

recycled water

# Ballina Wastewater Treatment Facility



## History of the Plant

The Ballina Wastewater Treatment Plant was first constructed in 1970 and has undergone upgrades in both 1974 and more recently in 2013/14. When commissioned the recycled water it produced will be used to irrigate open spaces as well as houses with dual reticulation.

## Where is it located?

The plant is located on Fishery Creek Road in West Ballina.



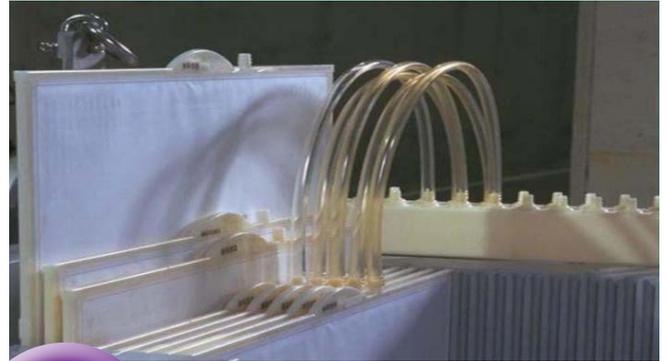
# How does it treat wastewater?



## Step 1

Drum screens filter solids as small as 2mm and drop them straight into small bins for easy transport.

A second vortex chamber does a second screening of finer grit and sand.



## Step 3

New membrane tanks contain hundreds of membrane filters lined up next to one another for maximum water filtration. Solids and fine particles are excluded from passing through the membranes. Air is pumped into the tanks to scour the membrane filters ensuring only clean water passes through.



## Step 2

The plant has improved nutrient removal due to these two tanks.

One of these tanks is for nitrification.

Nitrification is an aerobic process performed by small groups of autotrophic bacteria and archaea.

The second tank is for de-nitrification which is the removal of bugs from the wastewater. Phosphorus is also removed here.



## Step 4

New Ultra Violet disinfection equipment is enclosed and self cleaning. This makes it safer, less labour intensive and much more efficient in killing micro-organisms (protozoa, bacteria and viruses).



Step 5

Solid waste known as sludge siphoned from the holding tank is dried in piles before being trucked to be used as fertiliser.



Step 6

Before being re-used, the recycled water is chlorinated in order to fight any bacteria as it travels through the water network for re-use.

Recycled water from Ballina Wastewater Facility is of a high enough quality to be re-used for purposes including:

- Residential Properties with dual reticulation (Aspens Senior Estate, Ferngrove Subdivision, Ballina Heights housing Estates, Palm Lakes Seniors Estate)
- Urban Open Spaces (Fripp Oval, Saunders Oval, Hampton Park, Kingsford Smith Ovals, Commemoration Park, Cumbalum Open Spaces, Missingham Skate Park)
- Agricultural Irrigation (Ballina Racecourse, Ballina Caravan Park, Ballina Memorial Olympic Pool (lawns))
- Commercial Operations (Southern Cross Industrial Estate)

## Environmental Release



The treated water that is not re-used is released into Fishery Creek.

The reduced levels of nitrogen, phosphorus and suspended solids mean the water is much cleaner and more beneficial to the environment.



### Contact information

For customer service **phone (02) 6686 4444**

**www.ballina.nsw.gov.au**

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