the copper values detected at your water system. In this case 20 samples were collected at your water system and the 90<sup>th</sup> percentile value was 0.0.093 mg/L. The action level for copper was not exceeded at any of the sites tested.

2 – The level presented represents the 90<sup>th</sup> percentile of the 20 samples collected. The 90<sup>th</sup> percentile is equal to or greater than 90% of the lead values detected at your water system. In this case 20 samples were collected at your water system and the 90<sup>th</sup> percentile value was none detected. The action level for lead was not exceeded at any of the sites tested.

3 – Any Positive Result

## Table of Detected Contaminants – Interlaken Water Works

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Range)	Unit of Measure	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
<b>Inorganic Contaminants</b>							
Barium	No	12/4/13	190	µg/L	2000	MCL = 2000	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chloride	No	12/7/15	13.0	mg/L	N/A	MCL = 250	Naturally occurring or indicative of road salt contamination.
Copper	No	6/17/15	0.067 (0.117-0.726)	mg/L	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.

## Table of Detected Contaminants – Interlaken Water Works (continued)

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Range)	Unit of Measure	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Fluoride	No	monthly	0.70 (0.4-0.9)	mg/L	N/A	MCL = 2.2	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
Color	No	12/7/15	10	CPU	0	MCL = 15	Large quantities of organic chemicals, inadequate treatment, high disinfectant demand and the potential for production of excess amounts of disinfectant by-products such as trihalomethanes, the presence of metals such as copper, iron and manganese; Natural color may be caused by decaying leaves, plants, and soil organic matter.
Iron (Well #2) <sup>2</sup>	No	2015 Quarterly	2,000 (1,690 – 2,310)	µg/L	N/A	MCL = 300	Naturally occurring.
Iron (Entry Point)	Yes	12/7/15	814	µg/L	N/A	MCL = 300	Naturally occurring.
Iron + Manganese	Yes	12/7/15	859	µg/L	N/A	MCL = 500	See individual contaminants.
Manganese (Entry Point)	No	12/7/15	45	µg/L	N/A	MCL = 300	Naturally occurring; Indicative of landfill contamination.
Odor	No	12/7/15	1	TON	0	MCL = 3	Organic or inorganic pollutants originating from municipal and industrial waste discharges; natural sources.
Sodium	No	12/7/15	41.6	mg/L	N/A	N/A <sup>3</sup>	Naturally occurring; Road salt; Water softeners; Animal waste.
Nitrate (as Nitrogen)	No	12/7/15	0.327	mg/L	10	MCL = 10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Sulfate	No	12/7/15	1.09	mg/L	N/A	MCL = 250	Naturally occurring.
Zinc	No	12/7/15	0.006	mg/L	N/A	MCL = 5	Naturally occurring; Mining waste.
<b>Stage-1 Disinfection Byproducts</b>							
Haloacetic Acids (HAA5)	No	2015 Quarterly	7.7 <sup>3</sup> (ND – 11.7) <sup>4</sup>	µg/L	N/A	MCL = 60	By-product of drinking water disinfection needed to kill harmful organisms.
Trihalomethanes (TTHMs)	No	2015 Quarterly	17.2 <sup>3</sup> (2.63 – 25.3) <sup>4</sup>	µg/L	N/A	MCL = 80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.

**NOTES – INTERLAKEN WATER WORKS:**

1 – The level presented represents the 90<sup>th</sup> 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 90<sup>th</sup> percentile is equal to or greater than 90% of the copper values detected at your water system. In this case the 90<sup>th</sup> percentile value was the average of the 2 highest values. The action level for copper was not exceeded at any of the sites tested.

2 – Interlaken Well #2 was not used in 2015.

3 – Represents the highest Locational Running Annual Average (LRAA) for 2015.

4 – Represents the range of results.

#### **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. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

**Micrograms per liter (µg/L)**: Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

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

**Millirems per year (mrem/yr)**: A measure of radiation absorbed by the body.

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

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

**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.

#### **UNREGULATED CONTAMINATES**

The following chart contains the results of testing for a series of unregulated contaminants. Unregulated contaminants are those that do not yet have a drinking water standard set by the EPA. The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a standard. The following chart shows the ranges of the contaminants found in the samples taken throughout the test period (February and November 2014). A list of all contaminants tested for during this period can be found below.

### Table of Detected Unregulated Contaminants

Contaminant	Unit of Measure	Regulatory Limit (MCL or MCLG)	Level Detected	Use or Environmental Source <sup>1</sup>
<b>Loughberry Lake Watershed</b>				
Chlorate	mg/L	N/A	0.143	Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlorine dioxide.
Chromium	µg/L	N/A	0.23	See chromium-6 for use or source information; though the amount measured when analyzing for "total chromium" is the sum of chromium in all of its valence states, the MCL for EPA's current total chromium regulation was determined based upon the health effects of chromium-6.
Hexavalent Chromium	µg/L	N/A	0.042	Naturally-occurring element; used in making steel and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation.
PFOA (Perfluorooctanoic Acid)	ng/L	N/A	ND	Perfluorinated aliphatic carboxylic acid; used for its emulsifier and surfactant properties in or as fluoropolymers (such as Teflon), fire-fighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic films.
Strontium	µg/L	N/A	225	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions.

### Table of Detected Unregulated Contaminants (Continued)

Contaminant	Unit of Measure	Regulatory Limit (MCL or MCLG)	Level Detected	Use or Environmental Source <sup>1</sup>
<b>Geyser Crest Subdivision</b>				
Chlorate	mg/L	N/A	0.139	Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlorine dioxide.
Chromium	µg/L	N/A	0.37	See chromium-6 for use or source information; though the amount measured when analyzing for "total chromium" is the sum of chromium in all of its valence states, the MCL for EPA's current total chromium regulation was determined based upon the health effects of chromium-6.

PFOA (Perfluorooctanoic Acid)	ng/L	N/A	ND	Perfluorinated aliphatic carboxylic acid; used for its emulsifier and surfactant properties in or as fluoropolymers (such as Teflon), fire-fighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic films.
Strontium	µg/L	N/A	233	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions.
Vanadium	µg/L	N/A	0.25	Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst.
<b>Interlaken Water Works</b>				
Bromomethane	µg/L	N/A	0.4	Halogenated alkane; occurs as a gas, and used as a fumigant on soil before planting, on crops after harvest, on vehicles and buildings, and for other specialized purposes.
Chlorate	mg/L	N/A	0.640	Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlorine dioxide.
Chloromethane (Methyl Chloride)	µg/L	N/A	1.4	Halogenated alkane; used as foaming agent, in production of other substances, and byproduct that can form when chlorine used to disinfect drinking water.
Molybdenum	µg/L	N/A	24.4	Naturally-occurring element found in ores and present in plants, animals and bacteria; commonly used form molybdenum trioxide used as a chemical reagent.
<b>Table of Detected Unregulated Contaminants (Continued)</b>				
<b>Contaminant</b>	<b>Unit of Measure</b>	<b>Regulatory Limit (MCL or MCLG)</b>	<b>Level Detected</b>	<b>Use or Environmental Source<sup>1</sup></b>
<b>Interlaken Water Works (Continued)</b>				
Strontium	µg/L	N/A	433.5	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions.

**NOTES – DETECTED UNREGULATED CONTAMINATES:**

1 - "Use or Environmental Source" further documented in UCMR 3 Contaminants – Information Compendium. EPA 815-B-11-001. January 2012

**DEFINITIONS:**

**Micrograms per liter (µg/L):** Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

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

**Nanograms per liter (ng/L):** Corresponds to one part of liquid in one trillion parts of liquid (parts per trillion - ppt).

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

### **WHAT DOES THIS INFORMATION MEAN?**

As you can see by the table, our system exceeded the iron MCL in Interlaken Iron has no health effects. At 1,000 µg/L a substantial number of people will note the bitter astringent taste of iron. Also, at this concentration, it imparts a brownish color to laundered clothing and stains plumbing fixtures with a characteristic rust color. Staining can result at levels of 50 µg/L, lower than those detectable to taste buds. Therefore, the MCL of 300 µg/L represents a reasonable compromise as adverse aesthetic effects are minimized at this level. Many multivitamins may contain 3,000 or 4,000 micrograms of iron per capsule. We have learned through our testing that some other contaminants have been detected; however, these contaminants were detected below New York State requirements.

### **IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?**

During 2015, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements. The only exception to this is that we failed to collect samples for Chloromethane in Interlaken Well #1 and Well #4; and Iron for Interlaken Well #2 during the second quarter of 2015, therefore we cannot be sure of the quality of your water for those parameters during that time. This, unfortunately, led to the Department of Health to issue a violation. Please note that these wells were not used during the time period specified for production of drinking water. Moreover, samples collected prior and after the specified time period showed results consistent with historical results. These parameters, as of 2016, are no longer required by the Department of Health. In addition, we were cited for not submitting a certification to the Department of Health for delivery of our 2014 Annual Water Quality Report by the required deadline. Please note that our report was prepared and distributed to customers within the required time frame.

### **INFORMATION ABOUT LEAD IN DRINKING WATER AND ITS EFFECT ON CHILDREN:**

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 City of Saratoga Springs, through the Loughberry Lake, Geyser Crest and Interlaken Water Works 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>.

### **INFORMATION ON RADON**

Radon is a naturally-occurring radioactive gas found in soil and outdoor air that may also be found in drinking water and indoor air. Some people exposed to elevated radon levels over many years in drinking water may have an increased risk of getting cancer. The main risk is lung cancer from radon entering indoor air from soil under homes.

### **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).

### **INFORMATION ON FLUORIDE ADDITION**

Our system is one of the many drinking water systems in New York State that provides drinking water with a controlled, low level of fluoride for consumer dental health protection. According to the United States Centers for Disease Control, fluoride is very effective in preventing cavities when present in drinking water at a target level of 0.7 mg/L (parts per million). To ensure that the fluoride supplement in your water provides optimal dental protection, the State Department of Health requires that we monitor fluoride levels on a daily basis. During 2015, our monitoring showed that daily fluoride levels for all three plants were within 0.2 mg/L (parts per million) of the target level as recommended by the Department of Health. None of the monitoring results showed fluoride at levels that approached the 2.2 mg/L Maximum Contaminant Level (MCL) for fluoride.

### **WHY SAVE WATER AND HOW TO AVOID WASTING IT?**

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 firefighting 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, watch for 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.
- ◆ Water your lawn only when it needs it and avoid running the sprinkler all night long. You can save 750-1,500 gallons per month.
- ◆ Install water-saving showerheads or flow restrictors. This can save 700 gallons per month.
- ◆ Shorten your showers. Even a one or two minute reduction can save up to 700 gallons per household per month.
- ◆ Capture tap water, while waiting for hot water to come down the pipes, in a watering can to use later on house plants or your garden. Saves 200 to 300 gallons per month.

#### **CLOSING**

Thank you for allowing us to continue to provide your family with quality drinking water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements. We ask that all our customers help us protect our water sources, which are the heart of our community. Please call our office if you have questions.

This report was prepared for the City of Saratoga Springs by:  
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