CASE STUDY

Enhancing biodiversity should create natural and **sustainable in-lake processes** for long-term remediation of water quality.

ACARP research looks to **the future**

During 2011 Premier Coal has supported Edith Cowan University which is undertaking an ACARP-funded project to determine whether aquaculture waste discharge into an acid can improve environmental values and provide a sustainable end use. The research built on previous ACARP-funded research to examine whether marron wastewater discharges could improve coal pit lake water quality and ecosystem values through stimulating natural bioremediation processes.

The project findings have indicated that a lack of nutrients, rather than water acidity, is limiting productivity. This is a significant finding, which has led to Premier Coal supporting further work that will consider the potential for additions of readily available nutrients and organic materials to substantially enhance aquatic biodiversity and ecological value within pit lakes regardless of water quality. Enhancing biodiversity should create natural and sustainable in-lake processes for long-term remediation of water quality that will be economical compared to water quality focussed remediation.