# Drinking Water Testing Program City of Flint Community Data Summary

#### Overview

In partnership with the City of Flint and the Department of Environment, Great Lakes, and Energy (EGLE) the Michigan Department of Health and Human Services (MDHHS) is supporting the current Flint water infrastructure project with the drinking water testing program. This is a program where MDHHS offers free water sampling and testing to residents in communities with current and past action level exceedances. The program will provide water quality information on residential tap water to protect public health. This will help to ensure that residents are getting clean water, and it will help to protect public health.

#### Secondary Water Source Project: Water Blend Stages

The table below provides the start date of the water blending between Great Lakes Water Authority (GLWA) and the secondary water source, Genesee County Drain Commissioner (GCDC). Water samples for this effort were collected after the blend start dates.

Blend Stage Start	Water Blend GLWA/GCDC	Status
8/23/2021	95% GLWA / 5% GCDC	Completed
9/30/2021	75% GLWA / 25% GCDC	Completed
10/11/2021	50% GLWA / 50% GCDC	Completed
10/26/2021	25% GLWA / 75% GCDC	Completed
12/13/2021	50% GLWA / 50% GCDC	Completed
01/18/2022	0% GLWA / 100% GCDC	Completed
TBD	95% GLWA / 5% GCDC	To schedule

<sup>\*</sup> Projected date for blend stage start, subject to change. For more information visit https://www.cityofflint.com/progressreport/.

Select from the options below to learn about the community's data summary.



# **Community Data Summary Results**

On this page, you will find a data summary of water test results completed in the City of Flint as part of this program. Water samples were collected throughout the community from multiple sampling events.

Select the <u>sampling event</u> you are interested in reviewing. Each sampling event will show a data summary table with the most recent test results data that has been processed and summarized. As new results are processed, a new sampling event table will be added with those results. These results do not provide, and are not meant to be, a complete summary of the findings. If a value in the table says "ND", it means the value is below the detection limit and considered as non-detect.

MDHHS Sampling Event 5 (10/18/2021-10/25/2021)

Section 1: Metals									
Parameter	Number of locations sampled (number of initial samples/number	Range in initial samples (mg/L)			Range in f	flushed samp	les (mg/L)	US Environmental Protection Agency (US EPA) drinking water	Health-based level (mg/L)
	of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	value (mg/L)	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Aluminum								0.05-0.20 (J)	0.3 (D)
	60 ( 60 / 60 )	0.048	ND	0.26	0.0505	ND	4.8		
Antimony								0.006 (F)	0.0028 (B: chronic for
	60 ( 60 / 60 )	ND	ND	ND	ND	ND	ND		children)
Arsenic								0.01(F)	0 (G)
	60 ( 60 / 60 )	ND	ND	ND	ND	ND	ND		
Barium								2 (F)	0.7 (E: 1/10- day for
	60 ( 60 / 60 )	0.013	ND	0.017	0.013	ND	0.049		children)
Beryllium								0.004 (F)	0.004 (G)
	60 ( 60 / 60 )	ND	ND	ND	ND	ND	ND		
Boron								Value not established	1.4 (C: chronic for
	60 ( 60 / 60 )	0.015	0.014	0.11	0.0145	0.014	0.018		children)
Cadmium								0.005 (F)	0.0007 (C: chronic for
	60 ( 60 / 60 )	ND	ND	0.0026	ND	ND	0.00025		children)
Chromium, total								0.1 (F)	0.0063 (C: chronic for
	60 ( 60 / 60 )	0.001	ND	0.0017	0.0011	ND	0.0017		children, Cr (VI)) <sup>1</sup>

Copper								1.3 (A)	0.07 (C: acute/
								1.0 (J)	intermediate for
	60 ( 60 / 60 )	0.0105	ND	0.11	0.0041	ND	0.21		children) 1.3 (G) <sup>2</sup>
Iron								0.30 (J)	2 (D)
	60 ( 60 / 60 )	ND	ND	ND	ND	ND	0.39		
Lead								0.015 (A)	0 (G)
	60 ( 60 / 60 )	ND	ND	0.0015	ND	ND	0.0014		
Manganese								0.05 (J)	0.3 (E: lifetime)
	60 ( 60 / 60 )	ND	ND	0.0062	ND	ND	0.12		
Molybdenum								Value not established	0.035 (B: chronic for
	60 ( 60 / 60 )	ND	ND	ND	ND	ND	0.0028		children)
Nickel								Value not established	0.1 (E: lifetime)
	60 ( 60 / 60 )	0.0017	ND	0.093	0.0017	ND	0.027		
Selenium								0.05 (F)	0.035 (B, C: chronic for
	60 ( 60 / 60 )	ND	ND	0.0024	ND	ND	0.0012		children)
Silver								0.1 (J)	0.035 (C: children –
	60 ( 60 / 60 )	ND	ND	ND	ND	ND	ND		chronic for children)
Thallium								0.002 (F)	0.0002 (I)
	60 ( 60 / 60 )	ND	ND	ND	ND	ND	ND		
Tin								Value not established	2.1 (C: intermediate
	60 ( 60 / 60 )	ND	ND	ND	ND	ND	0.0015		children)
Vanadium								Value not established	0.0045 (D)
	60 ( 60 / 60 )	ND	ND	ND	ND	ND	ND		
Zinc								5 (J)	2 (E: lifetime)
	60 ( 60 / 60 )	ND	ND	0.42	ND	ND	0.14		

# Section 2: Disinfectants, Disinfection Byproducts and Bacteria

Parameter	Number of locations sampled (number of	nitial samples Range in flu	ushed samples  US Environmental Protection Agency (US	Health-based level (μg/L)
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	initial samples/number	Median	Lowest	Highest	Median	Lowest	Highest	EPA) drinking water	
	of flushed samples)							value	
Chlorine (as Cl <sub>2</sub> , mg/L)								4 (H)	<u>Learn more here</u>
	60 ( 60 / 60 )	0.905	0.06	2	1.275	0.01	3.99		
Haloacetic Acids (HAA5,								60 (F)	<u>Learn more here</u>
μg/L)	60 ( 59 / 60 )	25	1	44	24	1.1	32		
Total Trihalomethanes								80 (F)	<u>Learn more here</u>
(TTHMs, μg/L)	60 ( 60 / 60 )	31	21	46	31	20	40		

Section 3: General Chemistry
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Parameter	Number of locations sampled (number of initial samples/number	Range	e in initial sar	mples	Range	in flushed sa	mples	US Environmental Protection Agency (US EPA) drinking water	Health-based level
	of flushed samples)	Median Lowest Highest		Median	Median Lowest Highest		value		
Calcium (mg/L)								<u>Learn more here</u>	<u>Learn more here</u>
	60 ( 60 / 60 )	27	ND	28	27	ND	29		
Chloride (mg/L)								250 (F)	<u>Learn more here</u>
	60 ( 60 / 60 )	11	11	12	11	11	12		
Specific Conductance								<u>Learn more here</u>	<u>Learn more here</u>
(µmhos/cm)	60 ( 60 / 60 )	240	230	260	240	230	260		
Hardness (as mg/L of CaCO <sub>3</sub> )								<u>Learn more here</u>	<u>Learn more here</u>
	60 ( 60 / 60 )	99.5	ND	100	99	ND	110		
Magnesium (mg/L)								<u>Learn more here</u>	400 (D)
	60 ( 60 / 60 )	7.7	ND	8.5	7.7	ND	8		
Orthophosphate (mg/L)								<u>Learn more here</u>	<u>Learn more here</u>
	60 ( 60 / 60 )	0.905	0.047	1.1	0.93	0.56	2.3		
pH (SU)								6.5 – 8.5 (F)	Learn more here
	60 ( 60 / 60 )	7.8	7.5	8	7.8	7.5	7.9		
Sodium (mg/L)								<u>Learn more here</u>	<u>Learn more here</u>
	60 ( 60 / 60 )	9.1	8.5	63	9.1	8.3	63		

Sulfate (mg/L)								250 (F)	500 (E)
	60 ( 60 / 60 )	20	19	21	20	19	21		
Total Alkalinity (mg/L)								Learn more here	<u>Learn more here</u>
	60 ( 60 / 60 )	70	60	80	70	70	80		
Turbidity (NTU)								<u>Learn more here</u>	<u>Learn more here</u>
	60 ( 60 / 60 )	0.165	0.09	0.9	0.16	0.09	14		

Select from the options below to learn about the community's data summary.

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All Water Quality Parameters' Sample Results	How to Read Results Tables	Overview

# All Water Quality Parameters' Sample Results (PAGE)

Each grouping of water quality parameters will be separated out into tables to provide a data summary of each sampling event. The tables are grouped by 1) metals, 2) disinfectants / disinfection byproducts, and bacteria, and 3) general water chemistry.

Tables will show aggregated data for each sampling event completed.

## Section 1: Metal Sampling Results

Certain conditions can cause metals from your home's plumbing to release into your drinking water. Some metals may also come from the source water. Too much metal in drinking water can be a health concern. Metals can be found dissolved in water and in small pieces called particulates. MDHHS tested water samples for the total amount of each metal, dissolved and particulates. MDHHS also tested water samples for dissolved lead, copper, iron, and manganese. These results were used to calculate the amount of metal particulate in the water.

#### Aluminum

Samples Collected Range	Number of locations	Range in initial samples (mg/L)			Range in f	lushed samp	oles (mg/L)	US EPA Drinking	
	sampled (number of initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Water Value (mg/L)	Health -based Value (mg/L)
10/18/2021- 10/25/2021	60 ( 60 / 60 )	0.048	ND	0.26	0.0505	ND	4.8	0.05-0.20 (J)	0.3 (D)

#### Antimony

Canadaa	Number of locations	Range in initial samples (mg/L)			Range in	flushed sa	amples (mg/L)	US EPA Drinking	
Samples Collected Range	sampled (number of initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Water Value (mg/L)	Health -based Value (mg/L)
10/18/2021- 10/25/2021	60 ( 60 / 60 )	ND	ND	ND	ND	ND	ND	0.006 (F)	0.0028 (B: chronic for children)

## Arsenic

Commiss	Number of locations	Range in initial samples (mg/L)			Range in	flushed s	amples (mg/L)	US EPA Drinking	
Samples Collected Range	sampled (number of initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Water Value (mg/L)	Health -based Value (mg/L)
10/18/2021- 10/25/2021								0.01(F)	0 (G)
	60 ( 60 / 60 )	ND	ND	ND	ND	ND	ND		

## Barium

Samples	Number of locations	Range in initial samples (mg/L)			Range in	flushed s	amples (mg/L)	US EPA Drinking	
Samples Collected Range	sampled (number of initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Water Value (mg/L)	Health -based Value (mg/L)
10/18/2021- 10/25/2021	60 ( 60 / 60 )	0.013	ND	0.017	0.013	ND	0.049	2 (F)	0.7 (E: 1/10- day for children)

# Beryllium

Comples	Number of locations	Range in initial samples (mg/L)			Range in	flushed s	amples (mg/L)	US EPA Drinking	
Collected Range	sampled (number of initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Water Value (mg/L)	Health -based Value (mg/L)
10/18/2021- 10/25/2021	60 ( 60 / 60 )	ND	ND	ND	ND	ND	ND	0.004 (F)	0.004 (G)

## Boron

Samples Collected Range	Number of locations	Range in initial samples (mg/L)			Range in	flushed sa	amples (mg/L)	US EPA Drinking	
	sampled (number of initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Water Value (mg/L)	Health -based Value (mg/L)
10/18/2021- 10/25/2021	60 ( 60 / 60 )	0.015	0.014	0.11	0.0145	0.014	0.018	Value not established	1.4 (C: chronic for children)

# Cadmium

Camples	Number of locations	Range in initial samples (mg/L)			Range in	flushed sa	amples (mg/L)	US EPA Drinking	
Samples Collected Range	sampled (number of initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Water Value (mg/L)	Health -based Value (mg/L)
10/18/2021- 10/25/2021	60 ( 60 / 60 )	ND	ND	0.0026	ND	ND	0.00025	0.005 (F)	0.0007 (C: chronic for children)

# Chromium, total

Camples	Number of locations	Range in initial samples (mg/L)			Range in	flushed sa	amples (mg/L)	US EPA Drinking	
Samples Collected Range	sampled (number of initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Water Value (mg/L)	Health -based Value (mg/L)

10/18/2021-								0.1 (F)	0.0063 (C:
10/25/2021									chronic for
									children, Cr
	60 ( 60 / 60 )	0.001	ND	0.0017	0.0011	ND	0.0017		(VI))1

## Copper

Samples sampled Collected in Range samples/ flushed	Number of locations	Range in initial samples (mg/L)			Range in	flushed sa	amples (mg/L)	US EPA Drinking	
	sampled (number of initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Water Value (mg/L)	Health -based Value (mg/L)
10/18/2021- 10/25/2021	60 ( 60 / 60 )	0.0105	ND	0.11	0.0041	ND	0.21	1.3 (A) 1.0 (J)	0.07 (C: acute/ intermediate for children) 1.3 (G)2

## Iron

Samples Collected Range	Number of locations	Range in initial samples (mg/L)			Range in	flushed s	amples (mg/L)	US EPA Drinking	
	sampled (number of initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Water Value (mg/L)	Health -based Value (mg/L)
10/18/2021- 10/25/2021	60 ( 60 / 60 )	ND	ND	ND	ND	ND	0.39	0.30 (J)	2 (D)

## Lead

Range in initial samples (mg/L)	Range in flushed samples (mg/L)		
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Samples	Number of locations							US EPA	Health -based
Collected	sampled (number of							Drinking	Value (mg/L)
Range	initial	Median	Lowest	Highest	Median	Lowest	Highest	Water	
	samples/numbers of							Value	
	flushed samples)							(mg/L)	
10/18/2021-								0.015 (A)	0 (G)
10/25/2021									
	60 ( 60 / 60 )	ND	ND	0.0015	ND	ND	0.0014		

## Manganese

Samples	Number of locations	Range in initial samples (mg/L)			Range in fl	ushed samp	les (mg/L)	US EPA Drinking	
Collected Range	sampled (number of initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Water Value (mg/L)	Health -based Value (mg/L)
10/18/2021- 10/25/2021	60 ( 60 / 60 )	ND	ND	0.0062	ND	ND	0.12	0.05 (J)	0.3 (E: lifetime)

# Molybdenum

Samples Collected Range	Number of locations sampled (number of	Range in initial samples (mg/L)			Range in fl	ushed samp	oles (mg/L)	US EPA	
	initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Drinking Water Value (mg/L)	Health -based Value (mg/L)
10/18/2021- 10/25/2021	60 ( 60 / 60 )	ND	ND	ND	ND	ND	0.0028	Value not established	0.035 (B: chronic for children)

# Nickel

Samples	Number of locations sampled (number of	Range ii	n initial sar	mples (mg/L)	Range in	flushed sa	amples (mg/L)	US EPA	
Collected Range	initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Drinking Water Value (mg/L)	Health -based Value (mg/L)
10/18/2021- 10/25/2021	60 ( 60 / 60 )	0.0017	ND	0.093	0.0017	ND	0.027	Value not established	0.1 (E: lifetime)

## Selenium

Samples	Number of locations sampled (number of	Range in	n initial sar	mples (mg/L)	Range in	flushed sa	amples (mg/L)	US EPA	
Collected Range	initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Drinking Water Value (mg/L)	Health -based Value (mg/L)
10/18/2021- 10/25/2021	60 / 60 / 60 )	ND	ND	0.0034	ND	ND	0.0013	0.05 (F)	0.035 (B, C: chronic for
	60 ( 60 / 60 )	ND	ND	0.0024	ND	ND	0.0012		children)

## Silver

Samples	Number of locations sampled (number of	Range in	n initial sar	nples (mg/L)	Range in	flushed sa	amples (mg/L)	US EPA	
Collected Range	initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Drinking Water Value (mg/L)	Health -based Value (mg/L)
10/18/2021- 10/25/2021	60 ( 60 / 60 )	ND	ND	ND	ND	ND	ND	0.1 (J)	0.035 (B, C: chronic for children)

# Thallium

Samples	Number of locations sampled (number of	Range ir	n initial sar	mples (mg/L)	Range in	flushed sa	amples (mg/L)	US EPA	
Collected Range	initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Drinking Water Value (mg/L)	Health -based Value (mg/L)
10/18/2021- 10/25/2021	60 ( 60 / 60 )	ND	ND	ND	ND	ND	ND	0.002 (F)	0.0002 (I)

## Tin

Samples	Number of locations sampled (number of	Range ii	n initial sar	mples (mg/L)	Range in	flushed sa	amples (mg/L)	US EPA	
Collected Range	initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Drinking Water Value (mg/L)	Health -based Value (mg/L)
10/18/2021- 10/25/2021	60 ( 60 / 60 )	ND	ND	ND	ND	ND	0.0015	Value not established	2.1 (C: intermediate children)

## Vanadium

Samples	Number of locations sampled (number of	Range ii	n initial sar	mples (mg/L)	Range in	flushed sa	amples (mg/L)	US EPA	
Collected Range	initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Drinking Water Value (mg/L)	Health -based Value (mg/L)
10/18/2021- 10/25/2021	60 ( 60 / 60 )	ND	ND	ND	ND	ND	ND	Value not established	0.0045 (D)

#### Zinc

Samples	Number of locations sampled (number of	Range in	n initial sar	mples (mg/L)	Range in	flushed sa	amples (mg/L)	US EPA	
Collected Range	initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Drinking Water Value (mg/L)	Health -based Value (mg/L)
10/18/2021- 10/25/2021	60 ( 60 / 60 )	ND	ND	0.42	ND	ND	0.14	5 (J)	2 (E: lifetime)

## Section 2: Disinfectant, Disinfection Byproducts, and Bacteria Sampling Results

Community public water supplies add chemicals like chlorine<sup>3</sup> to help improve the quality of water delivered to homes. These chemicals may also generate disinfection byproducts (DBPs)<sup>4</sup> during the disinfection process. Chlorine is an effective way to remove bacteria from the water. But swallowing water with too much chlorine or DBPs or inhale too much while showering over time can be a health concern. The water may have also be tested for coliform bacteria if the chlorine level was low. MDHHS and the city of Flint will follow up with residents if any bacteria is found in the result.

## Chlorine (as Cl<sub>2</sub>)

Samples	Number of locations sampled (number of	Range ir	n initial sar	mples (mg/L)	Range in	flushed sa	amples (mg/L)	
Collected Range	initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Health -based Value (mg/L)
10/18/2021- 10/25/2021								4 (H)
	60 ( 60 / 60 )	0.905	0.06	2	1.275	0.01	3.99	

#### Haloacetic Acids (HAA5)

Samples	Number of locations sampled (number of	Range i	n initial sar	mples (μg/L)	Range in	flushed s	amples (μg/L)	
Collected Range	initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Health -based Value (μg/L)

10/18/2021-								60 (F)
10/25/2021								
., .,	60 ( 59 / 60 )	25	1	44	24	1.1	32	

#### Total Trihalomethanes (TTHMs)

Samples	Number of locations sampled (number of	Range i	n initial saı	mples (μg/L)	Range in	flushed sa	amples (μg /L)	
Collected Range	initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Health -based Value (μg/L)
10/18/2021- 10/25/2021								80 (F)
	60 ( 60 / 60 )	31	21	46	31	20	40	

## Section 3: General Chemistry Sampling Results

General chemistry is a group of water quality parameters that measure how corrosive the water is. Testing the water for these parameters will provide an understanding of how well the corrosion control works in households. Many of the parameters in this group are not chemicals and do not cause health problems directly by themselves. The City of Flint measures the water quality parameters in water samples collected from the blending site and other pipes that carries drinking water from the plant to homes.

#### Calcium

Samples	Number of locations Samples sampled (number of		n initial sar	mples (mg/L)	Range in	flushed sa	amples (mg/L)	US EPA	
Collected Range	initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Drinking Water Value (mg/L)	Health -based Value (mg/L)
10/18/2021- 10/25/2021	60 ( 60 / 60 )	27	ND	28	27	ND	29	<u>Learn more</u> <u>here</u>	<u>Learn more here</u>

# Chloride

Samples	Number of locations sampled (number of	Range in initial samples (mg/L)			Range in flushed samples (mg/L)			US EPA	
Collected Range	initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Drinking Water Value (mg/L)	Health -based Value (mg/L)
10/18/2021- 10/25/2021	60 ( 60 / 60 )	11	11	12	11	11	12	250 (F)	Value not established

# Specific Conductance

Samples	Number of locations Samples sampled (number of		Range in initial samples (μmhos/cm)			e in flushe (μmhos/	ed samples 'cm)	US EPA	Health -based
Collected Range	initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Drinking Water Value	Value
10/18/2021- 10/25/2021	60 ( 60 / 60 )	240	230	260	240	230	260	Value not established	Value not established

## Hardness

Samples	Number of locations sampled (number of	Range in initial samples (as mg/L of CaCO₃)			_	in flushed mg/L of Ca	samples (as aCO₃)	US EPA	Health -based
Collected Range	initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Drinking Water Value	Value
10/18/2021- 10/25/2021								Value not established	Value not established
	60 ( 60 / 60 )	99.5	ND	100	99	ND	110		

## Magnesium

Samples	Number of locations sampled (number of	Range in	n initial samples (mg/L)		Range in flushed samples (mg/L)			US EPA	
Collected Range	initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Drinking Water Value (mg/L)	Health -based Value (mg/L)
10/18/2021- 10/25/2021	60 ( 60 / 60 )	7.7	ND	8.5	7.7	ND	8	Value not established	Value not established

# Orthophosphate

Samples	sampled (number of	Range ir	n initial sar	nples (mg/L)	mg/L) Range in flushed samples (mg/L)			US EPA Drinking	Health -based
Collected Range	initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Water Value (mg/L)	Value (mg/L)
10/18/2021- 10/25/2021	60 ( 60 / 60 )	0.905	0.047	1.1	0.93	0.56	2.3	Value not established	Value not established

## рΗ

Samples s Collected	Number of locations sampled (number of	Range	e in initial samples (SU)		Range in flushed samples (SU)			US EPA	lloolth bosod
	initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Drinking Water Value (SU)	Health -based Value (SU)
10/18/2021- 10/25/2021	60 ( 60 / 60 )	7.8	7.5	0	7.8	7.5	7.9	6.5 – 8.5 (F)	Value not established

# Sodium

Samples	Number of locations sampled (number of	Range ir	n initial sar	mples (mg/L)	Range in	flushed sa	amples (mg/L)	US EPA	
Collected Range	initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Drinking Water Value (mg/L)	Health -based Value (mg/L)
10/18/2021- 10/25/2021	60 ( 60 / 60 )	9.1	8.5	63	9.1	8.3	63	Value not established	Value not established

# Sulfate

Samples	Number of locations sampled (number of	Range in initial samples (mg/L)			Range in	flushed sa	imples (mg/L)	US EPA	Harikh barad
Collected	initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Drinking Water Value (mg/L)	Health -based Value (mg/L)
10/18/2021- 10/25/2021	60 ( 60 / 60 )	20	19	21	20	19	21	250 (F)	500 (E)

# Total Alkalinity

Samples	Number of locations sampled (number of	Range in	n initial sar	mples (mg/L)	Range in	flushed sa	amples (mg/L)	US EPA	
Collected Range	initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Drinking Water Value (mg/L)	Health -based Value (mg/L)
10/18/2021- 10/25/2021	60 ( 60 / 60 )	70	60	80	70	70	80	Value not established	Value not established

#### Turbidity

Samples	Number of locations sampled (number of	Range in initial samples (mg/L)			Range in	flushed sa	amples (mg/L)	US EPA	
Collected Range	initial samples/numbers of flushed samples)	Median	Lowest	Highest	Median	Lowest	Highest	Drinking Water Value (mg/L)	Health -based Value (mg/L)
10/18/2021- 10/25/2021	60 ( 60 / 60 )	0.165	0.09	0.9	0.16	0.09	14	Value not established	Value not established

Select from the options below to learn about the community's data summary.



#### How to Read Results Tables (PAGE)

#### Parameter

- A parameter is the metal, chemical, or other characteristic of the water that was tested for. Water samples were tested for each parameter listed in the table above.
- See the "Important Information about Water Parameters Measured in the Water" fact sheet to learn more about each parameter.

## • Number of locations sampled

 Sometimes it is not possible to collect an initial (first) water sample and a flushed (second) water sample at each building. This column shows, for a single sampling event, the Number of locations where initial or flushed samples were collected.

#### Range in initial samples

o Range will show the lowest and highest amount found in initial samples for the parameter.

#### • Range in flushed samples

o Range will show the lowest and highest amount found in flushed samples for the parameter.

#### Number of locations with resampling

- The number of locations that have been resampled due to one or more water quality parameter needing further evaluation.
- o \* (or numeric superscript) explains why a building was resampled for a certain parameter.

### • USA EPA Drinking Water Values

These are based on drinking water standards established by federal or state agencies. Drinking water values have been set to protect human health using the best available scientific research. After each number, a letter is provided to show which agency established (created) that value. At the end of the tables under "Value Description" you will find the letters, screening level name, and a description.

#### Health-based Level

 Health-based screening values have been set using the best available scientific research. After each number, a letter is provided to show which agency established (created) that value.

#### Units of Measurement

- mg/L = milligrams per liter
- μg/L = micrograms per liter
- μmhos/cm = microhos per centimeter
- NTU = Nephelometric Turbidity Units
- SU= Standard Unit

#### Value Descriptions

- **A. Action Level (AL):** The Level of a contaminant that requires action when too high. The concentration of lead or copper, if exceeded in over 10% of homes tested, triggers treatment and other actions.
- B. Agency for Toxic Substances and Disease (ATSDR) Reference Dose Media Evaluation Guide (RMEG): The highest amount of a chemical a child can be exposed to in drinking water for more than one year and no harm would be expected. Learn more at https://www.atsdr.cdc.gov/hac/phamanual/appf.html.

- **C. ATSDR Registry Environmental Media Evaluation Guide (EMEG):** The highest amount of a chemical a child can be exposed to in drinking water for more than one year and no harm would be expected (health effects other than cancer). Learn more at <a href="https://www.atsdr.cdc.gov/hac/phamanual/appf.html">https://www.atsdr.cdc.gov/hac/phamanual/appf.html</a>.
- D. Department of Environment, Great Lakes, and Energy (EGLE) 201 Cleanup Criteria: The cleanup criteria are the risk-based screening levels developed by EGLE (formerly Michigan Department of Environmental Quality) for corrective actions. When the Part 201 Criterion for a chemical is an aesthetic level below a health-based value, the health-based value is also provided as a footnote in the document.
- **E. U.S. EPA Health Advisory (HA):** The level of a contaminant in drinking water below which no harm is expected during short-term or a lifetime of exposure.
- **F. U.S. EPA Maximum Contaminant Level (MCL):** The level of a contaminant not allowed to go over (exceed) in drinking water. This level is set as close to the MCLG (defined below) as feasible and taking cost into consideration.
- **G. U.S. EPA Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in water at which no known or expected health problems would occur.
- **H. U.S. EPA 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.
- I. U.S. EPA Regional Screening Level (RSL): The amount of a chemical in drinking water that is not expected to harm a child's health (health effects other than cancer). This is considered protective for adults too. Learn more at https://www.epa.gov/risk/regional-screening-levels-rsls.
- J. U.S. EPA Secondary Maximum Contaminant Level (sMCL): The level of a contaminant that is recommended but not required to follow. Usually, this value is about the look, taste, and smell of water.

Select from the options below to learn about the community's data summary.

