Source Water Assessment

A source water assessment was prepared through the New York Department of Health in 2002. It evaluated possible and actual threats to Batavia's drinking water sources. 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 into 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 the section "Are There Contaminants in Our Drinking Water?" for a list of the contaminants that have been detected. The source water assessments provide resource managers with additional information for protecting source waters into the future. Our water is derived from two drilled wells and the Tonawanda Creek. The source water assessment has rated these wells as having a medium-high to very high susceptibility to microbials, nitrates, petroleum products, industrial solvents and other industrial contaminants. These ratings are due primarily to the close proximity of permitted discharge facilities (industrial/commercial facilities that discharge wastewater into environment and are regulated by the state and/or federal government) to the wells and the associated industrial activity in the assessment area. In addition, the wells draw from an unconfined aquifer of unknown hydraulic conductivity. The source water assessment for the Tonawanda Creek has found an elevated susceptibility to contamination for this source of drinking water.

The amount of agricultural lands in the assessment area results in elevated potential for microbials, phosphorus, DBP precursors and pesticides contamination. In addition, the moderate density of CAFOs (Concentrated Animal Feeding Operations) in the assessment may add to the potential for contamination. While there are some facilities present, permitted discharges do not likely represent an important threat to source water quality, based on their density in the assessment area. However, it appears that the total amount of wastewater discharged to surface water in this assessment area is high enough to further raise the potential for contamination (particularly for protozoa). There is also noteworthy contamination susceptibility associated with other discrete contaminate resources. 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. While the source water assessment rates our Wells and the Tonawanda Creek as being susceptible to microbials, please note that Batavia's water is filtered and disinfected to ensure that the finished water delivered to your home meets New York State's drinking water standards for microbial contamination. A copy of the assessment, including a map of the assessment area, can be obtained by contacting the Genesee County Health Department **(585) 344-2580**, or Matt Worth at Batavia's City Hall **(585) 345-6315**.

Community Participation

Major decisions concerning your drinking water are made by the Village of Oakfield Board of Trustees, which meets at the Village Office on the second and fourth Mondays of each month at 6:30 p.m. You are invited to attend these Village Board Meetings to become more informed or voice your opinion in the decision making process affecting your water.

Water Conservation Tips

You can play a role in conserving water and save yourself money in the process 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. Here are a few tips:

- 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 an invisible toilet leak. Fix it and you can 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. Then check the meter after 15 minutes. If not moved, you have a leak.

Annual WATER QUALITY REPORT

Reporting Year 2017

Town of Oakfield
3219 Drake Street Road
Oakfield, NY 14125

Town ID#NY1830042

Phone # 585-948-5835
mhaacke@townofoakfieldny.com

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables below show only those contaminants that were detected in the water. The State requires us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	DATE SAMPLED	MCL	MCLG	AMOUNT DETECTED	RANGE LOW/HIGH	VIOLATION	TYPICAL SOURCE Detected
City of Batavia							
Chloride (ppm)	8/10/17	250	NA	68.5	NA	No	Naturally occurring or indicative of road salt contamination. Chlorides are in nature as salts of sodium, potassium and calcium; potassium chloride is used in the production of farming fertilizers.
Barium (ppm)	8/10/17	2	2	0.012	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chlorine Residual (ppm)	17, hourly	[4]	NA	1.06	0.68-1.65	No	By-product of drinking water chlorination.
Fluoride (ppm)	8/10/17	2.2	NA	.22	NA	No	Erosion of natural deposits; Water additive to promote strong teeth; Discharge from fertilizer and aluminum factories.
	(Daily)	2.2	NA	.66	0.24-0.97		
Nitrate as N (ppm)	8/10/17	10	10	1.5	NA	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Sulfate (ppm)	8/10/17	250	NA	31.7	NA	No	Naturally occurring.
Total Organic Carbon (TOC)	2017	TT	NA	1.15	ND-2.9	No	Organic contaminants (natural organic substances, insecticides, Herbicides and (Monthly) agricultural chemicals) enter waterways in rainfall runoff; Domestic and industrial wastewaters also contribute organic contaminants in various amounts.
Sodium (ppm)	8/10/17	TT	NA	44	NA	No	Naturally occurring; Road salt, Water softeners; Animal waste.
Alkalinity as CaCO[3] (ppm)	8/10/17	NA	NA	69	NA	No	Natural minerals; lime softening process
Calcium (ppm)	8/10/17	NA	NA	15	NA	No	Mineral deposits
Magnesium (ppm)	8/10/17	NA	NA	17.1	NA	No	Dissolution of nickel in well water.
Haloacetic Acids (ppb)	2017/qtrly	60	60	23.62	6.6-27.2	No	By-product of drinking water disinfection
TTHMs[6] (ppb)	2017/qrtly	80	80	56.22	16.1-58.2	No	By-product of drinking water disinfection
Turbidity[1] (NTU)	17 (daily)	TT<1.0	NA	0.02	.01-.13	No	Soil runoff.
Turbidity (lowest monthly Percent of samples meeting Limits) (NTU)	17 (daily)	TT<0.3 NTU[5]	NA	100%	NA	No	Soil runoff-July 2013 found the highest turbidity levels, but they were still well within tolerance levels of below 5.0 NTU.
Turbidity [Distrib. Sym] (NTU)	2017/wkly	>5	NA	0.067	0.02-1.1	No	Cloudiness in water main disruptions and breaks. *(See section on water main flushing)*
Copper[3] (ppm)	7/12-13/16	1.3	1.3	0	ND-0.29	No	Corrosion of household plumbing systems; erosion of natural deposits
Lead[4] (ppm)	7/12-13/16	0.015	0	.0011	ND-6.0	No	Corrosion of household plumbing systems; erosion of natural deposits
Village of Oakfield							
Copper[4] (ppm)	6/2/15	1.3	1.3	.01	.07-.26	No	Corrosion of household plumbing systems; erosion of natural deposits
Lead[4] (ppm)	6/2/15	0.015	0	.004	ND-0.004	No	Corrosion of household plumbing systems; erosion of natural deposits
TTHMs[6] (ppb)	2017/qrtly	80	80	62.0	37-61	No	By-product of drinking water disinfection
Haloacetic Acids[6] (ppb)	2017/qrtly	60	60	19.25	10-27	No	By-product of drinking water disinfection
Town of Oakfield							
Copper[4](ppm)	9/12/17	1.3	1.3	0.13	0.009-0.2	No	Corrosion of household plumbing systems; erosion of natural deposits
Lead[3,7] (ppm)	9/12/17	0.015	0	0.0055	ND-0.043	No	Corrosion of household plumbing systems; erosion of natural deposits
TTHMs[6] (ppb)	11/7/17	80	80	62.75	42-66	No	By-product of drinking water disinfection
Haloacetic Acids[6] (ppb)	11/7/17	60	60	18.5	11-28	No	By-product of drinking water disinfection

Definitions

90th percentile: *The levels reported for lead and copper represent the 90th percentile of the total number of 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 lead and copper values detected at your water system.*

AL (Action Level): *The concentration of a contaminant which, 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 MCLG as possible.*

MCLG (Maximum Contaminant Level Goal): *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.*

MRDL (Maximum Residual Disinfectant Level) *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.*

MRDLG (Maximum Residual Disinfectant Level Goal) *The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLDs do not reflect the benefits of the use of disinfectants to control microbial contamination.*

NA*: Not applicable.*

ND: (Not detected): *Indicates that the substance was not found by laboratory analysis.*

NTU (Nephelometric Turbidity Units): *Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.*

ppb (part per billion): *One part substance per billion parts water (or micrograms per liter).*

ppm (parts per million): *One part substance per million parts water (or milligram per liter).*

TT (Treatment Technique): *A required process intended to reduce the level of a contaminant in drinking water.*

[1]Turbidity is a measure of the cloudiness of the water. It is tested because it is a good indicator of the effectiveness of the filtration system. Our highest single turbidity measurement for the year occurred as indicated in the table. State regulations require that turbidity must always be below 1 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.3 NTU. (Note that TT is dependent upon filtration method: conventional, 0.3 NTU; slow sand, 1.0 NTU; or diatomaceous earth filtration, 1.0 NTU.) Although the month as indicated in the Date column was the month when we had the fewest measurements meeting the treatment technique for turbidity, the levels recorded were within the acceptable range allowed and did not constitute a treatment technique violation. [2]The highest measurement of the monthly average distribution results for the year occurred as indicated in the table. [3]The level presented represents the 90th percentile of the samples collected. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal or below it. The Action Level of 1.3 ppm for copper was not exceeded at any of the sites tested. **4**The level listed represents the 90th percentile of the samples collected. The Action Level for lead was exceeded at 1 of the sites tested. TT=95% of samples are less than or equal to 0.3 NTU. **5**Water containing more than 20 ppm of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 ppm of sodium should not be used for drinking by people on moderately restricted sodium diets. [6]This level represents the highest locational running annual average calculated from data collected. [7]One sample did exceed the Action Level for lead and the homeowner was informed on ways to reduce lead exposure in their household.

HOW IS OUR WATER TREATED AND PURIFIED?

Batavia's well water is very clear and requires little treatment other than softening. Soft water cleans better, and less soap is needed to wash effectively.

Tonawanda Creek water enters the water plant through mechanical screens. The screens prevent creek debris from getting into the plant. Creek water is then mixed with well water in the flash mixers where water treatment chemicals are added. Ferric sulfate is added as a coagulant, neutralizing the charges on particles suspended in the water, and thus allowing them to clump together and drop out. Calcium oxide, also called lime, is added to the raw water to soften it. Lime will cause compounds of calcium, magnesium, and other minerals to begin to precipitate or drop out of the water.

The water is then sent out to the softening tanks where paddles churn the chemically treated water forming a sludge layer of muddy water. The sludge is made up of added chemicals and chemicals from the water, suspended dirt, clay, silt and microorganisms. Most of these impurities will now drop out of the water.

The next step is the settling basin where the water's velocity is reduced so that suspended matter can drop to the bottom. Carbon dioxide is added at this point to adjust the pH. Chlorine is added as a disinfectant, which will prevent growth of organisms in your drinking water.

From the settling basin, the water is directed to 12 rapid sand filters. The filters allow the water through while holding back virtually any remaining particles. The water is then very clear, usually having a finished turbidity of around 0.02 NTU.

Finally, we add a small amount of polyphosphate corrosion inhibitor to prevent minerals dissolved in the water from precipitating out onto your pipes. Pumps push the finished water out into the distribution system, into two elevated tanks and to your homes and businesses, at a pressure of around 70 pounds per square inch. When it reaches the Village of Oakfield's new 500,000 gallon tank, the booster chlorination pump raises the residual to 1.1 ppm.

Fluoridation of Our Water

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 an optimal range from 0.7 to 1.0 ppm. To ensure that the fluoride supplement in your water provides optimal dental protection, the Sate Department of Health requires that we monitor fluoride levels on a daily basis. During the reporting year, monitoring showed fluoride levels in your water were in the optimal range 82% of the time. None of the monitoring results showed fluoride at levels that approach the 2.2 ppm MCL for fluoride.

System Improvements

The Village is utilizing an antenna based reading signal to read residential meters on an daily basis, allowing quicker response time for leaks and potential issues. A more aggressive hydrant flushing program has been implemented to keep water quality high and ensure all hydrants are working properly. The Village tests for trihalomethane levels monthly to show the success of the hydrant flushing program. The Village will be replacing all SR-2 residential meters to new low lead compliant ones and to help reduce water loss and track usage more accurately.

The sample site for the Village is 37 Main St. and 71 S. Main St.

The sample site for the Town is 3556 Lockport Rd.

Village/Town of Oakfield

For information about this report and/or water, for the Village call Dave Laney, DPW Supervisor at 585-331-3770 and for the Town call Tom Mikolajczyk, Town Water Operator, at 585-331-3758 or 585-948-5994.

Non-Detected Substances

The following is a complete list of all the substances that we tested for in 2016 but did not detect in our water supply:

Inorganics: Antimony, Arsenic, Asbestos, Berylium, Cadmium, Chromium, Lead or Copper (at system entry point), Mercury, Nickel, Selenium, Silver, Thallium, Iron, Manganese, Zinc, Cyanide, Sulfite, Nitrite.

SOCs: Alachlor, Aldrin, Chlordane, Dieldrin, Endrin, Heptachlor, Heptachlor epoxide, Hexachlorobenzene, Hexachlorocyclopentadiene, Lindane, Methoxychlor, Total PCBs (Arochlor), Toxaphene, 2,4,5-TP(Silvex), 2,4-D, Dalapon, Dicamba, Dinoseb, Pentachlorophenol, Pichloram, Atrazine, Benzo(a)pyrene(PAH), bis(2-Ethylhexyl) adipate, Bis(2-ethylhexyl)phthalate, Butachlor, Metolachlor, Metribuzin, Propachlor, Simazine, 3-Hydroxycarbofuran, Aldicarb, Adlicarb sulfone, Aldicarb Sulfoxide, Carbaryl, Carbofuran, Methonyl, Oxamyl.

VOCs: Benzene, Bromobenzene, Bromochloromethane, Carbon tetrachloride, Chlorobenzene, Chloroethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dichlorobenzene,, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 2,2-Dichloropropane, 2/4-Chlorotoluene, 4-Isopropyltoluene, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Hexachlorobutadiene, Isopropylbenzene, m,p,-Xylene, Methyl tert-butyl ether (MTBE), Methylene chloride, n-Butylbenzene, n-Propylbenzene, o-Xylene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride.

Meeting the Challenge

We are once again proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2017. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation and community education while continually to serve the needs of all our water users. Please share with us your thoughts or concerns about the information in this report. After all, well informed customers are our best allies. For more information about this report, or any questions relating to your drinking water, please call James Ficarella, Superintendent of Water and Sewer at **(585) 345-6324** or Charles Neilans, Chief Water Plant Operator at (**585) 345-6400, option 2.**

FACTS & FIGURES

The Village of Oakfield purchased 128,813,000 gallons of water from the City of Batavia through Genesee County in 2017. The Village serves a population of 1813 and supplies water to about 1051 connections with 651 in the Village and 400 in the Town. A total of 23,893,200 (19%) was not metered and unaccounted for. This was water from hydrants or water lost in leaks or breaks. The charge for water billed in 2017 was $5.15 per thousand gallons.

Important Health Information

Some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immunocompromised 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 at **(800) 426-4791.**

If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants and young children. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. We are responsible for providing high-quality drinking water, but we 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 **(800) 426-4791** or at **www.epa.gov/safewater/lead**.

Water Main Flushing

Distribution mains (pipes) convey water homes, businesses, and hydrants in your neighborhood. The water entering distribution mains is of very high quality; however, water quality can deteriorate in areas of the distribution mains by sending a rapid flow of water through the mains.

Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not pose health concerns, they can affect the taste, clarity and color of the water. Additionally, sediments can shield microorganisms from the disinfecting power of chlorine, contributing to the growth of microorganisms within distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen, disinfectant levels and an acceptable taste and smell.

During flushing operations in your neighborhood, some short-term deterioration of water quality though uncommon, is possible. You should avoid tap water for household uses at that time. If you do use the tap, , allow your cold water to run for a few minutes at full velocity before use and avoid using hot water, to prevent sediment accumulation in your hot water tank.

The Village usually flushes hydrants two times a year, in April and November.

The Town usually flushes hydrants monthly and exercises all hydrants yearly.

Where Does My Water Come From?

The Village of Oakfield purchases water wholesale from the Genesee County Water Authority, which comes from the City of Batavia. The City of Batavia receives its water from two sources. Two wells located at Cedar Street draw water from the Tonawanda Valley Watershed, one of the largest underground aquifers in New York State. The well water is exceptionally clear with an average turbidity of less than 0.05 NTU. However, well water in this area is hard (containing dissolved minerals) and requires softening to bring it to a condition most residents find acceptable. The Tonawanda Creek is the other source of water. While the creek has provided an adequate quantity and quality of water for more than 90 years, it is a surface water source and is therefore susceptible to rapid changes in quality. Runoff can quickly increase levels of turbidity, making the creek water less cost-effective to process. Creek water is used to supplement our wells and as a back up water supply. In an emergency, the city can even purchase water from the Monroe County Water Authority through connecting water lines.

Substances That Could Be in Water

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.**

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. In order to ensure that tap water is safe to drink the State and U.S. EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The State Health Department and the U.S. FDA's regulations establish limits for contaminants in bottled water that must provide the same protection for public health. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at **(800) 426-4791**.

MCWA - Water Quality Table

Detected Substances — 2017 results except as noted

Supply				Shoremont & Webster WTPs	Corfu WTP	*Purchased Water* Hemlock WTP	*Purchased Water* ECWA		Water Quality Violation
Source (Source Type)				Lake Ontario (Surface Water)	Well Field (Groundwater)	Hemlock Lake (Surface Water)	Lake Erie (Surface Water)		
Substances	Units	MCLG	MCL	Range of detected values				Likely Source	Yes or No
Barium	mg/L	2	2	0.019 - 0.028	0.1 - 0.16	0.016	0.019 - 0.021	Erosion of natural deposits	No
Chloride	mg/L	NA	250	25 - 68	28 - 65	36 - 38	21 - 24	Naturally occurring	No
Fluoride	mg/L	NA	2.2	0.03 - 0.93	NR	0.07 - 0.78	0.1 - 0.73	Natural and additive - promotes strong teeth	No
Iron	µg/L	NA	300	ND	ND - 38	ND	ND	Naturally occurring	No
Nitrate	mg/L	10	10	ND - 0.39	ND - 0.36	ND - 0.23	0.13 - 0.29	Erosion of natural deposits	No
Sodium	mg/L	NA	NS	15 - 17	29 - 76*	20 - 21	10 - 11	Naturally occurring	No
Sulfate	mg/L	NA	250	26 - 58	28 - 49	12 - 13	20 - 21	Naturally occurring	No
Turbidity - Turbidity is a measure of cloudiness of the water. Turbidity has no health effects. MCWA monitors turbidity because it is a good indicator of the effectiveness of our filtration systems and water quality. State regulations require that turbidity must always be below 1 NTU in the combined filter effluent. The regulations also require that 95% of samples collected from the entry point have measurements below 0.3 NTU and the monthly average for distribution system samples be below 5 NTU. Averages, ranges and lowest monthly percentages are listed.									
Turbidity - Entry Point	NTU	NA	TT	0.05 (0.01 - 0.08) 100% < 0.3 NTU	NR	0.06 (0.03 - 0.11) 100% < 0.3 NTU	0.09 (0.04 - 0.019) 100% < 0.3 NTU	Soil Runoff	No
Turbidity - Distribution	NTU	NA	5	0.12 - March	0.23 - January	0.12 - March	0.23 - January	Soil Runoff	No
Microbiological - No more than 5% of monthly samples can be positive. The highest monthly % positive and number of samples is listed.									
Total Coliform Bacteria	NA	0	TT	1.3% - August 5 samples	ND	1.3% - August 5 samples	ND	Naturally occurring	No
Disinfectant and Disinfectant By-products (DBPs) - Chlorine has a MRDL (Maximum Residual Disinfectant Level) and MRDLG (MRDL Goal) rather than an MCL and MCLG (Averages and ranges are listed). For the DBPs (Total Trihalomethanes and Haloacetic Acids) the annual system average, range for all locations, and highest locational running annual average for all locations are listed.									
Chlorine Residual - Entry Point	mg/L	NA	MRDL = 4	1.15 (0.14 - 1.77) 0.76 (0.29 - 1.01)	0.7 (0.32 - 1.54)	0.93 (0.19 - 1.72)	1.43 (0.56 - 1.86)	Additive for control of microbes	No
Chlorine Residual - Distribution	mg/L	NA	MRDL = 4	0.54 (ND - 2.2)	0.39 (ND - 1.25)	0.54 (ND - 2.2)	0.39 (ND - 1.25)	Additive for control of microbes	No
Total Trihalomethanes (TTHMs)	µg/L	NA	80	41.9 (18 - 88) Max. LRAA = 65.5	47.1 (28 - 63) Max. LRAA = 56.3	41.9 (18 - 88) Max. LRAA = 65.5	47.1 (28 - 63) Max. LRAA = 56.3	Byproduct of water chlorination	No
Haloacetic Acids (HAAs)	µg/L	NA	60	10.7 (3 - 30) Max. LRAA = 18.3	9.8 (ND - 24) Max. LRAA = 14.3	10.7 (3 - 30) Max. LRAA = 18.3	9.8 (ND - 24) Max. LRAA = 14.3	Byproduct of water chlorination	No
Lead and Copper - 90% of samples must be less than the Action Level (AL). The 90th Percentile, the number of samples exceeding the AL, and the range of results are listed.									
Copper - Customer Tap Samples	mg/L	1.3	AL = 1.3	0.094 (None) 0.005 - 0.500 (2015)	0.119 (None) 0.007 - 0.550 (2015)	0.094 (None) 0.005 - 0.500 (2015)	0.119 (None) 0.007 - 0.550 (2015)	Corrosion of household plumbing	No
Lead - Customer Tap Samples	µg/L	0	AL = 15	12 (Four) ND - 63 (2015)	1.8 (None) ND - 3.8 (2015)	12 (Four) ND - 63 (2015)	1.8 (None) ND - 3.8 (2015)	Corrosion of household plumbing	No

Unregulated Contaminant Monitoring (UCMR3) - Every few years the USEPA issues a new list of up to 30 unregulated contaminants for which public water systems must monitor. This provides baseline occurrence data that the EPA combines with toxicological research to make decisions about future drinking water regulations. MCWA completed monitoring for the third list (UCMR 3) in 2014. For more information on this process go to www.drinktap.org/home/water-information/water-quality/ucmr3.aspx.

Supply (Source)				Shoremont WTP (Lake Ontario)		Corfu WTP (Well field)		Purchased Water ECWA	
	Units	MCL		*At Entry Point to System*	*At End of System*	*At Entry Point to System*	*At End of System*	*At Entry Point to MCWA System*	
Chromium (total)	µg/L	100		ND-0.23 (2014)	ND-0.44 (2014)	ND-0.2 (2014)	ND-0.22 (2014)	ND-0.26 (2014)	
Molybdenum	µg/L	NS		1.2-1.3 (2014)	ND-1.3 (2014)	ND (2014)	ND (2014)	1.0-1.2 (2014)	
Strontium	µg/L	NS		160-190 (2014)	130-210 (2014)	120-260 (2014)	150-240 (2014)	130-170 (2014)	
Vanadium	µg/L	NS		ND-0.2 (2014)	0.24-0.50 (2014)	ND (2014)	ND-0.2 (2014)	ND-0.2 (2014)	
Chromium-6	µg/L	100		0.074-0.085 (2014)	0.16-0.24 (2014)	ND (2014)	ND-0.061 (2014)	0.065-0.090 (2014)	
Chlorate	µg/L	NS		ND-130 (2014)	120-350 (2014)	43-270 (2014)	40-140 (2014)	ND (2014)	
Chloromethane	µg/L	5 (NYS)		ND (2014)	ND (2014)	ND-0.023 (2014)	ND (2014)	ND (2014)	

*****There is no MCL set for sodium in water. However, EPA has recommended that 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.

Key Terms Used In Water Quality Table

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 possible.
MCLG = Maximum Contaminant Level Goal, the level of a contaminant below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
MRDL = Maximum Residual Disinfectant Level, 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.
MRDLG = Maximum Residual Disinfectant Level Goal, 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.
LRAA = Locational Running Annual Average - The annual average contaminant concentration at a monitoring site.
pCi/L = picoCuries per liter
TT = Treatment Technique, a required process intended to reduce the level of a contaminant in drinking water.
AL = Action Level, the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
ND = Not Detected, absent or present at less than testing method detection level. All testing methods are EPA approved with detection limits much less than the MCL.
NA = Not applicable **NR** = Not Required **NS** = No standard
mg/l = milligram (1/1,000 of a gram) per liter = ppm = parts per million
ug/l = microgram (1/1,000,000 of a gram) per liter = ppb = parts per billion
ng/L = nanogram (1/1,000,000,000 of a gram) per liter = ppt = parts per trillion
NTU = Nephelometric Turbidity Unit, a measure of water clarity.

Note: The following contaminants were tested for but not found: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2 Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, EDB, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dichlorobenzene, 1,2-Dichloroethane, 1,2-Dichloroethene (Trans), 1,2-Dichloropropane, 1,3-Butadiene, 1,3,5,-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,3-Dichloropropene(Cis), 1,3-Dichloropropene(Trans), 1,3-dinitrobenzene, 1,4-Dioxane, 1,4-Dichlorobenzene, 2,2-Dichloropropane, Dioxin, 2,4 D, 2-4-5 TP, 2-Chlorotoluene, 3-Hydroxycarbofuran, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, 4-Chlorotoluene, Acetochlor, Alachlor, Aldicarb Sulfone, Aldicarb Sulfoxide, Aldrin, Androstene, Antimony, Arsenic, Asbestos, Atrazine, Benzene, Benzo(a)pyrene, Beryllium, Bromobenzene, Bromochloromethane, Bromomethane, Butachlor, Cadmium, Carbaryl, Carbofuran, Carbon Tetrachloride, Chlordane, Chlorobenzene, Chloroethane, Chlorodifluoromethane, Chloromethane, cis-1,2-Dichloroethene, Cobalt, Cryptosporidium, Cyanide, Dacthal, Dalapon, DBCP, DCPA, Mono & Di-Acid Degradate, Di(2-Ethylhexyl) Adipate, Di(2-Ethylhexyl) Phthalate, Dibromomethane, Dicamba, Dichlorodifluoromethane, Dichloromethane, Dieldrin, Dinoseb, Dioxin, Diquat, Endothall, Endrin, Equilin, Estradiol, Estriol, Estrone, Ethylbenzene, Ethynylestradiol, Glyphosate, Gross Alpha, Gross Beta, Heptachlor, Heptachlorepoxide, Hexachlorobenzene, Hexachlorobutadiene, Hexachlorocyclopentadiene, Iron, Isophorone, Isopropyl Benzene, Lindane, Mercury, Methomyl, Methoxychlor, Metolachlor, Metribuzin, MTBE, n-Butylbenzene, Nickel, Nitrite, n-Propylbenzene, Oxamyl, Paraquat, PCB's, Pentachlorophenol, Perchlorate, PFBS, PFHpA, PFHxS, PFNA, PFOA, PFOS,Pichloram, p-Isopropyltoluene, Propachlor, Radium 226/228, sec-Butylbenzene, Selenium, Silver, Simazine, Styrene, Surfactants, tert-Butylbenzene, Testosterone, Tetrachloroethene, Thallium, Toluene, Toxaphene, trans-1,2-Dichloroethene, Trichloroethene, Trichlorofluoromethane, Uranium, Vinyl Chloride, Xylene, Zinc

For more information on MCWA's monitoring program call Customer Service at 585-442-7200.

TOWN OF BATAVIA – SAMPLING RESULTS						
SUBSTANCE [UNITS]	MCL [MRDL]	MCLG	HIGHEST RUNNING ANN. AVG[1]	RANGE Low-High	DATE SAMPLED	MEETS EPA STANDARDS
Chlorine Residual [mg/L]	[4]	N/A	N/A	0.03 - 0.93	2017 (daily)	Yes
Haloacetic Acids (HAAs) [ug/L] *Batavia Consolidated PWS*	60	N/A	19.3	11.0 – 26.5	2017 (quarterly)	Yes
Haloacetic Acids (HAAs) [ug/L] *Alexander WD#2 PWS*	60	N/A	N/A	7.3	8/7/17	Yes
Haloacetic Acids (HAAs) [ug/L] *Townline Water PWS*	60	N/A	18.5	7.9 – 33.7	2017 (quarterly)	Yes
Haloacetic Acids (HAAs) [ug/L] *Alabama WD#2 PWS*	60	N/A	N/A	-	To be sampled in August 2018	N/A
Total Trihalomethanes (TTHMs) [ug/L] *Batavia Consolidated PWS*	80	N/A	53.9	27.3 – 78.2	2017 (quarterly)	Yes
Total Trihalomethanes (TTHMs) [ug/L] *Alexander WD#2 PWS*	80	N/A	N/A	37.5	8/7/17	Yes
Total Trihalomethanes (TTHMs) [ug/L] *Townline Water PWS*	80	N/A	42.5	21.7 – 57.4	2017 (quarterly)	Yes
Total Trihalomethanes (TTHMs) [ug/L] *Alabama WD#2 PWS*	80	N/A	N/A	-	To be sampled in August 2018	N/A
SUBSTANCE [UNITS]	AL	SITES SAMPLED	SITES DETECTED	RANGE Low-High	DATE SAMPLED	MEETS EPA STANDARDS
Asbestos Fibers [MFL] *Batavia Consolidated PWS*[2]	7.0	6	1	ND-0.2	12/29/14	Yes
SUBSTANCE [UNITS]	AL	MCLG	90TH %TILE RESULT[3]	RANGE Low-High	DATE SAMPLED	MEETS EPA STANDARDS
Copper [mg/L]	1.3	1.3	0.0814	0.00546 – 0.301	July 2015	Yes
Lead [mg/L]	0.015	0	0.00584	ND-0.0304[4]	July 2015	Yes

[1]These levels represent the highest locational running annual average calculated from data collected.
[2]Alexander WD#2, Townline Water, and Alabama WD#2 PWS's do not have asbestos cement pipes in the system and are waived from asbestos fibers sampling.
[3]The 90th percentile is equal to or greater than 90% of the lead and copper values detected at your water system.
[4]One sample did exceed the Action Level for lead and the homeowner was informed on ways to reduce lead exposure in their household.