2023
Water Quality Report

January 1st, 2023, to December 31st, 2023

City of DeKalb
Water Division

Dear Valued Customer,

We are pleased to provide you with this Water Quality Report concerning the quality of water provided to you during the past year.

This report details the source of your water, what it contains and how it compares with EPA and State health standards.

The City of DeKalb's Water Quality Report reflects the commitment and dedication of its employees by providing you with the safest and most reliable water supply. We are pleased to inform you that the City of DeKalb's drinking water meets or surpasses **all** Federal and State drinking water standards.

Should you have any questions regarding this report, please contact us at (815) 748-2050.

Sincerely,

Bryan Faivre

Bryan Faivre
City of DeKalb
Water Division
e-mail: bfaivre@cityofdekalb.com

(*Este informe contiene informacion muy importante sobre el aqua que usted bebe. Traduscalo o hable con alguien que lo entienda bien.)*

Introduction

The data provided is for the calendar year 2023. However, due to EPA monitoring schedules, some contaminants are monitored less frequently. In these cases, the latest available data prior to 2023 will be presented. Any contaminants detected will be noted.

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 the 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 (1-800-426-4791) or by visiting the EPA's website at www.epa.state.il.us/water/.

To ensure tap water is safe to drink, EPA prescribes regulations limiting the level of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

City of DeKalb – Water Division

The City of DeKalb Public Water System is a modern, state-of-the-art water supply. It currently serves a population of over 43,000 residents including Northern Illinois University.

The source of water provided to the residents of DeKalb comes from six deep wells, drawing water from deep sandstone aquifers, and three shallow wells that draw water from sand and gravel aquifers. These two aquifers provide an excellent source of water for the City of DeKalb which is essentially free of contaminants.

Groundwater is treated at one of five ion exchange/iron removal water treatment plants. The treatment process produces a high-quality water supply by reducing the amount of hardness and iron in the water.

Before leaving the treatment plant, the groundwater is treated with chlorine and phosphate to ensure the safety of the water supply within our distribution system. In addition, fluoride is added to the water to promote the development of strong teeth.

DeKalb's water is monitored for microbial, inorganic, and organic chemicals, pesticides, herbicides, and radioactive contaminants. In 2023, over 12,000 water analyses were performed on your drinking water for over 100 different types of contaminants.

Additional information about the City of DeKalb Water Supply may be obtained by contacting our office at (815) 748-2050 or at www.cityofdekalb.com

Facts and Figures:

- Maximum Pumping Capacity = 12.0 MGD (Million Gallons per Day)
- Average Daily Demand = 3.23 MGD
- Maximum Daily Demand = 5.25 MGD
- Maximum Storage Capacity = 5.75 Million Gallons (4 elevated storage tanks)
- Total Finished Water Pumped (2023) = 1.18 Billion Gallons

FAQ - Frequently Asked Questions:

How much water does the average person use per day?

Estimates vary, but each person uses about 80 – 100 gallons per day. The largest household use of water is to flush the toilet, followed by showers and baths. A typical family of four would normally use about 23 to 27 units of water, or between 17,000 – 20,000 gallons per two-month bill cycle.

What does my Utility Bill consist of?

Your bi-monthly Utility Bill includes charges for water, sewer and refuse pickup. The fee charged for sewer and refuse is governed by the Sanitary District and Lake Shore Recycling Systems respectively. Monies collected for these services will be passed along by the City of DeKalb to these governing bodies.

The current rates for utility services for most residents are as follow:

Water = $4.22 per unit (748 gallons) plus a $14.42 bi-monthly water service fee
Sewer = $3.12 per unit (748 gallons) plus a $20.40 bi-monthly sewer service fee
Refuse = $46.88 bi-monthly flat rate

Do I need a Water Softener?

It is really a matter of personal preference whether you need a water softener or not. Although your public water supply is being softened to a hardness of about 7 grains/gallon, the water will not be as soft as a home softening unit would provide. If you are unsure of whether you need a water softener or not, we recommend trying the water without a home softener first. You can always add a softening unit later.

Is bottled water better?

While the EPA regulates water delivered by the public water systems, the Food and Drug Administration (FDA) regulates commercial bottled water which must provide the same protection for public health. While most commercially bottled water is safe and of high quality, one should not assume that just because it comes out of a bottle it is as healthy as the water from your tap.

Get the Lead Out!

The City of DeKalb is committed to replacing all lead water service lines in the community. The replacement of the lead service line will be performed free of charge. ***If you suspect your property has a lead service line or are unsure of the type of material your service line is made of, please contact the DeKalb Water Division at 815-748-2050. To date, the City of DeKalb has replaced 84 lead service lines in the community at no cost to the homeowner. To view the service line material makeup of your property, please follow the link below:***
https://www.cityofdekalb.com/DocumentCenter/View/11184/Service-Line-Material-Inventory

Detecting Water Leaks

Water leaks can be costly and can waste a valuable resource. A water leak may add an additional $500 to $1,000 in water and sewer charges onto your bi-monthly utility bill. From our experience, 90% of the leaks in residential plumbing systems are found at the toilet tank. **The best way to determine if you have a water leak is to check your water meter.** Most of the current water meters in our system have a flow indicator on the top of the meter (small blue disc or a water "droplet" indicator on meters with electronic displays). If the blue disc is turning or the "droplet" is displayed, water is being used somewhere within the home. If you notice this, but cannot account for the water use, you may potentially have a leak. If you need assistance in locating a potential leak, please call the Utility Division at 815-748-2050.

PFAS

Have you heard of PFAS recently in the news? PFAS (Per- and polyfluoroalkyl substances) are widely used, long lasting chemicals whose components break down very slowly over time. Because of their widespread use and their persistence in the environment, many PFAS are found in the blood of people and animals all over the world and are present at low levels in a variety of food products and in the environment. The EPA is currently looking to set maximum contaminant levels for PFAS in drinking water. The City of DeKalb is happy to report that we have conducted preliminary PFAS testing through an independent laboratory and have found no detectable levels of PFAS in the City's drinking water supply. For more information on PFAS, please visit: https://www.epa.gov/pfas/pfas-explained

Regulated Contaminants Detected in 2023

Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive per month (%)	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	5% of monthly samples	1.9		0	N	Naturally present in the environment

Lead and Copper

	Date Collected	MCLG	Action Level (AL)	90th Percentile	#Sites Over AL	Violation	Likely Source
Copper	July 2022	1.3 ppb	1.3 ppb	0.59 ppm	0	No	Erosion of natural deposits; Leaching word preservatives; Corrosion of house plumbing systems.
Lead	July 2022	0 ppb	15 ppb	7.5 ppb	2	No	Corrosion of household plumbing system. Erosion of natural deposits

Disinfectants & Disinfection By-Products

Contaminant	Date Collected	Highest Level Detected	Range of Levels Detected	Unit of Measurement	MCLG	MCL	Violation?	Likely Source of Contamination
Total Trihalomethanes – TTHMs	2023	13.6	10.96 - 13.6	ppb	N/A	80	No	By-product of drinking water chlorination
Total Haloacetic Acids – HAA5	2023	8.92	8.06 – 8.92	ppb	N/A	60	No	By-product of drinking water chlorination
Chlorine	2023	0.9	0.7 – 0.9	ppm	MRDLG=4	MRDL=4	No	Water additive used to control microbes
Inorganic Contaminants								
Arsenic	2021	1.8	0 – 1.8	ppb	0	10	No	Erosion of natural deposits; Runoff from orchards; Runoff from electronics production waste
Barium	2021	0.61	0.15 – 0.61	ppm	2	2	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	2021	0.751	0.482 - 0.751	ppm	4	4	No	Erosion of natural deposits; Water additive which promotes strong teeth; Fertilizer discharge
Radioactive Contaminants								
Combined Radium 226 & 228	2023	3.14	1.2 – 3.14	pCi/L	0	5	No	Erosion of natural deposits
Gross Alpha (excluding radon & uranium)	2022	13.5	0 – 13.5	pCi/L	0	15	No	Erosion of natural deposits
State Regulated Contaminants								
Iron	2021	0.24	0.057 – 0.24	ppm	N/A	1	No	Erosion from naturally occurring deposits
Sodium	2021	92	15 – 92	ppm	N/A	N/A	No	Erosion of naturally occurring deposits; used in water softener regeneration
Nitrate	2023	0.16	0 – 0.16	ppm	10	10	No	Runoff from fertilize use; leaching from septic tanks, sewage; erosion of natural deposits
Manganese	2021	4.8	1.3 – 4.8	ppb	150	150	No	Erosion of natural deposits

Special Notice for Availability of Unregulated Contaminant Monitoring Data (UCMR 5)

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Availability of Monitoring Data for Unregulated Contaminants for the City of DeKalb Public Water Supply System.

Our water system has sampled for a series of unregulated contaminants. Unregulated contaminants are those that don't yet have a drinking water standard set by the EPA. The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a standard. As our customers, you have a right to know that this data is available. If you are interested in examining the results, please contact the City of DeKalb Water Division at 815-748-2050 or email bfaivre@cityofdekalb.com You may also use direct mail or visit our office located at 1216 Market St.

This notice is being sent to you by the City of DeKalb Public Water Supply. State Water System ID# IL0370100.

Date Distributed: 5/1/2024

UCMR 5 Detected Contaminants

Contaminant	Date Collected	Highest Level Detected	Unit of Measurement	Range of Level Detected	Violation?	Likely Source
Lithium	2023	16	ppb	0 – 16	No	Naturally Occurring

2023 Water Quality Test Results

Definition of Terms:

Avg: *Regulatory compliance with some MCL's are based on running annual average of monthly samples.*
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 system.*
Level 2 Assessment: *A Level 2 assessment is a study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.*
Maximum Contaminant Level Goal (MCLG): *The level of 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.*
Action Level (AL): *The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.*
U.S.E.P.A.: *"United States Environmental Protection Agency."*
EPA: *"Environmental Protection Agency."*
Parts Per Million (ppm): *Indicates the amount of a contaminant measured in parts per million*
Picocuries per Liter (pCi/L): *picoCuries per liter (measurement of radioactivity).*
Parts per Billion (ppb): *Indicates the amount of a contaminant measured in parts per billion*
N/A: *Not Applicable*
Maximum Residual Disinfectant Level (MRDL): *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.*
Maximum Residual Disinfectant Level Goal (MRDLG): *The level of disinfectant in drinking water below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control.*
Mrem: *millirems per year (a measure of radiation absorbed by the body)*
Treatment Technique or TT: *A required process intended to reduce the level of a contaminant in drinking water.*

Water Quality Data Table Footnotes

Fluoride Fluoride is added to the water supply to help promote strong teeth. This year marks the 25th consecutive year that the Illinois Department of Public Health has recognized our water system for maintaining optimal fluoride levels in our water supply. Less than 5% of the 1,861 Public Water Supplies in Illinois have maintained optimal levels for 20 or more consecutive years.

Iron This contaminant is not currently regulated by the USEPA. However, the state has set an MCL for this contaminant for supplies serving a population of 1,000 or more.

Sodium There is not a state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If the level is greater than 20 ppm, and you are on a sodium-restricted diet, you should consult a physician.

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. The City of DeKalb Water Division 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 (1-800-426-4791) or at *http://www.epa.gov/safewater/lead*

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 human activity.

Contaminants that may be present in source water include:

Microbial contaminants*, such as viruses and bacteria, which may come from sanitary sewers, 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.*

Source Water Assessment

We want our valued customers to be informed about their water quality. If you would like to learn more, please call Bryan Faivre at the Water Division at 815-748-2050. You may also take part in regularly scheduled City Council meetings, where topics regarding your water system are routinely discussed.

The source water assessment for our water supply has been completed by the Illinois EPA. If you would like a copy of this information, please call the Water Division at 815-748-2050. *To view a summary version of the completed Source Water Assessments, including: Importance of Source Water; Susceptibility of 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*

Based on information obtained in a Well Site Survey published in 1990 by the Illinois EPA, several potential secondary sources are located within 1,000 feet of several wells. The Illinois EPA has determined that the DeKalb Community Water Supply's source water is not susceptible to contamination. This determination is based on several criteria including: monitoring conducted at the wells; monitoring conducted at the entry point to the distribution system; and available hydro-geologic data on the wells. Furthermore, in anticipation of the U.S. EPA's proposed Ground Water Rule, the Illinois EPA has determined that the DeKalb Community Water Supply is not vulnerable to viral contamination. This determination is based upon the evaluation of the following criteria during the Vulnerability Waiver Process: the community's wells are properly constructed with sound integrity and proper siting conditions; a hydrogeologic barrier exists which should prevent pathogen movement; all potential routes and sanitary defects have been mitigated such that the source water is adequately protected; monitoring data did not indicate a history of disease outbreak; and the sanitary survey of the water supply did not indicate a viral contamination threat. Because the community's wells are constructed in a confined aquifer, which should prevent the movement of pathogens into the wells, well hydraulics were not considered to be a significant factor in this determination. Hence, well hydraulics was not evaluated for this system ground water supply. For additional information regarding source water assessment, please call the DeKalb Water Division at 815-748-2050.

Vulnerability Waiver
Due to favorable monitoring history, aquifer characteristics, and inventory of potential sources of contamination, our water supply was issued a vulnerability waiver for SOC's, VOC's and Cyanide. The vulnerability waiver reduces the amount of testing that is required at each of our five water treatment plants.

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

Please share this information with those water customers who may not have received this notice directly, for example, residents in apartment buildings, nursing homes, schools, or businesses. You can do this by posting this notice in a public place or distributing copies by hand or mail.

For more information, please contact Bryan Faivre at (815) 748-2050 or bfaivre@cityofdekalb.com.