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PO Box 312, Darlinghurst NSW 1300  
**ph** 0428 817 282  
**ABN** 34 373 750 383

Standing Committee on Agriculture and Water Resources  
PO Box 6021  
Parliament House  
CANBERRA  
Canberra ACT 2600

[agriculture.reps@aph.gov.au](mailto:agriculture.reps@aph.gov.au)

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**Submission**

Inquiry into water use efficiency in Australian agriculture

The Inland Rivers Network (“IRN”) is a coalition of environment groups and individuals that has been advocating for healthy rivers, wetlands and groundwater in the Murray-Darling Basin since 1991.

We appreciate the opportunity to participate in the Australian Government Inquiry into water use efficiency in agriculture.

IRN has been keenly following the implementation process of the Murray-Darling Basin Plan since the passing of the Commonwealth *Water Act 2007* (the Water Act). We consider that improved water use efficiencies in the irrigation industry in the Basin is critical for the long term future of productivity, communities and the health of the river system.

IRN has long held the opinion that flood irrigation of crops, particularly cotton and rice, is inappropriate in Australia with our extreme weather patterns and the dry nature of our continent.

One of the aims of the National Water Initiative and Australian water reform process through COAG was to encourage water use to move, through trade, to the highest value use.

IRN considers that the continuation of flood irrigation of cotton and rice produces a very low return per megalitre (ML) use. There have been vast improvements in

irrigation technology since 1994. Improved water use efficiency in the cotton and rice industries in the Murray-Darling Basin would improve productivity while freeing up the necessary water to ensure the long term health, resilience and viability of surface water and groundwater sources in the Basin.

**Comments on Terms of Reference:**

- adequacy and efficacy of current programs in achieving irrigation water use efficiencies

IRN notes that the water efficiency program under the Basin Plan is an investment equivalent to \$2.5m per day over the period of implementation. It has been disappointing that the Department of Agriculture has been so slow at rolling the program out effectively.

This investment was aimed at facilitating the return of an additional 450GL to environmental flows in the Basin. The extensive scientific research and data collection during the development of the Basin Plan has indicated that a return of 3200GL to river flows is the bare minimum necessary to keep significant wetlands and their dependent species at current extent, flush out salts and keep the Murray mouth open to the sea for an appropriate duration.

The investment of the water efficiency program has provided significant private benefit from public money.

For example, in the Macquarie River system, \$115m was invested in the improvement of the Trangie-Nevertire irrigation scheme. This included the lining of the irrigation channel and the purchase of licences at the end of the scheme. This has improved water delivery to irrigators to a significant extent. Previously, members of the scheme could not receive water until general security allocations were above 20%. The efficiency measures have now enabled water to be delivered at a much lower allocation because of the elimination of transmission losses.

This has resulted in higher productivity at lower water allocations, a significant private economic benefit funded by Australian taxpayers.

This public investment resulted in the return of 29.839 GL to environmental holdings at the cost of \$3, 854 per ML.

- how existing expenditure provides value for money for the Commonwealth

The above example demonstrates that current expenditure, while providing significant private benefit, is a very expensive method of returning water for environmental and broader public benefit. The cost per ML returned to the Macquarie River system through water efficiency measures was more than three times the market value.

The program to purchase water licences from willing sellers provided better value for public money. IRN strongly opposed the amendments to the Water Act that has capped water buybacks to 1500 GL. This will cause the achievement of a sustainable diversion limit to be unnecessarily expensive.

Willing sellers of water entitlements to the Commonwealth Environmental Water Holder have the choice to sell partial entitlements and invest in onfarm water use efficiencies that can result in the same productivity with less water.

The National Audit Commission 2014 commented on funding arrangements for the Basin Plan recognising that the funding of private infrastructure is not achieving value for money.

*“Commonwealth funding is also provided to meet the public benefit of recovering environmental water for the Murray-Darling Basin. Water recovery is funded through a range of different measures including buying water entitlements and funding private infrastructure that will return water to the river system. The Commission considers that the Government should focus on maximising public benefits and achieving value for money in its water recovery, not on providing industry assistance. This means moving away from infrastructure funding, which is significantly more expensive and which provides substantial private benefits to landholders.”<sup>1</sup>*

- possible improvements to programs, their administration and delivery

Programs to encourage water use efficiency should focus on the implementation of the latest and most efficient irrigation technology. Australia needs to move away from the centuries old methods of flood irrigation.

- other matters, including, but not limited to, maintaining or increasing agriculture production, consideration of environmental flows, and adoption of world's best practice.

The Basin Plan was adopted to address historical over-allocation of water in order to regain the balance with economic use and prevent ongoing degradation of significant ecological assets and water quality.

Returning water to the environment, so that rivers and groundwater systems can maintain their natural function is critical for the resilience of the Murray-Darling Basin, for both human and natural communities.

The cost of deteriorating water quality to communities and industry is a major public impost that cannot be ignored. The loss of native fish and bird populations, endangered vegetation communities and wetland environments cannot be adequately valued. Drawdown, pollution and aquifer collapse is a significant issue for groundwater systems.

Improved environmental flows have a significant public benefit in addressing the above problems. There are long term implications from deteriorating river health that threaten inter-generational equity.

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<sup>1</sup> National Audit Commission 2014 *Towards Responsible Government*, Appendix Volume 2 p10

Irrigated agricultural production can be maintained or increased through the use of world's best practice water delivery and application systems. Industry must be a partner in this investment.

Reliance on unsustainable extraction from surface and groundwater sources is unacceptable. The implementation of the Basin Plan is considered internationally to be a very progressive approach to water management.

IRN considers that the goals and objectives of the Plan must be achieved in full and in the most cost effective manner for the public purse.

The \$13b public investment in the implementation of the Basin Plan is Australia's largest investment in natural resource management. The investment includes regional diversification funding so that local economies dependent on the irrigation industry can spread their income base. This is particularly useful for communities during extended droughts when irrigated produce income is very low.

Australian tax payers wish to see a return on their investment in the form of a healthy river system with a diverse economy and resilient communities.

For further information please contact:

Bev Smiles  
President

Inland Rivers Network