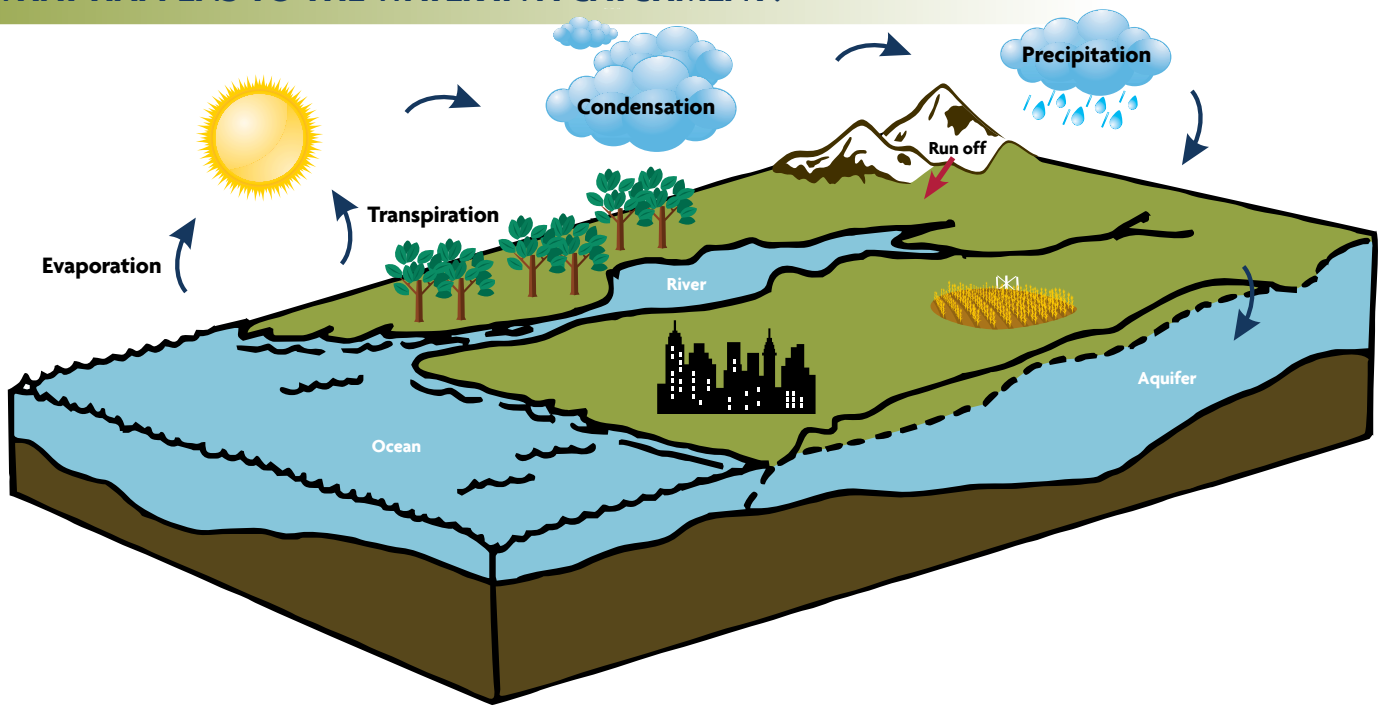
FACT SHEET 7

The Water Cycle

WHAT HAPPENS TO THE WATER IN A CATCHMENT?



You may not realise it, but the water we use today is the same water that has been here since the world began billions of years ago. Water is recycled over and over again and we will never have more, or less water than we do now. However, some of the water that used to be good, clean, fresh water, is now polluted or salty, and with so many more people in the world, the demand for fresh water continues to increase.

The Water Cycle is a very simple, natural cycle of evaporation, transpiration, condensation, and precipitation where water is continuously circulated between the Earth and the atmosphere.

Evaporation occurs when solar energy from the sun heats up millions of litres of water from the oceans, rivers, lakes and ground, turning it into water vapour or steam. Water can also enter the air through transpiration. This is when moisture is lost through the leaves of plants. Water vapour is so light it rises into the atmosphere, cooling as it rises higher and higher until it starts to condense, becoming droplets of water once again and forming into clouds. This process of change is called condensation. You can see condensation occur when you poor cold water into a glass. The droplets of water that form on the outside of the glass are formed when the water vapour in the air touches the cold glass and turns back into its liquid state.

In the atmosphere, when the water droplets become heavy enough, gravity takes over and they fall back to Earth as precipitation in the form of rainfall, snow, hail or fog, falling directly into oceans, creeks, rivers or lakes, or into catchments, soaking into the ground, being taken up by plants, or making its way into watercourses as runoff. And the cycle begins again.
Some water that falls in a catchment may end up in underground rivers or storages called aquifers, sucked up by the roots of trees and other plants, or consumed by livestock, native wildlife or people.

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