

# Sunbury Recycled Water Plant Upgrade Project

MARCH 2017

INVESTING  
IN THE  
COMMUNITY

Inlet works and membrane tank structures are almost complete as part of the Sunbury Recycled Water Plant (RWP) upgrade.

## What has been happening on site?

Excavation and concrete base slabs have been completed for the inlet works and membrane tank (see photos to the right). The tank's concrete structure will be finished by March, and inlet works by April. Excavation for the ultra violet disinfection system (see back of update for more information) has recently begun.

## Upcoming works

Excavation for structures around the site will continue over the coming months.

You may notice concrete trucks continuing to visit the site up until the end of April. There will also be a number of trucks delivering pipes and other equipment up until mid year.

The construction of the odour control facility (including the dispersion stack) is planned to start in March/April and be finished by mid year.



Photos above: Construction of the membrane tank. Photos taken in November (top), December (middle), January (bottom).



## IN THIS UPDATE

- Excavations and concrete structures progressing well
- Deliveries to the site expected up until mid year
- Profiling: UV disinfection system
- Benefits of recycled water

## HOW TO STAY INFORMED

Let us know if you'd like to be added to the contact list for the Sunbury RWP Upgrade Project:

- Mail - PO Box 2371, Sunbury DC Vic 3429
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## Ultra violet disinfection system and outfall

### What is an ultra violet disinfection system?

The ultra violet (UV) disinfection system uses short wavelength ultraviolet light (UV-C) (similar to sunlight) to kill or inactivate microorganisms. Natural UV-C light is weak at the Earth's surface as the ozone layer of the atmosphere blocks it.

The system at Sunbury will be an 'open channel' system which consists of 120 UV lamps within a covered concrete channel.



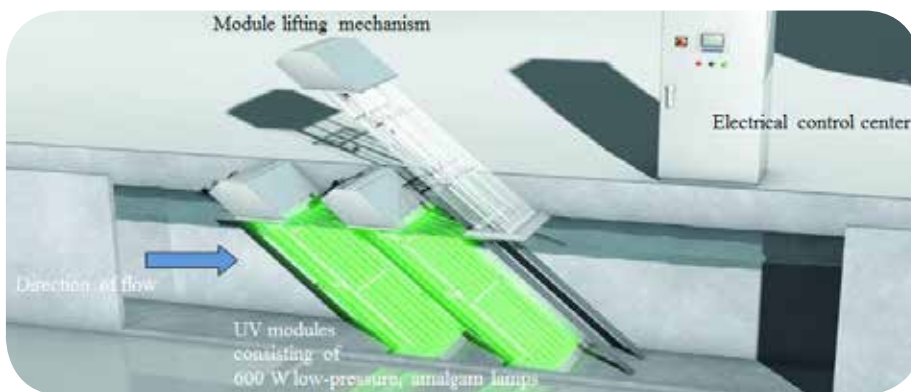
### What is the outfall?

The outfall is the discharge point of the treated wastewater to the creek.

### When is the UV disinfection system used?

The plant is designed to treat many times the average dry weather flow volumes through the entire process to cater for wet weather events. During extreme wet weather events excess flows pass through the UV system prior to release to Jacksons Creek.

Left and below: Example of a UV disinfection system



### How is this different to the existing plant?

The UV disinfection system is a new technology and treatment process for Sunbury. The Xylem Wedeco Duron UV disinfection system will be installed at the Sunbury RWP.

### What are the key benefits of the new system?

- Low energy consumption
- Low capital costs
- Small footprint
- Easy maintenance
- Safe for employees, community and the environment

## Benefits of Recycled Water

The Sunbury Recycled Water Plant is one of seven recycled water plants, treating wastewater and producing recycled water for reuse in the region. Recycled water is supplied to customers via pipelines, stand-pipes and through farm leases.

Recycled water can replace the need to use drinking water for commercial and agricultural uses.

Approved agricultural purposes include:

- irrigation of human food crops grown over one metre above the ground and eaten raw (includes apples, pears and table grapes)
- human food crops cooked or processed before sale (includes wheat, wine grapes, olives)
- irrigation of pasture and fodder for

some grazing animals including sheep, goats and horses.

The recycled water produced at the Sunbury RWP can also be used for:

- recreational turf and sports fields
- wash down of machinery
- gardens
- tree plantations and nurseries
- public open spaces and botanic gardens
- racecourse irrigation



Above: Recycled water reused for irrigation