

Village of Carey WTP

Drinking Water Consumer Confidence Report

For 2017

Introduction

The *Village of Carey's* drinking water met or exceeded all Environmental Protection Agency (EPA) standards. The *Village of Carey Water Treatment Plant* is pleased to present to you this year's Annual Consumer Confidence Report as required by the Safe Drinking Water Act Amendments of 1996. This report is designed to inform you about the quality water and services we deliver to you every day. 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. 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 received the results from the source water delineation. Our source water protection plan is currently being implemented to help insure the continued protection of our system. The Carey Village Public Water System is licensed by the Ohio EPA. Our PWS ID # is OH8800012. In 2017 we had an unconditioned license to operate our water system.

Source Water Information.

The *Village of Carey's* drinking water has been designated by Ohio EPA as a ground water supplied system. The *Village of Carey* receives its drinking water from three wells, located on the northwest side of Carey adjacent to Waterworks Park, drawing from Siluro-Devonian Carbonate Aquifer with its origin found in Wisconsin. This information is courtesy of Dr. R. Peter Richards, Ph.D. Heidelberg College Water Quality Laboratory.

Ohio EPA (Environmental Protection Agency) recently completed a study of the Village of Carey's source of drinking water, to identify potential contaminant sources and provide guidance on protecting the drinking water source. According to this study, the aquifer that supplies water to the Village has a high susceptibility to contamination. This determination is based on the following:

The water quality results indicate the presence of nitrate between 4.47 and 6.23 mg/L, implying a pathway exists from the ground surface to the aquifer: The wells are located near a sensitive potential karst area with only a relatively thin protective layer of clay overlying the aquifer: The wells are cased to a shallow depth and are open between approximately 22 and 210 feet in fractured limestone: Potential contamination sources exist within the protection area.

The risk of future contamination can be minimized by implementing appropriate protective measures. More information about the source water assessment or what consumers can do to help protect the aquifer is available by calling 419-396-7998.

What are sources of contamination to 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 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 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, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (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 a small amount 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 (Center for Disease Control) 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) or at the OEPA web site at <http://www.epa.ohio.gov/>.

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 Carey 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>.

About your drinking water. The EPA requires regular sampling to ensure drinking water safety. The *Village of Carey* conducted sampling for {*bacteria; nitrate; synthetic organic chemicals, and disinfection byproducts*} contaminant sampling during 2017. Samples were collected for numerous different contaminants most of which were not detected in the *Village of Carey* 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.

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

Table of Detected Contaminants

Contaminants	MCLG	MCL	Level Found	Range of Detection	Violation	Sample Year	Typical Source of Contaminants
Radioactive Contaminants							
Radium 226 and Radium 228 (combined) (pCi/L)	0	5	<1	NA	no	2016	Erosion of natural deposits
Alpha, emitters (pCi/L)	0	15	4.3	<3-9.66	no	2016	Erosion of natural deposits

Inorganic Contaminants							
Copper (ppb)	1.3	AL=1.3	0.180	<0.020 0.320	no	2016	Corrosion of household plumbing systems
	0 out of 20 samples were above the action level						
Lead (ppb)	0	AL=15	5.4	<2.6-8.9	no	2016	Corrosion of household plumbing systems
	0 out of 20 samples were above the action level						
Inorganic Contaminants (continued)	MCLG	MCL	Level Found	Range of Detection	Violation	Sample Year	Typical Source of Contaminants
Barium (ppm)	2	2	0.0150	N/A	no	2016	Erosion of natural deposits
Nitrate (ppm) *	10	10	5.98	4.47-6.23	no	2017	Runoff from fertilizer use; leaching from septic tanks, sewage, erosion of natural deposits.
Fluoride (ppm)	4	4	.386	N/A	no	2016	Erosion of natural deposits
Disinfectant Byproducts and Chlorine							
Total chlorine (ppm)	MRDLG 4	MRDL 4	1.0	0.4-1.9	no	2017	Water additive used to control microbes.
trihalomethanes THM4 (ppb)	NA	80	27.9	11.8-27.9	no	2017	Byproduct of drinking water chlorination
haloacetic acids HAA5 (ppb)	NA	60	10.3	6.7-10.3	no	2017	Byproduct of drinking water chlorination
Unregulated and Secondary Contaminates							
Volatile Organic Contaminants (unregulated)							
1,2-1,4 Dichlorobenzene ppb	60	60	<.5	N/A	no	2016	Byproduct of drinking water chlorination
Carbon Tetrachloride ppb	5	5	<.05	N/A	no	2016	Byproduct of drinking water chlorination
Synthetic Organic Contaminants, including pesticides and herbicides							
Carbofuran	.04	.04	<.005	NA	no	2016	Agricultural uses, storm runoff, residential uses
Picloram	.5	.5	<.010	NA	no	2016	Agricultural uses, storm runoff, residential uses
Di(2-Ethylhexyl)Phthalate(ug/l)	6	6	<..52	NA	no	2017	Agricultural uses, storm runoff, residential uses
Di(2-Ethylhexyl)Adipate	2.0	2.0	<.52	NA	no	2017	Agricultural uses, storm runoff, residential uses
Benzo(a)pyrene (ug/l)	.2	.2	.019	NA	no	2017	Agricultural uses, storm runoff, residential uses
Glyphosate	70	70	<6	NA	no	2015	Agricultural uses, storm runoff, residential uses

Diquat	2.0	2.0	<.4	NA	no	2015	Agricultural uses, storm runoff, residential uses
Endothall (ug//)	100	100	<9	NA	no	2017	Agricultural uses, storm runoff, residential uses
Pentachlorophhenol(ppm)	.2	.2	<.04	NA	no	2016	Agricultural uses, storm runoff, residential uses
Oxamyl(Vydate)(ppm)	.2	.2	<.0005	NA	no	2016	Agricultural uses, storm runoff, residential uses
2,4-D (ppm)	.07	.07	<.0001	NA	no	2016	Agricultural uses, storm runoff, residential uses
Poly Chlorinated Biphenyls (PCB)	.00011	.00011	<.00011	NA	no	2015	Agricultural uses, storm runoff, residential uses
Asbestos (MFL)	7	7	.2	NA	no	2013	

*** 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.**

Definitions of some terms contained within this report. 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:

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.

Definitions continued:

Million Fibers per Liter (MFL) (fibers longer than 10 um)

Parts per Million (ppm) or Milligrams per Liter (mg/L) are units of measure for concentration of a contaminant. A single penny in \$10,000.

Parts per Billion (ppb) or Micrograms per Liter (ug/L) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years, one minute in 2,000 years, or a single penny in \$10,000,000.

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.

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 <4 means that the lowest level that could be detected was 4 and the contaminant in that sample was not detected.

N/A: Not applicable

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 first and third Monday evenings at 7:00 PM January through December, in the Council Chambers in Municipal Building 127 North Vance Street, Carey Ohio.

For more information on your drinking water contact:

Jim Hunter

Water & Wastewater Supv

(419) 396-7998 Monday through Friday 7:00 AM to 3:30 PM.

Utility Office direct line 419-396-1024 for billing