

Your Annual Drinking Water Quality Report For
Baldwin Township
January 1, 2016 - December 31, 2016

Dear Customer:

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 of the 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 wholly committed to ensuring the quality of your water.

Where does our water come from?

The source of our water is Lake Huron; the intake structure is located approximately 1 mile off shore at a depth of approximately 40 feet. This water source has been in use since 1992 and is considered to be of the highest quality.

The water is then treated via a very effective and unique process designed to reduce, remove or destroy contaminants in the source water. This processing takes place at our facility located at 247 S. Baldwin Resort Rd. and is owned by the **Huron Shore Regional Utility Authority**. The water treatment plant is staffed by MDEQ-certified professional water treatment specialists who in addition to formal education and job-related courses, keep current on ever-changing technology and regulations by attending continuing education courses, workshops, and seminars. As you will see in the following information, we monitor our lake water and drinking water supplied to you very closely to ensure its quality.

The State of Michigan has completed a Source Water Assessment Report (SWAR) for our water system. Included in the SWAR is the susceptibility ranking for our intake. The ranking is based on several factors, including intake location, depth, water chemistry, and contaminant sources. Based on the report, our intake has a moderate degree of sensitivity to potential contaminants. The potential contaminant sources have a minimal influence over the intake. This minimal contaminant threat combined with the moderately sensitive intake yields a moderate susceptibility determination for the H.S.R.U.A. intake. If you would like to review a copy of the complete report, please contact your Local Township.

Baldwin Township wants their customers to be informed about their water quality and will be glad to answer any questions pertaining to your water supply. If you as a customer are confused or feel misinformed, give your utility the opportunity to clarify things.

We routinely monitor your drinking water for contaminants according to federal and state laws. The following tables included with this report show the results of our monitoring for the period of January 1 to December 31, 2016. Sample results that are more than five years old need not be included in the report, even if it is the last available data for the supply (e.g., some metals are collected on a nine year frequency). 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 Safe Drinking Water Hot Line at 1-800-426-4791.

It's our pleasure to report that in 2016 as in all years past, the water delivered from the water treatment plant met or surpassed all federal and state standards for quality.

If you wish to obtain a copy of this report contact your Township Hall listed at the end of this report. If you have questions concerning the contents of this report or the water utility, contact:

Catherine Garnham
HSRUA Superintendent
989-362-0050
247 S. Baldwin Resort Rd.
East Tawas, MI 48730

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:

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

Environmental Protection Agency (EPA)

Food and Drug Administration (FDA)

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 disinfectant level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the 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.

Michigan Department of Natural Resources and Environment (MDNRE)

Nephelometric Turbidity Unit (NTU) - Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Not regulated (NR) - The substance is not currently regulated by the USEPA and or MDNRE. Monitoring helps EPA to determine where these contaminants occur and whether there is a need to regulate them.

Not applicable (NA)

Not Detected (ND)

Parts per million (ppm)

Parts per billion (ppb)

Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

The tables contain the only drinking water contaminants we detected in the year 2016. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report.

TEST RESULTS

Microbiological Contaminants Detected

Contaminant	Violation	Level Detected	Unit of Measurement	MCLG	MCL	Possible Sources
*Turbidity	No	0.04 avg.	NTU	NA	TT	Soil runoff
		0.16 max				

*Turbidity is the measure of the clarity of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. High levels may pose a health hazard by interfering with disinfection. Low turbidity is one of the most important indicators of effective water treatment. Samples of the system's filtered water must be less than or equal to 0.3 NTU in at least 95% of the samples. During the year 2016, all (100%) of samples have met this requirement.

Inorganic Contaminants Detected

Contaminant	Violation	Level detected	Unit of Measurement	MCLG	MCL	Possible Sources
Barium at the Plant Tap Sampled 2012	No	0.01	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride at the Plant Tap	No	0.67	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth
Chlorine in the Distribution system	No	Range 0.21 / 1.33	ppm	MRDLG 4	MRDL 4	Water additive to control microbes
Highest Running Annual Average		0.70				

Organic Contaminants Detected in the Distribution system

Contaminant	Violation	Level Detected	Range Min/Max	Unit of Measurement	MCLG	MCL	Possible Sources
Total Trihalomethanes	No	71.2	NA	ppb	0	80	By-product of drinking water chlorination
Haloacetic Acids	No	19	NA	ppb	NA	60	By-product of drinking water chlorination

Lead and Copper Monitoring

Sampled in Baldwin Township's distribution system at individual taps during the monitoring period of June 1, 2015 thru September 30, 2015

Contaminant	Exceeds Action Level?	# of samples > AL	90 th percentile value	Unit of Measurement	MCLG	Action Level (AL)	Possible Sources
Copper	No	0	155	ppb	1300	1300	Corrosion of household plumbing
* Lead	No	0	2.5	ppb	0	15	Corrosion of household plumbing

****Important Information About Lead:***

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

Disinfection Byproducts Precursors Detected

Contaminant	Violation	Range Min/Max	Unit of Measurement	MCLG	MCL	Possible Sources
*Total Organic Carbon (Sampled Quarterly)	No	1.02 / 1.25	ppm	NA	TT	Normally present in the environment

**Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts such as Trihalomethanes and Haloacetic acids. Due to low TOC values there is no TT requirement for a percentage reduction*

Unregulated contaminants

Contaminant	Violation	Concentration	Unit of Measurement	MCLG	MCL	Possible Sources
Sodium	No	ND	ppm	NR	NR	Naturally occurring constituent in water

As you can see by these tables, our water system had no violations during this reporting period.

Baldwin Township is proud that your drinking water meets all federal and state requirements. We have learned from our monitoring and testing that some contaminants have been detected but are well within the standards. The EPA has determined that your water is safe at these levels.

Information for people with special health concerns

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. 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 Hot Line (800-426-4791).

The sources of all 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:

- **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, urban storm water runoff, and residential uses.
- **Organic Chemical contaminants**, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production in mining activities.

In order to ensure that tap water is safe to drink, the **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.

There is nothing more important to our community than quality drinking water. The maintenance and expansion of the treatment facility and distribution system has and will continue to be important to the growth and welfare of Iosco County.

We will continue to 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.

Opportunities for Public Participation:

We believe that informed citizens can be strong allies of water systems as they take action on pressing problems. The following is a listing of meeting dates and locations where your elected officials may discuss water system issues.

Water Supplier	Regular Meeting Schedule	Time/Location/Contact
Baldwin Township	2nd Monday of each month	7:30 p.m. Baldwin Township Hall 1119 Monument Road Tawas City, MI 48763 989-362-3742
Huron Shore Regional Utility Authority	1st Tuesday of each month	9:00 a.m. HSRUA Treatment Plant 247 S. Baldwin Resort Road East Tawas, MI 48730 989-362-0050