What is a wellhead and why does it need to be protected?

Wellhead protection is the management of water supply wells and the area from which they capture water to prevent contamination of the drinking water source. Contaminants (e.g., used oil, lawn and garden chemicals, spilled fuel) released to the environment can be transported by rain or snowmelt into the ground and find their way into the aquifer from which a water supply well pumps. A wellhead protection program helps ensure a safe water supply for all residents now and in the future.

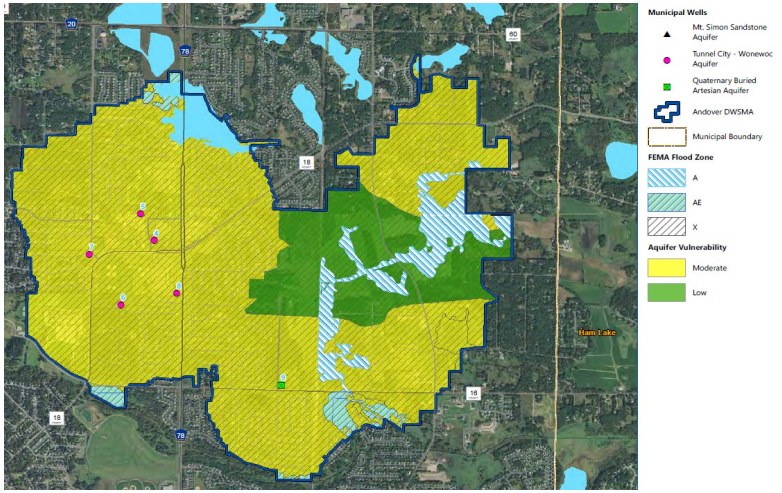
The City of Andover wellhead protection program (WHPP) serves as a tool to prevent contamination of the public water supply wells. In order to do so, the City has inventoried properties that could potentially threaten our water supply, delineated a drinking water supply management area (DWSMA), and developed protocols to manage the DWSMA.

The degree of drinking water source vulnerability across the city has been defined. This map shows areas where drinking water sources are most vulnerable.

The following videos on groundwater, created by the Anoka County Water Resource Outreach Collaborative, can be found on the Anoka County Website, https://www.anokacounty.us/3878/Saving-Our-Groundwater

- "Our Groundwater Connection"
- "Our Groundwater Connection: Contamination"

Andover DWSMA



CLEAN WATER LAND & LEGACY AMENDMENT

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What is a well anyway?

A well is essentially a hole in the ground, held open by a pipe that extends to an aquifer. When a well that is not in use and has not been properly sealed, it is a potential source of groundwater contamination. Unused wells can act as a conduit or drain – allowing surface water runoff, contaminated water, or improperly disposed of wastes or chemicals to reach the aquifer.

For a drilled well, you may see a metal pipe typically ranging from 1¼-inch to 6-inches in diameter at the ground surface. Inside buildings, a metal pipe sticking up out of the floor may also be an out-of-use well. For a hand dug well, you may see a circular structure, ranging from one foot to several feet in diameter, constructed of concrete, tile, bricks, or rocks – in the ground or a pit.

For more information, visit the Minnesota Department of Health's Well Owner's Handbook: https://www.health.state.mn.us/communities/environment/water/docs/wells/construction/handbook.pdf

https://misadventuresinremodeling.wordpress.com/

I don't use my well. Now what?

To properly seal a well, it requires a licensed well driller to clear debris and backfill the well with cement in accordance with the Minnesota Well Code. The cost to seal a well can vary considerably – access, geologic conditions, size, and condition of the well are all factors that may affect the cost of well sealing. See the following video from the Minnesota Department of Health for more information on sealing wells: https://www.youtube.com/watch?v=LKS4OknlYO4&list=UUzyev_TJ-jgpqIBhsEn4QDg

Anoka County has a low interest loan program available to help pay for sealing out-of-use wells. To learn more, go to: https://www.anokacounty.us/2023/Well-Septic-Loans

As of 4/20/2022, the Well Septic Loan Program is closed. If state AgBMP funds are available, applications will be accepted with the Spring Weight Restrictions are lifted. Check the link above for updates on the status of the program.

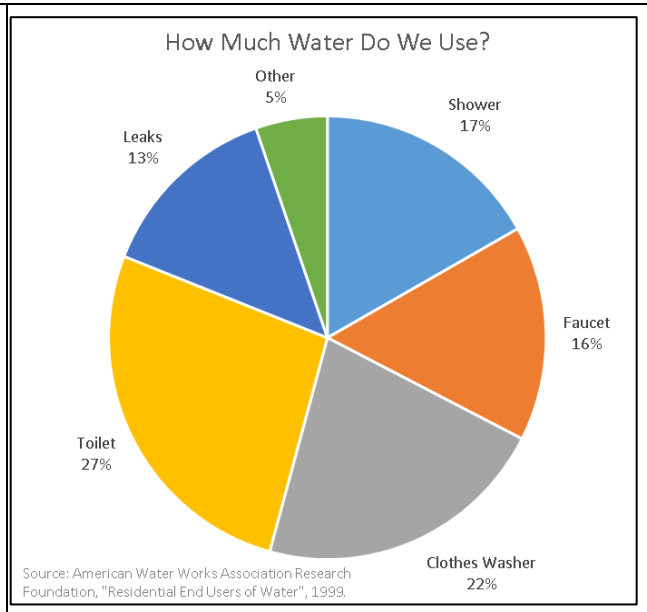
https://www.health.state.mn.us/communities/environment/water/wells/waterquality/test.html#seal

How much water do I use?

The average American family of four uses 400 gallons of water per day. On average, approximately 70% of that water is used indoors, with the bathroom being the largest contributor to water usage.

Do your part to save water by fixing leaky faucets, running full loads of laundry or dishes, and taking shorter showers. Did you know old showerheads use up to 5 gallons of water per minute (a ten-minute shower uses 50 gallons of water!)? Consider taking shorter showers and installing a low-flow showerhead to reduce your water use. Since Andover has a tiered water rate structure that charges more per gallon after a customer's water use reaches certain specified levels you can also save money by saving water.

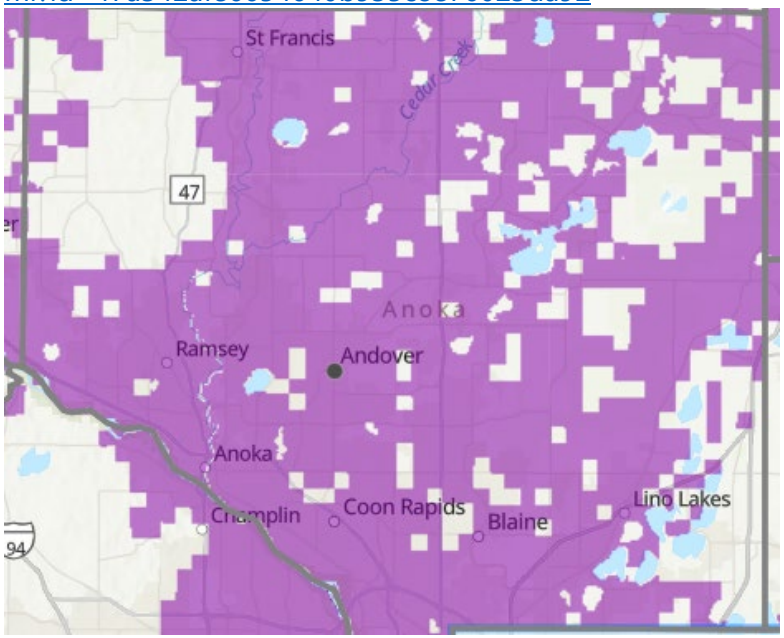
Consider using soaps, lotions, and detergents that are biodegradable and less toxic as well as properly disposing of left-over medicines, paints, oil, or antifreeze; don't pour down the drain or toilet.



Nitrogen Fertilizer Application

On September 1, 2020, updates to the Ground Water Protection Rule restricts the application of nitrogen fertilizer in the fall and on frozen ground for certain areas in Minnesota. The updates to the rule are intended to reduce nitrate pollution in groundwater. To learn more about the restrictions and how they impact Andover, visit the University of Minnesota Extension: https://blog-crop-news.extension.umn.edu/2020/08/minnesotas-nitrogen-fertilizer.html

https://mnag.maps.arcgis.com/apps/webappviewer/index.html?id=47a342afe6654640b935c8e76023da92



	CLEAN WATER LAND & LEGACY AMENDMENT Clean Water Fund: Protecting and restoring Minnesota's waters for generations to come More information is available at www.legacy.leg.mn CITY OF ANDOVER	**Your Yard** Landscape your yard to reduce the need for watering and filter runoff. Consider installing a rain garden, a safe distance away from wells, to allow rainwater runoff the opportunity to absorb into the ground and recharge groundwater instead of flowing to surface waters or storm drains. To learn how and why to build a rain garden, visit the University of Minnesota Extension: https://extension.umn.edu/landscape-design/rain-gardens .The Anoka County Water Resource Outreach Collaborative also has an informative video, "Rain Gardens 101 – Full Video", https://www.youtube.com/watch?v=ZHeY6CUAS8s&t=778s To reduce your use of City water for lawn and garden watering you can employ efficient watering practices and/or select grasses that can tolerate drought. To learn more about efficient lawn watering practices and selecting drought tolerating grasses, please visit: https://extension.umn.edu/lawncare/water-saving-strategies-home-lawns You can also use rain barrels to collect and store rain that hits your roof so you can use it later to water your lawn or garden. This is a way to save money on your water bill while using natural rainwater to water your plants. For more information or to order your rain barrel, visit: https://www.knowtheflow.us/2019/03/get-a-rain-barrel-compost-bin-to-recycle-rainwater-and-reduce-waste/	https://extension.umn.edu/landscape-design/rain-gardens 

How should I manage and dispose of chemicals at home?

Read chemical warning labels. Be sure to understand and follow what it says on how to use the product safely, how to protect your household when using it and how to properly store it.

Some examples of hazardous wastes found in a typical household include antifreeze, batteries, brake fluid, chemical strippers, chlorine bleach, contact cement, drain cleaners, insecticides, lawn chemicals, nail polish remover, spot removers, toilet and oven cleaners, and used motor oil.

Improper storage and disposal of chemicals and hazardous substances are a threat to groundwater and nearby surface water. Free drop off of household hazardous wastes (e.g. antifreeze, gasoline and other fuels, paint thinner, pesticides, used motor oil and others) is available for Anoka County residents. For information on the types of items that are and are not accepted at the drop off facility please visit: https://www.anokacounty.us/369/Household-Hazardous-Waste-Facility

https://mycarneedsthis.com/

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How does the Wellhead Protection Plan affect me?

Groundwater can be contaminated by something as simple as spilling chemicals on the ground, where they can be carried by rain or snowmelt into the ground or nearby water bodies.

If you're a resident or business owner in the Andover DWSMA, you can help protect the water supply now and for future generations by:

- Disposing of used motor oil and household chemicals properly—not dumping them on the ground or down the drain
- Properly, and sparingly, using lawn chemicals
- Cleaning up oil or household chemicals spilled on the ground using absorbent materials and disposing of materials properly
- Minimizing chemical wastes in your home or business to reduce the risk of spills
- Sealing out-of-use wells

If you have a well, see the Minnesota Department of Health's Well Owner's Handbook for more details on how to properly maintain and operate your well: https://www.health.state.mn.us/communities/environment/water/docs/wells/construction/handbook.pdf

For more information, please contact Steve Weinhold, Public Utilities Manager, City of Andover S.Weinhold@andovermn.gov or (763) 767-5180