10 Murray–Darling Basin Commission

The Murray–Darling Basin Commission manages the River Murray system and advises the Murray–Darling Basin Ministerial Council on matters related to the use of water, land and other environmental resources of the basin. It provides bulk water services to New South Wales, Victoria and South Australia through its water business, River Murray Water. The Ministerial Council consists of Ministers for land, water and the environment of each of the contracting governments: the Commonwealth, New South Wales, Victoria, Queensland, South Australia and the ACT.

In this 2003 NCP assessment, the main element of the water reform program that is relevant for the Murray–Darling Basin Commission is interstate trading, which is a progress report issue.

The Murray–Darling Basin Ministerial Council is to further consider options for improving environmental flows in the River Murray at its meeting in November 2003 (against three reference points of 350, 750 and 1500 gigalitres of flow restored in an average year). At its May 2003 meeting, the Ministerial Council asked the commission to prepare a specific proposal (including cost-sharing arrangements) for the November meeting as a 'first step' to delivering improved environmental flows under 'The Living Murray' initiative. The Council will need to account for further developments in the 2004 NCP assessment when it considers State Governments' progress in implementing CoAG obligations on the allocation of water to the environment.

In the 2004 NCP assessment, the Council will also consider the implementation by River Murray Water of the recommendations of the independent review of its pricing arrangements undertaken in 2002. As part of this, the Council will consider the adequacy of reporting in the commission's annual report of each government's annual cost shares for River Murray Water and the corresponding bulk water volumes supplied in each State. The commission's 2001-02 annual report was not publicly available in time for the 2003 NCP assessment.

10.1 Interstate trading

Progress report: The Murray–Darling Basin Commission is to report on progress in developing arrangements for interstate trading in water allocations or entitlements to maximise water's contribution to national income and welfare, within the social, physical and ecological constraints of catchments.

Next full assessment: The Council will assess arrangements for water trading in 2004.

Reference: CoAG water reform agreement, clause 5

The Murray–Darling Basin represents 14 per cent of Australia's land surface but accounts for around 40 per cent of the gross value of agricultural production. Trading in water entitlements provides a means of maximising returns on the basin's limited water resources.

Water has been traded interstate on a temporary basis in the Murray–Darling Basin since the mid-1990s. In 1998, the Murray–Darling Basin Commission established a pilot project for permanent interstate water trading. The pilot is limited to the permanent transfer of high-security water entitlements held by private diverters in the Mallee region of South Australia, Victoria and New South Wales (downstream of Nyah). The total volume of permanent interstate trade under the pilot project to 30 June 2002 was around 15 gigalitres, which is less than 1 per cent of the water applied in the pilot area. Over 90 per cent of permanent interstate trade was from New South Wales and Victoria to South Australia. The Council reported on the most recent review of the pilot project in the 2001 NCP assessment (NCC 2001b, p. 41).

In the 2002 NCP assessment, the Council noted that the Murray–Darling Basin Commission was examining several interstate trading issues, including the development of:

- a system of exchange rates to allow trading between regions and between different water entitlements in different States;
- adequate environmental controls for trading;
- efficient administrative arrangements for processing and approving trades; and
- a system of access to State-based registry systems to enable those interested in interstate trading to obtain the information necessary to conduct such trades.

Developments since the 2002 assessment

At its meeting in May 2003, the Murray–Darling Basin Ministerial Council noted that:

> *… expanded and effective permanent interstate and intrastate trading markets in water access entitlements are fundamental to The Living Murray initiative, and [the Ministerial Council] will consider the prospects for commencement of an expanded market across the southern basin by the 2004-05 irrigation season at its November 2003 meeting.* (Murray–Darling Basin Ministerial Council 2003, p. 3)

The Ministerial Council endorsed the following key requirements for an expanded and effective permanent trading market:

- clear specification of water access entitlements by governments, including the duration of tenure and the arrangements under which tenure may be modified;
- clear registration of water access entitlements by governments for individuals to hold, use and trade permanently between zones, valleys and interstate;
- the removal of administrative barriers that limit access to permanent interstate water markets; and
- an agreement between the States on the environmental clearance requirements for new irrigation developments.

With the aim of enhancing water markets, the Ministerial Council directed the commission to undertake further work on:

- the establishment of trading zones and exchange rates;
- the development of rules to manage different tenures and review periods (for water access entitlements);
- approaches to removing rules that prevent trade out of irrigation districts and to providing mechanisms to deal with the financial and asset management impacts of trade out of districts; and
- ensuring the legal validity of trade.

The Murray–Darling Basin Commission is working on a system of trading zones, rules (for example, to manage system constraints) and exchange rates for interstate water trade. The aim is to establish a system that is technically robust and agreed among policy advisers in each jurisdiction, for subsequent approval by the Ministerial Council. Exchange rates can be used to allow for trading between different forms of water entitlement, different valleys (or zones) and different States.[1] In late 2002, the commission engaged an additional modeller to undertake work on exchange rates. An interjurisdictional technical support group was also established. The calculation of exchange rates requires the use of computerised hydrological models that represent the physical attributes and operational rules of the river systems on which the trades are undertaken. The work is initially focusing on the Murray, Murrumbidgee and Goulburn rivers. The Ministerial Council is expected to consider further work on the policy and technical issues at its meeting in November 2003.

In relation to environmental clearance processes, the commission has supported (including through funding) the development of a rapid assessment tool to analyse the salinity impacts of trades, focusing initially on the Mallee region. The tool is to be enhanced using an expert panel. The commission has also undertaken modelling of the in-stream ecological impacts of interstate trade. A set of trading rules is being developed to address these effects and to manage system delivery constraints. The commission provided the Council with a copy of a paper that briefly considers the environmental benefits and impacts of water trade, the States' policy frameworks for assessing the ecological impacts of trade and the hydrological and physical supply system constraints on trade (Sinclair Knight Merz 2002). The paper reported the following.

- New South Wales is the only State to have undertaken specific work on the ecological impacts of trade. It identified instances of unseasonable wetting of the floodplain and wetlands when channel capacities have been exceeded as a result of trade. No assessment has been made of the effects of trade on instream flora and fauna.

- The pilot interstate trading project has probably had a positive impact on environmental flows, but the effect is too small to measure.

- The environmental effects of trade at the point of use depend on the adequacy of the standards adopted in irrigation and drainage management plans and the extent to which they are enforced. All States indicated problems in monitoring compliance with such plans.

- The Murray–Darling Basin Agreement enables measures to be put in place to limit transfers based on physical constraints and unacceptable impacts on other water users or the environment.

[1] The application of an exchange rate enables the volume and reliability characteristics of the water entitlement to be converted from those of the seller's State to those of the buyer's State, including accounting for losses incurred in delivering the water. Exchange rates can be used to minimise adverse impacts on other entitlement holders.

The commission held workshops of staff from the States involved in the processing and approval of trades to work through the process for interstate trades. Applications for each permanent trade are provided to the commission for advice (not approval) in relation to exchange rates and delivery capacity. The States also advise the commission of temporary trades. The protocol for these processes is being reviewed. The system to provide access to State-based registry systems (for those interested in trading to obtain information) is also being worked on by the commission and the States as part of this process.

The Murray–Darling Basin Commission is also undertaking work on barriers to interstate water trade, in consultation with governments. Recent work focused on two issues: (1) barriers to trade out of irrigation districts and (2) the impact (on interstate trade) of differential financial arrangements for bulk water between the States.

A consultancy undertaken for the commission found that barriers to water trade (out of irrigation districts) imposed by the boards of irrigation companies were typically erected in response to fears of 'stranded assets' (Hassall and Associates 2002).[2] If water entitlements are sold out of the irrigation district, then fewer users are left to meet the ongoing costs of water supply, including the costs of maintaining supply infrastructure. The study noted other rationales provided for the restrictions, particularly environmental and community impacts and the preservation of water entitlements for future development. The study considered several alternatives to restrictions on trade out of districts and recommended the following.

- The Murray–Darling Basin Commission should undertake (or facilitate) an assessment of the case for reforming water charges in the irrigation districts. This would involve examining alternative pricing strategies to account for stranded assets. The options include: exit fees (that is, charges levied on irrigators selling their entitlement out of the district to recoup the fixed costs of infrastructure); or long-term contracts (under which irrigators would agree to meet the fixed costs even if they sell their entitlement).[3] If pricing reform is found to be desirable, an education and consultation process should be developed to promote acceptance within the irrigation districts.

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2 In New South Wales, there is a prohibition on net trade out of some irrigation districts (see section 2.3). In Victoria, a transfer may be refused if it would result in more than 2 per cent (net) of the total water entitlement being transferred out of selected irrigation districts in any given year (see section 3.3). In South Australia, the Central Irrigation Trust has a 2 per cent cumulative limit on the proportion of entitlements that can be permanently traded out of the trust's districts (see section 6.3).

3 Long-term contracts would be mainly relevant to new or refurbished infrastructure.

- The impact of removing restrictions on trade on the pattern and rate of structural change in the Murray–Darling Basin should be examined. This is necessary to address the community and social concerns that are strongly held in some irrigation districts. Analysis may be required for each irrigation scheme.

- An interim strategy would be to adopt a more liberal but gradualist policy in New South Wales and South Australia, similar to that in Victoria. A specific strategy would be to encourage the irrigation corporations and trusts to adopt an annual 2 per cent limit on permanent trade for a period of five years, with a review after this period.

The study noted that any action to address the restrictions is likely to be protracted because of the need for further analysis, education and consultation. The Murray–Darling Basin Commission is undertaking further work on options to address the stranded assets problem, in consultation with governments and the irrigation corporations and trusts.

Another consultancy found that the expansion of permanent interstate trade is likely to be impeded by differential charging arrangements for bulk water between the States (Scrivco and Hassall and Associates 2003). South Australia does not pass on to irrigators River Murray Water charges for bulk water.[4] While New South Wales and Victoria pass on these costs, different charging arrangements apply: charges are part fixed and part variable in New South Wales and mostly fixed in Victoria. In addition, under the pilot interstate trading project, the financial contributions from the States to meet River Murray Water's costs are not adjusted for permanent interstate transfers. As a result, when water is traded under the pilot project into South Australia, for example, the selling State (the wholesalers and the remaining retail water users) in effect pays the bulk water charge. The study also identified problems that would arise from the extension of permanent interstate trade to tributary systems not operated by River Murray Water.[5] Based on an analysis of various options and permanent interstate trading scenarios, and consultations with the States, the study recommended adoption of a set of principles including the following.

- When permanent interstate trades are approved, the financial responsibility for bulk water charges should transfer to the Government or wholesaler in the buyer's State.

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4 River Murray Water recovers the full cost of constructing, operating, maintaining and renewing assets from the Murray–Darling Basin Commission's member governments. River Murray Water recovers 75 per cent of the cost of asset refurbishment and replacement from the States, with the Commonwealth Government paying the remaining 25 per cent. The States meet the full cost of the operation and maintenance of assets.

5 Under existing financial arrangements, for a permanent interstate trade from Victoria to South Australia, for example, there would be no payment from South Australia to meet the bulk water costs of the supplying wholesaler in Victoria.

- The financial contributions from each State to meet River Murray Water's costs should be adjusted annually to reflect entitlement balances as at 1 July.

- A wholesaler in the seller's State that has wholesale assets on a tributary system should charge River Murray Water the same price for bulk water for permanent interstate transfers that it charges entitlement holders in the seller's State. These bulk water charges should include the cost of wholesale assets on the tributary (and State resource management costs where appropriate). River Murray Water should include these charges in the calculation of the costs that it passes onto the States.

- Permanent interstate trades should not be approved unless the buyer's wholesaler accepts financial responsibility for the bulk water charges.

- The wholesalers within each State should pass on the bulk water charges to entitlement holders (though it would be up to each State to decide whether the charges are passed on).

- The seller should pay for the fixed bulk water charges for temporary trades.

- The seller's wholesaler and the seller should pay for the fixed bulk water charges for permanent trades in the year of trade. In subsequent years, fixed charges should be met by the buyer's wholesaler and the buyer (assuming these costs are passed on).

- The buyer should pay for the variable bulk water charges for permanent trades.

The study indicated that the proposed principles are unlikely to provide a perfect solution in all circumstances and may require further refinement. The consultants considered, however, that the principles would assist in overcoming the impediment to permanent interstate trade posed by the existing arrangements. The study recommended that the principles not be applied retrospectively.

The Council will consider further developments in relation to these issues when it assesses progress with interstate trading arrangements in the 2004 NCP assessment.