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***Where to now for irrigation in northern Australia:
Reflections, findings, challenges and opportunities
arising from the Northern Australia Irrigation Futures
project***

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Abstract

Northern Australia is largely undeveloped and holds an iconic status for many Australians. The interplay between the landscapes, rivers, groundwater and strongly monsoonal weather patterns has resulted in unique and diverse ecological systems that will need special attention to ensure that their integrity is retained in any changes are made to the system. With some 60 to 70 per cent of Australia's fresh water discharging from tropical rivers, and reduced water availability throughout much of Australia due to drought and climate change, there is rapidly growing interest in developing the land and water resources of the north. There is a unique and historic opportunity to ensure that management and use of Australia's northern land and water resources takes place within a strategic, sustainable framework. However, deciding on whether to expand irrigation in northern Australia, and if so what irrigation should look like, where it should be located, and how it should be managed, requires improved understanding of groundwater, river and catchment attributes and of the risks and benefits associated with irrigation.

The Northern Australia Irrigation Futures (NAIF) project was established in 2003 to develop new knowledge, tools and processes to support debate and decision-making regarding irrigation in northern Australia. Collaborating with a wide range of stake-

holders the project has identified lessons from the history and current state of irrigation in northern Australia, developed further understanding of the hydrology of the north, examined the pros and cons of irrigation mosaics (patchworks of irrigation) as an alternative to more traditional methods, and developed frameworks to support government and community decision-makers.

This presentation reflects on the NAIF journey. It draws out some of the important findings of the research, reflects on project wins and losses, strengths and weaknesses, and suggests future directions for research and for decision making about irrigation and other land and water use in northern Australia.

Key-words: Northern Australia; irrigation; decision-making; hydrology, irrigation mosaics.