TRUMBULL COUNTY

2016 DRINKING WATER

CONSUMER CONFIDENCE REPORT

WARREN TOWNSHIP WATER DISTRICT

INTRODUCTION

Trumbull County has a current, unconditioned license to operate this water district. Trumbull County has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. This report was required as part of the Safe Drinking Water Act Re-authorization of 1996 and is required to be delivered to the consumers by July 1, 2017. Included with this report is general health information, water quality test results, how to participate in decisions concerning your drinking water and water system contacts.

Trumbull County obtains its primary source water from the City of Warren, which draws from Mosquito Creek Reservoir. However, under emergency conditions that warrant an alternate feed, water can be drawn from the City of Newton Falls, which draws from the Mahoning River. Both sources are considered surface water sources and require extensive treatment before being used as drinking water.

Water Source Assessment

For the purposes of source water assessments in Ohio, all surface waters are considered to be susceptible to contamination. By their nature, surface waters are readily accessible and can be contaminated by chemicals and pathogens which may rapidly arrive at the public drinking water intake with little warning or time to prepare.

The City of Warren public water system treats the water to meet drinking water quality standards, but no single treatment technique can address all potential contaminants. The potential for water quality impacts can be further decreased by implementing measures to protect Mosquito Creek Reservoir and its watershed. More detailed information is provided in the City of Warren's Drinking Water Source Assessment Report, which can be obtained by calling the chemist at 330-841-2578.

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 the 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. These include:

- Viruses and bacteria, which may come from sewage treatment plants septic systems, livestock, and wildlife.
- Salts and metals, which can be natural or may result from storm runoff and wastewater discharges, and farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and septic systems.
- Organic chemicals, which originate from industrial processes, petroleum production, gas stations, storm runoff, and septic systems.
- Radioactive substances, 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, EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. Drinking water, including bottled water, may reasonably 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.

Safe Drinking Water Hotline

1-800-426-4791

WARREN TOWNSHIP WATER FACTS . . . .

The City of Warren uses chloramines for disinfection of viruses and bacteria while Newton Falls uses chlorine to disinfect their water. Fluoride is also added to enhance dental protection. The levels of these two additives are monitored daily to ensure proper dosages are being added.

On average, the County purchases 1.14 million gallons of water per month from the City of Warren and Newton Falls for emergency conditions for the Warren Township Water district. The distribution system consists of 8.3 miles of water line varying in size from 6 through 12 inches in diameter.

Warren Township Water District has 270 service connections and services an estimated 675 people.

The County strives to provide safe and aesthetically pleasing drinking water to its residents as well as many businesses and visitors.

SPECIFIC 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 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 an infection** by *cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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 Warren Township Water District is responsible for providing high quality drinking water, but cannot control the variety of materials used in household 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. A list of laboratories certified in Ohio to test for lead or perform other analyses on public drinking water may be found at www.epa.state.oh.us/ddagw or by calling 614-644-2752. 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.

Revised Total Coliform Rule (RTCR) Information

The Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2016. All water systems were required to comply with the Total Coliform Rule from 1989 to March 31, 2016, and begin compliance with a new rule, the Revised Total Coliform Rule, on April 1, 2016. The new rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of total coliform bacteria, which includes E. coli bacteria. The U.S. EPA anticipates greater public health protection under the new rule, as it requires water systems that are vulnerable to microbial contamination to identify and fix problems. As a result, under the new rule there is no longer a maximum contaminant level violation for multiple total coliform detections. Instead, the new rule requires water systems that exceed a specified frequency of total coliform occurrences to conduct an assessment to determine if any significant deficiencies exist. If found, these must be corrected by the PWS.

ABOUT YOUR DRINKING WATER

The EPA requires regular sampling to ensure drinking water safety. The City of Warren (CW) and Trumbull County Sanitary Engineers (TCSE) conducted sampling for bacteria, inorganic, radiological, synthetic organic, and volatile organic contaminants during 2016. Samples were collected for a total of 56 different contaminants, most of which were not detected in either water supply. The Ohio EPA requires monitoring for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of their data, though accurate, are more than one year old.

CITY OF WARREN DETECTED CONTAMINANTS FOR 2016

CONTAMINANT	UNIT	MCGL	MCL	DETECTED	TESTED	MAJOR SOURCE	VIOLATION
Fluoride	ppm	4	4	.95	2016 CW	Erosion of natural deposits; Water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	NO
Nitrate	ppm	10	10	.23	2016 CW	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits	NO
HAA-Halo acetic Acid[3]	ppb	NA	60	16.93 Avg.	2016	By-product of drinking water chlorination Range 9.0-26.5	NO
Trihalomethane TTHMs[3]	ppb	NA	80	59.15 Avg.	2016	By-product of drinking water chlorination Range 36.3-79.4	NO
Barium	ppm	2	2	0.013	2016 CW	Discharge of drilling wastes; Discharge from metal refineries: Erosion of natural deposits	NO
Turbidity[1]	ntu	NA	TT	.14	2016 CW	Soil run-off	NO
Altrazine	ppb	3	3	.16	2016 CW	Runoff from herbicide used on row crops	NO
Simazine	ppb	4	4	.14	2015 CW	Runoff from herbicide used on row crops	NO

TOC[2]	**ppm**	**NA**	**TT**	**.83**	**2016 CW**	**Naturally present in the environment**	**NO**
Lead	**ppb**	**0**	**AL= 15**	**0.00**	**2014 TCSE**	**Corrosion of household plumbing system Range ND – ND**	**NO**
Copper	**ppb**	**1300**	**AL= 1300**	**91.3**	**2014 TCSE**	**Corrosion of household plumbing system and leaching from wood preservatives**	**NO**
PH				**8.8 Avg.**	**2016 CW**	**Measure of the acidity or alkalinity of a solution**	
Hardness	**ppm**			**85 Avg.**	**2016 CW**	**Hardness is caused by compounds of calcium, magnesium, and a variety of other metals. For grains/gal. divide by 17.1**	
Total Chlorine Chloramines	**Ppm**	**4**	**4**	**1.46 Ave.**	**2016 TCSE**	**Water additive used to control microbes Range- 0.68-1.61**	NO

UNREGULATED CONTAMINANTS

SUBSTANCES FOR WHICH EPA REQUIRES MONITORING TO DETERMINE WHERE CERTAIN SUBSTANCES OCCUR AND WHETHER IT NEEDS TO REGULATE THOSE SUBSTANCES.

CONTAMINANT	UNIT	MCLG	MCL	DETECTED AVE	RANGE	TESTED	MAJOR SOURCE	VIOLATION
Chlorate	ppb	N/A	N/A	352	133-352	2014 2015		N/A
Molybdenum	ppb	N/A	N/A	1.6	nd-1.6	2014 2015		N/A
Strontium	ppb	N/A	N/A	69	54-69	2014 2015		N/A
Chromium-6	ppb	N/A	N/A	0.037	nd-0.037	2014 2015		N/A
Chromium total	ppb	N/A	N/A	0.24	nd-0.24	2014 2015		N/A
Vanadium	ppb	N/A	N/A	.28	nd-0.28	2014 2015		N/A

[1] 100% of the samples tested were below the treatment technique level of 0.3 NTU. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of the filtration system.

[2] the value reported under "Level Four" 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 of 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.

[2] The county is not in violation for TOC because an alternate method (SUVA Value) was used to meet TOC requirement. All SUVA values are within the required range.

[3] 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.

[3] Some people who drink water containing Halo Acetic Acid in excess of MCL over many years may experience problems with their liver, kidneys, or central nervous system and may have an increased risk of getting cancer.

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 your 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. 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.

Our 90th percentile value for lead and copper does not exceed the action level, therefore, there are no actions being implemented at this time other than sharing this consumer notice.

Notice of Violation for failure to report a major service interruption, Facility ID #7859148, Community Water System, ORC Certification #WD1-1013972. Failure to notify Ohio EPA within 24 hrs of a major interruption of service (OAC) 3745-83-01(i)(4)(b). Please note that a fax was sent on November 17, 2016 yet it was not received by OEPA until November 29, 2016. Internal Procedures have been changed.

Cryptosporidium Information

The City of Warren Water Department monitored for Cryptosporidium in the source water during 2016 to comply with the Long Term 2 Enhanced Surface Water Treatment Rule (LT2). Cryptosporidium was detected in 1 sample of 3 collected from the raw water. Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100% removal. Monitoring of source water indicates the presence of these organisms. Current test methods do not enable us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease. However, immuno-compromised people are at greater risk of developing life threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease and it may be spread through means other than drinking water.

Health Effects Language for Chlorine Contact Time Violation

The United States Environmental Protection Agency (USEPA) sets drinking water standards and has determined that the presence of microbiological contaminants is a health concern at certain levels of exposure. If water is inadequately treated, microbiological contaminants in that water may cause disease. Disease symptoms may include diarrhea, cramps, nausea, and possibly jaundice, and any associated headaches and fatigue. These symptoms, however, are not just associated with disease-causing organisms in drinking water. USEPA has set enforceable requirements for treating drinking water to reduce the risk of these adverse health effects. Treatment such as filtering and disinfecting the water removes or destroys microbiological contaminants. Drinking water, which is treated to meet USEPA requirements, is associated with little to none of this risk and should be considered safe.

KEY TO TABLES

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.

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.

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

ppb : parts per billion, or 1 part in a billion parts.

Ppm : parts per million, or 1 part in a million parts.

To put the unit **ppb** in perspective imagine one yellow M&M mixed in a container of 1 billion brown M&Ms

nd = not detected at testing limits

TT: Treatment technique: A required process intended to reduce the level of a contaminant in drinking water. "<" This is a mathematical symbol that means "less than" ">" is a symbol that means "greater than".

TTHMs : Trihalomethanes that are created by the disinfection process of water treatment. 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.

HAA5 : Haloacetic Acids (5): Contaminant group whose combined MCL is 60 ug/l and is calculated as the sum of the concentrations of the following five acids. Dibromo-acetic, Dichloro-acetic, Monobromo-acetic, Monochloro-acetic, and Trichloro-acetic based on a (RAA) Running Annual Average.

TOC: Total Organic Carbon: The value reported under "Level Found" for Total Organic Carbon is the lowest ratio between percentage 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 less than one (1) indicates a violation of the TOC removal requirements.

ug/l : micrograms per liter: or parts per billion, or 1 part in a billion parts.

BDL: Below detectable limits

Nephelometric Turbidity Unit (NTU): Nephlometric Turbidity Unit is a measure of the clarity of the water. Turbidity in excess of 5 NTU is noticeable by the average person.

OHIO METER TAMPERING LAW

In accordance with Sections 4933.18, 19, & 99 of the Ohio Revised Code, Trumbull County is required to notify customers annually of the Ohio Meter Tampering Law.

1.) Tampering is defined as interfering with, damaging or bypassing a meter or service equipment to reduce the amount of water consumption registered on the meter.

2.) No person shall reconnect a water meter, conduit, or attachment that has been disconnected by a utility without the consent of the utility.

Violator may be sentenced to a maximum of five years in jail, and/or fined up to $2500. In addition, violators must pay for the value of the water used and the cost of repairs or replacement of equipment.

SHOULD YOU HAVE QUESTIONS OR CONCERNS REGARDING THIS REPORT, DISTRIBUTION, SERVICE, PRESSURE, LEAD AND COPPER SAMPLING RESULTS OR DISCOLORED WATER, *CONTACT* Gary Newbrough, Deputy Sanitary Engineer @ 330-675-7753.