# CONSUMER CONFIDENCE REPORT

PWSID: 1650009

**City of Hector**
2006 Drinking Water Report

The City of Hector is issuing the results of monitoring done on its drinking water for the period from January 1 to December 31, 2006. The purpose of this report is to advance consumers' understanding of drinking water and heighten awareness of the need to protect precious water resources.

## Source of Water

The City of Hector provides drinking water to its residents from a groundwater source: a 216-foot-deep well that draws water from the Quaternary Buried Artesian aquifer.

The Minnesota Department of Health has determined that the source(s) used to supply your drinking water is not particularly susceptible to contamination. If you wish to obtain the entire source water assessment regarding your drinking water, please call 651-201-4700 or 1-800-818-9318 (and press 5) during normal business hours. Also, you can view it on line at www.health.state.mn.us/divs/eh/water/swp/swa.

Call 320-848-2480 if you have questions about the City of Hector drinking water or would like information about opportunities for public participation in decisions that may affect the quality of the water.

## Results of Monitoring

The results contained in the following table indicate an exceedance of a federal standard. Some other contaminants were detected in trace amounts that were below legal limits. The table that follows shows the contaminants that were detected in trace amounts last year. (Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled for in 2006. If any of these contaminants were detected the last time they were sampled for, they are included in the table along with the date that the detection occurred.)

Key to abbreviations:
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 MCLGs as feasible using the best available treatment technology.

MRDL—Maximum Residual Disinfectant Level.

MRDLG—Maximum Residual Disinfectant Level Goal.

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AL—Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirement which a water system must follow.

90th Percentile Level—This is the value obtained after disregarding 10 percent of the samples taken that had the highest levels. (For example, in a situation in which 10 samples were taken, the 90th percentile level is determined by disregarding the highest result, which represents 10 percent of the samples.) Note: In situations in which only 5 samples are taken, the average of the two with the highest levels is taken to determine the 90th percentile level.

pCi/l—PicoCuries per liter (a measure of radioactivity).

ppb—Parts per billion, which can also be expressed as micrograms per liter (µg/l).

ppm—Parts per million, which can also be expressed as milligrams per liter (mg/l).

N/A—Not Applicable (does not apply).

| Contaminant (units) | MCLG | MCL | Level Found | | Typical Source of Contaminant |
|---|---|---|---|---|---|
| | | | Range (2006) | Average /Result* | |
| Arsenic (ppb) (10/25/2005) | 0 | 10 | N/A | 4.7 | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes. |
| Barium (ppm) (04/21/2003) | 2 | 2 | N/A | .03 | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits. |
| Fluoride (ppm) | 4 | 4 | 1.1-1.2 | 1.13 | State of Minnesota requires all municipal water systems to add fluoride to the drinking water to promote strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories. |
| Haloacetic Acids (HAA5) (ppb) | 0 | 60 | 4.9-35.1 | 34.93☆ | By-product of drinking water disinfection. |
| Nitrate (as Nitrogen) (ppm) | 10 | 10 | .07-.45 | .45 | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits. |
| TTHM (Total trihalomethanes) (ppb) | 0 | 80 | 8.4-101.9 | 107.07 ☆☆ | By-product of drinking water disinfection. |

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✯During the year, we had violations for Haloacetic Acids (HAA5). Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. System studying alternatives available for corrective action.

✯✯During the year, we had violations for TTHM (Total trihalomethanes). 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 systems, and may have an increased risk of getting cancer. System studying alternatives available for corrective action.

| Contaminant (units) | Level Found | | Typical Source of Contaminant |
|---|---|---|---|
| | Range (2006) | Average/ Result* | |
| Radon (pCi/l) (10/25/2005) | N/A | 43 | Erosion of natural deposits. |

*This is the value used to determine compliance with federal standards. It sometimes is the highest value detected and sometimes is an average of all the detected values. If it is an average, it may contain sampling results from the previous year.

Radon is a radioactive gas which is naturally occurring in some groundwater. It poses a lung cancer risk when gas is released from water into air (as occurs during showering, bathing, or washing dishes or clothes) and a stomach cancer risk when it is ingested. Because radon in indoor air poses a much greater health risk than radon in drinking water, an Alternative Maximum Contaminant Level (AMCL) of 4,000 picoCuries per liter may apply in states that have adopted an Indoor Air Program, which compels citizens, homeowners, schools, and communities to reduce the radon threat from indoor air. For states without such a program, the Maximum Contaminant Level (MCL) of 300 pCi/l may apply. Minnesota plans to adopt an Indoor Air Program once the Radon Rule is finalized.

| Contaminant (units) | MRDLG | MRDL | **** | ***** | Typical Source of Contaminant |
|---|---|---|---|---|---|
| Chlorine (ppm) | 4 | 4 | .1-1.2 | .73 | Water additive used to control microbes. |

****Highest and Lowest Monthly Average.
*****Highest Quarterly Average.

| Contaminant (units) | MCLG | AL | 90% Level | # sites over AL | Typical Source of Contaminant |
|---|---|---|---|---|---|
| Copper (ppm) | N/A | 1.3 | 1 | 0 out of 10 | Corrosion of household plumbing systems; Erosion of natural deposits. |
| Lead (ppb) | N/A | 15 | 4 | 0 out of 10 | Corrosion of household plumbing systems; Erosion of natural deposits. |

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Some contaminants do not have Maximum Contaminant Levels established for them. These "unregulated contaminants" are assessed using state standards known as health risk limits to determine if they pose a threat to human health. If unacceptable levels of an unregulated contaminant are found, the response is the same as if an MCL has been exceeded; the water system must inform its customers and take other corrective actions. In the table that follows are the unregulated contaminants that were detected:

| Contaminant (units) | Level Found | | Typical Source of Contaminant |
|---|---|---|---|
| | Range (2006) | Average/ Result | |
| Sodium (ppm) | N/A | 83 | Erosion of natural deposits. |
| Sulfate (ppm) | N/A | 8 | Erosion of natural deposits. |

## Compliance with National Primary Drinking Water Regulations

During the year, we failed to take a sample and/or submit information on Total Coliform Bacteria during the required testing period(s) of December 1, 2006 to December 31, 2006. Because we did not monitor or failed to monitor completely during the compliance period(s), we did not know whether Total Coliform Bacteria were present in your drinking water, and we are unable to tell you whether your health was at risk during that time.

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:

*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 stormwater 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, urban stormwater runoff, and residential uses.

*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 stormwater 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, the U. S. Environmental Protection Agency (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.

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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 at 1-800-426-4791.

***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 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 are available from the Safe Drinking Water Hotline at 1-800-426-4791.***