

# **Annual Drinking Water Quality Report for 2019**

## **Town of Big Flats Water District 5**

Public Water Supply ID# 0701011

February 2020

To comply with State regulations, the Town of Big Flats is issuing its annual report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. 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. Water District 5 covers all municipally supplied water customers, residential and commercial, except for Harris Hill Manor which is referred to as Water District 4. That water district has its own Annual Water Quality Report.

If you have any questions about this report or concerning your drinking water, please contact Shawn Crater, Water Systems Supervisor at 607-562-8443, extension 228. (TDD# - 711) Please feel free to attend our Water Board meetings. They are held the 4<sup>th</sup> Wednesday of the month at 7 pm at the Town Hall.

### **Where does our water come from?**

In general, the sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health 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 sources are two 40-foot-deep wells located on Carpenter Road. We also have a 50-ft deep well located at Consumer Square. The Consumer Square well serves primarily Consumer Square, Arnot Mall, Colonial Drive and Chambers Road businesses and residential areas on and near the Hickory Grove Road area, while the Carpenter Road wells serve primarily the hamlet and areas west of the Mall. However, our system is interconnected so all 3 wells serve Water District 5. Water District 5 serves about 5110 people through approximately 1100 residential service connections.

### **Facts and Figures**

Our water system serves about 3,800 residential customers, the mall, six hotels and several shopping centers, through approximately 1580 service connections. Our three wells produced 182.94 million gallons of water in 2019. We also pumped 6.48 million gallons from Elmira via the booster pump station. We pumped an average of 518,832 gallons of water into our system everyday. On our highest single day, we pumped a total of 910,000 gallons into the system.

We can account for approximately 99% of the water we pumped in 2019 through billing records, usage records, authorized hydrant use and the leaks we uncovered and repaired. The 1% of water we cannot account for is attributed to unfound leaks, water meters and unauthorized use. This information is based on the 2019 customer billing records and other records in the water department office.

The average residence uses about 15,000 gallons each billing quarter. This results in an annual bill of \$208 for 60,000 gallons.

Improvements to the system are always on the table. We installed a new waterline on Daniel Zenker Drive to loop the system under the highway back to Canal St. We have also purchased a total of 30 dataloggers that are installed around the area to help find leaks on a timelier basis. Our goal is to buy ten per year until we have 50 in place throughout the system. We are also looking at extending service into the Smith Valley area. We are applying for a grant to help defray costs.

### **Source Water Assessment Program (SWAP)**

The NYS DOH has completed a source water assessment for this system, based on available information. Possible and actual threats to this drinking water source were evaluated. 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 to 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 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.

As mentioned before, our water is derived from 3 drilled wells. The source water assessment has rated these wells as having a high susceptibility to microbials, nitrates, industrial solvents, metals and other industrial contaminants. These ratings are due primarily to the close proximity of a permitted discharge facility (industrial/commercial facilities that discharge wastewater into the environment and are regulated by the state and/or federal government); a toxic chemical release facility; and agricultural land in relation to the wells. In addition, the wells draw from an unconfined aquifer with high hydraulic conductivity. Please note that, while the source water assessment rates our wells as being susceptible to microbials, our water is disinfected to ensure that the finished water delivered

into your home meets the New York State drinking water standards for microbial contamination. A copy of this assessment, including a map of the assessment area, can be obtained by contacting us.

## 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, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, 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. You may note that we are including more contaminants on our tables but be assured that our water hasn't changed. The laboratories are able to report lower detection limits as their instruments get better.

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 the 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 Chemung County Health Department at 737-2019.

### Contaminants Detected in 2019 (or latest test)

#### Definitions used in the table:

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

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

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

**Action Level (AL):** The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

**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).

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

**Not Detected (N/D):** The contaminant was not detected in the laboratory test.

**Not Applicable (N/A):**

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

#### Distribution System

Contaminant	Violation Yes/No	Sample Date	Level Detected	Unit Measurement	MCLG	Regulatory Limit MCL (AL)	Likely Source of Contamination
Haloacetic Acids 2 Samples	N	8/19	Avg 12.6 Range 10.3 – 15	ug/L	N/A	60	By-product of drinking water chlorination
Trihalomethanes 2 Samples	N	8/19	Avg 37.5 Range 33.1 – 41.9	ug/L	N/A	80	By-product of drinking water chlorination
Lead 20 samples <b>Note 1</b>	N	7/19	90th% = 4.8 Range ND– 6.0	ug/L	0	15 (AL)	Corrosion of household plumbing
Copper 20 Samples <b>Note 1</b>	N	7/19	90th% = .18 Range .03 - .23	mg/L	1.3	1.3 (AL)	Corrosion of household plumbing
Chlorine Residual in commercial areas	N	114 samples in 2019	Average 0.8 Range .22 – 1.5	mg/L	4.0 MRD LG	4.0 MRDL	Disinfectant added to control microbial contaminants
Chlorine Residual in residential areas	N	27 samples in 2019	Average .71 Range 0.25 – 1.5	mg/L	4.0 MRD LG	4.0 MRDL	Disinfectant added to control microbial contaminants
Total coliform Monthly in 2019 <b>Note 2</b>	No	9/4/19 One sample	Present	Present or absent	N/A	No MCL; if presence confirmed, system must be checked for problems	Naturally occurs in the environment

**Note 1:** The 90<sup>th</sup> Percentile (90<sup>th</sup> %) means that 90% of the results were less than or equal to the number reported. No samples exceeded the action level for lead or copper. 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. Big Flats 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>.

**Note 2:** Our routine sample for September was reported to contain total coliform. As required, we collected three repeat samples and untreated well water samples. Because all repeat samples were negative, we did not exceed the coliform treatment standard.

### Consumer Square Well

Contaminant	Violation Yes/No	Date of Sample	Level Detected	Unit Measurement	MCLG	Regulatory Limit MCL (AL)	Likely Source of Contamination
Barium	N	3/17	.102	mg/L	2	2	Erosion of natural deposits.
Nickel	N	3/17	1.7	ug/L	N/A	N/A	Naturally occurring; corrosion of stainless-steel pipe fittings
Nitrate	N	2/19	1.4	mg/L	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage;
Sodium	N	3/17	56.9	mg/L	N/A	<b>Note 2</b>	Naturally occurring; Road salt; Water softeners; Animal waste.
1,1,1-Trichloroethane 4 samples	N	2019	Avg 0.96 Range .9– 1.1	ug/L	5	5	Industrial solvent used for cleaning & degreasing.

**Note 2:** 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.

### Carpenter Road Wells

Contaminant	Violation Yes/No	Date of Sample	Level Detected	Unit Measurement	MCLG	Regulatory Limit MCL (AL)	Likely Source of Contamination
Barium 2 Samples	N	2017	Avg 0.16 Range 0.14 – 0.18	mg/L	2	2	Erosion of natural deposits.
Nitrate 8 Samples	N	2019	Avg 4.9 Range 4 – 5.7	mg/L	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage
Sodium 2 samples	N	6/17	Avg 50.7 Range 47.4 – 54	mg/L	N/A	<b>Note 2</b>	Naturally occurring; Road salt; Water softeners; Animal waste.
Gross Beta 2 Samples	N	3/19	Avg 2.21 Range 1.36 – 3.05	pCi/L	N/A	N/A <b>Note 3</b>	Decay of natural deposits
Uranium 2 Samples	N	3/19	Avg 1.16 Range 1.08 – 1.24	ug/L	0	30	Naturally occurring
<b>Special Testing:</b> In 2017, the New York State Health Department screened drinking water sources across the state for six common perfluorinated compounds (PFCs), some of which have been found in groundwater near factories that use this group of chemicals. They are used to make fire-fighting foam, Teflon, Scotchgard, Gortex, fast food wrappers, microwave popcorn packaging, pizza boxes and industrial materials. Consumer uses are or will soon be phased out. Because they are inert, they can last a long time in groundwater, and may have health effects at high levels. These compounds are currently unregulated, although EPA has set a health-based limit of 70 ng/L (a ng/l is one part per trillion). Besides our municipal wells, four additional sites in Big Flats yielded similar results. The DOH screening indicates no significant perfluorocarbon contamination is present in Big Flats groundwater. A single detection was reported from the six tests performed on our wells. Screening list: PFOA perfluorooctanoic acid PFHxS perfluorohexanesulfonic acid PFOS perfluorooctanesulfonic acid PFHpA perfluoroheptanoic acid PFBA perfluorobutanesulfonic acid PFNA perfluorononanoic acid							
PFCs (Perfluoroheptanoic acid)	N	6/17	2.1	ng/L	70		

**Note 2:** 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.

**Note 3:** New York State considers the level of concern to be over 50 pCi/L

## **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.

## **Is our water system meeting other rules that govern operations?**

During 2019, our system exceeded all applicable state 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).

## **How can I help save water?**

Saving water lessens the strain on the water system during a dry spell or drought. 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:

- Fill a pitcher of water and keep it in the refrigerator for cold drinking water instead of running the faucet until the water gets cold. A running faucet can waste 3-5 gallons of water per minute. This will also lessen the chlorine taste in the water.
- Fix leaky faucets and toilets. A slow drip can waste 15 - 20 gallons per day. A larger leak or running toilet can waste up to 100 gallons per day.
- You can check your water usage on your water meter each week. This is especially helpful for leaks you may not be able to hear. For help reading the water meter you can call the water department.

# Annual Drinking Water Quality Report for 2019

Harris Hill Manor (Big Flats Water District #4)

Public Water Supply ID# 0701005

February 2020

To comply with State regulations, the Town of Big Flats is issuing its annual report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year your tap water met all State drinking water health standards. We are proud to report that our system has never violated a maximum contaminant level or any other water quality standard. 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 Shawn Crater, Water Systems Supervisor at 607-562-8443, extension 228. (TDD#- 711) Please feel free to attend our Water Board meetings. They are held the 4<sup>th</sup> Wednesday of the month at 7pm at the Town Hall.

## Where does our water come from?

In general, the sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health 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 source is a 93-foot deep well. We treat the water with chlorine before sending it to your home. Our water system serves about 266 people through 77 service connections.

Approximately 94.2% of the water pumped from our well was billed directly to customers and identified as being used for street sweeping, flushing, tank emptying, and pool fills. During 2019, our system did not experience any restriction of our water source.

## 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.

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 the 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 Chemung County Health Department at 737-2019.

## Contaminants Detected in 2019 (or most recent test)

### District 4 Well

Contaminant	Violation Yes/No	Date of Sample	Level Detected	Unit Measurement	MCLG	Regulatory Limit MCL (AL)(TT)	Likely Source of Contamination
Barium	N	9/18	0.08	mg/L	2	2	Erosion of natural deposits.
Nitrate	N	2/19	0.53	mg/L	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage

## Distribution System

Contaminant	Violation Yes/No	Date of Sample	Level Detected	Unit Measure- ment	MCLG	Regulatory Limit MCL (AL) (TT)	Likely Source of Contamination
Copper 5 samples <b>Note 1</b>	N	7/19	90 <sup>th</sup> Percentile 0.1 Range 0.04–0.13	mg/L	1.3	AL = 1.3	Corrosion of household plumbing
Lead 5 samples <b>Note 1</b>	N	7/19	90 <sup>th</sup> Percentile 1.7 Range ND–2.3	ug/L	0	AL =15	Corrosion of household plumbing
Sodium	N	10/19	15.3	Mg/L	N/A	<b>Note 2</b>	Naturally occurring; Road salt; Water softeners; Animal waste.
Chlorine Residual in residential areas	N	15 samples in 2019	Average .44 Range 0.28 – 0.71	mg/L	4.0 MRDL G	4.0 MRDL	Disinfectant added to control microbial contaminants
Total coliform Monthly in 2019 <b>Note 3</b>	No	9/4/19 One sample	Present	Present or absent	N/A	No MCL; if presence confirmed, system must be checked for problems	Naturally occurs in the environment

**Note 1:** The number reported is the 90<sup>th</sup> Percentile. This means that 90 percent of homes tested were less than or equal to the level reported. We conducted one round of testing in 2019. No samples exceeded the action level for lead or copper. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Water District is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

**Note 2:** 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.

**Note 3:** Our routine sample for September was reported to contain total coliform. As required, we collected three repeat samples and untreated well water samples. Because all repeat samples were negative, we did not exceed the coliform treatment standard.

### Definitions used in the table:

**Maximum Contaminant Level (MCL):** 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.

**Action Level (AL):** Concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

**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).

**Not Detected (ND):** The contaminant was not detected in the laboratory test.

**Not Applicable (N/A)**

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

## 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.

## Is our water system meeting other rules that govern operations?

During 2019, our system exceeded all applicable state requirements.

## Source Water Assessment Program (SWAP)

The NYS DOH has completed a source water assessment for this system, based on available information. Possible and actual threats to this drinking water source were evaluated. 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 to 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 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.

As mentioned before, our water is derived from 1 drilled well. The source water assessment has rated this well as having a medium-high susceptibility to microbials. While no significant sources of contamination have been identified in the assessment area, the well draws from an unconfined aquifer with high hydraulic conductivity. Please note that while the source water assessment rates our well as being susceptible to microbials, our water is disinfected to ensure that the finished water delivered into your home meets the New York State drinking water standards for microbial contamination.

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 assessment, including a map of the assessment area, can be obtained by contacting us.

## Do I need to take special precautions?

Although our drinking water met or exceeded state and federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium*, *Giardia* and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

## How can I help save water?

Saving water lessens the strain on the water system during a dry spell or drought. 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:

- ☐ Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix the leak 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.
- ☐ 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.

## Closing

*Please help us protect our Water System by reporting any suspicious activity to the Police and the Town of Big Flats Water Department. 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.*