

Logan Trunk Main Amplification - QLD

Local Authorities look to future with Steel Mains

Logan Trunk Main Amplification

Project Stones Road Pumping Station
to Brandon Road Pumping Station

Pipeline 2,700m of 1125 OD x 8mm
WT SINTAKOTE MSCL Pipe,
and 1,000 of 800 OD x 6mm WT

Construction Glendusk Pty Ltd

Construction Late 1992 – mid-1993
Period:

Project Anstead-Wacol

Pipeline 5,700m of 1750 OD x 12mm
WT, SINTAKOTE MSCL Pipe,

Construction Part 1, Fondside Pty Ltd;
Part 2, Gulf Engineering Pty Ltd

Construction Part 1 May - August 1993;
Period: Part 2 September – November 1993

Project Bellbowrie-Riverhills Tunnel
beneath Brisbane River

Pipeline 630m total length 'twin' 1440
OD x 10mm WT SINTAKOTE
MSCL Pipe

Construction McConnell Dowell

Construction December 1993 - April 1994
Period:

Project Oxley-Beatty Road
Pumping Station

Pipeline 4,500m of 1290 OD x 8mm WT
SINTAKOTE MSCL Pipe

Construction 1994



Objectives:

During the 1987-88 drought, Queensland water authorities in Logan City, Albert Shire and Beaudesert Shire were asked to 'shut down' and refrain from drawing on the current system, which held only 28% of available storage in a high-demand situation.

Projections for later years were also unsettling: Logan's maximum daily demand would double by 1998-1999 and increase 124% by 2003; Brisbane's southern suburbs would increase demand 7% by 1998-99 and 9% by 2003. The same forecast predicted increased 1991-92 demand in Logan of 35% and in Brisbane's southern suburbs of 3%. Actual figures for the year were 51% and 5%, indicating that growth projections were already being exceeded.

Brisbane City Council and Logan City Council agreed to share the costs of the augmentation, Brisbane contributing 57% and Logan City 43%. Harry Holland, Brisbane City Council's director of the Planning and Design Branch of Water Supply and Sewerage, stated that the project demonstrated how local authorities can work together to solve regional problems.

Challenge:

The total planned augmentation included some 40km of trunk and distribution mains in diameters from DN 750 to DN 1,950 and three new pump stations. Sections of the main were installed progressively over a period extending to 2012. Deferral to that time period resulted from re-analysis of the preliminary plan. The extended installation schedule reduced the total project cost to \$75 million and saved the Councils an estimated \$6 million.

Solution:

Four supply contracts and five construction contracts for trunk water mains, at the time of writing, were called to date. It is critical that the mains provide long-term service. Acutely conscious of the need for quality, the client Councils specified Steel Mains mild steel, SINTAKOTE, and cement-lined pipes in all four supply contracts.