Your Annual Drinking Water Quality Report For
Baldwin Township
January 1, 2023 - December 31, 2023

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 from 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 South Baldwin Resort Road which is owned by the ***Huron Shore Regional Utility Authority (HSRUA).*** The water treatment plant is staffed by Michigan Department of Environment, Great Lakes, and Energy (EGLE) 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 HSRUA 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, 2023. 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 2023 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 Winn
HSRUA Superintendent
989-362-0050
247 S. Baldwin Resort Rd.
East Tawas, MI 48730

The following is a list of terms and abbreviations you might not be familiar with. To help you better understand these terms, we've provided the 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 Environment, Great Lakes, and Energy* (EGLE)**

***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 MDEQ. 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)** or milligrams per liter

***Parts per billion* (ppb)** or micrograms per liter

***Parts per trillion* (ppt)** or nanograms per liter

***Picocuries per liter* (pCi/l)** a measure of radioactivity

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

The tables contain only drinking water contaminants we detected in the year 2023. 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.

HSRUA - Water Treatment Plant

PRIMARY STANDARDS – Required sampling for substances which have federally enforced regulations, these substances are directly related to the safety of drinking water.

Inorganic/Organic Chemicals	Sample Date	MCLG	MCL	Result	Range	Violation	Likely source
Nitrate (ppm)	08/02/2023	10	10	ND	N/A	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Fluoride (ppm)	08/02/2023	4	4	0.66	N/A	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
TOC	**Sample Date**	**MCLG**	**MCL**		**Range**	**Violation**	**Likely source**
TOC (ppm)	Quarterly	N/A	TT		1.34 – 1.58	No	Naturally present in the environment
Turbidity[1]	**Sample Date**	**MCLG**	**MCL/TT**	**Highest Result**	**Range**	**Violation**	**Likely source**
NTU Filtered Water	Daily	N/A	TT = 1	0.07	0.02 – 0.07	No	Soil run-off
% of samples Filtered Water	Daily	N/A	95% <0.3NTU	100%	N/A	No	Soil run-off
Microbial Contaminants	**Sample Date**	**MCL**		**MCLG**	**Detected**	**Violation**	**Likely source**
Total Coliform (total number or % of positive samples/month)	Daily	TT		N/A	0	No	Naturally present in environment
E. coli (positive samples)	Daily	See E. coli note[4]		0	0	No	Human and animal fecal waste

ADDITIONAL MONITORING – Required and non-required sampling for substances that do not have federally enforced regulations, these substances are not directly related to your health. They reflect aesthetic qualities such as taste, odor, and appearance.

Sampled at Plant Tap	Sample Date	MCLG	MCL	Average Result	Range	Violation	Likely source
Sodium[2] (ppm)	08/03/2023	N/A	N/A	5	N/A	No	Erosion of natural deposits
Chloride (ppm)	08/03/2023	N/A	250	9	N/A	No	Erosion of natural deposits
Sulfate (ppm)	08/03/2023	N/A	250	24	N/A	No	Naturally occurring mineral
Sampled at Plant Tap	**Sample Date**	**MCLG**	**MCL**	**Average Result**	**Range**	**Violation**	**Likely source**
Fluoride (ppm)	Daily	4	4	0.73	0.47 – 0.86	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
pH	Daily	N/A	6.5 – 8.5	7.18	7.01 – 7.35	No	Naturally occurring elements
Hardness CaCO3 (ppm)	1/Week	N/A	N/A	108	98 – 117	No	Naturally occurring elements
Alkalinity (ppm)	Daily	N/A	N/A	71	64 – 83	No	Naturally occurring elements

[1] Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

[2] Sodium is not a regulated contaminant.

Per- and polyfluoroalkyl substances (PFAS)							
Regulated Contaminant	**MCL, TT, or MRDL**	**MCLG or MRDLG**	**Level Detected**	**Range**	**Year Sampled**	**Violation**	**Typical Source of Contaminant**
Hexafluoropropylene oxide dimer acid (HPPO-DA) (ppt)	370	N/A	ND	N/A	2023	No	Discharge and waste from industrial facilities utilizing the Gen X chemical process
Perfluorobutane sulfonic acid (PFBS) (ppt)	420	N/A	ND	N/A	2023	No	Discharge and waste from industrial facilities; stain-resistant treatments
Perfluorohexane sulfonic acid (PFHxS) (ppt)	51	N/A	ND	N/A	2023	No	Firefighting foam; discharge and waste from industrial facilities
Perfluorohexanoic acid (PFHxA) (ppt)	400,000	N/A	ND	N/A	2023	No	Firefighting foam; discharge and waste from industrial facilities
Perfluorononanoic acid (PFNA) (ppt)	6	N/A	ND	N/A	2023	No	Discharge and waste from industrial facilities; breakdown of precursor compounds
Perfluorooctane sulfonic acid (PFOS) (ppt)	16	N/A	ND	N/A	2023	No	Firefighting foam; discharge from electroplating facilities; discharge and waste from industrial facilities
Perfluorooctanoic acid (PFOA) (ppt)	8	N/A	ND	N/A	2023	No	Discharge and waste from industrial facilities; stain-resistant treatments

Baldwin Township – Distribution System							
Copper & Lead	**Year Sampled**	**MCLG**	**AL**	**Your Water[3]**	**Range**	**Violation**	**Likely source**
Copper (ppm)	2021	1.3	1.3	0.2	ND – 0.3	No	Corrosion of household plumbing
Lead (ppb)	2021	0	15	0	ND – 2	No	Corrosion of household plumbing erosion of natural deposits
Disinfectant By-Products	**Sample Date**	**MCLG**	**MCL**	**Result**	**Range**	**Violation**	**Likely source**
TTHMs (ppb)	2023	N/A	80	59.9	16.0 – 59.9	No	Disinfection By-product
HAA5 (ppb)	2023	N/A	60	30	13 - 30	No	Disinfection by-product
Disinfectant Residual	**Sample Date**	**MRDLG**	**MRDL**	**Quarterly RAA**	**Range**	**Violation**	**Likely source**
Free Chlorine (ppm)	2023	4.0	4.0	0.83	0.34 – 1.09	No	Disinfectant added to control microbes.
Microbial Contaminants	**Sample Date**	**MCL**		**MCLG**	**Detected**	**Violation**	**Likely source**
Total Coliform (total number or % of positive samples/month)	1/month	TT		N/A	0	No	Naturally present in environment
E. coli in the distribution system (positive samples)	1/month	See E. coli note[4]		0	0	No	Human and animal fecal waste

[3] Ninety (90) percent of the samples collected were at or below the level reported for our water.

[4] E. coli MCL violation occurs if: (1) routine and repeat samples are total coliform-positive and either is E. coli-positive, or (2) the supply fails to take all required repeat samples following E. coli-positive routine sample, or (3) the supply fails to analyze total coliform-positive repeat sample for E. coli.

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. Baldwin Township 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 have a lead service line it is recommended that you run your water for at least 5 minutes to flush water from both your home plumbing and the lead service line. 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 or at http://www.epa.gov/safewater/lead.

Baldwin Township has a total of 389 water service lines of either all copper or copper/polyethylene composition. Baldwin Township has zero service lines that are known to be lead.

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. 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 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 Wednesday of each month**	**6:00 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**