



**Is our water system meeting other rules that govern our operations?**

As in previous years your tap water met all U.S. Environmental Protection Agency (EPA) and State of Michigan drinking water standards. We are also proud to report that your water system has NOT violated any maximum contaminant levels (MCLs) or any other water quality standards.

We are committed to providing you safe, reliable, and healthy water. We are pleased to provide you with this information to keep you fully informed about your water. We will be updating this report annually, and will also keep you informed of any problems that may occur throughout the year, as they happen.

For more information about your water, or the contents of this report, contact Terry Wilson, director of Public Services at 517-546-7510. Copies of this report are available at the Water Treatment Plant, 150 Marion St; City Hall, Howell Carnegie Library and on the City's web site,

[www.cityofhowell.org](http://www.cityofhowell.org)

**How can I get involved?**

The City of Howell City Council will hold their 2007 meetings on the 2nd & 4th Mondays of each month, with the exception of May, November & December being the 1st & 3rd Mondays.

All City Council meetings begin at 7:00 p.m. at the Council Chambers located in the lower level at City Hall; 611 E. Grand River Ave.

**Citizens' Academy (Learn about the City's Programs)**

The City annually offers an educational program to all citizens called the citizens' academy. Currently it's an 8 week program giving you the opportunity to learn about how the different areas of the city operate, including the Water Treatment Plant.

**Call Howell City Hall @ 517-546-3502 for questions and to register for the next citizen's academy.**

**DELIVERING COOL, CLEAN, & SOFTENED GROUND WATER TO YOUR TAP.**



**ANNUAL WATER QUALITY REPORT**

**2006**

**PUBLISHED JUNE 2007**

**CITY OF HOWELL WATER TREATMENT PLANT**

**This Annual Water Quality Report:**

This report covers the drinking water quality of the water for the City of Howell, for calendar year 2006. This information is a snapshot of the quality of the water that we provided to you in 2006. Included are details about where your water comes from, what it contains, and how it compares to U.S. Environmental Protection Agency (EPA) and State of Michigan standards.

**Is my water safe?:**

Last year, as in years past, your tap water met all EPA and state drinking water health standards. Local water system vigilantly safeguards its water supplies and once again we are proud to report that our system has not violated a maximum contaminant level (MCL) or any other water quality standard.

**Where does my water come from?:**

The City of Howell is a ground water system. Your water is all drawn from deep wells taken from the Michigan formation and the deeper Marshall sandstone aquifer. We are a lime softening plant and add sulfuric acid for pH control, fluoride for the prevention of tooth decay, phosphate for corrosion control, and chlorine for disinfection. The City has a wellhead protection plan that was approved by the State in November 2001. The plan indicates that the ground water is considered to be moderate to low for possible contamination.

**Why are there contaminants in my drinking water?:**

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 (800-426-4791)**.

**Do I need to take special precautions?:**

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 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 microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

**Sources of Drinking Water:**

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. Our water comes from 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 storm water 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 and residential uses.
- ◆ **Radioactive contaminants**, which are naturally occurring.
- ◆ **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.

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 provide the same protection for public health.

# \* \* \* \* \* WATER QUALITY DATA \* \* \* \* \*

The water quality data table 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 this table is from testing done between January 1– December 31, 2006.

The EPA or the State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. All the data is representative of the water quality, but some is more than one year old.



Water Plant Lab—where we test the water.

## HOWELL WATER TREATMENT PLANT

**150 Marion Street  
Howell, MI 48843**

**Phone: 517-546-5309**

**Fax: 517-546-6019**

**Email: jwebster@ci.howell.mi.us**

Contaminants	Units	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Range Low High	Sample Date	Violation	Typical Sources
<b>Disinfectants &amp; Disinfection By-Products</b> (There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.)								
Chlorine as Cl <sub>2</sub>	ppm	4	4	0.26	0.05 0.5	2006	NO	Water additive used to control microbes
Haloacetic Acids HAA5	ppb	60	N/A	6	N/A N/A	2006	NO	By-product of drinking water disinfection
TTHM - Total Trihalomethanes	ppb	80	N/A	8.8	N/A N/A	2006	NO	By-product of drinking water disinfection
<b>Inorganic contaminants</b>								
Barium	ppm	2	2	0.04	N/A N/A	2006	NO	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (plant tap)	ppm	4	4	0.92	0.59 1.41	2006	NO	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Sodium (optional)	ppm	N/A	N/A	67	N/A N/A	2006	NO	Erosion of natural deposits; Leaching
<b>Radioactive Contaminants</b>								
Alpha Emitters	pCi/L	0	15	2.8	N/A N/A	2001	NO	Erosion of natural deposits.
Radium (combined 226/228)	pCi/L	0	5	0.3	N/A N/A	2001	NO	Erosion of natural deposits.
Contaminants	Units	MCLG	Action Level (AL)	Your Water	# Samples Exceeding AL	Sample Date	Exceeds AL	Typical Sources
<b>Inorganic contaminants</b>								
Copper - Samples from Consumers Taps.	ppm	1.3	1.3 *	0	0	2004	NO	Corrosion of household plumbing systems. Erosion of natural deposits.
Lead - Samples from Consumers Taps.	ppb	0	15 **	3	0	2004	NO	Corrosion of household plumbing systems. Erosion of natural deposits.

\* Copper Action Level = 90 percentile or 9 out of 10 homes tested must show a concentration equal to or lower than 1.3 ppm.

\*\* Lead Action Level = 90 percentile or 9 out of 10 homes tested must show a concentration equal to or lower than 15 ppb.

### Terms and abbreviations used in table:

- 💧 **MCLG = Maximum Contaminant Level Goal:** 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.
- 💧 **MCL = Maximum Contaminant level:** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as feasible using the best available treatment technology.
- 💧 **TT = Treatment Technique:** A required process intended to reduce the level of a contaminant in drinking water.
- 💧 **AL = Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- 💧 **MRDLG = Maximum Residual Disinfection Level Goal:** The level of a 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.
- 💧 **MRDL = Maximum Residual Disinfectant Level:** 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.
- 💧 **MPL = Maximum Permissible Level:** State assigned level (example = Sodium)
- 💧 **N/A:** Not applicable
- 💧 **ppb:** parts per billion, same as micrograms per liter (µg/L).
- 💧 **ppm:** parts per million, same as milligrams per liter (mg/L).
- 💧 **pCi/L:** picocuries per liter (a measure of radioactivity).
- 💧 **ND:** Not detected
- 💧 **NR:** Monitoring not required, but recommended.