

***2015 Water Quality Report
For the Village of Howard City
Providing you Quality on Tap
June 24, 2016***

We're pleased to present to you this year's Annual Water Quality Report. The purpose of this report is to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. Our water source is ground water from glacial material. The Village of Howard City has three operating wells; the primary well is located on North Orton Street in the Village. There are two backup wells located within the Emory Street ball fields. We want you to understand the efforts we make to maintain and improve the system by which you receive your water and the steps put forth to protect our valuable water resources. The State routinely performs an assessment of our source water to determine the susceptibility or the relative potential of contamination. The susceptibility rating is a six-tiered scale from "very-low" to "high" based primarily on the geologic sensitivity, water chemistry and contaminants sources. The susceptibility of our source is low for our primary well and moderate for the two backup wells. A copy of the report is available at the Village Office.

The Village of Howard City monitors for contaminants in your drinking water according to Federal and State laws. 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 system. Food and Drug Administration (FDA) regulations establish limits for contaminations in bottled water, which must provide the same protection for public health. This table shows the results of our monitoring for the period of January 1st to December 31st, 2015. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk. Our drinking water meets or exceeds federal and state requirements.

The Village did experience two monitoring violations during 2015. In September of 2015 during numerous samples being pulled, the samples for TTHM (Disinfection Byproducts) were pulled at the wrong location. Unfortunately when discovered, the 30 day window for taking the sample had expired, resulting in a monitoring violation. Although the DEQ requirement stipulates pulling the samples in the next sample cycle of the next calendar year, a second sample was immediately pulled at the right location and results were well under limits. A round of samples will be taken at the next cycle. The second monitoring violation occurred during water tower maintenance in November 2015. Total Coliform Bacteria samples were pulled to place the water tower back in service. However, the State also requires routine monthly samples which were not taken. Samples were taken the next month and were negative for total coliform. So in short, the violations were a result of a location error and a missed sample, and neither posed any health risk.

In the table below 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:

Not Detected (ND) - laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) – one part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000 (10 million)

Maximum Contaminant Level - The “Maximum Allowed” (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal - The “Goal”(MCLG) is 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.

Turbidity- Having sediment or foreign particles stirred up or suspended; muddy

Running annual average- RAA- Average over 12 month period

Locational Running annual average- LRAA- Average over 12 month period per location

Maximum residual disinfectant level – MRDL means 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 residual disinfectant level goal- MRDLG means 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.

Total Trihalomethanes –TTHM are a [byproduct of chlorinating water](#) that contains [natural organics](#)

Haloacetic Acids – HAA5 are a [byproduct of chlorinating water](#) that contains [natural organics](#)

Regulatory Action Level - AL The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

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 of the data is representative of the water quality, but some are more than one year old. The table below represents the most current testing information available.

Lead Contaminants – 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 Howard City 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>.

WATER QUALITY DATA TABLE WELL 5

608 ORTON

The following table is data of the water that was being supplied for the time period of this report it is not representative of the current water supply

| Inorganic Contaminants | HOWARD CITY (Highest Level Detected) | | MCL (Highest Level Allowed) | MCLG (EPA Goal) | Sample Date | Sources of Contaminant |
|-----------------------------------|---|--------------------|------------------------------------|---|--------------------|---|
| Fluoride | 0.30mg/l | | 4.0mg/l | 4.0mg/l | Sept 2015 | Naturally found in ground water |
| Microbial Contaminants | | | | | | |
| Total Coli form Bacteria | No Positive Samples | | One Positive per Month | 0 | Monthly | Naturally present in the environment |
| Radiological | HOWARD CITY (Highest Level Detected) | | AL (Action Level) | | | |
| Gross Alpha pCi/L | .725* | | 15 | 0 | Sept 2015 | Erosion of natural deposits |
| Radium 228 | .987 | | 5 | 0 | Sept 2015 | Erosion of natural deposits |
| Radium 226 | .081 | | 5 | 0 | Sept 2015 | Erosion of natural deposits |
| | | | | | | |
| Copper/Lead Contaminants** | HOWARD CITY (90th percentile Value) | | AL (Action Level) | Number of sites exceeding action level | Sample Date | Sources of Contaminant |
| Lead (ppb) | 0ppb | | 15 | 0 | 2015 | Corrosion of household plumbing systems |
| Copper (ppb) | 220ppb | | 1300 | 0 | 2015 | Corrosion of household plumbing systems |
| Unregulated Contaminants | | | | | | |
| Chloride | 18mg/l | | Unregulated | N/A | Sept 2015 | Naturally present in the environment |
| Sodium | 21mg/l | | Unregulated | N/A | Sept 2015 | Erosion of natural deposits |
| Hardness as CaCO3 | 233mg/l | | Unregulated | N/A | Sept 2015 | Naturally present in the environment |
| New regulations | LRAA Site 1 | LRAA Site 2 | MCL | MCLG | Sample Date | Sources of Contaminant |
| TTHM | 5.5ppb | 20.5 ppb | 80 ppb | N/A | Sept 2015 | Disinfectant byproduct |
| HAA5 | 0ppb | 4.0ppb | 60 ppb | N/A | Sept 2015 | Disinfectant byproduct |
| | Annual average | Range | MRDL | MRDLG | | |
| Chlorine Residuals | .2ppm | 0.02-0.66 | 4 | 0 | Daily | Water additive used to control microorganisms |

WATER QUALITY DATA TABLE WELL 3

447 Joy Street

The following table is data of the water that was **standby** for the time period of this report it is not representative of the current water supply

| Inorganic Contaminants | HOWARD CITY (Highest Level Detected) | | MCL (Highest Level Allowed) | MCLG (EPA Goal) | Sample Date | Sources of Contaminant |
|-----------------------------------|---|--------------------|------------------------------------|---|--------------------|---|
| Fluoride | 0..50mg/l | | 4.0mg/l | 4.0mg/l | Sept 2015 | Naturally found in ground water |
| Microbial Contaminants | | | | | | |
| Total Coli form Bacteria | No Positive Samples | | One Positive per Month | 0 | Monthly | Naturally present in the environment |
| Radiological | HOWARD CITY (Highest Level Detected) | | AL (Action Level) | | | |
| Gross Alpha pCi/L | 1.02* | | 15 | 0 | Sept 2015 | Erosion of natural deposits |
| Radium 228 | .174 | | 5 | 0 | Sept 2015 | Erosion of natural deposits |
| Radium 226 | .138 | | 5 | 0 | Sept 2015 | Erosion of natural deposits |
| | | | | | | |
| Copper/Lead Contaminants** | HOWARD CITY (90th percentile Value) | | AL (Action Level) | Number of sites exceeding action level | Sample Date | Sources of Contaminant |
| Lead (ppb) | N/A | | 15 | 0 | 2015 | Corrosion of household plumbing systems |
| Copper (ppb) | N/A | | 1300 | 0 | 2015 | Corrosion of household plumbing systems |
| Unregulated Contaminants | | | | | | |
| Chloride | 13mg/l | | Unregulated | N/A | Sept 2015 | Naturally present in the environment |
| Sodium | 29mg/l | | Unregulated | N/A | Sept 2015 | Erosion of natural deposits |
| Hardness as CaCO3 | 303mg/l | | Unregulated | N/A | Sept 2015 | Naturally present in the environment |
| New regulations | LRAA Site 1 | LRAA Site 2 | MCL | MCLG | Sample Date | Sources of Contaminant |
| TTHM | N/A | N/A | 80 ppb | N/A | Sept 2015 | Disinfectant byproduct |
| HAA5 | N/A | N/A | 60 ppb | N/A | Sept 2015 | Disinfectant byproduct |
| | Annual average | Range | MRDL | MRDLG | | |
| Chlorine Residuals | N/A | N/A | 4 | 0 | Daily | Water additive used to control microorganisms |

** Regulated at customer tap

Unregulated contaminants are those for which the EPA has not established drinking water standards. Monitoring helps EPA to determine where these contaminants occur and whether it needs to regulate those contaminants

* If the results of this sample had been above 15pCi/L, our system would have been required to do additional testing for uranium. Because the results were below 15pCi/L, no testing for uranium was required.

What does this mean?

As you can see by the table, our system had no exceedance violations. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be:

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 or be the result of oil and gas production and mining activities.

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. All 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 the 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 at 1-800-426-4791.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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

We at the Village of Howard City work around the clock to provide top QUALITY ON TAP. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future. Because of the age of some of the system we do from time to time experience some turbidity or aesthetic problems with our water, which are totally harmless. We have a flushing program in place to keep this to a minimum. If you do experience brown or milky looking water situation please contact the office so we can record the

problem, and instruct you on what to do. We continue to improve our system, which is sometimes reflected as rate structure adjustments. Thank you for understanding.

We encourage public interest and participation in our decisions affecting the community's drinking water. Regular Village council meetings are held on the 3rd Monday of each month in the Municipal Complex council meeting room at 7:00 PM. The public is welcome. The Village of Howard City employs two state certified operators to whom you may direct any questions. Michael Van Wagner Municipal Services Director or Bill Cornelisse water operator at (231) 937-4311 ext.106

Copies of this report are available at Village of Howard City Municipal Complex at 125 Shaw Street during normal business hours or on the Village web site at www.howardcity.org