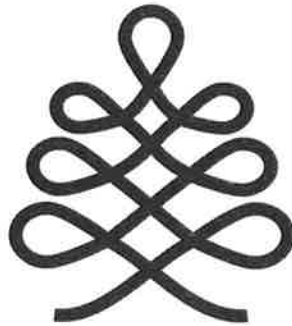


**VILLAGE OF FLOSSMOOR**



**FLOSSMOOR**

*Welcoming. Beautiful. Connected.*

**2018 WATER QUALITY REPORT**

**&**

**FLOOD INFORMATION**

# Annual Drinking Water Quality Report

FLOSSMOOR

IL0310870

Annual Water Quality Report for the period of  
January 1 to December 31, 2018

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

The source of drinking water used by FLOSSMOOR is Purchased Surface Water.

For more information regarding this report contact:

Name Aldric Hinton

Phone 708-957-4100

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. 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, 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 (800-426-4791).

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 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 <http://www.epa.gov/safewater/lead>.

### Source Water Information

Source Water Name	Type of Water	Report Status	Location
CC01 FROM HOMEWOOD FF IL0311350 TP01: LAKE	SW	_____	NEW NORTH PUMPING STATION

## Source Water Assessment

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of our regularly scheduled meetings. The source water assessment for our supply has been completed by the Illinois EPA. If you would like a copy of this information, please stop by City Hall or call our water operator at 708-957-4100. To view a summary version on 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 <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>.

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 intake with no protection only dilution. This is the reason for mandatory treatment for all surface water supplies in Illinois. Chicago's offshore intakes are located at a distance that shoreline impacts are not usually considered a factor on water quality. At certain times of the year, however, the potential for contamination exists due to wet-weather flows and river reversals. In addition, the placement of the crib structures may serve to attract waterfowl, gulls and terns that frequent the Great Lakes area, thereby concentrating fecal deposits at the intake and thus compromising the source water quality. Conversely, the shore intakes are highly susceptible to storm water runoff, marinas and shoreline point sources due to the influx of groundwater to the lake.

## 2018 Regulated Contaminants Detected

### Lead and Copper

Definitions:

**Action Level Goal (ALG):** The level of a contaminant in drinking water below which there is not known or expected risk to health. ALGs allow for a margin of safety.

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

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2018	0	15	2.36	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

### Water Quality Test Results

**Maximum Contaminant Level Goal or 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 Contaminant Level or MCL:** 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.

**Maximum residual disinfectant level goal of MRDLG:** 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.

**Maximum residual disinfectant level or MRDL:** 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.

**Definitions:** The following tables contain scientific terms and measures, some of which may require explanation.

**ppb:** 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.

**ppm:** milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

**Level 1 Assessment:** Is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

**Level 2 Assessment:** Is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

**mrem:** Millirems per year (a measure of radiation absorbed by the body)

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

## Regulated Detected

Disinfectants and Disinfections by-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	12/31/2018	0.9	0.57 - 1.1	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2018	22	11 - 33.3	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHm)*	2018	40	15.53 - 62.8	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

## DATA TABULATED BY CHICAGO DEPARTMENT OF WATER MANAGEMENT

# *2018 Water Quality Data*

### **-Definition of Terms-**

**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 Contaminant Level (MCL):** 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.

**Highest Level Detected:** This column represents the highest single sample reading of a contaminant of all the samples collected in 2017 except where a specific date is indicated.

**Range of Detections:** This column represents a range of individual sample results, from lowest to highest that were collected during the CCR calendar year.

**Date of Sample:** If a date appears in this column, the Illinois EPA requires monitoring for this contaminant less than once per year because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the Consumer Confidence Report calendar year.

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

**ND:** Contaminant not detectable at or above the reporting or testing limits.

**N/A:** Not applicable

## Detected Contaminants

<b>Contaminant (unit of measurement) Typical Source of Contaminant</b>	<b>MCLG</b>	<b>MCL</b>	<b>Highest Level Detected</b>	<b>Range of Detections</b>	<b>Violation</b>	<b>Date of Sample</b>
<b><u>Turbidity Data</u></b>						
TURBIDITY (NTU/Lowest Monthly %≤0.3 NTU) Soil runoff.	N/A	TT(Limit 0.3 NTU)	(Lowest Monthly %) 100%	100% - 100%		
TURBIDITY (NTU/Highest Single Measurement) Soil runoff.	N/A	TT(Limit 1NTU)	0.19	N/A		
<b><u>Inorganic Contaminants</u></b>						
BARIUM (ppm) Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.	2	2	0.0214	0.0203 - 0.0214		
NITRATE (AS NITROGEN) (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	10	10	0.42	0.31 - 0.42		
TOTAL NITRATE & NITRITE [AS NITROGEN] (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	10	10	0.42	0.31 - 0.42		
<b><u>Total Organic Carbon</u></b>						
TOC [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						

### **-Unit of Measurement-**

**ppm:** Parts per million, or milligrams per liter.

**ppb:** Parts per billion, or micrograms per liter.

**NTU:** Nephelometric Turbidity Unit, used to measure cloudiness in drinking water

**%<0.3 NTU:** Percent of samples less than or equal to 0.3 NTU

**pCi/l:** Picocuries per liter, used to measure radioactivity

<b>Contaminant (unit of measurement) Typical Source of Contaminant</b>	<b>MCLG</b>	<b>MCL</b>	<b>Highest Level Detected</b>	<b>Range of Detections</b>	<b>Violation</b>	<b>Date of Sample</b>
<b><u>Unregulated Contaminants</u></b>						
Sulfate (ppm) Erosion of naturally occurring deposits.	N/A	N/A	27.6	26.3 - 27.6		
SODIUM (ppm) Erosion of naturally occurring deposits; Used as water softener.	N/A	N/A	8.89	8.14 - 8.89		
<b><u>State Regulated Contaminants</u></b>						
Fluoride (ppm) Water additive which promotes strong teeth.	4	4	.086	0.64 - 0.86		
<b><u>Radioactive Contaminants</u></b>						
COMBINED RADIUM 226/228 (pCi/L) Decay of natural and man-made deposits.	0	5	0.84	0.50 - 0.84		2/11/2014
GROSS ALPHA excluding radon and uranium (pCi/L) Decay of natural and man-made deposits.	0	15	6.6	6.1 - 6.6		2/11/2014

### **UCMR3 Compliance Reporting**

In compliance with the Unregulated Contaminant Monitoring Rule 3 (UCMR3) as required by the EPA, the City of Chicago has monitored for 28 contaminants suspected to be present in drinking water, but that do not have health-based standards set under the Safe drinking Water Act. The monitoring results were reported to the EPA. The list of UCMR3 contaminants that we have monitored included volatile organic chemicals, metals, perfluorinated compounds, hormones, 1,4-dioxane and chlorate. The contaminants that were detected in this monitoring program are listed below.

CHROMIUM (ppb) Naturally-occurring element; used in making steel and other alloys	100	100	0.3	0.3 - 0.3		
MOLYBDENUM (ppb) Naturally-occurring element found in ores and present plants, animals and bacteria; commonly used form molybdenum trioxide	NA	NA	1.1	1.0 - 1.1		
STRONTIUM (ppb) Naturally-occurring element has been used in cathode-ray tube TVs to block x-ray emissions	NA	NA	120	110 - 120		
VANADIUM (ppb) Naturally-occurring metal; vanadium pentoxide is used as a catalyst and a chemical intermediate	NA	NA	0.2	0.2 - 0.2		
CHROMIUM-6 or HEXAVALENT CHROMIUM (ppb) Naturally-occurring element; used in making steel and alloys	NA	NA	0.19	0.18 - 0.19		

## ***Water Quality Data Table Footnotes***

### **TURBIDITY**

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

### **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.

### **FLUORIDE**

Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health recommends an optimal fluoride range of 0.6 mg/l to 0.8 mg/l. until November 2017. As of November 2017, the new recommendations is an optimal fluoride level of 0.7 mg/l.

### **SODIUM**

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.

# FLOSSMOOR FLOOD INFORMATION

## FLOOD HAZARD AREAS

Flash-flooding is the general type of flooding caused by Butterfield Creek and Cherry Creek. During a normal flood event 2-4 inches of rain in a 3-4 hour time period jeopardizes the Creeks' banks and overflows generally to the southern end of the Estates neighborhood, Old Flossmoor neighborhood, southern end of Heather Hill neighborhood, and Southeast Flossmoor neighborhoods.

Stormwater flooding in Flossmoor is generally caused by three sources: Butterfield Creek and its tributaries, Cherry Creek and its tributaries, and localized street and drainage ditch flooding and overbanking. In some areas overbanking can cover streets and yards, with potential to flood cars, garages, basements and lower floors.

Flooding in any of these areas can come with little or no warning. For example, the heavy rain on September 13, 2008 caused widespread flooding throughout Flossmoor within a few short hours.

Information on whether your property is in the 100-year floodplain can be obtained by calling the Public Works Department at 708-957-4100. The Public Works office hours are from 7:00 a.m. until 3:30 p.m. Our Assistant Public Works Director, John Brunke, is a Certified Floodplain Manager. He can assist with any questions regarding flooding issues. The Village also has Elevation Certificates for review.

## FLOOD INSURANCE

If you do not have flood insurance, talk to your insurance agent. Most homeowner's insurance policies do not cover damage from floods. Flood insurance is only available to those participating communities in the National Flood Insurance Program (NFIP). Because of our floodplain management programs that attempt to protect us from the multiple flooding hazards, the Village of Flossmoor is part of the NFIP and thus, residents are able to obtain flood insurance. Additionally, because the Village participates in FEMA's CRS program, flood insurance premiums are discounted.

Be sure to check your policy to ensure you have adequate coverage. Usually these policies cover the building structure, but not the contents. Contents coverage can also be obtained by asking. There is a 30-day waiting period before flood insurance becomes effective.

Plan ahead; do not wait until a flood is predicted before purchasing flood insurance.

If you are building inside the floodplain, the purchase of flood insurance is mandatory if using federally regulated/insured bank for a loan.

## FLOOD SAFETY

The following common sense guidelines can help you from the dangers of flooding:

- Do not drive through a flooded area. More people drown in cars than anywhere else. Do not drive around barriers.
- Do not walk through flowing water. Currents can be deceptive. Six inches of water can knock you off your feet.
- Stay away from power lines and electrical wires. If your house is about to be flooded, turn off the power at the service box. Electrical current can travel through water. Electrocution is the 2<sup>nd</sup> leading cause of death during floods.
- Be alert to gas leaks. Turn off the gas to your house before it floods. If you smell gas, report it to your gas company or a Village official. Do not use candles, lanterns or open flame if you smell gas or are unsure if your gas has been shut off.
- Keep children away from the flood waters, ditches, culverts and storm drains. Flood waters can carry unimaginable items that have dislodged themselves. Culverts may suck smaller people into them rendering them helpless.
- Clean everything that has been wet. Flood water will be contaminated with sewage and other chemicals which pose severe health threats.
- Look out for animal, especially snakes. Small animals that have been flooded out of their home may seek shelter in yours.
- Do not use gas engines, such as a generator, or charcoal fires indoors during power outages. Carbon monoxide exhaust can pose serious health hazards.

## **PROPERTY PROTECTION MEASURES**

If your property is susceptible to flooding, there are many flood damage reduction measures you can employ.

- Watertight seal can be applied to brick and block walls to protect against low-level flooding.
- Utilities such as heating & air conditioning systems, water heaters and other major appliances can be elevated to higher floors in the structure or on raised platforms.
- Temporary measures such as moving furniture & other valuables to higher floors or sandbagging exterior openings will also help.
- Elevating or relocating the entire structure may also be a feasible option.

## **FLOODPLAIN PERMIT REQUIREMENTS**

All development within the 100-yr floodplain (not just construction of buildings, but filling, excavation, fences, etc.) is required to obtain a Village Permit. Applications must be made prior to doing any work in a floodplain area. Please contact the Building Department at 708-957-4101 to receive all the information you will need in order to properly develop in a floodplain. You may report any illegal development activities to the above number as well.

## **SUBSTANTIAL IMPROVEMENT/DAMAGE**

The NFIP requires that if the cost of improvements to a building or the cost to repair damages (from any cause) to a building exceeds 50% of the market value of the building (excluding land value), the entire building must be brought up to current floodplain management standards. Building improvement projects include exterior and interior remodeling, rehabilitation, additions and repair and reconstruction projects. Additionally, the cost of currently planned improvements will be added to the cost of previously made improvements and compared to the existing market value to determine if the improvements exceed 50% of the structure's value. Please contact the Building Dept. at 708-957-4101 for more information.

## **NATURAL & BENEFICIAL FUNCTIONS**

Floodplains play a valuable role in providing natural and beneficial functions to the area around, and including Flossmoor. Floodplains that are relatively undisturbed provide a wide range of benefits to both human and natural systems. These benefits provide aesthetic pleasure as well as function to provide active processes such as filtering nutrients. The Butterfield Creek and Cherry Creek floodplain corridors are used as means to filter farm chemical run-off so that these areas can maintain bio-diversity and ecosystem sustainability. Both floodplains contain historic and archeological sites that provide opportunity for education and study. Both enhance waterfowl, fish and other wildlife habitats and provide feeding/breeding grounds. And lastly, both floodplains provide natural erosion control and open space so further flooding damage does not occur.

## **DRAINAGE SYSTEM MAINTENANCE**

As simple as it may sound, simply keeping smaller ditches & streams free of debris can dramatically improve the run-off capacity of low-lying areas as well as greatly reduce the occurrence blockage that significantly contributes to flooding. It is illegal to dump materials into a required waterway & violators may be fined. The Village's Stormwater Management Ordinance states, "It shall be unlawful to deposit in any watercourse or other drainage facility any waste material, trash, trimmings, stones, earth, concrete, wood or any other material or substance not specifically permitted by the Director. If you see someone in the act of dumping or see debris in one of our watercourses, please contact the Public Works Department at 708-957-4100.

## **ADDITIONAL INFORMATION**

If you should require further or more detailed information regarding flood-related issues in the Village of Flossmoor here are some additional resources:

- FEMA.gov website [www.msc.fema](http://www.msc.fema)
- Flossmoor Public Works  
1700 Central Park Avenue  
Flossmoor, IL 60422  
708-957-4100
- Floodplain Info page on [www.flossmoor.org](http://www.flossmoor.org) website
- Flossmoor Public Library

**VILLAGE OF FLOSSMOOR**  
2800 FLOSSMOOR ROAD  
FLOSSMOOR, ILLINOIS 60422-1186

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**THE FLOSSMOOR VILLAGE BOARD MEETS EVERY FIRST AND THIRD MONDAY OF EACH  
MONTH AT THE VILLAGE HALL BUILDING, 2800 FLOSSMOOR ROAD, FLOSSMOOR, IL  
60422**