

2023 Annual Drinking Water Quality Report

DEER CREEK
IL1794320

Annual Water Quality Report for the period of January 1 to December 31, 2023

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

The source of drinking water used by DEER CREEK is Ground Water

For more information regarding this report contact:

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The Deer Creek Village Board meets in open session at 7:00 p.m. on the third Tuesday of every month at the Village Hall, 101 W. First Avenue. Public participation is encouraged in the decision-making processes that affect drinking water quality.

Este informe contiene informacion muy importante sobre el agua que usted bebe. Traduzcalo o hobbble 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 mineral 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 amount 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 EPA's 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.

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>.

Source Water Information

| Source Water Name | Type of Water | Report Status | Location |
|-------------------|---------------|---------------|---------------------|
| WELL 3 (50376) | GW | Active | SE Corner of WTP #1 |
| WELL 4 (50377) | GW | Active | 20 Ft S of WTP #1 |
| WELL 5 (01875) | GW | Active | 30 Ft E of WTP #2 |

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 Village Hall or call our water operator at 309.447.6749. 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>.

To determine Deer Creek's susceptibility to groundwater contamination, a Well Site Survey, published in 1992 by the Illinois EPA, and Source Water Protection Plan were reviewed. Based on the information contained in these documents, ten potential sources of groundwater contamination are present that could pose a hazard to groundwater pumped by the Deer Creek community water supply wells. These include four above or below ground fuel storages, four below ground fuel storages, and auto body, and an auto repair. Based upon this information, the Illinois EPA has determined that Deer Creek Wells #3 and #4 are not susceptible to IOC or SOC contamination. This determination is based on a number of criteria including: monitoring conducted at the wells; monitoring conducted at the entry point to the distribution system; and the available hydrogeologic data for the wells. In anticipation of the U.S. EPA's proposed Ground Water Rule, the Illinois EPA has determined that Deer Creek's community water supply wells are not vulnerable to viral contamination. This determination is based upon the evaluation of the following criteria during the Vulnerability Waiver Process: the community's wells are properly constructed with sound integrity and proper site conditions; there is a hydrogeologic barrier that restricts pathogen movement; 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. However, having stated this, the U.S. EPA is proposing to require States to identify systems in karst, gravel and fractured rock aquifer systems as sensitive. Water systems utilizing these aquifer types would be required to perform routing source water monitoring. Because the community's wells are constructed in a confined aquifer, which should provide an adequate degree of protection to prevent the movement of pathogens into the wells, well hydraulics were not considered to be a significant factor in the vulnerability determination.

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. ALGs 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) | 90 th Percentile | # Sites Over AL | Units | Violation | Likely source of Contamination |
|-----------------|--------------|------|-------------------|-----------------------------|-----------------|-------|-----------|--|
| Copper | 2023 | 1.3 | 1.3 | 0.31 | 0 | ppm | N | Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems |
| Lead | 2019 | 0 | 15 | 2.1 | 0 | ppb | N | Corrosion of household plumbing systems; Erosion of natural deposits. |

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 a 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 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 Contaminant Level or MCL: | 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. |
| 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. |
| Maximum Residual Disinfectant 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. |
| Definitions: | The following tables contain scientific terms and measures, some of which may require explanation. |
| ppb: | micrograms per liter or parts per billion – or one ounce in 7,350,000 gallons of water. |
| na: | not applicable. |
| mrem: | millirems per year (a measure of radiation absorbed by the body) |
| 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 |

Regulated Contaminants

| Disinfectants and Disinfection By-Products | Collection Date | Highest level Detected | Range of Levels Detected | MCLG | MCL | Units | Violations | Likely Source of Contamination |
|--|-----------------|------------------------|--------------------------|------------------------|----------|-------|------------|--|
| Chlorine | 2023 | 0.8 | 0.8 – 1 | MRDLG = 4 | MRDL – 4 | ppm | N | Water additive used to control microbes. |
| Haloacetic Acids (HAAS) | 2022 | 1 | 1.19 – 1.19 | No goal for this total | 60 | ppb | N | By-product of drinking water disinfection. |
| Total Trihalomethanes (TTHM) | 2023 | 8 | 7.8 – 7.8 | No goal for the total | 80 | ppb | N | By-product of drinking water disinfection. |

| Inorganic Contaminants | Collection Date | Highest level Detected | Range of Levels Detected | MCLG | MCL | Units | Violations | Likely Source of Contamination |
|-------------------------------|------------------------|-------------------------------|---------------------------------|-------------|------------|--------------|-------------------|--|
| Barium | 2023 | 0.056 | 0.056 – 0.056 | 2 | 2 | ppm | N | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits. |
| Iron | 2023 | 1.6 | 1.6 – 1.6 | | 1.0 | ppm | N | This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits. |
| Manganese | 2023 | 163 | 100 – 170 | 150 | 150 | ppb | N | This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits. |
| Sodium | 2023 | 10 | 10 – 10 | | | ppm | N | Erosion from naturally occurring deposits; Used in water softener regeneration. |
| Zinc | 2023 | 0.012 | 0.012 – 0.012 | 5 | 5 | ppm | N | This contaminant is not currently regulated by the USEPA. However, the state regulates. Naturally occurring; discharge from metal. |

Violations

We are pleased to report the Village of Deer Creek had NO VIOLATIONS in 2023.