# Annual Drinking Water Quality Report

SHARPSBURG AND NEIGHBORING AREA WATER SY

IL0210030

Annual Water Quality Report for the period of January 1 to December 31, 2021

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 SHARPSBURG AND NEIGHBORING AREA WATER SY is Purchased Ground Water

For more information regarding this report contact:

Name Take Heberling

Phone (217) 325-3621

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, burban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas broduction 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).

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 head 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
CC01 - MASTER METER	GW		

#### 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 City Hall or call our water operator at 2/2-362. 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.

Source of Water: STONINGTONTo determine Stonington's susceptibility to groundwater contamination, a Well Site Survey, published in 1990 by the Illinois EPA. and asource Water Protection Management Plan were reviewed. Based on the information obtained in these documents, one potential source, route, or possible problem site is located within the combined 400 foot minimum setback zones of wells #11, #12, and #13. An additional potential source of contamination. route, or problem site is present within the Phase II Wellhead Protection Area (WHPA) of the wells that could pose a hazard to groundwater utilized by the Stonington community water supply wells. A Phase II WHPA, also referred to as the recharge area, is the geographic area surrounding a well or a well field providing potable water to a community water supply as modeled using computer software to determine a five-year time of travel. All of the land use around Stonington's wells (approximately 98 acres) in the combined Phase I and Phase II WHPAs is classified as agriculture. The United States Department of Agriculture (USDA) describes this Land Resource Region as the Central Feed Grains and Livestock Region. Further, USDA classifies this Major Land Resource Area as the Illinois and Iowa Deep Loess and Drift, East-Central Part. The Cl/Br vs. Cl ratio indicates non-point source agriculture fertilizer, as a possible source of nitrate in the area of the wells. The nitrate concentrations for well #12 ranged from 2.32 - 5.58 mg/L during the bi-monthly sample collection starting in December 2014 and continuing through November 2016. Figure 2 illustrates the overall slightly decreasing trend in nitrate concentration and an increasing trend in chloride. The Illinois EPA considers Stonington's source water susceptible to SOC contamination. The source water is not considered to be sugceptible to VOC contamination. The SOC and VOC susceptibility determination is based on the land use within the recharge area of the wells (see Potential Sources of Contamination section). 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 city (refer to the following section of this report), the Stonington Community Water Supply's source water is not susceptible to IOC contamination. All public water supplies using groundwater are required to sample their wells monthly for bacterial contaminants. Sampling performed to assess for pathogenic contamination (e.g., virus, total coliform, e-coli) has demonstrated that the source water is not susceptible to these types of contaminants

## 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. of a contaminant which if exceeded triggers treatment or other requirements which a water system must follow

Lead and Copper	Date Sampled		Action Level (AL)	90th Percentile	# Sites Over		Likely Source of Contamination
Copper	2021	1.3	1.3	0.13	0	ppm	Brosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

## Water Quality Test Results

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

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

A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why Level 1 Assessment:

total coliform bacteria have been found in our water system.

A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if Level 2 Assessment:

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.

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

using the best available treatment technology.

The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow Maximum Contaminant Level Goal or MCLG:

for a margin of safety.

The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a Maximum residual disinfectant level or

disinfectant is necessary for control of microbial contaminants.

The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not Maximum residual disinfectant level

reflect the benefits of the use of disinfectants to control microbial contaminants. goal or MRDLG:

not applicable. na:

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

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

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

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

	ď	1 microbes.	disinfection.
	Violation Likely Source of Contamination	Water additive used to control microbes.	By-product of drinking water disinfection.
	Violation	z	z
	Units	wad.	qdđ
	MCL	MRDL = 4	80
	MCLG	MRDLG = 4	- 5.4 No goal for the total
	Collection Highest Level Range of Levels Date Detected	0.7 - 1.6	N.4 - B.4
	Highest Level Detected	1.2	ហ
ınts	Collection Date	12/31/2021	2021
Regulated Contaminants	Disinfectants and Disinfection By-	Chlorine	Total Trihalomethanes (TTHM)

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Source Water Information			
Source Water Name	Type of Water	Report Status	Location
WELL 11 (50097)	GN		250 FT S OF WELL 10
WELL 12 (01739)	GW		121 FT 8, 70 FT W OF NW C
WELL 13 (02053)	GW	<u></u>	N, R1W, 3RD FM

#### Source Water Assessment

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#### 2021 Regulated Contaminants Detected

### Water Quality Test Results

goal or MRDLG:

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Maximum residual disinfectant level 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.

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

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

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

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

## 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	12/31/2021	1.2	1.02 - 1.6	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Total Trihalomethanes (TTHM)	2021	18	18 - 18	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	WCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	10/07/2020	0.0068	0.0068 - 0.0068	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	10/07/2020	0.917	0.917 - 0.917	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Manganese	10/07/2020	6.6	6.6 - 6.6	150	150	dąq	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Nitrate (measured as Nitrogen)	2021	5	3.7 - 5.48	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Brosion of natural deposits.
Sodium	10/07/2020	110	110 - 110			ppm	N	Erosion from naturally occuring deposits. Used in water softener regeneration.