

Stradbroke Island Pipeline

Innovative Pipeline Made Possible by Superior Products



Project Need

With the Salad Bowl of South East Queensland suffering the economically debilitating effects of water shortage, Redland Shire Council and consultants John Wilson and Partners began an investigation into potential sources. They found that for thousands of years beautiful, clear, almost pure water, optimally filtered by fine silica sands had collected on North Stradbroke Island off the shores of Brisbane in South East Queensland. Whilst a number of options for a supply source were investigated, the council and their consultants determined that the most viable result with the minimum amount of community disruption was to tap into Stradbroke Island's untouched aquifer.

Solution

Once the decision had been made, the challenge was how to transport one of Australia's most precious commodities, water, from Stradbroke Island to the mainland 31 kilometres away, with special emphasis placed on reducing the ecological impact on environmentally sensitive areas. Steel Mains' SINTAKOTE[®] mild steel, cement lined pipeline system was chosen to meet the challenge. Steel Mains' proven products were required to cross several shallow channels, two deep channels, broad tidal flats and three islands. A total quantity of 26.7km of DN750 nominal bore and 6.3km of DN600 nominal bore mild steel cement mortar lined pipe and fittings were supplied using Steel Mains' patented SINTAJOINT[®] (RRJ) rubber ring joint system as well as a variety of welded pipe joints.

Achievements

Steel Mains' superior range of products allowed cost savings by only using thicker walled pipe where necessary. Time savings were also made where SINTAJOINT[®] steel pipes were used allowing for rapid construction by eliminating the need for welding as well as time consuming bed preparation and delicate backfill procedures, in this challenging tidal zone application. The council envisages a maintenance free life for the pipeline as Steel Mains' proprietary SINTAKOTE[®] protective coating is impervious to not only water, but also to all likely soils, chemicals, compounds, solutions and marine organisms in the conditions to be encountered.

Project: Stradbroke Island Pipeline

Principal: Redlands Shire Council

Location: Stradbroke Island, Queensland, Australia

Completion: 1991

Supplied: 26km of DN750 and 6.3km of DN600 Sintakote[®] Sintajoint[®] RRJ and SSJ welded joint Steel Pipe, Fittings & Valves