



## 2016 Water 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. 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.

### **National Primary Drinking Water Regulation Compliance**

**No violations** were recorded for the Village of Palatine during this CCR reporting period (Facility # IL0312340).

For more information on this report, you may contact Joe Petykowski, Utilities Coordinator, at the Village of Palatine at (847) 705-5200 or any of our three Water Utility Technicians, Wayne Iles, Keith Hansen, and Jim Hrycko, at the same number.

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 200 E. Wood Street, Palatine, Illinois 60067.

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo o 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. 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 EPA's Safe Drinking Water Hotline at (800) 426-4791.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which 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 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, and 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 (800) 426-4791.

### **Source Water Information**

Source Water Name	Type of Water
CC-01 – South Pumping Station	FF IL0315300 TP01: Lake Water
CC-02 – North Pumping Station	FF IL0315300 TP01: Lake Water

The Village's source water comes from Lake Michigan through the City of Evanston.

### **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 is aimed at this purpose.

## Palatine's 2016 Regulated Contaminants Detected

### Lead and Copper

**Date Sampled: 08/2014**

**Sampled Every Three Years**

Definitions:

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in the 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 the drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALG's allow for a margin of safety.

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	15 ppb	0 ppb	0	1.3 ppm	1.3 ppm	0 ppm	0	Corrosion of household plumbing systems; Erosion of natural deposits

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2016	22	6.01 – 31.3	N/A	60	ppb	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethenes]	2016	45	15.9 – 71.4	N/A	80	ppb	No	By-product of drinking water disinfection
Chlorine	12/31/2016	0.7	0.7 – 0.7	MRDLG=4	MRDL=4	ppm	No	Water additive used to control microbes

## **Water Quality Test Results**

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCL's 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. MCLG's allow for a margin of safety.

mg/l: milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

ug/l: micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.

N/A: not applicable.

Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.

Maximum Residual Disinfectant Level (MRDL): The highest level of disinfectant allowed in drinking water.

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 allow for a margin of safety.

## **Regulated Contaminants**

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.

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.

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

ppm: parts per million.

ppb: parts per billion.

ppt: parts per trillion.

pCi/l: picoCuries per liter (measurement of radioactivity).

## EVANSTON'S ANNUAL DRINKING WATER QUALITY REPORT - IL0310810

Annual Water Quality Report for the period of January 1 to December 31, 2016

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 o hable con alguien que lo entienda bien.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2016	0.02	0.02 – 0.02	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2016	0.7	0.7 – 0.7	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2016	1	0.6 – 0.6	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	1/16/2014	0.99	0.99 - 0.99	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	1/16/2014	0.16	0.16 - 0.16	0	15	pCi/L	N	Erosion of natural deposits.

State Regulated Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contamination
<b>Sodium</b> There is not a state or federal MCL for sodium. Monitoring is required to provide <b>information</b> 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.	2016	8	7.7 - 7.7	N/A	N/A	ppm	No	Erosion of naturally occurring deposits; used in water softener regeneration.

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.

<b>Turbidity</b>			
Limit (Treatment Technique)	Highest Single Measurement	Violation	Source
1 NTU	.61 NTU	No	Soil Runoff
Limit (Treatment Technique)	Lowest Monthly % Meeting Limit	Violation	Source
0.3 NTU	99.7%	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 the effectiveness of our filtration system and disinfectants.**

### **Total Organic Carbon**

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

## **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 Water 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 noon 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 decay 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 three 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.