

## Drinking Water Sources

Drinking water is drawn from the Prairie du Chien-Jordan and Jordan groundwater aquifers. If the City needs additional water in an emergency, water can also be drawn from the Mt. Simon aquifer. The Prairie du Chien-Jordan, Jordan, and Mt. Simon are bedrock aquifers, well-defined hydrological units where the water exists in spaces between the rock grains or in the fractures within the more solid rock. The City operates 19 wells that range in depths from 487 to 1,127 feet.

The wells pump water from the aquifers to the water treatment plant. The treatment plant is designed to remove iron and manganese. Chlorine and potassium permanganate are added to oxidize the iron and manganese so they can be filtered from the water. After filtration, additional chlorine is added for disinfection, and fluoride is added for dental protection. The water is then pumped to the distribution system which includes the water mains, reservoirs, hydrants, and your home.

### Iron

Before Treatment 0.385 ppm  
After Treatment 0.058 ppm





### Manganese

Before Treatment 0.091 ppm  
After Treatment 0.035 ppm

**Chlorine** 0.5 ppm

**Hardness** 17 grains per gallon

Here is a handy chart to help you gauge just how much excess water you're wasting when leaks occur:

Size of Leak	Amount of Water Lost (Gallons)		
	Diameter	per day	per year
1/16" or 1.6mm		822	300,030
1/8" or 3.2mm		2,850	1,040,250
1/4" or 6.5mm		11,400	4,161,000
1/2" or 13mm		45,600	16,644,000

Contact us at:  
952-953-2500

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

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## Resident Information

Water system security is a high priority. We ask that residents assist with security by calling 952-953-2400 if unusual activity is observed around any water system building, fire hydrant, or reservoir. After hours, call the Police Department at 952-322-2323 or 911.



Fire hydrants should be kept clear of shrubs, landscaping, weeds, and trash.

Hydrant markers are installed to aid emergency personnel in locating the hydrants. Many of the markers are constructed of fiberglass and should not be handled.

To have your water shut off for a repair, call 952-953-2400 48 hours in advance.

Know where the main water shut off valve is inside your home in case of an emergency.

What goes down your drain ends up in ponds, lakes and rivers.

It is against City ordinance to connect a sump pump discharge to the sanitary sewer system.

To prevent sewer backups, do not flush disposable woven or cloth-like wipes, towelettes or diapers. In addition, dispose of fats, oils, grease, and old medicines with household garbage, not down the drain.

Check your homeowner's insurance policy to ensure coverage for sewer backups, water breaks, and water damage. Many policies require additional riders for this coverage. The City is often not liable for damages.

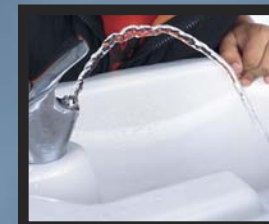
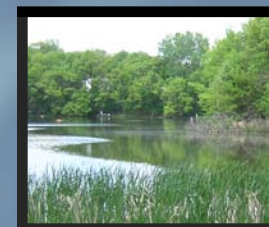
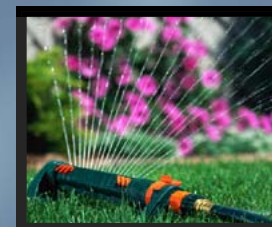
Stormwater that is introduced into the sanitary sewer system can cause significant inflow and infiltration charges from the Met Council.

Call Gopher State One before you dig, plant trees, replace a driveway or landscape. Dial 651-454-0002.

For after hours Water or Sewer Emergencies contact the Police Department at 952-322-2323 or 911.

A change in water pressure may be the result of a water softener problem. Try bypassing your water softener.

# 2009 DRINKING WATER REPORT



## Water Quality

Apple Valley's drinking water meets all Federal and State water quality standards identified by the Safe Drinking Water Act. This report details where the water comes from, test results, health information, groundwater protection, and resident information. Apple Valley is committed to providing you with safe, high quality drinking water.

Call 952-953-2400 if you have questions about the City of Apple Valley drinking water or would like information about opportunities for public participation in decisions that may affect the quality of the water.

## Water Restrictions

Lawn watering is permitted only before 11 a.m. and after 6 p.m. each day between May 1 and September 30. Lawn watering refers to in-ground irrigation systems, mechanical sprinklers, and unattended hoses.

Residents using alternate sources for irrigation such as private wells or water from lakes and ponds are subject to the same lawn watering restrictions as users of the municipal water supply.

New sod laid and trees planted in the calendar year are exempt.

Additional water restrictions may be implemented if necessary to maintain normal domestic and fire flow requirements.

The water use restrictions do not apply to hand watering (hose must be attended) of plants, and children's water toys when in use by children; in addition to non-irrigation water use (such as vehicle washing).

Water use restrictions were implemented to enhance water conservation, environmental stewardship, and comply with state regulations.

**Water Restrictions**  
May 1 to September 30  
11 a.m. to 6 p.m.

City of Apple Valley  
7100 147th St. W. || Apple Valley, MN 55124  
952-953-2500  
<http://www.cityofapplevalley.org>

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## 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. The Environmental Protection Agency (EPA)/Center for Disease Control (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 (1-800-426-4791).

In order to ensure that tap water is safe to drink, the U.S. 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.

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.

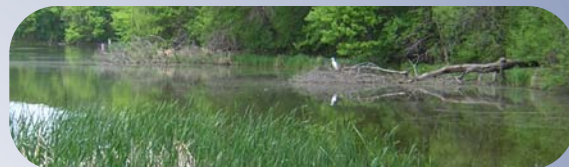
Contaminants that may be present in source water include: **(A)Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. **(B)Radioactive contaminants**, which can be naturally-occurring or be the result of oil and gas production and mining activities. **(C)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. **(D)Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses. **(E)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.

## Stormwater Management

Protection of Apple Valley surface waters is an integral part of protecting the drinking water supply. Surface water protection includes ponds, wetlands, infiltration areas, vegetation buffer strips around water bodies, and erosion and sediment prevention. Pollutants or contaminants that run off impervious surfaces may soak into the ground or out the sides of a neighborhood pond and infiltrate into the groundwater.

Curbside storm drains are directly connected to local surface water bodies. The water and pollutants entering storm drains does not receive any treatment prior to entering neighborhood ponds. You can help protect Apple Valley's drinking water supply in the following quick and easy ways:

- Never dump any substances or materials, including aquatic plants and animals, into storm drains or water bodies.
- Clean chemicals and yard wastes off driveways, sidewalks, and streets when spills occur.
- Reduce stormwater runoff volume by installing a rain garden or native plant garden.



## Water Conservation

Conservation involves protection, upkeep, maintenance, management, and preservation of the water supply. Be aware of the amount of water you use. Using water wisely will help protect this vital resource. Implement these water conservation techniques in your daily routine:

- Water lawns early in the day and only when needed.
- Position sprinkler so water lands only on lawn or garden.
- Broom off driveway instead of washing.
- Repair irrigation system leaks promptly.
- Repair leaking faucets and toilets. A leak can waste thousands of gallons of water.
- Install water saving devices such as low flow shower heads or faucet aerators.
- Landscape with plants that require little water.

For water conservation information check out these websites: [www.epa.gov/water/kids.html](http://www.epa.gov/water/kids.html) and [www.drinktap.org/consumerdnn/](http://www.drinktap.org/consumerdnn/)



## Protect Ground Water - Prevent Water Pollution

The City of Apple Valley is working with local, state, and federal agencies to protect area drinking water sources through the Wellhead Protection Plan. Wellhead protection manages possible sources of contamination in areas that supply water to our public wells thereby preventing drinking water from pollution. Historically, the quality of groundwater supplying the City of Apple Valley's water supply wells has been very good.

No contaminants were detected at levels that violated federal 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 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](http://www.health.state.mn.us/divs/eh/water/swp/swa).

- Use pesticides and fertilizers sparingly. Follow label instructions for use and disposal of fertilizers and pesticides and use less toxic alternatives whenever possible.
- Dispose of leaves and grass clippings properly. Compost yard waste or contact a privately operated compost site for yard waste disposal.
- Maintain your car to prevent leaking fluids. Don't use water to wash away fluids. Clean up drips with absorbents like cat litter or sawdust and dispose of properly.
- Dispose of household hazardous waste (HHW) properly. Do not dispose of HHW down the drain or on the ground. The Recycling Zone accepts HHW in Dakota County, located at 3365 Dodd Rd, Eagan, MN 651-905-4520.

## Results of Monitoring

No contaminants were detected at levels that violated federal drinking water standards. However, 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 for in 2009. 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.)

### 2009 DRINKING WATER TESTING RESULTS

Meets all Federal and State Drinking Water Standards

Detected Substance (units) <i>date tested</i>	MCLG	MCL	Average Result	Range of Detections	Typical Source of Substance in Drinking Water	Meets Standards
<b>Fluoride</b> (ppm) 2009	4	4	1.01	.82-1	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.	✓
<b>Haloacetic Acids (HAA5)</b> (ppb)2009	0	60	2.8	N/A	By-product of drinking water disinfection.	✓
<b>Nitrate (as Nitrogen)</b> (ppm) 2009	10	10	.16	ND-0.16	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	✓
<b>TTHM (Total trihalomethanes)</b> (ppb) 2009	0	80	10.5	N/A	By-product of drinking water disinfection.	✓
<b>Lead</b> (ppb) 7/6/2007	N/A	AL: 15	90% of Samples: 8	1 out of 30 Sites tested over AL	Corrosion of household plumbing systems; Erosion of natural deposits.	✓
<b>Copper</b> (ppm) 7/6/2007	N/A	AL: 1.3	90% of Samples: 0.21	0 out of 30 Sites tested over AL	Corrosion of household plumbing systems; Erosion of natural deposits.	✓
<b>*Sodium</b> (ppm) 3/18/2008	No EPA limit set		6.5	N/A	Erosion of natural deposits.	✓
<b>*Sulfate</b> (ppm) 3/18/2008	No EPA limit set		31.5	N/A	Erosion of natural deposits.	✓
<b>Chlorine</b> (ppm) 2009	MRDLG: 4	MRDL: 4	.41 Highest Quarterly Avg	nd-.97 Highest and Lowest Monthly Avg	Water additive used to control microbes.	✓
<b>Combined Radium</b> (pCi/l) 2/7/2008	0	5.4	3.6	N/A	Erosion of natural deposits.	✓
<b>Alpha Emitters</b> (pCi/l) 2/7/2008	0	15.4	10	N/A	Erosion of natural deposits.	✓

### How to Read the Drinking Water Testing Results Table

The **Average Result** can be the highest amount found in the water or the average of all samples tested, depending on the regulation for the substance. If multiple samples were tested in 2009, the lowest and highest detected values are listed under **Range of Detections**. **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 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. **ppm**: parts per million. **ppb**: parts per billion. **pCi/l**: picoCuries per liter, a measure of radioactivity. **nd**: No Detection. **N/A**: Not Applicable (does not apply).

\*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.

## Lead

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 Apple Valley 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 drinking 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.

