

Annual Drinking Quality Report for 2018
TOWN OF MONTEZUMA Water
8102 Dock Street, Montezuma, NY 13117
Public Water Supply ID#NY0501733
May 2019 Page 1 of 7

INTRODUCTION

To comply with State and Federal regulations, the Town of Montezuma 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. 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 Malenick (315) 776-8844 ext 2. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled town board meetings. The meetings are held on the 3rd Tuesday at 7p.m. of each month at the Municipal Bldg., located at 8102 Dock Street Montezuma, NY 13117

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, 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 Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water system serves approximately 475 people through 215 service connections. Our water source is Owasco Lake. The Town of Montezuma buys their water from the Cayuga County Water Authority who in turn is supplied by the City of Auburn. The City of Auburn owns and operates two Water Filtration Plants, a Rapid Sand Filtration Plant and a Slow Sand Filtration Plant; both are located at the corner of Swift St. and Pulsifer Drive in the City of Auburn. During the 2017 season a Powdered Activated Carbon system was built at the Upper Pumping Station to help treat for microcystin. After filtration the water is disinfected by liquid chlorine before introduction to the distribution system. The finished water is pumped through the City of Auburn distribution system to the Cayuga County Water Auth. distribution system that flows along Rte. 38 to Port Byron. A meter vault located along Route 31 meters the water usage for the Town of Montezuma. Water not consumed by our customers in the Town of Montezuma is then stored in a three hundred thousand-gallon steel reservoir located on High St.

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 the 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 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 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 agriculture lands in the assessment area and the quality of wastewater discharged from the municipal wastewater treatment plants to surface water. In addition, this source water assessment rated Owasco Lake as having 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 educational programs. A copy of the complete assessment is available for review by calling the Cayuga County Health Department at 253-1405.

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, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, 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 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 Cayuga County Health Department at (315) 253-1405

Table of Detected Contaminates

Attached please find the list of contaminants tested for by the city of Auburn

Contaminants	Violation Yes/No	Date of Sample	Level Detected (Ave/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Copper ¹	NO	9/11/18-9/12/18	0.058 ¹ Range 0.010-0.081	mg/L	1.3	1.3	Contained in Finished Water, an artifact of old piping and lead soldered joints.
Lead ²	NO	9/11/18-9/12/18	1.7 ² Range <1-3.2	mg/l	0	15	Corrosion of household plumbing, erosion of natural deposits
TTHM Total Trihalomethanes	NO	2/13/2018 5/16/2018 8/21/2018 11/13/2018	68.5 Range 47.3-89.6	mg/l	N/A	80	By-Product of drinking water chlorination
Haloacetic Acids	NO	2/13/2018 5/16/2018 8/21/2018 11/13/2018	35.9 Range 8.5-63	mg/l	N/A	60	By-product of drinking water disinfection need to kill harmful organisms

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 copper 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 (0.058 mg/l). The action level for copper was not exceeded at any of the sites tested.

2 – The level presented represents the 90th percentile of the 10 samples collected. The action level lead was not exceeded at any of the sites tested.

Definitions:

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 the 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. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contamination.

Action Level (AAL): 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.

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).

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table our system had no violations. We have learned through our testing that some contaminants have been detected: however, these contaminants were detected below the level allowed by the State.

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 Town of Montezuma 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>.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2018, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

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/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).

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:

- ❖ 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 up 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**.

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 at 315-776-8844 EXT 1 if you have questions, OR WISH EXTRA COPIES OF THIS REPORT

The following tables have been copied from the City of Auburn’s 2018 Report

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:

Physical	Owasco Lake	NYDOH Maximum Limit
Raw Water Turbidity (NTU)	0.41-36.72	No Designated Limit
Color	<5	15.0 Units
Odor	<1 TON	3 Units
Radioactive Contaminants	Potable Water	
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
Inorganics (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
UCMR3/UCMR4 (ug/L)		
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.

Table of Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Average) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely 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
INORGANICS			INORGANICS				
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.

TOWN OF MONTEZUMA
WATER DEPARTMENT
PO BOX 357
MONTEZUMA, NY 13117