

# 2022 WATER QUALITY REPORT FOR SUPERIOR WATER SYSTEM

This report contains important information regarding the water quality in our water system. The source of our water is surface water and groundwater. All of the water is purchased. Purchased water comes from Iowa Lakes Regional Water, Central Water System, Milford Municipal Utilities and Estherville Water Treatment Plant. Our water quality testing shows the following results:

CONTAMINANT	MCL - (MCLG)	Compliance		Date	Violation Yes/No	Source
		Type	Value & (Range)			
Total Trihalomethanes (ppb) [TTHM]	80 (N/A)	LRAA	8.00 (8 - 8)	09/30/2022	No	By-products of drinking water chlorination
Copper (ppm)	AL=1.3 (1.3)	90th	0.06 (ND - 0.07)	2022	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	AL=15 (0)	90th	ND	2022	No	Corrosion of household plumbing systems; erosion of natural deposits
<b>950 - DISTRIBUTION SYSTEM</b>						
Chlorine (ppm)	MRDL=4.0 (MRDLG=4.0)	RAA	1.5 (1.29 - 1.62)	12/31/2022	No	Water additive used to control microbes

Note: Contaminants with dates indicate results from the most recent testing done in accordance with regulations.

## DEFINITIONS

- Maximum Contaminant Level (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 Contaminant Level Goal (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.
- ppb -- parts per billion.
- ppm -- parts per million.
- pCi/L – picocuries per liter
- N/A – Not applicable
- ND -- Not detected
- RAA – Running Annual Average
- Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.
- Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- Maximum Residual Disinfectant Level Goal (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 (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.
- SGL – Single Sample Result
- RTCR – Revised Total Coliform Rule
- NTU – Nephelometric Turbidity Units

## GENERAL INFORMATION

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 posed a health risk. More information about contaminants or potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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. SUPERIOR WATER SYSTEM is responsible for providing high quality drinking water, but 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 ASSESSMENT INFORMATION**

This water supply obtains some or all of its water from another public water supply. It is a consecutive water supply, where an originating parent supply provides drinking water to one or more downstream supplies.

Original Supply ID	Original Supply Name
IA2100701	Iowa Lakes Regional Water – Clay Plant
IA3060001	Iowa Lakes Regional Water – Osgood
IA3000099	Central Water System
IA3218024	Estherville Water Treatment Plant

### **OTHER INFORMATION**

Turbidity is an indicator of treatment filter performance and is regulated as a treatment technique.

### **CONTACT INFORMATION**

For questions regarding this information or how you can get involved in decisions regarding the water system, please contact SUPERIOR WATER SYSTEM at 712-858-4528.

**PURCHASED WATER INFORMATION**

Our water system purchases water from the system(s) shown below. Their water quality is as follows:

CONTAMINANT	MCL - (MCLG)	Compliance		Date	Violation	Source
		Type	Value & (Range)			
<b>3000099 - CENTRAL WATER SYSTEM</b>						
<b>02 - FINAL EFFLUENT SAMPLE TAP</b>						
Fluoride (ppm)	4 (4)	SGL	0.66 (0.82 Max)	11/02/2022	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Arsenic (ppb)	10 (0)	SGL	1.00	08/06/2014	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronic production wastes
Barium (ppm)	2 (2)	SGL	0.06	08/06/2014	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Sodium (ppm)	N/A (N/A)	SGL	24	08/01/2022	No	Erosion of natural deposits; Added to water during treatment process
Nitrate [as N] (ppm)	10 (10)	SGL	<0.10	08/01/2022	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Atrazine (ppb)	3 (3)	SGL	0.10	04/20/2020	No	Runoff from herbicide used on row crops
Dalapon (ppb)	200 (200)	SGL	0.70	04/20/2020	No	Runoff from herbicide used on rights of way
Manganese (ppm)	HA 0.3 (ppm)	SGL	<0.02	10/26/2022	No	Naturally occurring element found in soil, water, and air
Turbidity (NTU)	N/A (N/A)	TT	0.54 (Single High 0.144) <0.3 – 100% of all samples	03/05/2022	No	Soil runoff. Turbidity is an indicator of treatment filter performance and is regulated as a treatment technique.
<b>3218024 - ESTHERVILLE WATER TREATMENT PLANT</b>						
<b>01 - #4,7,8,9,OR10/TRMTN PLT SMP TAP</b>						
Gross Alpha, inc (pCi/L)	15 (0)	SGL	6.8	10/01/2019	No	Erosion of natural deposits
Combined Radium (pCi/L)	5 (0)	SGL	1	10/01/2019	No	Erosion of natural deposits
Fluoride (ppm)	4 (4)	SGL	0.67 (0.6 – 0.73)	2022	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Sodium (ppm)	N/A (N/A)	SGL	410	01/05/2022	No	Erosion of natural deposits; Added to water during treatment process
Nitrate [as N] (ppm)	10 (10)	SGL	1.8	2022	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

2100701 - IOWA LAKES REGIONAL WATER – CLAY PLANT

01 - WLS 1,4-11 @ TREATMENT PLANT TAP						
Fluoride (ppm)	4 (4)	RAA	0.552 (0.168 - 0.74)	12/31/2022	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Barium (ppm)	2 (2)	SGL	0.0218	04/12/2022	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Sodium (ppm)	N/A (N/A)	SGL	4.70	04/12/2022	No	Erosion of natural deposits; Added to water during treatment process
Manganese (ppm)	HA 0.3 (ppm)	SGL	<0.0005	10/25/2022	No	Naturally occurring element found in soil, water, and air
Nitrate [as N] (ppm)	10 (10)	SGL	<0.1	04/12/2022	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

3060001 – IOWA LAKES REGIONAL WATER – OSGOOD PLANT

07 – WLS C1, C5 OR C6 @ TREATMENT PLANT TAP						
Fluoride (ppm)	4 (4)	RAA	0.490 (0.431 – 0.567)	12/31/2022	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Sodium (ppm)	N/A (N/A)	SGL	6.53	09/20/2022	No	Erosion of natural deposits; Added to water during treatment process
Nitrate [as N] (ppm)	10 (10)	SGL	0.39	09/20/2022	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits