City of Flint

December 2014

Water Quality Report Summary

The City of Flint Department of Utilities is dedicated to providing a high quality drinking water to the residents of the community. The Consumers Annual Report on Water Quality provides important information about your drinking water and is mailed once a year to all water customers. This report is a summary of the monthly operating report (MOR) and also contains operational information and statistics about the water and sewer systems. This report will appear online each month along with the MOR.

Additional information about your drinking water is available by calling the Flint Water Plant & Facilities at 810-787-6537

General drinking water information can be found on the USEPA website at www.epa.gov/safewater/.

	City of Flint **Water Quality** **Monitoring Data**	**Detected Contaminants**

December, 2014

Monitored at the Treatment Plant

Substance	Units	MCL-G	MCL	Highest Level	Range Detected	Are We Compliant	Typical Source of Contaminant
BARIUM	ppm	2	2	0.02	N/A	Yes	Discharge of drilling wastes Erosion of natural deposits
CHLORIDE	ppm	N/A	N/A	87	74 - 87	Yes	Erosion from natural deposits
CHLORINE RESIDUAL	ppm	4	4	3	1.7 - 3.0	Yes	Water additive used to control microbes
FLUORIDE	ppm	4	4	0.77	0.59 - 0.77	Yes	Discharge from fertilizer & aluminum factories
HARDNESS	ppm	N/A	N/A	210	168 - 210	N/A	
NITRATE	ppm	10	10	Not Detected	N/A	Yes	Runoff from fertilizer use; leaching from septic tanks, sewage;
TURBIDITY (cloudiness)	NTU	< 0.3 in 95 % of samples		0.12	0.06 - 0.12	Yes	Soil runoff
TOTAL ORGANIC CARBON	ppm	N/A	N/A	2.59	N/A	Yes	Erosion of natural runoff
BROMATE	ppm	N/A	0.01	0.023	N/A	N/A	By-product of ozone treatment, compliance based on RAA

Monitored in the Distribution System

Substance	Units	MCL-G	MCL	Highest Level	Range Detected	Are We Compliant	Typical Source of Contaminant
CHLORINE RESIDUAL	ppm	4	4	2.8	0.2 - 2.8	Yes	Water additive used to control microbes
HALOACIDIC ACIDS (HAA5)	ppb	N/A	60	24	5 - 24	Yes	By-product of drinking water disinfection
TRIHALOMETHANES (TTHM)	ppb	N/A	80	93.6	33.3 - 93.6	No	By-product of drinking water disinfection
TOTAL COLIFORM	ppm	< 5% of samples present		0	N/A	Yes	Naturally occurring

Monitored at the Customers Tap (from June through December 2014)

Substance	Units	MCL-G	AL	Highest Level	# samples over AL	Are We Compliant	Typical Source of Contaminant
COPPER	ppm	1.3	1.3	0.28	0	yes	Corrosion of household plumbing systems;leaching from wood preservatives
LEAD	ppb	0	15	37	2	Yes	Corrosion of household plumbing systems; erosion of natural deposits

Unregulated Contaminants

Substance	Units	MCL-G	MCL	Level Detected	Highest Level	Are We Compliant	Typical Source of Contaminant
SODIUM	ppm	N/A	N/A	18	N/A	N/A	Erosion of natural deposits
pH	S.U.	N/A	N/A	8.49	7.41 - 8.49	N/A	

Note: TTHM, HAA5, and Chlorine are for the Flint Distribution System

*The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change that frequently. Some contaminants are sampled less frequently than once a month; as a result, not all contaminants were sampled for during the month of December.

Non Compliant Explanation -A TTHM Violation was issued to the City of Flint by the DEQ December 16th, 2014. TTHM is tested once each quarter and the DEQ takes a rolling four quarter average to measure against the MCL in determining compliance. The City has addresses the violation by working with professional engineers to submit a required Operational Evaluation Plan to the DEQ and currently seven of eight test sites are below the MCL limit.

Water Source

The City of Flint currently uses the Flint River as its Primary water source.

Health Information

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 EPA's Safe Drinking Water Hotline (1-800-426-4791).

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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

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; Inorganic contaminants, such as salts and metals, which can be naturally-occurring. Pesticides and herbicides, Organic chemical contaminant and radioactive contaminants.

In order to ensure that tap water is safe to drink, EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations established limits for contaminants in bottled water, which must provide the same protection for public health.

Should there be any water quality complaints or requests for technical information regarding water quality, Holloway Reservoir, Kearsley Lake, Thread Lake, and Flint River water levels call **(810) 787-6537** for assistance.

The City of Flint Water Plant conducts lead & copper monitoring every three years from a limited number of

Key to Detected Contaminants Table		
Symbol	**Abbreviation for**	**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	Haloacidic acids	HAA5 is the total of bromoacedic, chloroacedic, dibromoacedic, and trichloroacetic acids. Compliance is based on the totalof five.
MCL	Maximum Contaminant Level	The highest level of a contaminant that is allowed in drinking water.
MCL-G	Maximum Contaminant Level Goal	The level of a contaminant below which there is no known or expected risk to health.
MRDL	Maximum Residual Disinfectant Level	The highest level of a disinfectant allowed in drinking water.
MRDL-G	Maximum Residual Disinfectant Level Goal	The level of a disinfectaant below which there is no known or expected risk to health.
N/A	Not Applicable	
ND	Not Detected	
NTU	Nephelometric Turbidity Units	Measures the cloudinessin water
pCi/L	picocuries	A measure of radioactivity
ppb	Parts per billion (one in a billion)	The ppb is equivalent to micrograms per liter A microgram is equal to 1/1000 milligram
ppm	parts per million (one in a million)	The ppm is equivalent to micrograms per liter A microgram is equal to 1/1000 gram
TT	Treatment Technique	
TTHM	Total Trihalomethanes	Total trihalomethanes is the sum of chloroform, bromodichloromethane, dibromochloromethane and bromoform.

Water & Sewer System Information

Water System Statistics		Sewer System Statistics	
Water & Sewer Customers	**29700**	Catch Basins Cleaned/Replaced/Repaired	**36**
Main Break Repairs	**26**	Driveway/Sidewalk Repairs	**5**
Main Valves Replaced/Repaired	**5**	Lawn Repairs	**3**
Cut & Plug Services	**43**	Manhole Replacements	**2**
Fire Hydrants Replaced/Repaired	**12**	Sewer Inspections	**28**
Curb Box Services	**42**	Street Cut Repairs	**13**
Miss Dig Orders	**5**	Sanitary Sewer - TV Inspections (ft)	**878**
Avg. Water Usage	**17.01 MGD**	Miss Dig Orders	**23**

Strategic Plan - Utility Department Key Objective's 60 Day Outlook

Key Objective	Target Date	Comments
Develop and implement a "water loss" program	2/15/2015	Working with engineering firms
Implement a response time policy for the WSC	3/1/2015	Modifying management/union proposal
Implement a root control matrix	3/15/2015	Will reduce sewer infiltration
Complete electrical upgrades on Cedar Street pumping station	4/1/2015	Will increase pressure efficiency