

For more than 140 years, Marshalltown Water Works has been committed to providing safe, high quality drinking water. As our customers and partners in the community, it is important for you to know where our water comes from, how we treat it, and that the quality continues to meet or exceed state and federal regulations. This report gives you an overview of our system from the source to your faucet.

We believe that the best way to demonstrate that your drinking water is safe and reliable is to provide you with the facts. The *Drinking Water Quality Report* on the second page of this publication lists U.S. Environmental Protection Agency (EPA) water quality regulations and the level of contaminants detected in our water last year.

If you want to learn more or if you have questions or comments, call us at (641) 753-7913 or visit our office at 205 E State Street. Marshalltown Water Works office hours are 8:00 a.m. to 5:00 p.m. weekdays. You may also obtain more information by visiting our website at www.marshalltownwater.com. Marshalltown Water Works Board of Trustee meetings are open to the public and normally held on the third Tuesday of each month at 205 E State St.

## SOURCE WATER AND TREATMENT

Drilled bedrock well

Wetland deposit

Marshalltown Water Works obtains its source water from wells located on the north side of the Iowa River, drawing water from the Pleistocene and Mississippian aquifers. The Pleistocene aquifer was determined to have low susceptibility to contamination

because the characteristics of the aquifer and overlying material provide natural protection from contaminants at the land surface. These buried sand and gravel wells will have low susceptibility to surface contaminants such as leaking underground storage tanks, contaminant spills, and excess fertilizer application. The Mississippian bedrock wells pull water through fractures in the rock and are somewhat susceptible to those contaminants as the characteristics of the aquifer and overlying materials provide some protection. A detailed evaluation of our source water was completed by the Iowa Department of Natural Resources and is available from the Marshalltown Water Works at (641) 753-7913.

Water-bearing tractures Image courtesy of Maine Geological Survey

Gravel-packed well

Fine sand & silt

Water table

Stream

The well water is pumped to the treatment plant where

it first goes through aeration to remove iron, radon, and hydrogen sulfide. It then travels to the softening basin for removal of the excess hardness and the remaining iron. The softened water is pH adjusted and flows to sand filters, where remaining very small particles are removed. Chlorine is added as a disinfectant and fluoride is added to prevent tooth decay before being pumped to the distribution system for your use.

Marshalltown Water Works staff collect samples hourly at the water plant and daily from the distribution system at various locations around the city to ensure the quality of the water supplied to you.

## **IMPORTANT HEALTH INFORMATION**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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.

In order to ensure that tap water is safe to drink, EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water that must provide the same protection for public health. Any bottled water that is labeled "drinking water" has to meet EPA's drinking water regulations. 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 EPA's Safe Drinking Water Hotline.

SAFE DRINKING WATER HOTLINE: 1-800-426-4791 or www.epa.gov/ground-water-and-drinking-water

## MARSHALLTOWN WATER WORKS 2022 DRINKING WATER QUALITY REPORT

Marshalltown Water Works strives to provide you with a safe, dependable supply of drinking water that is in compliance with the guidelines established by the Environmental Protection Agency (EPA). This report contains important information regarding the water quality in our water system. Results of water quality testing from our treatment plant and throughout our distribution system are provided below.



| ANALYTE   | MCLG        | MCL        | DETECTED<br>LEVEL | RANGE OF<br>DETECTION | VIOLATION | DATE<br>SAMPLED |
|---|-------------|------------|-------------------|-----------------------|-----------|-----------------|
| Lead (ppb)*<br>(90th percentile)  | 0           | AL = 15    | 2.00              | ND - 4                | No        | 2022            |
| TYPICAL SOURCE: Corrosion of household plumbing systems; Erosion of natural deposits  |             |            |                   |                       |           |                 |
| <b>Copper</b> (ppm) (90th percentile)   | 1.3         | AL = 1.3   | 0.01              | ND - 0.02             | No        | 2022            |
| TYPICAL SOURCE: Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives                    |             |            |                   |                       |           |                 |
| Fluoride (ppm)  | 4           | 4          | 0.83              | 0.62 - 0.83           | No        | 2022            |
| TYPICAL SOURCE: Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories |             |            |                   |                       |           |                 |
| Sodium (ppm)  | N/A         | N/A        | 16                | 15-16                 | No        | 2022            |
| TYPICAL SOURCE: Erosion of natural deposits; Added to water during treatment process  |             |            |                   |                       |           |                 |
| Chlorine (ppm)  | MRDLG = 4.0 | MRDL = 4.0 | 2.43 <sup>†</sup> | 2.38-2.43             | No        | 2022            |
| TYPICAL SOURCE: Water additive used to control microbes   |             |            |                   |                       |           |                 |

**NOTE**: The EPA requires monitoring of over 80 drinking water contaminants. Those listed above are the only contaminants detected in your drinking water. For a complete list or for questions about water analyses, contact the Marshalltown Water Works Treatment Plant at (641) 753-3997.

\* 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. Marshalltown Water Works 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 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 www.epa.gov/safewater/lead.

<sup>†</sup> These values are a Running Annual Average. A running annual average is determined by calculating the arithmetic average of quarterly compliance values covering any consecutive four quarter period.

## **DEFINITIONS**

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

**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.

**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.

**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.

**ppb** – Parts of contaminant per billion parts of water. One part per billion (ppb) is equivalent to a single penny in ten million dollars.

**ppm** – Parts of contaminant per million parts of water. One part per million (ppm) is equivalent to a single penny in ten thousand dollars.

N/A – Not applicable

ND - Not detected

RTCR - Revised Total Coliform Rule