



+ David Hamlyn-Harris
 Director, Water and Environment

**BLIGH
 TANNER**

+ QUALIFICATIONS

- BE (Civil), University of Queensland
- MEngSc (Public Health), University of New South Wales
- Registered Professional Engineer of Queensland (RPEQ 7019)
- Chartered Professional Engineer (CPEng)

+ AFFILIATIONS

- Fellow, Institution of Engineers, Australia (FIEAust)
- Member, Australian Water Association
- Member, International Water Association

+ CAREER OVERVIEW

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 completed several stormwater harvesting schemes including the South Bank Rain Bank and the Fitzgibbon FiSH and PotaRoo.

+ EMPLOYMENT PROFILE

<p>2004—present Director, Water and Environment Bligh Tanner, Brisbane</p>	<p>1986—1997 Water Supply and Sewerage Engineer GHD, Sydney</p>
<p>1999—2004 Principal Engineer, Water Technology GHD, Brisbane</p>	<p>1980—1986 Planning Engineer Department of Transport and Works, Northern Territory</p>
<p>1997—1998 Design Manager, Rouse Hill Stage 2 GHD, Sydney</p>	

+ AREAS OF EXPERTISE

- Integrated water management
- Water recycling
- Stormwater and roofwater harvesting
- Wastewater systems and treatment investigation and design
- Risk assessment and project evaluation
- Environmental impact assessment
- Expert witness

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PROJECT EXPERIENCE

+ SUSTAINABLE LAND DEVELOPMENT

Water Sensitive Urban Design

- Morayfield LAP, regional water management considerations for major growth corridor - Moreton Bay Regional Council
- Pimpama Coomera Waterfuture, IWM masterplan for 150,000 people - Gold Coast Water
- Olympic Park, Sydney, water cycle infrastructure - Olympic Coordination Authority

+ INFRASTRUCTURE MASTERPLANNING AND DESIGN

Municipal Infrastructure Planning

- Water and sewerage strategies for a range of urban developments in South East Queensland - various clients
- Water supply and sewerage requirements for campus masterplan - University of Queensland
- South East Queensland Water Strategy Infrastructure Portfolio Assessment Methodology - Queensland Water Commission
- Review of Infrastructure Charges Schedule (ICS) cost estimates for Esk PIP - Queensland Competition Authority
- Proposed Oaklands Development Beaudesert, investigation of water supply and sewerage servicing - Indigo Group
- Mareeba and Cooktown Priority Infrastructure Plans (PIP) engineering input - SGS Economics & Planning
- Thornlands Integrated Employment and Residential Community, IWM master planning for major greenfields development site - Andiworth
- Gold Coast Waterfuture project, citywide water supply strategy - Gold Coast Water
- Rouse Hill, Sydney, design management for Stage 2 infrastructure development - RHIC

Municipal Infrastructure Design

- Victoria Point, Queensland, 8.9ML/day wastewater treatment plant - Redland Water and Waste
- Cleveland, Queensland, 10.3ML/day wastewater treatment plant - Redland Water and Waste

+ INTEGRATED WATER MANAGEMENT

Total Water Cycle Management

- Total Water Cycle Management Plan development for Moreton Bay Regional Council - BMT-WBM
- Morayfield-Burpengary Local Area Plan, integrated water management options - Buckley Vann for MBRC

Total Water Cycle Management, Continued

- Stormwater Harvesting Guidelines for South East Queensland, Water by Design – Healthy Waterways Partnership
- Maroochy Showgrounds IWM Plan, prepared as a model for future IWM plans – Sunshine Coast Regional Council
- Integrated Water Management Plans for small to medium developments:
 - Keswick Island, Queensland – 3,000 EP residential development
 - Ella Bay, Queensland – self sufficient water supply and wastewater infrastructure
 - Capo di Monte Retirement Village, 100 EP IWM scheme including rainwater capture and Class A+ wastewater recycling – DJ Francis
 - Clear Mountain Resort, IWM conceptual design for resort upgrade – Kenlynn
 - The Ecovillage at Currumbin, 300 EP water recycling scheme including Class A+ treatment and use for toilets and irrigation – Landmatters
- Draft Queensland Guidelines for Decentralised Wastewater Systems – EPA
- Review of Queensland Water Recycling Strategy Action Plans – EPA
- Orthophosphoric acid dosing at London’s 5 large WTPs – Trident South Alliance
- Potable Reuse Health Issues Review – Federal Department of Health and Aged Care
- Sewerage overflows, EISs for three Sydney catchments – Sydney Water Corporation

Alternative Sources of Water Supply

- Melbourne roofwater and stormwater harvesting for potable supply – Yarra Valley Water
- Fitzgibbon Potable Roofwater (PotaRoo) project, 44ML/year communal roofwater harvesting – JFE Engineering
- Bunnings Warehouses, development of generic roofwater tank sizing model
- South Bank Drought-proofing Strategy – South Bank Corporation
- Water mining strategies for urban redevelopment areas including Newstead Riverpark and Tennyson Tennis Centre – Mirvac
- Lockyer Water Reliability Study, options to improve irrigation supplies to the Lockyer, Warrill and Bremer Valleys – Queensland DSDI
- South East Queensland Recycled Water Project, delivery of treated water from Brisbane and surrounds for agricultural irrigation – Brisbane City Council
- Coffs Harbour Regional Water Supply, alternative water sources – Department of Public Works

Sustainable Management of Wastewater

- Beaudesert and Lockyer Valley STPs effluent irrigation – Queensland Urban Utilities
- Logan River Valley, investigation of wastewater reuse options for agricultural irrigation (with Psi Delta) – Queensland Water Commission
- Rockhampton Recycled Water Scheme Planning Reports for North and West Rockhampton STPs – Fitzroy River Water
- Ipswich Central Recycled Water Scheme (IWRWS) concept development – Ipswich

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Sustainable Management of Wastewater, Continued

- Central Station (Fraser Island), review of existing wastewater facilities - Queensland EPA
- Moreton Bay Eco Resort, on-site wastewater management for 80-unit development on Russell Island - Tanti Soldi
- Manly West sustainable residential development - Sustainable Human Settlements
- Springfield Reuse Demonstration Project - Queensland Water Recycling Strategy
- Frankston recycling project conceptual design - Psi Delta and Frankston City Council
- Ballina Reclaimed Water Reuse (RWR) Master Plan - GHD/Ballina Shire
- Provision of sewerage to the southern Moreton Bay islands - Redland Water and Waste
- Byron Bay, Brunswick Valley and Bangalow sewerage systems - Byron Shire Council
- Redcliffe Reuse, recycled water feasibility study - City of Redcliffe
- Wetalla Wastewater Gowrie Oakey Creek Study, delivery of recycled water from Wetalla STP to irrigators - Queensland DNR&M
- North Grafton Reuse, conceptual design for reuse proposals - Clarence Valley Council
- Greenbank Commercial Development, on-site wastewater management - Kilcorp
- Rochedale Town Centre, wastewater management - Watpac
- Baffle Shores Holiday Village, on-site wastewater management - D Rasmussen

Stormwater Harvesting

- South Bank Rain Bank Stormwater Harvesting and Reuse project - South Bank Corporation
- Fitzgibbon Stormwater Harvesting (FiSH) scheme, 89ML/year non-potable water supply to Fitzgibbon Chase, Brisbane - ULDA
- QWC Stormwater Harvesting Infrastructure Options, stormwater options to provide multiple water cycle benefits - Queensland Water Commission
- Stormwater harvesting for sports field irrigation - Brisbane City Council

+ INDUSTRIAL WATER MANAGEMENT

- Darling Downs Power Station, development of wastewater management plan - Origin Energy
- Talinga Water Treatment Facility (WTF), risk assessment and Incident and Emergency Response Plan - APLNG

+ OTHER

- Development of Business Cases and Water Pricing structures for:
 - Fitzgibbon Stormwater Harvesting (FiSH) project
 - Fitzgibbon Potable Roofwater (PotaRoo) project
- Expert Witness in appeals before the Planning and Environment Court:
 - Rainbow Shores v Gympie Regional Council - sustainable management of wastewater effluent

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+ OTHER, CONTINUED

- Successful negotiation of Development Permits for Environmentally Relevant Activities (Sewage Treatment) for a significant number of developments including:
 - The Ecovillage at Currumbin
 - Capo di Monte
 - Moreton Bay Eco Resort
 - Clear Mountain Resort
- Risk Management based on the HACCP Framework for complex water projects including:
 - The Ecovillage at Currumbin
 - South Bank Rain Bank Stormwater Harvesting and Reuse project
 - Fitzgibbon Stormwater Harvesting (FiSH) project
 - Fitzgibbon Potable Roofwater (PotaRoo) project
 - Talinga CSG water treatment facility
 - Pimpama Coomera Waterfutures and Gold Coast Waterfutures projects
 - Supply of PRW Water to Swanbank Power Station (as participant)
- Funding Applications for government grant funding including:
 - South Bank Rain Bank Stormwater Harvesting and Reuse project
 - successful
 - Fitzgibbon Stormwater Harvesting (FiSH) project - successful
 - Fitzgibbon Potable Roofwater (PotaRoo) project - successful

PUBLICATIONS AND PRESENTATIONS

Stormwater Harvesting in South East Queensland: An Overview - OzWater'13, Perth

Stormwater Harvesting in South East Queensland: Does it have a future? - SIAQ Technical Event, Brisbane, 2010

How can we realise the objective of Zero Net Water Import? - ULDA Water Workshop, Brisbane, 2010

Integrated Water Management and Sustainable Buildings - QUT Architecture Students, September 2009

The South Bank SHARC: An Iconic Project for an Icon of Brisbane - River Symposium, Brisbane, 2008

Why the Design Professions Should Lead the Way? - RAI4 4 IN:1 OUT Seminar, Brisbane, 2008

Use of Rainwater and Recycled Water at a Household Scale - RAI4 Recycled Water / Rainwater Seminar, Brisbane, 2007

Developing Decentralised Water Systems in a Fast Changing Environment - Urban Water Forum, DNRW, Brisbane, 2007

Balancing and sustaining our water resources for the future - Three Queensland case studies - ENVIRO 06, Melbourne, 2006

Decentralised water and wastewater systems - Three examples in South East Queensland - SWUE II Conference, Sippy Downs 2006

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Queensland Guidelines for Decentralised Wastewater Systems - 3rd Queensland Symposium on Decentralised Wastewater Treatment, QUT, 2006

Balancing and sustaining our water resources for the future (integrated water management - what's in it for you?) - UDIA Queensland Conference, Coolumb, 2004

Pimpama Coomera Waterfutures: Pushing the boundaries - with S Cox (Gold Coast Water), Australian Water Association Water Recycling Conference, Brisbane, 2003

Integrated urban water management and water recycling in South-East Queensland: Recent developments - IPWEAQ, Cairns, 2003

Three landmark urban water management projects in Australia - IWA 4th International Water Recycling Symposium, Mexico City, 2003