

Melbourne's Desalination Plant

A \$3.1 billion desalination plant in the Wonthaggi region including an 85km pipeline to connect the plant to Melbourne's drinking water supplies will provide an additional 150 billion litres of water each year by the end of 2011.

The plant will provide additional water to Melbourne, Geelong, Westernport and South Gippsland, with further pipelines being built to allow these areas to access the water.

This is the single largest boost to Melbourne's water supply since the Thomson Dam was built 25 years ago.

The plant will be the largest in Australia and will provide around a third of Melbourne's yearly water needs without relying on rainfall into our catchments.

Greenhouse emissions from the plant will be offset by the purchase of renewable energy, making the plant carbon neutral.



Our Water Our Future – The next stage of the Government's water plan

Water scarcity is a key challenge of climate change – which is why the Victorian Government is continuing to deliver a secure, reliable and affordable water supply to meet current and future water needs.

The next stage of the Victorian Government's *Our Water Our Future* plan will see \$4.9 billion spent

on major water infrastructure projects to provide the biggest boost to Victoria's water supplies in 25 years.

The Government is building a diverse suite of water sources for Victoria to ensure we can continue to grow our economy and population across the State.

Desalination Plant Fact Sheet

What's new?

A desalination plant and an 85km pipeline to connect to Melbourne's drinking water supplies

How much new water?

150 billion litres each year

By when?

End of 2011

Who benefits?

Melbourne, Geelong, Westernport and South Gippsland

Timeline



Your Questions Answered

What is desalinated water?

A desalination plant turns sea water into drinking water by removing salt and other impurities through a treatment process. This water must meet strict Australian Drinking Water Guidelines and Department of Human Services requirements.

Desalination does not depend on rain which is why it is being increasingly used to boost water supplies throughout Australia and around the world.

How does desalination work?

Sea water is piped to a desalination plant via an inlet structure out at sea. It draws in water at a low speed so as not to affect fish and other marine life.

The sea water passes through a series of membranes in a process called reverse osmosis which lets water molecules through while stopping salt and other impurities. The desalinated water is then treated to drinking water standards

Excess salt, or brine, from the treatment process will be piped back into Bass Strait through an underground and undersea tunnel approximately one kilometre offshore, where it will dilute quickly.

How was the location of the plant decided?

In the 2004 *Our Water Our Future* plan, the Government announced an investigation into the large scale application of desalination.

The Wonthaggi region was chosen as the site for the plant following an extensive feasibility study which looked at a range of potential sites. This location had the best mix of features needed to build a desalination plant, taking into account environmental, economic and social factors.

In particular, the region was favoured because water is drawn from the open ocean which provides the most suitable water quality for the treatment process.

This location is better suited to fit in with the existing water distribution infrastructure, which is designed to move water from east to west rather than vice versa.

What environmental issues are there?

Preliminary environmental risk assessments have been conducted as part of the feasibility study in selecting the Wonthaggi region. Environmental assessments will be undertaken to ensure that any impacts on marine life and nearby flora and fauna are addressed.

Find out more

For further information on the Melbourne's Desalination Plant or other projects in the next stage of the Government's *Our Water Our Future* plan please visit www.ourwater.vic.gov.au or call 136 186.

Community information sessions will be held at a range of locations shortly. Visit the above website for details.

