



# WATER QUALITY REPORT

The Village of Montgomery is pleased to report that the Village of Montgomery Water Treatment Facilities met all federal and state drinking water quality standards in 2023 as detailed in the following pages of the 2023 Water Quality Report.

## 2023



# VILLAGE OF MONTGOMERY

## 2023 Water Quality Report



*The Village of Montgomery is pleased to report that the Village Water Treatment Facilities met all federal and state drinking water quality standards in 2023. The following is our 2023 Water Quality Report. Our system vigilantly safeguards its groundwater supply, and we are working hard to continue providing the best drinking water possible. This report is designed to inform you about the water we delivered to you over the 2023 calendar year. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. Our goal is to provide you with a safe and 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. We want you to be informed about the quality of the water you drink. If upon reading this report you should have any questions, please contact Water & Sewer Superintendent Jeremy Moss at 331-212-9042. The Village Board and staff welcome comments from our water consumers. They can be reached via telephone 630-896-8080, at Village Hall located at 200 N. River St., Montgomery IL. 60538 where Board Meetings are held at 7pm on the 2<sup>nd</sup> and 4<sup>th</sup> Mondays of each month, and at <http://www.montgomeryil.org>. Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.*

### MONTGOMERY SOURCE WATER ASSESSMENT SUMMARY

The Village of Montgomery (Facility # IL0894690) obtains its water from nine active community water supply wells. Wells #3, #4, #8, #10, #11, #12, #13, #14 and #15 supply an average of 2,540,000 gallons per day (gpd) to 9,555 services or a population of 28,920. To determine Montgomery's susceptibility to groundwater contamination, the Illinois Rural Water Association conducted a well site survey in August 2002. Based on the information obtained in this document, there are 47 potential sources of groundwater contamination that could pose a hazard to groundwater utilized by Montgomery's community water supply. These include one above ground fuel storage tank, one machine shop, one de-icing storage facility, one waste recycling facility, one well, one store, one nursery, one auto repair shop, two metal foundries, two treated wood or lumber yard facilities, two printing facilities, two construction or demolition companies, two offices, two restaurants, three warehouses for storage of pesticides or fertilizers, five warehouses, eight manufacturing processes of plastics, beverages, tools, electric equipment, etc., and 11 below ground fuel storage tanks. In addition, information provided by the Leaking Underground Storage Tank and Remedial Project Management Sections of the Illinois EPA indicated sites with on-going remediation that might be of concern.

The Illinois Environmental Protection Act provides minimum protection zones of 400 feet for wells #10, #11, #12, and #13 and 200 feet for wells #3, #4, #8, #14 and #15 of Montgomery's community water supply. These minimum protection zones are regulated by the Illinois EPA. To further reduce the risk to the source water, a maximum protection zone may be established, which is authorized by the Illinois Environmental Protection Act and allows county and municipal officials the opportunity to provide additional potential source prohibitions up to 1,000 feet from their wells. Based upon this information, the Illinois EPA has determined that the Montgomery water supply source water is susceptible to contamination. As such, the Illinois EPA has provided 5-year recharge area calculations for the wells. The land use within the recharge areas of the wells was analyzed as part of this susceptibility determination. This land use includes urban residential, commercial, industrial properties, and some open spaces.

In response to the IEPA's source water assessment, the Village routinely tests for bacteriological quality monthly. The Village has minimized its risk of source water contamination by developing well sites that are geographically distributed throughout the community. For emergency preparedness, the Village has performed a water system vulnerability assessment for various emergency situations and has developed an emergency response plan to respond appropriately to system threats. The Village contracts with Backflow Solutions Inc. (BSI) to coordinate a cross connection control program to minimize the risk of cross connections at treatment sites and distribution points which could negate water protection initiatives. The Village partners with both Kane and Kendall Counties on groundwater assessment projects to help determine possible groundwater protection methods. Potential impacts from non-point sources related to agricultural land use are also assessed.

### SOURCE OF DRINKING WATER

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater wells. As water travels over the surface of the land or through the ground, it can dissolve naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Our raw water supply is obtained from a total of nine groundwater wells located within the village limits. We draw groundwater from a combination of three aquifer systems. An aquifer is an underground geological formation that contains water. The aquifers we pump water from are, from shallowest to deepest, St. Charles Sand and Gravel, Silurian Limestone, and the Ironton-Galesville Sandstone.

After the raw water is drawn from the groundwater wells, it is treated using two different methods. Both lime softening and ion-exchange treatment methods use chemical and physical processes to remove impurities, soften, and chlorinate the finished water. Fluoride levels are maintained to help minimize dental problems for water consumers and phosphate is added for corrosion control. The finished drinking water is then pumped into the water distribution system where it is distributed to consumers. The construction of the Lime Softening Treatment Facility was completed in 1990 and our first Ion Exchange Water Treatment Facility was added in 2003. An additional Ion Exchange Water Treatment Facility became operational in 2004. These facilities are a culmination of efforts by the Village's leadership to provide safe, high-quality water for everyone that receives drinking water from the Village of Montgomery.

To continue to maintain the high-quality drinking water we distribute; the Village is currently completing a number of improvement projects throughout the water works system. These improvement projects will strengthen our system, the long-term benefits of these improvements far outweigh any short-term inconvenience.

### Potential Water Source Contaminants 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 may 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: which may come from a variety of sources such as agriculture, urban storm water 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 storm water runoff, and septic systems.
- Radioactive Contaminants: which may be naturally occurring or the result of oil and gas production and mining activities.

Based upon Section 141.153(b) 2 of the Consumer Confidence Rule (CCR), community water supplies are required to report a summary of their source water susceptibility determination, compiled by the Illinois EPA. If you would like a copy of the Montgomery Source Water Assessment, please call the Public Works Department at 630-896-9241.

Further information on our community water supply's source water assessment is available on the Illinois EPA web site at <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl> or by calling the Groundwater Section of the Illinois EPA at 217-785-4787.

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 USEPA's Safe Drinking Water Hotline (1-800-426-4791).

In order to ensure tap water is safe to drink, USEPA regulates the amount of certain contaminants in public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same level of protection for public health.

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. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium*, Radon, and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

### **IMPORTANCE OF LEAD-FREE WATER INFRASTRUCTURE**

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily caused by material components associated with service lines and home plumbing. The Village of Montgomery is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water sits unused for several hours, you should 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 <http://www.epa.gov/safewater/lead>.

### **WATER QUALITY TEST RESULT DEFINITIONS**

The following tables contain scientific terms and measures, some of which may require explanation.

**Avg:** Regulatory compliance with some MCLs is based on a running annual average of monthly samples.

**Action Level (AL):** The concentration of a contaminant that triggers treatment or other required actions by the water supply.

**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 the 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 and/or why total coliform bacteria have been found in our water system on multiple occasions.

**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 drinking water 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.

**mrem:** millirems per year (a measure of radiation absorbed by the body).

**ppm:** parts per million—or one ounce in 7,350 gallons of water.

**ppb:** parts per billion—or one ounce in 7,350,000 gallons of water.

**pCi/L:** picocuries per liter (a measure of radioactivity).

**Treatment Technique or TT:** A required process intended to reduce the level of a contaminant in drinking water.

**N/A:** Not Applicable.

---

## **2023 REGULATED CONTAMINANTS DETECTED**



| LEAD & COPPER | DATE SAMPLED | MCLG | ACTION LEVEL (AL) | 90 <sup>TH</sup> PERCENTILE | SITES OVER AL | UNITS | VIOLATION | LIKELY SOURCE OF CONTAMINATION   |
|---------------|--------------|------|-------------------|-----------------------------|---------------|-------|-----------|--|
| Copper        | 2023         | 1.3  | 1.3               | 0.22                        | 1             | ppm   | No        | Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems |
| Lead          | 2020         | 0    | 15                | <1.0                        | 0             | ppb   | No        | Corrosion of household plumbing systems; Erosion of natural deposits.                                  |

#### Regulated Contaminants

| DISINFECTANTS AND DISINFECTION BY-PRODUCTS | COLLECTION DATE | HIGHEST LEVEL DETECTED                   | RANGE OF LEVELS DETECTED      | MCLG                          | MCL      | UNITS                                  | VIOLATION | LIKELY SOURCE OF CONTAMINATION  |
|--|-----------------|--|-------------------------------|-------------------------------|----------|--|-----------|---|
| Chlorine                                   | 2023            | 1.6                                      | 1.3 – 2.0                     | MRDLG = 4                     | MRDL = 4 | ppm                                    | No        | Water additive used to control microbes.  |
| Haloacetic Acids (HAA5)                    | 2023            | 5.0                                      | 1.05 – 4.96                   | No goal for the total         | 60       | ppb                                    | No        | By-product of drinking water disinfection.  |
| Total Trihalomethanes (TTHM)               | 2023            | 31                                       | 5.8 – 30.7                    | No goal for the total         | 80       | ppb                                    | No        | By-product of drinking water disinfection.  |
| BACTERIOLOGICAL                            | MCLG            | TOTAL COLIFORM MAXIMUM CONTAMINANT LEVEL | HIGHEST NO. OF POSITIVE TOTAL | FECAL COLIFORM OR E. COLI MCL |          | TOTAL NO. OF POSITIVE SAMPLE VIOLATION | VIOLATION | LIKELY SOURCE CONTAMINANT   |
| Coliform                                   | 0               | 0  | 0                             | 0                             |          | 0                                      | No        | Naturally present in the environment  |
| INORGANIC CONTAMINANTS                     | COLLECTION DATE | HIGHEST LEVEL DETECTED                   | RANGE OF LEVELS DETECTED      | MCLG                          | MCL      | UNITS                                  | VIOLATION | LIKELY SOURCE OF CONTAMINATION  |
| Barium                                     | 2021            | .047                                     | 0.0023 - .047                 | 2                             | 2        | ppb                                    | No        | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.                               |
| Fluoride                                   | 10/13/2021      | 1.13                                     | 1.13 – 1.13                   | 4                             | 4        | ppm                                    | No        | Erosion of natural deposits. Water additive which promotes strong teeth. Discharge from fertilizer and aluminum factories |
| Iron                                       | 2021            | 0.043                                    | 0 – 0.043                     |                               | 1.0      | ppm                                    | No        | This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.      |
| Manganese                                  | 2021            | 3.2                                      | 3.2 – 3.2                     | 150                           | 150      | ppb                                    | No        | This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural                |

|   |                        |                               |                                 |             |            |              |                  |   |
|---|------------------------|-------------------------------|---------------------------------|-------------|------------|--------------|------------------|---|
|   |                        |                               |                                 |             |            |              |                  | deposits.   |
| Nitrate (measured as Nitrogen)          | 2021                   | 0.38                          | 0 – 0.5                         | 10          | 10         | ppb          | No               | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.      |
| Selenium                                | 2021                   | 2.1                           | 2.1 – 2.1                       | 50          | 50         | ppb          | No               | Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines. |
| Sodium*                                 | 2021                   | 140                           | 140-140                         | *           | *          | ppm          | No               | Erosion from naturally occurring deposits; used in water softener regeneration.                   |
| <b>RADIOACTIVE CONTAMINANTS</b>         | <b>COLLECTION DATE</b> | <b>HIGHEST LEVEL DETECTED</b> | <b>RANGE OF LEVELS DETECTED</b> | <b>MCLG</b> | <b>MCL</b> | <b>UNITS</b> | <b>VIOLATION</b> | <b>LIKELY SOURCE OF CONTAMINATION</b>   |
| Combined Radium 226/228                 | 2023                   | 5                             | .292 – 4.8                      | 0           | 5          | pCi/L        | No               | Erosion of natural deposits.  |
| Gross alpha excluding Radon and Uranium | 2023                   | 9                             | 0 – 12.8                        | 0           | 15         | pCi/L        | No               | Erosion of natural deposits.  |
| <b>VOLATILE ORGANIC CONTAMINANTS</b>    | <b>COLLECTION DATE</b> | <b>HIGHEST LEVEL DETECTED</b> | <b>RANGE OF LEVELS DETECTED</b> | <b>MCLG</b> | <b>MCL</b> | <b>UNITS</b> | <b>VIOLATION</b> | <b>LIKELY SOURCE OF CONTAMINATION</b>   |
| Vinyl Chloride                          | 2023                   | .73                           | 0 – .73                         | 0           | 2          | ppb          | No               | Leaching from PVC piping; discharge from plastics factories                                       |
| cis-1,2-Dichloroethylene                | 2023                   | 0.51                          | 0 – 0.51                        | 70          | 70         | ppb          | No               | Discharge from industrial chemical factories.   |

\*There is not a state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about this level of sodium in the water.

Note: The state requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of this data may be more than one year old.