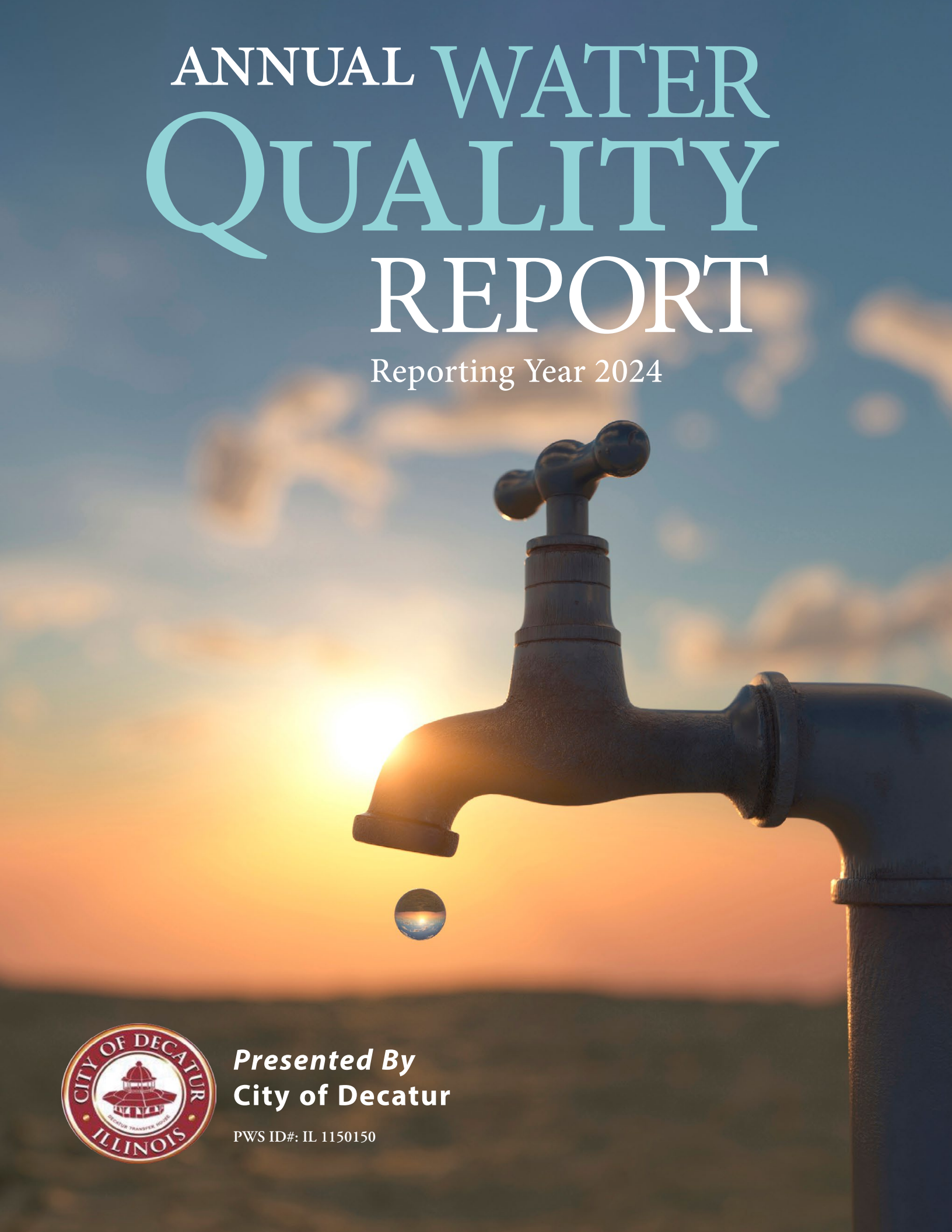
ANNUAL WATER QUALITY REPORT

Reporting Year 2024



Presented By

City of Decatur

PWS ID#: IL 1150150

Our Commitment

We are pleased to present to you this year's annual water quality report. This report is a snapshot of last year's water quality covering all testing performed between January 1 and December 31, 2024. Included are details about your sources of water, what it contains, and how it compares to standards set by regulatory agencies. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water and providing you with this information because informed customers are our best allies.

Where Does My Water Come From?

The City of Decatur uses Lake Decatur as its source of drinking water. Lake Decatur is 2,880 surface acres and located entirely within the city limits of Decatur. The Sangamon River is the primary source of water for Lake Decatur, which has a drainage area of 926 square miles, 80 percent of which is used for growing corn and soybeans. When Lake Decatur water levels are low, the city uses a former sand-and-gravel pit near the South Water Treatment Plant and wells located in DeWitt County to supplement the water supply.

Source Water Assessment

The Illinois EPA has completed a source water assessment for Decatur, which is available at dataservices.epa.illinois.gov/swap/factsheet.aspx. The Illinois EPA considers all surface water sources of public water supply to be susceptible to potential pollution problems. This is the reason for the mandatory treatment of all public surface water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration, and disinfection. Primary sources of pollution in Illinois lakes can include agricultural runoff, land disposal (septic systems), and shoreline erosion.

Due to the low geologic sensitivity and the monitoring results of the city's DeWitt County wells, the Illinois EPA does not consider these wells to be susceptible to volatile organic contaminants (VOCs), synthetic organic contaminants (SOCs), or inorganic contaminants (IOCs). In accordance with Illinois EPA regulations, the wells each have a minimum protection zone of 200 feet.

Per the Federal Clean Water Act, the U.S. EPA provides grants to the Illinois EPA to finance nonpoint source (NPS) pollution solutions, including public awareness. The city recently received three NPS grants and has applied for a fourth. The city also recently received a $9.9 million U.S. Department of Agriculture Regional Conservation Partnership Program grant. The city continues to work on a multiyear Lake Decatur Watershed Management Plan to significantly reduce the amount of sediment and nutrients entering the lake; this includes subwatershed plans and a water quality monitoring network. More information is available at https://decaturil.gov/547/Protecting-Lake-Decatur.

How Is My Water Treated and Purified?

Raw water is pumped from Lake Decatur to the South Water Treatment Plant. Chlorine dioxide is added to destroy viruses, bacteria, and protozoa that may be in the raw water. The water then goes to mixing basins where aluminum sulfate and calcium hydroxide are added for softening. The addition of these substances causes small particles to adhere to one another, making them heavy enough to settle to the bottom of the mixing basins and be mechanically removed. Powdered activated carbon is added for taste and odor control. The fine particles that still remain are removed in the filtration process as the water passes through layers of anthracite and sand. Chlorine is then added to maintain the disinfection process throughout the distribution system. Finally, a small amount of fluoride is added to prevent dental decay. Positive water pressure is continuously maintained in the distribution system to prevent the intrusion of any contaminants into our water mains.

Important Health Information

Nitrate in drinking water at levels above 10 parts pre million (ppm) is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health-care provider.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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. U.S. Environmental. Protection Agency (U.S. EPA)/Centers for Disease Control and Prevention (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) or epa.gov/safewater.

QUESTIONS? If you have any questions or concerns about your drinking water, please contact Chaundra Smith, Water Production Operations Supervisor, at (217) 424-2833 or csmith@decaturil.gov.

Community Participation

City of Decatur Council meetings are open to the public. Regular session meetings are held at 5:30 p.m. on the first, third, and sometimes fifth Monday of the month on the third floor of the Decatur Civic Center. For further information, contact the city clerk's office at (217) 424-2708.

Lead in Home Plumbing

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 Decatur is responsible for providing high-quality drinking water and removing lead pipes but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, or doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute-accredited certifier to reduce lead in drinking water. If you are concerned about lead and wish to have your water tested, contact Water Production at (217) 424-2831 or csmith@decaturil.gov for a list of accredited labs. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at epa.gov/safewater/lead.

To address lead in drinking water, public water systems were required to develop and maintain an inventory of service line materials by October 16, 2024. Developing an inventory and identifying the location of lead service lines (LSL) is the first step for beginning LSL replacement and protecting public health. The lead service inventory may be accessed at https://epa.illinois.gov/topics/drinking-water/public-water-users/lead-service-line-information.html. Please contact us if you would like more information about the inventory or any lead sampling that has been done.

Substances That Could Be in 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 occur naturally in the soil or groundwater or may result from urban stormwater 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 stormwater 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 stormwater runoff, and septic systems.

Radioactive Contaminants, which can occur naturally or be the result of oil and gas production and mining activities.

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

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 mean that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Safe Drinking Water Hotline ay (800) 426-4791 or visiting epa.gov/safewater.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data is included, along with the year in which the sample was taken. The percentage of total organic carbon (TOC) removal was measured each month, and the system met all TOC removal requirements set by Illinois EPA.

We participated in the fifth stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR5) program by performing additional tests on our drinking water for per- and polyfluoroalkyl substances (PFAS) and lithium. All contaminants tested were reported below the detectable limit.

UCMR5 sampling benefits the environment and public health by providing the U.S. EPA with data on the occurrence of contaminants suspected to be in drinking water to determine if U.S. EPA needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data is available to the public, so please feel free to contact us if you are interested in obtaining that information. If you would like more information on the US EPA's Unregulated Contaminant Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Atrazine (ppb)	2023	3	3	0.56	ND–0.56	No	Runoff from herbicide used on row crops
Barium (ppm)	2024	2	2	0.015	0.015–0.015	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chlorine (ppm)	2024	[4]	[4]	2.0	1.2–2.0	No	Water additive used to control microbes
Chlorine Dioxide (ppb)	2024	[800]	[800]	440	ND–440	No	Water additive used to control microbes
Chlorite (ppm)	2024	1	0.8	0.65	0.43–0.65	No	By-product of drinking water disinfection
Fluoride (ppm)	2024	4	4	0.661	0.622–0.769	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs] (ppb)	2024	60	NA	21.6	7.7–24.7	No	By-product of drinking water disinfection
Nitrate (ppm)	2024	10	10	6.2	0.26–6.2	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	2024	NS[5]	NA	9.5	9.5–9.5	No	Erosion of naturally occurring deposits; used in water softener regeneration
Total Organic Carbon [TOC] (ppm)	2024	TT[1]	NA	2.6	1.2–2.6	No	Naturally present in the environment
TTHMs [total trihalomethanes] (ppb)	2024	80[2]	NA	76.8	31.5–100	No	By-product of drinking water disinfection
Turbidity[3] (NTU)	2024	TT	NA	0.50	NA	No	Soil runoff
Turbidity (lowest monthly percent of samples meeting limit)	2024	TT = 95% of samples meet the limit	NA	96.06	NA	No	Soil runoff

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

AL (Action Level): The concentration of a contaminant that triggers treatment or other required actions by the water supply.

MCL (Maximum Contaminant Level): 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.

MCLG (Maximum Contaminant Level Goal): 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.

MRDL (Maximum Residual Disinfectant Level): 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.

MRDLG (Maximum Residual Disinfectant Level Goal): 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.

NA: Not applicable.

ND (Not Detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

ppb (µg/L) (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (mg/L) (parts per million): One part substance per million parts water (or milligrams per liter).

ppt (ng/L) (parts per trillion): One part substance per trillion parts water (or nanograms per liter).

SMCL (Secondary Maximum Contaminant Level): These standards are developed to protect aesthetic qualities of drinking water and are not health based.

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

Tap water samples were collected for lead and copper analyses from sample sites throughout the community [4]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	RANGE LOW-HIGH	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2023	1.3	1.3	0.024	ND–0.076	0/32	No	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb)	2023	15	0	1.6	ND–3.5	0/32	No	Corrosion of household plumbing systems; erosion of natural deposits

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppb)	2024	200	NA	39	39–39	No	Erosion of natural deposits; residual from some surface water treatment processes
Chloride (ppm)	2024	250	NA	37	37–37	No	Runoff/leaching from natural deposits
Sulfate (ppm)	2024	250	NA	28	28–28	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids [TDS] (ppm)	2024	500	NA	220	220–220	No	Runoff/leaching from natural deposits

UNREGULATED SUBSTANCES [6]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bromochloroacetic Acid (ppb)	2020	6.4	2.5–6.4	Disinfection by-product
Bromodichloroacetic Acid (ppb)	2020	1.5	0.63–1.5	Disinfection by-product
Chlorodibromoacetic Acid (ppb)	2020	0.86	ND–0.86	Disinfection by-product
Dibromoacetic Acid (ppb)	2020	1.6	0.93–1.6	Disinfection by-product
Dicamba (ppb)	2024	0.30	0.30–0.30	Runoff from herbicide use
Dichloroacetic Acid (ppb)	2020	16	6.3–16.0	Disinfection by-product
HAA5 (ppb)	2020	20.4	8.4–20.4	Disinfection by-product
HAA6Br (ppb)	2020	10.0	4.2–10.0	Disinfection by-product
HAA9 (ppb)	2020	33.0	12.0–33.0	Disinfection by-product
Metolachlor (ppb)	2023	0.22	0.22–0.22	Runoff from herbicide use
Monochloroacetic Acid (ppb)	2020	2.5	ND–2.5	Disinfection by-product
Perfluorohexanoic Acid [PFHxA] (ppt)	2021	2.6	2.6–2.6	NA
Trichloroacetic Acid (ppb)	2020	4.3	1.1–4.3	Disinfection by-product

[1] The value reported under Amount Detected for TOC is the lowest ratio of percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than 1 indicates that the water system is in compliance with TOC removal requirements. A value of less than 1 indicates a violation of the TOC removal requirements.

[2] 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 system\ and may have an increased risk of getting cancer.

[3] Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

[4] This table summarizes our most recent lead and copper tap sampling data. If you would like to review the complete lead tap sampling data, please contact Chaundra Smith at csmith@decaturil.gov.

[5] Sodium is not currently regulated by the U.S. EPA; however, the state has set an MCL for this contaminant for supplies serving a population of 1,000 or more.

[6] No MCL or mandatory health effects language for this contaminant has been established by either state or federal regulations. The purpose of unregulated contaminant monitoring is to assist U.S. EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.