



### Source of Chanhassen's Water

The City of Chanhassen is issuing the results of monitoring done on its drinking water for the period from January 1 to December 31, 2009. The purpose of this report is to advance consumers' understanding of drinking water and heighten awareness of the need to protect precious water resources. The City of Chanhassen provides drinking water to its residents from a groundwater source: twelve wells ranging from 214 to 500 feet deep, that draw water from the Prairie du Chien-Jordan, Quaternary Buried Unconfined and Multiple aquifers.

The water provided to customers may meet drinking water standards, but the Minnesota Department of Health has also made a determination as to how vulnerable the source of water may be to future contamination incidents. If you wish to obtain the entire source water assessment regarding your drinking water, please call 651-201-4700 or call 1-800-818-9318 (and press 5) during normal business hours. Also, you can view it online at: [www.health.state.mn.us/divs/eh/water/swp/swa](http://www.health.state.mn.us/divs/eh/water/swp/swa).

### Special Health Information

*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.*



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### Questions?

For up-to-date information on water outages or water main repairs, call the Utility Hotline at 952-227-1317. For water quality questions, please email Craig at [ccarlson@ci.chanhassen.mn.us](mailto:ccarlson@ci.chanhassen.mn.us) or call 952-227-1701.

# 2009 Chanhassen

## Drinking Water Annual Report

This annual report outlines how Chanhassen drinking water compared to regulations set by the Environmental Protection Agency (EPA). The regulations are enforced by the Minnesota Department of Health. This report is part of the City's obligation to provide residents with timely and accurate information about the City's drinking water and water system. In this report, you will find information about Chanhassen's water system, drinking water information from the EPA, and lab test results for the City's drinking water during 2009.



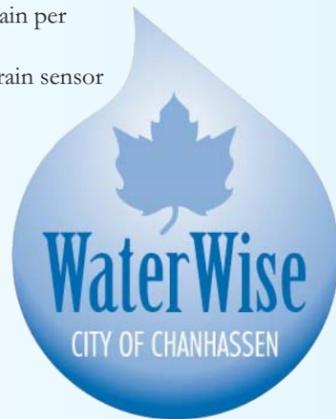
## Chanhassen's WaterWise Program

Chanhassen's WaterWise program offers education and incentives to encourage water conservation by residents and businesses. When you take steps to use only the amount of water you need, you help the City meet the demand in the most cost-effective and environmentally sound way. You can find out more about WaterWise by visiting the City's website at: [www.ci.chanhassen.mn.us](http://www.ci.chanhassen.mn.us).

Did you know that during the summer months, water use in Chanhassen triples? Water use during the winter is typically around 2 million gallons a day but in the summer it's over 6 million gallons a day. We broke the record for the most water used in a day on July 12, 2009 at 8.3 million gallons. That equates to 316.5 gallons per person! Were we drinking more water that day? Probably not. We're watering our lawns. Using valuable drinking water for irrigation puts enormous strain on our water supply during the most critical periods. There can be a balance between green lawns and wise water use. Here is a list of suggestions that can really help you and the City.

- Set your irrigation controller according to the season's needs, and an odd/even schedule.
- Adjust watering zones in your irrigation system by light, elevation, and soil conditions.
- Water only in the mornings and evenings, ideally before 8 am or after 7 pm. Doing this avoids a high rate of evaporation loss.
- Raise your lawn-mower deck, this help grass roots grow deeper.
- Aerate your lawn at least once a year to increase infiltration (the ability of water to soak into the ground) and reduce the amount of watering needed.
- Consider adding in or planting lawns with a no-mow or fescue seed mix. These grass seed mixes require less maintenance and less watering.
- Don't over-water. Most lawns only need 1 inch or less of water or rain per week. If you have "squishy" spots, you are probably over-watering.
- Use a rain gauge and adjust your watering accordingly, ensure your rain sensor is functioning.
- Incorporate xeriscape landscaping into your yard. Xeriscape is landscape that needs little to no irrigation.
- Install a rain barrel under downspouts for storing nature's free irrigation water.

For more information on the WaterWise program and how to sign up, visit the City of Chanhassen's website at: [www.ci.chanhassen.mn.us](http://www.ci.chanhassen.mn.us).



## Drinking Water Quality

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.

## How to Read the Water Quality Table

The results contained in the following table indicate that some 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 in 2009. If any of these contaminants were detected the last time they were sampled, they are included in the table along with the date that the detection occurred.)

### Definition of Terms:

**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.**

**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

*In Chanhassen no contaminants were detected at levels that violated federal drinking water standards.*

### Key to Abbreviations:

pCi/l - PicoCuries per liter  
ppb - parts per billion  
ppm - parts per million  
nd - No Detection  
N/A - Not applicable (does not apply)

Contaminant (units)	MCLG	MCL	Range	Average Result	Typical Source of Contaminant
Barium (ppm)	2	2	N/A	0.08	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Combined Radium (pCi/l)	0	5.4	5-5.9	5.9*	Erosion of natural deposits.
*Four quarterly samples are required to determine an average compliance value for this contaminant. At the end of 2009, only two quarterly samples had been taken. Therefore, there is no violation for this contaminant.					
Alpha Emitters (pCi/l)	0	15.4	8.3-14.9	14.9	Erosion of natural deposits.
Fluoride (ppm)	4	4	N/A	1.03	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.
TTHM (Total Trihalomethanes) (ppb)	0	80	N/A	26	By-product of drinking water disinfection.
Radon (pCi/l) (11/19/08)	No established EPA limits		N/A	240	Erosion of natural deposits.
Chlorine (ppm)	MRDLG 4	MRDL 4	Highest and Lowest Monthly Average: nd-1	Highest Quarterly Average: 0.08	Water additive used to control microbes.
Copper (ppm)	N/A	AL: 90% of samples must be <1.3	90% of samples <1.21	1 out of 30 sites >1.3	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb)	N/A	AL: 90% of samples must be <15	90% of samples <5	0 out of 30 sites >15	Corrosion of household plumbing systems; Erosion of natural deposits.
Sodium** (ppm)	No established EPA limits		N/A	7.9	Erosion of natural deposits.
Sulfate** (ppm)	No established EPA limits		N/A	2.86	Erosion of natural deposits.

highest levels.

The average result 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.

\*\*Some contaminants do not have MCLs 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. Monitoring for unregulated contaminants as required by U.S. EPA rules (40 CFR 141.40) was conducted in 2009. Results of the unregulated contaminant monitoring are available upon request from Cindy Swanson, Minnesota Department of Health, at 651-201-4656.

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.

## A Word About Radon in Drinking Water

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.

## A Word About Lead in Drinking Water

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 City of Chanhassen 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 the 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>.

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 at 1-800-426-4791.

