

HEALTHY RIVERS – HEALTHY COMMUNITIES

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There are few things more contentious than water! And this is very apparent at present as we debate the future of water management in the Murray Darling Basin.

Underpinning the debate is everyone's concern for the future and what a changed water environment will mean for them and their family, their business and their grandchildren. Questions arise such as: Will it mean less food production? Will it mean more expensive food? Will it mean healthier rivers with more productive floodplains and wetlands and no net change in food production? Will communities survive? How can we manage with less water and how will we share the water in a fair and equitable way? Will future generations say we were wise, that we heeded lessons of the past, that we were considerate and caring about both people and the environment? So many questions and no easy answers!

I think it is important to step back to understand how this happened and make sure we do not repeat history, as so often happens. The Macquarie Valley is an example of the mismanagement of New South Wales water resources by a succession of governments and water agencies over the last 40 years.

When Burrendong dam was completed in 1966/67 the yield of the Macquarie River was assessed as 406000Megalitres (ML). That is roughly 406000 Olympic swimming pools. By 1978 the water users in the valley, most of whom were irrigators (agriculture uses about 80% of the allocated water), advised the Water Resources Commission (WRC) that the river was over allocated and an embargo should be placed on the issue of future water licenses. In 1979 the WRC introduced the embargo but at the same time raised the annual estimated yield of the river to 475000ML and continued to issue licenses so that permissible extraction rose to 497500ML.

Original licenses stipulated the area of land that could be irrigated but not the volume of water used. To remedy this anomaly, volumetric allocations were introduced. This system apportioned volumes of water (Megalitres/hectare) to a property and the property owner then decided how the water could be most productively used. Other valleys in NSW were

allocated 6ML/ha but the Macquarie Valley was allocated 8ML/ha for irrigators on river schemes. For Off River schemes the standard 6ML/ha was agreed. By 1985 the total allocated water was 612000ML of which 452000ML was for riparian irrigators and 160000ML for off river schemes. As the revised estimated long term average yield of the river was 475000ML the Macquarie was now over committed by 137000ML more than the revised yield of 475000ML and 206000ML more than the original yield of 406000ML.

It gets worse! In 1985 allocations to existing licenses were increased by about 13000ML despite concerns and objections from stakeholder groups. From then to now the allocations for extractive use have risen to 738000ML for the Macquarie/Cudgegong system (the Cudgegong River flows into Burrendong Dam from the Mudgee area). An additional 160000ML was also allocated to the environment despite the fact it was obvious the already over allocated river could not yield the 160000ML. The total allocation of regulated and supplementary flow water for the system is therefore now the grand total of 898793ML, almost double the revised estimated 1979 yield of 475000ML¹.

With such mismanagement the damage is widespread, indiscriminate and long lasting!

As the river became more over allocated and water was harvested freely from the floodplains, less and less water was available for overland flows and recharge of wetlands. Floodplains below Warren now receive fewer and smaller floods. The many floodplain graziers and croppers in the valley have had production reduced by 30-50% as a result. These are the industries on which valley communities were initially established and survived during the last drought when little or no water was available for large scale irrigation. They deserve better than that!

The significant irrigation industry suffers because the Macquarie Valley now has a 50% reliability of supply which is no better than chance. This is not a good foundation on which to base a high cost industry such as cotton, a major product of the valley. Nor does it provide surety for those families, businesses and communities who rely heavily on the irrigation industry. They deserve better than that!

And what sort of environment will we leave for future generations? Our wetlands which provide ecosystem services and support a great diversity of plants and animals have decreased in number and size. They have been radically changed by the fewer and smaller floods which are now the norm. The environment deserves better than that!

The question then arises: “How can we manage with the 475000ML of river yield so that it is shared in a fair and equitable way between industry and the environment without unduly impacting on local communities?”

This is where the debate now sits and the Federal Government has established the Murray Darling Basin Authority to develop and implement a plan for a basin which contains 22 other major river valleys. But do this task it must, otherwise in 15 years time we will face the same debate with even greater environmental damage and community adjustment.

The Macquarie River is so over allocated there is no easy solution and there will be impacts. Already progress has been made with the government buying water from willing sellers. It has secured more than 50% of what is required to service environmental needs in the valley. Further purchases need to be made and more savings will be made through changes to irrigation infrastructure.

I am confident the innovative irrigators of the Macquarie Valley will meet this challenge. It is essential that the non irrigation floodplain producers see justice through the restoration of much of their lost production. Running parallel with productive floodplains is a robust and resilient environment to support future generations. The sensible sharing of resources and resultant diversity of production will give us a healthy river. A healthy river will give us a healthy community!

¹ Note – all figures are from: Johnson W J (2005) Adaptive management of a complex social-ecological system: the regulated Macquarie River in south-eastern Australia. Master of Resource Science Thesis, University of New England.