

Village of Holly  
 Consumers Confidence Report  
 Water Quality Report  
 2006

June, 2007

The Village of Holly water supply comes from three (3) wells located West of Winifred Drive adjacent to the Holly farms subdivision. Wells are approximately 210 feet deep and are embedded into sand stone (Marshall Formation). Water pumpage from the wells flow through an aerator and into detention tank for oxidation of iron. After oxidation the water is pumped through three (3) filters for iron removal. After filtration, chlorine and fluoride are added and the water is then pumped to the distribution system.

**Last Year**, as in the past years your tap water met all E.P.A. and state drinking water standards, All routine bacteriological samples came back safe for the year 2006.

**Source Water Assessment**

the assessment of a “geologic” sensitivity analysis and an overall source water “susceptibility” determination. The geologic sensitivity is inherent to the aquifer from which the production wells obtain ground water. Susceptibility is determined in large part by the number and type of contamination source within the Wellhead Protection Area (WHPA) with additional consideration to aspects of well construction and the chemical monitoring history of individual production wells.

Our aquifer is termed a leaky confined aquifer. Leaky confined aquifers Posses a “Moderate” geologic sensitivity.

Information on Contaminant sources within the Wellhead Protection Area is available through the Holly Water Dept. phone (248) 634-2202 for further information.

The Village of Holly currently had a Wellhead Protection Program in place and it is also being updated as this report is being prepared. Potential sources of contamination including underground and storage tank sites, and groundwater discharge permits sites. Also abandoned wells provide a direct conduit for surface run-off and contaminants to easily reach the groundwater and may pose a potential problem. To ensure that these wells are not a potential problem they should be searched and properly plugged.

**Water Quality Information**

1) 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 E.P.A.'s tap drinking water hotline (1-800-426-4791).

2) Some people may be more vulnerable to contaminants in drinking water than the general public. Immune compromised persons such as persons with cancer and undergoing chemotherapy persons who have undergone organ transplant, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk for infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lesson the risk of infection by Cryptosporidium and other microbial contaminants are available from the safe drinking water hotline (1-800-426-4791).

3) The sources of drinking water (both tap and bottle water) include lakes, rivers, 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 animal or 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 wild life.

\* **Inorganic contaminants**, such as salts and metals, which can be naturally/occurring or resulting from urban storm water runoff, industrial or domestic waste water discharge, oil and gas production, mining, or farming.

\* **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

\* **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

\* **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 regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

WATER QUALITY DATA

The table below lists all the drinking water contaminants that we detected during the 2006 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in the table is from testing done in January 1 to December 31, 2006. The state requires us to monitor for certain contaminants less then once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data though representative of the water quality, is more than one year old.

**Terms and abbreviations used below:**

\* **Maximum residual disinfectant level goal (MRDLG):** means the level of a drinking water disinfectant below which there is no know or expected risk to health. MRDLG does not reflect the benefits of the use of disinfectant to control microbial contaminants.

\* **Maximum residual disinfectant level or (MRDL):** mans 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 Contaminants Level Goal (MCLG):** the level of a contaminant in drinking water below which there is no known or expected risk to health, MCLG allow for a margin of safety.

\* **Maximum contaminants Level (MCL):** the highest level of a contaminant that is allowed in drinking water. MLC are set as close to the MCLG as possible 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.

\* **N/A:** not applicable-

\* **N/D:** not detectable at testing limit

\* **PPI:** parts per billion or micrograms per liter

\* **pci/L:** picocuries per liter

\* **PPM:** part per million or milligrams per liter

\* **N/R:** not regulated

Radioactive Contaminants	MCL	MCLG	Holly Water	Sample Date	Typical Source of Contaminants
<b>Inorganic contaminants</b>					
Arsenic (ppb)	10	0	6	2-05	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2	2	0.12	3-01	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits

Chromium (ppb)	100	100	10	3-01	Discharge from steel and pulp mills; Erosion of natural deposit
Fluoride (ppm)	AL=4	4	1.4	8-06	Erosion of natural deposits; Water additive which promotes strong teeth. Discharge from fertilizer and aluminum factories
Selenium (ppb)	50	50	1	3-01	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
<b>Unregulated Contaminants</b>					
Sodium (ppm)	N/R	N/A	60	2-06	

**NOTE:** These arsenic values are effective January 23, 2006. Until then the MCL is .05 mg/l and there is no MCLG.

Contaminant in CCR units	Traditional MCL mgh	To convert for CCR multiply by	MCL CCR units	MCLG in CCR units	Holly Water	Sample date	Typical source of contaminant
Chlorine (ppm) free residual taken during bacteriological sampling	4	No conversion necessary	MRDL =4	MRDLG =4	Average high 0.65 average low 0.12	1-06 to 8-06	Water additives to control microbes
No Volatile Organics							
Haloacetic Acids HAAs (ppb)	0.060	1000	60	N/A	0 ppb for HAASS	7-2006	By product of chlorination

The MCL for haloacetic acids is the sum of the concentrations of the individual haloacetic acids

Nonvolatile organics	Traditional MCL mgh	To convert for CCR multiply by	MCL CCR units	MCLG in CCR units	Holly Water	Sample date	Typical source of contaminant
Total Trihalomethanes	.80	1000	80	N/A	41 ppb	7-2006	By product of chlorination

The MCL for total trihalomethanes is the sum of the concentrations of the individual trihalomethanes, Different MCL's for TTHMs apply to different types of systems

#### LEAD/COPPER

	MCLG	AL	90 <sup>th</sup> percentile	Number of Sites Above Action Level	
Copper (ppm)	1.3	1.3	.24	1 9-05	Corrosion of household plumbing systems.
Lead (ppb)	15	0	10	2 9-05	Corrosion of household plumbing system.

Microbial Contaminants	M L C	M C L G	Number Detected	Violation Yes/No	Typical source of Contaminant
Total coliform Bacteria	>1 positive monthly sample (>5% of monthly samples positive)	0	0	NO	Naturally present in the environment
Fecal Coliform and E coli	Routine and repeat sample total coliform positive, and one is fecal or E. coli positive	0	0	No	Human and animal fecal waste

#### Health Effects Language

##### Copper

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

##### Lead

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.

For more information please contact Mr. Mark Smith, Village of Holly, at (248) 634-2202, or the Michigan Department of Environmental Quality at (586) 753-3755.

This notice is being sent to you by the Village of Holly.

##### Public Meeting Information

Village Council meetings are on second and fourth Tuesday of each month.

##### Copies

The report will not be mailed to customers. Copies are available for inspection during regular business hours at the Village of Holly, 202 S. Saginaw St., Holly, MI.

##### For Additional Information

For more information on the Consumer Confidence Report or water quality, please contact the Village of Holly:

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