

resembled the Moon, a naked body of rock. There were no oceans, no plains, no towering mountains. There was no life of any kind. The initial gases surrounding the Earth are thought to have been swept away by powerful solar winds. There was no protective atmosphere. There was only desolation.

WATER, WATER EVERYWHERE

Coleridge's ancient mariner was right: there is water everywhere. It lies frozen in glaciers and polar ice. Water covers more than two-thirds of the surface of our planet. Water also exists beneath our feet, occupying the spaces in pores or cracks in soil and rocks of the Earth. This is called groundwater. When rocks contain substantial water,

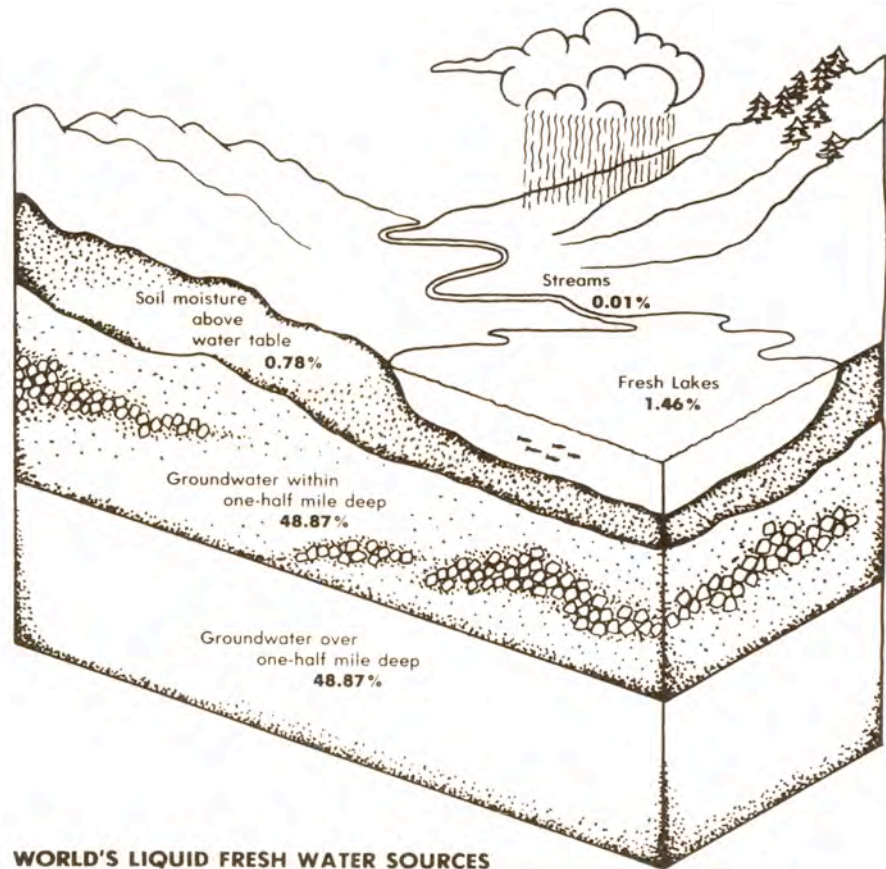


FIGURE 4.3

The total water distribution (including salt water) on the Earth is: oceans, 97.3%; glaciers and polar ice, 2.1%; underground aquifers, 0.6%; lakes and rivers, 0.01%; and the atmosphere, 0.001%. The percentages indicated in the illustration refer to the percentage of fresh water from the various sources.