

## **Village of Deckerville Annual Drinking Water Quality Report for 2018**

We're pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant 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 are committed to ensuring the quality of your water. Our water source is three wells located at Mills and Thayer roads. Our wells draw from the Marshall Sandstone Aquifer, which underlies most of the thumb. These wells depths are 130 feet. I'm pleased to report that our drinking water is safe and meets or exceeds federal and state requirements.

The State of Michigan has produced a Source Water Assessment for the Village's wells. This Assessment reports the susceptibility of our water supply sources to contamination. The susceptibility score is broken down into 7 categories; Very Low, Low, Moderately Low, Moderate, Moderately High, High, and Very High. The score given by the State for the Village Wells are Moderately Low. The complete Source Water Assessment is available by contacting the Water Department.

If you have any questions about this report or concerning your water utility, please contact **Tracy Hoff at 810-376-8591 or at the DPW Building at 3550 Range Line Rd.** We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled Village Council Meetings. They are held on the second Monday of each month at the **Village Council Chambers located at 2521 Black River St.**

The Village of Deckerville routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of **January 1<sup>st</sup> to December 31<sup>st</sup>, 2018.** 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 land or underground, 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 or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk. More information about contaminants and potential health effects can be obtained by calling the United States Environmental Protection Agency's (EPA) Safe Drinking Water Hotline at 1-800-426-4791.

### TERMS AND ABBREVIATIONS USED IN THE TABLES BELOW

**Not-Detected (ND)** -laboratory analysis indicates that the constituent is not present.

**Parts per million (ppm) or Milligrams per liter (mg/l)** - one part per million corresponds to one minute in two years or a single penny in \$10,000.

**Parts per billion (Ppb) or Micrograms per liter** - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

**Picocuries per liter (pCi/L)** - Picocuries per liter is a measure of the radioactivity in water.

**Tritium Unit (TU)**

**Action Level** - the concentration of a contaminant which if exceeded, triggers treatment or other requirements which a water system must follow.

**Maximum Contaminant Level (MCL)** - The "Maximum Allowed" is 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 "Goal" is 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 Disinfection Level-(MRDL)** is the highest level of free chlorine allowed in the distribution system.

The State allows us to monitor for certain contaminants less than once per year because the concentrations

of these contaminants are not expected to vary significantly from year to year. All the data is representative of the water quality, but some are more than one year old. The table below represents the most current testing information available.

| <b>Radioactive Contaminants in Water at Wells</b> |              |                 |                        |                 |                |      |  |     |   |
|---|--------------|-----------------|------------------------|-----------------|----------------|------|--|-----|---|
| Contaminant                                       | Year Of Test | Viola -tion Y/N | Highest Level Detected | Unit of Measure | Range Detected | MCLG |  | MCL | Likely Source of Contamination  |
| Alpha emitters                                    | 2014         | N               | 2.22                   | pCi/l           | 2.22           | 0    |  | 15  | Erosion of natural deposits   |
| Combined radium                                   | 2014         | N               | .51                    | pCi/l           | .07-.51        | 0    |  | 5   | Erosion of natural deposits   |
| <b>Inorganic Contaminants in Water at Wells</b>   |              |                 |                        |                 |                |      |  |     |   |
| Contaminant                                       | Year of Test | Viola -tion Y/N | Highest Level Detected | Unit of Measure | Range Detected | MCLG |  | MCL | Likely Source of Contamination  |
| Arsenic   | 2017         | N               | ND                     | ppb             | ND             | 0    |  | 10  | Erosion of natural deposits   |
| Fluoride  | 2018         | N               | .81                    | ppm             | .73            | 4    |  | 4   | Erosion of natural deposits, water additive which promote strong teeth. |
| Lead by ICPIMS                                    | 2017         | N               | 2                      | ppb             | ND             | 0    |  | 15  | Erosion of natural deposits   |
| Selenium  | 2017         | N               | .002                   | ppb             | .002           | 50   |  | 50  | Erosion of natural deposits   |
| <b>Stage 2 Disinfectant By Products</b>           |              |                 |                        |                 |                |      |  |     |   |
| Contaminant                                       | Year of Test | Viola -tion Y/N | Highest Level Detected | Unit of Measure | Range Detected | MCLG |  | MCL | Likely Source of Contamination  |
| HAA5 (Total Haloacetic Acids)                     | 2018         | N               | ND                     | ppb             | ND             | NA   |  | 60  | By-product of drinking water disinfection                               |
| TTHM (Total Trihalomethanes)                      | 2018         | N               | .0020                  | ppb             | .0010          | NA   |  | 80  | By-product of drinking water disinfection                               |
| Chlorodibromomethane                              | 2018         | N               | .0005                  | ppb             | trace          | NA   |  | 80  | By-product of drinking water disinfection                               |
| Bromoform   | 2018         | N               | .0015                  | ppb             | .0010          | NA   |  | 80  | By-product of drinking water disinfection                               |

| <b>Chlorine Residuals from Distribution System</b> |             |                        |                     |                  |      |                               |   |
|--|-------------|------------------------|---------------------|------------------|------|-------------------------------|---|
| Contaminant  | Year Tested | Average level detected | Range detected      | Violation Yes/No | MRDL | Optimum Level of Chlorination | Likely Source of Contamination          |
| Free Chlorine Residuals                            | 2018        | 1.05 ppm               | .50 ppm to 1.92 ppm | No               | 4ppm | .5 ppm to 1.5 ppm             | Water additive used to control microbes |

| <b>Lead &amp; Copper Distribution Monitoring Results</b> |               |                 |                                   |                    |                      |  |
|--|---------------|-----------------|-----------------------------------|--------------------|----------------------|--|
| <b>Contaminant</b>                                       | <b>Date</b>   | <b>Number</b>   | <b>90<sup>th</sup> Percentile</b> | <b># of Sites</b>  | <b>Action level/</b> | <b>Likely Source of Contamination</b>  |
|  | <b>Tested</b> | <b>of Sites</b> |                                   | <b>over Action</b> | <b>units of</b>      |  |
|  |               | <b>Tested</b>   |                                   | <b>Level</b>       | <b>Measurement</b>   |  |
| Lead   | 2018          | 10              | 1 ppb                             | 0                  | 15 ppb               | Corrosion of household plumbing systems, erosion of natural deposits                                   |
| Copper   | 2018          | 10              | 290 ppb                           | 0                  | 1300 ppb             | Corrosion of household plumbing systems, erosion of natural deposits; leaching from wood preservatives |

Unregulated contaminants are those for which EP A has not established drinking water standards. Monitoring helps EP A to determine where these contaminants occur and whether it needs to regulate those contaminants.

| <b>Unregulated Contaminants in Water at Wells</b> |             |                |                            |                       |   |
|---|-------------|----------------|----------------------------|-----------------------|---|
| <b>Contaminant</b>                                | <b>Year</b> | <b>Unit of</b> | <b>Average of level</b>    | <b>Range of level</b> | <b>Likely Source of Contamination</b>                     |
|   | <b>of</b>   | <b>Measure</b> | <b>detected from wells</b> | <b>detected from</b>  |   |
|   | <b>Test</b> |                |                            | <b>wells</b>          |   |
| Sodium  | 2018        | ppm            | 137                        | 137                   | Erosion of natural deposits                               |
| Sulfate   | 2018        | ppm            | 50                         | 50                    | Erosion of natural deposits                               |
| Tritium   | 2016        | TU             | 1                          | 1                     | Manmade radioactive compound from nuclear weapons testing |

#### **Radioactive Contaminants:**

**Alpha emitters** - Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer. Combined Radium 226/228 - Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

#### **Inorganic Contaminants:**

**Arsenic** - Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system and may have an increased risk of getting cancer.

**Copper** - Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

**Fluoride** - Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth.

**Lead** - Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

**Chlorine** - Some people who use water containing chlorine well in excess of MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.

#### **Volatile Organic Contaminants:**

**TTHMs [Total Trihalomethanes]** - Some people who drink water containing trihalomethanes in excess of the MCL over

many years

may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

As you can see by the table, our system had no violations. We're proud that your drinking water meets or exceeds all Federal and State requirements. We constantly monitor for various constituents in the water supply to meet all regulatory requirements. We have learned through our monitoring and testing that some

constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

**All sources of drinking water are subject to potential contamination by substances that are naturally occurring or manmade. These substances can be:**

**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 can 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 and residential uses.

**Radioactive contaminants** - which are naturally occurring or be the result of oil and gas production and mining activities.

**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. All 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 the water poses a health risk. More information about contaminants

and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-

800-426-4791.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having

the described health effect.

**Total Coliform:** The Total Coliform Rule requires water systems to meet strict limits for coliform bacteria. Coliform bacteria are

usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found,

special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio.

**Monitoring and reporting of compliance data violations section:**

We are required to collect repeat bacteriological samples at pre-approved locations and number whenever a routine bacteriological sample is positive for total coliform. Results of repeat monitoring are an indicator if our drinking water meets health standards. During 2018, there were no positive samples.

| Microbial Contaminants            | MCL   | MCLG | Number Detected | Violation Yes/No | Typical Source of Contaminant        |
|-----------------------------------|---|------|-----------------|------------------|--------------------------------------|
| Total Coliform                    | > 1 positive monthly sample   | 0    | 0               | No               | Naturally present in the environment |
| Bacteria                          | (>5.0 of monthly samples positive)  |      |                 |                  |                                      |
| Fecal Coliform and <i>E. coli</i> | Routine and repeat sample total coliform positive, and one is also fecal or <i>E. coli positive</i> | 0    | 0               | No               | Human and animal fecal waste         |
|                                   |   |      |                 |                  |                                      |

**Lead:** Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All

potential sources of lead in the household should be identified and removed, replaced or reduced.

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. The Village of Deckerville 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.

(1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

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. EPA/CDC has guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants.

We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

Please call our office if you have questions.

Village of Deckerville (810) 376-9505

**Individual copies will not be mailed.**

Copies of this report are available at:

Village of Deckerville Municipal Building

2521 Black River St.

Deckerville, MI 48427