THE MORTON GROVE WATER DEPARTMENT'S
2019 ANNUAL REPORT
ON THE QUALITY OF TAP WATER

The Morton Grove Water Department is committed to providing residents with a safe and reliable supply of high-quality drinking water. The Village tests its water using sophisticated equipment and advanced procedures. Morton Grove water exceeds both State and Federal standards. This Annual Consumer Confidence Report, required by the Safe Drinking Water Act (SDWA), highlights where Morton Grove water comes from, what it contains, and how it compares to standards set by regulatory agencies**.**

The Village of Morton Grove purchasesits drinking water from the Cities of Chicago and Evanston. Lake Michigan is the sole source of water for Chicago, Evanston and 123 suburban communities. Morton Grove receives its water through a number of supply mains. The water is chlorinated at its two pumping stations, and then distributed to its customers.

The sources of drinking water (both tap and bottled) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or though the ground, it can dissolve naturally occurring minerals and radioactive materials, and pick up substances resulting from the presence of animals or 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 faming;
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses;
- Organic chemical contaminant, 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.

In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (USEPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The FDA regulates limits for contaminants in bottled water. Drinking water, including bottled, may contain at least small amounts of some contaminates. However, 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 (1-800-426-4791).

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. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

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. Additional

information on the lead and copper rule can be found at: http://www.epa.gov/dwreginjinfo/lead-and-copperrule#compliance.

If you have any questions about this report, please contact Joe Dahm at 847/470-5235 or if you would like to learn more about water quality in your water system, please feel free to attend a Village Board Meeting scheduled at 7:00 p.m., the second and forth Monday of each month at the Village Hall, 6101 Capulina Avenue.

2019 WATER QUALITY DATA
DEFINITIONS:
MCLG: Maximum Contaminant Level Goal, or the level of a contaminant below which there is no known or expected risk to health. MCLG's allow for a margin of safety.
MCL: Maximum Contaminant Level, or the highest level of a contaminant that is allowed. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.
AL: Action Level, or the concentration of a contaminant which when exceeded, triggers treatment or other requirements that a system must follow.
TT: Treatment Technique, or a required process, intended to reduce the level of a contaminant.

ABBREVIATIONS:
nd: Not detectable at testing limits. **n/a:** Not applicable. **ppm:** Parts per million or milligrams per liter. **ppb:** Parts per billion or micrograms per liter. **ppt:** Parts per trillion or nanograms per liter. **ppq:** Parts per quadrillion or pkograms per liter. **NTU:** Nephelometric turbidity unit used to measure cloudiness in water. **%<0.5NTU:** Percent samples less than 0.5 NTU. **MFL:** Million fibers per liter used to measure asbestos concentration. **mrem/yr:** Millirems per year used to measure radiation absorbed by the body. **pci/l:** Picocuries per liter used to measure radioactivity. **#pos/mo:** Percent positive samples per month.

In most cases the **Level Found** column represents an average of sample result data collected during the **CCR** calendar year. The **Range of Detection** column represents a range of individual sample results from lowest to highest that were collected during the **CCR** calendar year. If a date appears in the **Date of Sample** column, the IEPA 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 **CCR** calendar year.

ABOUT THE DATA
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 0.9 mg/l to 1.2 mg/l.
TURBIDITY
Turbidity is a measure of the cloudiness of the water. It is a good indicator of water quality and the effectiveness of our filtration systems and disinfectants.
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 the level is greater than 20 mg/l, and you are on a sodium-restricted diet, you should consult a physician.
UNREGULATED CONTAMINANTS
A maximum contaminant level (MCL) for these contaminants has not been established by either state or federal regulations, nor has mandatory health effects language. The purpose for monitoring these contaminants is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is required.

*Highest Running Annual Average computed quarterly

The preceding water quality data results are a combination of the City of Chicago and the Village of Morton Grove's water testing. If a "C" appears before the contaminate, the City of Chicago conducted the sampling and testing. If an "E" appears before the contaminate, the City of Evanston conducted the sampling and testing. If an "MG"

appears before the contaminate, Morton Grove conducted the sampling and had an IEPA approved lab analyze the sample.

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 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. Throughout history there have been extraordinary steps taken to assure a safe source of drinking water in the Chicagoland area. From the building of the offshore cribs and the introduction of interceptor sewers to the lock-and-dam system of Chicago's waterways and the city's Lakefront Zoning Ordinance. The city now looks to the recently created Department of the Water Management, Department of Environment and the MWRDGC to assure the safety of the city's water supply. Also, water supply officials from Chicago are active members of the West Shore Water Producers Association. Coordination of water quality situations (i.e., spills, tanker leaks, exotic species, etc) and general lake conditions are frequently discussed during the association's quarterly meetings. Also, Lake Michigan has a variety of organizations and associations that are currently working to either maintain or improve water quality. Finally, one of the best ways to ensure a safe source of drinking water is to develop a program designed to protect the source water against potential contamination on the local level. Since the predominant land use within Illinois' boundary of Lake Michigan watershed is urban, a majority of the watershed protection activities in this document are aimed at this purpose. Citizens should be aware that everyday activities in an urban setting might have a negative impact on their source water. Efforts should be made to improve awareness of storm water drains and their direct link to the lake within the identified local source water area. A proven best management practice (BMP) for this purpose has been the identification and stenciling of storm water drains within a watershed. Stenciling along with an education component is necessary to keep the lake a safe and reliable source of drinking water.

Detected Contaminats

CONTAMINAT (UNITS)	MCLG	MCL	FOUND	DETECTION	VIOLATION	SAMPLE	TYPICAL SOURCE OF CONTAMINANT
Turbidity Data							
C/Turbidity (%<0.3 NTU)	n/a	TT(95%<0.3NTU	100.000%	100% - 100%	No		Soil runoff. Lowest monthly percent meeting limit
C/Turbidity (NTU)	n/a	TT=1NTUmax	0.190%	n/a	No		Soil runoff. Highest single measurement
E/Turbidity	n/a	TT=1NTUmax	0.160%	n/a	No		Soil runoff. Highest single measurement
Inorganic Contaminants							
MG / Lead (ppb)	0	15	nd	nd	No	9/16/2014	Corrosion of household plumbing systems; Erosion of natural deposits.
E/Lead (ppb)	0	15	nd	nd	No	7/8/2017	Corrosion of household plumbing systems; Erosion of natural deposits.
Barium (ppm)	2	2	0.0214	0.0203 -0.0214	No		Discharge of drilling wastes. Discharge from metal refineries; Erosion of natural deposits
E/Barium	2	2	0.021	0.021 - 0.021	No	2018	Discharge of drilling wastes. Discharge from metal refineries; Erosion of natural deposits
C/ Nitrate as nitrogen (ppm)	10	10	0.420	0.31 -0.42	No		Runoff from fertilizer use; Leaching from septic tanks sewage; erosion of natural deposits
E/Nitrate as nitrogen	10	10	0.400	0.4 - 0.4	No	2018	Runoff from fertilizer use; Leaching from septic tanks sewage; erosion of natural deposits
C/ Nitrate & Nitrite (ppm)	10	10	0.420	0.31 - 0.42	No		Runoff from fetilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Disinfection/Disinfectant By-Products							
MG/Total Haloacetic Acids (HAA5) (ppb)	n/a	60	15.000	43634.000	No	2018	By-product of drinking water chlorination
E/Haloacetic Acids (HAA5)	n/a	60	10.000	5.2 - 12	No	2018	By-product of drinking water chlorination
MG/Total Trihalomethanes (ppb)	n/a	80	26	13.1 - 35	No	2018	By-product of drinking water chlorination
E/Total Trihalomethanes (TTHM)	n/a	80	31	13.4 - 40.3	No	2018	By-product of drinking water chlorination
MG/Chlorine (ppm)	4	4	0.6	0.6 - 0.6	No	12/31/2018	Drinking water disinfectant
E/Chlorine	4	4	0.6	0.41 - 1	No	12/31/2017	Drinking water disinfectant
Unregulated Contaminants							
C/ Sulfate (ppm)	n/a	n/a	27.600	26.3 - 27.6	No		Erosion of naturally occuring deposits.
MG/ Bromodichloromethane (ppb)	n/a	n/a	8.OOO	6.OOO-9.OOO	No		By-product of drinking water chlorination
MG/ Chloroform (ppb)	n/a	n/a	15.OOO	6.OOO-20.OOO	No		Solvent for fats, oils, rubber, resins
MG/ Dibromochloromethane (ppb)							A cleansing agent, found in fire extinguishers
C/Sulfate	n/a	n/a	27.6	26.3 - 27.	No		Chemical reagent. An intermediate in organic
C/Sodium (ppm)	n/a	n/a	8.89	8.14 - 8.89	No		Erosion from naturally occuring deposits. Used in water softener regeneration
E/Sodium (ppm)	n/a	n/a	7	7.3 - 7.3	No	2018	Erosion from naturally occuring deposits. Used in water softener regeneration

State Regulated Contaminants							
C/ Fluoride (ppm)	4	4	0.86	0.64 - 0.86	No		Water additive which promotes strong teeth
E/Fluoride (ppm)	4	4	0.7	0.6 - 0.7	No	2018	Water additive which promotes strong teeth
Radioactive Contaminants							
C/ COMBINED RADIUM (226/228) (pCi/L)	0	5	0.84	0.50 - 0.84	No	2/11/2014	Decay of natural & man-made deposits
E/Combined Radium 226/228 (pCi/L)	0	5	0.99	0.99 - 0.99	No	1/16/2014	Decay of natural & man-made deposits
GROSS ALPHA	0	15	6.6	6.1 - 6.6	No	2/11/2014	Decay of natural & man-made deposits

In compliance with the Unregulated Contaminant Monitoring Rule 3 (UCMR3) as required by the EPA, the City Cities of Chicago and Evanston and The Village of Morton Grove have monitored for 28 Contaminents suspected to be present indrinking 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 contminants that we have monitored included volatile organic chemicals, metals, perflourinated compounds, hormones, 1,4-dioxane and and chlorate. The contaminates that were detected in this monitoring program are listed below.

UCMR3 Compliance Report							
C/ CHROMIUM (ppb)	100	100	0.3	0.3 - 0.3	No		Naturally occuring element; used in making steel and other alloys
MG/ CHROMIUM	100	100	0.3ug/L	0.2 - .03	No		
E/CHROMIUM	100	100	0.9	0.9 -0.9			
C/ MOLYBDENUM (ppb)	na	n/a	1.1	1.0 - 1.1	No		Naturally occuring element found in ores present in plants animals & bacteria used form molybdenum trioxide
MG/ MOLYBDENUM	n/a	n/a	1ug/L	1.0 - 1.0	No		
C/ STRONTIUM (ppb)	n/a	n/a	120	110 - 120	No		Naturally occuring element has been used in cathode-ray tube TVs to block x-ray emissions
MG/ STRONTIUM	n/a	n/a	120ug/L	110 - 120	No		
C/ VANADIUM (ppb)	n/a n/a	n/a n/a	0.2	0.2 - 0.2	No		Naturally occuring metal; Vanadium pentoxide is used as a catalyst and a chemical intermediate
MG/ VANADIUM	n/a	n/a	.03ug/L	0.2 - 0.3	No		
C/ CHROMIUM -6 OR HEXAVELENT CHROMIUM (ppb)	n/a	n/a	0.19	0.18 - 0.19	No		Naturally occuring element; used in making steel and alloys
MG/ CHROMIUM-6 OR HEXAVELENT CHROMIUM	n/a	n/a	0.19ug/L	0.17 - 0.19	No		
MG/ CHLORATE	n/a	n/a	<20ug/L	<20 - 33	No		

2018 VIOLATION SUMMARY

Contaminant or Program	Violation Type	Monitoring Period Start Date - End Date	Violation Explanation

We are pleased to announce that **NO** monitoring, reporting, maximum residual disinfectant level,or maximum contaminant level violations were recorded during 2018.