



Water Treatment - Hamilton Water Treatment Plant

The Hamilton Water Treatment Plant is located north of Hamilton.

Water Source

The plant sources water from the Grampians National Park and Rocklands Reservoir. Bores are also used to supplement the Grampians system if necessary.

Raw Water Storage

Water is stored in reservoirs prior to treatment. These reservoirs are upstream of the treatment plant and allow sediment in the water to settle before entering the treatment process.

Removing Contaminants

Raw water is dosed to aid the removal of contaminants such as dirt and organic material. The two processes involved are coagulation and flocculation. During the coagulation process the chemical alum (aluminium sulphate) is added to remove colloids, which are finely suspended particles that do not settle out naturally. The alum encourages the colloids to join together to form bigger particles known as 'flocs'. During flocculation, polymers are added to further increase the 'flocs' to a size that can be easily extracted from the water.

DAFF

The Dissolved Air Flotation & Filtration (DAFF) process is used to remove 'flocs'. Saturated air

is injected into the water to create very small air bubbles which collect and float the dirt and organic materials to the surface. The sludge is then drawn off and stored in a series of sludge lagoons where it is allowed to settle, then dried for disposal. The water is passed through a filter comprising anthracite, gravel and sand to help filter and polish the water.

pH Level

The addition of alum early in the process alters the pH level of the water, which is rebalanced using the addition of lime.

Disinfection

At the disinfection stage, chlorine and ammonia are added to maintain safe drinking standards.

Clear Water Storage

The clear water is stored in a 11.5-megalitre tank at the Hamilton Water Treatment Plant before it is distributed to homes and businesses throughout Hamilton, Tarrington and Dunkeld.



The clear water storage tank at the Hamilton Water Treatment Plant



Hamilton Water Treatment Plant

Water Source:	Grampians System
Clear Water Storage Capacity:	11.5ML
Supply Volume to Customers:	1,205ML
Total Customers:	5,944

IML = One Million Litres