## **Brisbane Summer Lecture**



## AUSTRALIA SECTION

## Climate change adaptation and engineering

**Presented by** 



**Dr Mark Gibbs** is a Technical Director at AECOM in Brisbane and an adjunct Associate Professor at UQ. Mark is a civil engineer who also holds a PhD in mathematics from the University of NSW. Before joining AECOM, Mark held the executive position of Deputy Chief, CSIRO Division of Marine and Atmospheric Research. Mark also concurrently held the executive position of Deputy Director, Centre for Australian Weather and Climate Research (CAWCR), a joint venture between the CSIRO and Bureau of Meteorology. CAWCR is the authoritative provider of climate projections and climate risk impact and mitigation assessments in Australia.

Mark's work focuses on infrastructure and environmental risk management and includes developing quantitative probabilistic risk assessments for understanding the risks that infrastructure pose to the coastal environment, and health and safety, and risks that the natural environment pose to infrastructure (natural hazards).

Mark's current projects include technical leadership of the Port of Townsville Port Expansion project supplementary EIS, hazard and risk assessment for the Brisbane Underground Bus and Train tunnel, and advising the New Zealand EPA on the risks posed by proposed seabed mining project.

Date:	Wednesday 2 April 2014
Time:	12.30 pm for 1.00 pm
Venue:	AECOM, Level 8, 540 Wickham
	Street Fortitude Valley
<b>RSVP:</b>	asce.qld@gmail.com
	by 28 March 2014
Cost:	This is a Free Lecture
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## A light lunch and refreshments will be provided between 12.30 pm and 1.00 pm

Although climate change has been deprioritized by various Australian governments, climate change risks remain for many if not all sectors of the Australian economy. These risks have been increasingly recognized, and this recognition has spawned a number of climate change vulnerability and adaption studies, many of which have been increasingly delivered by the engineering community.

It can be argued that the first tranche of these climate adaption studies were effective at raising the profile of climate risks, and identifying possible ways that climate change may present risks to infrastructure and service delivery, but were relatively ineffective at mainstreaming recommendations into existing asset management and engineering design processes.

We are now starting to see the second generation of climate risk and adaptation studies. These are increasingly based on the principles of

- mainstreaming into existing planning and management frameworks, systems and processes;
- addressing uncertainty in climate projections, and attribution;
- delivering asset-specific CAPEX and OPEX recommendations;
- applying defensible options prioritisation methodologies.

**The presentation** will discuss these new approaches, in addition to the newly released Australian Government Guidelines on managing coastal infrastructure and climate change.

http://www.asce.org/australia-section/