

Debris Makes Me Grabby



2019 Drinking Water Quality Report

Summarizing 2018 Water Quality Test Results



2019 WATER QUALITY REPORT

North Park Public Water District

Annual Drinking Water Quality Report IL 2015500

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

The North Park Public Water District (NPPWD) is a public corporation chartered May 9, 1955. The District currently provides an average of 3.5 million gallons of water per day serving a population of approximately 35,252 in the Machesney Park, Roscoe, and Loves Park area.

High professional standards have maintained the District's reliability for the past 64 years in the service area. The District has received certificates of commendation for its technical operation from both the Illinois Environmental Protection Agency and the Illinois Department of Public Health. The District has received international recognition through the Ground Water Guardian Foundation for its groundwater protection efforts. **The District is committed to providing safe drinking water to its customers.**

Annual Drinking Water Quality

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

The source of drinking water used by NORTH PARK PWD is Groundwater.

This report is published in entirety at:

<http://ccr.northparkwater.org/waterqualityreport.pdf>

For more information regarding this report, contact:

John Donahue, (815) 633-5461

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 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 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.
- **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 EPAs 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.

Regulated Contaminants Detected in 2018

Collected in 2018 Unless Noted

No drinking water quality violations were recorded in 2018.

Water Quality Test Results

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

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

Level 1 Assessment: A 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: A 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.

Maximum Contaminant Level or MCL: The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

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 residual disinfection 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.

Maximum residual disinfectant level goal or 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.

Na: not applicable.

mrem: millirems per year (a measure of radiation absorbed by the body).

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

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

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

pCi/L: picoCuries per liter (measuring radioactivity).

Lead and Copper

Definitions:

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.

Action Level: 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	# of Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	6/14/17	1.3	1.3	0.44	0	ppm	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	6/14/17	0	15	4.3	1	ppb	No	Corrosion of household plumbing systems; Erosion of natural deposits.

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>.

Disinfectants and Disinfection By-Products

	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	12/31/18	0.8	0.7 - 1	MRDLG = 4	MRDL = 4	ppm	No	Water additive used to control microbes.
Haloacetic Acids (HAA5) ¹	2018	6.34	3.77 - 6.34	No goal for the total	60	ppb	No	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM) ¹	2018	20.2	14.36 - 20.2	No goal for the total	80	ppb	No	By-product of drinking water disinfection.

¹ 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.

Regulated Contaminants Detected in 2018 (continued)

Collected in 2018 Unless Noted

Inorganic Contaminants (IOCs)

	Collection Date	Highest Levels Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2018	1.6	0 - 1.6	0	10	ppb	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Barium	2018	0.16	0.065 - 0.16	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	2018	6.7	0 - 6.7	100	100	ppb	No	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	2018	0.938	0.699 - 0.938	4	4.0	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (measured as nitrogen) ²	2018	4	2.4 - 4.3	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits.
Selenium	2018	4	0 - 4	50	50	ppb	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Sodium ³	2018	68	23 - 68			ppm	No	Erosion from naturally occurring deposits. Used in water softener regeneration.

2 Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

3 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.

Radioactive Contaminants

	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	7/6/15	0.332	0.332 - 0.332	0	5	pCi/L	No	Erosion of natural deposits.

State Regulated Contaminants

	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Iron	2018	0.092	0 - 0.092		1.0	ppm	No	Erosion of natural deposits.
Manganese	2018	2.8	0 - 2.8	150	150	ppb	No	Erosion of natural deposits.
Zinc	2018	0.017	0 - 0.017	5	5	ppm	No	Naturally occurring; Discharge from metal factories.

Volatile Organic Contaminants (VOCs)

	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Tetrachloroethylene	2018	1	0 - 1.1	0	5	ppb	No	Discharge from factories and dry cleaners.
Trichloroethylene	2018	2	0 - 2.3	0	5	ppb	No	Discharge from metal degreasing sites and other factories.

Coliform Bacteria

Maximum Contaminant Level Goal	Total Maximum Contaminant Level	Contaminant Level	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli Fecal Coliform Samples	Violation	Likely Source of Contamination
0	5% of all samples	0		0	No	Naturally present in the environment.

Note: The state requires monitoring of certain contaminant 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.

Our water system was required to monitor for the contaminants required under the Unregulated Contaminant Monitoring Schedule (UCMR). Results may be obtained by calling the contact listed on the first page of 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. 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 the District Office or call our water operator at (815) 633-5461. 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://dataservices.epa.illinois.gov/swap/factsheet.aspx>

To determine North Park Public Water District's susceptibility to groundwater contamination, a Well Site Survey, published in 1989 by the Illinois EPA, and a Wellhead Protection Management Plan were reviewed. Based on the information obtained in these documents, several potential sources of contamination are present that could pose a hazard to groundwater utilized by the North Park Public Water District community water supply wells.

The community's source water is susceptible to VOC contamination although detection of any quantifiable levels in the water has not occurred. NPPWD's source water is not susceptible to SOC contamination. This determination is based on the location of potential sources of contamination and the land use within the recharge areas of the wells (see the Potential Sources of Contamination section in the Source Water Assessment Program Fact Sheet). However, as a result of monitoring conducted at the wells and entry point to the distribution system, the land use activities, and source water protection initiatives by the NPPWD, the NPPWD's source water is not susceptible to IOC contamination.

Furthermore, in anticipation of the US EPA's proposed Ground Water Rule, the Illinois EPA has determined that NPPWD's community water supply wells are not susceptible to viral contamination. This determination is based upon the completed evaluation of the following criteria used in the Vulnerability Waiver Process: the community's wells are properly constructed with sound integrity and proper site conditions; all potential routes and sanitary defects have been mitigated such that the source water is adequately protected; monitoring data did not indicate a history of disease outbreak; and the sanitary survey of the water supply did not indicate a viral contamination threat. Having stated this, the "[US] EPA is proposing to require States to identify systems in karst, gravel, and fractured rock aquifer systems as sensitive and these systems must perform routine source water monitoring."

Because a portion of the community's wells are open to an unconfined sand and gravel aquifer, the Illinois EPA evaluated the well hydraulics associated with NPPWD's well field. Well #2 has approximately 140 feet of overburden; Wells #3, #4, and #5 have approximately 80 feet of overburden. Well #2 is about 190 feet deep with the last 50 feet open to the aquifer. Wells #3, #4, and #5 are approximately 240 feet deep with the last 160 feet open to the aquifer. This should provide an adequate degree of filtration to prevent the movement of pathogens into the wells. The Illinois Environmental Protection Act provides minimum protection zones of 200 and 400 feet for North Park Public Water District's wells. These minimum protection zones are regulated by the Illinois EPA to further reduce the risk to the source water, NPPWD has

implemented a wellhead protection management plan that includes source water protection management strategies and contingency planning. This effort resulted in a reduced risk of SOC and VOC contamination to the community water supply. Hence, the community water supply received a special exception permit from the Illinois EPA which allows a reduction in SOC and VOC monitoring. The outcome of this monitoring reduction has saved the District considerable laboratory analysis costs.

As authorized by the Illinois Environmental Protection Act, NPPWD enacted a "maximum setback zone" ordinance for Wells #2, #3, #4, and #5, that allows county and municipal officials the opportunity to provide additional potential source prohibitions up to 1,000 feet from their wells. NPPWD also developed a recharge area management program in order to further protect the community's source water from potential contamination sources for which it is susceptible. The management program covers the recharge areas for NPPWD Wells #2, #3, #4, and #5.

To further minimize the risk to NPPWD's groundwater supply, the Illinois EPA recommends that NPPWD continue to evaluate additional source water protection management options to address the land use activities within the community wells' recharge areas. Specifically, these management options should include potential effects from non print sources related to agricultural land uses. If these additional source water protection management options are not addressed, NPPWD may risk revocation of their Safe Drinking Water Act Monitoring Waiver for SOC's and VOC's.

Community Safety Note: The NPPWD has eliminated the use of chlorine gas as a disinfectant. Liquid sodium hypochlorite is now the disinfectant being utilized at all District wells which eliminates the possibility for accidental release of gaseous chlorine to surrounding neighborhoods.

Additional information pertaining to public participation regarding decisions that may affect the quality of water may be obtained by calling the North Park Public Water District at (815) 633-5461 or by attending regularly scheduled board meetings.

Meetings are conducted at the District Office, 1350 Turret Drive, Machesney Park, Illinois. You may call the District Office for the time and date of the next meeting.

IMPORTANT NOTICE

If you notice any suspicious activities at or near any of the North Park Water facilities, please call the District office at (815) 633-5461

IT IS A FEDERAL OFFENSE TO TAMPER WITH ANY NPPWD FACILITY (US CODE TITLE 42, SECTION 300i-1)

North Park Public Water District
1350 Turret Drive
Machesney Park, IL 61115
(815) 633-5461
www.northparkwater.org

1st Annual Art Contest

Each year, North Park Public Water District will be partnering with the Machesney Park School District for an Art Contest. The contest provides a beautiful cover for our annual Water Quality Report, and it also shows off the talent of our local 5th graders!

A theme for the art contest is selected in unison with the American Water Works Drinking Water Week theme. The theme for the 2019 art contest was "Protect the Source".

We would like to thank everyone that participated in the 2019 Art Contest. There was a lot of really great art to choose from.



ART CONTEST WINNER

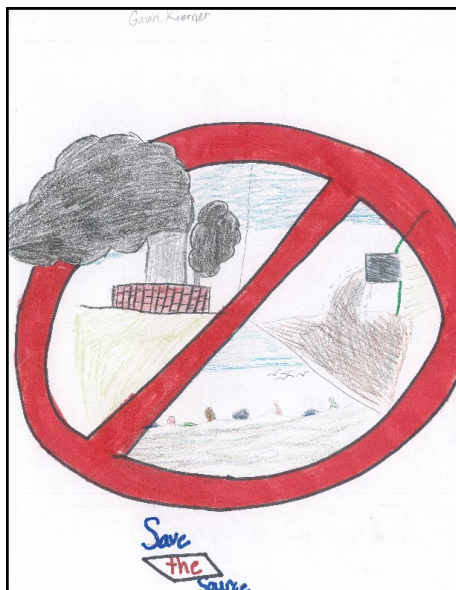
Azra M.

Maple Elementary School
Grade 5

RUNNER UP

Gavin K.

Maple Elementary
School
Grade 5



RUNNER UP

Lauren M.

Machesney Elementary
School
Grade 5

