Water Quality Management

BLIGH TANNER

Drinking and recycled water supply providers require, either through legislation or best practice, risk based management plans that are in accordance with relevant guidelines such as the Australian Drinking Water Guidelines, or the Australian Guidelines for Water Recycling.

Bligh Tanner can assist in all aspects of water management planning such as preparing water quality management plans, assisting with their implementation, undertaking reviews, and auditing compliance with the plans.

We hold nationally recognised certification under the Water Quality Management Systems Auditor Scheme.

Whether you operate a mine site and need a management plan to demonstrate you are meeting your workplace health and safety obligations, own a marina that on-sells drinking water, or are a local council or water authority providing drinking water, Bligh Tanner can assist you.

Note: If you need assistance preparing your customer service standards, we can help.

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+ ABOUT

Bligh Tanner is a structural, civil, environmental and water engineering consultancy distinguished by its high level of expertise, personalised service and innovative approach.

The firm has been responsible for some of Queensland's most innovative and complex engineering projects, from multimillion dollar special structures through to world leading integrated water management systems.

Bligh Tanner is known for solving complex problems and demonstrates a highly specialised approach to environmentally sustainable design.

Award-winning and highly experienced water experts

Dr Michael Lawrence
Senior Scientist

With over 10 years' experience across water quality research and regulation, Michael has developed expert skills in drinking water management.

As a drinking water quality management systems auditor, and having nearly five years' experience assessing drinking water quality management plans in Queensland, Michael is uniquely placed to assist drinking water providers in all aspects of applying the Australian Drinking Water Guidelines and implementation of management plans to ensure the delivery of safe drinking water.

In addition, Michael can assist in planning scientifically robust water quality sampling programs across natural and built environments.

David Hamlyn-Harris
Director, Water and Environment

David has 34 years' professional experience in the Australian water industry across all aspects of municipal water supply and wastewater engineering.

David has a particular interest in local alternative water management systems, in particular the integration of stormwater harvesting, rainwater tanks and water recycling into urban water infrastructure.

He has been responsible for major wastewater treatment plant upgrades and significant water infrastructure planning programs such as the Sydney Olympic Park water management systems and the Pimpama Coomera Waterfutures Master Plan on the Gold Coast.

More recently, David has developed guidelines for stormwater harvesting for the Healthy Waterways Partnership; a feasibility study for roofwater and stormwater harvesting for potable use in Melbourne; and has completed several stormwater harvesting schemes including the South Bank Rain Bank and the Fitzgibbon FiSH and PotaRoo.

Alan Hoban
Principal Environmental Engineer

Alan contributes a high level of expertise in developing policies and technical standards for integrated water cycle management and sustainable urban design.

He regularly advises government and developers on how to better manage water in urban environments

Alan works closely with his clients to help them achieve their goals despite institutional or policy barriers.

Alan's successful initiatives include Water by Design, Flood of Ideas, Flexicar, and Cool Communities.

He has received numerous awards including the Gilbert Vasey Award in Agricultural Engineering, the inaugural Sinclair Knight Merz Fellowship, the Tim Fairfax Scholarship, and three best paper awards from Stormwater Queensland.

Alan has also been named a Stormwater Industry Leader by Stormwater Australia in recognition of his outstanding contribution to the industry.

Creating healthy, sustainable and self sufficient urban developments

1

Melbourne Urban Potable Water Harvesting

The Melbourne Urban Potable Water Harvesting investigation evaluated options for harvesting roofwater and stormwater for potable use from existing urban areas in Melbourne, based on two specific residential study areas in Fitzroy North and Northcote.

The objective was to determine if, and at what scale, harvesting for potable use can become viable and assess a broad range of options for each catchment area.

Completed 2014

Client Yarra Valley Water

Image credit Peter Dunphy

2

Fitzgibbon Water Harvesting Projects

This project is recognised internationally as a new model for hybrid centralised/ decentralised water supply systems.

The innovative water management model allows the Fitzgibbon Chase housing community's water supply to grow as its population increases.

It features a potable roofwater harvesting system (PotaRoo) and non-potable stormwater harvesting system (the FiSH) that achieve a 60% savings on normal mains water use.

Bligh Tanner prepared a drinking water quality management plan for the PotaRoo system, the first of its kind in Queensland.

Completed 2013

Client Economic Development Queensland

Image credit Economic Development Queensland

3

Moreton Bay Total Water Cycle Management Plan

The award-winning Moreton Bay Regional Council Total Water Cycle Management Plan (TWCMP) provides a blueprint for the future development of water systems within the region to meet the requirements for growth and the protection of the water environment.

Bligh Tanner worked with BMT WBM to assess engineering works associated with the TWCMP, specifically water supply, wastewater management, stormwater/ roofwater harvesting and water recycling.

Completed 2012

Client BMT-WBM for Moreton Bay Regional Council


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Local Alternative Water Supplies

Local Alternative Water Supplies (LAWS) play an important role in a diversified regional water supply strategy with potential to supply 25-30% of water demand.

Bligh Tanner identified a range of issues and barriers that pertain to the development of decentralised water systems including recycled water, harvested stormwater and roofwater.

Strategies to overcome the barriers to better facilitate the development of LAWS schemes were recommended.

Completed 2012

Client Queensland Water Commission

Image credit John Loo

5

Wastewater Recycling for Non-potable Use

Bligh Tanner has completed feasibility studies and conceptual designs for a large number of wastewater recycling projects across Queensland including Gatton and Rockhampton.

The common objective of all schemes is to effectively achieve full sustainable beneficial reuse of treatment plant discharges.

Full beneficial reuse reduces the complexity and cost of wastewater treatment, protects the environment and provides farmers with a valuable resource.

Image credit AgriLife Today

6

Risk Based Water Management Plans

Bligh Tanner has completed risk based water management plans for a large number of developments throughout Queensland, including for onsite wastewater treatment systems, stormwater harvesting schemes, recycled water management and drinking water quality management.

Recent projects include:

- Fitzgibbon FiSH Stormwater and Roofwater Harvesting Projects Risk Assessments
- The Ecovillage at Currumbin
- Capo di Monte Retirement Village
- Keswick Island Residential Development
- Mount Tamborine Toilet Block
- Department of Transport and Main Roads Waverly Creek Rest Area
- South Bank Rain Bank Risk Assessment

Image credit Landmatters Group