

2023 Southwest Regulated Detected Contaminants Table

2023 Inorganic Chemicals - Annual Monitoring at Plant Finished Tap								
Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Allowed Level MCL	Highest Level Detected	Range of Detection	Violation	Major Sources in Drinking Water
Fluoride	04-11-2023	ppm	4	4	0.46	n/a	no	Erosion of natural deposit; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	04-11-2023	ppm	10	10	0.63	n/a	no	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Lead and Copper Monitoring at the Customer's Tap in 2023								
Regulated Contaminant	Unit	Year Sampled	Health Goal MCLG	Action Level AL	90 th Percentile Value*	Range of Individual Samples	Number of Samples Over AL	Major Sources in Drinking Water
Lead	ppb	2023	0	15	0	0-1	0	Lead services lines, corrosion of household plumbing including fittings and fixtures; erosion of natural deposits.
Copper	ppm	2023	1.3	1.3	0.1	0-.1	0	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.

2023 Disinfection Residual - Monitoring in the Distribution System								
Regulated Contaminant	Test Date	Unit	Health Goal MRDLG	Allowed Level MRDL	Highest Level RAA	Range of Quarterly Results	Violation	Major Sources in Drinking Water
Total Chlorine Residual	2023	ppm	4	4	0.69	0.55-0.77	no	Water additive used to control microbes

2023 Disinfection By-Products - Stage 2 Disinfection By-Products Monitoring in the Distribution System								
Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Allowed Level MCL	Highest Level LRAA	Range of Quarterly Results	Violation	Major Sources in Drinking Water
Total Trihalomethanes (TTHM)	2023	ppb	n/a	80	59.3	59.3	no	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	2023	ppb	n/a	60	11	11	no	By-product of drinking water chlorination

2023 Turbidity - Monitored Every 4 Hours at the Plant Finished Water Tap			
Highest Single Measurement Cannot Exceed 1 NTU	Lowest Monthly % of Samples Meeting Turbidity Limit of 0.3 NTU (minimum 95%)	Violation	Major Sources in Drinking Water
0.09 NTU	100%	no	Soil Runoff
Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system			

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 is measured each quarter and because the level is low, there is no requirement for TOC removal.	Erosion of natural deposits

2023 Special Monitoring						
Contaminant	Test Date	Unit	MCLG	MCL	Highest Level Detected	Source of Contaminant
Sodium	04-11-2023	ppm	n/a	n/a	6.3	Erosion of natural deposits

2023 Southwest Tap Water Mineral Analysis

Parameter	Units	Max.	Min.	Avg.	Parameter	Units	Max.	Min.	Avg.
Turbidity	NTU	1.80	0.01	0.22	Phosphorus	ppm	0.73	0.41	0.52
Total Solids	ppm	174	120	139	Free Carbon Dioxide	ppm	13.9	6.0	9.5
Total Dissolved Solids	ppm	165	97	127	Total Hardness	ppm	166	103	120
Aluminum	ppm	0.084	0.021	0.045	Total Alkalinity	ppm	94	70	80
Iron	ppm	0.5	0.2	0.3	Carbonate Alkalinity	ppm	0	0	0
Copper	ppm	0.001	ND	0.001	Bi-Carbonate Alkalinity	ppm	94	70	80
Magnesium	ppm	8.8	7.4	7.9	Non-Carbonate Hardness	ppm	72	19	41
Calcium	ppm	33.3	25.2	27.4	Chemical Oxygen Demand	ppm	11.7	2.0	4.4

Sodium	ppm	9.4	4.7	5.6	Dissolved Oxygen	ppm	14.9	8.0	10.5
Potassium	ppm	1.3	0.9	1.1	Nitrite Nitrogen	ppm	ND	ND	0.0
Manganese	ppm	0.002	ND	0.000	Nitrate Nitrogen	ppm	1.47	0.29	0.50
Lead	ppm	ND	ND	0.000	Fluoride	ppm	0.84	0.10	0.62
Zinc	ppm	0.002	ND	0.000	pH		7.37	7.05	7.23
Silica	ppm	2.7	1.3	2.0	Specific Conductance @ 25 °C	µmhos	297	182	213
Sulfate	ppm	36.0	23.4	26.3	Temperature	°C	23.2	2.3	12.6
Chloride	ppm	14.5	7.5	10.3					

Your source water comes from the Detroit River, situated within the Lake St. Clair, Clinton River, Detroit River, Rouge River, Ecorse River, watersheds in the U.S. and parts of the Thames River, Little River, Turkey Creek, and Sydenham watersheds in Canada. The Michigan Department of Environmental Quality in partnership with the U.S. Geological Survey, the Detroit Water and Sewerage Department, and the Michigan Public Health Institute performed a source water assessment in 2004 to determine the susceptibility of GLWA's Detroit River source water for potential contamination. The susceptibility rating is based on a seven-tiered scale and ranges from very low to very high determined primarily using geologic sensitivity, water chemistry, and potential contaminant sources. The report described GLWA's Detroit River intakes as highly susceptible to potential contamination. GLWA's Southwest water treatment plant that draws water from the Detroit River has historically provided satisfactory treatment and meets drinking water standards.

GLWA has initiated source-water protection activities that include chemical containment, spill response, and a mercury reduction program. GLWA participates in the National Pollutant Discharge Elimination System permit discharge program and has an emergency response management plan. GLWA has an updated Surface Water Intake Protection plan for the Fighting Island Intake. The plan has seven elements that include: roles and duties of government units and water supply agencies, delineation of a source water protection areas, identification of potential sources of contamination, management approaches for protection, contingency plans, siting of new water sources, public participation, and public education activities. If you would like to know more information about the Source Water Assessment Report, please contact GLWA at (313 926-8127).

Great Lakes Water Authority (GLWA) is required to notify water users of any unresolved significant deficiencies identified by the Michigan Department of Environment, Great Lakes, and Energy, Drinking Water and Environment Health Division (EGLE). Below is the status of significant deficiencies in the GLWA water system identified by EGLE:

Date Identified by EGLE	Description	Compliance Agreement Deadline	Status
08-02-2022	Improper rapid mixing and coagulant feed location at the Southwest water plant	12-31-2027	Contractor has been identified
08-02-2022	Inoperable flocculation equipment at the Southwest water plant	07-31-2031	Preliminary procurement phase