



# 2022 WATER QUALITY REPORT

A regional publication on the source, treatment and distribution of water provided by Des Moines Water Works.

**LEADING AND ADVOCATING FOR WATER YOU CAN TRUST FOR LIFE.** That's our mission at Des Moines Water Works and one we work toward each and every day. We're there when 600,000 central Iowans need us to provide them with safe, affordable and abundant drinking water.

Des Moines Water Works' role as an advocate is even more important as we continue to face source water quality challenges from toxins and human-made chemicals combined with climate change and increased drought. As a regional drinking water utility, we continually invest in the critical infrastructure needed to treat source water and make it safe for drinking for the residents of Des Moines and the surrounding communities. We encourage all water users to **Think Downstream** about their actions and the effects they have on our precious natural resource.

In order to ensure drinking water is safe, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. This Consumer Confidence Report summarizes information regarding water sources used, any detected contaminants, compliance and educational information.

**Des Moines** :  
**Water Works**  
Water You Can Trust for Life

# WHERE DOES YOUR WATER COME FROM?

The Raccoon and Des Moines Rivers are used to provide drinking water to more than 600,000 central Iowans. Upstream land use practices – agricultural and urban – have a direct effect on water quality and quantity for downstream users. All Iowans should **Think Downstream** and consider how they can help make Iowa's water safe for drinking and recreation.



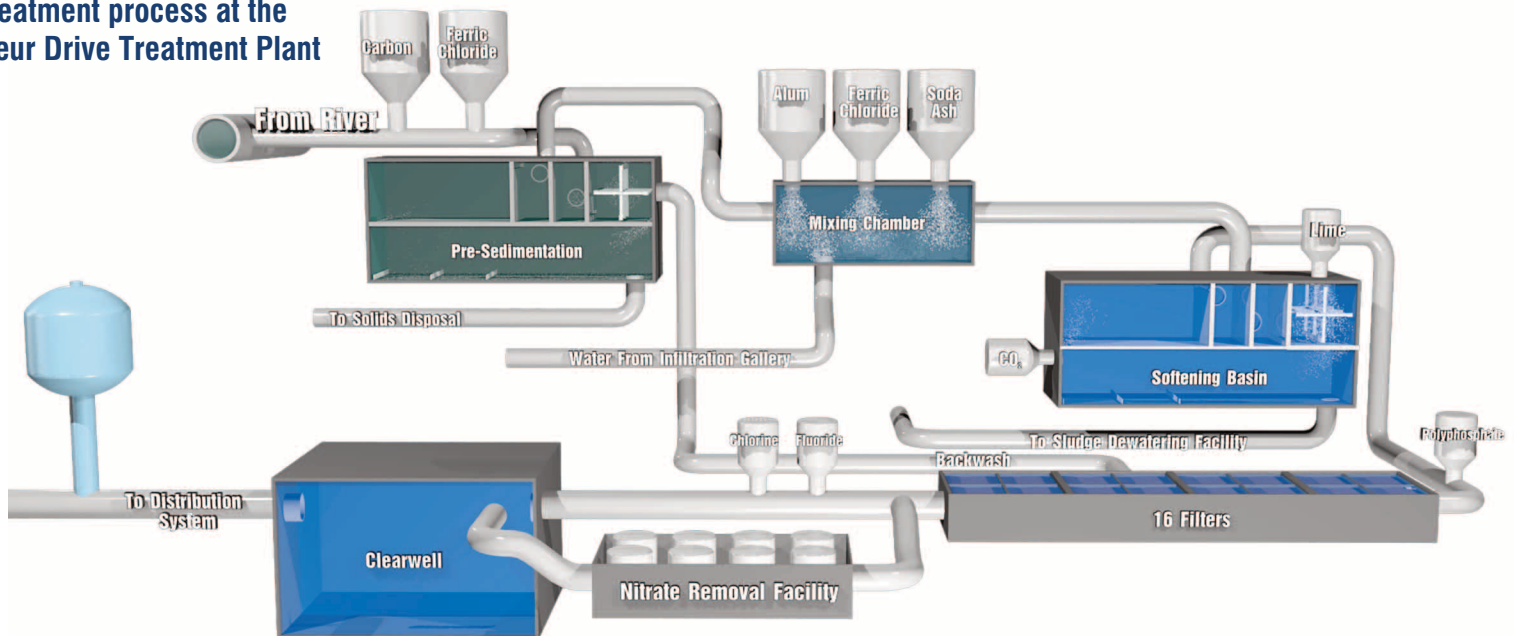
Des Moines Water Works (DMWW) operates three water treatment plants in central Iowa. Each treatment plant involves a multi-barrier approach to ensure the safety of your drinking water. This includes source water monitoring, riverbank filtration, treatment processes of softening, filtration and disinfection, as well as distribution system monitoring and maintenance.

The **L.D. McMullen Water Treatment Plant** at Maffitt Reservoir, located southwest of the metro area, treats up to 25 million gallons of water from six radial collector wells and one horizontal well along the Raccoon River, and serves customers in southwest Des Moines, Waukee and parts of Warren Water District, Clive, Urbandale and West Des Moines. The collection elements are located in the coarse sand and gravel formation beneath the river. The shallow groundwater receives natural filtration prior to entry into the wells.

**Saylorville Water Treatment Plant**, located in northern Polk County, serves water to residents north of Des Moines. This facility treats up to 10 million gallons of water from two radial collector wells along the Des Moines River and utilizes ultra-filtration and reverse osmosis to soften and treat the water.

All other areas in Des Moines Water Works' service area receive water from the **Fleur Drive Treatment Plant**. This plant treats up to 75 million gallons of water pumped from one of three sources: Raccoon River, Des Moines River and an Infiltration Gallery (a series of underground pipes located throughout Water Works Park adjacent to the Raccoon River).

## Treatment process at the Fleur Drive Treatment Plant



Once treated, 1,400 miles of underground pipe, 10,000 fire hydrants, 9,700 valves, 10 water storage tanks and 10 booster pumping stations distribute water to homes and businesses in Des Moines and surrounding communities

## WHAT DO WE TEST FOR?

Throughout the treatment process, DMWW's state-certified laboratory performs 100-150 tests each day to ensure the highest quality water is produced. An additional series of 50-60 daily tests on the untreated water sources allows laboratory staff to identify any necessary changes needed in the treatment process before the water enters the treatment plants.

DMWW monitors and tests for emerging and unregulated contaminants to stay ahead of potential health risks, including cyanotoxins produced by cyanobacteria, Per- and Poly-fluoroalkyl Substances (PFAS), neonicotinoids, and pharmaceutical and personal care products (PPCP).

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 material and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or humans. Contaminants that may be present in source water include:

**Inorganic Contaminants** such as salts and metals, which can occur naturally or come from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

**Organic Chemicals** including synthetic and volatile organic chemicals, which are agriculture, industrial and petroleum process byproducts and can also come from gas stations, urban stormwater runoff and septic systems.

**Microorganisms** such as viruses and bacteria, which may come from agricultural livestock operations, sewage treatment plants, septic systems and wildlife.

**Pesticides and Herbicides** which may come from agriculture and urban stormwater runoff.

**Radioactive Contaminants** which can occur naturally or result from oil and gas production and mining activities.



## DEFINITIONS AND ABBREVIATIONS

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

**Coliform** 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 (RTCR).

**E.Coli** Bacteria whose presence indicates that the water may be contaminated with human or animal wastes.

**Level Found** The highest amount found in the water or the average of all samples analyzed, depending on the regulation. If multiple samples were tested in 2021, the lowest and highest detected values are listed under Range of Detections.

**LRAA** Locational running annual average.

**mg/L** Milligrams per liter, or parts per million (ppm). Parts of contaminant per million parts of water. One part per million is equivalent to a single penny in ten thousand dollars.

**MCL** The maximum contaminant level, the highest level of a substance allowed in drinking water.

**MCLG** The MCL Goal, the level of a substance where there is no known or expected health risk. MCLGs allow for a margin of safety. MCLs are set as close to MCLGs as feasible using the best available treatment processes.

**NA** Not applicable.

**ND** Not detected.

**ng/L** Nanogram per liter, or parts per trillion (ppt). Parts of contaminant per trillion parts of water. One part per trillion is equivalent to a single penny in ten billion dollars.

**NTU** Nephelometric turbidity units.

**pCi/L** Picocuries per liter, a measure of radioactivity.

**RTCR** Revised Total Coliform Rule

**TT** Treatment Technique. Certain treatment processes are required to reduce the level of turbidity in the drinking water. Turbidity must not ever exceed 1 NTU, and must be less than 0.3 NTU 95% of the time.

**Turbidity** Turbidity is a measure of cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

**µg/L** Micrograms per liter, or parts per billion (ppb). Parts of contaminant per billion parts of water. One part per billion is equivalent to a single penny in ten million dollars.

# 2021 WATER QUALITY RESULTS

## Water Treatment Plant Monitoring

Before water can be delivered to your home, it must first be analyzed by certified laboratories at Des Moines Water Works' Fleur Drive Treatment Plant and the State Hygienic Laboratory. Results for 2021 in this report include samples taken as water leaves Des Moines Water Works' three treatment plants and from samples obtained from the various water distribution systems supplied with water by Des Moines Water Works.

| 2021 LAB RESULTS                | UNITS | MCL | MCLG | Fleur Drive Treatment Plant |                      |                             | L.D. McMullen Water Treatment Plant |                      |                             | Saylorville Water Treatment Plant |                      |                             | COMMON SOURCES OF CONTAMINANT   |
|---------------------------------|-------|-----|------|-----------------------------|----------------------|-----------------------------|-------------------------------------|----------------------|-----------------------------|-----------------------------------|----------------------|-----------------------------|---|
|                                 |       |     |      | YEAR TESTED                 | LEVEL FOUND          | RANGE OF DETECTIONS         | YEAR TESTED                         | LEVEL FOUND          | RANGE OF DETECTIONS         | YEAR TESTED                       | LEVEL FOUND          | RANGE OF DETECTIONS         |   |
| <b>WATER CLARITY</b>            |       |     |      |                             |                      |                             |                                     |                      |                             |                                   |                      |                             |   |
| Turbidity                       | NTU   | TT  | NA   | 2021                        | 0.13                 | ND-0.13                     | 2021                                | 0.19                 | 0.02-0.19                   | 2021                              | 0.22                 | 0.02-0.22                   | Soil runoff   |
| <b>ORGANIC SUBSTANCES</b>       |       |     |      |                             |                      |                             |                                     |                      |                             |                                   |                      |                             |   |
| Atrazine                        | µg/L  | 3   | 3    | 2019                        | 0.10                 | N/A                         | 2019                                | ND                   | N/A                         | 2020                              | ND                   | N/A                         | Agriculture activity  |
| Cis-1,2 Dichloroethylene        | µg/L  | 70  | 70   | 2021                        | 0.60                 | ND-0.60                     | 2019                                | ND                   | N/A                         | 2020                              | ND                   | N/A                         | Discharge from industrial chemical factories  |
| <b>INORGANIC SUBSTANCES</b>     |       |     |      |                             |                      |                             |                                     |                      |                             |                                   |                      |                             |   |
| Barium                          | mg/L  | 2   | 2    | 2021                        | ND                   | N/A                         | 2021                                | ND                   | N/A                         | 2021                              | 0.07                 | N/A                         | Metal refinery and drilling waste discharge; erosion of natural deposits                    |
| Fluoride                        | mg/L  | 4   | 4    | 2021                        | 0.83                 | 0.14-0.83                   | 2021                                | 0.93                 | 0.15-0.93                   | 2021                              | 0.76                 | ND-0.76                     | Additive for strong teeth; erosion of natural deposits; discharge from fertilizer factories |
| Nitrate [as N]                  | mg/L  | 10  | 10   | 2021                        | 4.39                 | ND-4.39                     | 2021                                | 2.67                 | 0.06-2.67                   | 2021                              | 0.54                 | ND-0.54                     | Agriculture activity; leaching from septic tanks; sewage; erosion of natural deposits       |
| Sodium                          | mg/L  | N/A | N/A  | 2021                        | 86.0                 | 17.7-86.0                   | 2021                                | 38.7                 | 15.6-38.7                   | 2021                              | 22.3                 | 16.5-22.3                   | Erosion of natural deposits   |
| <b>RADIOACTIVE CONTAMINANTS</b> |       |     |      |                             |                      |                             |                                     |                      |                             |                                   |                      |                             |   |
| Alpha Emitters                  | pCi/L | 15  | 0    | 2019                        | ND                   | N/A                         | 2021                                | ND                   | N/A                         | 2020                              | ND                   | N/A                         | Erosion of natural deposits of certain minerals   |
| Combined Radium                 | pCi/L | 15  | 0    | 2021                        | ND                   | N/A                         | 2018                                | ND                   | N/A                         | 2020                              | ND                   | N/A                         | Erosion of natural deposits   |
|                                 |       |     |      | YEAR TESTED                 | ANNUAL REMOVAL RATIO | MINIMUM REMOVAL REQUIREMENT | YEAR TESTED                         | ANNUAL REMOVAL RATIO | MINIMUM REMOVAL REQUIREMENT | YEAR TESTED                       | ANNUAL REMOVAL RATIO | MINIMUM REMOVAL REQUIREMENT | COMMON SOURCES OF CONTAMINANT   |
| <b>TREATMENT PLANT</b>          |       |     |      |                             |                      |                             |                                     |                      |                             |                                   |                      |                             |   |
| Total Organic Carbon            | mg/L  | TT  | NA   | 2021                        | 3.58                 | 1                           | 2021                                | 2.46                 | 1                           | 2021                              | 3.56                 | 1                           | Naturally present in the environment  |

DES MOINES WATER WORKS operates three Aquifer Storage and Recovery (ASR) wells and the CITY OF ANKENY operates two ASR wells. Treated drinking water is injected into wells during cold weather months, and recovered for use during warm-weather months to help limit the use of poor quality source water and meet customer demand. Testing data unique to this water can be seen on the chart below.

| 2021 ASR LAB RESULTS      | UNITS                                | MCL | MCLG | Louise P. Moon ASR Well   |   |                     | L.D. McMullen ASR Well |                  |   | Army Post Road ASR Well |             |                             | Ankeny ASR Well 4                    |             |                     | Ankeny ASR Well 6 |             |                     |
|---------------------------|--------------------------------------|-----|------|---------------------------|---|---------------------|------------------------|------------------|---|-------------------------|-------------|-----------------------------|--------------------------------------|-------------|---------------------|-------------------|-------------|---------------------|
|                           |                                      |     |      | YEAR TESTED               | LEVEL FOUND   | RANGE OF DETECTIONS | YEAR TESTED            | LEVEL FOUND      | RANGE OF DETECTIONS   | YEAR TESTED             | LEVEL FOUND | RANGE OF DETECTIONS         | YEAR TESTED                          | LEVEL FOUND | RANGE OF DETECTIONS | YEAR TESTED       | LEVEL FOUND | RANGE OF DETECTIONS |
| <b>PARAMETER</b>          |                                      |     |      |                           |   |                     |                        |                  |   |                         |             |                             |                                      |             |                     |                   |             |                     |
| Alpha Emitters            | pCi/L                                | 15  | 0    | 2021                      | ND  | N/A                 | 2021                   | 2.90             | N/A   | 2021                    | 9.20        | N/A                         | 2021                                 | 6.20        | N/A                 | 2021              | 8.60        | N/A                 |
| Arsenic                   | µg/L                                 | 10  | N/A  | 2021                      | 1.00  | ND-1.00             | 2021                   | 1.00             | ND-1.00   | 2021                    | 3.00        | 2.00-3.00                   | 2021                                 | 1.00        | ND-1.00             | 2021              | 1.00        | ND-1.00             |
| Atrazine                  | µg/L                                 | 3   | 3    | 2021                      | ND  | N/A                 | 2021                   | ND               | N/A   | 2021                    | ND          | N/A                         | 2021                                 | ND          | N/A                 | 2021              | ND          | N/A                 |
| Combined Radium           | pCi/L                                | 5   | 0    | 2021                      | 1.10  | N/A                 | 2021                   | ND               | N/A   | 2021                    | 1.50        | N/A                         | 2021                                 | 1.50        | N/A                 | 2021              | 3.00        | N/A                 |
| Di(2-ethylhexyl)phthalate | µg/L                                 | 6   | 0    | 2021                      | ND  | N/A                 | 2021                   | ND               | N/A   | 2021                    | ND          | N/A                         | 2021                                 | ND          | N/A                 | 2021              | ND          | N/A                 |
| Fluoride                  | mg/L                                 | 4   | 4    | 2021                      | 1.54  | 0.57-1.54           | 2021                   | 0.93             | 0.25-0.93   | 2021                    | 1.61        | 0.74-1.61                   | 2021                                 | 1.20        | 0.83-1.20           | 2021              | 1.20        | 0.77-1.20           |
| Nitrate [as N]            | mg/L                                 | 10  | 10   | 2021                      | 1.80  | 1.36-1.80           | 2021                   | 1.98             | 0.06-1.98   | 2021                    | 1.77        | 0.56-1.77                   | 2021                                 | 3.50        | ND-3.50             | 2021              | 2.60        | 0.24-2.60           |
| Sodium                    | mg/L                                 | N/A | N/A  | 2021                      | 83.2  | 21.0-83.2           | 2021                   | 38.7             | 15.6-38.7   | 2021                    | 74.8        | 28.0-74.8                   | 2021                                 | 49.0        | 19.0-49.0           | 2021              | 55.0        | 21.0-55.0           |
| <b>PARAMETER</b>          | <b>COMMON SOURCES OF CONTAMINANT</b> |     |      | <b>PARAMETER</b>          | <b>COMMON SOURCES OF CONTAMINANT</b>  |                     |                        | <b>PARAMETER</b> | <b>COMMON SOURCES OF CONTAMINANT</b>  |                         |             | <b>PARAMETER</b>            | <b>COMMON SOURCES OF CONTAMINANT</b> |             |                     |                   |             |                     |
| Alpha Emitters            | Erosion of natural deposits          |     |      | Combined Radium           | Erosion of natural deposits   |                     |                        | Nitrate [as N]   | Agriculture activity; leaching from septic tanks; sewage; erosion of natural deposits |                         |             |                             |                                      |             |                     |                   |             |                     |
| Arsenic                   | Erosion of natural deposits          |     |      | Di(2-ethylhexyl)phthalate | Discharge from chemical factories   |                     |                        |                  |   |                         |             |                             |                                      |             |                     |                   |             |                     |
| Atrazine                  | Agriculture activity                 |     |      | Fluoride                  | Additive for strong teeth; erosion of natural deposits; discharge from fertilizer factories |                     |                        |                  |   |                         | Sodium      | Erosion of natural deposits |                                      |             |                     |                   |             |                     |

## Water Distribution System Monitoring

Once the water leaves Des Moines Water Works' water treatment facilities, it is regularly monitored throughout the numerous distribution systems served by Des Moines Water Works for disinfectant, disinfection byproducts, bacteria, lead and copper. The table below shows the results of this monitoring.

| 2021 DISTRIBUTION RESULTS | Total Trihalomethanes (TTHM) (µg/L)                              |                     | Haloacetic Acids (HAA5) (µg/L)                                   |                     | Lead (µg/L)  |                                   |                     | Copper (mg/L)   |                                   |                     | Coliform Bacteria (positive)                                     |                  | Chlorine Disinfectant (mg/L)  |           |
|---------------------------|--|---------------------|--|---------------------|--|-----------------------------------|---------------------|---|-----------------------------------|---------------------|--|------------------|---|-----------|
|                           | Level Found  | Range of Detections | Level Found  | Range of Detections | Year Tested  | 90% of test levels were less than | Range of Detections | Year Tested   | 90% of test levels were less than | Range of Detections | Monthly Samples  | Positive Samples | Running Annual Average  | Range     |
|                           | Byproducts of chlorination<br>MCL: 80 µg/L<br>MCLG: no limit set |                     | Byproducts of chlorination<br>MCL: 60 µg/L<br>MCLG: no limit set |                     | From plumbing corrosion<br>90% of all samples must be below<br>Action Level of 15 µg/L |                                   |                     | From plumbing corrosion<br>90% of all samples must be below<br>Action Level of 1.3 mg/L |                                   |                     | Naturally present in the environment<br>Treatment Technique (TT) |                  | Added to prevent bacterial growth<br>Maximum limit for annual average: 4 mg/L |           |
| Des Moines*               | 72   | 65-79               | 14   | ND-17               | 2021   | ND                                | ND-20 <sup>1</sup>  | 2021  | ND                                | ND-0.020            | 151  | 1 <sup>2</sup>   | 1.00  | 0.09-2.19 |
| Ankeny                    | 52   | 48-55               | 9  | 8-10                | 2019   | ND                                | ND                  | 2019  | 0.031                             | ND-0.046            | 70   | 2 <sup>2</sup>   | 0.90  | 0.10-1.68 |
| Bondurant                 | 54   | 41-65               | 20   | 16-24               | 2021   | 4.0                               | ND-9                | 2021  | 0.012                             | 0.005-0.014         | 6  | 0                | 2.20  | 1.10-2.60 |
| Clive                     | 68   | 40-110              | 11   | 8-15                | 2019   | ND                                | ND-14               | 2019  | ND                                | ND                  | 20   | 0                | 1.00  | 0.38-1.78 |
| East Dallas Water         | 41   | 31-51               | 10   | 6-13                | 2021   | ND                                | ND                  | 2021  | ND                                | ND                  | 1  | 2 <sup>2,3</sup> | 2.60  | 1.90-2.90 |
| Earlham                   | 43   | N/A                 | 9  | N/A                 | 2020   | 2.0                               | ND-9                | 2020  | 0.010                             | ND-0.010            | 2  | 0                | 2.00  | 1.67-2.60 |
| Johnston                  | 55   | 27-82               | 15   | 13-17               | 2019   | 1.6                               | ND-8                | 2019  | 0.179                             | ND-0.318            | 20   | 1 <sup>2</sup>   | 0.80  | 0.05-1.53 |
| New Virginia              | 82   | 58-82               | 16   | 15-16               | 2019   | ND                                | ND                  | 2019  | ND                                | ND                  | 1  | 0                | 2.10  | 1.80-2.30 |
| Norwalk                   | 69   | 50-81               | 12   | 7-17                | 2019   | ND                                | ND-13               | 2019  | ND                                | ND-0.379            | 10   | 0                | 1.00  | 0.42-1.64 |
| SE Polk Rural Water**     | 67   | 52-91               | 11   | 9-12                | 2021   | ND                                | ND                  | 2021  | ND                                | ND                  | 7  | 1 <sup>2</sup>   | 0.80  | 0.15-1.55 |
| Urbandale                 | 71   | 54-89               | 12   | 10-14               | 2021   | ND                                | ND-5                | 2021  | ND                                | ND                  | 50   | 0                | 1.00  | 0.34-1.69 |
| Warren Water District     | 57   | 40-80               | 11   | 7-13                | 2020   | ND                                | ND-42 <sup>1</sup>  | 2020  | ND                                | ND-0.820            | 20   | 1 <sup>2</sup>   | 2.50  | 0.70-3.10 |
| Waukee                    | 68   | 55-89               | 12   | 10-13               | 2021   | ND                                | ND                  | 2021  | ND                                | ND                  | 20   | 0                | 1.00  | 0.44-1.60 |

\* Includes water supplied to Alleman, Berwick, Pleasant Hill, Unincorporated Polk County and Windsor Heights. \*\* Includes water supplied to Runnells and eastern portions of Pleasant Hill. <sup>1</sup> One sample exceeded the AL of 15 µg/L. <sup>2</sup> Sample tested positive for coliform bacteria. Repeat samples indicated bacteria were not present, and the water was determined to be safe for consumption. <sup>3</sup> During the past year, this system was required to conduct level 1 assessment to determine the cause of bacteria in the distribution system. If a health concern is present, you will be notified.

## Perfluoroalkyl (PFAS) Monitoring

| SOURCE ENTRY POINT                                   |             |        |             |        |             |        |             |        |             |        |  |
|--|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|--|
| DES MOINES WATER WORKS - FLEUR DRIVE TREATMENT PLANT |             |        |             |        |             |        |             |        |             |        |  |
| PFAS (ng/L)  | PFHxS       |        | PFBA        |        | PFHxA       |        | PFBS        |        | PFOS        |        |  |
|  | Level Found | Range  | Level Found | Range  | Level Found | Range  | Level Found | Range  | Level Found | Range  |  |
|  | 7.3         | ND-7.3 | 2.2         | ND-2.2 | 3.0         | ND-3.0 | 1.9         | ND-1.9 | 6.5         | ND-6.5 |  |

Because of reported PFAS contamination in the area, Des Moines Water Works has begun to proactively monitor for a number/variety of PFAS compounds. PFAS is a category of human-made chemicals designed to resist heat, oil, stains and water in items. It is also found in certain firefighting foam used at airports and on military installations. During production and use, it can migrate into soil, water and air.

# DRINKING WATER AND 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.

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 from their health care providers about drinking water. Information about contaminants and potential

## EPA Safe Drinking Water Hotline

(800) 426-4791 or <http://water.epa.gov/drink>

health effects can be obtained by contacting the **Safe Drinking Water Hotline**.

## NITRATE

Nitrate in drinking water at levels above 10 parts per million (ppm) is a health risk for infants less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. If you are caring for an infant, you should ask for advice from your healthcare provider. Nitrate levels may rise quickly for short periods of time because of groundwater conditions and agricultural activity. Des Moines Water Works uses a variety of strategies to keep the treated tap water below 10 ppm. These strategies include source water blending, and if necessary, removal of nitrate using a treatment process known as ion exchange. Ion exchange is an expensive water treatment technology used only in extraordinary situations when nitrate or other pollution is particularly threatening. Despite frequently elevated nitrate levels in the Raccoon and Des Moines Rivers, Des Moines Water Works' treated water has not exceeded the 10 ppm standard since nitrate removal was implemented in 1992.

## LEAD

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Des Moines Water Works minimizes the potential for exposure to lead in drinking water by following a corrosion control program approved by the Iowa Department of Natural Resources. Lead in drinking water is primarily from materials and components associated with private service lines and home plumbing. When your water has been sitting for several hours, you can further 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 are available from the Safe Drinking Water Hotline.

## *Cryptosporidium*

*Cryptosporidium* is a microbial pathogen found in surface water throughout the U.S. It finds its way into the watershed through animal and human wastes. Our monitoring indicates the presence of these organisms in our source water. Although filtration removes *Cryptosporidium*, the most commonly-used filtration methods cannot guarantee 100 percent removal. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. 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, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to 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.

# SOURCE WATER ASSESSMENT

Des Moines Water Works obtains water from one or more surface waters. Surface water sources are susceptible to sources of contamination or pollution within the Raccoon and Des Moines River watersheds.

| Surface Water Name | Susceptibility |
|--------------------|----------------|
| Crystal Lake       | High           |
| Des Moines River   | High           |
| Maffitt Reservoir  | High           |
| Raccoon River      | High           |

Water is also obtained from aquifers. The Alluvial Aquifer was determined to be highly susceptible to contaminations 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 contamination such as leaking underground storage tanks, contaminant spills, and excess fertilizer application.

The Cambrian-Ordovician 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.

To obtain a copy of the Source Water Assessment, call (515) 283-8700 to request a printed copy.



# PUBLIC MEETING AND UTILITY CONTACT INFORMATION

Some public meetings have been moved to virtual or hybrid formats. Check with the city/entity for the most up to date information.

## CITY OF ALLEMAN

### Public Meeting:

2<sup>nd</sup> Monday of the month at 7:00 pm  
Alleman City Council  
14000 NE 6<sup>th</sup> Street · Alleman, IA 50007

### Contact Information:

Alleman City Hall  
(515) 685-3666  
Des Moines Water Works Customer Service  
(515) 283-8700 · customerservice@dmww.com

## CITY OF ANKENY

### Public Meeting:

1<sup>st</sup> & 3<sup>rd</sup> Monday of each month at 5:30 pm  
Kirkendall Library  
1250 SW District Drive · Ankeny, IA 50023

### Contact Information:

Customer Service  
410 West 1<sup>st</sup> Street · Ankeny, IA 50023  
(515) 963-3565 · customerservice@ankenyiowa.gov

## BERWICK WATER ASSOCIATION

### Public Meeting:

Annual meeting and as needed  
5825 NE Berwick Drive · Berwick, IA 50032

### Contact Information:

Des Moines Water Works Customer Service  
(515) 283-8700 · customerservice@dmww.com

## CITY OF BONDURANT

### Public Meeting:

1<sup>st</sup> & 3<sup>rd</sup> Monday of each month at 6:00 pm  
Bondurant City Hall  
200 2<sup>nd</sup> Street NE · Bondurant, IA 50035

### Contact Information:

Patrick F. Collison  
(515) 971-6856 · pcollison@cityofbondurant.com

## CITY OF CLIVE

### Public Meeting:

2<sup>nd</sup> & 4<sup>th</sup> Thursday of each month at 6:00 pm  
Clive City Hall  
1900 NW 114<sup>th</sup> Street · Clive, IA 50325

### Contact Information:

Jeff May, Public Works Director  
2123 NW 111<sup>th</sup> Street · Clive, IA 50325  
(515) 223-6231 · jmay@cityofclive.com

## CITY OF CUMMING

### Public Meeting:

2<sup>nd</sup> Monday each month at 7:00 pm  
Cumming City Hall  
649 N 44<sup>th</sup> Street · Cumming, IA 50061

### Contact Information:

Cumming City Hall  
(515) 981-9214 · deputycityclerk@cumming-iowa.com  
Des Moines Water Works Customer Service  
(515) 283-8700 · customerservice@dmww.com

## DES MOINES WATER WORKS

### Public Meeting:

4<sup>th</sup> Tuesday of each month at 3:30 pm  
Des Moines Water Works  
2201 George Flagg Parkway · Des Moines, IA 50321

### Contact Information:

Des Moines Water Works Customer Service  
(515) 283-8700 · customerservice@dmww.com

## CITY OF EARLHAM

### Public Meeting:

2<sup>nd</sup> Monday of each month at 7:00 pm  
Earlham City Hall  
140 South Chestnut Avenue · Earlham, IA 50072

### Contact Information:

Gary Coffman, Public Works Supervisor  
(515) 758-2281 · earlhamcityhall@mcchsi.com

## CITY OF JOHNSTON

### Public Meeting:

1<sup>st</sup> & 3<sup>rd</sup> Monday of each month at 7:00 pm  
Johnston City Hall  
6221 Merle Hay Road · Johnston, IA 50131

### Contact Information:

Shane Kinsey  
6400 NW Beaver Drive · Johnston, IA 50131  
(515) 278-0822 · skinsey@cityofjohnston.com

## NEW VIRGINIA WATER WORKS

### Public Meeting:

1<sup>st</sup> Saturday of each month at 7:30 am  
Fire Station meeting room  
506 West Street · New Virginia, IA 50210

### Contact Information:

Jennifer Baughman, City Clerk  
(641) 449-3492 · cityclerk@newvirginia.com

## CITY OF NORWALK

### Public Meeting:

1<sup>st</sup> & 3<sup>rd</sup> Thursday of each month at 6:00 pm  
Norwalk City Hall  
705 North Avenue · Norwalk, IA 50211

### Contact Information:

Wayne Schwartz, P.E., Public Works Director  
(515) 981-9527 · wschwartz@norwalk.iowa.gov

## CITY OF PLEASANT HILL

### Public Meeting:

2<sup>nd</sup> & 4<sup>th</sup> Tuesday of each month at 6:00 pm  
Pleasant Hill Public Safety Complex  
6875 Martha L. Miller Drive · Pleasant Hill, IA 50317

### Contact Information:

Pleasant Hill Public Works  
(515) 262-9465  
Des Moines Water Works Customer Service  
(515) 283-8700 · customerservice@dmww.com

## CITY OF RUNNELLS

### Public Meeting:

2<sup>nd</sup> Tuesday of each month at 7:00 pm  
Community Center  
108 Brown Street · Runnells, IA 50237

### Contact Information:

Runnells City Hall  
(515) 966-2042  
Des Moines Water Works Customer Service  
(515) 283-8700 · customerservice@dmww.com

## URBANDALE WATER UTILITY

### Public Meeting:

Meets monthly · Call 278-3940 for information  
Urbandale Water Utility  
3720 86<sup>th</sup> Street · Urbandale, IA 50322

### Contact Information:

Dale Acheson, General Manager  
(515) 278-3940 · dacheson@urbandalewater.org

## WARREN WATER DISTRICT

### Public Meeting:

3<sup>rd</sup> Monday of each month at 6:00 or 7:00 pm, as posted  
Warren Water District  
1204 East 2<sup>nd</sup> Avenue · Indianola, IA 50125

### Contact Information:

Stan Ripperger, System Manager  
(515) 962-1200 · wwd@warrenwaterdistrict.com

## CITY OF WAUKEE

### Public Meeting:

1<sup>st</sup> & 3<sup>rd</sup> Monday each month at 5:30 pm  
Waukee City Hall  
230 W. Hickman Road · Waukee, IA 50263

### Contact Information:

Rudy Koester Public Works Director  
(515) 978-7920 · rkoester@waukee.org  
Waukee Utility Customer Service  
(515) 978-5502 · waukeeutilities@waukee.org

## CITY OF WINDSOR HEIGHTS

### Public Meeting:

1<sup>st</sup> & 3<sup>rd</sup> Monday each month at 6:00 pm  
Windsor Heights Public Safety Building  
1133 66<sup>th</sup> Street · Windsor Heights, IA 50324

### Contact Information:

Windsor Heights City Hall  
(515) 279-3662  
Des Moines Water Works Customer Service  
(515) 283-8700 · customerservice@dmww.com

Des Moines  
Water Works

Water You Can Trust for Life