GROUNDWATER AND THE HOME

Your actions may result in or contribute to water quality problems in your well or a community water supply — problems which can affect the health of you, your family, and others. One third of the state’s population relies on groundwater as their source of drinking water. That is why it is important to exercise care when involved in activities that could contaminate a source of drinking water.

Activities such as improper disposal of hazardous household products; improper use of lawn and garden products; and malfunctioning of an on-site sewage disposal system are among the situations which may result in contamination of our water supply.

Improper Disposal of Hazardous Household Products

Pouring certain chemical products (ex. paint thinners, cleaning products, etc.) down the drain or dumping excess products such as waste oil and gasoline on the ground can threaten nearby sources of drinking water.

Improper Application of Lawn and Garden Fertilizers and Pesticides Used Around the Home.

Items such as fertilizers and pesticides (including those used for termite control) are among the products which can potentially enter a drinking water supply when applied incorrectly. Site conditions such as characteristics of soil, flow of groundwater, and likely flow of contaminant should be considered when applying these products.

If using commercial applicators, be sure that they are qualified to apply the products/chemicals they have been hired to use. All applicators applying pesticides commercially in Connecticut must be certified by the State Department of Environmental Protection (DEP).

Malfunctioning On-Site Disposal System

A malfunctioning system may result in contamination of drinking water wells. Watch for symptoms such as seepage and odor. If problems are found, determine the cause and correct.

Use of Septic Cleaners

The State Department of Health Services does not recommend the use of any septic tank additives.

Well Construction

It has been found that improper well construction is a major contributor to water quality problems. Surface drainage water can enter around the sides of the well if not properly sealed off or if the land surface is not sloped away from the well. The entry of undesirable organisms or toxic substances can occur from a poor sanitary seal between the pump line(s) and the well casing or if the annular seal between the well casing and the drill hole is not tight.

Contamination can also result if the well has not been properly disinfected after its construction or after repairs have been made.

Problems may also be the result of a dug well (shallow — 25 feet or less from the surface) as they are more susceptible to contamination usually due to poor construction. Older wells are more likely to be shallow in depth.

Water Softener Discharges

On-site discharge from water softener backwash
requires a permit from DEP. In some instances, point source injection of backwash water into septic systems has adversely affected wells by causing elevated sodium, chloride and total dissolved solid levels.

If a water softener needs to be purchased, an alternative is a self-contained unit that is regenerated off-site (a portable exchange unit). Also, softening just the hot water will reduce demand for softened water by approximately two-thirds.

To Protect Drinking Water Supplies:
- Use care in selecting products used for cleaning and maintaining the home and yard.
- Do not pour hazardous substances down the household drain (ex. paint thinner).
- Recycle (such as waste oil).
- Share with others (when in original container) excess household products such as cleaning agents, paints, etc.
- Use proper disposal methods for household hazardous wastes.
- Follow directions on label or bag when using lawn and garden fertilizers and pesticides.
- When using commercial applicators (lawn and garden care or *termite control), be sure they are certified to apply the pesticide(s) being used. Certified applicators will carry a license.
- Maintain on-site sewage disposal system by pumping every three to five years.

*For information on certified termite control applicators, contact the Department of Environmental Protection Pesticide Division.

By Karen K. Filchak, Extension Home Economist

References/Review
2. Pesticide Regulatory Program, Connecticut Department of Environmental Protection.
3. Water Supply Division, Connecticut Department of Health Services
12/1988