



## Stormwater Management

Stormwater management is an important component of maintaining a safe drinking water supply. As an area develops, land that once allowed rain to soak into the ground is covered with impervious surfaces, such as pavement and roofs. Running over these surfaces, water warms up, picks up pollutants, and reaches lakes, ponds, and wetlands quickly.

In Apple Valley as well as in other cities, stormwater management is important to direct flow and infiltration away from drinking water sources. The management practices that the City of Apple Valley uses to control stormwater include ponds, wetlands, infiltration areas, vegetation buffer strips around water bodies, and erosion and sediment prevention. The goals for stormwater management include:

- To Maintain Groundwater Quality and Quantity
- To Reduce Stormwater Pollutant Loads
- To Protect Wetlands and Habitats
- To Prevent or Reduce Flooding
- To Educate

## Water Conservation

Conservation involves protection, upkeep, maintenance, management, and preservation of the water supply. 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 on lawn or garden.
- Broom off driveway instead of washing.
- Turn water off to outside faucets.
- Repair irrigation system leaks promptly.

For water conservation information check out these websites:

[www.epa.gov/water/kids.html](http://www.epa.gov/water/kids.html)  
[www.drinktap.org/consumerdnn/](http://www.drinktap.org/consumerdnn/)

For questions or concerns about your water quality, to schedule a speaker for your group, or for information about opportunities for public participation in decisions that may affect the quality of water, contact Carol Blommel Johnson, Public Works Superintendent-Utilities at 952-953-2400.

## Utility Tips

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.

Items such as non-degradable wipes, towellettes, diapers, and grease should be disposed of in the garbage not the sanitary sewer system.

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.



# Drinking Water Report

## Water restrictions in effect...

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. Using water wisely will help protect this vital resource.

**Implement water conservation techniques in your daily routine!**

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

PRESORT STD  
 US POSTAGE  
**PAID**  
 PERMIT NO. 419  
 ST. PAUL, MN

**\*\*\*ECRWSS\*\*\*  
 Residential Customer Local**

Contact us at:  
 952-953-2500

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

Printed June 2009



## Apple Valley Water Source

Apple Valley's drinking water supply is considered safe and meets all drinking water standards. Drinking water is drawn from the Prairie du Chein-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 Chein-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

## Drinking Water Information from the EPA

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.

Substances that may be present in source water include:

**Microbial substances**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

**Radioactive substances**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

**Inorganic substances**, 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 substances**, 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.

## 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. 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).*

## 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. 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 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).

The Minnesota Department of Health has determined that one or more sources of your drinking water is susceptible to contamination. If you wish to obtain the entire source water assessment regarding your drinking water, please call 651-201-4700 during business hours, or 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)

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 must provide the same protection for public health.

## 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 2008, 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 requirements which a water system must follow.

**ppm** (parts per million)

**ppb** (parts per billion)

**pci/l** (picoCuries per liter, a measure of radioactivity)

**ND** (Not Detected)

Unregulated substances do not have MCLs. They are assessed by comparing the detected amount to state standards known as health risk limits. If an unacceptable amount of any substance is ever found in our water, the City of Apple Valley will notify residents immediately and take corrective action to eliminate the problem. Monitoring for unregulated contaminants as required by the EPA was conducted in 2008. Results of the unregulated contaminant monitoring are available upon request from Cindy Swanson of the MDH at 651-201-4656.



## PERFLUORO-CHEMICAL TEST RESULTS

Apple Valley complies with all federal and state standards.

In February 2009, the Minnesota Department of Health (MDH) tested for Perfluorochemicals (PFC's) at ten well sites. All of the drinking water sample test results are below federal and state health limits. The laboratory analysis noted a trace amount of PFC's in some samples; however, all were below the health based exposure limit. The MDH does not recommend any operational changes for the water system.

Apple Valley's water was tested based on the volume of reported use of Class B firefighting foams in training centers and the vulnerability of the wells.

The City has volunteered to participate in ongoing monitoring as a safety measure. Additional information is available at [www.health.state.mn.us/divs/eh/hazardous/topics/pfcs/classb/oam.html](http://www.health.state.mn.us/divs/eh/hazardous/topics/pfcs/classb/oam.html).

## 2008 DRINKING WATER TESTING RESULTS

Meets all Federal and State Drinking Water Standards

| Detected Substance (units)        | MCLG                      | MCL    | Average Result             | Range of Detections                    | Typical Source of Substance in Drinking Water                                                      | Meets Standards |
|-----------------------------------|---------------------------|--------|----------------------------|----------------------------------------|----------------------------------------------------------------------------------------------------|-----------------|
| <b>Fluoride</b> (ppm)             | 4.0                       | 4.0    | 1.08                       | 1.0-1.1                                | Additive for strong teeth; erosion of natural deposits; fertilizer and aluminum factory discharge. | ✓               |
| <b>Nitrate as Nitrogen</b> (ppm)  | 10.0                      | 10.0   | 0.11                       | ND-0.11                                | Erosion of natural deposits; runoff from fertilizer use; leaching from septic tanks, sewage.       | ✓               |
| <b>Lead</b> (ppb)<br>07/06/2007   |                           |        | 90% of Samples < 8         | 1 out of 30 Samples Tested > 15 ppb    | Corrosion of household plumbing systems; erosion of natural deposits.                              | ✓               |
| <b>Copper</b> (ppm)<br>07/06/2007 |                           |        | 90% of Samples < 0.21      | 0 out of 30 Samples Tested > 1.3 ppm   | Corrosion of household plumbing systems; erosion of natural deposits.                              | ✓               |
| <b>Sodium</b> (ppm)               | No Established EPA Limits |        | 6.5                        | N/A                                    | Erosion of natural deposits.                                                                       | ✓               |
| <b>Sulfate</b> (ppm)              | No Established EPA Limits |        | 31.5                       | N/A                                    | Erosion of natural deposits.                                                                       | ✓               |
| <b>Chlorine</b> (ppm)             | 4 MRDLG                   | 4 MRDL | 0.42 Highest Quarterly Avg | 0.2-0.7 Highest and Lowest Monthly Avg | Water additive used to control microbes.                                                           | ✓               |
| <b>Combined Radium</b> (pCi/L)    | 0                         | 5.4    | 3.6                        | N/A                                    | Erosion of natural deposits.                                                                       | ✓               |
| <b>Alpha Emitters</b> (pCi/L)     | 0                         | 15.4   | 10                         | N/A                                    | Erosion of natural deposits.                                                                       | ✓               |