

# 2021 WATER QUALITY REPORT FOR EMMETSBURG MUNICIPAL WATER DEPARTMENT

This report contains important information regarding the water quality in our water system. The source of our water is groundwater. Our water quality testing shows the following results:

## GENERAL INFORMATION

Emmetsburg Municipal Utilities is pleased to present you this years Annual Water Quality Report. This report is designed to inform you about the quality water and services we provide to you every day. Included in this report are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. Our constant goal is to provide you with safe and a dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources.

If you have any questions or concerns about this report or concerning your water utility, please call 712-852-2550 (City Hall) or 712-852-2592 (Water Dept.) and ask for John Heddinger. We want our valued customers to be informed about their water utility. Our Utility Board meets on the 2<sup>nd</sup> & 4<sup>th</sup> Tuesday of each month at 7:00 a.m. in the Council Chambers of City Hall. Please feel free to participate in these meetings.

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. EMMETSBURG MUNICIPAL WATER DEPARTMENT 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 its water from 6 wells. Four of these municipal wells are at a depth of about 40 feet into the sand and gravel of the Alluvial aquifer. The Alluvial aquifer was determined to be highly susceptible to contamination because the characteristics of the aquifer and 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, industrial sites, wastewater discharges 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 Water Operator (John Heddinger) at 712-852-2592.

This water supply also obtains its water from two deep wells. The sandstone of the Dakota aquifer. These wells are at a depth of about 285 feet. The Dakota aquifer was determined to have low susceptibility to contamination because the characteristics of the aquifer and overlying materials provide natural protection from contaminants at the land surface. The Dakota wells will have low susceptibility 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 Water Operator at (John Hedding) at 712-852-2592.

These wells are located near the Emmetsburg Municipal Water Plant on the west side of town and near the Emmetsburg Municipal Fields. Emmetsburg Municipal Utilities owns the land around these wells and restricts any activity that could contaminate them. Once the water is pumped to the Water Plant, we treat it to remove several contaminants and add disinfectant to protect you against microbial contaminants. Emmetsburg Municipal Utilities also has a Well Head Protection Program around all these wells.

The Emmetsburg Municipal Utilities is making every effort to protect our water system from potential security threats. You, as customers can also help. If you notice any suspicious activity near the Water Treatment Plant, the water tower, any wells or fire hydrants, please contact us at 712-852-2550 (City Hall), 712-852-2592 (Water Plant), 712-480-2552 (Emergency on-call phone) or the local police/sheriff department. We appreciate your assistance in protecting the water system.

## WATER QUALITY DATA

The table below lists all the drinking water contaminants we detected during the 2020 calendar year. Contaminants with dates indicate results from the most recent testing done in accordance with regulations. However, some of the data, though representative of the water quality, is more than one year old. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done from January 1<sup>st</sup> – December 31<sup>st</sup>, 2020. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year.

CONTAMINANT	MCL - (MCLG)	Compliance		Date	Violation Yes/No	Source
		Type	Value & (Range)			
Total Trihalomethanes (ppb) [TTHM]	80 (N/A)	LRAA	2.86	08/12/2020	No	By-products of drinking water chlorination
Total Haloacetic Acids (ppb) [HAA5]	60 (N/A)	LRAA	7.20	08/12/2020	No	By-products of drinking water disinfection
Lead (ppb)	AL=15 (0)	90th	5.40 (ND - 9)	2018	No	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	AL=1.3 (1.3)	90th	0.982 (0.0563 - 1.200)	2018	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	2.5 (2.4 - 2.5)	12/31/2020	No	Water additive used to control microbes
Nitrite [as N] (ppm)	1 (1)	SGL	0.13	08/12/2020	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
01 - WELLS 1,4,5,6,7 OR 8/TRTMNT PLNT SINK						
Gross Alpha, inc (pCi/L)	15 (0)	SGL	3	10-26-2020	No	Erosion of natural deposits
Combined Radium (pCi/L)	5 (0)	SGL	1	11/07/2017	No	Erosion of natural deposits
Fluoride (ppm)	4 (4)	SGL	.59 (.38 – 59)	10-5-2020	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Selenium (ppb)	50 (50)	SGL	4.90	01/31/2018	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Arsenic (ppb)	10 (0)	SGL	2.20	01/31/2018	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronic production wastes
Barium (ppm)	2 (2)	SGL	0.0709	01/31/2018	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits

Sodium (ppm)	N/A (N/A)	SGL	54.6	01/31/2018	No	Erosion of natural deposits; Added to water during treatment process
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Note: Contaminants with dates indicate results from the most recent testing done in accordance with regulations.

## CONTAMINANTS

There are several contaminants that may be present in the source water before treatment:

- **Microbial contaminants**, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- **Inorganic contaminants**, such as salts and metals 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** may come from a variety of sources, such as agriculture and residential uses.
- **Radioactive contaminants** are naturally occurring.
- **Organic chemical contaminants**, including synthetic and volatile chemicals are by-products of industrial processes and petroleum production and can also come from gas stations, urban storm water runoff and septic systems.

In order to ensure that the tap water is safe to drink, EPA prescribes regulations which limits the amount of certain contaminants in the water provided by public water systems. We treat our water according to EPA's regulations. The Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health. We are pleased to report that our drinking water is safe and meets federal and state requirements.

## 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
- RTCR – Revised Total Coliform Rule
- NTU – Nephelometric Turbidity Units
- IDSE – Initial Distribution System Evaluation
- TT – Treatment Technique – A required process intended to reduce the level of a contaminant in drinking water

## CONTACT INFORMATION

For questions regarding this information or how you can get involved in decisions regarding the water system, please contact EMMETSBURG MUNICIPAL WATER DEPARTMENT at 712-852-2592.