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BIOGRAPHY

Dean entered environmental management industry in January 2010 after completing a Master of Integrated Coastal Zone Management at the University of the Sunshine Coast. Experience in water cycle management and services to the mining industry. Previous career in the Royal Australian Navy, Science Degree in Chemistry and Oceanography from UNSW (ADFA).

ABSTRACT

An Assessment Framework for Decentralised Sustainable Water Provision for Regional Australia

This paper addresses the question: *How can we assess the sustainability of decentralised water services?* This is done using the Climate Change Adaptive Urban Development (CCAUD) approach used for Ridges at Peregrine Springs on the Queensland's Sunshine Coast as a case example from a high-growth coastal region.

CCAUD encompasses: the projection of changes in climatic conditions to assess the implications of the potential impacts of changes in rainfall and temperature; the application of 'Climate Proofing' the changes ; co-location at the demand point of treatment and supply infrastructure; appropriate infrastructure sizing; use of diverse water supply sources; recognition of the diversity of sources of demand; renewable energy production; the establishment of biodiversity-friendly carbon sinks; and project delivery sourced from local/regional professional expertise and labour.

The assessment process has provided a ***sustainable water provision infrastructure model*** that applies risk reducing climate change adaptation methodology for urban residential developments at local and regional scales. This approach can be rolled out to suit the geographic realities for further 'green fields' development on the Sunshine coast or in other locations where the provision of decentralised water services will help to facilitate sustainable regional economic development.