

MIDDLEFIELD VILLAGE WATER DEPT.
Drinking Water Consumer Confidence Report
2007

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

Water consumption was 139.95million gallons for 2007, which was average consumption in comparison to the past few years.

Ohio EPA recently completed a study of the Village of Middlefield'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 (water-rich zone) that supplies water to the Village of Middlefield has a high susceptibility to contamination. This determination is based on the following: Lack of a protective layer of clay/shale/other overlying the aquifer, and the presence of significant potential contaminate sources in the protection area. This susceptibility means that under currently existing conditions, the likelihood of the aquifer becoming contaminated is relatively high. This likelihood 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 (440) 632-5248.

The Village is currently constructing a new filter treatment plant for our water system which will help eliminate most of the iron and other contaminants in the finish water. The new plant should be online in early fall.

The Middlefield Water Department receives its drinking water from the Tare Creek Watershed, which is located approximately one mile north of the center of the Village.

Sources of drinking water both tap 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 materials, 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 run off, industrial or domestic wastewater discharges, oil and gas productions, 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 run-off, 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).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune systems 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).

The EPA requires regular sampling to ensure drinking water safety. The Middlefield Water Department conducts samplings for bacteria; inorganic; radiological; synthetic; organic; and volatile organic contaminant sampling. Samples were collected for a total of 50 different contaminants most of which were not detected in the Middlefield 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, is more than one year old.

Listed below is information on these contaminants that were found in the Middlefield drinking water.

CONTAMINANTS	MCLG	MCL	LEVEL FOUND	RANGE OF DETECTIONS	VIOLATIONS	SAMPLE YEAR	SOURCE OF CONTAMINANT
Bacteriological							
24 Samples	-0-		-0-	-0-	NO	2006	Sewer Plants; Live stock; Agricultural; and Wildlife
Inorganic Contaminants							
Nitrate	10 ppm	10 ppm	<.05400 ppm	0-10 ppm	NO	2007	Storm water run-off; Industrial and domestic wastewater discharges
Nitrite		10 ppm	<.05400 ppm		NO	2007	
Fluoride	4 ppm	4 ppm	1.11 ppm	.9-1.3 ppm	NO	2007	Oil and gas productions
Copper	1.3 ppm	AL=1.3	.33 ppm	0-1.3 ppm	NO	2006	Mining and Farming
Lead	0 ppb	AL-15	32 ppb	0-15 ppb	NO	2006	
Barium	2 ppm	2	.085 ppm	0-2 ppm	NO	2005	Discharge of drilling wastes; discharge of metal refineries; erosion of natural deposits
Arsenic							Erosion of natural deposits;
1 ST QUARTER		10 ppb	12.5 avg/15.1high	0-10 ppb	YES	2007	Run-off from orchards; Runoff
2 ND QUARTER		10 ppb	13.45 avg/15.1 high	0-10 ppb	YES	2007	from glass and electronics
3 RD QUARTER		10 ppb	12.95 avg/15.1high	0-10 ppb	YES	2007	production wastes
4 TH QUARTER		10 ppb	13.03 avg/15.1 high	0-10 ppb	YES	2007	
Asbestos	7	7	<2 mf/l		NO	2004	
Volatile Organic Contaminants							
Chloroform (ppb)	n/a	n/a	1.97	n/a	NO	2007	By-product of drinking water chlorination
Bromodichloromethane (ppb)	n/a	n/a	2.44	n/a	NO	2007	By-product of drinking water chlorination
Dibromochloromethane (ppb)	n/a	n/a	2.20	n/a	NO	2007	By-product of drinking water chlorination
Bromoform	n/a	n/a	<.5	n/a	NO	2007	By-product of drinking water chlorination
Trihalomethanes	n/a	80 ppb	6.61	n/a	NO	2007	By-product of drinking water chlorination
Totals							

EPA requires one (1) arsenic sample per quarter. The results are in the table above which indicate a four quarter average. The high number is the highest sample of the previous four quarters. 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.

The Village had one lead sample that exceeded the MCL. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

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 system and may have an increased risk of getting cancer.

Public participation and comment are encouraged at regular meetings of the Village of Middlefield Council which meets the first and third Thursday of every month at 7:30 p.m. For more information on your drinking water contact Tom Malunas at (440) 632-5248.

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 of 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): Are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

The "<" 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.