

The Water Cycle

The earth only has a limited amount of water. This water keeps going around and around – from the land to the sky and back again. This journey is called the ‘water cycle’.

We all need clean fresh water to survive. Although about three-quarters of the Earth’s surface is covered with water, less than one percent of this is available for us to use. When we interrupt the natural water cycle by building dams so that we have clean safe water, this is called the ‘managed water cycle’.

The water cycle includes:



Evaporation

Energy from the sun warms water in the oceans, lakes and rivers. It rises into the atmosphere as a gas called water vapour.



Transpiration

Plants take up water from the ground through their roots and pass moisture into the atmosphere through their leaves.



Condensation

As water vapour rises, it cools to form clouds.



Precipitation

Water from clouds falls back to earth as rain, hail, sleet and snow.



Infiltration

Some rainfall soaks deep into the ground.



Run off

Rainfall that does not soak into the ground, or get taken up by plants, drains off the land into creeks and rivers.



Catchment

A catchment is an area of land where water drains to creeks or rivers.

The managed water cycle includes:



Dam

A dam is a large wall built across a river to store water.



Stormwater

Rain runs off buildings and streets and can pick up rubbish, oil, animal waste, cigarette butts and other litter. It flows into gutters and is discharged untreated into waterways.

By caring for our environment, we can all help keep our rivers and streams healthy which gives us all clean and safe water.

WaterNSW supplies two-thirds of water used in NSW from our 42 dams, rivers and pipelines. We supply drinking water to the 4.5 million people of Sydney and the Illawarra, Blue Mountains, Southern Highlands, Goulburn and Shoalhaven regions.



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