

VILLAGE OF PHOENIX
633 E. 151ST STREET – PHOENIX, IL 60426

PHOENIX WATER QUALITY REPORT 2023

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PHOENIX ANNUAL DRINKING WATER QUALITY

Annual Water Quality Report for the period of January 1 to December 31st, 2023. This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water. The source of drinking water used by PHOENIX is Purchased Surface Water.

For more information regarding this report contact:

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En Espanol

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

Source 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 storm water 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, urban storm water runoff, and residential uses.
- 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 storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

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 at (800) 426-4791.

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. FDq1A regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 (800-426-4791).

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. We 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>.

SOURCE WATER ASSESSMENT

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of our regularly scheduled meetings. The source water assessment for our supply has been completed by the Illinois EPA. If you would like a copy of this information, please stop by City Hall or call our water operator at (708) 331-2636. To view a summary version of the completed source Water Assessments, including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts, you may access the Illinois EPA website at <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>.

SOURCE OF WATER: CHICAGO

The Illinois EPA considers all surface water sources of community water supply to be susceptible to potential pollution problems. The very nature of surface water allows contaminants to migrate into the intake with no protection only dilution. This is the reason for mandatory treatment for all surface water supplies in Illinois. Chicago's offshore intakes are located at a distance that shoreline impacts are not usually considered a factor on water quality. At certain times of the year, however, the potential for contamination exists due to wet weather flows and river reversals. In addition, the placement of the crib structures may serve to attract waterfowl, gulls and terns that frequent the Great Lakes area, thereby concentrating fecal deposits at the intake and thus compromising the source water quality. Conversely, the shore intakes are highly susceptible to storm water runoff, marinas and shoreline point sources due to the influx of groundwater to the lake.

SOURCE WATER INFORMATION

Source Water Name:

CC 03- METER VAULT 151ST and 9TH FF IL0312970 TP01:

Type of Water: LAKE - SW - Location: 931 E. 151ST Street

Village of Phoenix 2023 Regulated Contaminants Detected

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90 th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2023	1.3	1.3	0.0842	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; corrosion of household plumbing systems.
Lead	2023	0	15	4.46	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits

Village of Phoenix 2023 Regulated Contaminants

Disinfectants and Disinfection by-product	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	2023	0.4	0.3 – 0.5	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAAS)	2023	15	7.63 – 14.88	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2023	34	19.09 – 36.5	No goal for the total	80	ppb	N	By-product of drinking water disinfection

Village of Phoenix Violation Summary Table

The following table(s) lists all violations that occurred during 2023. We included a brief summary of the actions we took following notification of the violation.

Violation Table

Haloacetic Acids (HAAS)			
Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.			
Violation Type	Violation Begin	Violation End	Violation Explanation
Monitoring, Routine (DBP), Major	07/01/23	09/30/2023	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated

Total Trihalomethanes (TTHM)			
Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.			
Violation Type	Violation Begin	Violation End	Violation Explanation
Monitoring, Routine (DBP), Major	07/01/23	09/30/2023	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated

Violation Mitigation Plan

Samples were taken during the testing timeline; however, the sample valves were broken and unacceptable. New samples were immediately submitted and passed EPA guidelines. To mitigate this issue, **samples will be taken early in the testing window, allowing time for retesting when necessary.**

CHICAGO

IL0316000

Annual Water Quality Report for the period of January 1 to December 31, 2023

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

The source of drinking water used by CHICAGO is Surface Water

Definition Of Terms

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 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 using the best available treatment technology.

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 contaminants.

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

Highest Level Detected: This column represents the highest single sample reading of a contaminant of all the samples collected in 2022, except where a specific date is indicated.

Range of Detections: This column represents a range of individual sample results, from lowest to highest that were collected during the Consumer Confidence Report (CCR) calendar year.

Date of Sample: If a date appears in this column, the Illinois EPA requires monitoring for this contaminant less than once per year because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the Consumer Confidence Report (CCR) calendar year.

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

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

ND: Not detectable at testing limits; **N/A:** Not applicable

Local Annual Running Average (LRAA): The average of 4 consecutive quarterly results at each monitored sample location. The LRAA should not exceed 80 µg/L for TTHM and 60 µg/L for HAAS.

2023 Water Quality Data: Detected Contaminants						
Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Highest Level Detected	Range Of Detections	Violation	Date of Sample
MICROBIAL CONTAMINANTS						
TOTAL COLIFORM BACTERIA (% pos/mo)	0	5%	0.4%	N/A	N	
Naturally present in the environment						
FECAL COLIFORM AND E. COLI (# pos/mo)	0	0	0	N/A	N	
Human and animal fecal waste						
TURBIDITY (NTU/Lowest Monthly % ≤ 0.3 NTU)	N/A	TT	100%	100%-100%	N	
(Limit: 95% ± 0.3 NTU)						
TURBIDITY (NTU/Highest Single Measurement)	N/A	TT	0.25	N/A	N	
(Limit: 1 NTU max)						
INORGANIC CONTAMINANTS						
BARIUM (ppm)	2	2	0.0195	0.0192 -0.0195	N	
Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits						
COPPER (ppm)	1.3	AL = 1.3	0.079	0 sites exceeding AL	N	6/1/23-9/30/23
Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives						
LEAD (ppb)	0	AL = 15	7.2	0 sites exceeding AL	N	6/1/23-9/30/23
Corrosion of household plumbing systems; Erosion of natural deposits						
NITRATE (AS NITROGEN) (ppm)	10	10	0.33	0.29 – 0.33	N	
Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits						
TOTAL NITRATE & NITRITE (AS NITROGEN) (ppm)	10	10	0.33	0.29 – 0.33	N	
DISINFECTANTS \ DISINFECTION BY-PRODUCTS						
TTHM (TOTAL TRIHALOMETHANES) (ppb) *	N/A	80	32.6	15.9 – 51.0	N	
By-product of drinking water disinfection						
HAAS [HALOACETIC ACIDS] (ppb) *	N/A	60	16.4	6.0 – 26.9	N	
By-product of drinking water disinfection						
CHLORINE (as CL) (ppm)	4.0	4.0	1	0 – 1	N	
Drinking water disinfectant						
TOC [TOTAL ORGANIC CARBON]						
The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set by IEPA.						
UNREGULATED CONTAMINANTS						
SULFATE (ppm)	N/A	N/A	27.8	25.0 – 27.8		
Erosion of naturally occurring deposits						
SODIUM (ppm)	N/A	N/A	8.71	8.43 – 8.71		
Erosion of naturally occurring deposits; Used as water softener						
STATE REGULATED CONTAMINANTS						
FLUORIDE (ppm)	4	4	0.74	0.66 – 0.74	N	
Water additive which promotes strong teeth						
RADIOACTIVE CONTAMINANTS						
COMBINED RADIUM 226/228 (pCi/L) **	0	5	0.95	0.83 – 0.95	N	2/04/2020
Decay of natural and man-made deposits						
GROSS ALPHA (excluding Radium & Uranium) (pCi/L) **	0	15	3.1	2.8 – 3.1	N	2/04/2020
Decay of natural and man-made deposits						

Units of Measurement

ppm- Parts per million or milligrams per liter

ppb – Parts per billion or micrograms per liter

NTU – Nephelometric Turbidity Unit, used to measure cloudiness in drinking water

% ≤0.3NTU – Percent of samples less than or equal to 0.3 NTU

pCi/L – Picouries per liter – used to measure radioactivity

TURBIDITY

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

UNREGULATED CONTAMINANTS

A maximum contaminant level (MCL) for this contaminant has not been established by either state or federal regulations, nor has mandatory health effects language. The purpose for monitoring this contaminant is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

FLUORIDE

Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health recommends an optimal fluoride range of 0.7 mg/L with a range of 0.6mg/L to 0.8 mg/L.

SODIUM

There is no state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials who have concerns about sodium intake due to dietary precautions.

If you are on a sodium-restricted diet, you should consult a physician about the level of sodium in the water.

Unit of Measurement

ppm- Part per million, or milligrams per liter; **ppb-** Parts per billion, or micrograms per liter; **NTU-**Nephelometric Turbidity Unit, used to measure cloudiness in drinking water, %<0.3 NTU- Percent samples less than 0.3 NTU **pCi/-** Picouries per liter, used to measure radioactivity

DEFINITION OF TERMS

Maximum Contaminant Level Goal (MCLG): The level of contaminant in drinking water below which there is no known health risk.

Maximum Contaminant Level (MCL): The highest of a contaminant that is allowed in drinking water.

Level Found: This column represents an average of sample of data collected during the CRR calendar year. In some cases, it may represent a single sample.

Range of Detection: This column represents a range of individual sample results, from the lowest to the highest that were collected during the CRR calendar year.

Date of Sample: If a date appears in this column, the Illinois EPA requires monitoring for the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the Consumer Confidence Report calendar year.

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

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

Mrem: millirems per year (measure of radiation absorbed by the body).

nd: Not detectable at testing limits.

N/a: Not Applicable

Mg/l: milligrams per liter or parts per million

µg/l: micrograms per liter or parts per million

ppb: micrograms per liter or parts per billion- or one ounce in 7,350,000.

Avr: Regulatory compliance with some MCLs are based on annual average of monthly samples.

Maximum Residual Disinfectant Level (MRDL): The highest level of disinfectant allowed in drinking water.

Maximum Residual Disinfectant Level (MRDLG): The level of disinfectant in drinking water below which there is no known expected risk to health. MRDLG's allow for a margin safety.

Level 1 Assessment: A level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water systems.

Level 2 Assessment: A level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why a E. Coli MCI violation has occurred and/or why total coliform.

Violation Migration Plan

We have updated our processes/procedures, partnered without testing laboratory and EPA to align on correct collection methods to ensure that contaminant reporting and testing is completed according to EPA guidelines.