

Village of Downers Grove Public Works Department

June 2018

20th Annual Water Quality Report

This Water Quality Report (WQR) was prepared to inform Downers Grove Water System customers about the quality of the water that is provided on a daily basis. The WQR is required by the Environmental Protection Agency (EPA), in accordance with the 1996 amendments to the Safe Drinking Water Act.

High quality, safe drinking water is an essential resource and, as indicated in this WQR, the quality of the water provided by the Village meets or exceeds all state and federal standards.

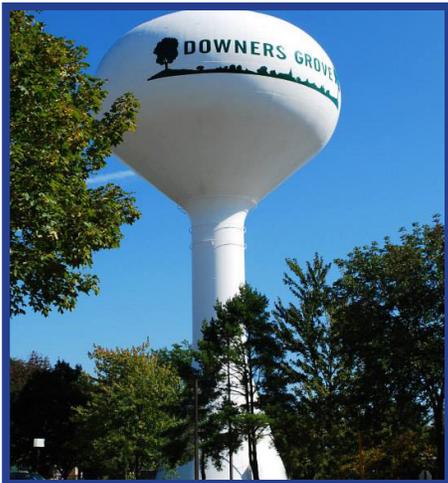
The WQR summarizes the quality of the water provided last year and includes information about where your water comes from, what it contains, and how it compares to U.S. EPA standards. If you have any questions about this report, or concerns about the Downers Grove Water system, please contact David Moody, Water Manager, at 630-434-5462.

Where Does Your Drinking Water Come From?

The Village of Downers Grove, along with 28 other municipalities, purchases water from the DuPage Water Commission. This water is treated surface water from Lake Michigan. All 63 miles of Lake Michigan shoreline within Illinois are considered by the EPA to be in good condition. Because of concern that sources of drinking water can pick up contaminants as water travels over the surface of the land or through the ground, the Illinois EPA has completed the Source Water Assessment for our supply. More on this assessment can be found on page 5 with other information from the City of Chicago.

The Village's water system consists of 7 water towers with a storage capacity of 8 million gallons. The Village also has three stand-by wells that are tested and maintained regularly in case of an emergency. In addition to the water towers, the Village also maintains 233 miles of water mains, 2,798 fire hydrants, 2,800 valves, and nearly 17,000 water meters.

Last year the Village pumped an average of 4.789 million gallons of water per day.



Water Restrictions

Water restrictions are in effect in the Village from May 15 to September 15. Outdoor water use is based on an odd/even system according to address. If you have an odd numbered address, you may water on odd numbered days. Even numbered addresses may water on even numbered days. On those days, you may water between the hours of 4 a.m. and 11 a.m., and 4 p.m. and 11 p.m.

Important Information About Your Drinking Water

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 radioactive materials, and pick up substances resulting from the presence of animals or human activity. Possible contaminants consist of: Microbial contaminants, Inorganic contaminants, Pesticides and herbicides, Organic chemical contaminants, and Radioactive contaminants.

Lead

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. Our utility is responsible for providing high quality drinking water, but 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>.

Information from the EPA

To ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) adopts regulations setting the standards for public water systems. The federal Food and Drug Administration regulates contaminants in bottled water and is responsible for providing the same level of public health protection.

Contaminants that may be present in source water include the following:

- i) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;
- ii) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic waste water discharges, oil and gas production, mining, or farming;
- iii) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;
- iv) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and
- v) 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 U.S. EPA'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).

Environmental Protection Agency Website: www.epa.gov/safewater

Safe Drinking Water Hotline: 1-800/426-4791

Automatic Meter Reading (AMR)

Water consumption in your home and business is measured through a water meter. Water meter readings are automatically transmitted directly to the Village and are used to calculate and produce your water bill. This automatic meter reading system allows for the tracking of daily water consumption and improves system reporting. If you have questions regarding your water meter, meter reading, an estimated bill, or a high bill due to excessive consumption, please call Public Works at 630-434-5460.



2017 Water Quality Monitoring Results

Our 2017 water quality monitoring results are listed in the following tables. The tables list the few compounds that were found, along with their measured levels and possible sources. If you would like a list of the compounds that were monitored but not found, please call 630-434-5462.

Tips for reading these tables. The tables list the U.S. Environmental Protection Agency's allowable limits. (Please refer to the definition of MCLG and MCL on page 7.) Also represented are the levels found in the Lake Michigan supply, including the highest and a range. The range of detections represents a range of individual sample results, from lowest to highest, that were collected during the Consumer Confidence Report (CCR) calendar year.

Water Quality Table for Monitoring by the Village of Downers Grove 2017 Regulated Contaminants Detected

Contaminant (unit of measurement)	*Date of Sample	Highest Level Detected	Range of Detections	MCLG	MCL	Violation	Typical Source of Contamination
DISINFECTANTS AND DISINFECTION BY-PRODUCTS							
Chlorine (ppm)	12/31/2017	0.9	0.7 - 1	MRDLG = 4	MRDL = 4	N	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	2017	15	8.89 - 19.5	No goal for the total	60	N	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	2017	38	15.59 - 56.4	No goal for the total	80	N	By-product of drinking water disinfection

Contaminant (unit of measurement)	Date of Sample	Maximum Contaminant Level Goal	Action Level (AL)	90th Percentile	Number of Sites Over AL	Violation	Typical Source of Contamination
LEAD AND COPPER							
Lead (ppb)	2017	0	15	3.17	0	N	Corrosion of household plumbing systems; Erosion of natural deposits

Contaminant (unit of measurement)	Date Sampled	Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest Number of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total Number of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
MICROBIAL CONTAMINANTS								
Total Coliform Bacteria	Throughout year	0%	5% of monthly samples are positive	1.6	0%	0	N	Naturally Present in the Environment

* **Note:** Some samples are only required once every three years.

Unit of Measurement

ppm - Parts per million, or milligrams per liter
ppb - Parts per billion, or micrograms per liter

% ≤ 0.3 NTU - Percent of samples less than or equal to 0.3
 NTU

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

pCi/L - Picocuries per liter, used to measure radioactivity

Water Quality Table for Monitoring by the Village of Downers Grove

2017 Regulated Contaminants Detected

The following tables are the water quality results for the Village of Downers Grove's stand-by wells.
 The Village does not blend well water with Lake Michigan water received from the DuPage Water Commission into the water distribution system.
 These wells are maintained and tested regularly for use in the event of an emergency only.

Contaminant (unit of measurement)	*Date of Sample	Highest Level Detected	Range of Detections	MCLG	MCL	Violation	Typical Source of Contamination
INORGANIC CONTAMINANTS							
Arsenic (ppb)	2017	2.58	1.2 - 2.58	0	10	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium (ppm)	2017	0.155	0.0699 - 0.155	2	2	N	Discharge of Drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride (ppm)	2017	0.15	0.14 - 0.15	4	4	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Iron (ppm)	2017	1.93	0.301- 1.93		1	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Manganese (ppb)	2017	35.9	0 - 35.9	150	150	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Sodium (ppm)	2017	151	70.8 - 151			N	Erosion from naturally occurring deposits; Used in water softener regeneration.
RADIOACTIVE CONTAMINANTS							
Combined Radium 226/228 (pCi/L)	2017	3.2	1.7 - 3.2	0	5	N	Erosion of natural deposits

* **Note:** Some samples are only required once every three years.

Violations Table**

Chlorine

Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.

Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE (DBP), MINOR	04/01/2017	06/30/2017	We failed to complete all the required tests of our drinking water for the contaminant and period indicated.

Revised Total Coliform Rule (RTCR)

The Revised Total Coliform Rule (RTCR) seeks to prevent waterborne diseases caused by E.coli. E.coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, and headaches.

Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE, MINOR (RTCR)	06/01/2017	06/30/2017	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

** See attached Public Notice on Page 8 of this report.

City of Chicago, Department of Water Management Source Water Assessment Summary for the 2017 Consumer Confidence Report

Source Water Location

The City of Chicago utilizes Lake Michigan as its source water via two water treatment plants. The Jardine Water Purification Plant serves the northern areas of the City and suburbs, while the South Water Purification Plant serves the southern areas of the City and suburbs. Lake Michigan is the only Great Lake that is entirely contained within the United States. It borders Illinois, Indiana, Michigan, and Wisconsin, and is the second largest Great Lake by volume with 1,180 cubic miles of water and third largest by area.

Source Water Assessment Summary

The Illinois EPA implemented a Source Water Assessment Program (SWAP) to assist with watershed protection of public drinking water supplies. The SWAP inventories potential sources of contamination and determined the susceptibility of the source water to contamination. The Illinois EPA has completed the Source Water Assessment Program for our supply. Further information on our community water supply's Source Water Assessment Program is available by calling the City of Chicago, Department of Water Management at 312-744-6635.

Susceptibility to Contamination

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.

Further information on our community water supply's Source Water Assessment Program is available by calling the City of Chicago, Department of Water Management at 312-744-6635.

2017 Voluntary Testing

The City of Chicago has continued monitoring for Cryptosporidium, Giardia, and E. Coli in its source water as part of its water quality program. To date, Cryptosporidium has not been detected in these samples, but Giardia was detected in 2010 in one raw lake water sample collected in September 2010. Treatment processes have been optimized to provide effective barriers for removal of Cryptosporidium cysts and Giardia cysts in the source water, effectively removing these organisms in the treatment process. By maintaining low turbidity through the removal of particles from the water, the possibility of Cryptosporidium and Giardia organisms getting into the drinking water system is greatly reduced. Also in compliance with Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) Round 2, the City of Chicago has started the 24 months long monitoring program in April 2015, collecting samples from its source water once per month to monitor for Cryptosporidium, Giardia, E. Coli and turbidity. Cryptosporidium and Giardia were not detected in these samples.

In 2017, CDWM has also continued monitoring for hexavalent chromium, also known as chromium-6. USEPA has not yet established a standard for chromium-6, a contaminant of concern which has both natural and industrial sources. Please address any questions or concerns to CDWM's Water Quality Division at 312-742-7499. Data reports on the monitoring program for chromium-6 are posted on the City's website which can be accessed at the following address below:

http://www.cityofchicago.org/city/en/depts/water/supp_info/water_quality_resultsandreports/city_of_chicago_emergincontaminantstudy.html

Water Quality Table for Monitoring by the City of Chicago

Contaminant (unit of measurement)	Date of Sample	Highest Level Detected	Range of Detections	MCLG	MCL	Violation	Typical Source of Contamination
TURBIDITY DATA							
LOWEST MONTHLY %: 100%							
Turbidity (NTU/Lowest Monthly %<0.3 NTU)	2017	100%	100% - 100.0%	N/A	TT (Limit 0.3 TU)	N	Soil Runoff
Turbidity (NTU/Highest Single Measurement)	2017	0.26	N/A	N/A	TT (Limit 1 NTU)	N	Soil Runoff
INORGANIC CONTAMINANTS							
Barium (ppm)	2017	0.0193	0.0191 - 0.0193	2	2	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Nitrate (As Nitrogen) (ppm)	2017	0.36	0.32 - 0.36	10	10	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Total Nitrate & Nitrite (As Nitrogen) (ppm)	2017	0.36	0.32 - 0.36	10	10	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TOTAL ORGANIC CARBON (TOC)							
The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set by the IEPA							
UNREGULATED CONTAMINANTS							
Sulfate (ppm)	2017	26.3	26.2- 26.3	N/A	N/A	N	Erosion of naturally occurring deposits
Sodium (ppm)	2017	8.06	7.81 - 8.06	N/A	N/A	N	Erosion of naturally occurring deposits; Used as water softener
STATE REGULATED CONTAMINANTS							
Flouride (ppm)	2017	0.75	0.59 - 0.75	4	4	N	Water additive which promotes strong teeth
RADIOACTIVE CONTAMINANTS							
Combined Radium (226/228) (pCi/L)	2/11/2014	0.84	0.50 - 0.84	0	5	N	Decay of natural and man-made deposits.
Gross Alpha excluding radon and uranium) (pCi/L)	2/11/2014	6.6	6.1 - 6.6	0	15	N	Decay of natural and man-made deposits

Village of Downers Grove
Public Works Department
5101 Walnut Avenue
Downers Grove, Illinois 60515-4074
Monday through Friday
7:30 a.m. to 5:00 p.m.
www.downers.us

**Public Works
Customer Service**
630-434-5460
(for leaks, dirty water, etc.)

Water Quality
Contact: David Moody
Phone: 630-434-5462
E-Mail: dmoody@downers.us

How Can I Get More Involved in Decisions Affecting My Drinking Water?

Inquiries regarding your drinking water can be made at the contacts listed above.

Residents are welcome to attend Village Council meetings held the first, second, and third Tuesday of the month at 7:00 p.m. in the Village Hall Council Chambers at 801 Burlington Avenue.

If you don't have a computer to access the websites listed in this report, public computers are available at the Downers Grove Public Library, at 1050 Curtiss Street.

Paper copies of this report are available at:

Public Works Department
5101 Walnut Avenue

OR

Village Hall
801 Burlington Avenue

Definitions

- (1) **MCLG = Maximum Contaminant Level Goal** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG allows for a margin of safety.
- (2) **MCL = Maximum Contaminant Level** The highest level of a contaminant that is allowed in drinking water. MCL is set as close to the MCLG as feasible using the best available treatment technology.
- (3) **AL = Action Level** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- (4) **Unregulated Contaminant** A maximum contaminant level (MCL) for this has not been established by either state or federal regulations, nor has mandatory health effects language. The purpose of monitoring this contaminant is to assist US EPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted.
- (5) **TT = Treatment Technique** A required process intended to reduce the level of a contaminant in drinking water.
- (6) **NTU = Nephelometric turbidity unit** Used to measure cloudiness in drinking water.
- (7) **Fluoride** is added to the water supply to help promote strong teeth. The Illinois Department of Public Health had recommended an optimal fluoride range of 0.9 mg/l to 1.2 mg/l until November 2015. As of November 2015, the new recommendation is an optimal fluoride level of 0.7 mg/l.
- (8) **Sodium** - There is no state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials who have concerns about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about the level of sodium in the water.
- (9) **Turbidity** is a measure of the cloudiness of the water. It is monitored because it is a good indicator of water quality and the effectiveness of the filtration system and disinfectants.
- (10) **MRDL= Maximum Residual Disinfectant Level** The highest level of a drinking water disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- (11) **MRDLG = Maximum Residual Disinfectant Level Goal** 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.

ND= Not detected at the method detection limit.

For water samples: 1 part per million (ppm) = 1 mg/L

% pos/mo = percent positive samples per month.

NA = Not Applicable

1 part per billion (ppb) = 1 ug/L 1 ppm = 1000 ppb

pos/mo = number of positive samples per month.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Monitoring Requirements Not Met For the Downers Grove Water System

Our water system violated drinking water monitoring requirements over the past year. Even though these were not emergencies, as our customers you have a right to know what happened and what we did to correct these situations.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the month of June 2017, we did not complete all monitoring for E.coli and chlorine and therefore cannot be sure of the quality of our drinking water during that time.

What should I do?

There is nothing you need to do at this time.

The table below lists the contaminants we did not properly test for during the last year, how often we are supposed to sample for these contaminants, how many samples we took, and when samples should have been taken.

CONTAMINANT	REQUIRED SAMPLING FREQUENCY	NUMBER OF SAMPLES TAKEN	WHEN ALL SAMPLES SHOULD HAVE BEEN TAKEN
E Coli	60 per month	59	60 taken throughout June
Chlorine	60 per month	59	60 taken throughout June

What happened? What is being done?

During the month of June 2017, the Village collected all E.Coli and chlorine samples. The laboratory was unable to test seven of the samples within the required 30-hour time frame. The Village was notified by the laboratory that six samples needed to be re-collected and tested, when in fact, seven samples should have been recollected and sampled. Due to this error by the laboratory, the required amount of samples were not properly tested.

The Village has taken measures to improve the lab's accountability and is in regular contact with the IEPA to ensure test results are properly submitted. The collection and testing of required E.Coli and chlorine samples was resumed in July 2017, immediately following notice of the monitoring violation. All of the samples collected in June were satisfactory and test results show all drinking water standards have been met.

For further information please contact David Moody, Water Manager, at 630-434-5462.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by the Village of Downers Grove.

Our State Water System Identification Number is IL0430300.

Date distributed: *with CCR.*