

# » recycled water facts for GPs, pharmacists and health practitioners

Factsheet No.4

7 June 2016

[www.ballinawater.com.au](http://www.ballinawater.com.au)



**Recycled water is clean and safe, cheaper to use and available 24/7. It is being rolled out at new properties across Ballina Shire as a highly treated and high quality product.**

» Recycled water is suitable to be used for:

- cold water washing machine taps
- irrigating gardens, food crops and sports fields
- filling ornamental ponds
- toilet flushing
- washing cars, bikes and boats.

» Recycled water should not be used for:

- drinking
- cooking or other kitchen purposes
- baths, showers or other personal washing
- swimming pools or other leisure water use
- rainwater tanks.

» If recycled water is so safe, why can't it be drunk?

Council supplies drinking water in separate pipes in accordance with the Australian Drinking Water Guidelines.

While recycled water undergoes far more treatment than our drinking water supplies, due to the nature of the source of recycled water and government regulation, recycled water is not approved for potable uses such as drinking.

» What happens if someone drinks recycled water?

While recycled water is not approved for potable uses such as drinking, bathing and cooking, should someone accidentally use recycled water in this way, it is unlikely they will fall ill. In those situations it is recommended that people seek medical advice and inform Ballina Shire Council.

While the Lennox and Ballina schemes are quite new, recycled water dual reticulation schemes have now been operating in other locations around Australia since the early 2000s. On rare occasions accidental cross connections in these schemes have meant that people inadvertently consumed recycled water.

While drinking recycled water is not recommended, no illness has been attributed to accidental consumption of recycled water in similar schemes.

For case studies from other locations go to

[www.choice.com.au/food-and-drink/drinks/water/articles/recycled-drinking-water](http://www.choice.com.au/food-and-drink/drinks/water/articles/recycled-drinking-water)

**Other websites include:**

[www.metrowater.nsw.gov.au](http://www.metrowater.nsw.gov.au)

[www.sopa.nsw.gov.au](http://www.sopa.nsw.gov.au)

[www.sawater.com.au](http://www.sawater.com.au)

[www.watercorporation.com.au](http://www.watercorporation.com.au)

[www.seqwater.com.au](http://www.seqwater.com.au)

[www.melbournewater.com.au](http://www.melbournewater.com.au)

**Search for 'recycled water' on the websites listed above.**

## »» How is recycled water tested for quality?

The Ballina and Lennox Head Water Recycling Plants both produce high quality recycled water that goes through a number of rigorous treatment processes in accordance with the Australian Guidelines for Water Recycling and the NSW DPI Water Guidelines for Recycled Water Management Systems. Council must operate the treatment plants in accordance with approvals from the Environment Protection Authority and DPI Water, with concurrence from NSW Health. Both facilities have 24 hour online monitoring equipment and follow HACCP principles for guaranteeing water quality. The facilities will automatically shut down if water quality cannot be guaranteed.

## »» How is wastewater treated?

### Standard treatment

When residential wastewater reaches the treatment plants, unwanted solids are removed with the use of fine screens. The collected screenings are dropped straight into small bins for easy transport to a local waste facility. The screened water is then directed into a vortex chamber which uses gravity and friction to remove small grit and sand particles that managed to get through the screening process.

The water is directed into a number of large tanks that remove excess nutrients from the wastewater by encouraging the growth of bacteria that use those nutrients. This process also relies on air which is intermittently pumped into the tanks as required to keep the bacteria healthy. As a result of this process a large amount of sludge settles to the bottom of these tanks. This sludge is pumped out into separate storage ponds and is turned into biosolids for use in the agricultural industries as fertiliser.

### Ultra filtration

Clear water is decanted from the tanks and allowed to stand in a large pond which allows further settlement of the treated wastewater. From these storage and settlement ponds the wastewater is then passed through an ultra filtration unit. The pores on this unit are smaller than most human pathogens including bacteria, viruses and protozoa. The filter is continuously monitored to confirm it is operating effectively.

### Disinfection by ultraviolet and chlorination

Once filtered, the treated water is subjected to ultraviolet and chlorine disinfection. Disinfection inactivates any remaining microorganisms such as protozoa, bacteria and viruses. All recycled water intended for re-use also contains residual chlorine to ensure the recycled water is not recontaminated on its way to your house.

### Safe and clean recycled water

The whole process is designed to ensure pathogens are removed from the recycled water, resulting in a very safe product that will not cause illnesses.

## »» Working with NSW Health

Council has worked extensively with NSW Health and DPI Water to design the scheme and its ongoing operation in accordance with the Australian Guidelines for Water Recycling.

As part of that process, Council's detailed Recycled Water Management System has been audited by a third party, approved by DPI Water and is acceptable to NSW Health.

In operating the scheme, Council works closely with state government agencies, such as NSW Health, to ensure recycled water continues to be supplied safely.

For specific health related enquiries regarding the scheme and safe use of recycled water, please contact your local Public Health Unit on 1300 066 055 to speak to an Environmental Health Officer. Alternatively NSW Health's specialist Water Unit can be contacted at [WATERQUAL@doh.health.nsw.gov.au](mailto:WATERQUAL@doh.health.nsw.gov.au)

Council Water Staff are also contactable on 6686 4444.

**The information in this factsheet only applies to the Lennox Head and Ballina recycled water schemes. For information about the Alstonville and Wardell recycled water schemes please refer to Factsheet No 8.**



**Need more info? Visit our water website [ballinawater.com.au](http://ballinawater.com.au) and the websites of NSW Health and NSW DPI Water  
T 02 6686 4444 E [council@ballina.nsw.gov.au](mailto:council@ballina.nsw.gov.au)**



**ballina**  
shire council