

# CASE STUDY

The plant is designed to treat up to **70 megalitres of water per day** and adjusts the water pH and removes iron from the water.

## Water treatment plant **improves** water quality

With Premier Coal needing to abstract ground water from aquifers in future mining areas, the management of water on site is a major issue. Under the agreement with the State Government, the dewatering must be made available for power generation excess water to be discharged to the Collie River under licence from the Department of Water (DoW). A water treatment facility was designed and installed to improve the water quality prior to discharge into the river.

Construction for the plant commenced in February 2010 and was commissioned in early October on time as planned. The plant is designed to treat up to 70 megalitres of water per day and adjusts the water pH and removes iron from the water. The plant uses lime added to the abstracted water to adjust the pH with a clarifier removing the iron sludge which is stored in ponds on site.

The clean water from the clarifier is fed into four large holding ponds to allow further removal of fine iron particles prior to being discharged into the Collie River East Branch.

The discharge occurs under a licence from the Western Australian Department of Water and is subjected to regular internal and external monitoring to ensure the qualities are within the licence parameters.

The local Aboriginal community and the Shire of Collie were included in consultation meetings required for DoW to grant the licence.

The operating life of the plant is approximately 10 years to meet the abstraction requirements for new pit development.

