

# What is recycled water?



**Recycled water is wastewater from homes and businesses which has been treated using scientific processes and equipment to remove contaminants to produce water of a quality suitable for beneficial use without undue risk to the community.**

The Tweed Shire has been implementing the use of recycled water since the 1980s. It is a vital resource in helping the community conserve drinking (potable) water.

## What is recycled water used for?

Appropriately treated recycled water is able to be used for a number of purposes including:

- ◆ Irrigating agricultural crops.
- ◆ Irrigating parks, gardens, golf courses and other open space areas.
- ◆ On industrial sites for dust control.
- ◆ For industrial cooling purposes.
- ◆ Domestic non-potable use such as toilet flushing, laundries and gardens.

## Is recycled water safe?

Yes. Recycled water undergoes a high standard of treatment to ensure it is fit for its purpose. Recycled water schemes are approved by the designated regulatory authorities. Regular monitoring and reporting is required to ensure that the quality of the water being supplied is fit for use.

## Why recycle?

Recycling water is vital in an age of global warming. We are now using 10 times more water than we did a century ago. The main objective of recycling is to minimise the use of potable water by substituting recycled water of an appropriate quality when and wherever economically justifiable. Reuse of recycled water will minimise the discharge to local waterways.

## Recycled water opportunities

- ◆ Tweed Shire Council reuses about 9 per cent of treated wastewater produced. This compares with the Australian average of about 5 to 7 per cent.
- ◆ Uki Wastewater Treatment Plant (WWTP) provides recycled water for irrigation of a eucalyptus plantation for koala food in dry weather.

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- ◆ Tweed Shire Council is proposing to establish a new eucalyptus plantation area to be supplied with recycled water from the Tyalgum WWTP. This will expand Council's commitment to provide koala feed trees for supply to local sanctuaries.
- ◆ Tyalgum WWTP provides recycled water for irrigation of pasture grass in dry weather.
- ◆ Tweed Heads/Coolangatta Golf Club is a significant user of recycled water from the Banora Point WWTP.
- ◆ Condong Sugar Mill uses up to 100 per cent of recycled water from Murwillumbah WWTP for cooling.
- ◆ Recently Council resolved to enter into an agreement with Chinderah Golf Course for the supply of recycled water from Kingscliff WWTP.
- ◆ Council has a proposal to irrigate the Les Burger Field (Bogangar Rugby League grounds). The use of recycled water on the sports fields represents an opportunity to minimise potable water use for the irrigation of these fields.

## Industrial reuse

Depending on the type of industry and their water needs, use of recycled water by industry has the potential to fulfil several functions. For example, recycled water can be utilised as cooling water in open reticulation cooling systems, or can be used for washdown water and site irrigation.

## Public and open space irrigation

Use of recycled water on public open space has been successfully carried out in Australia for a number of years. The benefits include Council reducing its reliance on the use of potable water to increase the amenity value of public open space. There are established guidelines for the reuse of recycled water in public open spaces to ensure public safety.

## Non-potable domestic use

Recycled water reuse in urban areas involves private households having an additional reticulation system in parallel to the existing potable water supply.

For example, recycled water could be used domestically for purposes such as watering the garden, flushing the toilet and washing the car.

Strict guidelines for domestic use have been developed to ensure that potential health risks are avoided. These guidelines include near potable quality recycled water, strict monitoring, suitably labelled pipes and adequate precautions to avoid cross connection with the existing potable systems.

The disadvantage of implementing a domestic system for recycled water is the high cost of retrofitting a domestic dual reticulation systems. Generally, domestic recycled water systems are more advantageous to new large scale development estates.

