

2021 WATER QUALITY REPORT FOR SIRWA – GREENFIELD DISTRIBUTION SYSTEM

This report contains important information regarding the water quality in our water system. The source of our water is surface water. All of the water is purchased. Purchased water comes from Greenfield Municipal Utilities. Our water quality testing shows the following results:

CONTAMINANT	MCL - (MCLG)	Compliance		Date	Violation	Source
		Type	Value & (Range)			
Total Trihalomethanes (ppb) [TTHM]	80 (N/A)	LRAA	57.00 (33 - 76)	12/31/2021	No	By-products of drinking water chlorination
Total Haloacetic Acids (ppb) [HAA5]	60 (N/A)	LRAA	38.00 (21 - 54)	12/31/2021	No	By-products of drinking water disinfection
Lead (ppb)	AL=15 (0)	90th	7.00 (1 - 9)	2021	No	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	AL=1.3 (1.3)	90th	0.7 (0.09 - 1.4) 1 sample exceeded AL	2021	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
950 - DISTRIBUTION SYSTEM						
Chlorine (ppm)	MRDL=4.0 (MRDLG=4.0)	RAA	2.19 (1.93 - 2.45)	12/31/2021	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
- LRAA – Locational 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
- TCR – Total Coliform Rule
- NTU – Nephelometric Turbidity Units
- SIRWA – Southern Iowa Rural Water Association

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. SIRWA 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
IA0140007	Greenfield Municipal Utilities

CONTACT INFORMATION

For questions regarding this information or how you can get involved in decisions regarding the water system, please contact Matt Schultz, SIRWA's Operations Manager at 641-782-5744 or at mschultz@sirwa.org.

PURCHASED WATER INFORMATION

Our water system purchases water from the City of Greenfield. Their water quality is as follows:

CONTAMINANT	MCL-(MCLG)	COMPLIANCE		DATE	VIOLATION	SOURCE
		Type	Value & Range			
Total Trihalomethanes (ppb) [TTHM]	80 (N/A)	LRAA	41.00 (31 - 58)	12/31/2021	No	By-products of drinking water chlorination
Total Haloacetic Acids (ppb) [NAA5]	60 (N/A)	LRAA	27.00 (17 - 38)	12/31/2021	No	By-products of drinking water disinfection
Lead (ppb)	AL=15 (0)	90th	5.00 (ND - 6)	2020	No	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	AL=1.3 (1.3)	90th	0.34 (ND - 0.36)	2020	No	Corrosion of household plumbing systems; Erosion of natural deposits
950 - DISTRIBUTION SYSTEM						
Chlorine (ppm)	MRDL=4.0 (MRDLG=4.0)	RAA	1.60 (1.15 - 2.09)	12/31/2021	No	Water additive used to control microbes
01 - GREENFIELD LAKE & WELLS 1-6						
Sodium (ppm)	N/A (N/A)	SGL	17	05/10/2021	No	Erosion of natural deposits; Added to water during treatment process
Fluoride (ppm)	4 (4)	SGL	0.79 (0.69 - 0.79)	2021	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories

Nitrate [as N] (ppm)	10 (10)	SGL	1.2	2021	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Total Organic Carbon (TOC)	N/A	TT	22.86 (22.86 – 49.09) % removed	2021 Monthly	No	Naturally present in the environment
Turbidity (NTU)	N/A (N/A)	TT	0.531 99.98% of Samples Meet Requirements	2021	No	Soil runoff
Atrazine (ppb)	NA (NA)	TT	0.10	11/16/2021	No	Runoff from herbicide used on row crops

SOURCE WATER ASSESSMENT INFORMATION

Greenfield Municipal Utilities obtains some of its water from shallow wells in alluvial aquifers along the Nodaway River west of Greenfield. These alluvial aquifers have been determined to be highly susceptible to contamination from agriculture runoff because the characteristics of the aquifers and the overlying materials provide little protection from contamination at the land surface. The Alluvial wells will be highly susceptible to surface contaminants such as leaking underground storage tanks, contaminant spills, and excess fertilizer application. Greenfield Municipal Utilities obtains the remainder of its water from Lake Greenfield & Nodaway Lake. A Source Water Assessment of these lakes has determined that both lakes are highly susceptible to contamination from agriculture runoff because they are surface water supplies.

OTHER INFORMATION

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

VIOLATIONS

None