Annual Drinking Water Quality Report for the Village of Downs

IL1130500

Annual Water Quality Report for the period of
January 1 to December 31, 2017.

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 Downs is Ground Water.

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Source of Drinking Water
The sources of drinking water (both tap water and bottled water) includes 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 runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
Pesticides and herbicides, which may come from 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, The EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The 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 advise 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 at (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

Well 1	Ground Water	North well of 2 wells on South Seminary
Well 3	Ground Water	South well of 2 wells on South Seminary

Source Water Assessment

We want our customers to be informed about their water quality. If you would like to learn more, please feel free to attend any of our regularly scheduled board meetings. The source water assessment for the Village of Downs water supply has been completed by the Illinois Environmental Protection Agency. If you would like a copy of this information, please stop by Village Hall or call our water superintendent at 309-319-1010. 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 EPA website at http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl.

Source of Downs Water: To determine Downs's susceptibility to groundwater contamination, a Well Site Survey, published in 1991 by the Illinois EPA, and Source Water Protection Plan were reviewed. Based on the information contained in these documents, three potential sources of groundwater contamination are present that could pose a hazard to groundwater pumped by the Downs community water supply wells. These include two below ground fuel storages and a fertilizer / pesticide commercial application or warehouse. Based on information provided by the Downs water supply officials, the following facilities, also indicated in the site data table, have gone out of business: Hammer's Market and Farmchem. In addition, Amaco gas station has been added between I-74 and the Village. Based on this information, the Illinois EPA has determined that Well #1 and Well #3 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.

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. AKGs allow for a margin of safety.
ACTION LEVEL (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Water Quality Tests 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 contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Water Quality Tests *The following tables contain scientific terms and measures, some of which may require explanation.*

Definitions:

Maximum Residual Disinfectant Level or MRDL:	The highest level of disinfection 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 drinking water disinfectant below which there is no known or expected risk to health. MLDRGs 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.

2017 Regulated Contaminants Detected

Water Quality Test Results

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2017	1.3	1.3	0.57	0	ppm	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2017	0	15	6.2	1	ppb	No	Corrosion of household plumbing systems; Erosion of natural deposits.

Regulated Contaminants

Disinfectants and Disinfection By - Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination.
Chlorine	12/31/2017	2.1	0.98-2.47	MRDLG = 4	MRDL = 4	ppm	No	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2017	29	28.7 - 28.7	No goal for total	60	ppb	No	By - Product of drinking water disinfection.
Total (TTHM) Trihalomethanes	2017	19	19 - 19	No goal for total	80	ppb	No	By - Product of drinking water disinfection.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination.
Arsenic	2016	3.5	3.5 -3.5	0	10	ppb	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production waste.
Barium	2016	0.19	0.19 -0.19	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2016	0.599	.599 - .599	4	4	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Iron	2016	0.92	0.92 - 0.92	4	4	ppm	No	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.

Regulated Contaminants

Manganese	2016	35	35 -35	150	150	ppm	No	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Nitrate (Measured as Nitrogen)	2017	0.05	.05 - .05	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Sodium	2016	47	47 - 47	X	X	ppm	No	Erosion from naturally occurring deposits; Used in water softener regeneration.
Zinc	2016	0.0083	.0083-.0083	5	5	ppm	No	This contaminant is not currently regulated by the USEPA. However, the state regulates. Naturally occurring; discharge from metal.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination.
Combined Radium 226/228	2017	1.03	1.03 - 1.03	0	5	pCi/L	No	Erosion of natural deposits.
Gross alpha excluding radon and uranium	7/22/2014	0.159	.159 -.159	0	15	pCi/L	No	Erosion of natural deposits.