

Torquay Pipeline - VIC

Barwon Authority Saves Water, Money with SINTAJOINT® Pipeline



Torquay Pipeline

Client Barwon Region
Water Authority

Project Torquay Transfer Main

Designer Barwon Region
Water Authority

Construction Contractor
Wellam Bros,
Geelong, VIC

Pipelines 10,37 km of
502 OD x 4.5mm WT
SINTAJOINT MSCL pipe

2,6 km of
559 OD x 5mm WT
SINTAJOINT MSCL pipe

Construction Period:
August - December 1994

Objectives:

For many years, the Victorian Surf Coast townships of Torquay and Anglesea have received treated water from the Wordees Boluc- Pettavel Pipeline at Modewarre, transported through 33km of open, unlined earth channels to service basins at each township.

Disinfection at the townships' service basins has assured safe potable water, but the Authority had good reasons for deciding early in 1994 to replace the Torquay open channel with a pipeline:

- Transportation through open, earthen channels caused deterioration in the physical quality - colour and turbidity – of water dispensed from the consumer's tap.
- Development in the Torquay- Jan Juc area would mean that the hydraulic capacity of the Torquay channel would become inadequate within the next few years.
- Water losses in the channel, were estimated at approximately 15% of the volume transported.
- The cost of channel maintenance was considerable.
- A new pipeline would improve the security of the system.
- A new pipeline would permit immediate response to changes in water demand for a resort township with higher demands in holiday seasons.
- The presence of a pipeline would permit bypassing of service basins used for maintenance purposes with the present system.

Solution

Steel Mains was awarded the contract for supply of SINTAJOINT® rubber ring jointed mild steel pipe and RRJ fittings to suit.

After discussions with Steel Mains Engineering Services Manager Joseph Borg, the Barwon Region Authority found that the thinner wall, 4.5mm pipe met all design criteria and afforded significant cost savings over 10,370m of 502mm OD pipeline. The contract also included 2,610m of 559 OD x 5mm in 12.2m effective lengths.

The pipeline has been sized to provide a supply of approximately 20MI/day, estimated to meet peak daily demand in the year 2020. In the longer term, high peak demands would be met by booster pumping. The steel pipeline design provides for such augmentation in the future.