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Committee Secretary
House of Representatives Standing Committee on
Regional Australia
PO Box 6021
Parliament House
CANBERRA ACT 2600
AUSTRALIA

17TH December 2010

Dear Committee Secretary,

Submission to the Inquiry into the impact of the Murray-Darling Basin Plan in Regional Australia

On behalf of the FutureFlow Alliance we value the opportunity to make a submission to the Committee addressing the cost effectiveness of irrigation infrastructure upgrades as a means to increase water efficiency in the Murray-Darling Basin. FutureFlow's submission is authorised by FutureFlow's Alliance Leadership Team.

FutureFlow is a project alliance established by Goulburn-Murray Water (G-MW) to modernise areas of their open channel irrigation network in order to increase system efficiency and improve customer levels of service. The alliance undertook the following three modernisation projects in 2008 and 2009:

1. Central Goulburn 1234 Project for Water for Rivers
2. Shepparton Modernisation Project for The Living Murray and the Victorian Government
3. Early Works for the Northern Victoria Irrigation Renewal Project

The combined budget for these projects was $283m which represented the largest package of irrigation modernisation works undertaken to that time. The works involved the following integrated asset and non asset solutions to upgrade G-MW's irrigation system:

- Rationalisation of under-utilised channels and associated infrastructure
- Automation of manually operated channel regulating structures
- Replacement of dethridge wheel meters with electronic and automated meter outlets
- Pipelining of suitable channels
- Plastic lining of suitable channels
- Expansion of the radio telemetry network to facilitate communication to and from the new channel regulators and meter outlets

These interventions aimed to reduce water losses caused by system outfalls, evaporation, seepage, leakage and inaccurate metering. Water savings delivered by these works have been quantified using the Technical Manual from the Victorian Government's Water Savings Protocol. This yielded average water savings of 100GL per annum (Long Term Cap Equivalent).

While actual long term savings volumes will be verified in accordance with the Technical Manual in the coming irrigation seasons, the works are already delivering substantial benefits. The Shepparton Irrigation Area modernised by FutureFlow achieved record water efficiency of 84% in the 2009/2010 irrigation season. The automated irrigation network is also improving farming

productivity by delivering water onto farms at higher and more consistent flow rates with substantially reduced lead times. Many flood irrigators have experienced considerable reductions in on-farm water use as a result of higher and more consistent flow rates. This reduction in consumption is not counted in FutureFlow's water savings figures.

The cost effectiveness of the water savings delivered by FutureFlow's works is the main feature of our submission to the Committee. The water savings have been achieved for a cost of $2,720/ML. This compares with an average price of $2,237/ML paid by the Australian Government for the purchase of 119GL of high reliability water entitlement in the same Goulburn River catchment (under the Restoring the Balance in the Murray-Darling Basin Program).

While direct comparisons between the cost effectiveness of buy-back versus infrastructure investment is not straight forward, the marginal cost difference would appear to represent good value for money given the long term economic and social benefits accruing to the region as a result of FutureFlow's works.

As part of its enquiries, the Committee is also likely to investigate the cost effectiveness of on-farm irrigation upgrades as a means of increasing water efficiency and reducing consumption. FutureFlow was unable to utilise the Australian Government's On-Farm Irrigation Efficiency Program to compliment our off-farm works due to timing. During the course of our project we observed many opportunities to integrate on-farm upgrades with off-farm modernisation. We made every attempt to accommodate on-farm initiatives into our design but we were ultimately restricted without an on-farm component to our project funding. Subsequent modernisation projects are taking the opportunity to integrate buy-back, off-farm and on-farm infrastructure upgrades. We would recommend Government looks for ways to align these funding programs to maximise synergies and investigate the level of funding for the on-farm program as it constitutes only $300m, or 3%, of the combined $8.9b for these programs.

A brief comment about the procurement model adopted for the FutureFlow project is also relevant. Modernisation projects are characterised by the need for engagement with all farmers which results in constantly changing project requirements and scope. Innovative solutions are then needed to deal with the myriad of situations, particularly how to rationalise infrastructure without compromising service levels. FutureFlow was undertaken via a relationship contract (an alliance) between the client (G-MW) and private sector design and construction partners (Transfield Services, Sinclair Knight Merz and Comdain Infrastructure). While there are various forms of relationship contracts, the alliance approach was a significant factor in our success. All parties worked together in a collaborative manner under a flexible framework with strong commercial incentives for innovation and water savings.

In concluding, the FutureFlow project has demonstrated that generating water savings via infrastructure upgrades can be a cost effective solution for recovering water under the Murray-Darling Basin Plan. We recognise that not all irrigation systems will have characteristics which deliver savings at a cost comparable with buy-back, however significant economic and social benefits are derived from investing in irrigation infrastructure which buy-back will not achieve.

We understand the Committee will be visiting the Shepparton region as part of its enquiry. Representatives from FutureFlow will be available to elaborate on our submission. We would also be more than happy to attend Committee hearings to contribute more information in the interests of an informed discussion about this important issue.

Yours sincerely,

David Mathlin

Alliance Leadership Team