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Lessons from Agricultural Water Saving Initiatives & their impact on Future Programs

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Paper Presentation

Much work has been undertaken through COAG water reforms to improve river health. The NSW Government have used new legislation, community based river planning and farm assistance programs to transfer water to the environment and to institute management regime's that optimise environmental outcomes. The water reforms of the 90's has now given way to the Commonwealth's \$2 billion National Water Initiative to address the ongoing issue of sustaining Australia's water resources.

Previous government efforts to halt declines in river health have utilised a legislative framework to enshrine the 'environment's' right to water and to re-define water sharing arrangements amongst consumptive users. In New South Wales this has resulted in the gazettal of 36 water sharing plans which on a long term average will return, seasonally adjusted, between 5% and 12 % of allocated irrigation water to rivers.

The NSW irrigation industry uses 86% of extracted surface and groundwater. In 2001 the NSW irrigated agricultural sector's value of annual production exceeded \$2.7 billion, or 30.7% of the value of annual total agricultural production in NSW. To offset the loss of irrigation water the NSW Government instituted an integrated package of assistance measures between 1998 and 2005 to assist the industry to improve on-farm water use efficiency and to increase irrigated crop yields.

The Water Reform Structural Adjustment Program or as it is more commonly known WaterWise on the Farm, engaged more than 5,000 of NSW's estimated 12,000 irrigators in training, farm planning and investment in water efficient technologies.

Irrigators report that as a result of WaterWise on the Farm training, the completion of Irrigation & Drainage Management Plans with an associated investment in appropriate water efficient technologies that water use efficiency savings of up to 25% are realisable. Irrigators also report that yield increases through the adoption of the best irrigation management practices identified through WaterWise on the Farm enabled irrigated crop yields to be increased by as much as 20%.

Not surprisingly irrigator responsiveness to and engagement within programs to achieve farm water use efficiency improvements are strongly influenced by the investment climate and likely impact on crop yields. Market based mechanisms and water saving infrastructure investments are now being advanced as the next step in sourcing water for the environment. For this to be successful in reallocating farm water savings to meet river water requirements the process will need to consider the economic drivers and farm sector outcomes if it is to achieve the quantum of transfers being sought by initiatives such as 'The Living Murray'.

This paper identifies the lessons learnt from previous government initiatives to address water use in the irrigated agricultural sector and what can be applied into the future to achieve the engagement of the irrigated farm sector to participate in initiatives to achieve the 'river' outcomes desired by so many.