

# Frequently Asked Questions

## Q1. What is Class A+ recycled water?

Recycled water can be treated to several qualities or classes depending on its intended use as defined by the Queensland Government's Water Recycling Guidelines. Class A+ is the highest class of recycled water for non-drinking purposes in Queensland. It is highly treated through two different treatment plants with multiple process steps to meet stringent environmental and health guidelines. It is safe to use around the family home for non drinking purposes. Rigorous monitoring and testing regimes are in place to ensure the treatment plants provide consistently high quality Class A+ recycled water.

## Q2. What is greywater and wastewater?

Greywater is wastewater generated from household showers, baths and washing machines before it enters the wastewater collection system. Greywater has not been cleaned or treated at a wastewater treatment plant. Wastewater is the total waste stream collected by the wastewater system and includes greywater and water from toilets (black water).

Traditionally, wastewater undergoes treatment at wastewater treatment plants and is treated to a Class C recycled water level. It is supplied to industry, irrigators and recycled water tankers. Excess recycled water is released at the Gold Coast district Seaway.

In the Pimpama Coomera Waterfuture (PCWF) Master Plan region, wastewater is treated to a Class A+ recycled water level, therefore the volume of excess recycled water is reduced and this valuable resource is utilised.

## Q3. What purposes do residents in Pimpama Coomera use Class A+ recycled water for?

Class A+ recycled water is supplied to dual reticulated Pimpama Coomera homes and businesses for flushing toilets, filling ornamental ponds, car washing, external cleaning, watering gardens, lawns, fruit and vegetable crops and fire fighting purposes. Fruit and vegetables should be rinsed in drinking water before consumption.

Class A+ recycled water is not appropriate for personal use such as drinking, bathing, cooking or general cleaning inside the home. Nor should it be used in pools, spas or children's water toys. If you are uncertain whether to use Class A+ recycled water or drinking water for any purpose, use the drinking water supply.

## Class A+ recycled water:

| Can be used:   | Should not be used for:  |
|--|--|
| ✓ Toilet flushing  | × Drinking   |
| ✓ Gardens and lawns  | × Cooking or other kitchen purposes                              |
| ✓ Filling ornamental ponds   | × Personal washing such as baths, showers, bidets or hand basins |
| ✓ Car washing  | × Domestic evaporative coolers                                   |
| ✓ Fire fighting (except fire sprinkler systems)  | × Clothes washing  |
| ✓ Construction and building purposes   | × Swimming pools and spas  |
| ✓ Dust suppression   | × Recreation, such as water toys and playing under sprinklers    |
| ✓ Irrigation of fruit and vegetables (should be rinsed in drinking water before consumption) | × A water source for pets or livestock                           |
| ✓ External household cleaning  | × Filling rainwater tanks and other storages                     |

### Q4. Why recycle water?

Recycled water is a valuable, reliable resource which is helping to preserve its drinking water supplies and reduce the volume of treated wastewater being released into the ocean.

### Q5. What is dual reticulation?

Dual reticulation refers to properties that are plumbed with two separate pipe networks supplying their water. This means they are connected to both the drinking water network and the Class A+ recycled water network. For easy identification, the entire Class A+ recycled water network is coloured purple including water mains, meters, pipes, taps and hoses.

### Q6. Do other communities use recycled water?

Recycled water is used in numerous dual reticulated communities throughout Australia, including Aurora in Melbourne, Rouse Hill in Sydney and Mawson Lakes in Adelaide.

The Allconnex Water district has safely used recycled water for more than 40 years to irrigate golf courses, football ovals and community parks. It has been used by cane farmers and the Currumbin Wildlife Sanctuary on the Gold Coast for over ten years.

### Q7. How do I tell the difference between Class A+ recycled water and drinking water?

To ensure Class A+ recycled water and drinking water are easily identified, components such as the meter, pipes and fittings are all coloured purple. It is mandatory for all recycled water taps to be coloured purple and have warning signs that read 'recycled water – do not drink' next to the tap. Additionally, these taps come with removable handles for added safety.

### Q8. Can Class A+ recycled water get mixed up with drinking water in the pipeline?

Two completely separate pipelines are established for recycled water and drinking water with the recycled water pipeline clearly labelled. The systems are regularly monitored to ensure safety. Plumbers, together with the construction and building industries in the Gold Coast district, are educated on the need to keep these two systems separate - on the street, at the water meter and in the home. All plumbing works in the Pimpama Coomera region must be undertaken by a licensed plumber.

## Q9. Is there a test to ensure the Class A+ recycled water pipes and the drinking water pipes are not cross connected on my property?

To ensure that your property has had a final plumbing inspection please contact Gold Coast City Council Plumbing and Drainage on (07) 5582 8393. You may like to conduct your own test. The following information is advisory - if you are unsure about any plumbing, please call a licensed plumber.

### The essential eight step cross connection check for dual reticulated properties

#### Allconnex Water and Gold Coast City Council to undertake:

1. A conductivity test on all internal and external taps and fixtures

#### *Householders may follow the below steps to conduct their own test\**

2. Turn off drinking water supply at the property boundary and rainwater tank pump and/or valve
3. Turn on all internal taps. Taps should run dry
4. Flush all toilets. Toilets should refill if connected to recycled water supply
5. Turn on external taps. Any external potable water taps should run dry. Taps continuing to run are connected to recycled water supply and should be coloured purple and marked with appropriate signs
6. Turn off recycled water supply and turn on drinking water supply and rainwater tank pump and/or valve. Run recycled water supply dry via external taps or toilet flushing
7. Turn on internal appliances. Appliances that do not fill are connected to incorrect supply
8. Turn on recycled water supply. Slowly turn on tap connected to recycled water supply that is located furthest from meter. This will purge all air from the pipeline while it is being recharged.

**\* This test may also be undertaken by plumbers, Gold Coast City Council and Allconnex Water.**

## Q10. What if Class A+ recycled water is consumed? Is it safe?

If you accidentally consume Class A+ recycled water, it is unlikely you would experience an illness due to the high standards applied to the treatment process. However, you should consult a doctor if any symptoms of illness develop.

The PCWF Master Plan has included a number of precautions to avoid the possibility of accidental ingestion of recycled water, by mandating:

- colour coding of all pipes and taps to prevent confusion
- removable handles on outdoor recycled water taps to prevent access, if needed
- warning signs above all outdoor recycled water taps

### **Q11. How can I tell if the water I see irrigating parks and other outdoor spaces is drinking water or recycled water?**

Landscape areas using recycled water are clearly marked with signage stating the use of recycled water.

### **Q12. How much does Class A+ recycled water cost?**

Class A+ recycled water has been priced at \$1.60 a kilolitre (1000 litres) for the 2010/11 financial year, which represents a saving of around 40 per cent on the current price of drinking water.

### **Q13. When will I be billed for drinking water and Class A+ recycled water?**

You will be billed for Class A+ recycled water at the same time as you are currently billed for drinking water. These charges appear as line items on the separate water summary page attached to your rates notice from Gold Coast City Council. From January 2011, your Class A+ recycled water and drinking water will be billed on a new Allconnex Water account.

### **Q14. Do water restrictions apply to Class A+ recycled water?**

Council has determined that there will be no residential water restrictions on Class A+ recycled water. This may be re-considered if the system nears supply capacity.

### **Q15. What is the water pressure of Class A+ recycled water? Is it as good as the normal drinking water supply?**

The water pressure in your Class A+ recycled water pipes is comparable to drinking water pipes and is adequate for all household applications.

### **Q16. How is Class A+ recycled water produced?**

The Pimpama Wastewater Treatment Plant produces Class C recycled water. This water then goes through the following additional steps at the Pimpama Recycled Water Treatment Plant to produce Class A+ recycled water:

- Anthracite filtration removes large particles and pathological organisms.
- Membrane filtration is a further physical barrier to any viruses and remaining pathogens. The membranes can remove particles greater than 1 micron (one thousandth of a millimetre) in size.
- Intense UV light streams are used to further disinfect water.
- Class A+ recycled water is chlorinated to ensure the quality of the water is maintained during the time it spends in the supply network.
- Class A+ recycled water is produced, ready for supply to dual reticulated properties for toilet flushing and external uses.

### **Q17. Can the treatment plant break down or stop working properly?**

The Pimpama Recycled Water Treatment Plant uses technologies that have been proven in Australia and overseas. Each different stage at a treatment plant is known as a treatment module. Each treatment module has independent standby units for backup. If one unit in a module breaks down, a back-up unit will continue its designated task. The recycled water treatment plant stores 20 megalitres of Class A+ recycled water as back up in the unlikely event of the plant breaking down. This Class A+ recycled water can then be distributed to households until the plant is repaired.

### **Q18. Is the recycled water treatment plant regularly audited?**

The Pimpama Recycled Water Treatment Plant is regularly audited to ensure it delivers a consistent quality Class A+ recycled water product to the community. Inbuilt safety processes ensure the plant is monitored continuously. Separate laboratory testing also monitors the quality of Class A+ recycled water on a regular basis. Allconnex Water reports to the Department of Environment and Resource Management (DERM), the regulators of plant performance and operation, on a regular basis, as determined by DERM's licensed operating conditions.

### **Q19. Where do I buy recycled water taps, hoses etc.?**

Class A+ recycled water supplies are coloured purple to avoid confusion with drinking water and rainwater outlets and can be purchased from selected hardware and plumbing supplies stores.