

recycled water

Wardell Wastewater Treatment Plant

History of the Plant

Wardell 's Wastewater Facility was constructed in 1997. The treatment process is a Bathurst Box extended aeration process (1,750 equivalent persons capacity) with supplementary UV disinfection. Current reuse of treated wastewater occurs on the Wardell Recreation Ground and soon the Turf Farm adjacent the plant.

On peak days 100% of the daily volume can be reused. Annually about 23% of the total volume is reused, It is expected that by 2006, 100% of reuse will be achieved. Presently any surplus treated water flows to the Richmond River.

Where is it located?

The treatment plant is located at 183 Kay's Road in Wardell.



How does it work?



Domestic wastewater from sinks, showers, baths and toilets gets pumped through 8 different pump stations within the Wardell network to arrive at the wastewater facility.

This is a step screen which physically removes inorganic material like condoms and plastic.

Noel who operates the plant finds a set of dentures every few months – “no one ever seems to ask for them back”.



Screened inorganic material gets sent to landfill.





This 'Grit Arrester' creates a vortex by pumping air into the water which lifts the sand and grit off the bottom.



This Sludge lagoon allows the sludge to settle. Due to the large ratio of water, it is returned to the head of the work to be processed again. Due to the small population this treatment plant caters for, this tank only needs to be emptied every 5 years.



Deodorising Bed has pipes running underneath it.

The grass acts as a natural filter for the smelly air.



Water gets pumped from the tertiary pond at 15 litres per second through the UV system



This 'Extended Aeration Tank' adds oxygen to the water which allows the bugs to eliminate the ammonia and nitrogen. The sludge which contains the microorganisms settles on the bottom. This weir board lowers enough to decant the clear water into a tertiary pond.



Recycled water then gets reused at:

- Wardell Turf Farm
- Wardell Sport and Rec

Excess clean water gets released into the Richmond River.



Contact information

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