

# Victorian Desalination Project

## Australia's Largest Desalination Plant



### Project Need

The state of Victoria had experienced its worst drought and lowest stream flows in history. The total average inflow into Melbourne dams from 1913 to 1996 was 615 gigalitres per year, whilst average inflow from 1997–2009, during the most severe drought ever recorded in Victoria, was 376 gigalitres per year. The \$3.5 billion Victorian Desalination Project is a key part of the State Government's Water Plan to save, recycle, distribute and create water. Australia's largest desalination plant would be capable of supplying up to 150 billion litres of water a year – about a third of Melbourne's annual water needs – independent of rainfall, by the end of 2011.

### Solution

On 30 July 2009, the State Government awarded the Victorian Desalination Project to AquaSure – a consortium comprising Thiess, Macquarie Bank, Suez Environnement and its affiliate, Degrémont. Despite a challenging financial climate, AquaSure secured full private sector funding for the project, with 34 financial institutions all around the world, including Australian banks and superannuation funds, committing to support the project as debt lenders.

The scope of work included the manufacture and supply of 84 kilometres of 1930mm outside diameter SINTAKOTE® fusion bonded medium density polyethylene coated Ball & Socket Joint, cement mortar lined mild steel pipe water transfer main, and the associated fittings to complete the pipeline system. Steel Mains' supply contract to the consortium involved the supply of approximately 6,200 pipes of 13.5 metres in length, utilising a total volume of 53,000 tonnes of steel. At 1.93 metres diameter, it is the largest diameter Spirally welded pipe ever manufactured by Steel Mains in Victoria. The large diameter of the pipes permitted only one pipe per truck to be delivered to the construction site. A total of 6200 trucks were therefore required to transport just the pipes alone.

### Achievements

Steel Mains was able to complete total straight pipe supply over a period of 12 months from award in December 2009. The use of factory supplied fittings not only enabled the customer to provide a complete quality pipeline system, but also greatly reduced the installation time and lowered the overall project cost. Wherever possible fittings were "Combined" in the manufacturing facility to minimise the on-site work required. Currently this desalination project is claimed to be the largest public private partnership in the world. Once operating the desalination plant will provide up to 150 gigalitres of additional water per year, with the potential to expand production to 200 gigalitres per year.

[www.steelmain.com](http://www.steelmain.com)

**Project:** The Victorian Desalination Project

**Principal:** Department of Sustainability & Environment & Melbourne

**Location:** Wonthaggi, Victoria - Australia

**Completion:** 2011

**Supplied:** 84km of DN1900 1930mm OD Sintakote® Ball & Socket Joint Steel Pipe, Fittings & Valves

