

2022 WATER QUALITY REPORT FOR SIRWA – CORNING 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 Corning Municipal Water Department. 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	53.00 (38 - 75)	12/31/2022	No	By-products of drinking water chlorination
Total Haloacetic Acids (ppb) {HAA5}	60 (N/A)	LRAA	29.00 (20 - 44)	12/31/2022	No	By-products of drinking water chlorination
Total Haloacetic Acids (ppb) {HAA5}	60 (N/A)	LRAA	29.00 (18 - 43)	12/31/2022	No	By-products of drinking water chlorination
Copper (ppm)	AL=1.3 (1.3)	90th	0.39 (0.03 - 0.49)	2021	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	AL=15 (0)	90th	2.00 (ND - 15)	2021	No	Corrosion of household plumbing systems; erosion of natural deposits
950 - DISTRIBUTION SYSTEM						
Chlorine (ppm)	MRDL=4.0 (MRDLG=4.0)	RAA	2.53 (2.27 - 2.97)	12/31/2021	No	Water additive used to control microbes
Total Coliform Bacteria	TT (TT)	RTCR	1 sample(s) positive	11/30/2022	No	Coliforms are bacteria that are naturally present in the environment & are used as an indicator that other waterborne pathogens may be present, or that a potential pathway exists through which contamination may enter the drinking water.

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
- 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
IA0220075	Corning Municipal Utilities

CONTACT INFORMATION

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

PURCHASED WATER INFORMATION

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

CONTAMINANT	MCL –(MCLG)	Compliance		Date	Violation YES/NO	Source
		Type	Value and Range			
Lead (ppb)	AL=15 (0)	90th	1.7 (ND-2)	2020	NO	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	AL=1.3 (1.3)	90th	0.262 (0.0334 – 0.298)	2020	NO	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
E.coli (before treatment)	100 cfu/100ml	N/A	7.8 average (0-68)	Oct17-Sep2018	NO	Part of the LT2 Enhanced Surface Water Treatment Rule.
950 Distribution System						
Chlorine (ppm)	MRDL=4.0 (MRDLG=4.0)	RAA	2.8 (.42F-3.8T)	1/1/2022 to 12/31/2022	NO	Water additive used to control microbes
Chlorite	1.0 –(0.8)	SGL	(0.14-0.84)	1/1/2022 to 12/31/2022	NO	By-product of drinking water disinfection

Total Trihalomethane (TTHM) (ppb)	80 (N/A)	LRAA	59.00 (31-101)	12/31/2022	NO	By-products of drinking water chlorination
Haloacetic Acids (HAA5) (ppb)	60 (N/A)	LRAA	39.00 (24-58)	12/31/2022	NO	By-products of drinking water disinfection
Fluoride (ppm)	4.0 (4.0)	RAA	0.67 (0.42-1.02)	1/1/2022 to 12/31/2022	NO	Water additive, promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Total Coliform Bateria	TT (TT)	RTCR	ND	1/1/2022 to 12/31/2022	NO	Coliforms are bacteria that are naturally present in the environment and are used an indicator that other waterborne pathogens may be present, or that a potential pathway exists through which contamination may enter the drinking water.
02- Lake Icaria,	Binder, Reservoir	@	Water Plant			
Total Organic Carbon (TOC) (ppm)	N/A (N/A)	TT	Avg. Removed 36.11%	1/1/2022 to 12/31/2022	NO	Naturally present in the environment
Fluoride (ppm)	4.0 (4.0)	RAA	0.67 (0.42-1.02)	1/1/2022 to 12/31/2022	NO	Water additive, promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Barium (ppm)	2 - (2)	SGL	0.0917	01/18/2022	NO	Discharge of drilling wastes, metal refineries, erosion of natural deposits
Gross Alpha Inc, (pCi/L)	15 (0)	SGL	1.55	4/13/2021	NO	Erosion from natural deposits
Combined Radium (pCi/L)	5 (0)	SGL	<1.0	04/10/2018	NO	Erosion from natural deposits
Sodium (ppm)	N/A (N/A)	SGL	12.6	01/18/2022	NO	Erosion of natural deposits; Added to water during treatment process
Turbidity (NTU)	N/A (N/A)	TT	0.38 (97%)	1/1/2022 - 12/31/2022	NO	Soil runoff
Nitrate (as N) (ppm)	10 (10)	SGL	<0.1 mgl	4/19/2022	NO	Runoff from fertilizer, leaching from Septic Tanks, Erosion of natural deposits
Nitrate (as N) (ppm)	1 (1)	SGL	0.110 (ND-0.110)	2022	NO	Runoff from fertilizer, leaching from Septic Tanks, Sewage, Erosion of natural deposits

SOURCE WATER ASSESSMENT INFORMATION

The Corning Municipal Utilities water supply obtains water from one or more surface waters. Surface water sources are susceptible to sources of contamination with the drainage basin.

Surface Water Name	Susceptibility
Lake Icaria	High
Lake Binder	High
City Reservoir	High

OTHER INFORMATION

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

VIOLATIONS

NONE

2022 WATER QUALITY REPORT

FOR SIRWA- CRESTON DISTIBUTION 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 Creston Water Supply. 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	49.00 (31 - 69)	03/31/2022	No	By-products of drinking water chlorination
Total Haloacetic Acids (ppb) [HAA5]	60 (N/A)	LRAA	28.00 (23 – 33))	09/30/2022	No	By-products of drinking water disinfection
Lead (ppb)	AL=15 (0)	90th	1.00 (ND - 9)	2021	No	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	AL=1.3 (1.3)	90th	0.27 (0.01 -0.49)	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	2.42 (1.97 – 2.66)	12/31/2022	No	Water additive used to control microbes
Total Coliform Bacteria	TT (TT)	RTCR	1 sample positive	9/30/2022	No	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other waterborne pathogens may be present, or that a potential pathway exists through which contamination may enter the drinking water.

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

DEFINITIONS

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- 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
IA8816089	Creston Water Supply

CONTACT INFORMATION

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

PURCHASED WATER INFORMATION

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

CONTAMINANT	MCL - (MCLG)	Compliance		Date	Violation	Source
		Type	Value & (Range)			
Total Trihalomethanes (ppb) [TTHM]	80 (N/A)	LRAA	35.00 (21 - 55)	06/30/2022	No	By-products of drinking water chlorination
Total Haloacetic Acids (ppb) [HAA5]	60 (N/A)	LRAA	23.00 (17 - 30)	06/30/2022	No	By-products of drinking water disinfection
Total Haloacetic Acids (ppb) [HAA5]	60 (N/A)	LRAA	23.00 (17 - 28)	06/30/2022	No	By-products of drinking water disinfection
Lead (ppb)	AL=15 (0)	90th	11.00 (ND - 26) 1 sample(s) exceeded AL	2022	No	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	AL=1.3 (1.3)	90th	0.13 (ND - 0.21)	2022	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	3.0 (1.7 - 3.6)	12/31/2022	No	Water additive used to control microbes
Chlorite (ppm)	1.0 (0.8)	SGL	(0.15 - 0.74)	12/31/2022	No	Byproduct of drinking water disinfection
01 - TWELVE MILE LAKE @ WATER PLANT						

Fluoride (ppm)	4 (4)	SGL	0.68	11/12/2019	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Arsenic (ppb)	10 (0)	SGL	2.00	11/12/2019	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronic production wastes
Barium (ppm)	2 (2)	SGL	0.13	11/12/2019	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Sodium (ppm)	N/A (N/A)	SGL	14	01/05/2021	No	Erosion of natural deposits; Added to water during treatment process
Dalapon (ppb)	200 (200)	SGL	0.50	02/05/2018	No	Runoff from herbicide used on rights of way
02 - THREE MILE LAKE AFTR TRTMT @ WTR PLT						
Barium (ppm)	2 (2)	SGL	0.09	04/12/2022	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4 (4)	SGL	1.05 (0.44 – 1.05)	10/26/2022	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Arsenic (ppb)	10 (0)	SGL	0.10	04/12/2022	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronic production wastes
Sodium (ppm)	N/A (N/A)	SGL	12	04/12/2022	No	Erosion of natural deposits; Added to water during treatment process
Nitrate [as N] (ppm)	10 (10)	SGL	0.48	2022	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Atrazine (ppb)	3 (3)	RAA	ND	12/31/2022	No	Runoff from herbicide used on row crops
Dalapon (ppb)	200 (200)	SGL	0.40	04/04/2022	No	Runoff from herbicide used on rights of way
Turbidity (NTU)	N/A (N/A)	TT	1.136 NTU	08/31/2022	No	Soil runoff
Total Organic Carbon (TOC) [% removed]	N/A (N/A)	TT	32.76 (32.76 – 72.22)	08/02/2022	No	Naturally occurring organic matter

SOURCE WATER ASSESSMENT INFORMATION

This water supply obtains water from one or more surface waters. Surface water sources are susceptible to sources of contamination within the drainage basin.

Surface Water Name	Susceptibility
3 Mile Lake	high
12 Mile Lake	high

OTHER INFORMATION

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

VIOLATIONS

NONE

2022 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	69.00 (49 -87)	12/31/2022	No	By-products of drinking water chlorination
Total Haloacetic Acids (ppb) [HAA5]	60 (N/A)	LRAA	46.00 (31 - 64)	9/30/2022	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	2.25 (1.76 – 2.71)	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
- 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 Chad Mahan, SIRWA's Operations Manager at 641-782-5744 or at cmahan@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	48.00 (38 - 58)	9/30/2022	No	By-products of drinking water chlorination
Total Haloacetic Acids (ppb) [NAA5]	60 (N/A)	LRAA	32.00 (23 - 38)	9/30/2022	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	1.49 (1.27 - 1.77)	12/31/2021	No	Water additive used to control microbes
01 - GREENFIELD LAKE & WELLS 1-6						
Sodium (ppm)	N/A (N/A)	SGL	10	04/25/2022	No	Erosion of natural deposits; Added to water during treatment process
Fluoride (ppm)	4 (4)	SGL	1.21 (0.69 - 1.21)	2022	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Nitrate [as N] (ppm)	10 (10)	SGL	0.94	2022	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Barium (ppm)	2 (2)	SGL	0.15	4/25/2022	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Turbidity (NTU)	N/A (N/A)	TT	0.295 100.00% of Samples Meet Requirements	2022	No	Soil runoff
Atrazine (ppb)	3 (3)	SGL	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. A detailed evaluation of your source water was completed by the Iowa Department of Natural Resources and is available from the General Manager (641/743-2914). 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. The Howard R. Green Company completed a detailed evaluation of these surface water supplies and is available from the General Manager (641/743-2914).

OTHER INFORMATION

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

VIOLATIONS

None

2022 WATER QUALITY REPORT

FOR SIRWA – LEON 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 Leon Water Supply. 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 (48 - 74)	06/30/2022	No	By-products of drinking water chlorination
Total Haloacetic Acids (ppb) [HAA5]	60 (N/A)	LRAA	42.00 (33- 54)	06/30/2022	No	By-products of drinking water disinfection
Lead (ppb)	AL=15 (0)	90th	ND	2021	No	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	AL=1.3 (1.3)	90th	0.1 (0.01 - 0.11)	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	1.99 (1.85 - 2.26)	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

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- 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
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- Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
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- 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
IA2742076	Leon Water Supply

CONTACT INFORMATION

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

PURCHASED WATER INFORMATION

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

CONTAMINANT	MCL - (MCLG)	Compliance		Date	Violation Yes/No	Source
		Type	Value & (Range)			
Copper (ppm)	AL=1.3 (1.3)	90 th	0.10 (ND - 0.10)	2021	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	AL=15 (0)	90 th	11.00 (ND - 54) 1 sample(s) exceeded AL	2021	No	Corrosion of household plumbing systems; erosion of natural deposits
950 - DISTRIBUTION SYSTEM						
Chlorine (ppm)	MRDL=4.0 (MRDLG=4.0)	RAA	1.57 (0.76 – 2.05)	12/31/2022	No	Water additive used to control microbes
Total Trihalomethanes (ppb) [TTHM] – DB01	80 (N/A)	LRAA	82.25 (55 - 130)	8/3/2022	Yes	By-products of drinking water chlorination
Total Trihalomethanes (ppb) [TTHM] – DB02	80 (N/A)	LRAA	74.2 (39 - 96)	8/3/2022	No	By-products of drinking water chlorination
Total Haloacetic Acids (ppb) [HAA5] – DB01	60 (N/A)	LRAA	62.1 (38 - 47)	2/3/2022	Yes	By-products of drinking water disinfection
Total Haloacetic Acids (ppb) [HAA5] – DB02	60 (N/A)	LRAA	57.9 (24- 68)	8/3/2022	No	By-products of drinking water disinfection
Asbestos (MFL)	7	SGL	0.80	4/30/2019	No	Decay of asbestos cement in water mains; erosion of natural deposits
01 - FRM LITTLE RIVER AFTR TRMNT						
Arsenic (ppb)	10 (0)	SGL	2.0	7/6/2021	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronic production waste.
Fluoride (ppm)	4 (4)	SGL	0.96 (0.70 - 0.96)	9/6/2022	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Sodium (ppm)	N/A (N/A)	SGL	21	7/11/2022	No	Erosion of natural deposits; Added to water during treatment process

Nitrate [as N] (ppm)	10 (10)	SGL	0.51	1/4/2022	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Atrazine (ppb)	3 (3)	SGL	1.0	7/11/2022	No	Runoff from herbicide used on row crops
Dalapon (ppb)	200 (200)	SGL	2.5	6/21/2022	No	Runoff from herbicide used on rights of way
Turbidity (NTU)	N/A (N/A)	TT	3.07 97.6% of samples met the requirements	8/21/2022	No	Soil runoff
Total Organic Carbon (TOC) (ratio)	N/A	TT	1.40 (1.13 - 1.59)	12/2022	No	Naturally present in the environment

SOURCE WATER ASSESSMENT INFORMATION

This water supply obtains water from one or more surface waters. Surface water sources are susceptible to sources of contamination within the drainage basin.

Surface Water Name	Susceptibility
Little River Reservoir	High

OTHER INFORMATION

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

VIOLATIONS

Violation Type	Contaminate	Begin Date	End Date
Our water system violated a drinking water standard for Total Trihalomethanes (TTHM). Some people who drink water containing trihalomethanes in excess of the MCL over many years may have experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.			
MCL (Chem-Rad), Average	Total Haloacetic Acids (HAA5)	07/01/2022	09/30/2022

In February 2022 we failed to monitor for Haloacetic Acids (HAA5). Adverse health effects, if any, are not known. Monitoring procedures have been corrected to avoid future violations.

In February 2022 we failed to monitor for Total THM. Adverse health effects, if any, are not known. Monitoring procedures have been corrected to avoid future violations.

In August 2022 we had a Single Combined Filter Effluent (SWTR) violation for Turbidity.

In September 2022 we had a Single Combined Filter Effluent (SWTR) violation for Turbidity.

2022 WATER QUALITY REPORT FOR SIRWA – OSCEOLA 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 Osceola Water Works. 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	33.00 (12 - 56)	12/31/2022	No	By-products of drinking water chlorination
Total Haloacetic Acids (ppb) [HAA5]	60 (N/A)	LRAA	24.00 (11 - 35)	06/30/2022	No	By-products of drinking water disinfection
Copper (ppm)	AL=1.3 (1.3)	90th	0.22 (0.01 –0.30)	2021	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	AL=15 (0)	90th	2.00 (ND – 5)	2021	No	Corrosion of household plumbing systems; erosion of natural deposits
950 - DISTRIBUTION SYSTEM						
Chlorine (ppm)	MRDL=4.0 (MRDLG=4.0)	RAA	2.30 (2.21 – 2.47)	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
- 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

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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
IA2038038	Osceola Water Works

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 Chad Mahan, SIRWA's Operations Manager at 641-782-5744 or at cmahan@sirwa.org.

PURCHASED WATER INFORMATION

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

CONTAMINANT	MCL - (MCLG)	Compliance		Date	Violation	Source
		Type	Value & (Range)			
Total Trihalomethanes (ppb) [TTHM]	80 (N/A)	LRAA	28.00 (19 - 42)	01/12/2022	No	By-products of drinking water chlorination
Total Haloacetic Acids (ppb) [HAA5]	60 (N/A)	LRAA	23.00 (11 - 40)	01/12/2022	No	By-products of drinking water disinfection
Copper (ppm)	AL=1.3 (1.3)	90th	.12 (ND - 0.17)	2021	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	AL=15 (0)	90th	.002 (ND - .01)	2021	No	Corrosion of household plumbing systems; erosion of natural deposits
950 - DISTRIBUTION SYSTEM						
Chlorine (ppm)	MRDL=4.0 (MRDLG=4.0)	RAA	2.9 (2.11 - 3.7)	12/31/2022	No	Water additive used to control microbes

Total Coliform Bacteria	TT (TT)	RTCR	2 sample(s) positive	11/30/2022	No	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other waterborne pathogens may be present, or that a potential pathway exists through which contamination may enter the drinking water.
01 - S/EP FROM WEST LAKE						
Sodium (ppm)	N/A (N/A)	SGL	27	07/13/2022	No	Erosion of natural deposits; Added to water during treatment process
Turbidity (NTU)	N/A (N/A)	TT	.34 100 percentage of samples meet turbidity limits	8/1/22	No	Soil runoff
Fluoride (ppm)	4 (4)	SGL	.74 (.50 – 1.02)	09/01/2022	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Atrazine (ppb)	3 (3)	SGL	<.001	01/05/2022	No	Runoff from herbicide used on row crops
Nitrate [as N] (ppm)	10 (10)	SGL	<0.125	2022	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; erosion of natural deposits
Total Organic Carbon TOC ppm	N/A	TT	1.4 (1.05 – 1.86)	2022	No	Naturally present in the environment

SOURCE WATER ASSESSMENT INFORMATION

This water supply obtains water from one or more surface waters. Surface water sources are susceptible to sources of contamination within the drainage basin.

Surface Water Name	Susceptibility
West Lake	high

OTHER INFORMATION

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

VIOLATIONS

NONE