

### **Non-Point Source Pollution**

Non-point source pollution is a runoff from agricultural land and can cause groundwater pollution when pesticides and fertilizers are absorbed into the ground through pore soils and are taken directly into the aquifer.

### **B. Groundwater Flow**

A common misconception is that groundwater consists of large underground rivers and lakes similar to those above ground. In fact, groundwater occurs in the porous spaces between the particles of soil and rock and unlike surface water that often flows quickly, groundwater often moves relatively slow.

#### **Uses and Management**

Groundwater is used in our society for many different purposes. These include human consumption, crop irrigation, livestock watering, industrial water supply, geothermal energy and wastewater disposal.

### **C. Quantity and Quality**

Groundwater varies in quantity and quality throughout the country. High levels of naturally occurring minerals, metals and bacteria may make certain groundwaters unsuitable for human consumption, industrial or agricultural uses. In addition, human activities have affected groundwater quantity and quality. Because of this variation, groundwater must be examined and evaluated.

#### **Groundwater Contamination**

Groundwater contamination has become a major issue. Once taken for granted, groundwater is regarded as a precious and needed resource. The general success of land based disposal systems gave rise to the widely accepted myth that soil acted as a natural filter to pollutants. This led to land disposal of waste with little or no regulation. Landfills were routinely placed over old gravel pits, wetlands and nearly every other kind of depression. We have only realized the fallacy of that assumption in the last decade through the discovery of many contaminated water supplies. Once contaminated, groundwater remediation is a slow and very costly process. The movement of groundwater is relatively slow and biological activity is very low. Once a geologic area is polluted it can remain a hazard area to groundwater for many decades. Probably the most significant groundwater prevention measure is the Underground Storage Tank Act. This act gives the regulated community the responsibility to detect and prevent existing and potential leaks from underground tanks, which are a serious threat to groundwater.

Poorly maintained septic systems which are placed in inappropriate soil are also a source of groundwater contamination as well as misplaced landfills with leaking vats of substances which today may not be placed in landfills any longer.

