

Sunbury's Water Future

An integrated regional approach

Natural and urban water cycle

The way our water cycles work

What are the water cycles?

As water moves between the land, ocean, rivers and atmosphere, it changes from solid to liquid to gas – this is our planet's way of recycling water. It's called the '**natural water cycle**'.

The natural water cycle still happens in cities and towns, but urban growth has changed how water flows through the environment. This is called the '**urban water cycle**' and includes water supply, wastewater, recycled water and stormwater.

What's the difference between stormwater, wastewater and recycled water?

Rainfall that runs off roofs, roads and other hard surfaces into gutters, drains, creeks and rivers, and eventually into the sea is called 'stormwater'.

Water that's been used in the home, in a business or an industrial process is called 'wastewater'. It's captured in the sewerage system which has different pipes to stormwater.

When wastewater goes through a treatment process, it becomes 'recycled water' that can be reused for other purposes. The Sunbury Recycled Water Plant is one of seven recycled water plants operated by Greater Western Water.

Recycled water can have different levels of treatment depending on what it is to be reused for. Recycled water is also released to waterways.

[Read more: Greater Western Water's approach to recycled water](#)



To find out more about Sunbury's Water Future go to:
yoursay.melbournewater.com.au/Sunburys-Water-Future



What is the urban water cycle?

Dams and pipes have been built to take water from our waterways for drinking water supplies. There's also wastewater to manage from homes and businesses that will eventually return to waterways (if it's not reused).

More development results in more stormwater runoff that needs to be managed.

The urban water cycle is managed by organisations like Melbourne Water, Greater Western Water and local councils.

Following is a bit more about each aspect of the urban water cycle.

Water - catchments to tap

When it rains, water runs off catchment areas, flows into rivers and then into reservoirs. It's then treated and supplied through water mains that make up our water supply system — eventually making its way to you.

Wastewater - toilets to treatment plants

Used water from homes and businesses travels through sewer pipes to wastewater treatment plants — all part of our sewerage system.

These plants turn wastewater into recycled water so it can be re-used. For example, on sports grounds, parks and reserves and in agriculture. Some of it also goes back into local rivers and creeks.

Stormwater - drains to our bays

Stormwater drains collect rainwater runoff from roads, roofs and gutters. It's sent into nearby rivers and creeks where it re-enters the water cycle. It then eventually ends up in the Port Phillip Bay.

In new growth areas, wetlands and basins are constructed to help filter stormwater. The series of shallow, densely-planted, man-made ponds help filter water through physical and biological processes. It's a natural way to treat and remove some of the sediment and pollutants from stormwater before it enters our rivers and creeks.

