

2022 Water Quality Report

City of Flushing
WSSN 02340

This report covers the drinking water quality for the City of Flushing for the 2022 calendar year. This information is a snapshot of the quality of the water that we provided to you in 2022. Included are details about where your water comes from, what it contains, and how it compares to United States Environmental Protection Agency (USEPA) and state standards. The City of Flushing purchases drinking water from Genesee County Water. Genesee County pumps and treats water from Lake Huron.

Contaminants and their presence in water:

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. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (800-426-4791).

Vulnerability of sub-populations: Some people may be more vulnerable to contaminants 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 about drinking water from their health care providers. USEPA/Center for Disease Control guidelines on appropriate means to lessen

the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Sources of drinking 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, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture and residential uses.

Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems. To ensure that tap water is safe to drink, the USEPA prescribes regulations that limit the levels of certain contaminants in water provided by public water systems. Federal Food and Drug Administration regulations establish limits for contaminants in bottled water which provide the same protection for public health.



Key to Detected Contaminants Tables

How do I read this Chart?

It’s easy! Our water is tested to assure that it is safe and healthy. These Tables are based on tests conducted by the City of Flushing within the last five (5) calendar years. We conduct many tests throughout the year, however, only tests that show the presence of a contaminant are shown here. The table on this page is a key to the terms used in the following table. Sources of Contaminants show where this substance usually originates.

Symbol	Non-Abbreviated Symbol or Term	Definition/Explanation
AL	Action Level	The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow.
HAA5	Halo acetic Acids	HAA5 is the total of bromoacetic, chloroacetic, dibromo acetic, dichloroacetic, and trichloroacetic acids. Compliance is based on the total.
LRAA	Locational Running Annual Average	The average of analytical results for samples at a particular monitoring location during the previous four quarters.
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 feasible using the best available treatment technology.
MCLG	Maximum Contaminant Level Goal	The level of contaminant in drinking water below which there is no known or expected risk to health. <i>MCLG’s allows for a margin of safety.</i>
MRDL	Maximum Residual Disinfectant Level	The highest level of 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. MRLDG’s do not reflect the benefits of the use of disinfectants to control microbial contaminants.
n/a	not applicable	Does not apply.
ND	Not Detected	Result is not detectable at or below the laboratory detection level.
NTU	Nephelometric Turbidity Units	Measures the cloudiness of water.
pCi/L	Picocuries Per Liter	A measure of radioactivity
ppb	Parts Per Billion (one in one billion)	The ppb is equivalent to micrograms per liter. A microgram = 1/1000 milligram.
ug/L	Micrograms per liter	A microgram = 1/1000 milligrams. 1 microgram per liter is equal to 1 part per billion (ppb).
ppm	Parts Per Million (one in one million)	The ppm is equivalent to milligrams per liter. A milligram = 1/1000 gram.
RAA	Running Annual Average	The average of analytical results for all samples taken during the previous twelve months.
TT	Treatment Technique	A required process intended to reduce the level of a contaminant in drinking water.
TTHM	Total Trihalomethanes	Total Trihalomethanes is the sum of chloroform, bromodichloromethane, dibromochloromethane and bromoform. Compliance is based on the total.
°C	Celsius	A scale of temperature in which water freezes at 0° and boils at 100° under standard conditions.
>	Greater than	Mathematical symbol that denotes a value “greater than” another value.
	90 th Percentile Value	The concentration of lead or copper in tap water exceeded by 10 percent of the sites sampled during a monitoring period.

2022 Regulated Detected Contaminant Tables

Inorganic Chemicals – Monitoring at the Plant Finished Water Tap								
Regulated Contaminant	Test Date	Unit	MCLG, or MRDLG	MCL, TT, or MRDL	Highest Level Detected	Range of Detection	Violation yes/no	Major Sources in Drinking Water
Fluoride	Daily	ppm	4	4	0.82	0.36 – 0.82	no	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Barium	2022	ppm	2	2	0.014	n/a	no	Erosion of natural deposits; discharge of metal refineries; discharge of drilling wastes.

Disinfection By-Products – Monitoring in Distribution System, Stage 2 Disinfection By-Products								
Regulated Contaminant	Test Date	Unit	MCLG, or MRDLG	MCL, TT, or MRDL	Highest LRAA	Range of Detection	Violation yes/no	Major Sources in Drinking Water
Total Trihalomethanes (TTHM)	2022	ppb	n/a	80	52.8	24.2-52.8	NO	By-product of drinking water disinfection
Haloacetic Acids (HAA5)	2022	ppb	n/a	60	12	8-12	NO	By-product of drinking water disinfection
Disinfectant Residuals – Monitoring in Distribution System								
Regulated Contaminant	Test Date	Unit	MCLG, or MRDLG	MCL, TT, or MRDL	Highest RAA	Quarterly Range of Detection	Violation yes/no	Major Sources in Drinking Water
Total Chlorine Residual	2022	ppm	4	4	.77	.07-.77	NO	Water additive used to control microbes

2022 Turbidity – Monitored every 4 hours at Plant Finished Water			
Highest Single Measurement Cannot exceed 1 NTU	Lowest Monthly % of Samples Meeting Turbidity Limit of 0.3 NTU (minimum 95%)	Violation yes/no	Major Sources in Drinking Water
0.09	100%	no	Soil Runoff
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.			

2022 Microbiological Contaminants – Monthly Monitoring in Distribution System					
Regulated Contaminant	MCLG	MCL	Highest Number Detected	Violation yes/no	Major Sources in Drinking Water
Total Coliform Bacteria	0	>1 Positive monthly sample, or Presence of Coliform bacteria > 5% of monthly samples	0	NO	Naturally present in the environment
<i>E. coli</i> Bacteria	0	A routine sample and a repeat sample are total coliform positive, and one is also fecal or <i>E.coli</i> positive.	0	NO	Human waste and animal fecal waste.

2022 Lead and Copper Monitoring at Customer Tap								
Regulated Contaminant	Year Sampled	Range of Results	MCLG	AL	Your Results	Number of Samples Above AL	Violation yes/no	Major Sources in Drinking Water
Lead (ppb)	2021	0-18	0	15	0	1	NO	Lead service lines; corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits.

2022 Regulated Detected Contaminant Tables (continued)

Copper (ppm)	2021	0-0.15	1.3	1.3	.06	0	NO	Corrosion of household plumbing systems; Erosion of natural deposits
*The 90th percentile value means 90 percent of the homes tested have lead and copper levels below the given 90th percentile value. If the 90th percentile value is above the AL additional requirements must be met.								
* Information about lead: 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. City of Flushing 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								

Regulated Contaminant	Treatment Technique	Typical Source of Contaminant
Total Organic Carbon (ppm)	The Total Organic Carbon (TOC) removal ratio is calculated as the ratio between the actual TOC removal and the TOC removal requirements. The TOC was measured each month and because the level was low, there is no TOC removal requirement	Erosion of natural deposits

Radionuclides 2019							
Regulated contaminant	Test date	Unit	MCLG, or MRDLG	Allowed Level	Level detected	Violation Yes/no	Major Sources in Drinking water
Combined Radium 226 and 228	2/13/19	pCi/L	0	5	1.1 ± 0.50	no	Erosion of natural deposits
Gross Alpha	2/13/19	pCi/L	0	15	2.0 ± 1.0	no	Erosion of natural deposits

2022 Unregulated Detected Contaminant

Contaminant	MCLG	MCL	Level Detected	Source of Contamination
Sodium (ppm)	n/a	n/a	8.9	Erosion of natural deposits
Magnesium	n/a	n/a	7.5	Erosion of natural deposits
Sulfate	n/a	n/a	24	Runoff/leaching from natural deposits

The water quality report describing the source and quality of your drinking water is available at https://www.flushingcity.com/departments/water_and_sewer/index.php#outer-9. To receive a paper copy in the mail, contact us at 810-659-5665.

