

## **MEDIA RELEASE**

### **MAJOR RESEARCH PROJECT TO MANAGE GWYDIR ENVIRONMENTAL FLOWS**

The Federal Government has given its imprimatur to a major \$1.5 million three-year research project designed to maximise environmental flow from the Gwydir basin, while concurrently catering for commercial farming demands.

Currently, managing water flows to this system is based on gut-feeling and past practice rather than science. Development of an objective decision support tool will allow for transparent decision making underpinned by best available current scientific opinion.

The project acknowledges the existence of two major waterbird breeding areas of national importance in the Gwydir Basin. It also recognises that developments in irrigated agriculture over the past 30 years have significantly affected flow patterns into these key wetlands.

The Gwydir Valley is the largest cotton-growing region in Australia, and is also the home of extensive grazing and dryland cropping development.

This has significantly impacted on the size and quality of the wetlands, while many man-made structures such as levees and channels embracing the wetland landscape, have had a considerable effect on flow patterns.

Contributed funds will be a mix of cash and in-kind from the project partners, which include the Cotton Catchment Communities Cooperative Research Centre; Murray-Darling Freshwater Research Centre; Border Rivers - Gwydir Catchment Management Authority; and the Gwydir Valley Irrigators Association.

The *Gwydir Regulated River Water Sharing Plan* provides for an Environmental Contingency Allowance (ECA) of 45,000 megalitres (ML), which is available to enhance river and wetland health. Up to 90,000 ML can be stored in Copeton Dam for this purpose.

The key objectives of the research program are:

- 1) To determine the flow requirements of streams and terminal wetlands on the Lower Gwydir floodplain;
- 2) To develop recommendations for future flow management, monitoring indicators, and institutional arrangements for the Lower Gwydir aquatic ecosystem; and
- 3) To provide managers of the *Gwydir Regulated River ECA* and other river flows into floodplain terminal wetlands with a model guiding the effective management of flows to maximise environmental outcomes.
- 4) Overall, to provide more effective management of the Gwydir ecosystem by providing scientifically-based guidelines that can be adopted by industry, researchers (both agricultural and ecological) and management agencies in the region, working in collaboration.

It will also lead to:

- A review of existing data on wetland responses to flows in the Lower Gwydir and synthesis of industry and flow-manager views on future management decisions for this system;
- An enhanced understanding by Lower Gwydir landholders of the responses of their country to various flow scenarios, and the importance of an appropriate flow regime in this wetland complex;
- Development of a transferable guide on management of aquatic floodplain ecosystems for use in other catchments with terminal wetlands, such as the Macquarie Marshes, thus broader regional natural resource management relevance outside of the Border Rivers - Gwydir region.

Guy Roth, Chief Executive Officer, Cotton CRC which lead the project development with the Northern Murray Darling Freshwater Research Center said "Currently, very little ecological knowledge exists to guide the effective management of the ECA including the required flow timing, frequency and

duration. Mapping of the wetlands, in terms of the size of remnant areas, their hydrology, geomorphology and distribution of engineering structures, is needed to properly manage”.

Dr Glenn Wilson, Griffith University said “he was delighted to hear the project had been funded after two years of project development and consultation. While preliminary work has assessed macroinvertebrate and vegetation responses to flows within the wetland ecosystem, there is no concise model that can be used to predict the likely outcome of ECA releases, a deficiency the project aims to rectify”.

The Border Rivers - Gwydir Catchment Management Authority is a key member of the project team, and is responsible for environmental contingency allowance for this system.

It is charged with formulating flow decisions in consultation with state regulators; its core involvement will ensure seamless uptake of knowledge and tools from th

James Croft, Chairman, Gwydir Border Rivers Catchment Management Authority and the ECA Management Group welcomes the initiative, and said “the information will be extremely valuable to the community and those managing the environmental contingency allowance for enhanced water use efficiency of a scarce resource”.  
e project.

Gwydir Valley Irrigators Association executive officer Michael Murray, said “this project would help to ensure the long-term health of the Gwydir Wetlands by maximising the environmental benefits flowing from the efficient use of the Environmental Contingency Allowance”.

Jim Southeron, representative of Lower Gwydir Water Users, welcomed the project and said “it was good to see all parties collaborating with this research”.

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