

**Village of Sardinia**  
**Drinking Water Consumer Confidence Report**  
**2023**

The Village of Sardinia has prepared the following report to provide information to you, the consumer, on our drinking water's quality. Included in this report is general health information, water quality test results and how to participate in decision making concerning your drinking water and water system contacts. We are proud to report to you that our drinking water is safe and meets all federal and state requirements.

### **WHAT IS A CONSUMER CONFIDENCE REPORT**

In 1996, Congress amended the Safe Drinking Water Act. It added a provision requiring that all community water systems deliver to their customers a brief annual water quality report. Consumer Confidence Reports (CCR) summarize information that the water system already collects to comply with regulations. Every Community that has at least 15 service connections serving year-round residence must prepare and distribute the report. These systems typically include cities, towns, homeowners' associations, and trailer parks. Each system must deliver its annual report to consumers by July 1 of the following year. Since the Village of Sardinia purchases its water from Brown County Rural Water Association, some of the data in this report is supplied by them. This report is based on data collected in the 2022 calendar year unless noted otherwise. Not all contaminants are required to be analyzed each year. The table lists those contaminants detected within the last five years.

### **ABOUT YOUR WATER SYSTEM**

Although the Village of Sardinia purchases bulk water from Brown County Rural Water (BCRW) Association, it maintains its own public water system with the Ohio Environmental Protection Agency (OEPA) and has a current, unconditional license to operate our water system. Sardinia is required to maintain its own water system. Maintenance includes our water mains, valves, fire hydrants, and most importantly the water quality we provide for our customers. Water purchased from BCRW is tested like Sardinia and is of the highest quality. Sardinia must maintain the level of quality even after the water is purchased. Flushing water mains are just one of the many ways in which Sardinia maintains its water quality. The Village relies solely on BCRW for adequate contamination removal and testing. There however some OEPA testing requirements that Sardinia must perform.

We are required to collect and test daily for chlorine residual. Chlorine ensures that water will be free of microbial contaminants before reaching the consumer. In cases of water main breaks, the presence of chlorine in the water will help ensure the destruction of microbial contamination that may enter during the repair. Sardinia is also responsible for testing for total coliform and E-Coli bacteria each month in the distribution system. Total Coliform bacteria are necessarily harmful but are used to

indicate if contamination could exist. E-Coli bacteria on the other hand will indicate a contamination problem. In addition, Sardinia is required to test for lead and copper every three years. If present, elevated levels of lead can cause health issues for young children and pregnant women. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Village is dedicated to providing the highest quality water, but we are not able to control the variety of materials used in plumbing components. When water sets for several hours in lines you can minimize the potential for lead exposure by flushing the lines for 30 secs to 2 minutes before using the water for cooking and drinking purposes. If you are concerned about lead in your water, you may ask to have your water tested. Information on lead in drinking water, testing methods, and the steps you can take to minimize exposure is available for the Safe Drinking Water Hotline at 800-426-4791 or at <https://www.epa.gov/safewater/lead>.

## **SOURCE WATER ASSESMENT**

Ohio EPA recently completed a study of Brown County Rural Water Association's source of drinking water to determine its susceptibility. According to this study, the aquifer (water saturated zone) that supplies drinking water to the Brown County Rural Water has a high susceptibility to contamination. This determination is based on the following: the nature of the aquifer in which the drinking water wells are located, presence of a relatively thin protective layer of clay overlying the aquifer, the shallow depth (less than 40 feet below ground surface) of the aquifer, and the presence of significant potential contaminant sources in the protection area, including periodic serious flooding of the Ohio River. This susceptibility rating means that under current conditions, the aquifer's potential to become contaminated is high. This potential can be minimized by implementing appropriate protective measures. More detailed information about the source water assessment or what consumers can do to help protect the aquifer is available by calling BCRWA at (937) 375-4106 ext. 236.

## **WHAT ARE THE SOURCES OF CONTAMINATION IN YOUR WATER?**

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: (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; (B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; (D) 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; (E) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, USEPA prescribes regulations which limit the number of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may be expected to contain at least small amounts of some contaminants. Contaminants do not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Federal Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

## **WHO NEEDS TO TAKE PRECAUTION?**

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 infection. 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 (1-800-426-4791).

## **ABOUT YOUR DRINKING WATER**

The EPA requires regular sampling to ensure drinking water safety. BCRWA conducted sampling for {bacteria; inorganic; and disinfection byproducts} during 2022. Samples were collected for several different contaminants, most of which were not detected in the BCRWA water supply. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, may be more than one year old.

Table of Detected Contaminants

Listed below is information on contaminants found in the Brown County Rural Water Association and Sardinia's drinking water

**TABLE OF DETECTED CONTAMINANTS**

| CONTAMINANT (UNITS)            | MCLG      | MCL      | LEVEL FOUND | RANGE OF DETECTION | VIOLATION | SAMPLE YEAR | TYPICAL SOURCE OF CONTAMINATION                                  |
|--------------------------------|-----------|----------|-------------|--------------------|-----------|-------------|--|
| <b>RESIDUAL DISINFECTANTS</b>  |           |          |             |                    |           |             |  |
| TOTAL CHLORINE (ppm)           | MRDLG = 4 | MRDL = 4 | 1.06        | 1.17-0.92          | No        | 2022        | Water Additiv used to control microbes                           |
| <b>INORGANIC CONTAMINANTS</b>  |           |          |             |                    |           |             |  |
| NITRATE (ppm)                  | 10        | 10       | 0.93        | NA                 | No        | 2022        | Runoff from fertilizers, erosion and natural deposits            |
| FLUORIDE (ppm)                 | 4         | 4        | 0.93        | 0.88-0.97          | No        | 2022        | Water Additive required by OEPA                                  |
| ANTIMONY (ppm)                 | 0.006     | 0.006    | < 3.0       | NA                 | No        | 2022        | Discharge from refineries; fire retardants; ceramics, eletronics |
| ARSENIC (ppm)                  | 0         | 0.010    | < 3.0       | NA                 | No        | 2022        | Erosion of natural deposits; runoff of industrial sites          |
| SELENIUM (ppm)                 | 0.05      | 0.05     | < 3.0       | NA                 | No        | 2022        | Discharge from refineries and mines; erosion of natural deposits |
| THALLIUM (ppm)                 | 0.0005    | 0.002    | < 1.0       | NA                 | No        | 2022        | Discharge from factories   |
| <b>DISINFECTION BYPRODUCTS</b> |           |          |             |                    |           |             |  |
| TOTAL TRIHALOMETHANES (ppb)    | NA        | 80       | 33.9        | 30.1-37.7          | No        | 2022        | By-products of drinking water disinfection                       |
| HAA5 (ppb)                     | NA        | 60       | 4.6         | 3.5-5.7            | No        | 2022        | By-products of drinking water disinfection                       |

| LEAD AND COPPER |          |     |                                |                                |                       |           |                |   |
|-----------------|----------|-----|--------------------------------|--------------------------------|-----------------------|-----------|----------------|---|
| CONTAMINANT     | MCL<br>G | AL  | 90 <sup>th</sup><br>PERCENTILE | # OF SITE<br>FOUND<br>ABOVE AL | RANGE OF<br>DETECTION | VIOLATION | SAMPLE<br>YEAR | TYPICAL SOURCE<br>OF<br>CONTAMINATION   |
| LEAD (ppb)      | 0        | 15  | 0 ppb                          | 0-10                           | 0 ppb                 | No        | 2021           | Corrosion of household plumbing systems |
| COPPER (ppm)    | 1.3      | 1.3 | 1.3 ppm                        | 0-10                           | 1.3                   | No        | 2021           | Corrosion of household plumbing systems |

**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 Contaminant level (MCL):** The highest level of contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Parts per Million (ppm) or Milligrams per Liter (mg/L)** are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

**Parts per Billion (ppb) or Micrograms per Liter (µg/L)** are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of 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.

**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.

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

**The “<” symbol:** A symbol which means less than. A result of <5 means that the lowest level that could be detected was 5 and the contaminant in that sample was not detected.

**Picocuries per liter (pCi/L):** A common measure of radioactivity.

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| <b>TABLE OF UNREGULATED CONTAMINATES (UCMR4)</b> |
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| CONTAMINANTS                  | UNITS | SAMPLE YEAR | AVERAGE LEVEL FOUND | RANGE OF DETECTION |
|-------------------------------|-------|-------------|---------------------|--------------------|
| alpha-BHC                     | ug/l  | 2019        | 0.0032              | 0.0032             |
| Chlorpyrifos                  | ug/l  | 2019        | 0.0096              | 0.0096             |
| Dimethipin                    | ug/l  | 2019        | 0.065               | 0.064-0.065        |
| Ethoprop                      | ug/l  | 2019        | 0.0096              | 0.0096             |
| Merphos-Oxone                 | ug/l  | 2019        | 0.022               | 0.022              |
| Oxyfluorfn                    | ug/l  | 2019        | 0.016               | 0.016              |
| Permethrin                    | ug/l  | 2019        | 0.013               | 0.012-0.013        |
| Profenofos                    | ug/l  | 2019        | 0.096               | 0.096              |
| Tebuconazole                  | ug/l  | 2019        | 0.065               | 0.064-0.065        |
| Butylated Hydroxyanisole      | ug/l  | 2019        | 0.0096              | 0.0096             |
| Quinoline                     | ug/l  | 2019        | 0.0065              | 0.0064-0.0065      |
| O-Toluidine                   | ug/l  | 2019        | 0.0022              | 0.0022             |
| n-Butanol                     | ug/l  | 2019        | 0.67                | 0.67               |
| 2-Methoxyethanol              | ug/l  | 2019        | 0.13                | 0.13               |
| 2-Propen-1-ol (Allyl alcohol) | ug/l  | 2019        | 0.17                | 0.17               |
| Germanium                     | ug/l  | 2019        | 0.1                 | 0.1                |
| Manganese                     | ug/l  | 2019        | 0.13                | 0.13               |
| Bromide                       | ug/l  | 2019        | 72.8                | 72.8               |
| Total Organic Carbon          | ug/l  | 2019        | 771                 | 661-880            |
| Bromochloroacetic Acid        | ug/l  | 2019        | 2                   | 1.4-2.7            |
| Bromodichloroacetic Acid      | ug/l  | 2019        | 0.84                | 0.71-1.0           |
| Chlorodibromoacetic Acid      | ug/l  | 2019        | 0.88                | 0.75-1.0           |
| Dibromoacetic Acid            | ug/l  | 2022        | 2.9                 | 2.4-3.4            |
| Dichloroacetic Acid           | ug/l  | 2022        | 1.65                | 1.1-2.2            |
| HAA9 Group                    | ug/l  | 2019        | 9.9                 | 9.1-10.6           |
| Total Brominated HAA's        | ug/l  | 2019        | 8.5                 | 8.0-9.2            |
| Haloacetic Acid (Total)       | ug/l  | 2019        | 4.5                 | 3.2-6.3            |
| Monobromoacetic Acid          | ug/l  | 2019        | 0.66                | 0.54-0.77          |
| Monochloroacetic Acid         | ug/l  | 2019        | 0.67                | 0.67               |
| Tribromoacetic Acid           | ug/l  | 2019        | 1.9                 | 0.67-2.5           |
| Trichloroacetic Acid          | ug/l  | 2019        | 0.17                | 0.17               |
| Bromodichloromethane          | ug/l  | 2022        | 9.3                 | 7.3-11.3           |
| Bromoform                     | ug/l  | 2022        | 7.1                 | 6.4-6.8            |
| Chloroform                    | ug/l  | 2022        | 4.3                 | 2.9-5.7            |
| Dibromochloromethane          | ug/l  | 2022        | 13.2                | 12.2-14.2          |

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. IN 2019 Brown County Rural Water Association participated in the fourth round of the Unregulated Contaminant Monitoring Rule (UCMR 4) For a copy of the results please call Matt Newman at 937-446-3807.

## **LEAD EDUCATION INFORMATION**

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. BCRWA 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 at 800-426-4791 or at <http://www.epa.gov/safewater/lead>.

## **PFAS INFORMATION**

In 2020, our PWS was sampled as part of the State of Ohio's Drinking Water Per- and Polyfluoroalkyl Substances (PFAS) Sampling Initiative. Six PFAS compounds were sampled, and none were detected in our finished drinking water. For more information about PFAS, please visit [pfas.ohio.gov](http://pfas.ohio.gov).

### License to Operate (LTO) Status Information

In 2022 The Village of Sardinia had an unconditioned license to operate our water system.

How do I participate in decisions concerning my drinking water?

Public participation and comments are encouraged at our monthly Council Meeting, held the first Monday of each month.

For more information on your drinking water contact:

Matt Newman Public Works Director/ ORC Village of Sardinia 151 Maple Ave Sardinia OH 45171.

Phone: (937) 446-3807

email: [mnewman@villageofsardinia.com](mailto:mnewman@villageofsardinia.com)