



RECYCLED WATER

How is recycled water made?

What process does the recycled water go through that makes it so safe to use?

BARRIER 1

Urban Use – Source Control

The first step to making recycled water involves preventing harmful chemicals from entering the wastewater system. Strict regulations prohibit the discharge of particular non-domestic wastes into the waste water system. These can include some businesses, industries and hospitals biological and chemical wastes.



BARRIER 2

Water Reclamation Plant

The Waste Water Treatment Plant contains biological reactors and sand filtration that destroy and remove most solids, organic matter, nutrients, chemicals and some micro organisms from the wastewater. Once it has completed this process, the water is purified to a level where, after disinfection, it can be used for outdoor irrigation i.e. golf course, dust suppression, pasture irrigation.



BARRIER 6

This thoroughly purified water is then sent down the pipeline direct to customers either by direct connection, via a standpipe, via the Dual pipe system in the future or via Spring Gully Reservoir where it is blended into the natural water supply and is exposed to further natural sunlight and other natural treatment processes.



BARRIER 3

Disinfection and Advanced Oxidation

The disinfection – advanced oxidation step provides an additional layer of protection, it exposes the water to a combination of ultra-violet light and advanced oxidation (through the use of a chemical such as Sodium Hypochlorite) to remove any remaining micro organisms and destroys any remaining organics.



BARRIER 5

Reverse Osmosis

Reverse Osmosis is the finest level of filtration available. It involves a high pressure filtration system that forces water through numerous layers of thin plastic membranes. This filters out and removes 95–99% of minerals and impurities (such as salts and pesticides) and 98% of biological matter (such as viruses and algae) like a microscopic strainer.



BARRIER 4

Ultrafiltration

Ultrafiltration is the process of separating particles (small suspended particles, bacteria and other materials) from the water as it filters through a low pressure membrane. This is the most efficient process to prepare water for the next treatment phase. Ultrafiltration is used in many processes to make everyday products such as beer, fruit juice and soft drinks.



For further information contact Coliban Water on 1300 363 200 and ask to speak to our Recycled Water Officer.

Disclaimer: Information contained in this document was correct at the time of printing (September 2008). Coliban Water reserves the right to alter information, as deemed necessary.