**ANTARCTIC CLIMATE & ECOSYSTEMS** COOPERATIVE RESEARCH CENTRE

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It is with pleasure that I deliver to you the ACE CRC's latest package of information on sea-level rise. This is a major distillation of knowledge from our sea-level rise program.

Continuing rise in sea level will be one of the major impacts of climate change. More than 80 per cent of Australians currently live in the coastal fringes on the east and southwest of the continent. Around a quarter of Australia's population growth is occurring within three kilometres of the coast. A significant proportion of Australia's population may experience the impacts of a changing climate through rising sea levels, increased coastal erosion and extreme events such as cyclones, storm surges and coastal flooding. Adaptation to this growing threat requires the best scientific guidance on the impacts of climate change.

The ACE CRC is one of the few institutes in the world with the breadth of capability to address most aspects of sea-level change. The overall goal of the ACE CRC Sea-level Rise Program is to narrow uncertainty in projections of global and regional sea-level change, including the changing frequency of coastal flooding events for selected regions of the Australian coastline.

Scientists in the ACE CRC Sea-level Rise Program are helping Australia prepare for future possibilities by improving our ability to project and hence to respond to changes. This requires better understanding of historical sea-level change and the factors that contributed to it. New observational tools such as satellites enable us to more accurately determine present sea level change, and improved computer models are reducing uncertainties in projections for the future. We are using these new technologies, together with long-established methods, to improve our understanding of the various processes that contribute to sea-level change and its impacts, globally and for Australia.

The package contains:

- A Position Analysis: climate change, sea-level rise and extreme events impacts and adaptation issues. The document outlines developments in the science of sea-level rise and its influence on the effects of extreme events like high tides and storm surges.
- A Briefing: a post-IPCC AR4 update on sea-level rise developed with leading scientists John Church (ACE CRC/CSIRO), Neil White (ACE CRC/CSIRO), John Hunter (ACE CRC) and Kurt Lambeck (Australian Academy of Science). The document addresses recent progress in understanding sea-level rise and clarifies the interpretations of the IPCC's sea-level projections.
- A Website: developed jointly with CSRO, this site brings together information on sea level rise and its causes. It also includes estimates of global and regional sea level, links to other web pages and data sets. Visit <u>www.cmar.csiro.au/sealevel</u>

The package is also available for download on the ACE CRC wesbite and additional hard copies can be ordered through our communications office by emailing: <u>media@acecrc.org.au</u>. I trust that you find this information both interesting and useful as we work together to face the challenges for our nation and the globe.

Yours sincerely,

Ian Allison, Acting CEO









