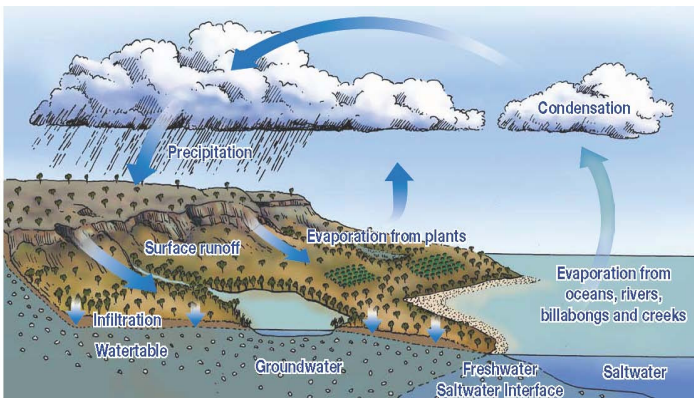




Understanding Groundwater

What is Groundwater?

Groundwater is a valuable resource. It can be found beneath most land and is the most available freshwater on earth. Because it is hidden from our view it tends to be somewhat mysterious. Yet millions of people depend on groundwater as a source of water for drinking, irrigation and stock use to name just a few. From the time the earth was formed, water has been endlessly circulating. This circulation is known as the water cycle. Groundwater is an integral part of this dynamic cycle and is interrelated with surface water.



Water Cycle

Many people think groundwater is stored in vast underground lakes or is flowing in underground rivers. In fact, groundwater is the water that fills the spaces and cracks between soil particles, rock, sand and gravel. Geological formations made up of gravel, sand, sandstone or fractured rock capable of storing and yielding large quantities of water due to the large interconnected spaces or fractures, these are called aquifers.

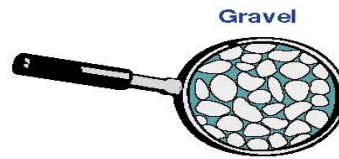
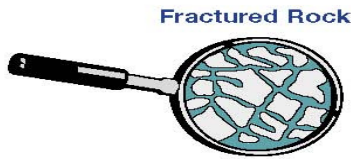
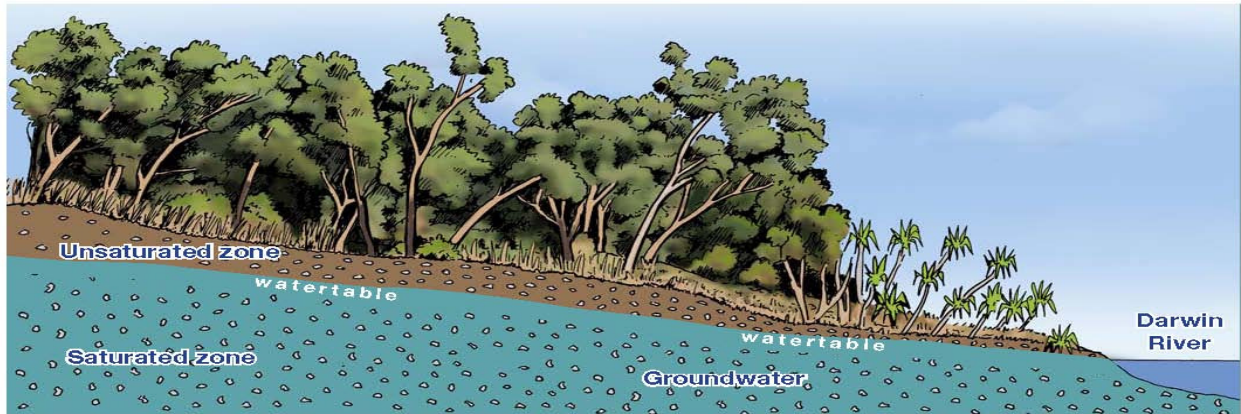
Groundwater Facts:

- 22% of the world's freshwater is groundwater
- 90% of the NT's water supply is from groundwater
- The NT has approx. 30,000 bores drilled
- Groundwater is affected by long term climatic cycles
- Over extraction of groundwater poses a significant risk to springs, soaks and rivers.

Where Does the Water Come From?

Groundwater like all water on earth, originates from rainfall or snow. Water that is not used by vegetation filters through the soil until it reaches the saturated zone. This process is called groundwater recharge. Significant recharge can be expected only during rainy periods. The water table (level) will rise (wet season) and fall (dry season) depending on annual variations in rainfall/recharge. The greatest changes will be observed at the end of the dry season or periods of heavy rainfall.

In many areas recharge from rainfall may be sufficient to maintain groundwater levels. However in some areas like Central Australia of dry climate with low rainfall and hence low recharge, groundwater can be used more rapidly than it is being replaced which may cause the aquifer to run dry.



Groundwater fills the spaces between soil particles and fractured rock underground.

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