2022

ANNUAL DRINKING WATER QUALITY REPORT

GREATER RAMSEY WATER DISTRICT

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Greater Ramsey Water District (GRWD), as required by the federal Safe Drinking Water Act (SDWA), has prepared and is distributing to our customers the Annual Drinking Water Quality Report. This is our opportunity to share information on the quality of water we provide to your home, farm, apartment or business. In addition, this report is an educational tool that allows us to inform you of the source of our water, our treatment facilities, and processes. It is our daily goal to provide you with a safe and dependable supply of drinking water.

If you have questions regarding this report, please call Lonnie Lacina, manager of Greater Ramsey Water District, at (701) 662-5781 or toll-free (in state) at 888-223-0090. Questions will also be answered at our regularly scheduled board meetings held on the first Thursday of the month at 8 a.m., at the GRWD office, 113 Shamrock Lane SE in Devils Lake. Call for an appointment if you wish to be on the agenda at any meeting. If you are aware of non-English speaking individuals who need help with the appropriate language translation, call Lonnie Lacina at the number listed above.

GRWD requests that large volume customers post copies of this report in conspicuous locations or distribute them to tenants, residents, students, and/or employees, so individuals consuming the water, but not receiving a water bill can learn about our water system.

This report has required definition of terms, language requirements, tables of water quality data, and other pertinent information you will hopefully find interesting and educational.

A. Sources of Greater Ramsey Water District's water: We use two sources of water – "Ramsey Water" refers to the users that receive water from GRWD's treatment facilities or water purchased from the City of Devils Lake and/or Northeast Regional Water District to supplement the system during peak demands. "Carrington Water" refers to those users receiving water originating from the City of Carrington. Contact our office if you are unsure of the source of your water.

Ramsey Water: Greater Ramsey Water District uses three wells that draw from the Spiritwood Aquifer. Our treatment plant uses a process to remove the iron and manganese from the water. Prior to leaving the plant, chlorine is added for disinfection, fluoride to help prevent tooth decay, and a chemical to help prevent problems associated with lead and copper plumbing often present in older homes.

During times of peak usage, Greater Ramsey Water District purchases water from the City of Devils Lake and Northeast Regional Water District (source - City of Devils Lake) to supplement our water. The City of Devils Lake's wellfield is in proximity to GRWD's wells. Devils Lake treats its water in a similar process as GRWD.

Carrington Water: For users on the Carrington system, GRWD purchases water from the City of Carrington. Carrington uses three wells that draw from the Carrington Aquifer.

B. Source water assessment:

Ramsey Water: Our public water system, in cooperation with the North Dakota Department of Environmental Quality, has completed the delineation and contaminant/land use inventory elements of the North Dakota Source Water Protection Program. Based on the information from these elements, the

North Dakota Department of Environmental Quality has determined that our source water is not likely susceptible to potential contaminants. Information from the Wellhead Protection Plan is available for review at our office during normal business hours.

The City of Devils Lake also participates in the North Dakota Wellhead Protection Program. Based on the elements of the source water protection program, Devils Lake's well field is only moderately susceptible to potential contaminants. Devils Lake's Wellhead Protection report is on file at the city office and is available for review during its normal business hours.

Carrington Water: The City of Carrington participates in the Wellhead Protection Plan. Carrington, along with the North Dakota Department of Environmental Quality, has completed the delineation and contaminant/land use inventory elements of the North Dakota Source Water Protection Program. Based on the information from these elements, the North Dakota Department of Environmental Quality has determined Carrington's source water is susceptible to potential sources of contaminants. The City of Carrington has a Wellhead Protection Plan Report available at its office for review.

C . Contaminants which may reasonably be expected to be found in drinking water and bottled 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:

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 stormwater 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 stormwater 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 stormwater runoff, and septic systems.

Radioactive Contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

D . Some people are more vulnerable to contaminants:

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/Centers for Disease Control and Prevention (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).

E . Required Definitions:

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.

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.

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 that 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.

F . Table of Detected Regulated Contaminants

(The data presented is for 2018-2022 or the most recent in accordance with state and federal regulations.)

Key for Sections F and H

AL = Action Level

MCL = Maximum Contaminant Level

MCLG = Maximum Contaminant Level Goal

MRDLG = Maximum Residual Disinfectant Level Goal

MRDL = Maximum Residual Disinfectant Level

N/A = Not applicable

ND = None detected

pCi/L = picocuries per liter (a measure of radioactivity)

ppm = parts per million, or milligrams per liter (mg/l) – One part per million corresponds to one minute in 2 years or a single penny in $10,000

ppb = parts per billion, or micrograms per liter (µg/l) – One part per billion corresponds to one minute in 2,000 years, or a single penny in $10 million

obsvns = observations/field at 100 power

umho/cm = micromhos per centimeter (a measure of conductivity)

TT = treatment technique

Highest Compliance Level = The highest level of that contaminant used to determine compliance with a National Primacy Drinking Water Regulation.

Range of Detections = The lowest to the highest result value recorded during the required monitoring timeframe for systems with multiple entry points.

RTCR = Revised Total Coliform Rule

2022 TEST RESULTS FOR GREATER RAMSEY WATER DISTRICT

Inorganic Contaminants

	Violation Yes/No	Date	MCLG	MCL	Highest Compliance Level	Unit of Measurement	Range	Likely Source of Contamination
Nitrate-Nitrite	No	5-16-22	10	10	0.103	ppm	n/a	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits

Copper/Lead

Contaminant	Violation Yes/No	Date	# Samples	Action Level (AL)	90th Percentile	Samples Exceeded AL	Unit of Measurement	Likely Source of Contamination
Copper 90th Percentile	No	9-14-20	24	1.3	0.841	1*	ppm	Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives
Lead 90th Percentile	No	9-14-20	24	15	3.63	0	ppb	Corrosion of household plumbing systems, erosion of natural deposits

Number of sites that exceeded the action level for lead and copper – 1*

Radioactive Contaminants

	Violation Yes/No	Date	MCLG	MCL	Highest Compliance Level	Unit of Measurement	Range	Likely Source of Contamination
Gross Alpha, including RA, excluding RN & U	No	8-20-18	15	15	0.166	pCi/L	N/A	Erosion of natural deposits

Disinfectants

Contaminant	Violation Yes/No	Date	MCLG	MCL	Highest Compliance Level	Unit Measurement	Range	Likely Source of Contamination
Chlorine	No	2-28-22	MRDL = 4.0	MRDLG = 4	1.2	ppm	0.37 to 1.185	Water additive used to control microbes

Stage 2 Disinfection By-products (TTHM/HAA5)

Contaminant	System/ Site	Date	MCLG	MCL	Highest Compliance Level	Unit of Measurement	Range	Likely Source of Contamination
HAA5	System-wide	12-31-22		60	4	ppb	N/A	By-product of drinking water chlorination
TTHM	System-wide	12-31-22		80	71	ppb	N/A	By-product of drinking water chlorination

Bacteriological Monitoring Data – RTCR
Total Coliform Data: February had the highest number of Total Coliform Samples
Total Coliform Positives for that Month: 2

Assessment Data – RTCR

TYPE	DATE	REASON	COMPLETED
Level 2	2/7/2022	2nd Level 1 Assessment in 12 Months	Yes

Unregulated Contaminants

	Violation Yes/No	Date	MCLG	MCL	Level Detected	Unit of Measurement	Range	Likely Source of Contamination
Manganese	No	4/3/17			0.026	ppm	N/A	N/A

2022 TEST RESULTS FOR CITY OF DEVILS LAKE

Inorganic Contaminants

	Violation Yes/No	Date	MCLG	MCL	Highest Compliance Level	Unit of Measurement	Range	Likely Source of Contamination
Arsenic	No	4-5-21	0	10	4.29	ppb	N/A	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Nitrate-Nitrite	No	5-9-22	10	10	1.4	ppm	N/A	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits

Disinfectants

Contaminant	Violation Yes/No	Date	MCLG	MCL	Highest Compliance Level	Unit of Measurement	Range	Likely Source of Contamination
Chlorine	No	6-30-22	MRDL = 4.0	MRDLG = 4	0.9	ppm	0.31 to 0.7	Water additive used to control microbes

Stage 2 Disinfection By-products (TTHM/HAA5)

Contaminant	System/ Site	Date	MCLG	MCL	Highest Compliance Level	Unit of Measurement	Range	Likely Source of Contamination
HAA5	System-wide	12-31-22		60	9	ppb	N/A	By-product of drinking water chlorination
TTHM	System-wide	12-31-22		80	27	ppb	N/A	By-product of drinking water chlorination

Copper/Lead

Contaminant	Violation Yes/No	Date	# Samples	Action Level (AL)	90th Percentile	Samples Exceeded AL	Unit of Measurement	Likely Source of Contamination
Copper 90th percentile	No	8/20/21	22	1.3	0.615	0	ppm	Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives
Lead 90th percentile	No	8/20/21	22	15	6.76	2*	ppb	Corrosion of household plumbing systems, erosion of natural deposits

Number of sites that exceeded the action level for lead and copper – 2*

2022 TEST RESULTS FOR NORTHEAST REGIONAL WATER DISTRICT – LANGDON BRANCH

Disinfectants

Contaminant	Violation Yes/No	Date	MCLG	MCL	Highest Compliance Level	Unit of Measurement	Range	Likely Source of Contamination
Chlorine	No	7-31-22	MRDL = 4.0	MRDLG = 4	1.3	ppm	0.35 to 1.5	Water additive used to control microbes

Stage 2 Disinfection By-products (TTHM/HAA5)

Contaminant	System/ Site	Date	MCLG	MCL	Highest Compliance Level	Unit of Measurement	Range	Likely Source of Contamination
HAA5	System-wide	12-31-22		60	14	ppb	13.67 to 14.07	By-product of drinking water chlorination
TTHM	System-wide	12-31-22		80	28	ppb	25.19 to 27.81	By-product of drinking water chlorination

Copper/Lead

Contaminant	Violation Yes/No	Date	# Samples	Action Level (AL)	90th Percentile	Samples Exceeded AL	Unit of Measurement	Likely Source of Contamination
Copper 90th percentile	No	6/26/20	10	1.3	0.286	0	ppm	Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives
Lead 90th percentile	No	6/26/20	10	15	1.74	0	ppb	Corrosion of household plumbing systems, erosion of natural deposits

Number of sites that exceeded the action level for lead and copper – 0

2022 TEST RESULTS FOR CITY OF CARRINGTON

Copper/Lead

Contaminant	Violation Yes/No	Date	# Samples	Action Level (AL)	90th Percentile	Samples Exceeded AL	Unit of Measurement	Likely Source of Contamination
Copper 90th Percentile	No	9/22/21	10	1.3	ND	0	ppm	Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives
Lead 90th Percentile	No	9/22/21	10	15	3.56	0	ppb	Corrosion of household plumbing systems, erosion of natural deposits

Number of sites that exceeded the action level for lead and copper – 0

Inorganic Contaminants

Contaminant	Violation Yes/No	Level Detected	Range	Date (Year)	Unit of Measurement	MCLG	MCL	Likely Source of Contamination
Arsenic	No	3.86	N/A	2016	ppb	0	10	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
Barium	No	0.0156	N/A	2017	ppm	2	2	Discharge of drilling wastes, discharge from metal refineries, erosion of natural deposits
Fluoride	No	1.09	N/A	2017	ppm	4	4	Erosion of natural deposits, water additive which promotes strong teeth, discharge from fertilizer and aluminum factories
Nitrate-Nitrite	No	0.032	N/A	2022	ppm	10	10	Erosion of natural deposits, runoff from fertilizer use, leaching from septic tanks, sewage

2022 TEST RESULTS FOR CITY OF CARRINGTON *(cont.)*

Disinfectants

Contaminant	Violation Yes/No	Date	MCLG	MCL	Highest Compliance Level	Unit of Measurement	Range	Likely Source of Contamination
Chlorine	No	2022	MRDL = 4.0	MRDLG = 4	1.5	ppm	1.09 to 1.68	Water additive used to control microbes

Stage 2 Disinfection By-products (TTHM/HAA5)

Contaminant	System/ Site	Date	MCLG	MCL	Highest Compliance Level	Unit of Measurement	Range	Likely Source of Contamination
HAA5	System-wide	2022		60	14	ppb	6.39 to 13.85	By-product of drinking water chlorination
TTHM	System-wide	2022		80	69	ppb	35.53 to 69.42	By-produce of drinking water chlorination

2022 TEST RESULTS FOR GREATER RAMSEY WATER DISTRICT – CARRINGTON

Copper/Lead

Contaminant	Violation Yes/No	Date	# Samples	Action Level (AL)	90th Percentile	Samples Exceeded AL	Unit of Measurement	Likely Source of Contamination
Copper 90th Percentile	No	8/25/20	5	1.3	0.0162	0	ppm	Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives
Lead 90th Percentile	No	8/25/20	5	15	1.23	0	ppb	Corrosion of household plumbing systems, erosion of natural deposits

Number of sites that exceeded the action level for lead and copper – 0

Disinfectants

Contaminant	Violation Yes/No	Date	MCLG	MCL	Highest Compliance Level	Unit of Measurement	Range	Likely Source of Contamination
Chlorine	No	5-31-22	MRDL = 4.0	MRDLG = 4	1.2	ppm	0.01 to 1.5	Water additive used to control microbes

Stage 2 Disinfection By-products (TTHM/HAA5)

Contaminant	System/ Site	Date	MCLG	MCL	Highest Compliance Level	Unit of Measurement	Range	Likely Source of Contamination
HAA5	System-wide	12-31-22		60	ND	ppb	N/A	By-product of drinking water chlorination
TTHM	System-wide	12-31-22		80	1	ppb	N/A	By-product of drinking water chlorination

G. Violations:

As you can see by the tables, results from testing our water (the highest compliance level column) are lower for both the Ramsey and Carrington water systems than the amounts allowed (the MCL column). Our systems had **no violations.** We're proud that our drinking water meets or exceeds all federal and state requirements. We have learned through monitoring and testing that some contaminants have been detected. The EPA has determined that our water **IS SAFE** at these levels.

H. Health Effects Language

***Lead -** 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. Greater Ramsey Water District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. **Use water from the cold tap for drinking and cooking. 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 drinking 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.

***Copper** – Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

I. Revised Total Coliform Rule (RTCR) System Assessment – Ramsey Water

Our system is required to monitor for total coliform bacteria in our drinking water. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessments to identify problems and to correct any problems found during these assessments.

A Level 2 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. The Level 2 assessment is a comprehensive examination of the system and its monitoring and operational practices.

During the past year, we were required to conduct one Level 2 assessment. One Level 2 assessment was completed.

The Level 2 Assessment was triggered when one sample taken 2/7/2022 and one sample taken 2/15/2022 tested positive for total coliform bacteria. The assessment was completed on 3/1/2022.

Corrective Action: No sanitary defects were found.

Quality On Tap!

Our Commitment Our Profession