



# Water Dispersal - The Solution is Marani



The Rolleston Thermal Coal Mine is one of the latest ventures for XStrata Coal, Sumisho Coal Australia Pty Ltd and IRCA Rolleston. Located in central Queensland, 140kms south of Emerald, the project is set to last a total of twenty years.

Representatives of the Rolleston mine contacted NQ Water Services Mackay, in late 2010 with the challenge they were facing: Too much water and not enough storage.

The mine needed to alleviate the pressure on the current water storage system, by reducing the amount of waste water stored. They needed to be able to disperse the water easily and they needed to do it without the use of electricity. Additional constraints also meant that the solution needed to be flexible and easy to operate.

NQ Water Services at that stage had been working closely with Rodney Industries, and were aware of the irrigators available through them.

Based upon Rolleston Mines' requirements, it was suggested that a Marani Hard Hose Irrigator be used. This would allow longer runs of the machine to be completed without the need of a vehicle to move the irrigator and, it had higher flow and pressure rates.

The mine needed to disperse as much water as possible. Their requirements were quite different to those of a traditional irrigator enquiry. In essence – they wanted to disperse as much water as they could, with high flow rates and high losses – not savour the water like a crop farmer.

The solution was a Marani ITS080B 140mm x 380mm hard hose irrigator. As one of the larger models of the Marani range, this machine boasted the following advantages for Rolleston:

- Self Contained Diesel Power Pack which excluded the need for host vehicle during set up.
- A vehicle was only required to tow from site to site – not during the running process.
- Flexible retraction speed
- Total area available from one position was 60 – 80m x 720m
- Complete with Nelson Big Gun Sprinkler
- Range of nozzle options

The machine was trialled on site for a period of several weeks to ensure its suitability – It was quickly purchased.

Since the machine has been in use, 100% of the water pumped has being dispersed. Dispersion has been maximised by:

- Increased pressure
- Specific nozzle selection
- Optimised angle of trajectory
- Minimised droplet size

Overall the low maintenance machine has proved simple to use by the 3 trained operators. The mine has achieved their desired outcome and they are happy with their investment.

