



Water Utility Report

Water Production Bureau



We are pleased to present you Evanston's 2023 annual water quality report, an information service for our water customers. The Evanston water utility is committed to providing you with the highest quality of drinking water.

Your Water Source

Evanston's source of water, Lake Michigan, (surface water) is not just a major commerce artery and a recreational resource with miles of scenic shoreline; it's also a great source of drinking water! Almost half of the world's fresh water comes from Lake Michigan and the other Great Lakes. According to the USEPA, the quality of Lake Michigan water has improved dramatically over the past 25 years. The regulations in place restrict industrial and sewage treatment plant effluents from entering Lake Michigan thereby lowering the risk of having these contaminants in the water. All 63 miles of shoreline within Illinois are now considered to be in good condition.

Summary of Illinois EPA Source Water Assessment Report of Lake Michigan as a Drinking Water Source

The EPA report states that there is concern for Lake Michigan water quantity and also water quality (A 1967 U.S. Supreme Court decree limits the amount of Illinois diversions of water from Lake Michigan, and currently Illinois is reaching its limit on that allocation). 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 intakes with no protection, only dilution. This is the reason for mandatory treatment for all surface water supplies in Illinois. Evanston recognized the need for treatment long before these requirements came into effect. In fact, Evanston has operated a water treatment facility for over 100 years! 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 dataservices.epa.illinois.gov/swap/factsheet.aspx

All of Evanston's water intakes, which bring the lake water into the treatment plant, are located far enough offshore that shoreline impacts are not considered a factor on water quality. However, at certain times of the year the potential for contamination during wet-weather flow conditions exists due to the proximity of the North Shore Channel. In addition, the proximity to a major shipping lane adds to the susceptibility of these intakes. Lake Michigan, as well as all the great lakes, has many different organizations and associations that are currently working to either maintain or improve water quality. The report further commends Evanston's involvement in such organizations such as the West Shore Water Producer's Association, which leads to critical coordination regarding water quality issues that takes place between the utilities on the west shore of Lake Michigan.

Today, the staff of the Public Works Agency's Water Production Bureau continues Evanston's tradition of excellence by working around the clock for your health and safety. We're proud of our water and pledge to continue to provide you with the highest quality water that is humanly and technologically possible.

Where Do Contaminants Come From?

In general, people obtain drinking water (both tap and bottled water) from rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of land or through the ground, it dissolves naturally occurring minerals and radioactive material. It can also pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- microbial contaminants from a variety of sources, 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 runoff, industrial or domestic water discharges, oil and gas production, mining or farming;
- pesticides and herbicides, which come from agricultural, storm water runoff and residential uses;
- organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production and can also come from gas stations, urban storm runoff and septic tanks;
- radioactive contaminants, which can be naturally occurring or the result of oil and gas production and mining activities.

The primary sources of pollution threatening Lake Michigan include air deposition (pollution from the air, rain and snow), runoff and industrial discharge.

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 USEPA Safe Drinking Water Hotline at **800-426-4791**. In order to ensure that tap water is safe to drink, the USEPA prescribes regulations that limit the amount 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.

Some people may be more vulnerable to contaminants in tap or bottled 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 for infections. These people should seek advice about drinking water from their healthcare providers. The USEPA/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 visit www.epa.gov/OW.

For specific information about the Public Works Agency's Water Production Bureau, your water's quality or any other water related question, please contact Darrell A. King at the Evanston Water Production Bureau at **311** (847-448-4311 outside of Evanston). The public is welcome to attend City Council meetings where decisions which affect drinking water quality are made. Additional information on the date and time for these meetings can be obtained by visiting www.cityofevanston.org/events or by calling **847-448-4311**.

Lead Facts

Remember, there is no detectable lead in the water provided to the Evanston community. Lead enters the water from lead solder, lead pipes or plumbing fixtures in the home.

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 Evanston Water Utility 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.

View the City's website at www.cityofevanston.org for more information on our water treatment process. Thank you for the opportunity to serve you.

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 **800-426-4791** or at www.epa.gov/safewater/lead. The Evanston Water Utility is proud to have been in compliance with the Lead and Copper Rule since November of 1992; details are at www.cityofevanston.org/lead.

Notice of Violation

The City received a Public Notice Requirement (PN) Letter due to a Monitoring Violation dated July 11, 2023. The letter stated that the Total DDT was not monitored. Total DDT was collected along with the other SOC compounds on 4/6/2023. Total DDT was analyzed

4/19/23 with a non-detected value of <0.097 ppm. Evanston's contract laboratory Eurofins Eaton Analytical (EEA) failed to include the Total DDT analyte when uploading the SOC data. All other 32 SOC analytes were reported. Unfortunately, EEA did not rectify this oversight prior to the end of the compliance reporting period. Evanston was not notified of this oversight until the PN letter was received July 18, 2023. Evanston did in fact monitor, test, and complete all requirements for Total DDT and can be sure of the quality of our drinking water during this time. Due to this oversight, the City made the decision to not renew the contract with Eurofins Eaton Analytical (EEA).

Evanston 2023 Water Quality Data

Detected Substances

Substance	Date Collected ^a	MCLG	Highest Allowed (MCL)	Highest Level Detected	Range of Levels Detected	Violation	Source of Contamination
Turbidity (NTU) (Cloudiness)	2023	NA	TT=Monitored by % exceeding 0.3 NTU and max allowed is 1 NTU	99% of samples meet 0.3 NTU; 0.73 NTU Highest single measurement	0.05 - 0.73	NO	Soil runoff
Total Coliform Bacteria	2023	0	5% of Monthly Samples are Positive	2.3%	N/A	NO	Naturally present in the environment
Fluoride (ppm)	2023	4	4	0.6	0.62 - 0.64	NO	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate [measured as Nitrogen] (ppm)	4/06/2023	10	10	0.39	single sample	NO	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (ppm)	10/4/2023	NA ^e	NA ^e	7.6	single sample	NO	Erosion from naturally occurring deposits
Barium (ppm)	10/4/2023	2	2	0.020	single sample	NO	Discharge of drilling wastes; Discharge from metal refineries; Erosion of Natural deposits
Sulfate (ppm)	12/6/2023	NOT REGULATED	USEPA National Secondary Standard of 250	25	single sample	NO	Naturally occurring, coagulant residual
Combined Radium 226/228 (pCi/L) ^b	1/28/2020	0	5	1.02	single sample	NO	Erosion of natural deposits
Gross Alpha excluding Radon and Uranium (pCi/L) ^b	1/28/2020	0	15	0.72	single sample	NO	Erosion of natural deposits
Hexavalent Chromium (ppb)	10/4/2023	NOT REGULATED	NOT REGULATED	0.14	single sample	NO	Naturally-occurring element; used in making steel or other alloys. Chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning and wood preservation.
Acesulfame-K (ppb)	12/21/2023	NOT REGULATED	NOT REGULATED	0.021	Single Sample	NO	Artificial sweetener
Substance	Date Collected ^a	IEPA Guidance Level	US EPA Guidance Level Proposed	Highest Level Detected	Range of Levels Detected	Violation	Source of Contamination
Perfluorooctanesulfonic acid (PFOS)* (ppt)	2023	14.0	4.0	2.4	2.0-2.4	NO	Surfactant for fire-fighting foam, mist suppressant for metal-plating baths, grease and water resistance to materials such as textiles, carpets, and paper. Production ceased in 2002.
Perfluorooctanoic acid (PFOA)* (ppt)	2023	2.0	4.0	2.9	2.4-2.9	NO	Surfactant for fire-fighting foam, mist suppressant for metal-plating baths, grease and water resistance to materials such as textiles, carpets, and paper. Production ceased in 2015.
Disinfectants and Disinfection By-products	Date Collected ^a	MCLG	Highest Allowed (MCL)	Highest Level Detected	Range of Levels Detected	Violation	Source of Contamination
Total Trihalomethanes (ppb)	2023	NA ^f	80	30 ^e	11.7 - 43.7	NO	By-product of drinking water chlorination
Total Haloacetic Acids (ppb)	2023	NA ^f	60	16 ^e	4.0 - 26.8	NO	By-product of drinking water chlorination
Chlorine (ppm)	2023	4 MRLDG	4 MRDL	1 ^d	0.5 - 1	NO	Water additive used to control microbes
Lead & Copper	Date Collected	MCLG	Action Level (AL)	90th Percentile	# of sites over AL	Violation	Source of Contamination
Lead (ppb)	2023	0	15	5.4	0	NO	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	2023	1.3	1.3	0.21	0	NO	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems

Additional Information About Your Water

Measured Parameter	Evanston Average	Evanston Minimum	Evanston Maximum
pH (0-14 pH units)	7.6	7.3	7.7
Hardness (as mg CaCO ₃ /L)	136	124	152
Hardness (gpg)	8.0	7.3	8.9
Alkalinity (ppm)	102	85	114
Raw Water Temperature °F	53	35	75

Measured Parameter	Evanston Average
Calcium (ppm)	34
Chloride (ppm)	15
Dissolved Solids (ppm)	160
Magnesium (ppm)	12
Potassium (ppm)	1.5
Aluminum (ppb)	90

Definitions:

Action Level—The concentration of a contaminant which, if exceeded, triggers treatment or other required actions by the water supply.

Disinfection By-Products—Total Trihalomethanes and Total Haloacetic Acids are used to regulate the amount of allowable by-products of chlorination.

Fluoride—The Illinois Department of Public Health recommends an optimal target of 0.7 ppm.

gpg—grains per gallon.

Lead and Copper—There is no detectable lead in the water provided to the Evanston community. Lead enters the water from lead solder, lead pipes or plumbing fixtures in the home. To minimize contamination resulting from corrosion, the EPA established a lead action level of 15 parts per billion in 1992. The 90th percentile result of samples analyzed for lead and copper content in homes with lead pipes must be less than the action level of 15 ppb and 1.3 ppm respectively. In 2023, Evanston sampled water from forty homes with lead service lines and analyzed them for lead and copper content. The 90th percentile level for Lead was 5.4 ppb. The 90th percentile level for copper was 0.21 ppm.

MCL—Maximum Contaminant Level, the highest level of a contaminant that is allowed in drinking water. A MCL is set as close to a MCLG 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.

mg CaCO₃/L—milligrams of calcium carbonate per liter.

mrem/yr—Millirems Per Year—Measure of radiation absorbed by the body; a dose (body burden).

MRDL—Maximum Residual Disinfection Level—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.

MRDLG—Maximum Residual Disinfection Level Goal—The level of 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.

NTU—Nephelometric Turbidity Units, measures water clarity.

pCi/L—picocuries per liter- Measure of radioactivity.

ppm—parts per million or milligrams per liter (mg/L).

ppb—parts per billion or micrograms per liter (µg/L).

ppt—parts per trillion or nanograms per liter (ng/L).

TT—Treatment Technique, a required process intended to reduce the level of a contaminant in drinking water.

Turbidity—a measurement of the cloudiness of the water caused by suspended particles. This is monitored because it is a good indicator of water quality as well as verifying the effectiveness of the filtration and disinfection processes.

- a The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old. Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled for during the Consumer Confidence Report (CCR) calendar year. If any of these contaminants were detected in the last sampling period, the results are included in the table along with the date that the detection occurred.
- b Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Radiation is everywhere; from the sun, from the earth and even in our bodies. The amounts detected in Evanston's water are well below the maximum contaminant level; so low in fact, that Evanston is on a reduced monitoring schedule and is only required to sample every 6 years.
- c Highest Running Annual Average (quarterly) (RAA). RAA quarterly is calculated by adding the most recent quarter plus the three previous quarters and dividing by four. The highest RAA during the year is reported.
- d Running Annual Average (monthly) (RAA). RAA monthly is based on the monthly averages of all samples.
- e There is no state or federal MCL for Sodium. Sodium levels below 20 mg/l (ppm) are not considered to be a health issue.
- f Although there is no collective MCLG for this contaminant group, there are individual contaminant MCL's: Trihalomethanes: bromodichloromethane(0.06 mg/L) Haloacetic acids: dichloroacetic acid(0.06 mg/L); trichloroacetic acid (0.3 mg/L).

TOC—The Evanston Water Supply monitored the percentage of Total Organic Carbon (TOC) removal quarterly and met all TOC removal requirements set by the IEPA.

*PFOS - In 2021, our PWS was sampled as part of the State of Illinois PFAS Statewide Investigation. Results from this sampling indicated PFAS were detected in our drinking water. PFOA was detected above the health advisory level and PFOS was detected below the health advisory level established by the Illinois EPA. Follow up monitoring is being conducted. Results can be found at www.cityofevanston.org/government/departments/public-works/public-outreach/historical-pfas-results

For more information about PFAS health advisories, visit epa.illinois.gov/topics/water-quality/pfas.html.



Stephen Quinn
Public Works Agency
Evanston Water Utility
555 Lincoln Street
Evanston, Illinois 60201

March 21, 2024

Public Notice

The City of Evanston received a Public Notice Requirement (PN) Letter due to a Monitoring Violation dated July 11, 2023. The letter stated that the Total DDT was not monitored. Total DDT was collected along with the other SOC compounds on 4/6/2023. Total DDT was analyzed 4/19/23 with a non-detected value of <0.097 ug/L.

Evanston's contract laboratory Eurofins Eaton Analytical (EEA) failed to include the Total DDT analyte when uploading the SOC data. All other 32 SOC analytes were reported. Unfortunately, EEA did not rectify this oversight prior to the end of the compliance reporting period. Evanston was not notified of this oversight until the PN letter was received July 18, 2023. Please see the attached letter from EEA explaining the situation. Total DDT data was downloaded successfully to the State August 3rd after many complications.

Total DDT was both sampled and analyzed within the sampling quarter as per compliance. The Tier 3 monitoring violation mandatory language states:

"We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During [compliance period] we [**'did not monitor or test'** or **'did not complete all monitoring or testing'**] for [contaminant(s)] and therefore **cannot be sure of the quality of our drinking water during that time.**"

Evanston did in fact **monitor, test and complete all requirements for Total DDT and can be sure of the quality of our drinking water during this time.** Due to this oversight, The City of Evanston made the decision to not renew the contract with Eurofins Eaton Analytical (EEA).

Regards

Stephen Quinn

October 04, 2023

City of Evanston
Eleanore Meade
555 Lincoln Street
Evanston, IL 60201

Re: IL EPA NOV for failure to report Total Detectable DDT

Eleanore Meade,

Eurofins Eaton Analytical, LLC South Bend (EEA-SB) received samples from the City of Evanston for site TP01 (collected 04/06/23) on 04/07/23 (job # 810-58846). Included in this testing was pesticides by EPA 525.2. Analytes included in this job were 4,4'-DDD, 4,4'-DDT and 4,4'-DDE.

When EEA-SB transferred to their new Laboratory Information Management System, the Total Detectable DDT analyte was left out of the method EPA 525.2. Total Detectable DDT was added to the method in July 2022. Any project that was created with 525.2 prior to July 2022 would not have had Total Detectable DDT. At that point, each project would need to be updated to include this analyte. This reporting error was due to EEA SB missing updating the City of Evanston's project and was not the fault of the City of Evanston.

At the time Job# 810-58846 was received the project for City of Evanston had not been updated to include Total Detectable DDT. It did include the three components of 4,4'-DDD, 4,4'-DDT and 4,4'-DDE all < 0.097 ug/L. This made the Total Detectable DDT result < 0.097 ug/L. The IEPA Regulatory Limit for Total Detectable DDT is 50 ppb. An image of all results analyzed is included on page two of this letter showing everything that was analyzed and the results.

EEA-SB has now updated the project for City of Evanston and Total Detectable DDT will show up on their report going forward.

Sincerely,

Bill Reeves
Quality Assurance Manager

Availability of Monitoring Data for Unregulated Contaminants for Evanston (UCMR5)

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 these data are available.

This notice is being sent to you by the Evanston Water Utility. State System ID# IL0310810 on 5/7/2024.

Sample dates: 6/6/2023, 9/6/2023, 12/6/2023

UCMR5 Compounds (ppb)	MRL	Level Found
Perfluorooctanesulfonic acid (PFOS)	0.0040	Not detected
Perfluorooctanoic acid (PFOA)	0.0040	Not detected
11Cl-PF3OUdS/F-53B Minor	0.0050	Not detected
9Cl-PF3ONS/F-53B Major	0.0020	Not detected
ADONA	0.0030	Not detected
HFPO-DA/GenX	0.0050	Not detected
N-ethyl Perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.0047	Not detected
N-methyl Perfluorooctanesulfonamidoacetic acid (NEMeFOSAA)	0.0056	Not detected
Perfluorobutanesulfonic acid (PFBS)	0.0030	Not detected
Perfluorodecanoic acid (PFDA)	0.0030	Not detected
Perfluorododecanoic acid (PFDoA)	0.0030	Not detected
Perfluoroheptanoic acid (PFHpA)	0.0030	Not detected
Perfluorohexanesulfonic acid (PFHxS)	0.0030	Not detected
Perfluorohexanoic acid (PFHxA)	0.0030	Not detected
Perfluorononanoic acid (PFNA)	0.0040	Not detected
Perfluorotetradecanoic acid (PFTA)	0.0075	Not detected
Perfluorotridecanoic acid (PFTrDA)	0.0065	Not detected
Perfluoroedecanoic acid (PFUnA)	0.0020	Not detected
Perfluorobutanoic acid (PFBA)	0.0050	Not detected
Perfluoropentanoic acid (PFPeA)	0.0030	Not detected
Perfluoroheptanesulfonic acid (PFHpS)	0.0030	Not detected
Perfluoropentanesulfonic acid (PFPeS)	0.0040	Not detected
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	0.0030	Not detected
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	0.0050	Not detected
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	0.0050	Not detected
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	0.0020	Not detected
Perfluoro-3-methoxypropanoic acid (PFMPA)	0.0040	Not detected
Perfluoro-4-methoxybutanoic acid (PFMBA)	0.0030	Not detected
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	0.0030	Not detected
Lithium	9.00	Not detected

ppb= parts per billion, MRL= smallest measured concentration of a substance that can be reliably measured by using a given analytical method.