

Maroondah Aqueduct Pipeline

5.7km of a total 27km Aqueduct Replaced with Sintalock II
Sintakote Steel Pipeline



Project Need

The Maroondah Aqueduct was constructed in the late 1800s and was considered at high risk failure due to increasing cracks and leaks. A section of the old pipeline between Gulf Road, Yarra Glen, Paul's Lane and Dixon Creek had already come to the end of its service life.

In response, a rehabilitation project which entailed a \$35 million dollar spend was required by Melbourne Water to replace a 5.7km section of the aqueduct from Balgownie Estate and Pauls Lane. Preparation works commenced in late October and by early November pipes were laid across private properties and roads between Bleases and Paul's Lane.

The Maroondah Aqueduct is a critical infrastructure that Victoria relies on to transfer potable water from the Maroondah Reservoir to Sugarloaf Reservoir.

Project: Maroondah Aqueduct Pipeline

Principal: Melbourne Water

Location: VIC

Completion: 2016/2017

Supplied: 5.7km of 1750OD
Sintakote® Steel Pipe
Sintalock® Type II

Solution

Steel Mains was selected to manufacture and deliver 5.7km of 1750OD MSCL (Mild-Steel Cement Lined) pipes to John Holland-KBR JV to construct on behalf of Melbourne Water. Sintakote fusion-bonded polyethylene coating was applied on the exterior of each pipe for the ultimate corrosion protection - expected to last over 100 years. Steel Mains manufacturing capabilities complied with Australian Standards of AS1579, AS4321 and AS1281.

The specified joint for this project was Steel Mains latest Sintalock II. This joint only requires external welding which rids safety issues that are associated with entering a pipe for welding. These advantages reduced the installation duration period as internal welding was not required.

Achievements

After the new pipeline was installed and commissioned, the Maroondah Aqueduct is expected to operate for an additional 150 years. This upgrade would also enable Melbourne Water to transfer 200 million litres of water per day to support homeowners, landowners and businesses of Yarra Glen and outer eastern suburbs.

Melbourne Water Senior Project Manager John Sheils notes,

"Being able to reliably transfer water from Maroondah to Sugarloaf ensures water supply for suburbs like Yering, Coldstream, Lilydale, Wonga Park, Kangaroo Ground and Warrandyte, even as far as Doncaster and Ringwood."

"The new closed pipeline saves up to 90 million litres of water every year, which used to be lost to evaporation and seepage. The closed pipe system also means we no longer have a risk of animals entering the open channel and becoming trapped and drowning."

By selecting Steel Mains pipeline system with its innovative jointing and coating technology the client can enjoy cost savings in operation and maintenance costs while water security and greater transfer capacity is achieved.