

Water is The world



71% Of
the earth surface
is water

2024 Drinking Water Quality Report

Summarizing 2023 Water Quality Test Results

Artwork by: Ava Belle Gray—Stone Creek Elementary





2024 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, 2023

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 35,580 in the Machesney Park, Roscoe, and Loves Park area.

High professional standards have maintained the District's reliability for the past 69 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 Staff at North Park Public Water 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:

Kelly Saunders, (815) 633-5461

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 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 USEPA's Safe Drinking Water Hotline at (800) 426-4791.

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

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 Safe Drinking Water Hotline (800) 426-4791.

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 and is regularly monitored. 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, per the USEPA's 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 requires 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.

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.

Community Safety Note: Liquid sodium hypochlorite is the disinfectant being utilized at all District wells which eliminates the possibility for accidental release of gaseous chlorine to surrounding neighborhoods.

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

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.

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

Regulated Contaminants Detected in 2023

Collected in 2023 Unless Noted

No drinking water quality violations were recorded in 2023.

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 drinking water 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.

N/A: not applicable.

ND: not detectable at testing limit.

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.

ppt: nanograms per liter, or parts per trillion.

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 that triggers treatment or other required actions by the water supply.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# of Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2023	1.3	1.3	0.213	0	ppm	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2023	0	15	2.54	0	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>.

There is no lead present in NPPWD's source water or in the treated drinking water. To the best of our knowledge, there are no homes in the NPPWD service area that have lead service lines.

North Park Water has prepared a service line inventory of all service line materials within the District. You can access the service line inventory at: <https://www.northparkwater.org/lead-and-drinking-water/>

Disinfectants and Disinfection By-Products

	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	2023	1	1-1	MRDLG = 4	MRDL = 4	ppm	No	Water additive used to control microbes.
Haloacetic Acids (HAA5) ¹	2023	7	5.53 - 8.29	No goal for the total	60	ppb	No	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM) ¹	2023	16	15.39 - 17.57	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.

Inorganic Contaminants (IOCs)

	Collection Date	Highest Levels Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2021	0.14	0.085 - 0.14	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2023	0.881	0.529 - 0.881	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	2023	3	2.5 - 3.0	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits.
Sodium ³	2021	58	38 - 58			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.

Volatile Organic Contaminants (VOCs)

	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Tetrachloroethylene	2023	.810	0 - .810	0	5	ppb	No	Discharge from factories and dry cleaners.

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 for raw water samples for emergency backup wells may be obtained by calling the contact listed on the first page of this report.



Safe Drinking Water Starts at the Source

Protecting these sources from pollution and contamination is the smart thing to do because it helps the environment where we live and actually **helps save money too!** The cleaner the source water, the less energy and fewer treatments are needed to treat the water before it gets to you.

Everything that happens on the ground eventually makes its way to our waterways - animal waste, fertilizer, trash, oil, yard clippings, and more. Here are some ways you can help protect our drinking water sources:

Protecting Drinking Water Sources Starts with YOU!



For additional information and helpful tips on Source Water Protection, visit our website at: NorthParkWater.Org/Source-Water-Protection



What is North Park Public Water District Doing About PFAS?

We are committed to providing consumers with safe and reliable water and are working diligently to develop a plan that ensures the public water supply meets the new drinking water standards. We will keep the public informed as we work with the state to develop, design and implement the most expedient, effective and fiscally responsible solution to this emerging chemical of concern.

North Park Water has already completed several projects to ensure safe drinking water is supplied to the community. The implementation of the full intended solution is estimated at approximately \$58,700,000. North Park Water is pursuing several different funding opportunities to limit the impact of the solution on our rates. To date, North Park Water has been granted \$5.7 million towards the project through the IEPA State Revolving Loan, Principal Forgiveness Program. This award will be similar to a grant and does not need to be repaid.

Timeline of Solution Implementation

Late 2020: First samples indicate some PFAS in source water.

2021: North Park Water begins study to identify Sources and Solutions to PFAS

- Proactive measures to monitor PFAS levels through quarterly sampling begin.

2022: Sources and Solutions Study is completed

- Based on the results of the study, North Park Water purchases additional land for potential treatment plant.
- North Park Water Board approves a contract for Pre-Design of Treatment Plant
- Application is submitted to IEPA to request funding through the State Revolving Loan Program

2023: A pilot study to determine the best treatment method begins

- North Park Water begins and completes the design of an additional well (Well 7) - estimated project cost: \$5.7 million

2024: North Park Water Board approves the Final Design contract for the treatment plant

- Received Grant funding in the amount of **\$5.7 million** for the construction of Well 7
- Submitted the first treatment plant to IEPA to request funding through the State Revolving Loan Program

Future Steps:

2024: Construction of Well 7 begins.

- Final design of the treatment plant to be completed

2025: Construction of first treatment plant to begin, estimated project cost: \$38 million

2026: Construction of second treatment plant to begin, estimated project cost: \$15 million

2027: Construction of first treatment plant to be completed

2028: Construction of second treatment plant to be completed

INTENDED SOLUTION TIMELINE and COST



PFAS Analyte⁴

	Acronym	Collection Date	Analytical Result at Well 03	Analytical Result at Well 04	Units	Violation
PERFLUOROCTANOIC ACID	PFOA	2023	ND - 3.5	2.4– 4.9	ppt	No
PERFLUOROCTANE SULFONIC ACID	PFOS	2023	2.5 - 4.2	3.7 - 7.0	ppt	No
PERFLUOROBUTANESULFONIC ACID	PFBS	2023	ND - 3.3	2.7 - 5.0	ppt	No
PERFLUOROHXANE SULFONIC ACID	PFHXS	2023	ND - 3.0	3.6 - 7.5	ppt	No
PERFLUOROHXANOIC ACID	PFHXA	2023	ND	ND - 3.0	ppt	No
PERFLUORONONANOIC ACID	PFNA	2023	ND	ND—2.1	ppt	No

⁴ Only analytes with detections have been included for this table. For a full list of all analytes sampled, please visit: <https://www.northparkwater.org/pfas-information/>

⁵ Well #2 was moved to Emergency Backup status with IEPA in 2022. Well 2 has not been used as a primary production well since 2012. Well #2 Data is available upon request.

PFAS Statewide Investigation

Per- and Polyfluoroalkyl Substances (PFAS) are contaminants you are now seeing in your Consumer Confidence Report (CCR). The Illinois Environmental Protection Agency (Illinois EPA) recently tested our water system for compounds known as Per- and Polyfluoroalkyl Substances (PFAS) as part of a statewide investigation of community water supplies.

Recent developments in analytical technology for PFAS compounds have enabled laboratories to test for PFAS compounds at the part per trillion (ppt) range versus the previous level in parts per billion (ppb). This represents an order of magnitude improvement in analytical capability that have identified compounds in the water that previously would have been undetected.

On April 10, 2024 US EPA finalized a National Primary Drinking Water Regulation (NPDWR) establishing legally enforceable levels, called Maximum Contaminant Levels (MCLs), for six PFAS in drinking water. PFOA, PFOS, PFHxS, PFNA, and HFPO-DA as contaminants with individual MCLs, and PFAS mixtures containing at least two or more of PFHxS, PFNA, HFPO-DA, and PFBS using a Hazard Index MCL to account for the combined and co-occurring levels of these PFAS in drinking water. EPA also finalized health-based, non-enforceable Maximum Contaminant Level Goals (MCLGs) for these PFAS.

The final rule requires:

Public water systems must monitor for these PFAS and have three years to complete initial monitoring (by 2027), followed by ongoing compliance monitoring. Water systems must also provide the public with information on the levels of these PFAS in their drinking water beginning in 2027. North Park Water has been monitoring for these PFAS since 2020.

- Public water systems have five years (by 2029) to implement solutions that reduce these PFAS if monitoring shows that drinking water levels exceed these MCLs. Based on the intended solution timeline, North Park Water will have the initial solution implemented within 3 years (by 2027).
- Beginning in five years (2029), public water systems that have PFAS in drinking water which violates one or more of these MCLs must take action to reduce levels of these PFAS in their drinking water and must provide notification to the public of the violation.

Additional monitoring is being conducted on an ongoing basis. For more information about PFAS, please visit our website at <https://www.northparkwater.org/pfas-information/>

What Are PFAS?

Per- and poly-fluoroalkyl substances are a group of thousands of chemicals collectively known as PFAS. Since the 1940s, PFAS have been used in manufacturing, firefighting, water- and oil-resistant products, and many consumer products such as carpet, clothing, cosmetics, and food packaging. Two of the most common compounds within this class, perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS), stopped being produced in the United States (U.S.) in the early 2000s, but these compounds may still be present in imported goods.

PFOA and PFOS have been the most extensively produced and studied of these chemicals. Both chemicals are very persistent in the environment and in the human body – meaning they do not break down and they can accumulate over time.

6th Annual Art Contest

Each year, North Park Water partners with the Harlem School District and the Kinnikinnick School District for an Art Contest. The contest provides a beautiful cover for our annual Water Quality Report, and it also shows off the incredibly talented 3rd and 4th graders in our area! This year's Art Contest Theme was "What Does Water Mean to You?" As usual, we had some wonderful art to choose from this year!

We would like to thank everyone that participated in the 2024 Art Contest. Thank you for sharing your talents with us.

School Winners

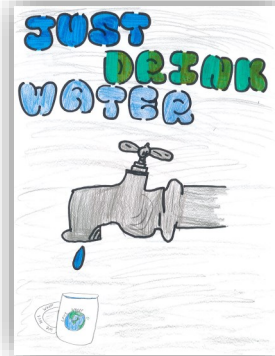


ART CONTEST WINNER

Ava
Stone Creek Elementary



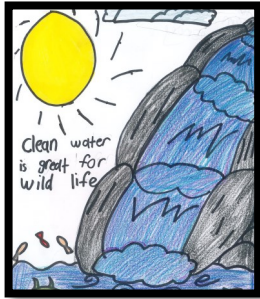
Addy
Machesney Elementary



Maggie
Ralston Elementary



Santiago
Stone Creek Elementary



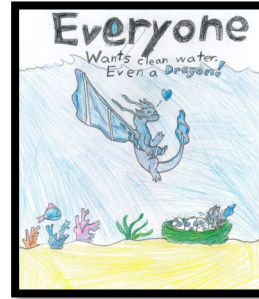
Kaila
Machesney Elementary



Leo
Machesney Elementary



Rosa
Machesney Elementary



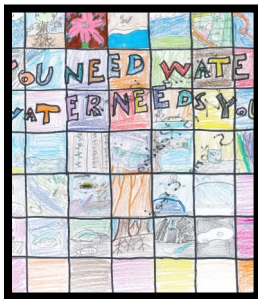
Ashlyn
Machesney Elementary



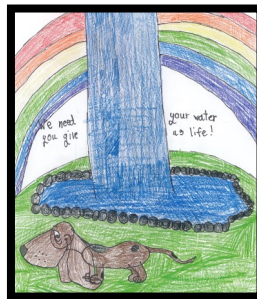
Sienna
Ralston Elementary



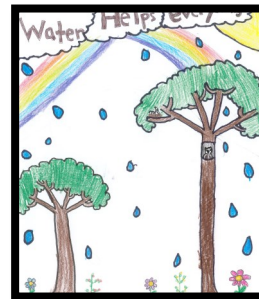
Dane
Ralston Elementary



Noelle
Stone Creek Elementary



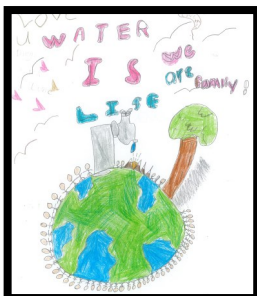
Nora
Stone Creek Elementary



Ainsley
Stone Creek Elementary



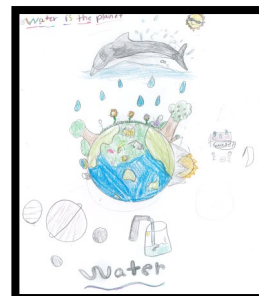
Emerson
Stone Creek Elementary



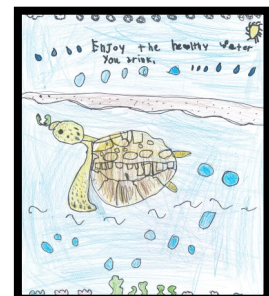
Emma
Stone Creek Elementary



Jaxson
Stone Creek Elementary



Katie
Stone Creek Elementary



Nora
Stone Creek Elementary

Classroom Winners