# 2019 Water Quality Report

For the period of January 1, thru December 31, 2019

## *Introduction:*

During this past year the Winthrop Harbor water system has met all USEPA and Illinois state drinking water standards. This Water Quality Report is required by the Federal Environmental Protection Agency to be published yearly. It summarizes the quality of the water that was provided to you this past year. Included in this report are details about where your water comes from, what it contains, how it compares to standards that are set by regulatory agencies, and whom to contact if you have questions.

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

## *Your Drinking Water Source:*

The source of drinking water used by Winthrop Harbor is purchased Surface Water from Lake County Public Water District. Information from Lake County Public Water District is also included in this report.

## *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. For dates and times of meetings, please visit our website at www.winthropharbor.com. The source water assessment for our supply has been completed by the Illinois EPA. If you would like to review a copy of this information, please stop by the Village Hall. To view a summary version of 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.

Susceptibility is defined as the likelihood for the source water(s) of a public water system to be contaminated at concentrations that would pose a concern. The Illinois EPA considers all surface water sources of community water supplies to be susceptible to potential pollution problems. The very nature of surface water allows contaminants to migrate into the intake with no protection other than dilution, which is the reason for mandatory treatment for all surface water supplies in Illinois. Lake County Public Water District's intake has a moderate sensitivity and therefore has greater protection from shoreline contaminates due to mixing

and dilution. While the shoreline contaminants are not perceived as an immediate threat, the combination of the land use, proximity to North Point Marina and storm water discharge from Kellogg Ravine adds to the susceptibility of Lake County Public Water District's intake. Also, the proximity of Illinois Beach State Park adds to the protection of the intake by acting as a natural buffer from shoreline contaminants. The best way to ensure a safe source of drinking water for a water supply 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 watershed protection activities in the Source Water Assessment are aimed at this purpose.

Citizens must be aware that activities around the house may have a negative impact on their source water. The main efforts of the immediate community should be an awareness of storm water drains and the direct link to the Lake within the identified Lake Michigan watershed. 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 educational component that relates the proper storage, disposal and use of potential contaminants is necessary to keep the Lake a safe reliable source of drinking water. Finally, Lake Michigan, as well as all the Great Lakes, has a variety of organizations and associations that are currently working to either maintain or improve water quality.

## *Drinking Water Source Information:*

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

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, in some cases, radioactive materials; and can pick up 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.
- Pesticide 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.

## *Other Facts about Drinking Water:*

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

In addition to the informational section of this Water Quality Report, we have included for your review several tables. The tables will give you a better picture of the contaminants that were detected in your water and the contaminants that were tested for but not detected.

# 2019 Winthrop Harbor Water Quality Data

## *Definitions & Abbreviations:*

**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.

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

**MRDLG:** Maximum Residual Disinfectant Level Goal, or 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.

**MRDL:** Maximum Residual Disinfectant Level, or 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.

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

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

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

**nd** - not detectable at testing limits.

**n/a** - not applicable

**ppm** - parts per million or milligram per liter.

**ppb -**parts per billion or micrograms per liter.

**NTU** – Nephelometric Turbidity Units, used to measure cloudiness in drinking water

**Oocysts** – A thick walled structure in which sporozoan zygotes develop.

In most cases, the **"Level Found**" column represents an average of sample result data, collected during the 2019 calendar year. The **"Range of Detections"** column represents a range of individual sample results, from the lowest to the highest that were collected during the 2019 calendar year. The **"Date of Sample"** column will not have a date if the monitoring for this contaminant was conducted during the 2019 calendar year. 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. The date would be the last time that the contaminant was sampled.

## *Lead and Copper Definitions:*

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

**AL:** Action Level, or the concentration of a contaminant which, when 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 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 http://www.epa.gov/safewater/lead.

| Lead and Copper | Date Sampled | MCLG | AL | 90th Percentile | Sites over AL | Violation | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|
| Copper (ppm) | 2017 | 1.3 | 1.3 | 0.187 | 0 | none | Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems. |
| Lead (ppb) | 2017 | 0 | 15 | 10.2 | 1 | none | Corrosion of household plumbing systems; Erosion of natural deposits. |

*Regulated Detected Contaminants*

| Disinfection/Disinfection By-Products | Date Sampled | MCLG | MCL | Highest Level Found | Range Found | Violation | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|
| Chlorine (ppm) | 2019 | MRDLG = 4 | MRDL = 4 | 1.1 | 1 – 1. 1 | none | Water additive used to control microbes. |
| Haloacetic Acids (ppb) (HAA5) * | 2019 | No goal for the total | 60 | 17 | 13.1 – 23 | none | By-product of drinking water chlorination. |
| Total Trihalomethanes (ppb) (TTHMs) * | 2019 | No goal for the total | 80 | 62 | 22.8 – 82.2 | none | By-product of drinking water chlorination. |

* Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

***The following data is tabulated by the Lake County Public Water District, and is information that is required to be included in this report.***

# 2019 Lake County Public Water District Water Quality Data

## Detected Contaminants

*Microbial Contaminants*

| | Limit (Treatment Technique) | Level Detected | Violation | Likely Source of Contamination |
|---|---|---|---|---|
| Turbidity - Highest single measurement | 1 NTU | 0.95 NTU | none | Soil runoff. |
| Turbidity Lowest monthly % meeting limit | 0.3 NTU | 99.8% | none | Soil runoff. |
| Total Coliform (# positive/month) | 0 | 0 | none | Naturally present in the environment |

*Regulated Detected Contaminants*

| Inorganic Contaminants | Date Sampled | MCLG | MCL | Highest Level Found | Range Found | Violation | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|
| Barium (ppm) | 2019 | 2 | 2 | 0.019 | 0.019– 0.019 | none | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits. |
| Fluoride (ppm) | 2019 | 4 | 4.0 | 0.76 | 0.63– 0.76 | none | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories. |
| Lake Nitrate (measured as Nitrogen) (ppm) | 2019 | 10 | 10 | 0.41 | 0.41 – 0.41 | none | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits. |
| Sodium (ppm) | 2019 | n/a | n/a | 8.8 | 8.8 – 8.8 | none | Erosion of naturally occurring deposits; Used in water softener regeneration. |
| Zinc | 2019 | 5 | 5 | <0.006 | <.006 – <.006 | none | This contaminant is not currently regulated by the USEPA. However, the state regulates. Naturally occurring: discharge from metal. |

| Disinfection/Disinfection By-Products (Stage 1) | Date Sampled | MCLG | MCL | Highest Level Found | Range Found | Violation | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|
| Haloacetic Acids (ppb) (HAA5) * | 2019 | No goal for the total | 60 | 18.6 | 18.6 – 18.6 | none | By-product of drinking water disinfection. |
| Total Trihalomethanes (ppb) (TTHMs) * | 2019 | No goal for the total | 80 | 20.7 | 20.7 – 20.7 | none | By-product of drinking water disinfection |

* Not all sample results were used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

| | | |
|---|---|---|
| Total Organic Carbon (TOC) | 2019 | The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set by IEPA. |

*Radioactive Contaminants*

| **Contaminant (**unit of measurement**)** | **Date Sampled** | **MCLG** | **MCL** | **Highest Level Found** | **Range Found** | **Violation** | **Likely Source of Contamination** |
|---|---|---|---|---|---|---|---|
| Combined Radium 226 & 228 (pCi/L) | 1/06/2014 | 0 | 5 | .1895 | .1895 – .1895 | none | Erosion of natural deposits. |

*Synthetic Organic Contaminants*

| **Contaminant (**unit of measurement**)** | **Date Sampled** | **MCLG** | **MCL** | **Highest Level Found** | **Range Found** | **Violation** | **Likely Source of Contamination** |
|---|---|---|---|---|---|---|---|
| Di(2-ethylhexyl)Phthalate ppb | 2019 | 0 | 6 | <1.8 | <1.8 – <1.8 | none | Pesticides and herbicides. |

## Water Quality Data Table Footnotes

### Fluoride

Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health recommends 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.

### Turbidity

Turbidity is a measure of the cloudiness of the water. Turbidity is monitored because it is a good indicator of water quality and the effectiveness of Lake County Public Water District's filtration system and disinfectants.

## Winthrop Harbor and Lake County Public Water District – 2019 Violation Summary

CCR Reporting – 07/01 – 07/31, 2019. We failed to provide to you our drinking water customers, an annual report that informs you about the quality of our drinking water and characterizes the risks from exposure to contaminants detected in our drinking water.

## Who to Contact in Winthrop Harbor

If you know of anyone who receives Winthrop Harbor water service and did not receive this report, copies are available at the Village of Winthrop Harbor's Village Hall, located at 830 Sheridan Road, Winthrop Harbor, IL 60096. If you have any questions concerning this report or your water system please contact:

Julie Rittenhouse, Village Clerk
Village of Winthrop Harbor
830 Sheridan Road
Winthrop Harbor, IL 60096
(847) 872-3846 Ext. 245