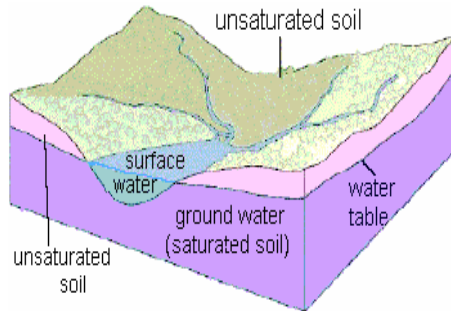




Drinking Water Protection Begins With Watersheds



Did you know that Louisiana receives an average of 62 inches of rain each year? Imagine if all the water that fell onto Louisiana in a single year stayed right where it landed. We would be wading through water higher than our shoulders! Fortunately, precipitation (rain, sleet, snow, or hail) flows into surface water such as lakes, streams, marshes, and rivers, or it seeps into underground storage areas called aquifers. Aquifers are underground formations of sand and gravel that contain water, known as groundwater. Approximately two-thirds of Louisiana residents get their drinking water from groundwater, while one-third of Louisiana residents get their drinking water from surface water sources.

To use surface water as drinking water, water is pumped out of a lake, stream, or river through a water intake. A water intake is a pipe that is submerged into a surface water source and that is connected to a treatment plant. The water is pumped from the surface water source to the treatment plant where it is treated to make it safe to drink, and then sent through distribution pipes to the community.

The **quantity** of water in a surface water source is affected by precipitation levels in its associated watershed. A watershed is the land area where water from precipitation accumulates and then drains to a specific water body, such as a stream, river, or lake. This water can also seep into an aquifer. When excess precipitation occurs in the watershed it cannot be absorbed into the soil. The excess precipitation runs off into the surface water source, therefore replenishing the water supply. When precipitation levels are low, as during droughts, the surface water levels may drop, reducing the amount of water available to everyone, including those who use it for drinking water.

The **quality** of surface water is affected by activities in the watershed. Surface water can become contaminated from a variety of sources, including point and nonpoint sources. Point source pollution is pollution from a definite source. An example of a point source is a leaking above ground chemical storage tank. Nonpoint source pollution is pollution from diffuse sources that are difficult to measure directly. Nonpoint source pollution is the result of sediments, nutrients, bacteria, heavy metals, pesticides, oil, and other pollutants running off from various features on the ground surface like streets, parking lots, lawns, farms, logging areas, construction sites, parks and camps into surface water bodies during and after precipitation.

We use common household products that contain components that could also potentially affect the quality of our drinking water sources. These products include: gasoline, antifreeze, paint, paint thinner, drain cleaners, motor oil, and pesticides. When these household chemicals are used or disposed of improperly, they could enter and contaminate a water body.

It is much easier to prevent contamination than to clean it up. To help prevent contamination of your water source, use cleaning products that will not harm the environment, follow directions for proper use and disposal of pesticides and other harmful products, and recycle used oil. Taking these steps will help ensure your community has a clean supply of drinking water for everyone.

"Protect Your Water One Drop At A Time"

References: U.S. Environmental Protection Agency: <http://www.epa.gov/owow/questions.html>
Louisiana Department of Environmental Quality: <http://nonpoint.deq.state.la.us.html>
U.S. Geological Survey: <http://ga.water.usgs.gov/edu/earthrivers.html>

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