VILLAGE OF PALATINE

# *2020 Consumer Confidence Report*

Dear Water Customer:

We are pleased to present a summary of the quality of the water delivered to you during the past year. In 2020, as in past years, your tap water has met all United States Environmental Protection Agency (USEPA) and State of Illinois drinking water health standards and has no violations to report. The Safe Drinking Water Act (SDWA) requires that utilities issue an annual "Consumer Confidence Report" (CCR) to customers in addition to other notices that may be required by law. This report details where our water comes from, what it contains, and the risks our water testing and treatment are designed to prevent. The Village of Palatine is committed to providing you with the safest and most reliable water supply. Informed consumers are our best allies in maintaining safe drinking water.

For more information on this report, you may contact Jim Hrycko, Utilities Coordinator, at the Village of Palatine Department of Public Works at (847) 705-5200 or any of our five Water Operators: Keith Hansen, Jeff Agner, Matt Banach, Brandon Palmer, and James Kernan.

From time to time, water issues are addressed at the Village Council Meetings. These meetings are held on the first, second, and third Monday of each month at 7:00 p.m. at the Village Hall, 200 East Wood Street, Palatine, Illinois.

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 groundwater 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 pickup 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. In order to ensure that tap water is safe to drink, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food & Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health. 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's Safe Drinking Water Hotline at (800) 426-4791.**

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 and Centers for Disease Control (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 (800) 426-4791.

Cryptosporidium is not monitored by the Village of Palatine. However, in accordance with the "Long Term Enhanced Surface Water Treatment Rule" established by USEPA, Evanston is currently monitoring for cryptosporidium. Testing for cryptosporidium began in April 2007. Monitoring performed by Evanston between August 2018 and November 2018 did not detect cryptosporidium, giardia, or Escherichia coli in the "raw" source water withdrawn from Lake Michigan.

**Source Water Assessment**
A Source Water Assessment summary is included below for your convenience.

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, which is the reason for mandatory treatment for all surface water supplies in Illinois. All three of Evanston's intakes 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 exists due to the proximity of the North Shore Channel and wet-weather flows. In addition, the proximity to a major shipping lane adds to the susceptibility of these three intakes. Water supply officials from Evanston are active members of the West Shore Water Producers Association. Coordination regarding water quality situations (i.e. spills, tanker leaks, exotic species, etc.) is frequently discussed during the association's quarterly meetings. 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. Since the predominant land use within Illinois' boundary of Lake Michigan watershed is urban, a majority of watershed protection activities in this document are aimed at this purpose.

# Palatine's 2020 Regulated Contaminants Detected

**Lead and Copper**
**Date Sampled: 08/2020**

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 are responsible for providing high quality drinking water, but 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 https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water.

| Coliform Bacteria | MCLG | Total Coliform MCL | Highest No. of Positive | Fecal Coliform or E. Coli MCL | Total No. of Positive E. Coli or Fecal Coliform Samples | Violation | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|
| Coliform Bacteria | 0 | 5% of monthly samples are positive | 0 | - | 0 | No | Naturally present in the environment. |

| Lead or Copper | Collection Date | MCLG | Action Level (AL) | 90th Percentile | # of Sites Over AL | Violation | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|
| Lead (ppb) | 2020 | 0 | 15 | 5.9 | 0 | No | Corrosion of household plumbing systems; Erosion of natural deposits. |
| Copper (ppm) | 2020 | 1.3 | 1.3 | 0.051 | 0 | No | Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems. |

| Disinfectants & Disinfection By-Products | Collection Date | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Violation | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|
| Total Haloacetic Acids (ppb) | 2020 | 26 | 10.57 – 34.3 | N/A | 60 | No | By-product of drinking water disinfection |
| Total Trihalomethanes (ppb) | 2020 | 48 | 17.79 – 63 | N/A | 80 | No | By-product of drinking water disinfection |
| Chlorine (ppm) | 12/31/2020 | 1 | 0.9 – 1 | MRDLG=4 | MRDL=4 | No | Water additive used to control microbes |

| Inorganic Contaminants | Collection Date | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Violation | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|
| Arsenic (ppb) | 8/7/2018 | 1.4 | 0 – 1.4 | 0 | 10 | No | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes. |
| Barium (ppm) | 8/7/2018 | 0.083 | 0.018 – 0.083 | 2 | 2 | No | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits. |
| Fluoride (ppm) | 8/7/2018 | 1.03 | 0.69 – 1.03 | 4 | 4.0 | No | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories. |
| Iron (ppm) | 8/7/2018 | 1 | 0.098 – 1 | - | 1.0 | No | This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits. |
| Manganese (ppb) | 8/7/2018 | 27 | 11 – 27 | 150 | 150 | No | This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits. |
| Sodium (ppm) | 8/7/2018 | 46 | 17 – 46 | - | - | No | Erosion from naturally occurring deposits; Used in water softener regeneration. |

| Radioactive Contaminants | Collection Date | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Violation | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|
| Combined Radium 226/228 (pCi/L) | 7/10/2019 | 14.01 | 0.733 – 14.01 | 0 | 5 | No | Erosion of natural deposits. |
| Gross alpha excluding radon and uranium (pCi/L) | 7/10/2019 | 12.2 | 0 – 12.2 | 0 | 15 | No | Erosion of natural deposits. |

We have monitored the raw water for our emergency back-up wells and that data is available upon request. Please contact Public Works at (847) 705-5200 if you would like this information.

Note: The state requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of this data may be more than one year old.

# Palatine's 2020 Unregulated Contaminants

**Fourth Unregulated Contaminant Monitoring Rule (UCMR 4)**
**Date Monitored: 2018-2020**

The 1996 Safe Drinking Water Act (SDWA) amendments require that once every five years, EPA issue a new list of no more than 30 unregulated contaminants to be monitored by public water systems (PWSs). The Fourth Unregulated Contaminant Monitoring Rule (UCMR 4) was published in the Federal Register on December 20, 2016. UCMR 4 requires monitoring for 30 chemical contaminants between 2018 and 2020 using analytical methods developed by EPA and consensus organizations. This monitoring provides a basis for future regulatory actions to protect public health.

| Unregulated Contaminant Monitoring Rule (UCMR 4) | Date Collected | MCLG | Highest Allowed (MCL) | Highest Level Detected | Range of Levels Detected | Violation | Source of Contamination |
|---|---|---|---|---|---|---|---|
| HAA5 (ppb) | 2020 | N/A | 80 | 29.29 | 9.30 – 29.29 | No | By-product of drinking water chlorination |
| HAA6Br (ppb) | 2020 | Not regulated | Not regulated | 14.83 | 9.12 – 14.83 | No | By-product of drinking water chlorination |
| HAA9 (ppb) | 2020 | Not regulated | Not regulated | 41.55 | 17.76 – 41.55 | No | By-product of drinking water chlorination |
| Manganese (ppm) | 2/3/2020 | Not regulated | USEPA National Secondary Standard of 0.05 | 0.0005 | 0 – 0.0005 | No | Erosion of naturally occurring deposits |

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

- HAA5 is an Haloacetic Acids (HAA) group comprised of monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid.
- HAA6Br is an Haloacetic Acids (HAA) group comprised of monobromoacetic acid, dibromoacetic acid, bromochloroacetic acid, bromodichloroacetic acid, chlorodibromoacetic acid, and tribromoacetic acid.
- HAA9 is an Haloacetic Acids (HAA) group comprised of monobromoacetic acid, dibromoacetic acid, bromochloroacetic acid, bromodichloroacetic acid, chlorodibromoacetic acid, tribromoacetic acid, trichloroacetic acid, monochloroacetic acid, and dichloroacetic acid.

# EVANSTON'S ANNUAL DRINKING WATER QUALITY REPORT - IL0310810

Annual Water Quality Report for the period of January 1 to December 31, 2020

This report is intended to provide you with important information about your drinking water and the efforts made by the EVANSTON water system to provide safe drinking water. The source of drinking water used by EVANSTON is Surface Water.

For more information regarding this report, please contact: Darrell King at (847) 448-4311.

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

| Inorganic Contaminants | Collection Date | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Violation | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|
| Barium (ppm) | 2020 | 0.02 | 0.02 – 0.02 | 2 | 2 | No | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits. |
| Fluoride (ppm) | 2020 | 0.7 | 0.7 – 0.7 | 4 | 4.0 | No | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories. |
| Nitrate [measured as Nitrogen] (ppm) | 2020 | 0.4 | 0.4 – 0.4 | 10 | 10 | No | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits. |
| Sodium (ppm) | 2020 | 8 | 8.0 – 8.2 | N/A | N/A | No | Erosion of naturally occurring deposits; used in water softener regeneration. |

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

| Radioactive Contaminants | Collection Date | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Violation | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|
| Combined Radium 226/228 (pCi/L) | 2020 | 1.02 | 1.02 – 1.02 | 0 | 5 | No | Erosion of natural deposits. |
| Gross alpha excluding radon and uranium (pCi/L) | 2020 | 0.72 | 0.72 – 0.72 | 0 | 15 | No | Erosion of natural deposits. |

| Disinfectants & Disinfection By-Products | Collection Date | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Violation | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|
| Total Haloacetic Acids (ppb) | 2020 | 16 | 6.3 – 25.7 | N/A | 60 | No | By-product of drinking water disinfection. |
| Total Trihalomethanes (ppb) | 2020 | 31 | 15.8 – 39.8 | N/A | 80 | No | By-product of drinking water disinfection. |
| Chlorine (ppm) | 12/31/2020 | 1 | 1 – 1 | MRDLG=4 | MRDL=4 | No | Water additive used to control microbes. |
| Unregulated Contaminant Monitoring Rule (UCMR4) | Collection Date | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Violation | Likely Source of Contamination |
| Manganese (ppm) | 3/4/2020 | 0.000421 | Single sample | Not regulated | USEPA National Secondary Standard of 0.05 | No | Erosion of naturally occurring deposits. |

Note: The state requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of this data may be more than one year old.

| Substance | Limit (Treatment Technique) | Highest Single Measurement | Violation | Source of Contamination |
|---|---|---|---|---|
| Turbidity (NTU) | 1 NTU | 0.18 NTU | No | Soil runoff. |
| Substance | Limit (Treatment Technique) | Lowest Monthly % Meeting Limit | Violation | Source of Contamination |
| Turbidity (NTU) | 0.3 NTU | 100% | No | Soil runoff. |

**Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and for verifying the effectiveness of our filtration system and disinfectants.**

Additional information about your water:

| Measured Parameter | Evanston Average | Evanston Minimum | Evanston Maximum |
|---|---|---|---|
| pH (1-14 pH units) | 7.6 | 7.2 | 7.8 |
| Hardness (as mg $CaCo_3$/L) | 130 | 121 | 154 |
| Hardness (gpg) | 7.9 | 7.1 | 9.0 |
| Alkalinity (ppm) | 97.9 | 94 | 112 |
| Raw Water Temperature (°F) | 51 | 33 | 80 |
| Calcium (ppm) | 34 | N/A | N/A |
| Chloride (ppm) | 15 | N/A | N/A |
| Dissolved Solids (ppm) | 180 | N/A | N/A |
| Magnesium (ppm) | 12 | N/A | N/A |
| Potassium (ppm) | 1.5 | N/A | N/A |
| Aluminum (ppb) | 79 | N/A | N/A |

## Call the Department of Public Works at (847) 705-5200

**Signs of Trouble**

Although the water system is designed to operate without problems, occasionally a situation may arise which requires attention.

- If you ever see water bubbling out of the ground or if you notice an unusual amount of water standing in an otherwise dry area, contact the Department of Public Works. These are indications that there may be a water main break.

- The Village is responsible for the main water line that runs in front of your home. The service line runs from the main line to your water meter and is the homeowner's responsibility. If you need to have the water to your home turned off and cannot turn it off at the meter, call us and we will send a Utility Division employee to turn the water off at the house service line in the parkway.

- Water pressure is always kept at an even level. If you have a problem with an individual faucet, it is probably due to a clogged service in the faucet itself. If you are experiencing water pressure problems throughout the house, call us. We will send a service technician to inspect your water meter and to help you identify the source of the problem.

**Sprinkling Restrictions**

Water can no longer be thought of as an unlimited natural resource. In order to help conserve water during peak-demand summer months, the Village of Palatine has an ordinance prohibiting lawn sprinkling from 12:00 p.m. until 6:00 p.m. from May 15 through September 15 of each year and shall not occur on consecutive days.

**Water Conservation Measures**

There are eleven million people in Illinois, each using an average of 160 gallons of water per day. If each of us takes some small steps to use less water, it can make a big difference in conserving this precious natural resource.

- Use as little water as possible when washing your car; use a bucket instead of letting the hose run. Water lawns and gardens early in the morning to minimize water loss from evaporation.

- Turn off water in sinks, showers, and baths when not using them. Repair all leaks immediately. Install a low-flush or air-assisted toilet. Buy water-efficient appliances.

- Install shower restrictors to reduce the amount of water used. Report accidental spills or illegally dumped waste to the Illinois Environmental Protection Agency.

**Notice a Funny Taste to the Water?**

Communities which draw on Lake Michigan for their drinking water, which include the majority of the Chicagoland area and its suburbs, have been hearing complaints from residents that their water has an odd taste which has been described variously as musty, moldy, or earthy. The musty taste is elusive and subtle. One family member will take a sip and make a face, but another will not be able to taste it. And it comes and goes. It may appear in Hammond or Chicago …where the Water Department got

more than 150 calls about it during one weekend. Just as suddenly, it will go away. On a daily basis, it can shift from one water treatment plant to another, one town to another.

Officials at the Evanston Facility have assured us that the water is safe to drink, and our local testing reaffirms this fact. The musty, moldy taste comes from at least two compounds which are produced by the decaying of dead algae, the tiny drifting plants which are found in every body of water. Decaying algae and other micro-organisms give off a variety of organic chemical compounds, any or all of which could make water taste moldy.

None of those decaying products has been found to pose a health threat, especially at the low concentrations found in open bodies of water. They may not be dangerous, but they are powerful in the effect they produce. Sensitive palates make it difficult to eliminate the taste completely for everyone, but there is a straight forward way to treat raw lake water to get rid of most of the taste.

Finely ground particles of carbon are added to the lake water as soon as it arrives in the treatment plant. Carbon attacks molecules which adhere to it like steel to a magnet. The carbon settles out of the water later in the treatment process, taking with it the organisms that are causing the musty taste.

A seasonal problem with earthy water is nothing new. In the late fall, as the temperatures drop, the top layer of the lake cools first. Cold water is denser than warm water so it drops to the bottom and the warmer layers rise in its place. This process, the fall turnover, stirs up sediment and brings up decaying algae. But for at least the last six years, the water has had an odd taste in the summer too. With conditions in the lake changing unpredictably, the art behind removing the musty taste lies in matching the dosage of carbon with the magnitude of the problem. Please be assured that if your water occasionally tastes a bit odd, it is perfectly safe to drink.

**Definitions**

**Action Level (AL)**: The concentration of a contaminant which, if exceeded, triggers treatment or other required actions by the water supply

**Maximum Contaminant Level (MCL)**: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the Maximum Contaminant Level Goal as feasible using the best available treatment technology.

**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 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. MRDLGs allow for a margin of safety.

**N/A**: not applicable.

**NTU**: Nephelometric Turbidity Units (measurement of water clarity).

**pCi/L**: picocuries per liter (measurement of radioactivity).

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

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