



# Matt Blacka

## Principal Coastal Engineer

APEC Engineers Register)

IntPE (Member: International Professional Engineers Register)

Member: NSW Coastal, Ocean & Port Engineering Panel of Engineers Australia (Corresponding committee member)

Member: IUCN Commission on Ecosystem Management (Oceania division)

Member: Te Ipukarea Society, Cook Islands (Environmental NGO)

## Expertise

- Analysis of coastal processes, including Australian and Pacific Island coastlines
- Assessment of coastal hazard risks and impacts
- Coastal zone and estuarine management
- Design and evaluation of coastal protection works
- Climate change impacts and planning of coastal adaptation
- Coastal monitoring and environmental data collection
- Physical model design, construction and testing (coastal and hydraulic models)

## Awards

2003: **DN Foster Award** (undergraduate studies in coastal engineering), Presented by Engineers Australia.

2015: **Kevin Stark Memorial Award** (excellence in coastal engineering practice), Presented by Engineers

**Book chapters:**

UNSW and UNESCO (2021; in draft) “*Securing Water, Energy and Food in the Pacific*”, Chapter 9 “*Infrastructure Vulnerability to Disruption: A Particularly Pacific Problem*”, Chapter authors M Blacka, F Johnson and R Cox, Springer Series - Water Security in a New World

**Journal papers:**

Splinter, K., Li, L. and Blacka, M. (2018) “*Laboratory Experiments of Wave Overtopping of Revetment Structures in Reef Environments*”, Coastal Engineering Proceedings, 1(36), waves.80. <https://doi.org/10.9753/icce.v36.waves.80>

Mariani, A., Blacka, M.J., Cox, R.J., Coghlan, I.R. and Carley, J.T. (2009) “*Wave Overtopping of Coastal Structures. Physical Model Versus Desktop Predictions*”, Journal of Coastal Research

**Conference papers/presentations:**

Blacka M and Drummond C (2019) “*Measurements and Hydrodynamic Analysis of a Complex Fringing Reef and Lagoon System*”, Proceedings of the Australasian Coasts and Ports Conference

Bouvier C, Castelle B, Balouin Y, Splinter K, Blacka M and Dubarbier B (2019), “*Cross-Shore Sandbars Response to an Artificial Reef: an Intersite Comparison*”, International Conference on Coastal Sediments 2019

Splinter K, Li L and Blacka M (2018), “*Laboratory Experiments of Wave Overtopping of Revetment Structures in Reef Environments*”, Coastal Engineering Proceedings 1(36):80

Coghlan I, Blacka M, Shand T, Foster M, Carley J, Howe D and Modra B (2018), “*Wharves At The Edge Of The World: Physical Modelling Of Zero Maintenance Breakwaters In Remote Locations*”, Proceedings of the 7<sup>th</sup> International Conference on the Application of Physical Modelling in Coastal and Port Engineering and Science (Coastlab18), Santander, Spain

Stewart J, McDonnell B, Saunders B, Tan K, Lee S,

Carley J, Blacka M, Cox R, Attwater C and Watson P (2008), "*Modelling Coastal Processes and Hazards to Assess Sea Level Rise Impacts for Integration into a Planning Scheme*", IPWEA National Conference Climate Change Response, Coffs Harbour, NSW

Blacka M, Carley J, Cox R, Lester D and Williams B (2008), "*Sea Level Rise Implications and Adaptation for South Arm Secondary Road, Hobart*", IPWEA National Conference Climate Change Response, Coffs Harbour, NSW

Carley J, Blacka M, Cox R, McIntosh J and Macarthur J (2008), "*Sea Level Rise and Climate Change Impacts for Planning a New Hospital*", IPWEA National Conference Climate Change Response, Coffs Harbour, NSW

Carley J, Blacka M, Mariani A, Bettington S and Prior G. (2007), "*Physical Modelling of Coastal Structures for Gorgon Project, Barrow Island Western Australia*", Proceedings of the Australasian Coasts and Ports Conference, Melbourne

Blacka M, Carley J, Cox R, Hornsey W and Restall S (2007), "*Field Measurements of Full Sized Geocontainers*", Proceedings of the Australasian Coasts and Ports Conference, Melbourne, VIC

Blacka M, Carley J and Cox R (2007), "*Stability and Design of Rubble Toe Protection for Vertical Seawalls*", Proceedings of the Australasian Coasts and Ports Conference, Melbourne, VIC

Phillips B and Blacka M (2007), "

Blacka M, Howe D and Coghlan I (2017) "*Affordable Coastal Protection in the Pacific, Physical Modelling of Concrete Masonry Blocks and Geotextile Sand Containers*", UNSW WRL Technical Report 2016/24

Howe D, Coghlan I, Carley J, Blacka M (2016) "*Chatham Islands Port Waitangi Physical Modelling*", UNSW



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