

**WWF Comment on:
Rural Water Use and the Environment: The Role of Market Mechanisms
Discussion Draft**

WWF has commented previously on many of the issues discussed in the Commission's report.

WWF concurs with many of the conclusions of the report in particular;

- The importance of recognising the connectivity of groundwater and surface water systems in efficient management of water resources.
- That groundwater should be included in the Murray-Darling Basin cap in order to manage the health of the total river system.
- That the impact of return flows needs to be understood and accounted for in entitlement specifications and assessing the effectiveness of water recovery initiatives.
- That the opportunities to source water for environmental purposes through infrastructure investment, at a cost below the current price for entitlements, appear limited and that any subsidies to encourage the use of specific irrigation technologies must provide a net public benefit.

WWF still sees a significant need to address information deficiencies in water resource management in order to underpin operational water markets that deliver on environmental goals. In order to operate, water managers require accurate water metering and monitoring, policing of illegal water use and infrastructure, provision in planning for unspecified uses (such as leakages and fire) and a broad, robust and ongoing scientific program to monitor the condition of water-reliant ecosystems.

Sound information on resource availability, location and variability will underpin the potential for market activities to deliver environmental outcomes within the constraints of water availability. Site specific information on across all Australia's water resources will need to be available to decision makers in order to effectively use market based processes to allocate investment. This may require an investment in additional research by the government.

It may be useful to keep in mind COAG's policy commitments to include provision of secure environmental flow needs in planning regimes. Effective planning would provide more certainty and greater security to water users, and would ensure less reliance on market mechanisms to balance the water needs of environmental assets and commercial users. For example, in Western Australia, three quarters of the state's water plans are yet to be completed. It remains important, in a national approach to the role of water markets, to stress that effective primary planning remains a priority



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over use of market mechanisms, which rely on provision of public funding to adapt poor planning outcomes.

Several other areas are felt to require further comment, notably the concept of a portfolio of market mechanisms and issues relating to the management of environmental water.

Market Mechanisms

The draft Productivity Commission report proposes the use of a portfolio of market mechanisms to acquire water for the environment. These include purchase of permanent water entitlements, purchase of temporary allocations of water, the leasing of water allocations, options for future water purchase and attenuation of water rights. The report states that *“A portfolio of water products will be required to deliver increases in environmental flows in a timely and cost-effective manner”*.

In the report, the merit of each option is assessed separately, based on criterion judging its cost, feasibility, flexibility, practicality, distribution of costs and benefits, and likelihood of achieving goals, with the advantage and disadvantage of each shown. On this basis, it is concluded that the application of a portfolio of market mechanisms is superior to purchase of permanent entitlements to water giving greater flexibility, lower cost and improved ability to meet environmental flow requirements.

There are programs currently underway to acquire water for the environment, notably the National Water Initiative (NWI), the Living Murray Initiative (LMI) and RiverBank in NSW. Water acquired under the LMI is specified to be held permanently within allocation and entitlement frameworks. To date, little or no water has actually been purchased under the either the NWI or LMI programs.

Under neither program does there appear to have been a concerted and targeted effort to enter the market and buy water, despite the fact that direct purchase of water currently in consumptive use has identified as a cost effective method of acquiring water for the environment.

Of the current LMI water recovery projects, only the Poon Lake project proposes the direct purchase of 12GL of water, to be captured only during high flows, while NSW proposes the use of undefined “innovative water products” to acquire a further 9 GL rather than to purchase water directly. Only 25% of the \$1.6 billion NWI Water Smart Australia Program has been committed for investment in water recovery projects to date, with the vast majority planned to be spent on infrastructure projects, with none allocated to the direct purchase of water.

The market mechanisms and underlying procedures are now well established for purchase and sale of both permanent and temporary water rights. It is also likely that most managers of environmental water will have the authority to trade water allocations after the initial purchase of entitlements. In

NSW it is proposed that catchment managers will be able to trade water allocations, as will managers of environmental water acquired through the RiverBank program.

The draft report focuses on the potential for newer market mechanisms to provide a more flexible source of environmental water at a lower overall cost to the community. WWF is concerned that the framework and analysis used to assess the potential advantages and disadvantages of market mechanisms is fairly limited, with only very broad conclusions possible. For example it may be possible to conclude that the more options available to manage environmental water the more efficient management will be, but without further research it is not possible to know the quantum of gains possible versus currently available acquisition and management options or the relative costs and resource requirements.

The draft report assesses each possible market mechanism independently against a set of criterion relating to cost, feasibility and effectiveness (see above). WWF considers that assessing market mechanisms independently maybe useful analytically but it does not adequately reflect current water purchase options available and how they are being implemented. In most situations, water can be acquired by purchasing a combination of permanent entitlements (to acquire base environmental flow requirements where planning regimes have failed to do so) and temporary allocations (for managing variability).

As noted in the report, in economic terms, the initial purchase of permanent entitlements is identical to the annual purchase of temporary allocations. The variable environmental water needs can be managed through the purchase and sale of temporary allocations. Allocations associated with permanent entitlements can be sold when not required for environmental needs in order to provide funds to acquire additional allocations when increased flows are required. This will reduce the need for on-going government funding. In jurisdictions allowing the carryover of temporary allocations, these can provide the opportunity to accumulate water, to meet particularly high environmental flow needs.

WWF suggests a more useful framework for assessing market mechanisms is to first determine the advantages and disadvantages of acquiring and managing of water using the portfolio of currently available market mechanisms supported by existing regulatory and statutory frameworks in combination (the base case). Proposed new market mechanisms should then be compared to the base case to determine the relative advantages and disadvantages of each. Only if the particular market mechanism is shown to provide a significant level of improvement over the current situation, should further development be recommended.

While recognizing that access to a wider range of market mechanisms can have the potential to improve the management options for environmental water, WWF considers that securing a permanent share of water for the environment be central to any acquisition program. It is important



to note that just as consumptive users value the security provided by permanent water entitlements, it is also important that security of environmental water be guaranteed.

WWF is concerned that focusing on the development of newer, untested market mechanisms rather than on first using those currently available, will simply further delay acquiring the water necessary to meet serious and agreed needs of improving the ecological health of Australia's surface and groundwater systems.

Management of Environmental Water

Efforts to provide secure, high security water for environmental maintenance, either through planning or other market mechanisms must be underpinned by a robust and accountable management framework for the delivery of environmental water and the monitoring of environmental outcomes.

The Commission may be interested in further considering the best possible framework for environmental water management and delivery, given that a number of agencies, including the Murray Darling Basin Commission, the NSW Department of Environment, and various catchment management authorities, are now grappling with the need to manage and protect environmental flows.

Environmental water managers are required to perform a number of functions:

- In collaboration with government and other agencies, determine water needed to restore or protect river and groundwater ecosystem functions, including volume, location and timing
- Acquire planned environmental water, or purchase permanent or temporary water to address overallocation where planned environmental water is insufficient
- Accept donations of water
- Sell excess water
- Identify and trade with willing sellers and willing buyers of water
- Manage water to achieve environmental outcomes, for example collaborate with other agencies to oversee timing of release and timing of withdrawals



The skill sets required to acquire, manage and deliver environmental water cut across a number of specialties including scientific expertise, familiarity with planning and water accounting, and knowledge of water markets and market mechanisms.

In order to achieve required environmental outcomes it is not enough that water is delivered to the environment by means of market mechanisms or through the planning process, it is essential that an adequate structure for managing environmental water be established with the sole and clear objective of using the available water to deliver the maximum environmental benefit to the community. WWF considers environmental water managers must be adequately resourced and legally accountable when it comes to the delivery of environmental outcomes. Federal and state laws provide protection for wetlands and aquatic threatened species whose survival and health will depend on the effectiveness of activities of environmental water managers.

WWF believes the NSW Department of Environment's Riverbank may be a model worthy of review. The NSW Government's Riverbank Trust seeks to buy permanent licence allocations and for the water to be managed, within the government, by the environment portfolio. This is the portfolio also responsible for delivering environmental outcomes. Such a closed-loop approach, where those focussed on environmental goals - in this instance at a state-level, but also feasible as departments within intergovernmental agencies where catchments are cross-border - allows for Ministerial accountability. Such a framework, where the environmental bureaucracy or trust, is the primary environmental water manager, would assure that the entity managing environmental water will act solely as an advocate for environmental interests.