

ANNUAL DRINKING WATER REPORT Swanton Water Treatment Plant

We're pleased to present to you this year's *Annual 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 Swanton reservoir. We pump water from Swan Creek to fill the reservoir. The Swanton Water Treatment Plant is a lime-soda softening plant. The chemicals we use are **activated carbon, aluminum sulfate, chlorine, copper sulfate, lime, potassium permanganate, soda ash, phosphate and fluoride**. The Village of Swanton has an emergency back-up connection to the Swan Creek Water District located on County Road 2, just south of Airport Highway. The connection was not used in 2016.

The Village of Swanton public water system uses surface water drawn from Swan Creek as well as ground water pumped from one water supply well. Surface waters are by their nature susceptible to contamination, and numerous potential contaminant sources along their banks make them more so. The protection areas around Swan Creek and the well field include a moderate number of potential contaminant sources, including agricultural activities (animal feedlots and row crops), industrial storm water, home construction, above ground storage tanks, oil and gas production activities, unsewered areas, wastewater treatment discharges, commercial sources, and a stone quarry. As a result, the drinking water supplied to the Village of Swanton public water system is considered to have a high susceptibility to contamination. Historically, the Village of Swanton public water system has effectively treated this source water to meet drinking water quality standards. The potential for water quality impacts can be further decreased by implementing measures to protect Swan Creek and the local aquifer. More detailed information is provided in the Village of Swanton's Drinking Water Source Assessment Report, which can be obtained by calling 419-826-5831.

This *Annual Water Quality Report* shows our water quality and what it means. If you have any questions about this report or concerning your utility, please contact **Brian Hildebrand, Swanton Water Treatment Plant, 219 Chestnut St., Swanton, OH 43558, or by phone at 419-826-5831**. 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 Water Committee Meetings. They are held on **the second Monday of each month at 6:00 pm in the Village Council Chambers**.

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 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 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 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.
- 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 stormwater runoff, and septic systems
- Radioactive contaminants, which can be naturally-occurring or be the results of oil and gas production and mining activities.

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. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

The Swanton Water Treatment Plant routinely monitors for contaminants in your drinking water according to Federal and State laws. This report shows the results of our monitoring for the period of January 1st to December 31st, 2016.

In the contaminant 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:

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 (ug/l) – one part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000.

Less than = <

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

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 MCLGs 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.

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.

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

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.

Microbiological

Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. The turbidity set by the EPA is 0.3 NTU in 95% of the daily samples and shall not exceed 1 NTU at any time. As reported in the table the Swanton Water Treatment Plant highest recorded turbidity result for 2016 was .29 NTU and lowest monthly percentage of samples meeting the turbidity limits was 100.0%.

Lead & Copper

A public water system is required to collect samples at homes that are a high risk to have elevated lead and copper levels in their water. A public water system is in compliance if the 90th percentile is no greater than 15 ppb for lead and 1.3 ppm for copper. The latest round of lead and copper monitoring for the Swanton Water Treatment Plant was in June 2014. The 90th percentile for lead was <4 ppb and the highest single measurement was <4 ppb. The 90th percentile for copper was .03 ppm and the highest single measurement was .055 ppm.

Lead Educational Information

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 Swanton Water Treatment Plant 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>.

License to Operate (LTO) Status Information

We have a current, unconditioned license to operate our water system.

TEST RESULTS								
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	Range of Detections	Year of Sample	MCL	Likely Source of Contamination
Microbiological Contaminants								
Turbidity	N	.29	NTU	NA	.04-.29	2016	TT	Soil runoff
Turbidity (% samples meeting standard)	N	100%	NTU	NA	100%-100%	2016	TT	Soil runoff
Total Organic Carbon (TOC)	N	3.0	ppm	NA	2.9-4.0	2016	TT	Naturally present in the environment
Inorganic Contaminants								
Fluoride	N	1.24	ppm	4	.85-1.24	2016	4	Erosion of natural deposits: water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	N	2.74	ppm	10	.62-2.74	2016	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Copper	N	.03	ppm	1.3	NA	2014	AL=1.3	Corrosion of household plumbing systems, erosion of natural deposits: Leaching from wood preservatives
Zero out of 20 samples was found to have copper levels in excess of the copper action level of 1.3 ppm.								
Barium	N	.011	ppm	2	NA	2016	2	Discharge of drilling wastes or metal refineries; erosion of natural deposits
Volatile Organic Contaminants								
TTHM (Total trihalomethanes)	N	23.1	ppb	NA	2.9-59.3	2016	80	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	N	6.5	ppb	NA	0-25.1	2016	60	By-product of drinking water chlorination
Chloroform	N	.70	ppb	NA	NA	2016	NA	By-product of drinking water chlorination
Bromoform	N	2.7	ppb	NA	NA	2016	NA	By-product of drinking water chlorination
Bromodichloromethane	N	2.1	ppb	NA	NA	2016	NA	By-product of drinking water chlorination
Dibromochloromethane	N	3.8	ppb	NA	NA	2016	NA	By-product of drinking water chlorination
Dichloromethane	N	.70	ppb	0	<0.5-.7	2013	5	Discharge from pharmaceutical and chemical factories
Residual Disinfectants								
Total Chlorine	N	1.7	ppm	MRDLG 4	0.8-2.4	2016	MRLD 4	Water additive to control microbes

Radiological Contaminants								
Gross Beta	N	6.4	pCi/L	0	NA	2014	4 mrem/yr (AL=50 pCi/L)	Decay of natural and man-made deposits.

“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 form your health care provider.”

The value reported under “Level Found” for Total Organic Carbon (TOC) is the lowest ratio between percentages of TOC actually removed to the percentage of TOC required to be removed. A value greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one (1) indicates a violation of the TOC removal requirements.

Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer

What does this mean? We’re proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some contaminants have been detected. The EPA has determined that your water *IS SAFE* at these levels.

MCL’s are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, 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 (800-426-4791).

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding. Please call our office if you have any questions. We at the Swanton Water Plant 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.