

Town of Throop
7471 Robinson Road
Auburn, NY 13021
Public Water Supply ID # 01365-00

To comply with State regulations, Town of Throop will be annually issuing a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year, your tap water met all State drinking water health standards. We are proud to report that our system did not violate a maximum contaminant level or by other water quality standard, with the exception of lead and copper testing.

We conducted tests for over 80 contaminants. We detected 0 of those contaminants and found 0 of those contaminants at a level higher than the State allows.

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 concerning your drinking water, please contact John O'Connell, (Water Operator for Town of Throop) at 315-382-6334.

We want you to be informed about your drinking water. If you would like to learn more, please attend any of our regularly scheduled Town board meetings. Please call the Town Clerk at 315-252-7373 for meeting dates and times.

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 in some cases, radioactive material. It can also pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants pesticides and herbicides; organic chemical contaminants and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Departments and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water source is from Owasco Lake.

2018 Our system did not experience any restriction of our water source.

Facts and Figures

Our water system serves 1000 customers through 362 service connections. The total water produced in 2017 was 22.8 million gallons. The daily average of water treated and pumped into the distribution system was 65,000 gallons per day.

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, turbidity, inorganic compounds, nitrate, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids. None of the compounds we analyzed were detected in your drinking water.

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 Cayuga County Health Department at (315)-253-1404 for local health department.

Why Save Water and How to Avoid Wasting It?

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

Saving water saves energy as well as some of the costs associated with these necessities of life;

Saving water reduces the need to construct costly new wells, pumping systems and water towers.

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 of water for every cycle, regardless of how many dishes are loaded, so be sure to load it to capacity before running it.

Turn off the tap while brushing your teeth.

Check every faucet in your home for leaks. Just a slow drip can waste 15-20 gallons a day. Fix it and you can save almost 6000 gallons per year.

Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch it 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.

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 it moved, you have a leak.

In closing, The Town of Throop would like to thank you for allowing us to continue to provide your family with quality drinking water this year. 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 an questions.

Sincerely,

John D O'Connell 3rd

Water Operator
Town of Throop

Table of Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Lead	No	7/13/17	1 ¹ <1-2	ug/L	0	AL=15	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper	No	7/13/17	0.036 ²	mg/L	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Total Trihalomethanes	No	2018	62.125 44.4-83.7	ug/L	N/A	80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Haloacetic Acids	No	2018	23.975 <0.5-55	ug/L	N/A	60	By-product of drinking water disinfection needed to kill harmful organisms.

Notes:

1 – The level presented represents the 90th percentile of the 10 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 values detected at your water system. In this case, 10 samples were collected at your water system and the 90th percentile value was the second highest value (1 ug/l). The action level for lead was not exceeded at any of the sites tested.

2 - The level presented represents the 90th percentile of the samples collected. The action level for the copper was not exceeded at any of the sites tested.

ANNUAL DRINKING WATER QUALITY REPORT FOR 2018
CITY OF AUBURN
160 SWIFT STREET
AUBURN, NY 13021
WATER SUPPLY ID# NY 0501710

INTRODUCTION

To comply with State and Federal regulations, the City of Auburn, will be annually issuing a report describing the quality of your drinking water. The purpose of this report is to raise public understanding of drinking water and awareness of the need to protect municipal drinking water sources. Last year, your tap water met all State drinking water health standards. In 2018, City of Auburn Water Filtration Plant operators, conducted tests for over 100 contaminants. Testing resulted in the detection of several contaminants, however, none of the contaminants were found at a level above the threshold set forth by the New York State Department of Health. 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 concerning this report on your drinking water, please contact Mr. John West, Chief Water Plant Operator, and at 315-253-8754. 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 Work Sessions. A schedule of the Council Work Sessions may be obtained from the Mayor's Office located in City Hall, 315-255-4104 or on the web site: www.auburnny.gov

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, in some cases radioactive material, and can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the Environmental Protection Agency (EPA) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The New York State Department of Health's (NYSDOH) and the United States Food and Drug Administration's (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

The City of Auburn's water source is Owasco Lake, a surface water source. The City draws its water through a single 30-inch intake line that extends over 1,800 feet into the lake. The intake structure is a submerged concrete crib. The City's allowable withdrawal from Owasco Lake is 15 million gallons per day (mgd), as permitted by Water Resource Application #422 dated 10/3/63. The dependable yield is determined to be 48 mgd in a study conducted in 1995 by R & D Engineering, P.C., and Buffalo, New York. Dependable yield, sometimes called safe yield, is the amount of water that can be continuously withdrawn from the source without ecological impact.

Owasco Lake is classified as a Class-AA Special water body designated by the New York State Department of Environmental Conservation (NYSDEC) as listed in 6 NYCRR Part 702. It is considered an excellent source of potable water, and must be protected.

The transmission main from the Upper Pumping Station to the Filtration Plant on Swift Street consists of approximately 8,800 feet of 24-inch cast-iron pipe. The first 400 feet of transmission main is a new 30-inch diameter pipe installed as part of the re-construction of the Owasco Lake Seawall Project, completed in 2001. The pipe size is increased to 36-inch at the point where it crosses over the Owasco Lake Outlet adjacent to the State Dam, and is reduced to 30 inches before entering the rapid-sand filtration plant.

The City presently operates two filtration plants: a slow-sand plant, and a rapid-sand plant, which function in parallel operation. The plants are located at the corner of Swift Street and Pulsifer Drive in Auburn. The slow-sand filtration plant was constructed in 1916-17. The plant contains 4 beds with a total capacity of about 7.5 mgd. The beds consist of about 42 inches of sand supported by 12 inches of gravel. The rapid-sand filtration plant originally constructed in 1969 consists of 3 dual-media filters with a combined capacity of about 7.25 mgd. In the rapid-sand plant, all water is pre-treated with poly-aluminum chloride to facilitate coagulation and sedimentation and settling prior to filtration. All water is disinfected with Sodium Hypochlorite Solution prior to distribution. Reservoirs on Franklin Street and Swift Street maintain reserves of 10.25 mg and 3 mg respectively. The City also protects its' raw water intake pipe from Zebra Mussels by adding a chemical solution of Sodium Hypochlorite. The addition of Sodium Hypochlorite added at concentrations between 0.40 and 0.70 mg/L prevents adolescent zebra mussels from developing into adults which can attach to the inside of the intake pipe and restrict the City's ability to draw water from the lake. During the 2017 season a Powdered Activated Carbon system was built at the Upper Pumping Station to help treat for microcystin. Drinking water, including bottled water, can reasonably be expected to contain small amounts of contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. As mentioned earlier, the sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells.

In order to ensure tap water is safe to drink, the NYSDOH prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The City treats water according to EPA's and the NYSDOH's regulations. The United States Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

We currently have a program of Watershed Protection to enforce regulations, promulgated by law under NYCRR Section 1100 (Public Health).

FACTS AND FIGURES

The city of Auburn water system serves approximately 27,179 (2010 census) Auburnians through 8,800 service connections. Water from the City of Auburn is also distributed to areas within the Towns of Sennett, Fleming, Throop, Brutus, Montezuma, Springport, Mentz, and Aurelius as well the Villages of Cayuga, Port Byron and Weedsport, and the Cayuga County Water Authority and the Thruway Authority. It is estimated that Auburn supplies close to 43,000 people in Cayuga County with their drinking water. The total water produced in 2018 was 1,506,917,000 (one billion, five hundred six million, nine hundred seventeen thousand) gallons. The daily average of water treated and pumped into the distribution system was 4,126,772 (four million, one hundred twenty-six thousand, seven hundred seventy-two) gallons per day. The highest single day was 5,455,000 (five million, four hundred fifty-five thousand) gallons per day. The amount of water metered totaled 1,213,032,050 (one billion, two hundred thirteen million, thirty-two thousand, fifty) gallons. This leaves a difference of 293,884,950 (two hundred ninety-three million, eight hundred eighty-four thousand, nine hundred fifty) gallons of un-metered water or 19% of the total water produced, that is lost due to leakage, water used to flush reservoirs and mains, wash streets, fighting fires, and for internal use at the water treatment plant. In 2018, the City flushed 1,246 hydrants and leak detection found a total of 14 leaks that were causing up to 28,800 gallons of water unaccounted for per day. (Genesee St. project and not a city quadrant.) These leaks were repaired in a timely fashion. In 2018, water customers were charged \$2.62 per 100 cubic feet. The minimum quarterly charge for water per user is \$15.72.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, we routinely test your drinking water for numerous contaminants. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. These contaminants include the following:

Raw Water Turbidity (NTU)	0.41-36.72	No Designated Limit
Color	<5	15.0 Units
Odor	<1 TON	3 Units
Radioactive Contaminants		
Gross Alpha	7.15 pCi/L	15 pCi/L
Gross Beta Activity	ND	4 pCi/L
Combined Radium 226 and 228	ND	5 pCi/L
Chemical		
pH	6.75-7.99	6.5 - 8.5
Hardness (as CaCO3 mg/l)	140	No Designated Limit
Inorganic (mg/l)		
Arsenic	<0.0010	0.01
Antimony	<0.00040	0.006
Barium	0.021	2.00
Beryllium	<0.00030	0.004
Cadmium	<0.0010	0.005
Chromium	0.0013	0.1
Chloride	24	250
Copper	0.0031	1.3
Cyanide	<0.01	0.2
Fluoride	<0.1	2.2
Iron	<0.050	0.3
Iron+Manganese	<0.060	0.5
Lead	0.007	0.015
Manganese	<0.010	0.3
Mercury	<0.00020	0.002
Nitrate	1.1,1.1,0.88,0.81	10.0
Nickel	0.0010	0.1
Selenium	<0.0010	0.05
Sulfate	12	250
Silver	<0.010	0.1
Thallium	<0.00030	0.002
Sodium	15	No Designated Limits
Zinc	<0.020	5
Organics (mg/l)		
Trihalomethanes, Total	0.030-0.086	0.080
Haloacetic acids, (HAA5)	0.008-0.034	0.060
Specific Organic Chemicals (mg/l)		
Alachlor	<0.0001	0.002
Aldicarb	<0.0005	0.003
Aldicarb sulfone	<0.0008	0.002
Aldicarb sulfoxide	<0.0005	0.004
Aldrin	<0.001	0.005
Atrazine	<0.0001	0.003
Benzo(a)pyrene	<0.00002	0.0002
Butachlor	<0.01	0.05
Carbaryl	<0.001	0.05
Carbofuran	<0.0009	0.040
Chlordane <Alpha Gamma>	<0.00002	0.002
Dalapon	<0.001	0.05
1,2Dibromo-3-chloropropane	<0.00002	0.0002
Dieldrin	<0.001	0.005
2, 4-D	<0.0001	0.050
Dinoseb	<0.0002	0.007
Dicamba	<0.01	0.05
Endrin	<0.00001	0.002
bis(2-ethylhexyl)adipate	<0.0006	0.006
bis(2-ethylhexyl)phthalate	<0.0006	0.006
Glyphoshae	<0.005	0.5
Heptachlor	<0.00004	0.0004
Heptachlor epoxide	<0.00002	0.0002
Hexachlorobenzene	<0.0001	0.001
Hexachlorocyclopentadiene	<0.0001	0.005
3-hydroxycarbofuran	<0.001	No designated limit
Lindane	<0.00002	0.0002

Methomyl	<0.001	0.05
Methoxychlor	<0.0001	0.040
Metolachlor	<0.01	0.05
Metribuzin	<0.01	0.05
Oxamyl	<0.001	0.05
Pentachlorophenol	<0.00004	0.001
Picloram	<0.0001	0.05
Propachlor	<0.01	0.05
Simazine	<0.0001	0.004
Toxaphene	<0.001	0.003
2, 4, 5-TP (Silvex)	<0.0002	0.010
PERFLUORINATED (PFOA)		
Perfluorobutanesulfonic acid	<0.030	No designated limit
Perfluoroheptanoic acid	<0.0033	No designated limit
Perfluorohexanesulfonic acid	<0.010	No designated limit
Perfluorononanoic acid	<0.00067	No designated limit
Perfluorooctanesulfonic acid	<0.0013	No designated limit
Perfluorooctanoic acid	<0.00067	No designated limit
Cobalt	<0.33	No designated limit
Molybdenum	<0.33	No designated limit
1,1-Dichloroethane	<0.030	No designated limit
1,2,3-Trichloropropane	<0.030	No designated limit
1,3-Butadiene	<0.10	No designated limit
Bromochloromethane	<0.060	No designated limit
Bromomethane	<0.20	No designated limit
Chlorodifluoromethane	<0.080	No designated limit
Chloromethane	<0.20	No designated limit
1,4-Dioxane	<0.070	No designated limit
Total Microcystin	<0.3	No designated limit
Microcystin-LA	<0.008	No designated limit
Microcystin-LF	<0.006	No designated limit
Microcystin-LR	<0.02	No designated limit
Microcystin-LY	<0.009	No designated limit
Microcystin-RR	<0.006	No designated limit
Microcystin-YR	<0.02	No designated limit
Nodularin	<0.005	No designated limit
Anatoxin-a	<0.03	No designated limit
Cylindrospermopsin	<0.09	No designated limit
Germanium	<0.3	No designated limit
Alpha-hexachlorocyclohexane	<0.01	No designated limit
Chlorpyrifos	<0.03	No designated limit
Dimethipin	<0.2	No designated limit
Ethoprop	<0.03	No designated limit
Oxyfluorfen	<0.05	No designated limit
Profenofos	<0.3	No designated limit
Tebuconazole	<0.2	No designated limit
Total Permethrin (cis- & trans-)	<0.04	No designated limit
Tribufos	<0.07	No designated limit
1-Butanol	<2.0	No designated limit
2-Methoxyethanol	<0.4	No designated limit
2-Propen-1-ol	<0.5	No designated limit
Butylated hydroxyanisole	<0.03	No designated limit
o-Toluidine	<0.007	No designated limit
Quinoline	<0.02	No designated limit

SUMMARY OF DETECTED CONTAMINANTS

It should be noted that all drinking water, including bottled drinking water, might be reasonably expected to contain 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 at 1-800-426-4791 or the Cayuga County Health Department at 315-253-1405.

Contaminant	Problem Yes/No	Sample Date	Concentration (Avg. Range)	Unit	Value	Regulatory Limit/Standard	Source of Contamination
PHYSICAL Turbidity	No	5 days per week	0.13 Avg. Range 0.05-4.65	NTU	N/A	5.0 distribution system	Soil Runoff
PHYSICAL Turbidity	No	7 days per week	0.04 Avg. Range 0.01- 0.37	NTU	N/A	0.3-1.0 MCL filter Performance	Soil Runoff
Total Coliform	No	6/8/18 6/9/18	2 samples	CFU/100mL	0	>5%Samples ⁴	Naturally Present Environment
E.Coli	No	N/A	N/A	CFU/100mL	N/A	1 or more positive samples	Human and Fecal Animal Waste
Radicals							
Barium	No	4/17/18	0.021	ppm	2	2	Erosion of natural deposits.
Chloride	No	3/23/17	24	ppm	N/A	250	Naturally occurring.
Chromium	No	4/17/18	0.0013	ppm	N/A	0.1	Erosion of natural deposits.
Nickel	No	4/17/18	0.0010	ppm	N/A	0.1	Erosion of natural deposits.
Sulfate	No	3/23/17	12	ppm	N/A	250	Naturally occurring.
Sodium	No	3/23/17	15	ppm	N/A	No Limit	Naturally occurring.
Nitrate	No	2/14/18 5/16/18 8/16/18 11/15/18	0.97 Avg. Range 0.81-1.1	ppm	10	10.0 MCL	Erosion of natural deposits.
ORGANICS Trihalomethanes, Total	No	2/15/18 5/17/18 8/15/18 11/14/18	49.39 Avg. Range 30.4-86	ppb	N/A	80 MCL	Contained in Chlorinated Water
Haloacetic Acids, HAA5	No	2/15/18 5/17/18 8/15/18 11/14/18	31.54 Avg. Range 7.7-53	ppb	N/A	60 MCL	Contained in Chlorinated Water
Lead	No	June 2017 July 2017	2.3 ¹ Range ND- 5.7	ppb	0	AL-15	Contained in Finished Water, an artifact of old piping and lead soldered joints.
Copper	No	June 2017 July 2017	0.041 ² Range 0.0014-0.13	ppm	1.3	AL-1.3	Contained in Finished Water, an artifact of old piping and lead soldered joints.
Radioactive Contaminants							
Gross Alpha	No	4/16/15	7.15	pCi/L	0	15 pCi/L	Contained in soil or sedimentary rock formations
Gross Beta	No	4/16/15	ND	pCi/L	0	4 pCi/L	Contained in soil or sedimentary rock formations
Combined Radium 226 228	No	4/16/15	ND	pCi/L	0	5 pCi/L	Contained in soil or sedimentary rock formations
Unregulated Contaminants							
Chromium	No	3/18/15 6/18/15	0.29,0.29 0.095,0.17	ppb	N/A	N/A	Naturally occurring element; used in making steel and other alloys;chromium -3or-6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation
Strontium	No	3/18/15 6/18/15 12/17/15	84.1, 86.6 81.9, 80.5 85.5,82.3	ppb	N/A	N/A	Naturally occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode ray tube televisions to block x-ray emissions

Hexavalent Chromium	No	3/18/15 6/18/15 12/17/15	0.033 0.048, 0.030 0.043, 0.031	ppb	N/A	N/A	Naturally occurring element; used in making steel and other alloys; chromium -3or-6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation
Vanadium	No	6/18/15	0.12, 0.11	ppb	N/A	N/A	Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst
Chlorate	No	12/17/15	180, 160	ppb	N/A	N/A	Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlorine dioxide
Bromide	No	7/02/18 10/02/18	15 15	ppb	N/A	N/A	Naturally occurring.
TOC	No	7/02/18 10/02/18	3.88 4.63	ppm	N/A	N/A	Erosion of natural deposits.
Manganese	No	7/02/18 10/02/18	0.86 1.7	ppb	N/A	N/A	Naturally occurring.
Haloacetic Acids, (HAA9)	No	7/05/18 10/02/18	33.2 19.3	ppb	N/A	N/A	Contained in Chlorinated Water.
Haloacetic Acids, (HAA6Br)	No	7/05/18	4.9	ppb	N/A	N/A	Contained in Chlorinated Water.
Cyanotoxin							
Microcystin Finished Water	No	8/14/18- 11/8/18	All <0.3	ppb	0	N/A ³	Naturally occurring due to algae blooms
Microcystin Raw Water	N/A	8/14/18- 11/8/18 30samples	Range <0.3- 1.2	ppb	N/A	N/A	Naturally occurring due to algae blooms

Notes:

1 – The level presented represents the 90th percentile of the 30 samples collected. In this case, 30 samples were collected at your water system and the 90th percentile value was the twenty-seventh highest value value, 2.3ppb. The action level for lead was not exceeded at any one of the 30 sites.

2 – The level presented represents the 90th 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 90th 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 90th percentile value was the twenty-seventh highest value value, 0.041 mg/l. The action level for copper was not exceeded at any of the sites tested.

3- The United States Environmental Protection Agency 10-day health advisory level for microcystin is 0.3 ppb for children less than or equal to 5 years of age and vulnerable populations; and 1.6 ppb for all other people.

4- Positive Total Coliform samples triggered a Level 1 assessment.

Definitions:

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine, if possible, why total coliform bacteria have been found in our water system.

Level 2 Assessment: A level 2 assessment is a very detailed study of the water system to identify potential problems and determine, if possible, why an E. Coli violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

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 Disinfection 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 Disinfection 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.

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 in drinking water.

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

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

Colony Forming Units (CFU): A unit used to measure the number of viable bacteria cells.

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

Micrograms per liter (ug/l): Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

Picocuries per liter (pCi/L): A measure of the radioactivity in water.

Color: The presence of dissolved substances in water.

Hardness: A characteristic of water caused mainly by the salts of calcium and magnesium, such as bicarbonate, carbonate, sulfate, chloride and nitrate.

Inorganic chemicals: Materials such as sand, salt, iron, calcium salts, and other materials of mineral origin.

Odor threshold: The minimum odor of a water sample that can just be detected after successive dilutions with odorless water.

WHAT DOES THIS INFORMATION MEAN?

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. The City Of Auburn 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 (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system. Turbidity itself has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbiological growth. Turbidity may indicate the presence of disease causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. Please pay special attention to the additional statement in this document regarding Cryptosporidium and Giardia. Plant monitoring equipment has been updated and plant procedures have been modified to allow treatment of our water and keep it well within all regulatory requirements.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2018 our system was in compliance with all applicable State and Federal drinking water requirements.

INFORMATION ON CRYPTOSPORIDIUM & GIARDIA

New York State law requires water suppliers to notify their customers about the risks of Cryptosporidiosis and Giardiasis. Cryptosporidiosis and Giardiasis are intestinal illnesses caused by microscopic parasites. Cryptosporidiosis can be very serious for people with weak immune systems, those on chemotherapy, dialysis or transplant patients, as well as people with Crohn's disease or Human Immune Deficiency (HIV) infection. People with weakened immune systems should discuss with their health care providers the need to take extra precautions such as boiling water, using certified bottled water or a specially approved home filter. Individuals who think they may have Cryptosporidiosis or Giardiasis should contact their health care provider immediately. The city began a two year testing program for Giardia and Cryptosporidium in October of 2016. Samples of our raw water were collected once a month during this two year period. Of the 24 samples collected during this period, one sample in April 2018 tested positive for Giardia. The rest of the samples collected in 2018 were negative for Giardia and Cryptosporidium. For additional information on Cryptosporidiosis or Giardiasis, please contact the Cayuga County Health Department at 315-253-1405.

INFORMATION ON RADIOLOGICAL TESTING

Radiological Testing was performed in 2015. Regulatory limits are as listed on the table, and all testing was below limits. Testing will be due again in 2024.

Information on Unregulated Contaminants

We were required to test for the unregulated contaminants in 2015 and 2018. A list of the contaminants found are in the summary of detected contaminants section of this report.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

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/Acquired Immune Deficiency Syndrome (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/Center for Disease Control and Prevention (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 1-800-426-4791.

WHY SAVE WATER AND HOW TO AVOID WASTING IT?

Although our system has an adequate amount of water to meet present and future demands, 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 fire fighting 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:

1. 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.
2. Turn off the tap when brushing your teeth.
3. Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it up and you can save almost 6,000 gallons per year.
4. 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.
5. Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances, and then check the meter after 15 minutes. If it moved, you have a leak.
6. Retrofit plumbing fixtures.
7. Be more conscientious of water use.

SYSTEM IMPROVEMENTS

We continue to use Poly Aluminum Chloride (PACl) for coagulation. By using PACl, we have enhanced the pretreatment of the water, reduced chemical handling costs and now produce 1/3 of the waste sludge by volume as in previous years.

We continue to improve our telemetry and Supervisory Control and Data Acquisition (SCADA) systems.

Lagoon cleaning and improvement project completed in 2018.

SCADA upgrade begun in 2018 and will be completed in 2019.

Complete, system-wide Distribution Mapping & GIS Integration project completed in 2018.

North St. water main replacement project completed in 2018.

Vulnerability Assessment done on SCADA system in 2017.

New Powdered Activated Carbon (PAC) system installed at Upper Pumping Station in 2017.

Reservoirs inspected in 2017.

Intake crib inspected in 2017.

Storage Pole Barn installed at Water Filtration Plant in 2017.

Lighting upgrade at Upper Pumping Station in 2017.

FUTURE WORK

Slow Sand Plant improvements in 2019

Zebra mussel control improvements in 2019.

York St. and Chase St. ext. water main replacement in 2019.

FREQUENTLY ASKED QUESTIONS & ANSWERS

What affects the taste of my water?

The taste of drinking water is affected by its mineral content as well as the presence of chlorine, which is used to protect against potential bacterial contamination. Sometimes plumbing can cause a metallic flavor, especially if water has been sitting in pipes for many hours. Taste, however, does not necessarily indicate a higher or lower degree of contamination. At times, when conditions are right, algae blooms occur in our lake sometimes causing objectionable odors and taste in the finished drinking water. Although algae are removed during the treatment process, some of their metabolites may be left behind. The two most common metabolites are geosmin and 2-methylisoborneol (MIB). Even though these compounds are harmless, the human sense of taste and smell are extremely sensitive to them and can detect them in water at concentrations as low as 5 parts per trillion. To give you an idea of what a "part per trillion" is, consider this – One part per trillion is equivalent to one drop of water diluted in 20 Olympic swimming pools.

What affects the way my water looks?

In addition to naturally occurring minerals, our water also includes small amounts of iron picked up from our cast-iron water mains. When a surge of pressure occurs, usually from a main break or a fire hydrant being used, the sediment becomes stirred into the water. During these episodes, the water supply to your home can be tinted yellow or even brownish-red. The iron is harmless and settles out again in a few hours. Please be aware that it will stain clothing, so don't wash your clothes if you experience iron-tinted water. Also, avoid running hot water at these times, if possible, so that your water heater doesn't refill with iron tinted water.

Do I really need to buy a Water Filter or Home Treatment System?

The decision to buy water filters or home treatment systems is yours. Our water meets and exceeds rigid State and Federal Standards. If you decide to buy a filter system, be a smart shopper and do some homework. Be sure that any treatment device you buy is registered with the National Sanitation Foundation (NSF). Information on these systems is available at libraries, or from the NSF.

Contact the NSF toll free at 877-867-3435 or visit www.nsf.org.

A NOTE FROM New York STATE DEPARTMENT OF HEALTH

The NYS Department of Health has completed a source water assessment for the City of Auburn, based on available information. Possible and actual threats to this drinking water source were evaluated. This source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how easily contaminants can move through the subsurface to lakes. 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 of this document "Are there contaminants in our drinking water?" for a list of the contaminants that have been detected in the drinking water.) The source water assessments are intended to provide managers with additional information for protecting source waters into the future.

As mentioned before, our water is derived primarily from Owasco Lake. The source water assessment has rated this source as having an elevated susceptibility to protozoa and phosphorus due to the amount of agricultural lands in the assessment area and the quantity of wastewater discharged from municipal wastewater treatment plants to surface water. In addition, this source water assessment rated Owasco Lake as having an elevated susceptibility to pesticide contamination due to the amount of agricultural lands.

County and state health departments will use this information to direct future source water protection activities. These may include water quality monitoring, resource management, planning, and education programs. A copy of the complete assessment is available for review by calling the Cayuga County Health Department at 253-1405.

ADDITIONAL SOURCES OF INFORMATION

Seth Jensen
Director of Municipal Utilities
315-255-4180
sjensen@auburnny.gov

United States Environmental Protection
Agency **Safe Drinking Water Hotline**,
1-800-426-4791

Cayuga County Health Department
Kathleen Cuddy, Public Health Director
315-253-1560

www.epa.gov/safewater/

John West,
Chief Water Plant Operator
315-253-8754
jwest@auburnny.gov

Eileen O'Connor, Director of Environmental
Health, 315-253-1405

Visit the City's website for information regarding our water supply. <http://www.auburnny.gov>