



VILLAGE OF DEERFIELD

Annual Drinking Water Quality Report Village of Deerfield 2022

This information is being published in accordance with the 1996 Safe Water Drinking Act as directed by the U.S. Environmental Protection Agency.

We are once again pleased and proud to present to you the Annual Drinking Water Quality Report. This Consumer Confidence Report (CCR) is designed to inform you about the water we deliver to you every day. Our goal is to provide you with a safe and dependable supply of drinking water. The Village is committed to ensuring the quality and delivery of your water. We hope you find this information useful.

The drinking water provided by the Village meets or exceeds all State of Illinois and United States Environmental Protection Agency (EPA) regulations and we are not operating under any variance or exemption from the established drinking water regulations or standards. Opportunities for participation in the decision making processes that affect drinking water quality are also available at the monthly Village of Deerfield Board meetings on the first and third Mondays of every month. If you have questions about this report or water quality, please contact Tyler Dickinson, Responsible Operator in Charge, at 847.317.7245, or e-mail pw@deerfield.il.us.

Source of Drinking Water

The Village of Deerfield purchases all water from the City of Highland Park. The City of Highland Park draws its raw water from a 54-inch intake pipe located a mile off shore in Lake Michigan at a depth of approximately 30 feet. In addition, there are two smaller pipes used as secondary intakes, which are 16 and 20 inches in diameter.

Susceptibility to Contamination

All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or are man-made. Those elements may be microbes, organic or inorganic chemicals, or radioactive materials. All 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. Susceptibility is defined as the likelihood for the source water of a public water system to be contaminated at concentrations that would pose a concern. The Illinois EPA (IEPA) considers all surface 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. Hence, the reason for mandatory treatment for all surface water supplies in Illinois.

As mentioned above, Highland Park has three intake lines. The 54-inch intake pipe is normally used alone, with the two smaller intakes used to augment high demand or during maintenance of the 54-inch pipe. As these are closer to the shore, they have a greater susceptibility to be influenced by potential sources of contaminants. Regardless of which lines are used, the finished water leaving the Highland Park Water Plant always meets or exceeds all IEPA and EPA regulations.

More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1.800.426.4791. To access the Highland Park Water Assessment Summary, visit rb.gy/k8epg.

Contaminants Monitoring Results

The Village of Deerfield and City of Highland Park routinely monitor for contaminants in your drinking water according to Federal and State Laws.

General

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 can dissolve naturally occurring minerals and radioactive material and can pick up substances resulting from the presence of animals or from human activity. Possible contaminants consist of:

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.

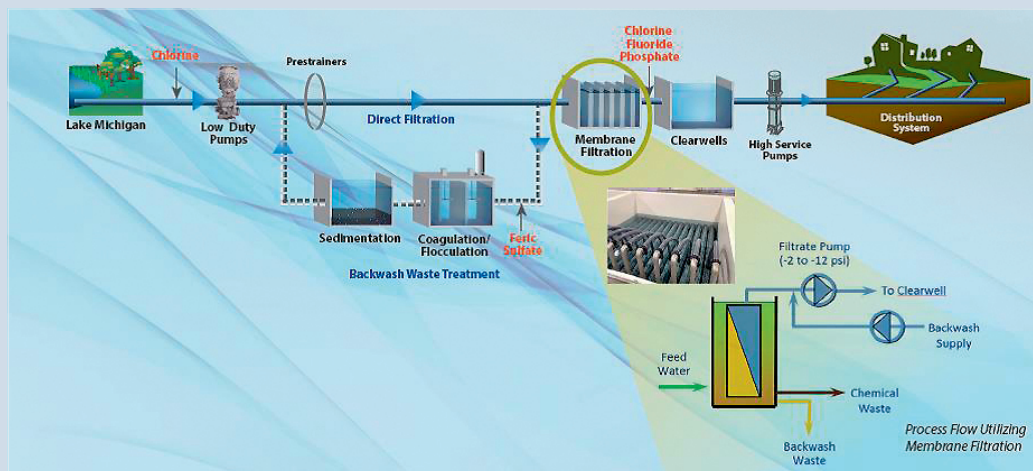
Radioactive contaminants, which may be naturally occurring or the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, 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.

2022 Water Quality Data – January 1, 2022 to December 31, 2022

Contaminant (units)	EPA MCLG	EPA MCL	High Level Found	Range of Detection	Violation	Date of Sample	Typical Source of Contamination
Microbial Contaminants							
Turbidity (%<0.3 NTU)*	n/a	0.3 NTU	100%	n/a	NO	2022	Soil runoff
Turbidity (1.0 NTU)* Highest Single Measurement	n/a	1 NTU	0.166 NTU	n/a	NO	2022	Soil runoff
Disinfection / Disinfection Byproducts							
Chlorine (ppm)	4	4	1.55	0.50-2.13	NO	2022	Water additive used to control microbes
Total Haloacetic Acids [HAAS] (ppb)	n/a	60	21.6	7.8-35.3	NO	2022	By product of drinking water chlorination
TTHM [Total Trihalomethanes] (ppb)	n/a	80	59.2	17.0-66.4	NO	2022	By product of drinking water chlorination
Inorganic Contaminants							
Barium (ppm)	2	2	0.019	.019-.019	NO	2022	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	.708	0.708-0.708	NO	2022	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Coliform	0	0	0	0 Plus	NO	2022	Naturally present in the environment

This schematic drawing details the water purification process that Highland Park utilizes to provide clean water to all of its customers, including Deerfield.



Contaminant (units)	EPA MCLG	EPA MCL	High Level Found	Range of Detection	Violation	Date of Sample	Typical Source of Contamination
Unregulated Contaminants reported by the City of Highland Park							
Sulfate (ppm)	n/a	n/a	23.0	23.0-23.0	NO	2022	This contaminate is not currently regulated by the USEPA. However the state regulates. Naturally occurring; discharge from metal factories.
Chloride	n/a	n/a	20.0	20.0-20.0	NO	2022	This contaminant is not currently regulated by the USEPA. However the state regulates. Naturally occurring; run-off from road salts.
Calcium	n/a	n/a	35	35.0-35.0	NO	2022	This contaminant is not currently regulated by the USEPA or the state. Erosion from naturally occurring deposits.
Magnesium	n/a	n/a	13	13.0-13.0	NO	2022	This contaminant is not currently regulated by the USEPA or the state. Erosion from naturally occurring deposits.
Sodium	n/a	n/a	13	13.0-13.0	NO	2022	Erosion from naturally occurring deposits. Used in water softener regeneration.
Hardness Total (ppm as CaCo3)	n/a	n/a	140	140-140	NO	2022	Erosion from naturally occurring deposits.
Alkalinity	n/a	n/a	98	98-98	NO	2022	Erosion from naturally occurring deposits.
Total Dissolved Solids	n/a	n/a	170	170-170	NO	2022	Erosion from naturally occurring deposits.

Lead and Copper

The IEPA lead and copper testing program began in 1992. Due to consistent low concentration levels of lead and copper, the Village has been placed on a reduced testing cycle by the Illinois Environmental Protection Agency (IEPA) and is only required to test every three years. Currently, a round of testing consists of 30 samples. Our most recent round of lead and copper testing took place in 2021 with all samples reporting below the action levels for lead and copper. Copies of the lead sampling results are available on the Village website at deerfield.il.us. Our next round of testing will occur in 2024.

The Village of Deerfield is in full compliance with all State and Federal regulations governing the control of lead and copper within public drinking water supplies. 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 Village of Deerfield 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 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 epa.gov/safewater/lead.

Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. The following table shows the results of our lead and copper monitoring for the period of January 1 to December 31, 2021.

Lead MCLG	Lead Action Level (AL)	Lead 90th Percentile	#Sites Over Lead AL	Copper MCLG	Copper Action Level (AL)	Copper 90th Percentile	#Sites Over Copper AL	Likely Source of Contamination
0	15ppb	0 ppb	0	1.3ppm	1.3 ppm	0.19 ppm	0	Corrosion of household plumbing systems; Erosion of natural deposits

Definitions

In the previous tables you will find many terms and abbreviations you may not be familiar with. To help you better understand these terms we have provided the following definitions:

ppm - parts per million or milligrams per liter (mg/l) or one ounce per 7,350 gallons of water.

ppb - parts per billion or micrograms per liter (mcg/l) or one ounce per 7,350,000 gallons of water.

ppt - parts per trillion or nanograms per liter (nanograms/l) or one ounce per 7,350,000,000 gallons of water.

NTU - Nephelometric Turbidity Unit, used to measure of the cloudiness in drinking water.

% < 0.3 NTU - percent samples less than 0.3 NTU.

Mrem/yr - millirems per year, used to measure radiation absorbed by the body.

pCi/l - picocuries per liter, used to measure radioactivity.

pos/mo - number of positives per month.

AL - Action Level or the concentration of a contaminant, which if exceeded, triggers treatment or other requirements which a water system must follow.

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

MCL - Maximum Contaminant Level or the highest level of a contaminant 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 or 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.

n/a - not applicable.

About The Data

Organic Carbon - The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set, unless a TOC violation is noted in the violations section.

Turbidity (NTU) - Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of water quality and the effectiveness of the filtration and disinfectants.

Sodium - There is not a state or federal MCL for sodium. Monitoring is performed to provide information to consumers and health officials that are concerned 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.

Lead & Copper - The Village of Deerfield has been in compliance with regulations for lead and copper control. (See Lead and Copper Explanation on page 7.)

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.

In addition to the above mentioned tests, Deerfield continuously monitors and tests your water through our water control system as well as weekly physical samples. These samples are submitted to the IEPA certified Central Lake County Joint Action Water Agency for analysis. This ensures a rapid response should there ever be a problem.

Special Information Available

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised individuals, 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 at 1.800.426.4791.

Top Ways to Conserve Water

Conserving water is easy if you follow these helpful tips:

- Test for a leaking toilet by adding food coloring to the tank.
- If any color appears in the bowl after 30 minutes, your toilet is leaking. Leaking toilets can waste thousands of gallons of water. Flush as soon as the test is done, since food coloring may stain the tank.
- Use water-conserving plumbing fixtures and water-flow restrictors on sinks and showers. Bathroom facilities typically constitute 75% of the water used in homes.
- Run your dishwasher and washing machine when you have a full load.
- Take a short shower instead of a bath. A bath uses 30 to 50 gallons of water. Showers use about a gallon of water per minute.
- Store drinking water in the refrigerator instead of letting the tap run every time you want a glass of cool water.
- Never put water down the drain when there may be another use for it such as watering a plant or garden, or doing housework.
- Be conscientious of the amount of water you use when running your garbage disposal. Have your food scraps cut into small pieces so they can be disposed of quickly, minimizing the amount of time you need to run the faucet.
- For landscaping and gardens, choose plants that are native to the area in which you live or plants that are drought resistant. Native plants are accustomed to the natural amount of precipitation that occurs in the area where they are found and normally do not require any additional watering. Group plants together based on similar watering needs.
- Water your lawn and/or garden during the coolest part of the day to minimize evaporation. Apply water slowly, exactly where it is needed. Position sprinklers so that water lands on the lawn and shrubs, not on paved areas. Keep in mind that sprinkling restrictions are in place from May 15 - September 15.

For More Information

If you have any questions about this report, your water quality in general, or simply want more information, please contact the Village of Deerfield Water Department at 847.317.7245 or pw@deerfield.il.us or visit our website at deerfield.il.us.