2020
CONSUMER CONFIDENCE REPORT

Water quality has always been our primary concern at Ottumwa Water & Hydro. We believe that the best way to assure you that your drinking water is safe is to provide you with accurate facts. This Consumer Confidence Report will explain where your water comes from and the treatment process used to make it safe for drinking. The charts contained in this report will list the U.S. Environmental Protection Agency water quality regulations and the levels of contaminants detected in our water in 2019.

The Water Works completed several projects in 2019. Over 2.2 miles of water mains were replaced including significant sections of N. Elm, N. Jefferson and N. Marion Streets. In addition, several improvements were completed at the Water Treatment Plant. Most of our water main projects for 2020 will be done in conjunction with City sewer and street projects. Those joint projects include sections of E. Alta Vista Ave, S. Milner, E. Main Streetscape and several water mains as part of the Blake's Branch Sewer Separation Project. Water Works projects include a significant portion of E. Highland Ave and several smaller projects. After several years of planning and design, we will be starting our Lime Residuals Improvement Project. This $6 million project is expected to take two years to complete and will improve our lime waste process and provide for system redundancy. We are continuing to evaluate the impact of high nitrate levels in the Des Moines River and how we are going to address that issue. The goal and commitment of the Ottumwa Water & Hydro Board of Trustees, management and staff is to meet the needs of our community for safe drinking water now and into the future.

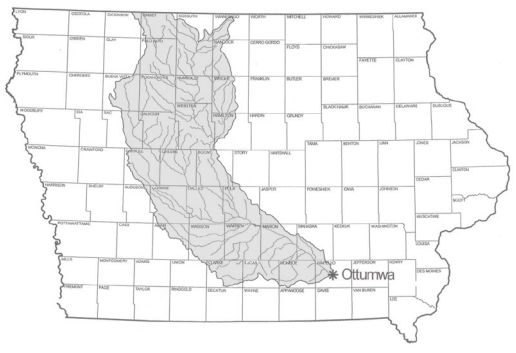
WHERE DOES MY WATER COME FROM?

The source of your water supply is the Des Moines River and the Ottumwa Reservoir. The Ottumwa Water & Hydro operates a low head hydro-electric generation facility that dams the Des Moines River, creating a reservoir of source water for our public water supply.

SOURCE WATER ASSESSMENT

An assessment of the Des Moines River watershed was completed in 2002. The assessment identifies and prioritizes potential sources of contamination in the Des Moines River Watershed. The susceptibility of these water sources is high. These potential sources include, but are not limited to: soil erosion, chemicals such as fertilizer and pesticides, animal agriculture, wastewater treatment facilities - including septic systems, and petroleum products. To view the Source Water Assessment, contact Ottumwa Water & Hydro at (641) 684-4606.

WATERSHED MAP



QUALITY TAP WATER

FOR MORE INFORMATION on this Consumer Confidence Report or other water quality concerns, please contact:

Ottumwa Water & Hydro
230 Turner Drive
Ottumwa, Iowa 52501
Phone: (641) 684-4606
Fax: (641) 682-3269

Public meeting information:
We encourage our customers to attend and participate in the meetings of our water utility. The Ottumwa Water & Hydro five-member Board of Trustees meets on the third Tuesday of each month at 4:00 p.m. Board meetings are open to the public.

Ottumwa Water & Hydro
230 Turner Drive
Ottumwa, Iowa 52501
Phone: (641) 684-4606

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

Many customers wish to know if bottled water is safer than regular tap water. The Food and Drug Administration (FDA) establishes limits for contaminants in bottled water that must provide the same protection for public health. Any bottled water labeled "drinking water" must 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 a contaminant does not necessarily indicate that water poses a health risk.

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. Ottumwa Water and Hydro 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 about 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.

More information about contaminants and potential health effects can be obtained by contacting the:

EPA's Safe Drinking Water Hotline, 1-800-426-4791 or http://water.epa.gov/drink

AWWA Safe Drinking Water Website—www.drinktap.org

Drinking Water and Health Information from the EPA

To ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemo-therapy, 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 from their health care providers about drinking water. The EPA and Centers for Disease Control 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).

2019 Water Quality Results—Ottumwa Water & Hydro

ANALYTE	MCLG	MCL	LEVEL DETECTED	RANGE OF DETECTION	VIOLATION YES/NO	YEAR SAMPLED	SOURCES OF CONTAMINANT
TREATED WATER							
Turbidity (NTU)	N/A	0.3	0.17	0.04 - 0.17 (100% met limits)	No	2019	Soil runoff
Fluoride (ppm)	4	4	0.44 RAA	0.28 - 1.09	No	2019	Additive to promote strong teeth; discharge from fertilizer and aluminum factories; erosion of natural deposits
Nitrate [as N] (ppm)	10	10	6.5	0.5 - 6.5	No	2019	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	N/A	N/A	23.1	N/A	No	2019	Erosion of natural deposits; added to water during treatment process
Atrazine (ppb)	3	3	0.44	N/A	No	2019	Runoff from herbicide used on row crops
Total Trihalomethane (ppb)	N/A	80	57 LRAA	18.4 - 58.1	No	2019	Byproduct of treatment process
Total Haloacetic Acids (ppb)	N/A	60	29 LRAA	10.1 - 37.3	No	2019	Byproduct of treatment process
DISTRIBUTION SYSTEM							
Chlorine (ppm)	MRDLG = 4	MRDL = 4	2.53 RAA	1.16 - 3.22 MRDL	No	2019	Additive used to control microbes
Total Coliform Bacteria (number of positive samples)	TT	TT	1 sample positive	ND - 1	No	2019	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. (RTCR)
AT CUSTOMER TAP							
Copper (ppm) (90th percentile)	0	AL = 1.3	0.0332	ND - 0.0667	No	2019	Corrosion of home plumbing; erosion of natural deposits
Lead (ppb) (90th percentile)	0	AL = 15	2	ND - 7	No	2019	Corrosion of home plumbing; erosion of natural deposits

ANALYTE	REMOVAL RATIO REQUIRED	MCL	REMOVAL RATIO ACHIEVED		VIOLATION YES/NO	YEAR SAMPLED	SOURCES OF CONTAMINANT
SOURCE WATER BEFORE TREATMENT							
Total Organic Carbon	≥ 1.0	TT	1.54 - 3.72		No	2019	Naturally present in the environment

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, contact Ottumwa Water & Hydro.

UNREGULATED CONTAMINANTS

The U.S. Environmental Protection Agency required cities our size to take samples in 2019 for an assessment monitoring program for the Unregulated Contaminant Monitoring Rule (UCMR). Detection levels were set at the parts per billion range (ppb). The EPA will review the findings of this nationwide assessment to determine if any new regulations are needed. The contaminants detected in our testing are listed below.

LOCATION	CONTAMINANT	HIGHEST DECECTED LEVEL	UTILITY RANGE
SOURCE ENTRY POINT	Manganese	1.94	1.69 - 1.94
DISTRIBUTION SYSTEM	HAA5 (ppb)	21.91	14.41 - 21.91
	HAA6Br (ppb)	7.87	4.54 - 7.87
	HAA9 (ppb)	26.88	19.48 - 26.88

Definitions

Action Level (AL) » The concentration of a contaminant that, if exceeded, triggers a treatment or other requirement that a water system must follow.

Contaminant » Any physical, chemical, biological or radiological substance or matter in water. The presence of contaminants does not necessarily indicate that the water poses a health risk.

Distribution System » The network of piping that delivers water from the treatment plant to customers. It is built and maintained to provide water with adequate quality, quantity and pressure to meet customer needs.

Maximum Contaminant Level (MCL) » The highest level of a contaminant 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.

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.

N/A » Not applicable

ND » Not detected at testing limit

NTU » Nephelometric Turbidity Units

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.

RAA » Running Annual Average

RTCR » Revised Total Coliform Rule

Source Entry Point » The point where water enters the distribution system after it has been treated by your water utility.

TT » Treatment Technique - A required process intended to reduce the level of contaminant in drinking water.

Cryptosporidium

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes it, the commonly-used filtration methods cannot guarantee 100% removal. Ottumwa Water and Hydro has installed ultraviolet disinfection treatment which kills these organisms if any were to get past regular treatment/filtration. Our monitoring indicates the presence of these organisms in our source water. We conducted supplemental monitoring as part of the Long Term 2 Enhanced Surface Water Treatment Rule (LT2). The LT2 Rule builds on earlier rules to address the risk to public water systems for protection beyond current requirements. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immunocompromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. Immunocompromised individuals should consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

Additional Information

Chlorine Disinfectant » The most common drinking water treatment is disinfection. Disinfection is considered to be the primary mechanism to kill bacteria and other germs to prevent the spread of waterborne diseases. Chlorine is the most widely used disinfectant.

Disinfectants combine with organic and inorganic matter present in water to form chemicals called disinfection byproducts. EPA sets standards for controlling the levels of disinfectants and disinfection byproducts in drinking water. The water quality chart in this report reflects these standards and the utility's ability to meet those standards.

Fluoride » Some fluoride is naturally present in the source water. The amount is carefully monitored every day, so optimum concentration is maintained. If you have concerns about fluoride, you should discuss this topic with your dentist and doctor.

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