

Purified recycled water for drinking

Rous County Council

Rous's role is to deliver high-quality drinking water for the Northern Rivers that supports the region's health and prosperity. We are securing a sustainable and resilient water supply that will meet the community's needs to 2060 and beyond through water saving initiatives and an expanded range of water supply sources.

What is purified recycled water for drinking?

Purified recycled water for drinking is produced by taking wastewater through advanced treatment and purification processes so that it exceeds the water quality expected under the Australian Drinking Water Guidelines and the Australian Guidelines for Water Recycling. It is currently used as a high-quality, safe and reliable source of drinking water in Australia and around the world.

There are two different ways to implement purified recycled water for drinking: indirect augmentation and direct augmentation. Indirect augmentation takes treated wastewater and puts it through an advanced treatment process. The purified recycled water is then transferred to an environmental buffer such as a dam or underground water aquifer. Drinking water is then produced by extracting water from the environmental buffer and treating it again through a water treatment plant. Direct schemes treat and purify wastewater through advanced multiple barrier treatment processes without using an environmental buffer before it is distributed as ultra-clean drinking water.

Purified recycled water for drinking in the Northern Rivers

Purified recycled water is being considered as a future water source alongside other potential options including groundwater, desalination and surface water.

A multi-year investigation is underway to assess the feasibility of indirect and direct schemes. This will increase our understanding of purified recycled water and the viability of a pilot scheme. Pilot schemes are helpful for filling technical knowledge gaps, engaging the community and proving safety and compliance with regulations. However, they are not suitable in every regional area and can be prohibitively expensive.

Key points:

Rous is exploring purified recycled water to supply high-quality drinking water to meet our community's needs in the future.

It could form part of a diverse future water supply that is resilient to a changing climate and a growing population.

Investigating purified recycled water now means that if needed, we can be ready to progress it as a future water source if alternative options do not eventuate.

Supplying purified recycled water comes with several challenges including cost, complex treatment processes, community acceptance and complex regulatory frameworks.

