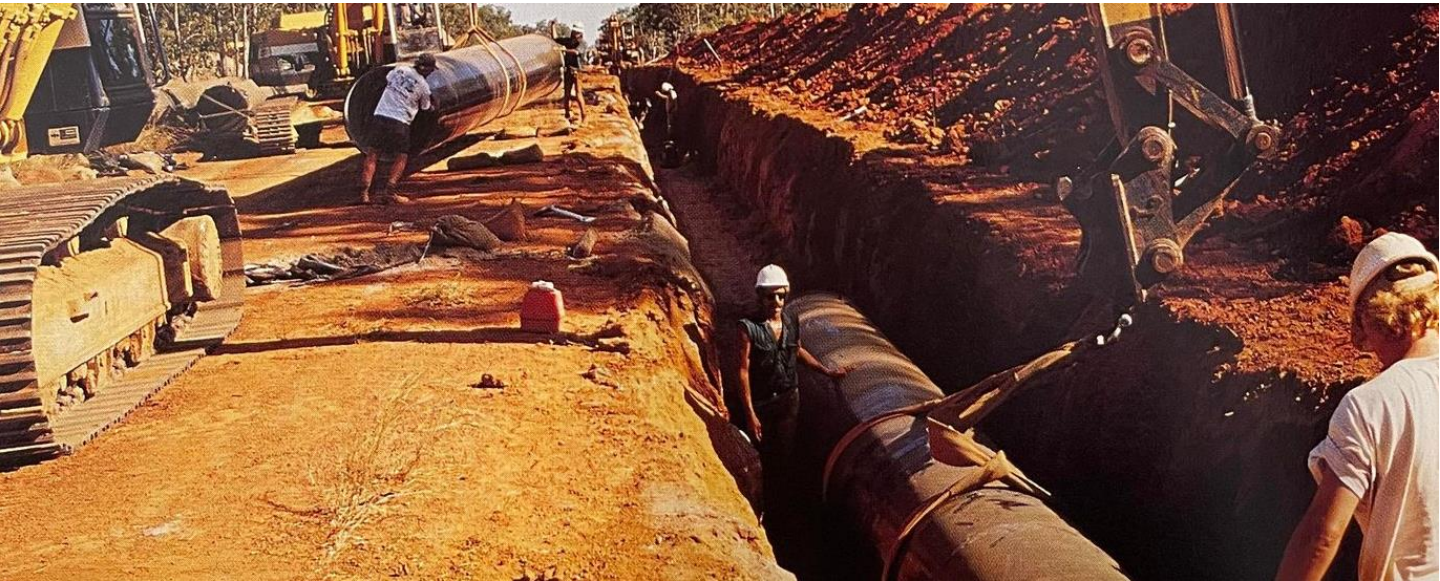


Palmerston Water Supply - NT

More Water for Thirsty Palmerston



Northern Region Water Supply Augmentation

Client Power and Water Authority N.T.

Project Stage 1 - Palmerston Water Supply System Upgrade

Designer Gutteridge, Haskins and Davey - Darwin

Project Manager Dept. of Transport and Works - N.T. Construction Agency

Construction Contractor Henry & Walker Contracting Darwin - N.T.

Pipelines 5,063m of 1067 OD x 7mm WT SINTAJOINT MSCL pipe
646 m of 800 OD x 6mm WT SINTAJOINT MSCL pipe

Construction Period: February - August 1994

Objectives:

The Northern Territory town of Palmerston is about 20km southeast of Darwin, its water supply system a legacy of World War II, when the twin DN 300 and DN 375 above ground steel pipelines were built to supply Darwin from Manton Dam.

Palmerston's population was 500 in 1983; In 1994 it grew to 10,000. As one of four Darwin regional zones, Palmerston includes Waler Barracks, new home of the Australian Army 2nd Cavalry Regiment. The barracks alone requires 70 l/s water supply per peak hour and will require more than 200 l/s once the regiment is fully relocated.

Solution:

To augment the original wartime supply, the Northern Territory Power and Water Authority approved a two-stage programme beginning with a new main along an old railway reserve from McMinns Transfer Station to Howard Springs Road. Stage 1 was completed in seven months, and the original twin pipelines now connect with the new pipeline to supply Palmerston.

The Authority chose Steel Mains' SINTAJOINT® steel pipes with an outside diameter of 1067mm, a wall thickness of 7mm, complete with cathodic protection capacity.

Achievements:

The benefits realised from this decision included maximum laying rates and the design flexibility of a minimum wall thickness. Stage 2 of the Palmerston Zone water supply system augmentation included a new Palmerston Pump Station at the McMinns Transfer Station, and an extension of the 1,067mm OD main from Howard Springs Road to Palmerston. The system's capacity was increased in stages from 370 l/s to approximately 1,200 l/s.