Former Dumps and Landfills

Note: the words *dump* and *landfill* mean the same thing on this fact sheet.

Why be concerned about former dumps and landfills?

In the past, dumps were located in areas thought to have little value. These areas include gravel pits, ravines, swamps or other lands. Home and business waste was often dumped in these areas. Unfortunately, this practice led to health and environmental concerns. Some former dumps have contaminated groundwater used for drinking. Other sites have exposed waste; or fire hazards from seeping landfill gases.

Today, modern landfills are designed for safety. Landfills built since the mid-1980s are designed and operated to prevent environmental contamination.

What are the health concerns from former dumpsite waste?

Dump waste can be a physical and chemical hazard. Often, old dumps were minimally covered with soil and sometimes this soil cover was not maintained. Broken glass and other sharp objects can cause cuts. Uneven settling of wastes can make the ground unstable resulting in injuries from falls. Direct contact with chemical contaminants in the waste is less likely. But when visible waste such as stained soils, wet soils, or liquid is observed, the potential for exposure is increased.

Can a former dump or landfill contaminate my drinking water?

Many old dumpsites had no liners to prevent groundwater contamination. When the dumps were full, they were typically covered with loose topsoil. Rainwater and precipitation can seep into the waste and carry chemicals to the groundwater below. Because some old dumps used wetlands for disposal sites, the wastes were directly in contact with the groundwater table.

The chemicals contaminating groundwater vary among dumpsites. But common contaminants found in groundwater near these dumps are chlorinated solvents. Some of these solvents, such as tetrachlorethylene, trichloroethylene, and vinyl chloride, can pose a cancer risk at high exposure levels. When these chemicals reach private drinking water wells, it is not uncommon for levels to be of health concern.

The concern of well contamination rises if people build homes near former dumps. The closer a residential well is to a dump, the greater the risk of contamination. In some cases, contamination was found in drinking water wells more than a mile from a dump.

Why be concerned about landfill gases?

When the waste in a landfill decomposes, various gases are formed. Some of these gases include methane and volatile organic chemicals (VOCs). These "landfill gases" can seep from old dumps and cause an explosion if allowed to build up in an enclosed building. Fortunately, gas and vapor concerns decrease beyond a few hundred feet from a dump.

Are today's landfills built differently?

Landfills in use today are built to prevent contamination. They are enclosed with special covers and liners to prevent rainwater from entering and exiting a landfill. This helps to prevent groundwater contamination. Modern landfills also use monitoring wells to detect any problems. These wells are located at the outside edge of the disposal property. Landfill gas and liquids are also extracted to reduce gas or liquids from seeping off the site.

What actions can I take?

- If you live near a former dump and have a well, consider testing the water. The water test should look for VOCs and chlorinated solvents.
- Report any water or air problems to your local DNR office.
- Recycle you waste. Keep newspapers, tin cans, and glass out of landfills. Send old paint, fertilizer and other chemicals to your local community clean sweep program.

For more information

- Contact your local DNR office or the Division of Public Health at (608) 266-1120.
- For Internet resources, including contacting the DNR or your local public health agency, go to: http://dhs.wi.gov/eh

Prepared by the Wisconsin Division of Public Health, with funds from the Agency for Toxic Substances and Disease Registry, Public Health Service, USDHHS.
P-45017 10/2001