Is it Clean? Is it Safe? Is it Plentiful?

The United States enjoys one of the best supplies of drinking water in the world

Drinking water comes from surface water and groundwater. Large-scale water supply systems tend to rely on surface water sources, and smaller water systems tend to use groundwater. Including the approximately 23 million Americans who use groundwater as a private drinking water source, slightly more than half of the population receives its drinking water from groundwater. Your water utility or public works department can tell you the source of your public drinking water supply.

Surface water includes rivers, lakes, and reservoirs. Groundwater is pumped from wells that are drilled into an aquifer. Aquifers are geologic formations that contain water. The quantity of water in an aquifer and the water produced by a well depend on the nature of the rock, sand, or soil in the aquifer where the well withdraws water. Drinking water well depths typically vary from 50-1,000 feet.

Tap water that meets federal and state standards generally is safe to drink, although threats to drinking water quality and quantity are increasing. Because water is the universal solvent, many materials are easily dissolved upon contact. All sources of drinking water contain some naturally occurring contaminants, but at low levels, these contaminants generally are not harmful.

However, contaminants can be a health problem. Biological and chemical contaminants can migrate and contaminate sources of drinking water. Animal wastes and pesticides may be carried to lakes and streams by rainfall runoff or snow melt. Human wastes may be discharged to receiving waters that flow to water bodies used for drinking water. Coliform bacteria from human and animal wastes are used as indicators that other harmful organisms may be in the water.

A main potential source of contamination of private water supplies is septic systems. If these systems are not properly sited, designed, and maintained, they can leak contaminants into drinking water supplies.

Individuals, local governments, public water systems, the states, and EPA work together to ensure all public water supplies are safe. Local governments have a direct interest in protecting the quality of their drinking water sources. They may be responsible for overseeing land uses that can affect the quality of untreated source water. Public water systems have a responsibility to maintain sound treatment and water distribution networks. For households on private wells, state and local health departments usually have standards for the drinking water, but it is generally up to the homeowner to maintain the quality of the drinking water. Drinking water protection is a shared responsibility.

Clean and healthy watersheds are vital to safe drinking water so watershed protection projects are a priority. Source water protection should be a critical part of all community water programs. In the past, water suppliers used most of their resources to treat water from rivers , lakes, and underground sources before supplying it to our homes as drinking water. Now, we understand that if we place greater emphasis on protecting our sources of drinking water, the need for treatment can be reduced. Citizens can voice their support for controlling how land is used near drinking water intakes. Residents can educate their neighbors about the danger that household chemicals pose to drinking water supplies.

HOTLINE: EPA operates the Safe Drinking Water Hotline (1-800-426-4791), which can answer questions about the regulations and programs developed under the Safe Drinking Water Act (SDWA), and provide federal and state contacts for specific information. It can also provide information on drinking water publications.

Resource: Domestic Water Use: A Resource Guide for Extension. CSREES Pacific Northwest Regional Water Quality Program.

PHOTO CREDIT: ice water with lemon. Photographer: Jon Sullivan. Picture format: JPEG, picture resolution: 768 x 1024 pixels.