SAVAGE WATER QUALITY REPORT

The City of Savage invests considerable time, energy and resources to ensure the water it supplies for the public's consumption is safe and of high quality. The following pages contain information about that effort and its success in 2002. By providing this Water Quality Report to all consumers in Savage, the City aims to further the community's knowledge about the water it drinks and heighten awareness about this precious and limited natural resource.

community's

Water distributed to more than 7,500 households and businesses 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 five aquifers, which are layers of rock through which water permeates.

The aquifers supplying Savage with water via the wells are the Jordan,

R SOURCE

Quaternary Buried Artesian, Prairie Du Chien Group, Mt. Simon and Franconia-Ironton-Galesville aquifers.

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



Savage's water supply is tested regularly to ensure it meets standards set by the Environmental Protection Agency (EPA). Tests are performed on water that has been drawn from city wells and processed through one of two municipal treatment facilities. City officials take samples according to a schedule set by the Minnesota Department of Health (MDH). Additional samples are collected by MDH staff.

The samples are sent to certified laboratories that test for a variety of substances, including naturally occurring elements, inorganic chemicals and pesticides. These substances are federally regulated and must not exceed prescribed levels. The water is also evaluated for the presence of unregulated substances that are being studied by the EPA. The outcomes of the studies may determine if the substances are to be regulated in the future.

The tables on the following page summarize tests conducted on the City's drinking water in 2002, the levels of substances found, and how those levels compare to federal standards. To fully understand the data presented, it may be helpful to refer to the abbreviation key and description of substances, which also appear on the following pages.

INSIDE

- Savage water test results
- New water tower for Savage
- Outdoor watering restrictions
- Reduce bills; limit consumption

Substances absorbed by

Prior to being tapped for distribution,

Prior to being tapped for distribution, the City's drinking water moves through the ground, dissolving natural minerals and, in some cases, radioactive materials 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, these substances may be present in water prior to treatment:

Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife. Inorganic contaminants, such as salts and metals, which can be naturallyoccurring 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, 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 which 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, 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 Drinking Water Hotline at 800-426-4791.

REGULATE Substances

Substance (units)	ldeal Maximum	Maximum Allowed	Amount Range		Detected	Typical Source of Substance	Meets Standard
	MCLG	MCL	(200	02)	Result		
Nitrate (ppm) (as Nitrogen)	10	10	nd	65	.65	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	1
Alpha Emitters (pCi/l)	0	15.4	nd-10.3		8.7	Erosion of natural deposits.	1
Combined Radium (pCi/l)	0	5.4	.92-	5	3.36	Erosion of natural deposits.	1
Fluoride (ppm)	4	4	1.1-1.3		1.2	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.	5
Barium (ppm)	2	2	N/A		.07	Discharge of drilling wastes and metal refineries; Erosion of natural deposits.	1
Arsenic (ppb)	0	50	N/A		1.06	Erosion of natural deposits; Runoff from glass and electronics production wastes.	1
TTHM (Total trihalomethanes) (ppb)	N/A	100	N/A		16.4	By-product of drinking water disinfection.	1
						T : 10 (0) (
Substance (units)		Amount De Range (2002)		Jetected Average/ Result*		Ivpical Source of Substance	Meets Standard
Radon (pCi/l)		10-409		309		Erosion of natural deposits	1

*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.

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 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.





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

Substance (units)	AL	90% Level	# sites over AL	MCLG	Typical Source of Contaminant	Meets Standard
Lead (ppb)	15	3	0 out of 20	N/A	Corrosion of household plumbing systems; Erosion of natural deposits.	1
Copper (ppm)	1.3	.188	0 out of 20	N/A	Corrosion of household plumbing systems; Erosion of natural deposits.	1

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 must inform its customers and take other corrective actions.

Substance (units)	Amount Detected		Typical Source of Substance	Meets
	Range (2002)	Average/ Result		Standard
Sodium (ppm)	N/A	50	Erosion of natural deposits.	1
Sulfate (ppm)	N/A	53	Erosion of natural deposits.	1

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 and other microbial contaminants are available from the Safe Drinking Water Hotline at 800-426-4791.

Restrictions promote wise water use

Outdoor watering restrictions are in place throughout the year. The restrictions are intended to conserve water by encouraging use at the most effective times of the day. Watering the lawn, washing the car, and other uses of water outdoors are prohibited between noon and 5 p.m. every day of the week.

> In addition, watering activities are restricted to an odd/even schedule. Property owners are to use the last digit of their addresses as a guide. Those having even-numbered addresses may water on even dates, while those with odd-numbered addresses may water on odd dates. Landscaping, including newly seeded or sodded lawns, may be watered as needed (outside the hours of noon to 5 p.m.) for the first 30 days of installation.

Failure to abide by the City's watering restrictions have multiple impacts. In addition to a citation and discontinued water service, violators may see an increase in their monthly water bills. Fees are charged according to usage; larger water consumers pay higher unit fees after certain thresholds are exceeded. The general community could be impacted as well. Shortages can occur during the hottest times of the year if excessive outside watering occurs.

For more information on water restrictions, utility fees or conservation tips, contact Utility Billing at 952-224-3440.

Abbreviation Key

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. 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 - 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/1).

ppm - Parts per million, which can also be expressed as milligrams per liter (mg/1). nd – No detection

N/A - Not applicable (does not apply). --- This report is being provided to you in accordance with the federal Safe Drinking Water Act. 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 advance consumers' understanding of their drinking water and heighten awareness of the need to protect water resources.

While smaller communities may publish the report in a local newspaper, cities that serve a



Construction on Savage's third water tower has begun near the 153rd Street cul-de-sac. The one million gallon tower will provide water to residents of the West Summit Oaks development and surrounding subdivisions. The area currently receives water from the City of Prior Lake.

The tower not only reduces Savage's reliance on Prior Lake for water service, it also increases water storage capacity that will be necessary as the southern portion of the community continues to grow.

The one million gallon tower will be similar in style to the blue water tower on Boone Avenue.

Completion of the water tower is scheduled for this fall.



The City strives to deliver high quality water to all customers. Tests conducted in 2002 show that we are reaching this goal. The implementation of new treatment technologies, including a new process for filtering out radium, has helped ensure state and federal standards are met.

is this report produced each year

population of 10,000 or greater must mail or "otherwise deliver" the report to everyone who consumes the water. In addition to mailing the report with the water bill, the City must advertise the availability of the report in the newspaper, provide additional copies for apartment buildings and large employers, and/or post it on its website.

The report must be completed and distributed to the public by July 1 of each year. Information contained in this report covers monitoring that occurred on the system throughout 2002.

REDUCE BILLS by limiting consumption

Although residents and business owners may be aware that their water bills increase with consumption, they may not know that the cost per 1,000 gallons is higher for those who exceed a certain level of use.

Savage's water rates are structured to encourage conservation, providing lower rates for those who use less than 15,000 gallons of water in a month. Those using more than that pay an additional 21 cents per 1,000 gallons for anything over the 15,000 gallon mark. The cost increases by another 22 cents once 20,000 gallons has been consumed.

Reducing one's water bill is as simple as reducing consumption. In the summer, residents are reminded to abide by the City's outdoor watering restriction. The ordinance prohibits watering between the hours of noon and 5 p.m., and requires watering to occur on an odd/even schedule based on one's house number. By following these restrictions, residents and businesses can ensure that the water

want to know

If you have questions, would like information about opportunities for public participation in decisions that may affect the water quality in Savage, or would like to set up a tour of the City's water treatment facility, contact the Utility Services Department at 952-224-3440. To comment on this report, please call the above number, fax us at 952-447-8886, or e-mail us at comments@ci.savage.mn.us. Mailed letters may be sent to 13770 Dakota Ave., Savage, MN 55378. For other City information and activities, visit our website at www.cityofsavage.com

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

Nov yog ntaub ntawv tseem ceeb. Yog koy tsi to taub, nrhiav neeg pab txhais rau koh kom sai sai. is being soaked up by the lawn and not evaporating under high summer temperatures.

Additional steps residents and businesses can take to reduce water consumption 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	Cost/thousand			
water used	<u>gallons</u>			
1,000 to 15,000 gallons	\$2.05			
15,001 to 20,000 gallons	\$			
over 20,001 gallons	\$2.48			



The City of Savage launched a new system for its water and sewer bills earlier this year. As a result, the City asks that all payments be mailed rather than dropped off at City Hall or the Public Works/Utility Services Building.

Because an independent company now processes the bills, the City must forward via mail all payments dropped off at its buildings. This not only costs the City money in additional postage, it delays the date on which the payment is recorded to customers' accounts. Therefore, those who continue to drop off their payments may be charged a late fee, as the City cannot guarantee that the processing center will receive the envelope prior to the due date. The City thanks customers in advance for meeting this request, which will save tax dollars and ensure timely receipt of all payments.

Printed on recycled paper.

Projects aim to improve service to

Several projects related to the City's water supply are being pursued this summer.

Two booster stations are being constructed to increase the water pressure for particular areas of the city. The Connelly booster station will serve the areas adjacent to the County Road 42 and Highway 13 intersection and a significant portion of

South Savage. The Woodhill booster station, to be located near the City's western border on 138th Street, will address water pressure problems experienced by those in nearby neighborhoods. It also will allow the City to better utilize the Boone Avenue water tower, which currently must remain full in order for satisfactory



water pressure to be provided to neighboring housing developments.

Well 12 has been under construction in the Eagle Creek Business Park since November. The drilling for the 520-foot well is complete, with additional work now occurring to make the well functional. The well is necessary to meet increasing demands on the City's water supply.

Fiber optic installation and other communication enhancements will enable staff to monitor, from a single location, how the different aspects of the water system are functioning together. Initially, the communication improvements will target Water Treatment Plant No. 2; however, all facilities eventually will be connected.