



# Surface and Ground Water

## Capability Statement

As the driest inhabited continent on earth, the sustainable use of Australia's freshwater resources and aquatic ecosystems are vital from an ecological, economic and community perspective. The maintenance of water quality and sustainable extraction are essential to the viability of freshwater and marine ecosystems.

Litoria Consulting understands the challenges for water resource management – from sustainable water allocation for agriculture to the protection of urban water supply catchments and the management of stormwater runoff through water sensitive urban design. Our expertise in water management, particularly water quality assessment, waterways management and catchment modelling stems from direct association and post-graduate experience with some of Australia's leading water research centres including the Australian Rivers Institute (Griffith University) and the highly-regarded Cooperative Research Centre (CRC) for Catchment Hydrology.

Litoria Consulting's staff have successfully conducted environmental water quality investigations and designed monitoring programs for a range of clients including local governments, public utilities, agriculture and mining and gas sectors. Extensive knowledge of monitoring methods including physical, chemical and biological indicators; together with knowledge of processes driving pollutant generation, transport and fate ensures we are able to cost-effectively evaluate existing or potential environmental impacts and ensure compliance with relevant State and Commonwealth legislation.

Litoria Consulting has demonstrated experience in all aspects of water quality modelling from site-based stormwater management (e.g. MUSIC) and water sensitive urban design to the development of complex catchment water quality and erosion hazard (e.g. E2, Source, Sednet). Our expertise includes all aspects of model data collection, parameterisation, calibration and interpretation of results, including statistical analysis of event likelihoods. Litoria Consulting takes pride in their aptitude for economic assessment of water resource management including expertise in sustainable water allocation and tradable water entitlements and the cost-effectiveness of catchment management strategies for water pollution control. This specialist expertise has seen Litoria Consulting staff engaged by other environmental and engineering consultants and has resulted in publications in the peer-reviewed scientific literature.

With more than a decade of experience in all aspects of water resource management, Litoria Consulting is able to provide clients with solutions and recommendations that are evidence-based and scientifically rigorous.

### Services

- Water quality investigations including physical, chemical and biological indicators
- Aquatic ecosystem health assessment
- Riparian vegetation and geomorphological studies
- Monitoring program design
- Discharge compliance requirements
- Environmental flows assessment
- Site-based stormwater quality modelling and water sensitive urban design
- Advanced catchment-scale water quality/quantity modelling
- Waterway rehabilitation plans
- Catchment management strategies and plans



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