

City of Burnsville

Water Quality Report 2014



The City of Burnsville is issuing the results of monitoring done on its drinking water for the period from Jan. 1 to Dec. 31, 2014.

This report is meant to advance consumers' understanding of drinking water and to heighten awareness of the need to protect precious water resources. It also provides a snapshot of the quality of water provided in Burnsville last year.

Included are details about where your water comes from, what it contains and how it compares to Environmental Protection Agency (EPA) and Minnesota State standards. The City of Burnsville is committed to providing you with this information because informed customers are our best allies.

If you have questions about the City of Burnsville's drinking water or would like information about opportunities for public participation in decisions that may affect the quality of the water call 952-895-4550.

English: This report contains very important information. Translate or ask someone who understands it.

Spanish: Información importante. Si no la entiende, haga que alguien se la traduzca ahora.

Russian: Этот документ содержит важную информацию. Если вы не понимаете, то пожалуйста найдите кто-то для того чтобы помочь перевести для вас.

Hmong: No yog daim ntawv tseemceeb. Yog koj tsis totaub, nrhiav neeg pab txhais rau koj kom sai sai.

Helpful Websites:

City of Burnsville
www.burnsville.org

Minnesota Department of Health
www.health.state.mn.us

Minnesota Pollution Control Agency
www.pca.state.mn.us

Environmental Protection Agency
www.epa.gov



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 2014. 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 Terms used in the Table

Level Detected: 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.

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 that a water system must follow.

90% 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.

TT: Treatment Technique. A required process intended to reduce the level of a contaminant in drinking water.

NTU: Nephelometric Turbidity Units.

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

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

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

N/A: Not Applicable (does not apply).

Turbidity: This is a measure of water clarity, which is monitored as an indicator of the effectiveness of our filtration system.



2014 Test Results

Substance (units)	MCL	MCLG	Level Detected	Range	Typical Source of Contaminant
Alpha Emitters (pCi/l) 6/5/2013	15.4	0	7.4	N/A	Erosion of natural deposits.
Barium (ppm) 1/9/2012	2	2	0.16	N/A	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Combined Radium (pCi/l) 6/5/2013	5.4	0	3.7	N/A	Erosion of natural deposits.
Chlorine (ppm)	4 MRDL	4 MRDLG	0.72*	0.6-0.9**	Water additive used to control microbes.
Fluoride (ppm)	4	4	1.03	1.0-1.1	State of MN 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 (ppb)	60	0	10.25	3.8-10.6	By-product of drinking water disinfection.
Nitrate (as Nitrogen) (ppm)	10.4	10.4	0.6	N/A	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Total Organic Carbon (% removed)	Removal required= N/A***		Quarters out of compliance= 0	Removal achieved= 0-56.5%	Naturally present in the environment.
Total Trihalomethanes (ppb)	80	0	35.13	9.8-47	By-product of drinking water disinfection.
Turbidity (NTU)	TT; <0.3 95% of the time	N/A	0.226 NTU highest reading	Lowest monthly % of samples meeting limits= 100%	Soil runoff.
Substance (units)	AL	MCLG	90% Level	Samples Meeting	Typical Source of Contaminant
Copper (ppm) 7/25/2012	1.3	1.3	0.33	0 of 30 sites	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb) 7/25/2012	15	0	1.2	0 of 30 sites	Corrosion of household plumbing systems; Erosion of natural deposits.

***Our system uses direct filtration for surface water treatment. Direct filtration systems are not required to achieve total organic carbon percent removal levels. *Highest quarterly average **Lowest-highest monthly average

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) has regulations that limit the amount of certain contaminants that can be found in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least a small amount 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.

Burnsville's Water Source

The City of Burnsville provides drinking water to its residents from the following groundwater and surface water sources:

- Surface water drawn from the Kraemer Quarry.
- 17 wells ranging from 265 to 1,030 feet deep that draw water from the Jordan, Mt. Simon, Prairie Du Chein-Jordan and Franconia-Mt. Simon aquifers.

The water provided to customers meets 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. You also can view it online at: www.health.state.mn.us/divs/eh/water/swp/swa

Monitoring may have been done for additional contaminants that do not have MCLs established for them and are not required to be monitored under the Safe Drinking Water Act. Results may be available by calling 651-201-4700 or 1-800-818-9318 during normal business hours.

Important Source Water and Health Information from the EPA

The sources of drinking water (both tap 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. It can also 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.

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 Burnsville 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 EPA's Safe Drinking Water Hotline 1-800-426-4791 or at: www.epa.gov/safewater/lead

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/Centers for Disease Control and Prevention guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

-Aesthetic Water Quality-

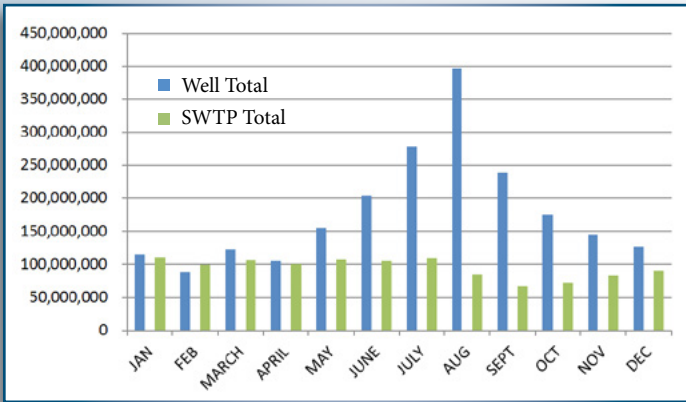
Hardness- 25 grains per gallon

Iron- Less than .05mg/l

Manganese- 0.05mg/l

PH- 7.5

2014 Water Pumping Statistics



In 2014, the City of Burnsville pumped 2.1 billion gallons of groundwater and 1.1 billion gallons of surface water for a total of 3.2 billion gallons pumped. The graph above shows that the surface water source has allowed Burnsville to pump much less groundwater per month than in previous years. Pumping less from groundwater wells will speed up recharge of the groundwater aquifer source.

Why Conserve Water?

Drinking water is a valuable natural resource, and even though Minnesota is blessed with an abundance of lakes and rivers, freshwater is still a limited resource.

Conserving freshwater is a high priority. Burnsville's summer water use can be more than 2 ½ times that of winter water use. The main reason for this significant increase is the watering of lawns. To conserve freshwater resources, start by doing things to make irrigation water use more efficient and effective.

Lawns don't need to be watered daily. In reality, watering them daily causes more harm, as the grass plants develop very shallow root systems. This means they become less drought tolerant, need more frequent watering and have access to fewer soil nutrients.

By watering less frequently and more deeply, grass plants develop deeper roots, require less frequent watering and are healthier. By watering less frequently, you are actually helping build a healthier lawn.



WATERING RESTRICTIONS

The City of Burnsville has implemented the following water use restrictions from April 1 through Sept. 30:

MIDDAY WATERING RESTRICTIONS:

Lawns cannot be watered between 11 a.m. and 3 p.m. any day.

ODD-EVEN SPRINKLING:

Odd-even restrictions allow property owners with addresses that end in an odd number (1, 3, 5, 7, 9) to water only on dates that end in an odd number. Property owners with addresses that end with an even number (0, 2, 4, 6, 8) are allowed to water only on dates that end in an even number. In the case of multi-family residences or businesses with multiple addresses, or where a structure does not have an apparent address, the site should water on odd-numbered days. On the 31st day of any month, watering is available to everyone.

For properties with automatic irrigation systems that cannot water their full site during a single day, the system should set up to water approximately ½ of the site each day, but must not water any specific area more frequently than once every other day. Residents and businesses with this situation must notify the City and receive approval prior to implementing this watering system.

EXCEPTIONS:

Exceptions to odd-even watering restrictions include lawns with new seed, new sod or new landscaping, plant materials that require daily watering such as golf greens and tees, certain athletic fields with special soil conditions, flower pots and baskets, and vegetable gardens.

While the hope is to gain compliance with these water conservation restrictions through education, the City has established a fee system for those who do not comply.

The following fees for non-compliance will be assessed and included on the property owner's water bill:

In the first case of non-compliance within a calendar year, the property owner shall be given a warning, the second a \$25 fee, third a \$50 fee, fourth a \$100 fee, and fifth and beyond a \$250 fee. A door hanger and a follow-up letter will be provided to property owners to notify them of each documented incident of non-compliance.

If you have any questions about these restrictions, please call the Burnsville Public Works Department at 952-895-4550.

New Chlorine Treatment System at the Water Treatment Plant

Burnsville treats its drinking water with safe amounts of chlorine, which removes iron from the water and also serves as a disinfectant. This process keeps water clean and safe to drink.

In 2014, the former 40-year-old chlorine gas system was due for replacement. Since chlorine gas is highly reactive, it required a number of safety, training and other procedures be put in place to ensure the safety of staff members and surrounding businesses. After researching numerous systems and technologies, the Public Works Department chose a much safer on-site chlorine generation system.

The new system takes water and salt—both harmless materials—and infuses them with electricity to make chlorine to use in the treatment process. The chlorine that is generated is less hazardous than household bleach, and is one of the most cost effective, safe technologies available to water treatment facilities today. The new process is currently online.



A Career in the Water Industry is waiting for **YOU!**

St. Cloud Technical and Community College's Water Environment Technologies (WETT) program provides you with the skills you need to land a great job in this rapidly growing industry. There are many benefits to this program:

- ▶ Hands-on learning
- ▶ Metro and St. Cloud locations
- ▶ 12 month program
- ▶ 95% placement rates

Call St. Cloud Technical & Community College at 1-320-308-5952 for more information on this career program or e-mail Bill Spain, Instructor: bspain@sctcc.edu or Keith Redmond kredmond@sctcc.edu

MDH has more information about drinking water and home water treatment systems on their website at:

www.health.state.mn.us/divs/eh/wells/index.html or at
www.health.state.mn.us/divs/eh/water/factsheet/com/pou.html