

From the ground to your tap – Busselton's drinking water system



Busselton's water comes from the Yarragadee – a deep, underground aquifer that provides us with our fresh drinking water. Or does it?

Busselton Water extracts 5.5GL of groundwater each year for drinking water – that's equal to more than 2,100 Olympic swimming pools! But did you know this water is not safe to drink until it has been treated?

The provision of drinking water is not as simple as extracting the water from the ground and sending it to householders. Raw groundwater is put through an

intensive treatment process at one of our three water treatment plants before it is suitable for drinking by the Busselton community. Busselton Water uses a three-step process to treat raw water from the aquifer to produce safe drinking water. The water is oxidised and filtered to remove iron, manganese, turbidity and any other impurities, and then disinfected.

1. Pre-oxidisation and aeration. Raw water is dosed with a small amount of chlorine before being aerated through spray nozzles. These two processes oxidise the naturally-occurring iron and manganese in the water, turning them from their soluble form into small solids.



2. Filtration. The water is then filtered through sand filters to remove the iron, manganese, turbidity (the cloudiness or haziness in the water caused by solids that are usually invisible to the naked eye) and other impurities. The filtered water is then collected in a well.

3. Disinfection. Busselton's distribution network is large, so our water also requires disinfection to ensure its safe to drink. To achieve this, chlorine is added to the water before it is pumped into pipes to homes and businesses across the region.



Why does groundwater need treatment?

The Department of Health regulates the quality of drinking water in Western Australia in accordance with the Australian Drinking Water Guidelines published by the National Health and Medical Research Council, Australia's public health policy peak organisation. These guidelines are designed to provide an authoritative reference on what defines safe, good quality water, how it can be achieved and how it can be assured.

Raw groundwater can contain trace contaminants at levels above the drinking water guideline limits.

Treatment lowers the level of contaminants to safe levels, while disinfection prevents waterborne pathogens occurring in the water supply at any point from the



treatment plant to our customers' water meters. A pathogen is a bacterium, virus, or other microorganism that can cause disease.

Water quality

As part of our routine operations, we systematically monitor and report on our water quality performance, with water samples

taken each and every week. In fact, each year more than 3,500 water quality samples are taken.

Busselton Water achieves 100 per cent compliance with all health-related water quality criteria in the Australian Drinking Water Guidelines, which is endorsed by the National Health and Medical Research Council.

