City of Saint Peter Wellhead Protection

Recently the City of Saint Peter constructed a new water treatment facility with the capabilities to remove many natural and man made contaminants, but here we are writing about how to protect our public water supply. One of the best ways is to manage potential sources of contamination. The overall goal of Saint Peter's Wellhead Protection Plan is maintain a clean and abundant supply of water for its residents. One method to achieve this is to educate residents to the importance of protecting the community's water supply.

As part of the Part 2 Wellhead Protection Plan, parcels of land with large quantities of potentially hazardous contamination sources were identified. An example is a business with a storage tank containing gasoline, such as a local gas station, or a business that generates hazardous waste. Saint Peter surveyed these properties and provided educational materials to these land owners to help ensure that any hazardous substances are properly stored and handled.

Wellhead protection is not just limited to these types of properties. All residents should be aware of substances or structures on their properties that may adversely impact the aquifer. The following is a list of some items that homeowners should be aware of:

1. **Groundwater Wells**: While the wellhead protection program is only required for public water supply wells, individual residential wells are one item that can potentially transmit contamination to the aquifer. If a residential well is poorly constructed, not maintained, or improperly abandoned, that well becomes a potential avenue for contamination to enter the aquifer. More information about private well testing is available from the Minnesota Department of Health: www.health.state.mn.us/divs/eh/wells/index.html

2. **Class V Injection Wells**: These wells are not "wells" in the common perception of the term, but instead are a class of shallow disposal systems that aid in the infiltration of water directly into the soil. The most common type of Class V injection well is an open bottom drain that is sometimes found in automotive garages and repair facilities. If the drain is not connected to the City's sewer system, it is most likely considered a Class V injection well. These wells are of concern, since they may allow contaminated fluids from automobiles (or other sources) to enter into the groundwater. Certain types of Class V injection wells have been outlawed in recent years. To determine if your property contains a Class V injection well, please visit this site to learn more about these wells: www.epa.gov/safewater/EPA-WATER/1998/July/Day-29/w19936.htm

3. **Individual Sewage Treatment Systems (Septic Systems)**: Septic systems, if improperly constructed or poorly maintained, can be a source for contamination to the groundwater. As such, regular maintenance and inspection of septic systems is highly recommended to prevent them from becoming a source of contamination. Additionally, the Minnesota Pollution Control Agency has a web page explaining the laws, rules, and statutes regarding septic systems: www.pca.state.mn.us/programs/ists/index.html

4. **Household Hazardous Wastes**: The average home contains a wide variety of chemicals that can, over time, have an adverse impact to the groundwater if improperly stored or disposed of. Examples of common household hazardous wastes include (but are not limited to): Pesticides, Herbicides, Solvents, Cleaners, Pool Chemicals, Septic System Chemicals, Paint, Gasoline, Waste Oil, and Batteries. More information about identifying, storing, and disposing of household hazardous waste is available from the Finance Department by calling 934-0731.

5. **Lawn Chemicals and Fertilizers:** Improper use and over-application of certain lawn chemicals and fertilizers can lead to a degradation of groundwater quality. Excess fertilizer nutrients that are not absorbed by plant life can either infiltrate to groundwater or can run off during rain or snowmelt events, degrading stormwater quality. Stormwater either infiltrates to the groundwater or runs off to local bodies of water, such as the Minnesota River. In either case, the impact to water quality from nitrate runoff is undesirable.

   Homeowners are therefore encouraged to closely follow instructions on lawn chemicals and fertilizers to ensure that proper application rates are maintained. Information on lawn fertilization can be obtained from the University of Minnesota Extension Service at: www.extension.umn.edu/

   Specific recommendations for lawn fertilization rates and other useful lawn care information are available at: www.extension.umn.edu/topics.html?topic=5&subtopic=155