



Water Treatment - Warrnambool Water Treatment Plant

The Warrnambool Water Treatment Plant is located north east of the Warrnambool CBD.

Water Source

Most of the water supply comes from the Gellibrand River catchment via the South Otway Pipeline, with a small amount from the North Otway Pipeline and groundwater bores located in Warrnambool.

Raw Water Storage

The raw water is stored in storage basins, allowing sediment to settle naturally.

Removing Contaminants

To aid the removal of contaminants, such as dirt and organic material, the processes of coagulation and flocculation occurs. During the coagulation process the chemical alum (aluminium sulphate) is added to remove colloids, which are finely suspended particles that will not settle naturally. Alum encourages colloids to join together forming bigger particles, known as 'floccs'. During flocculation, polymers are added to increase the size of 'floccs' making it easier to remove them from the water.

DAF & Clarifier

The water is then split between a clarifier and Dissolved Air Flotation (DAF) process. The clarifier helps heavy particles (which have joined together due to the flocculation) fall to the bottom, while the DAF process, encourages the colloids to join

together into bigger particles and float to the top. Saturated air is then injected into the water to create small air bubbles which collect and float the sludge to the surface. The water from the DAF and clarifier then enters the filtration process while any sludge is pumped to the sewer.

Filtration

The filtration process consists of a filter bed, containing anthracite, gravel and sand. As the water flows through the filter bed, it cleans and polishes the water.

pH Level

The addition of alum early in the process alters the pH level of the water, which must be rebalanced by adding lime.

Disinfection

The disinfection process occurs when chlorine and/or ammonia are added to the water as disinfectants to help maintain safe drinking standards.

Clear Water Storage

The water is stored in a 20-megalitre clear water storage tank before being distributed to customers throughout Warrnambool, Allansford and Koroit.



An aerial view of the Warrnambool Treatment Plant

2012/13 AT A GLANCE

Warrnambool Water Treatment Plant

Water Source:	Otway System
Clear Water Storage Capacity:	20ML
Supply Volume to customers:	3,825ML
Total Customers:	16,350

IML = One Million Litres