

VILLAGE OF THURSTON PUBLIC WATER SYSTEM

Drinking Water Consumer Confidence Report For 2013

The Village of Thurston has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. Included within this report is general health information, water quality test results, how to participate in decisions concerning your drinking water and water system contacts.

What is the source of your drinking water?

The Village of Thurston receives drinking water from the Village of Baltimore. The Village of Baltimore receives water from drilled wells located just north of the water plant at 302 North Street. Treated water is then pumped to Thurston and re-treated with sodium hypochlorite, similar to Clorox bleach used in your home.

In 2002, the Ohio Environmental Protection Agency (OEPA) completed a Source Water Protection Assessment of the Village of Baltimore's water source. This assessment indicated that the Village of Baltimore's source of drinking water has a low susceptibility to contamination because the depth to the bottom of the confining layer in the sand and gravel buried valley aquifer is greater than 100' below the ground surface. This layer provides protection from infiltration of contaminants from the ground's surface to the aquifer. The water quality results do not indicate that contamination has impacted the aquifer.

What are sources of contamination of drinking 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 land surface 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.

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

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 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 (1-800-426-4791).

Protecting our drinking water source from contamination is the responsibility of all area residents. Please dispose of hazardous chemicals in the proper manner and report polluters to the appropriate authorities. Only by working together can we ensure an adequate safe supply of water for future generations.

Who needs to take special precautions?

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. In 2011, the Village of Thurston conducted sampling for bacteria, volatile organic compounds, and residual disinfectants. 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, are more than one year old.

The Village of Thurston has a current, unconditioned license to operate a public water system.

Listed below is information on those contaminants that were found in the Village of Thurston drinking water.

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Inorganic Contaminants							
Lead (ppb)	0	AL = 15.5	.006	< 5	NONE	2013	Corrosion of household plumbing systems.
Copper (ppb)	1.3	AL = 1.35	.104	<.40 -.130	NONE	2013	Corrosion of household plumbing systems.
Organic Contaminants							
Trihalomethanes TTHMs (ppb)	0	80	39.3	N/A	NONE	2013	By-product of drinking water chlorination
Haloacetic Acid HAA5 (ppb)	0	60	<6.0	N/A	NONE	2013	By-product of drinking water chlorination
2011 Residual Disinfectants							
Total Chlorine (ppm)	4	4	Avg. = 1.09	0.00-2.19	NONE	2013	Water additive used to control microbes

* Under the Stage 2 Disinfectants/Disinfection Byproducts Rule (D/DBPR), the Village of Thurston Public Water System was required by USEPA to conduct an evaluation of our distribution system. This is known as an Initial Distribution System Evaluation (IDSE), and is intended to identify locations in our distribution system with elevated disinfection byproduct concentrations. The locations selected for the IDSE may be used for compliance monitoring under Stage 2 DBPR, beginning in 2012. Disinfection byproducts are the result of providing continuous disinfection of your drinking water and form when disinfectants combine with organic matter naturally occurring in the source water. Disinfection byproducts are grouped into two categories, Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5). USEPA sets standards for controlling the levels of disinfectants and disinfectant byproducts in drinking water, including both TTHMs and HAA5s.

Lead and Copper

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 Thurston Public Water System 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 you 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>.

Total Trihalomethanes (TTHMS's)

Some people who drink water containing Trihalomethane 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.

Nitrate

Nitrate in drinking water at levels above 10 ppm is a health risk for infants less than six months of age. High nitrate levels in drinking

water can cause blue baby syndrome. Nitrate levels may rise quickly for short period of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

Arsenic

While your drinking water meets the EPA's standard for arsenic, it does contain low levels of arsenic. The EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

How do I participate in decisions concerning my drinking water?

Public participation and comment are encouraged at regular monthly meetings of the Thurston Council which meets the second Wednesday of each month at 2215 Main Street at 7:00 p.m.

For more information on your drinking water contact the Village of Thurston municipal office at (740) 862-6003.

Definitions of some terms contained within this report.

Maximum Contaminant Level Goal (MCLG): The level of 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 that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

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

IDSE: Initial Distribution System Evaluation

Parts per Million (ppm) or Milligrams per Liter (mg/L): 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 (ug/l): Units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

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 detectable level was 5 and the contaminant in that sample was not detected.

Because the Village of Thurston purchases its water from the Village of Baltimore, we are including Baltimore's information below on the following page.

The Village of Baltimore Public Water System Consumer Confidence Report 2013



Village of Baltimore
103 West Market Street
Baltimore, Ohio 43105

The Village of Baltimore Drinking Water Consumer Confidence Report For 2013

Introduction

The Village of Baltimore has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. Included within this report is general health information, water quality test results, how to participate in decisions concerning your drinking water and water system contacts.

The Village of Baltimore continues to work diligently to provide safe potable drinking water to all of its consumers. The Village is in the process of training more employees in backflow prevention to help ensure the safety of our potable drinking water.

The Village of Baltimore has a current, unconditioned license to operate our water system.

Source Water Information.

The Village of Baltimore is a community public water system serving approximately 3600 people. The water system operates three wells that pump approximately 350,000 gallons of water per day.

Maximum Contaminant level (MCL): The highest level of contaminant that is 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 ($\mu\text{g/L}$) 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.

Maximum Residual Disinfectant Level (MRDL): The highest residual disinfectant level allowed.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of residual disinfectant below which there is no known or expected risk to health.

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

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

The ≤ 5 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.

IDSE: Initial Distribution System Evaluation

young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Village of Baltimore Water System 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 or at <http://www.epa.gov/safewater/lead>.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in you home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791).

Total Trihalomethanes (TTHM'S)

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. The Village of Baltimore levels were not in excess of the MCL.

How do I participate in decisions concerning my drinking water?

Public participation and comment are encouraged at regular meetings of Village Council which meets the second and fourth Monday of each month at 7:30pm.

For more information on your drinking water contact Scott Brown at 740-862-4491 or by email at sbrown@baltimoreohio.org.

Definitions of some terms contained within this report.

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.

Simazine	4.0	4.0 ug/l	<.35	N/A	No	2011	Herbicide Run off
Volatile Organic Contaminants							
Total Trihalomethanes (TTHM)	N/A	80	42	0-43.9	No	2013	By-Product of Drinking Water Chlorination
Haloacetic Acids (HAA5)	N/A	60	8	0-8.3	No	2012	By-Product of Drinking Water Chlorination
Residual Disinfectants							
Total Chlorine	4.0	4.0	1.2	1.1-1.2	No	2013	Water additive used to control microbes.

Nitrate

Nitrate in drinking water at levels above 10 ppm is a health risk for infants less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

Arsenic

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems

Lead and Copper

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and

Water Quality Monitoring Information-Table of Detected Contaminants

Listed below is information on those contaminants that were found in the Village of Baltimore drinking water.

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Bacteriological							
Total Coliform Collected 36 Samples	0	>1 Monthly	0	0-1	No	2013	Naturally Present in the Environment
Inorganic Contaminants							
Antimony, Barium, Beryllium, Cadmium, Chromium, Cyanide, Fluoride, Mercury, Nickel, Selenium, and Thallium	Misc	Misc	Below MCL'S	Misc	No	2011	Erosion of Natural Deposits
Copper	1.3	AL=1.3	.100	N/A	No	2011	Corrosion of Household
Lead	0	AL=15	<5.0	N/A	No	2011	Corrosion of Household
Arsenic	0	10 MG/L	4.8	N/A	No	2011	Erosion of Natural Deposits
Nitrate	10	10	.74	N/A	No	2013	Run off from fertilizer use; leaching from septic tanks:sewage:Erosion of natural deposits
Synthetic Organic Contaminants including Pesticides and Herbicides							
Atrazine	3.0	3.0 ug/l	<.3	N/A	No	2011	Run off from herbicide used on row crops
Alachlor	2.0	2.0 ug/l	<.20	N/A	No	2011	Run off from herbicide used on row crops

which can be naturally-occurring or be the result of oil and gas production and mining activities.

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

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 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 (1-800-426-4791).

Who needs to take special precautions?

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. The Village of Baltimore conducted sampling for Nitrates; Bacteria; and Disinfection By-Product contaminant's during 2013. Samples were collected for a total of thirty different contaminants most of which were not detected in the Village of Baltimore 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, are more than one year old.

Monitoring and Reporting Violations

During the 2013 calendar year the Village of Baltimore received no reporting or monitoring violations.

The drinking water protection zone is combined by two protection areas. The Inner Protection Zone which provides ground water to the wells for one year of pumping. A chemical spill in this zone poses a greater threat to the drinking water, so this area warrants a more stringent protection. The Outer Protection Zone is the additional area that contributes water when the wells are pumped for five years. Together, they comprise the drinking water source protection area.

In 2002 the Ohio Environmental Protection Agency (OEPA) completed a Source Water Protection Assessment (SWAP) of the Village of Baltimore. This assessment indicates that the Village of Baltimore's source of drinking water has a low susceptibility to contamination because the depth to the bottom of the confining layer in the sand and gravel buried valley aquifer is greater than 100' below the ground surface. This layer provides protection from contaminants from infiltrating from the grounds surface to the aquifer and that the water quality results do not indicate that contamination has impacted the aquifer.

The Village of Baltimore is part of the Fairfield County Regional Well Head Protection Team and we are working diligently to provide the safest Source Water Protection for our well's that we possibly can. A copy of the Source Water Protection plan can be obtained by contacting the village offices at (740) 862-4491.

What are sources of contamination to drinking water?

The sources of drinking water both tap water and bottled water includes 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 Strom water runoff, and septic systems; (E) radioactive contaminants,