

PUBLIC WORKS

Pipeline



2012 Water Report

For the year 2011

City Reminds Residents
Of Sprinkling Policy And
Daytime Watering Ban
See Page 2 for details

A large, clear glass filled with water, positioned on the left side of the page. The water is clear and reflects light, creating a bright highlight at the top. The glass is partially filled, with the water level about halfway up.

Your Drinking Water Is Certified Safe

The City of Edina's goal is to provide you with high-quality, safe, reliable drinking water that surpasses state and federal requirements. Test results from monitoring done in 2011 show that the City is achieving that goal.

The U.S. Environmental Protection Agency and the Minnesota Department of Health have identified many chemicals and other substances that might pose a risk to humans. When a contaminant is thought to pose a risk, these agencies set upper limits for safe human consumption.

This special report contains the City's annual water quality report, which includes complete information on the monitoring done on Edina's drinking water last year. Residents in Edina's Morningside Neighborhood who receive their water from the City of Minneapolis will find information detailing the quality of Minneapolis' water on Pages 10-12.

Please review the report. If you have any questions or would like more information, contact the Edina Public Works Department, 952-826-0312.

Follow City's Guidelines For Lawn-Watering

To ensure an adequate water supply, the City of Edina has an odd-even sprinkling policy. Homes with even-numbered addresses may water their lawns before 11 a.m. or after 5 p.m. on even-numbered dates of the week. Homes with odd-numbered addresses may water before 11 a.m. or after 5 p.m. on odd-numbered dates.

To ensure adequate water supply and promote water conservation, the City has a daytime irrigation ban. Watering is banned from 11 a.m. to 5 p.m. daily, reducing water wasted through evaporation and allowing pumps to refill water storage facilities for peak evening use.

Permits are available to allow proper watering of new sod or seeded areas. Daily watering of new sod and seed is recommended for the first 14 days to establish root growth. After two weeks, normal watering should be sufficient for establishing a new lawn. The planting of new sod or seed during very dry times of the year is discouraged.

Surcharges for violating the irrigation ban are determined based on the number of water restriction violations issued to the property owner in a three-year period. A written warning will be issued for a first offense. Second offense is \$50; third offense, \$100; fourth, \$200; and each additional offense, \$300.

Residents who live in Edina's Morningside Neighborhood and receive their water from the City of Minneapolis or those with private wells are not affected. Morningside Neighborhood residents must adhere to any restrictions issued by Minneapolis.

Assistant Public Works Director David Goergen reminds property owners that some automatic sprinkler systems must be reset at the end of months that have 31 days because there are two odd-numbered dates in a row.

Goergen also points out that rain sensors can be purchased for automatic sprinkler systems. A rain sensor is a device that shuts off a sprinkler system if rain is detected. Quickly repairing or disabling broken water heads can also minimize utility bills.

Goergen also offers the following tips for effective watering:

- Do your lawn sprinkling early in the morning, between 4 and 6 a.m., when water demand is low.
- Water your lawn when it needs it, rather than on a set schedule. One sign that a lawn needs water is when it lacks enough moisture to spring back after you walk on it.
- Adjust lawn watering to the weather. Following heavy rain, skip your regular watering day until the grass needs it again.
- Check sprinkler heads periodically to make sure they haven't shifted direction to spray water on the side of a building, parking lot, road or sidewalk instead of the lawn.

According to Goergen, studies show that lawns need one inch of water per week, which can be achieved with sprinkling 10 to 15 minutes every-other day.

Further water restrictions might be put into place if the weather becomes exceptionally dry for an extended period of time.

Meet Edina's Newest Utility Operators: Nate Behlen And Dustin Hanly

By David Katz

For most of us, when it comes to commuting or other travels, “planning” means checking the morning weather and traffic reports right before heading out the door. For Nate Behlen and Dustin Hanly, the two newest members of Edina’s intrepid Public Works team, street planning is, by contrast, a months-long affair, and begins well before the next year’s road repair season.

Preconstruction maintenance, or “pre con,” can vary considerably from project zone to project zone, but almost always entails cleaning the sewer line under the roadway. That task is a challenging one to begin with and is made more difficult by the City’s layout. “While Minneapolis and many of the surrounding suburbs, like Richfield, are laid out on a grid pattern, Edina’s streets are very irregular,” Behlen said. “That means more turns to maneuver the hose through.”

Behlen and Hanly are more than up to this task, however. They joined Public Works as Utility Operators last December and July, respectively, but bring with them a host of specialized knowledge and applicable experience from other suburban public works departments.

Hanly comes to Edina Public Works from St. Louis Park, where he served as a Utility Operator for three and a half years. He is no stranger to Edina’s street layout or special public works needs, however,

having worked seasonally with Edina’s Utilities Division prior to his stint with St. Louis Park.

“I knew both from my own seasonal work with Public Works and my dad’s work with the City’s Parks & Recreation Department that Edina really deserves its reputation as a top-notch city,” Hanly said. “The sense of camaraderie here in this department is a big part of what drew me back to Edina.”

Behlen agrees. “Everyone here gets along and that makes a world of difference.” Behlen comes to Edina from an equivalent capacity with the City of Mounds View. Prior to that, he served for a time in the City of Fridley’s Public Works and law enforcement departments.

The pair’s varied backgrounds and skill sets are put to good use in Edina. In addition to pre con work, their assignments regularly include taking water meter readings, replacing meter equipment and assisting with water main breaks and other emergencies, to name just a few.

This diversity is another advantage Edina’s Public Works Department offers to talented utility operators. “Many cities have separate, distinct divisions for water



Photo by David Katz

Nate Behlen and Dustin Hanly bring to Edina valuable skills acquired from years of experience with other suburban public works departments.

and sewers. Here, that’s not the case, and assignments can differ a lot for me from week to week,” Behlen said.

“We know that our input is valued here. If we have a suggestion for improvements, Gary [Wells] and Dave [Goergen] will always hear us out,” he said.

“Utility operators everywhere certainly can’t say that,” Hanly added.

In their free time, much as while at work, the two can often be found outside. Both participate in local amateur sports leagues and Hanly is a high school baseball coach in Champlin Park.



Frequently Asked Questions

Q: When my drinking water is discolored, is it safe to drink? To bathe in? To wash laundry? Will it permanently stain my fixtures?

A: Check to see if both the hot and cold water are discolored to determine if the discoloration is coming from your hot water heater. Also, check with your neighbors to see if they are having the same issues.

Iron in the water is not pleasant looking and can have a “metallic” odor, but it is still well within the safety standards

set by the Environmental Protection Agency. This extra iron is not harmful for adults or babies. If you are uncomfortable drinking it, let the water run until it is clear.

You may want to wait to do laundry until the water is running clear. The iron can stain your laundry and is especially noticeable on white fabrics. A product called Rover removes iron from white laundry. It can be picked up free of charge at Edina City Hall, 4801 W. 50th St., or the Public Works & Park

Maintenance Facility, 7450 Metro Blvd. It is best, though, to wait for the water to run clear before attempting to do any laundry. Fixtures may also become discolored from iron. Rover can clean those, too.

Q: What causes the swampy odor that comes out of my hot water faucets? What can be done about it?

A: Because the odor is only in the hot water, the problem probably originates in your water heater. Most water heaters contain a sacrificial anode rod made of magnesium that slows corrosion inside the tank, greatly extending its life. Sometimes, there is a reaction between elements in the water and the rod that produces hydrogen sulfide. It smells bad, typically described as “swampy” or “like rotten eggs.”


Cleaning the tank with chlorine bleach or changing to an aluminum or zinc rod may solve the problem. The rod may be removed altogether, but doing so could void the warranty on the water heater. Contact your plumber for advice.

Q: My sewer is backing up! What do I do?

A: If you experience a sewer backup, call the City immediately at 952-826-0375. After 3:30 p.m. weekdays or on weekends, call the Edina Police Department’s non-emergency number, 952-826-1610. Calling us first doesn’t cost you anything and we might be able to help you resolve the problem before a plumber is required. City crews will check the sewer main in the street to make sure it is working properly. If the blockage is within your line, a City employee will instruct you on what to do next.

Q: I had water shooting up out of my lower-level toilets and a sewer gas smell. What happened? Who’s going to clean it up?

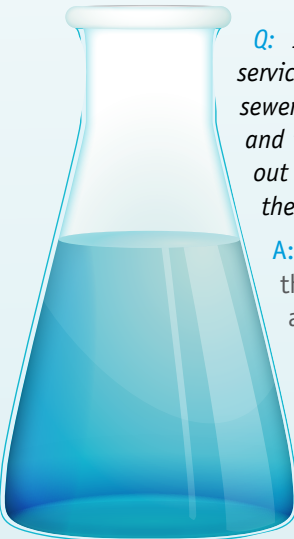
A: The City’s Utilities Division cleans sewer main lines using a high-pressure water sprayer. While conducting this activity, our machine can create positive and negative pressures in the sewer line. These pressures are normally released through the manholes and the roof vents on the house sewer line. If any of the house lines are partially obstructed, the pressures will take the



path of least resistance. This path can be through your floor drain or toilet. Air is the only thing that gets released. However, it will move any standing water in its path and release sewer gas into your home.

This is not a common occurrence, but does occasionally happen. Putting water in all of the drains in your house will stop the further release of sewer odor into your home. Cleanup is typically minor and is left to the home owner.

Keeping your sewer and vent lines clean will help prevent this from happening and minimize the chances of a backup caused by a blockage.



Q: *I had my sewer service line cleaned by a sewer cleaning company and they had to saw out roots. Should I call the City?*

A: Yes, please call the City as soon as you have roots sawed out of your line or if you have your line cleaned. These roots can lay in

the main line and collect other solids until it causes a sewer backup in your area. City crews will check to make sure everything flows smoothly.

Q: *I want my water tested. Where do I take it?*

A: The City and Minnesota Department of Health conduct all the water testing required by the Safe Drinking Water Act to maintain safe drinking water in our community. Results are published annually in this report. If you desire further testing, please call a private testing laboratory. Search for “water analysis” or “laboratories-analytical.” In order to test water, you need to know for what you want it tested.

For more information, visit www.EdinaMN.gov/PublicWorks or call 952-826-0375.

– Compiled by Susan Waack

Lawn Care Tips That Work For Healthy Turf And Water Quality

Making changes in the way we care for our lawns goes a long way in protecting water quality. Protecting water quality goes a long way in protecting wetlands, lakes and our environment.

Make these easy changes in lawn care to make large changes in local water quality:

- Test your soil. Find out what nutrients you may or may not need to add for a healthy lawn.
- Do not use phosphorus fertilizer. The “P” on the NPK rating on a bag of fertilizer indicates the amount of phosphorus, so be sure to choose fertilizer with a “P” rating of “0.”
- Apply fertilizer at the correct rate. More is not better. Be sure your spreader is set correctly.
- Keep fertilizer, grass clippings and leaves off driveways and streets. When these things are left on hard surfaces, they wash off into storm drains and cause “green” lakes.
- Mow grass to a height of two or three inches. Overseed in the spring and fall. Aerate and dethatch in the fall. A healthy lawn needs less chemical maintenance.
- Grass clippings left on the lawn act as a fertilizer in the summer.

2011 **City of Edina** Drinking Water Report

The City of Edina is issuing the results of monitoring done on its drinking water for the period from Jan. 1 to Dec. 31, 2011.

The purpose of this report is to advance consumers' understanding of drinking water and heighten awareness of the need to protect precious water resources.

Source of Water

The City of Edina provides drinking water to its residents from a groundwater source: 18 wells ranging from 381 to 1,080 feet deep that draw water from the Mount Simon, Jordan and Prairie Du Chien-Jordan aquifers.

The water provided to customers may meet 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 online at **www.health.state.mn.us/divs/eh/water/swp/swa**.

Call **952-826-0376** if you have questions about the City of Edina's drinking water or would like information about

opportunities for public participation in decisions that may affect the quality of the water.

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 in 2011. If any of these contaminants were detected the last time they were sampled for, they are included in the table along with the date 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 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 five 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 ($\mu\text{g/l}$).

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

nd: No Detection.

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

Contaminant (units)	MCLG	MCL	Level Found		Typical Source of Contaminant
			Range (2011)	Average/Result*	
1,1,1-Trichloroethane (ppb)	200	200	nd-.37	.19	Discharge from metal degreasing sites and other factories.
1,1-Dichloroethylene (ppb)	7	7	nd-.85	.43	Discharge from industrial chemical factories.
Alpha Emitters (pCi/l)	0	15.4	5-9	9	Erosion of natural deposits.
Barium (ppm)	2	2	N/A	.14	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Benzene (ppb)	0	5	nd-.2	.05	Discharge from factories; Leaching from gas storage tanks and landfills.
Combined Radium (pCi/l)	0	5.4	1.1-4	4	Erosion of natural deposits.
Fluoride (ppm)	4	4	1-1.1	1.13	The 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	6.3	By-product of drinking water disinfection.
TTHM (Total trihalomethanes) (ppb)	0	80	N/A	22.7	By-product of drinking water disinfection.
Trichloroethylene (ppb)	0	5	nd-1	.5	Discharge from metal degreasing sites and other factories.
Vinyl Chloride (ppb)	0	2	nd-1.4	1.13	Leaching from PVC piping; Discharge from plastics factories.
cis-1,2-Dichloroethylene (ppb)	70	70	.58-10	7.53	Discharge from industrial chemical factories.
trans-1,2-Dichloroethylene (ppb)	100	100	nd-.54	.41	Discharge from industrial chemical factories.

*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.

Contaminant (units)	MRDLG	MRDL	****	*****	Typical Source of Contaminant
Chlorine (ppm)	4	4	.6-1.3	.88	Water additive used to control microbes.

****Highest and Lowest Monthly Average. *****Highest Quarterly Average.

Contaminant (units)	MCLG	AL	90% Level	# sites over AL	Typical Source of Contaminant
Copper (ppm) (9/29/2010)	1.3	1.3	.32	0 out of 30	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb) (9/29/2010)	0	15	2.2	0 out of 30	Corrosion of household plumbing systems; Erosion of natural deposits.

If present, infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Edina 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 two 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 Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

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. In the table that follows are the unregulated contaminants that were detected:

Contaminant (units)	Level Found		Typical Source of Contaminant
	Range (2011)	Average/Result	
Sodium (ppm)	6.57-30.7	30.7	Erosion of natural deposits.
Sulfate (ppm)	3.35-46.2	46.2	Erosion of natural deposits.

Compliance with National Primary Drinking Water Regulations

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:

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.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations that 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.

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**.

Some people may be more vulnerable to contaminants in drinking water than the general population. **Immuno-compromised people such as those with cancer undergoing chemotherapy, those 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/CDC 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.**

Edina Water Chemistry

Hardness = 17 grains per gallon

Iron = less than 1 part per million

PH = 7.6

Fluoride = 0.9 to 1.1 parts per million

Chlorine = 1 to 1.2 parts per million

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Source of Water

The City of Minneapolis provides drinking water to its residents from a surface water source: surface water drawn from the Mississippi River.

The water provided to customers may meet 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 online at **www.health.state.mn.us/divs/eh/water/swp/swa**.

Call **612-661-4999** if you have questions about the City of Minneapolis drinking water or would like information about opportunities for public participation in decisions that may affect the quality of the water.

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 2011. 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:

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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.

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

NTU: Nephelometric Turbidity Unit, used to measure clarity in drinking water.

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 five samples are taken, the average of the two with the highest levels is taken to determine the 90th percentile level.

ppb: Parts per billion, which can also be expressed as micrograms per liter ($\mu\text{g}/\text{l}$).

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

nd: No Detection.

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

Contaminant (units)	MCLG	MCL	Level Found		Typical Source of Contaminant
			Range (2011)	Average/Result*	
Fluoride (ppm)	4	4	1-1.1	1.1	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.
Haloacetic Acids (HAA5) (ppb)	0	60	11.5-62.3	26.34	By-product of drinking water disinfection.
Nitrate (as Nitrogen) (ppm)	10.4	10.4	N/A	.7	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
TTHM (Total trihalomethanes) (ppb)	0	80	14.9-70.2	32.05	By-product of drinking water disinfection.
Total Coliform Bacteria	0 present	>5% present	N/A	1%♥	Naturally present in the environment.

*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.

Turbidity is a measure of the clarity of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

Contaminant (units)	MCLG	MCL	**	***	Typical Source of Contaminant
Turbidity (NTU)	N/A	TT	100%	.26	Soil runoff.

**Lowest Monthly Percentage of Samples Meeting the Turbidity Limits.

***Highest Single Measurement.

Contaminant (units)	MCLG	MCL	****	*****	Typical Source of Contaminant
Chlorine (ppm)	4	4	2.8-3.4	3.21	Water additive used to control microbes.

****Highest and Lowest Monthly Average.

*****Highest Quarterly Average.

Contaminant	Unit	% Removal Requirement	% Removal Achieved	# of Quarters out of Compliance	Typical Source of Contaminant
Total Organic Carbon	% Removed	25-30%	43.3- 62.9%	0	Naturally present in the environment.

Contaminant (units)	MCLG	AL	90% Level	# sites over AL	Typical Source of Contaminant
Copper (ppm) (9/21/2009)	1.3	1.3	.07	0 out of 51	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb) (9/21/2009)	0	15	2	1 out of 51	Corrosion of household plumbing systems; Erosion of natural deposits.

Contaminant (units)	Level Found		Typical Source of Contaminant
	Range (2011)	Average/Result	
Sodium (ppm)	N/A	12.6	Erosion of natural deposits.
Sulfate (ppm)	N/A	28.4	Erosion of natural deposits.

If present, infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Minneapolis 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 two 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 Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Utility Crossword

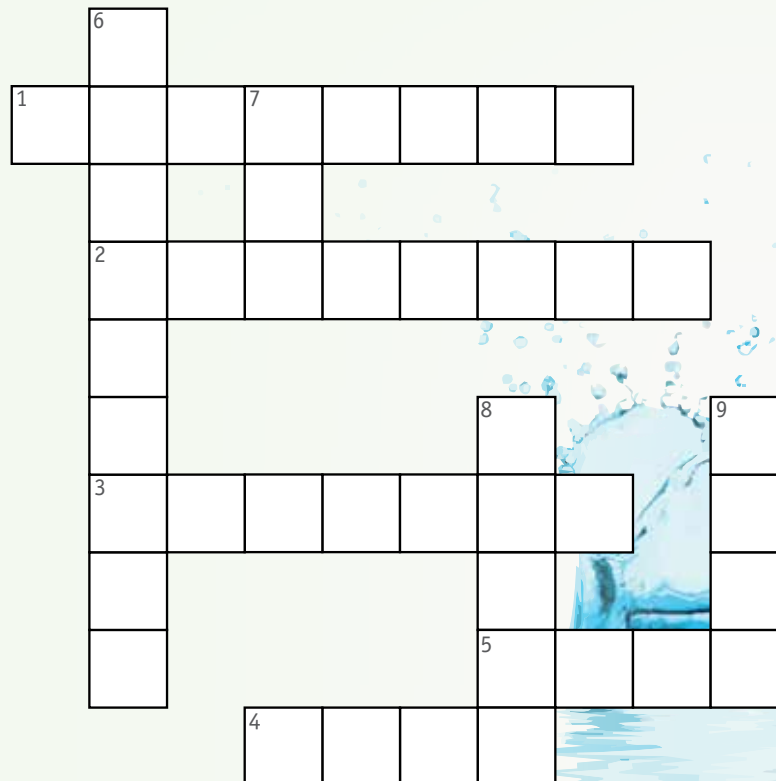
Across

- 17 grains per gallon
- Number of municipal wells
- Source of drinking water
- Number of wells serving Water Treatment Plant 6
- Days allowed to irrigate if your address ends in 0, 2, 4, 6, 8

Down

- Edina has 200 miles of it
- What crews do to access a water main
- Device that measures water consumption
- Causes discolored water

Answers on Page 15.



Public Works Purchases State-Of-The-Art Jet/Vac Truck

By David Katz

The Edina Public Works Department's latest vehicle acquisition is as impressively varied in its functions and features as the department itself.

Edina recently invested in a 2012 VacCon Model V250 jet/vac truck, a mobile unit well suited to clean the City's 180 miles of sanitary sewer and 80 miles of storm sewer mains.

"Preventative sewer line maintenance is essential," said Gary Wells, Utilities Supervisor. "Because this underground network collects and transports all the wastewater from so many sources – all our showers and sinks, just for starters – any sort of stoppage can have major repercussions."

The process is, in theory, a straightforward one. A utilities team parks the truck near a manhole and inserts a front-mounted, high-pressure water hose into a section of pipe. With some 1,300 gallons of water that is carried on board, debris is then scoured away and vacuumed into the truck's 11 cubic yard rear holding tank for disposal in accordance with pollution control regulations.

Rarely, though, is it easy in practice, and it is in these more thorny situations that this particular VacCon model excels.

For instance, "root growth is a really common issue," said Nate Behlen, Utilities Operator. "But the jet/vac is

equipped with a root cutter that quickly destroys root masses." The Rodder unit used previously to clear up such blockages utilized steel rods and a saw blade bent in a circular shape – an effective, but potentially dangerous solution.

Another advantage of the new vehicle is polymer water tanks. "Metal ones are common, but, over time, sediments can cause corrosion to this type of tank housing," explained Dustin Hanly, Utilities Operator.

Perhaps most impressively, from a maintenance perspective, is the machine's ability to self-diagnose. The jet/vac came with an onboard computer that pinpoints parts of the truck that are not running at optimal efficiency. That function saves utility operators valuable manhours. If a malfunction is severe enough, this rudimentary "brain" can even relay the relevant information to the manufacturer's corporate office in Florida, Behlen noted.

Of course, "smart" as the jet/vac is, especially compared with some of the alternatives on the market, there is no substitute for well-trained personnel.

As important and time consuming a responsibility as sewer maintenance



Photo By David Katz

The new jet/vac truck boasts an array of useful features, including a solid gear root cutter, a noncorrosive holding tank and an onboard computer for self-diagnostics.

is, the jet/vac is one of the more versatile vehicles in the Public Works Department's arsenal and is often deployed in a variety of other capacities, as well. You may see it around town assisting with water main repair breaks or water/sewer service line replacements. Should a City emergency ever call for it, there is even a standing arrangement putting the truck at very short notice at the disposal of the Edina Fire Department, which could use it to extract people from a trench collapse.

For more information on the Public Works Department and how the new jet/vac factors into its work, visit www.EdinaMN.gov/PublicWorks.



Public Works Christens Its Newest and Most Unique Water Treatment Plant

By David Katz

Public works projects pay big dividends in the long run, but often bring with them a number of short-term inconveniences. Whether it's avoiding a favorite stretch of sidewalk while City crews install new concrete or navigating detours to circumvent roadway repair zones, we are well accustomed to small disruptions to our daily routine, knowing this work is essential for maintaining Edina's infrastructure and high standard of living.

Occasionally, though, a large-scale project is added to the docket that brings tremendous value to the community without introducing even these small hassles. The Public Works Department's newest and largest water treatment facility is one such case. The City-owned "Danen's Building," 5116 Brookside Ave., was repurposed for the use.

Completed on schedule in June, the new plant is a major asset to the Utilities Division for several reasons.

"At any given point, the City is pumping groundwater from as many as 18 well sources located all over town," explained Dave Goergen, Assistant Public Works Director. Groundwater contains iron, manganese and other naturally occurring elements that, while perfectly safe to drink, can discolor and give a subtle odor to tap water. "All of Edina's drinking water is chemically treated, but these trace amounts of manganese and iron are not yet filtered from all sources."

The new Brookside Avenue facility can run 24/7 and ultimately treat up to 4,000 gallons of water each minute. This will treat 4 of the existing 18 wells – a major leap toward the Public Works Department's goal of extracting these elements from our water supply altogether.

More importantly, the newest plant is also equipped with an aeration system specially designed to filter out vinyl chloride, a manmade and potentially carcinogenic compound.

"A regional vinyl chloride contamination originated at an industrial site in St.

Louis Park and, about a decade ago, first showed up in northern Edina's groundwater, at Well No. 7 in Sherwood Park," Goergen said.

The Environmental Protection Agency stipulates that when local concentrations of this compound exceed a certain level after four consecutive test samplings, the city in question must notify the public and shut down the well.

When Edina's Public Works Department found out about the positive test samples, they took a more proactive approach, ceasing all operations at Well No. 7 in 2003 and invested immediately in determining how best to combat the problem.

The City of Edina, in collaboration with the Minnesota Pollution Control Agency (MPCA) and several advisory agencies, considered all feasible solutions before finally opting to repurpose the vacated Danen's Building as a high-capacity treatment plant. Unlike the City's four other plants, it is large enough to receive water from four of the northernmost wells.

Once water is treated at any of the five facilities, an intricate water main system stretching some 200

Photo by David Katz



Edina's newest water treatment plant can treat an impressive 4,000 gallons of water each minute.

miles transports it to Edina homes and businesses.

In addition to being cost effective – the parcel was already owned by the City, and MPCA offset design costs with a \$250,000 subsidy – this plan stood out over others for the very minimal inconvenience it promised to cause Edina residents and businesses during the construction window of more than a year.

"...this plant is on a back road in a very unobtrusive corner of the Grandview neighborhood," Goergen said.

Moreover, "because a sturdy 'shell'... already existed – the building stored vehicles and equipment for Public

Works before we moved operations to Metro Boulevard – it wasn't a 'bottom-up' operation." Had the case been otherwise, the plant would have necessitated purchasing land in a suitable area and all new construction.

All this contributed to a smoother-than-usual construction process. "So far as I know, this approach makes the Danen's Building water treatment plant unique in Minnesota," Goergen said.

City Begins Water Meter Replacements

Ferguson Waterworks has begun replacing water meters in Edina homes.

The City uses water meters to record the amount of water each property uses so that the owner can be billed properly for water use. During the mid-1990s, the City upgraded its water meters to a system that allows the meters to be read from a vehicle on a roadway. The batteries in the radios are now failing at a very high rate.

The Public Works Department had planned to replace the batteries, but discovered that the bandwidth the FCC had appropriated for the radios will not be available for public use after Jan. 1, 2013. Also, most of the current meters contain a very small amount of lead in the meter body. Beginning in 2014, any meter containing lead cannot be installed. Given these issues,

the City Council approved a complete replacement of the City's approximately 14,000 meters.

The meter-reading process currently takes about five business days to complete. Once the new meters are in place and functioning, the process should take just one day to complete.

An experienced meter installation contractor, Ferguson Waterworks was hired to install all residential meters. City staff will assist Ferguson with the replacement of industrial and commercial meters. Water meters are located inside homes and buildings. In most cases, they are located in the basement along the front wall of the building.

Letters will be sent to property owners asking them to schedule appointments the week that installers are in their area. Owners will be asked to schedule

appointments spanning two-hour blocks of time. Limited evening and weekend appointments are available upon request. Please do not try to schedule an appointment until you receive a written notice.

To install the meter, the installer will need to gain entry to your home. The water meter area must be clear and accessible. The installers need at least three feet around the unit. An adult must be present at the time of installation. The installation should take about 20 minutes to complete.

"We really appreciate the community's cooperation during this project. We recognize the inconvenience this project poses to property owners and we will do our very best to get the work done inside their homes and businesses as quickly as possible," said Assistant Public Works Director David Goergen.

All Ferguson Waterworks employees wear uniform shirts and travel in marked vehicles. They have been issued City ID cards. Before beginning work, the Edina Police Department completed background checks on the Ferguson employees working in Edina: Josh Anderson, Nick Elfering, Jason Stoltman and Jacob Sullivan.

There is no cost to the customer for this meter replacement, but you must have your water meter replaced to be in compliance.

The \$3.6 million project is expected to be complete by June of 2013.

For more information, call the Public Works Department, 952-826-0376.



Photo by David Katz