

**CITY OF MANAWA  
PO BOX 248  
MANAWA WI 54949  
920-596-2577**

April 19, 2021

School District of Manawa  
800 Beech Street  
Manawa, WI 54949

**RE: ANNUAL WATER QUALITY REPORT**

Enclosed please find the annual water quality report that the City of Manawa is required to send to all water users by the Wisconsin Department of Natural Resources. Please be so kind as to post this report on your company bulletin boards or if you wish make copies to distribute to your employees. It is very important that this report is noticeable by your employees or the general public that visits your place of employment.

Thank you very much for your cooperation. If you have any questions please feel free to call me at 920-596-2577.

Sincerely,

Logan Hass, City Clerk

**2020 Consumer Confidence Report Data**  
**MANAWA WATERWORKS, PWS ID: 46903450**

**Water System Information**

If you would like to know more about the information contained in this report, please contact Joshua Smith at (920) 878-0547.

**Opportunity for input on decisions affecting your water quality**

The Manawa City Council meets on the Third Monday of each month at 6:00 pm at the Manawa Municipal Building.

**Health 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 poses a health risk. More information about contaminants and 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 systems 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 Environmental Protection Agency's safe drinking water hotline (800-426-4791).

**Source(s) of Water**

| Source ID | Source      | Depth (in feet) | Status |
|-----------|-------------|-----------------|--------|
| 2         | Groundwater | 73              | Active |
| 3         | Groundwater | 72              | Active |
| 4         | Groundwater | 75              | Active |
| 5         | Groundwater | 100             | Active |
| 6         | Groundwater | 107             | Active |

To obtain a summary of the source water assessment please contact, Joshua Smith at (920) 878-0547.

**Educational Information**

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 include:

- 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, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which shall provide the same protection for public health.

## Definitions

| <b>Term</b>        | <b>Definition</b>  |
|--------------------|--|
| AL                 | Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.  |
| Level 1 Assessment | A Level 1 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.  |
| Level 2 Assessment | A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine, if possible, why an E. coli MCL violation has occurred or why total coliform bacteria have been found in our water system, or both, on multiple occasions. |
| MCL                | Maximum Contaminant Level: 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.   |
| MCLG               | Maximum Contaminant Level Goal: 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.   |
| MFL                | million fibers per liter   |
| MRDL               | Maximum residual disinfectant level: 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.   |
| MRDLG              | Maximum residual disinfectant level goal: 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.                           |
| mrem/year          | millirems per year (a measure of radiation absorbed by the body)   |
| NTU                | Nephelometric Turbidity Units  |
| pCi/l              | picocuries per liter (a measure of radioactivity)  |
| ppm                | parts per million, or milligrams per liter (mg/l)  |
| ppb                | parts per billion, or micrograms per liter (ug/l)  |
| ppt                | parts per trillion, or nanograms per liter   |
| ppq                | parts per quadrillion, or picograms per liter  |
| TCR                | Total Coliform Rule  |
| TT                 | Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.   |

## Detected Contaminants

Your water was tested for many contaminants last year. We are allowed to monitor for some contaminants less frequently than once a year. The following tables list only those contaminants which were detected in your water. If a contaminant was detected last year, it will appear in the following tables without a sample date. If the contaminant was not monitored last year, but was detected within the last 5 years, it will appear in the tables below along with the sample date.

## Disinfection Byproducts

| Contaminant (units) | Site | MCL | MCLG | Level Found | Range | Sample Date (if prior to 2020) | Violation | Typical Source of Contaminant             |
|---------------------|------|-----|------|-------------|-------|--------------------------------|-----------|---|
| TTHM (ppb)          | 21   | 80  | 0    | 11.4        | 11.4  |                                | No        | By-product of drinking water chlorination |
| HAA5 (ppb)          | 22   | 60  | 60   | 5           | 5     |                                | No        | By-product of drinking                    |

| Contaminant (units) | Site | MCL | MCLG | Level Found | Range | Sample Date (if prior to 2020) | Violation | Typical Source of Contaminant |
|---------------------|------|-----|------|-------------|-------|--------------------------------|-----------|-------------------------------|
|                     |      |     |      |             |       |                                |           | water chlorination            |

### Inorganic Contaminants

| Contaminant (units)   | Site | MCL | MCLG | Level Found | Range           | Sample Date (if prior to 2020) | Violation | Typical Source of Contaminant  |
|-----------------------|------|-----|------|-------------|-----------------|--------------------------------|-----------|--|
| ARSENIC (ppb)         |      | 10  | n/a  | 7           | 1 - 7           |                                | No        | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes                                     |
| BARIUM (ppm)          |      | 2   | 2    | 0.051       | 0.042 - 0.051   |                                | No        | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits   |
| CHROMIUM (ppb)        |      | 100 | 100  | 2           | 0 - 2           |                                | No        | Discharge from steel and pulp mills; Erosion of natural deposits   |
| FLUORIDE (ppm)        |      | 4   | 4    | 1.3         | 0.1 - 1.3       |                                | No        | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories                  |
| NICKEL (ppb)          |      | 100 |      | 1.0000      | 0.4000 - 1.0000 |                                | No        | Nickel occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products. |
| NITRATE (NO3-N) (ppm) |      | 10  | 10   | 4.00        | 0.00 - 4.00     |                                | No        | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits  |
| SODIUM (ppm)          |      | n/a | n/a  | 100.00      | 18.00 - 100.00  |                                | No        | n/a  |

| Contaminant (units) | Action Level | MCLG | 90th Percentile Level Found | # of Results                                 | Sample Date (if prior to 2020) | Violation | Typical Source of Contaminant  |
|---------------------|--------------|------|-----------------------------|--|--------------------------------|-----------|--|
| COPPER (ppm)        | AL=1.3       | 1.3  | 0.5300                      | 0 of 10 results were above the action level. |                                | No        | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |
| LEAD (ppb)          | AL=15        | 0    | 7.60                        | 1 of 10 results were above the               |                                | No        | Corrosion of household plumbing systems; Erosion of natural  |

| Contaminant (units) | Action Level | MCLG | 90th Percentile Level Found | # of Results  | Sample Date (if prior to 2020) | Violation | Typical Source of Contaminant |
|---------------------|--------------|------|-----------------------------|---------------|--------------------------------|-----------|-------------------------------|
|                     |              |      |                             | action level. |                                |           | deposits                      |

#### Radioactive Contaminants

| Contaminant (units)              | Site | MCL | MCLG | Level Found | Range     | Sample Date (if prior to 2020) | Violation | Typical Source of Contaminant |
|----------------------------------|------|-----|------|-------------|-----------|--------------------------------|-----------|-------------------------------|
| GROSS ALPHA, EXCL. R & U (pCi/l) |      | 15  | 0    | 5.5         | 0.3 - 5.5 |                                | No        | Erosion of natural deposits   |
| RADIUM, (226 + 228) (pCi/l)      |      | 5   | 0    | 2.3         | 0.0 - 2.3 |                                | No        | Erosion of natural deposits   |
| GROSS ALPHA, INCL. R & U (n/a)   |      | n/a | n/a  | 8.7         | 0.0 - 8.7 |                                | No        | Erosion of natural deposits   |
| COMBINED URANIUM (ug/l)          |      | 30  | 0    | 4.7         | 1.1 - 4.7 |                                | No        | Erosion of natural deposits   |

#### Synthetic Organic Contaminants including Pesticides and Herbicides

| Contaminant (units) | Site | MCL | MCLG | Level Found | Range | Sample Date (if prior to 2020) | Violation | Typical Source of Contaminant           |
|---------------------|------|-----|------|-------------|-------|--------------------------------|-----------|---|
| ATRAZINE (ppb)      |      | 3   | 3    | 0.0         | 0.0   |                                | No        | Runoff from herbicide used on row crops |

#### Unregulated Contaminants

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. EPA required us to participate in this monitoring.

| Contaminant (units)      | Level Found | Range | Sample Date (if prior to 2020) |
|--------------------------|-------------|-------|--------------------------------|
| METOLACHLOR (DUAL) (ppb) | 0.01        | 0.01  |                                |

#### Additional Health Information

While your drinking water meets USEPA's standard for **arsenic**, it does contain low levels of arsenic. USEPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. USEPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

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. Manawa Waterworks 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 [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).