# 2012 Annual Drinking Water Quality Report

## ISABELLA COUNTY WATER SUPPLY SYSTEM NO. 1 (LAKE ISABELLA)

JUNE 21, 2013

C/O ISABELLA COUNTY DRAIN COMMISSIONER'S OFFICE

We're pleased to present to you this year's Annual Quality Water 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. Isabella County Water Supply System No. 1 (Lake Isabella) has two groundwater wells which supply water to customers in Forest II subdivision only, in the Village of Lake Isabella. The wells are located at 1086 Queensway, Lake Isabella, MI (Well #1) and 1064 Queensway, Lake Isabella, MI (Well #2). Well #1 has a 12" diameter casing and is one hundred eighty feet deep (180'). Well #2 has a 12" diameter casing and is one hundred seventy five feet deep (175').

I'm pleased to report that our drinking water meets or exceeds federal and state requirements.

If you have any questions about this report or concerning your water utility, please contact Tim A. Warner, Project Manager, at the Isabella County Building c/o Drain Commissioner=s Office, Room 140, 200 N. Main St., Mt. Pleasant, MI 48858, (989) 772-0911, ext. 247. 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 Board of Public Works meetings. They are held on the fourth Thursday of every month at 4:30 p.m. in the Isabella County Building. The Isabella County Building is located at 200 N. Main St., Mt. Pleasant, MI 48858.

The Isabella County Water Supply System No. 1 (Lake Isabella) 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 1st, 2011 to December 31st, 2011. Drinking water, including bottled drinking 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 EPA's Safe Drinking Water Hotline (1-800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travel 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.

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

*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.

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

*Maximum Contaminant Level* - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCL=s are set as close to the MCLG as feasible using the best available treatment technology.

*Maximum Contaminant Level Goal* - The "Goal" (MCLG) 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 Disinfectant Level Goal(MRDLG)* - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG=s 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.

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

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 of 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.

**TEST RESULTS**

| Contaminant | Violation Y/ N | Level Detected | Unit of measure | Average / Range | MRDLG | MRDL | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|
| Free Chlorine | N | 0.18 Average | ppm | 0.1 / 0.27 | 4 | 4 | Water additive to control Microbial contaminants. |

| Contaminants **Inorganic** | Violation Y/N | Level Detected | Units of Measure | Average / Range | MCLG | MCL | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|
| Fluoride Date of detect, July. 7, 2012 | N | 0.16 | ppm | 0.11 To 0.16 | 4 | 4 | Erosion of natural deposits |
| Nitrates Date of detect, July. 7, 2012 | N | 4.3 | ppm | 0.0 To 4.3 | 10 | 10 | Erosion of natural deposits. Runoff from fertilizer use. Leaching from septic tanks, sewage |
| Barium Date of detect, 07-20-2009 | N | 0.030 | ppb | n/a | 2 | 2 | Erosion of natural deposits. |

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

| **Regulated Volatile Organic Contaminants (monitored in the distribution system)** | | | | | | | |
|---|---|---|---|---|---|---|---|
| TTHM (Total trihalomethanes) Sampled 07/31/12 | N | Not Detected | mg/l | n/a | 0 | 0.080 | By-product of drinking water |
| HAA5 (Haloacetic Acids) Sampled 07/31/12 | N | 0.003 | mg/L | n/a | 0 | 0.060 | By-product of drinking water |

| **Unregulated Contaminants** | Violation Y/N | Average Detected | Unit of measure | Average / Range | |
|---|---|---|---|---|---|
| Sodium Sept. 12, 2011; date of detect | N | 7.0 | ppm | 5 to 9 | Erosion of natural deposits. |

**Lead & Copper Distribution Monitoring Results**

| Contaminants | Date Tested | Number of Sites Tested | 90th Percentile | # of Sites over Action Level | Action level/ units of Measurement | Likely Source of Contamination |
|---|---|---|---|---|---|---|
| Lead* | 09-12 | 5 | 1.5 | 0 | 15 ppb | Corrosion of household plumbing systems. |
| Copper | 09-12 | 5 | 75 | 0 | 1300 ppb | Corrosion of household plumbing systems. |

* 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. Isabella County Water Supply System No. 1 (Lake Isabella) 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 the 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 (1-800-426-4791) or at http://www.epa.gov/safewater/lead.

What does this mean?

As you can see by the table above, our system had no violations. We're proud, that your drinking water meets or exceeds all Federal and State requirements.

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 or contaminants such as microbes, inorganic and organic chemicals and, in some cases, radioactive materials. This includes substances resulting from the presence of animals or from human activity. 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 stormwater 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 stormwater runoff, and residential uses.

*Radioactive contaminants***,** which can be 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.

In order to ensure that tap water is safe to drink EPA prescribes regulations which limit the amount 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.

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.

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 guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

The State of Michigan has completed a source water assessment report (SWAR) for our water system. Included in the SWAR is a susceptibility ranking for our wells. The ranking is based on several factors, including well location, construction, water quality, and land use. Based on the report, our wells have a relatively low susceptibility to contamination. If you would like to review a copy of the complete report, please contact Tim A Warner, Project Manager, at the Office of the Drain Commissioner.

Please call our office if you have questions or need further information at (989) 772-0911, Ext. 247 c/o ISABELLA COUNTY DRAIN COMMISSIONER'S OFFICE.

We at Isabella County Water Supply System No. 1 (Lake Isabella) work around the clock to provide top quality water to every tap. 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.

Copies of this report are available at our office; at the Lake Isabella Property Owners Association Office, 1096 Queensway, Lake Isabella, MI 48893; and at the Office of the Village of Lake Isabella, 1010 Clubhouse Drive, Lake Isabella, MI 48893. This report is also available on our Isabella County Drain Office web site at www.isabellacounty.org/drain/