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Curriculum Vitae:

Dr Mark Bayley

Wetland Management Specialist



Professional Profile

Mark spent the initial stage of his career (a little over 8 years) at Southern Cross and Griffith Universities researching wetland systems for polluted water treatment. During this time Mark's research was presented at many international and national conference's and in 2007 Mark obtained his PhD. After his time within the academic arena, Mark aspired to move away from Universities and apply his knowledge and skill to real world issues and problems.

In the years since moving from the academic sector to the private sector, Mark has worked for a number of different organisations before being employed at AWC in 2008 – where he found a work environment that valued the benefits of scientific knowledge and understanding but appreciated the needs of their clients to resolve environmental issues quickly.

Mark's key area of expertise is in the identification, delineation, protection, management and creation of wetland systems – for both the provision of habitat and/or water quality improvement. In additional to this, Mark has key skills in the management of stormwater in both the agricultural and rural sectors.



Core Competencies

- Treatment wetland design and management; •
- Surface / groundwater interaction;
- Wetland identification, delineation and rehabilitation focus on wallum wetlands;
- Treatment of agricultural and industrial runoff
 using natural treatment systems;
- Urban and agricultural stormwater management;

- Compensatory habitat assessment and rehabilitation based on the 'offset' policies;
- Management of large project teams.
- Statistical analysis of environmental data sets;
- Modelling environmental systems, including water quality.

Qualifications

- PhD in Applied Science: researching wetland systems for polluted water treatment, Griffith University (2007)
- Bachelor of Applied Science with Honors, Southern Cross University (2001)

Professional History

Current

Associate WET Systems Nelson Bay, NSW

2018 - ongoing

Wetland Consultant Wetland Care Australia Ballina, NSW

2008-2022

Operations Manager / Senior Scientist Australian Wetlands Consulting (AWC) Bangalow, NSW

2005-2007

Wetland Consultant Wetfeet Aquatics Bexhill NSW

Conferences / Forums attended

- Presented papers at > 15 conferences.
- QLD and National Stormwater conferences 2014-2019
- International and national wetland
 management conferences 2003-2008

Training courses given

- 2020, Incorporating wetlands into vineyards and wineries, Bathurst NSW
- 2019, Wetland design and management, Brisbane
- 2016, Wetland design and management, Sydney
- 2009, Wetland systems and landscape design, Harvard University, USA; Tulane University, USA; Louisiana State University, USA





Portfolio of Selected Projects

Stormwater and wetland management

- Assessment, design and construction of 20+ agricultural stormwater treatment wetland in the Great Barrier Reef catchment, between 2011 and 2021 Project won state price for excellence in research and innovation in the 2021 QLD Stormwater Industry Awards
- Design, construction and monitoring of treatment wetland (experimental trial) at Coolum STP, SEQ, Kilmore STP, Victoria
- Design, construction and monitoring of leachate treatment using constructed wetlands at Sydney Olympic Park.
- Sustainable effluent release into coastal wetland communities for the Byron Bay STP, Belongil Estuary.

Ecology

- Development, implementation and monitoring of a 150ha wetland rehabilitation and Acid Frog mitigation strategy across the Aura Development, Caloundra SEQ.
- Rehabilitation of 200ha of coastal wetland system: SEPP 14 wetland loss associated with the Pacific Hwy upgrade
- Identification of acid frog habitat within numerous coastal development sites in NNSW.

Catchment management

- Nerang Estuary Health Study and Management Plan, SEQ
- Loders Creek Stormwater Management Plan, SEQ
- Assessment and rectification design of 18 stormwater treatment wetlands across City of Gold Coast LGA