

Savage's water meets state, federal safety standards

2006 water quality report



Providing drinking water to the community is one of the most important services by the City of Savage. It's a role the City takes very seriously. In addition to ensuring an adequate supply is always available, City staff carefully and regularly inspect the water to ensure it is of the highest quality.

Over the past several years, new treatment technologies have been implemented to guarantee everyone served by the City has safe drinking water.

Numerous tests were conducted in 2005 in accordance with Minnesota Department of Health and Environmental Protection Agency requirements. The City Council and staff are proud to say that, once again, Savage's water meets all state and federal standards. Test results listed on the following pages show that no contaminants were detected at levels that violated these drinking water standards. ♣

what is the **PURPOSE** of this report?

This report is being provided to you in accordance with the federal Safe Drinking Water Act. Amended by Congress in 1996, the Act includes a provision that requires all community water systems to deliver an annual water quality report to their customers. The goal of this provision, called the Consumer Confidence Report Rule, is to provide information to customers about

their drinking water. Specifically, the report aims to advance consumers' understanding of drinking water and heighten awareness of the need to protect water resources.

Information contained in the report covers monitoring that occurred on the system from Jan. 1 to Dec. 31, 2005. ♣

INSIDE

- Substances absorbed by water
- Drinking water test results
- AutoPay program
- Community's water source
- Reduce your bills
- How to check for leaks
- Protection of wells

EXPECT small amounts

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. ♣

HEALTH considerations

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.

Environmental Protection Agency / Centers for Disease Control 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.

Tests conducted on the City of Savage's drinking water in 2005 found no contaminant levels in violation of 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 2005. 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

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

90th Percentile Level - 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 (ug/l).

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

N/A - Not applicable (does not apply).

REGULATED substances

Substance (units)	Ideal Maximum MCLG	Maximum Allowed MCL	Amount Detected		Typical Source of Substance	Meets Standard
			Range (2005)	Average/Result*		
Alpha Emitters (pCi/l) (11/03/04)	0	15.4	N/A	6.3	Erosion of natural deposits.	✓
Barium (ppm) (03/02/03)	2	2	N/A	.07	Discharge of drilling wastes and metal refineries; Erosion of natural deposits.	✓
Combined Radium (pCi/l) (11/03/04)	0	5.4	N/A	4.2	Erosion of natural deposits.	✓
Fluoride (ppm)	4	4	1.2-1.3	1.25	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	N/A	.8	By-product of drinking water disinfection.	✓
Nitrate (as Nitrogen) (ppm)	10	10	.11-.53	.53	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	✓
TTHM (Total trihalomethanes) (ppb)	0	80	N/A	6.4	By-product of drinking water disinfection.	✓

Substance (units)	Level Found		Typical Source of Substance	Meets Standard
	Range (2003)	Average/Result*		
Radon (pCi/l) (10/23/02)	N/A	14.0	Erosion of natural deposits	✓

Radon is a radioactive gas that 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 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.

*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.
**Follow-up sampling showed no contamination present.

Substance (units)	MRDLG	MRDL	Highest/Lowest Monthly Avg.	Highest Quarterly Average	Typical Source of Substance	Meets Standard
Chlorine (ppm)	4	4	.2-.5	.43	Water additive used to control microbes.	✓

TESTED at the tap

Just as it picks up substances in the ground, water can absorb lead or copper that exists in the plumbing of a home or business. These substances are regulated, and tests are conducted for their presence every three years.

Substance (units)	MCLG	AL	90% Level	# Sites Over AL	Typical Source of Substance	Meets Standard
Copper (ppm)	N/A	1.3	.11	0 out of 30	Corrosion of household plumbing systems; Erosion of natural deposits.	✓
Lead (ppb)	N/A	15	7	0 out of 30	Corrosion of household plumbing systems; Erosion of natural deposits.	✓

UNREGULATED substances

Some substances do not have Maximum Contaminant Levels (MCL) 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 provider must inform its customers and take other corrective actions. The table that follows shows the unregulated contaminants that were detected:

Substance (units)	Amount Detected		Typical Source of Substance	Meets Standard
	Range (2004)	Average/Result		
Sodium (ppm) (03/02/03)	N/A	22	Erosion of natural deposits.	✓
Sulfate (ppm) (03/02/03)	N/A	32	Erosion of natural deposits.	✓

AUTO payment program

The free AutoPay program provides water and sewer customers the option of paying bills through an automatic deduction from their bank accounts. Monthly statements detailing all charges continue to be mailed to customers enrolled in the program. AutoPay not only saves on stamps, but it also ensures payments are made on time. To enroll, call Utility Billing at 651-256-3304. AutoPay will take effect on the following billing cycle. 💧

REDUCE YOUR WATER BILL

by limiting consumption

Although you may be aware that your property's water bill increases with consumption, you may not know that the cost per 1,000 gallons is higher for those who exceed a certain level of use. You also may not be aware that as of Jan. 1, the rate structure was changed in a manner that could cost the highest water users even more than in the past.

The change was made to further encourage conservation. Those who use 11,999 gallons of water or less in a month pay the lowest rate (\$2.39). Those using more than that pay an additional 24 cents per 1,000 gallons. The cost per 1,000 gallons increases by another 26 cents once 15,999 gallons has been consumed. Water customers should note that the higher rates now apply to all water consumed – not just the gallons that exceed the lower rate's limit (as was the case in the past).

Reducing one's water bill is as simple as reducing consumption. Examples include

taking shorter showers, limiting the number of times a toilet is flushed, turning off the faucet while brushing teeth, cleaning the driveway with a broom instead of a hose, and keeping a pitcher of water in the refrigerator instead of running the tap until the water gets cold enough to drink.

Taking just a few moments to think about using water wisely will not only have a positive impact on the environment, it will benefit one's pocketbook as well. ♦

WATER FEES

Amount of water used	Cost/1,000 gallons
Up to 11,999 gallons	\$2.39
12,000 to 15,999 gallons	\$2.63
16,000 gallons or more	\$2.89

Base charge for all water customers is \$5.96/month
* Higher rates apply to all water consumed

HOW TO CHECK FOR LEAKS

Follow these steps to identify a water leak and determine how much water is being lost:

- 1 Locate the water meter**—It may be in the basement or utility room, or wherever the water line enters your home.
- 2 Read the meter twice**—Read it first at night, after the day's water use has ended, and again in the morning before any water is used. Be aware that water softeners regenerate at night and water may be used in this process.
- 3 Find the difference**—Subtract the first from the second reading to tell how much, if any, water leaked out overnight.

Do you suspect a leak?

Find it by checking pipes, fixtures, water softeners and any other appliances where water is used. Put food dye in the toilet tank if you suspect a leak in that fixture. The dye will seep through the bowl if it's leaking.

Locate, mark and check your shut-off valves regularly. Shut-off valves simplify repairs and save water in emergencies.

Thinking about remodeling?

If so, ask a plumber or plumbing supplier about water saving fixtures. Plan to insulate hot water pipes.

For more information, contact Savage Public Works at 952-224-3400.

SAVAGE'S WATER SOURCE

Water distributed to 8,515 households in Savage is drawn from the ground by seven wells located throughout the community. The wells range from 152 to 1,029 feet in depth and access four aquifers, which are layers of rock through which water permeates. The aquifers supplying Savage with water via the wells are the Mt. Simon, Quaternary Buried Artesian, Prairie Du Chien Group and Franconia-Ironton-Galesville.

Once drawn from the wells, the water is run through one of the City's two plants for treatment. It is then stored in a water tower or reservoir for future use.

The Minnesota Department of Health has determined that these drinking water sources are not particularly susceptible to contamination. If you wish to obtain the entire source water assessment regarding your

Substances absorbed by WATER

Prior to being tapped for distribution, the City's drinking water moves through the ground, dissolving natural minerals and, in some cases, radioactive material that are in its path. In addition, the water may absorb substances resulting from the presence of animals or from human activity.

As a result, the following substances may be present in the water prior to treatment:

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.

To ensure tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain substances 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. ♦

drinking water, please call 651-201-4670 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.

Call 952-224-3440 if you have questions about the City of Savage drinking water or would like information about opportunities for public participation in decisions that may affect the quality of the water.

WELL PROTECTION

preserves quality of City's water supply

The City of Savage is in the process of developing a wellhead protection plan as mandated by the Minnesota Department of Health. The overall goal of Savage's Wellhead Protection Plan is to maintain a clean and abundant supply of water for its residents.

One way that residents can assist Savage in this effort is to help manage any privately-owned wells within the City. While the wellhead protection program is only required for public water supply wells, the City advocates for wellhead protection of all wells, including those that are privately owned. If a well is poorly constructed, not maintained, or improperly abandoned, it becomes a potential avenue for contamination to enter the aquifer.

Therefore, homeowners are encouraged to monitor the health of their own well through water quality sampling. While the

City of Savage does not have the resources to test each residential well for contaminants, the process is relatively inexpensive for property owners and is highly recommended. More information about private well testing is available from the Minnesota Department of Health: www.health.state.mn.us/divs/eh/wells/index.html

Additionally, Minnesota Well Code states that any private well that is no longer used must either have a permit to be maintained or must be abandoned (sealed) by a licensed well contractor. If your property has a well that is no longer active, the well may be in violation of Minnesota Well Code and may need to be sealed. More information about well sealing is available at: www.health.state.mn.us/divs/eh/wells/abandwel.html

Water supply remains top PRIORITY as alternatives are pursued

Progress is being made on alternatives for meeting the city's current and future water needs. A new well is under construction, and additional funding has been secured for a proposed surface water treatment plant at the Kraemer Quarry in Burnsville.

Construction of Well 14 near the City Hall campus will help ensure Savage can continue to meet water demands for the next 2-3 years. It is expected to be completed next summer.

Meanwhile, the City continues to explore additional sources for drinking water. The Kraemer Quarry treatment plant mentioned above would be a joint venture with the City of Burnsville. To date, the State Legislature has committed \$5.5 million to the project, with \$2.5 million being awarded during this past session. Now, work is being done to explore the terms of a joint powers agreement for operating and constructing the facility.

Consideration also is being given to partnering with Credit River Township to address water supply issues in both jurisdictions. The results of the joint water study are expected to be out in a few weeks.

In summary, several strategies are underway to ensure Savage has an adequate, high quality water supply system to meet the community's needs, now and in the future.

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Outdoor WATERING RESTRICTIONS

Residents are reminded that outdoor watering is prohibited from noon to 5 p.m. each day. Outside of those hours, water may be used on an odd/even schedule that coincides with the property's address number. Exceptions apply to new sod and landscaping. Those failing to follow these watering restrictions could face fines and discontinuation of water service. For more information, call 952-224-3440.

If you have questions, are interested in learning more about the water quality in Savage, or would like to set up a tour of the City's water treatment facility, please contact the Utility Services Department at 952-224-3440. If you would like to comment on this report, please call the above number, fax us at 952-224-3430, or e-mail us at comments@ci.savage.mn.us. Mailed letters may be sent to 13770 Dakota Ave., Savage, Minn., 55378. For other City information and activities, visit our website at www.cityofsavage.com

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