



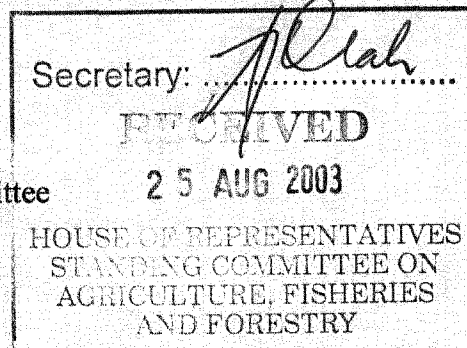
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**THE TREASURY**

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The Treasury  
Langton Crescent  
PARKES ACT 2600

22 August, 2003

Mr Alex Olah  
Secretary  
House of Representatives Standing Committee  
on Agriculture, Fisheries and Forestry  
Parliament House  
CANBERRA ACT 2600



Dear Mr Olah

**Submission to Inquiry into the Provision of Future Water Supplies for Australia's Rural Industries and Communities**

Thank you for your invitation to provide a submission into the future provision of water supplies.

The key issues addressed in our submission include the need for water market reforms, the pivotal role of well functioning water markets, the benefits from continuing the Council of Australian Government water reform processes, the need to tailor water markets and the issue of sharing the costs of reform.

If you require any additional information, the relevant Treasury contact officer is Simon Nash on 6263 4338.

Yours faithfully

Jenny Allen  
Acting Manager  
Environment Policy Unit



House of Representatives Standing Committee  
on Agriculture, Fishery and Forestry

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Inquiry into Future Water Supplies  
for Australia's Rural Industries and Communities

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Submission by the Commonwealth Treasury

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August 2003

## INTRODUCTION

Australia is a dry continent, endowed with scarce water resources and extreme climatic variability. However, since early European settlement, water resources have been treated as though they were abundant, ignoring Australia's unique climate and ecology. Rising water tables, salinisation, and declining river quality are visible costs of this behaviour that reinforce the case for a more sensible distribution of water amongst competing uses.

Awareness of the need for reform grew during the early 1990s and motivated the Council of Australian Governments (COAG) to establish the water reform framework in 1994. The reform commitment was a critically important decision that remains equally relevant today as a vehicle for improving Australia's wellbeing, particularly through boosting economic and environmental sustainability.

Market structures currently being progressed through the COAG water reform framework offer the best approach to distributing scarce water. These reforms recognise that markets should be carefully structured to accommodate all costs associated with water use (rather than only infrastructure, extraction and distribution costs) and the public good nature of some services provided by river systems. Allowing users to buy and sell water establishes a market price, which provides an incentive to end wasteful practices, invest in water saving efficiencies and generally use scarce water as productively as possible.

Significant gains can be expected from continuing this reform process. While agricultural producers are likely to experience significant changes during the reform process, they are expected to receive the lion's share of benefits from reform, and have the most to lose if change is not embraced.

## THE NEED FOR WATER MARKET REFORMS

Water reform will foster an appropriate balance among the needs of communities, industries and the environment. In addition to maintaining good drinking water quality, river health is important to communities for the recreational, aesthetic, spiritual and cultural values that rivers provide. Maintaining river health is important for industry, as algal blooms and saline water threaten the viability of irrigation based industries. Environmental flows are required to underpin all these values, and those of associated ecosystems.

As we are learning, it is unsustainable to price water below the full cost of provision. Proper pricing should take into account the full cost of supply,

including economic, social and environmental costs, allowing the community and industry to achieve an appropriate allocation of water usage and to promote greater conservation. In the past, most pricing practices for irrigation water were characterised by the absence of environmental considerations and inefficient pricing mechanisms. These poor water pricing practices fostered stressed river systems that are now exhibiting increased salinity, algal blooms, declines in native fish species, wetland decline and habitat loss. While stress affects only about a quarter of Australian river systems, these rivers account for almost 70 per cent of water extraction (OECD 2003).

For example, irrigation authorities tended to price water by sharing the infrastructure, extraction and distribution costs of supplying irrigation water equally among all users, regardless of the volume used. Therefore, high volume users paid the same as low volume users even though high volume users may have had a greater environmental impact. Agricultural producers had no incentive to improve on-farm water use efficiency, while over-use caused the quantity and quality of water supplies to decline. This also meant the quantity and quality of water available to the environment has fallen below thresholds required to maintain healthy river ecosystems.

## THE PIVOTAL ROLE OF THE MARKETS

The most appropriate means of balancing the needs of the community, industry and environment is achieved through institutional frameworks that foster well functioning water markets. Well functioning markets are characterised by well-defined property or access rights and ensure the full cost of all inputs are accounted for in the prices of outputs.

This enables entitlement holders to form reasonable expectations about the physical quantity of water that an entitlement will deliver. In addition, well-specified rights allow entitlement holders to be paid for the sale of their entitlements, including any unused portions, to other parties. Greater certainty and the ability to sell unused water should allow businesses far better scope to plan, and should see greater investment in water saving measures.

More profitable enterprises will be able to buy more water, allowing successful businesses to expand. At the same time, irrigators in low value irrigation activities may find it more profitable to sell their water entitlements than continue to engage in relatively unproductive irrigation. This should also facilitate an appropriate amount of water for non-consumptive uses (for example, environmental amenity) since governments will also be able to participate in the market.

Poorly defined access rights may impose indirect costs or benefits on other water users and the environment, leading to a sub-optimal allocation of water resources. For example, if rights are not clearly defined or policed, agricultural producers may consider that investments reliant on water are too risky and consequently undertake investment at sub-optimal levels. In addition, the value of these water rights is diminished.

## BENEFITS FROM CONTINUING COAG WATER REFORMS

The characteristics of a well-functioning market are embodied in the National Water Reform Framework, introduced by COAG in 1994. State and Territory (State) implementation of this framework is well underway and, in general, progress has been satisfactory (NCC 2002). However, there is still a long way to go before the full benefits of the reforms can be realised.

COAG, through the framework, identified the need to link water use to the principles of consumption based pricing, full cost recovery and the removal of cross subsidies. In addition, COAG highlighted the need for clearer specification of user's rights to water, where water rights are separated from land title and entitlements are clearly specified in terms of ownership, volume, reliability, transferability and where appropriate, quality.

The performance of State Governments in implementing these reforms is assessed under the National Competition Policy (NCP) framework. Where reform progress has not met required reform targets, the Commonwealth has imposed penalties on competition payments made to the States. In addition, the National Competition Council (NCC) helps State Governments to focus on important reform targets through a range of supplementary assessments.

Key achievements under the framework include progress on introducing legislation to provide for full cost recovery, market based pricing for water resources, trading systems for water entitlements, and the separation of land and water titles. Irrigators are generally charged for water use on a volumetric basis, and cross subsidies are being eliminated or being made transparent. Water trading arrangements are also being extended and expanded and the volume and value of trade is growing.

However, further work needs to be undertaken under the water reform framework, with jurisdictions introducing the reforms at different rates and in different ways (NCC 2002 p1.4). As noted by the NCC, "variances in implementation reflect differences in jurisdictions' starting points (in their legislative frameworks for water, for example) and in the health of their river systems; the diversity of administrative and legislative environments across States and Territories; and differences in the interests and strengths of the relevant stakeholder groups." (NCC 2002 p1.4).

A significant area of the reforms which still needs further improvement is the ability of water entitlement holders to trade water within and between jurisdictions. The Australian Bureau of Agricultural and Resource Economics (ABARE) has estimated that more widespread use of water trading in the Murray-Darling Basin could generate annual net benefits to irrigators of around \$50 million for the region as a whole (Topp and McClintock, 1998).

Appropriate transferability of water access rights is vital to achieve the COAG vision that water move to higher value uses, and that the contribution of water to national income and welfare be maximised. All governments are continuing to develop permanent and temporary arrangements for trading water. However, there are currently restrictions on the amount of water that can be traded out of irrigation districts. The most significant of these are in New South Wales where irrigation corporations prohibit permanent trading out of their areas (NCC 2003).

Water would be used more efficiently in the absence of these barriers to trade, as those who are willing to pay significantly higher amounts for water would be able to do so. In addition, water trade has the potential to significantly reduce the cost to agricultural producers in situations where governments require additional environmental flows (ABARE 2002).

Looking ahead, intrastate trade will be a focus for the NCC's 2003 assessment and interstate trade for the 2004 assessment. In particular, the NCC will consider whether trading restrictions are having a significant impact – particularly where these restrictions are permanent rather than transitional measures.

## TAILORING WATER MARKETS

The water reform framework is a necessary but not sufficient condition for rehabilitating Australia's river systems. While water reforms are likely to move Australia towards appropriate pricing of surface water, additional mechanisms may be required to account for the full range of externalities associated with land and water use. For example, water quality could still decline under the current water reform framework in the absence of measures that encourage agricultural producers to manage their fertiliser run-off. In addition, restrictions on surface water appear to have encouraged agricultural producers to substitute into groundwater, which is a largely unregulated but similarly scarce and fragile resource.

Environmental benefits from trading may arise when downstream users purchase water entitlements from upstream users (such as from the upper to lower Murray), thereby improving stream flows and potentially lowering salt concentrations for all users in-between. However, trade from upstream to a

*salt-laden* downstream user may result in additional salt flushing into the river system, imposing costs on users further downstream.

Ecosystems are complex and our understanding of them changes over time. Water market outcomes will need to be monitored and evaluated over time, with adjustments made as circumstances dictate. It is important that water reforms be progressed within a holistic natural resource management framework that would address the range of economic and environmental issues that interact with water use. This will allow water prices to incorporate the full costs of supply and use.

## SHARING THE COSTS OF REFORM

Water reforms will result in a structural change in Australia through a reduction in total water allocation and a distribution of water to higher value users. Generally, the costs of water market reforms will be borne by producers, consumers, and/or taxpayers. There is no definitive equitable distribution of costs since it is ultimately a value judgement that should be decided through the political process (Treasury 2001).

Improvements to the water market framework may result in 'winners' and 'losers', and have led to calls for structural adjustment assistance. In examining structural adjustment assistance, it is important to recognise that agricultural production is a business. Businesses incorporate the costs of production (for example, input costs, transaction costs, and the costs of complying with government regulations) in the price of their goods and services. Therefore, when consumers or on-sellers purchase products, agricultural or otherwise, they are also purchasing the *processes* of transforming inputs used in the production process, which in some cases includes business' costs of complying with environmental regulations.

It is appropriate that consumers pay to cover these production costs, in addition to economic profit, because it is the demand generated by consumers which drives the level of production. If the costs of inputs rise, whether those inputs are fertilisers, seeds or water, then these costs, where possible, should be passed to the final consumer. In other words, the consumer should pay because they are the final beneficiary of the product and the embedded costs of producing that product.

However, many of the goods produced by Australian farmers are sold in highly competitive world markets, with many close substitutes. Australian farmers in most circumstances are price-takers for agricultural products on world markets, and as such cannot directly influence the prices they receive. In this instance, it is unlikely that farmers would be able to pass on increased costs.

The possibility that some farmers may not be able to pass on costs should not automatically be seen as a reason to avoid implementing policies that appropriately balance community, industry and environmental interests. Exporters provide goods to other countries in exchange for payment. Where exporters do not have appropriate regard for the environment in producing their goods, Australia is effectively subsidising consumption by foreigners by providing them with goods below what it costs Australia to produce them, through excessive depreciation of our natural capital.

## STRUCTURAL ADJUSTMENT ASSISTANCE

Where the costs of complying with the new water framework are imposed on producers who cannot pass costs fully forward to consumers, some producers may face reduced profits that are likely to be reflected in reduced asset prices.

Other producers may benefit from increased scope to improve profits and improve asset prices, particularly in high value sectors. For example, a decade of water trading has transformed Swan Hill from declining growth, high-unemployment, to a high-value labour-intensive horticultural area with positive growth prospects (Hodge 2001). In addition, while some users may have less water, the value of the water they have may have increased, at least in part due to a greater scope for trade.

In general this issue is difficult to judge, as we are moving to a new water paradigm. Temporary adjustment assistance, that is carefully targeted to those in need, may be appropriate in some instances, resulting in the taxpayer bearing some of the costs of adjustment.

When determining the case for structural assistance, the relative costs and benefits of reforms to stakeholders need to be considered. For instance, the quantum of structural adjustment assistance required should be calculated with reference to the expected change in the value of agricultural producers' *net assets*. The reform of the fisheries industry exemplifies structural change without financial assistance being required, due to the substantial reform benefits that accrued to the holders of fishing licences.

The *net effect* of water reforms on agricultural incomes and asset values is uncertain. Prior to the introduction of water reforms, many agricultural producers had minimal certainty in relation to the quantity and quality of actual water received. Water reforms will deliver benefits to these agricultural producers; giving them increased certainty by ensuring water rights will be clearly defined with entitlements specified in terms of ownership, volume and reliability. This increased certainty may also benefit license holders by increasing the value of these rights. As mentioned above, there is evidence



that the value of water rights is increasing, notwithstanding that new rights may entail lower water volumes.

It is important that structural assistance be, as far as possible, fair and consistent across *all* Government reforms. Policies at all levels of government can affect (both positively and negatively) the profitability of businesses and the value of assets. For instance, industrial pollution regulations, tariff reform, health and safety regulations, changes to labour market regulations, and national wage cases have all affected the profitability of certain businesses, and consequently asset values. While in such cases governments may provide structural adjustment assistance, they generally do not provide compensation or seek reimbursement for changes in asset values resulting from policy reforms.

While water reform represents a huge change and challenge for many parts of rural Australia, these communities have more to lose if change is not embraced. Downstream users may face a shortage of quality water for irrigation and household consumption. And in the Namoi Valley, for example, if groundwater extractions were not reduced then this would eventually lead to the aquifer being totally drained, leaving no groundwater for rural industries in the future.

The appropriateness of adjustment assistance is complicated by equity concerns since it may be argued that rural water users have been benefiting from significantly discounted water prices for many years. As a result, communities and industries are bearing the costs of water degradation. From this perspective, increases in the price of water stemming from reforms could be perceived as a reduction in subsidisation of rural water users, rather than the imposition of new costs.

Policies that provide businesses and employees with the knowledge and capacity to take up new opportunities can ease the adjustment process and help build community support for change. Where family income support is required, it is generally appropriate that the existing welfare system be used to protect those most in need.

Compensation or assistance issues that may arise from water reform are, constitutionally, State responsibilities. While the Federal Government has no legal responsibility to provide compensation for water reforms, the Commonwealth has agreed to make competition payments to States for adequate progress with implementing agreed reforms. The States are free to use these funds as they see fit, however the Commonwealth has indicated to State Governments its desire that they should share with local government, industry and community groups the benefits of competition policy reform through the competition payments they receive. The Commonwealth also

noted that these payments give States the capacity to directly address the impact of competition policy reform on specific industries, regions or parts of the community. In 2002-03, the States will receive almost of \$740 million in competition payments.

## HYPOTHECATION

As requested by the Secretary to this Committee, we address, in broad terms, the issue of funding environmental measures that complement water reform.

Water reform is strongly related to other environmental problems such as land degradation and biodiversity loss. Measures to address these problems can be funded by user changes or from general tax revenues.

In general terms, hypothecating general revenue involves earmarking revenue from an existing or new tax base (such as the income tax base) to fund a particular program (such as a fund for environmental purposes).

In general, hypothecating general revenue may undermine the role of government and of the Parliament as it reduces ongoing scrutiny of expenditure, including assessments of relative priorities. Good governance practices suggest there should be a rigorous and accountable case for the expenditure and its expected outcomes and that these should be regularly assessed against competing budgetary priorities.

In addition, as there is unlikely to be any relationship between the tax base chosen and the on-going funding needs of the measure, hypothecation does not ensure an appropriate on-going level of funding for a measure.

## CONCLUSION

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It is crucial that water market reforms continue so that the benefits from trade and environmental flows can be realised. However, the full costs of water supply and use will only be incorporated into water prices once all externalities impacting on water quality and quantity are considered. Therefore, it is important that the water reform process be progressed within a comprehensive natural resource management framework.

The costs of water reform will be borne in some form by producers, consumers and/or taxpayers. The choice of who bears the adjustment costs of water reform is ultimately one for governments. In the longer run, the costs should be borne by consumers, in the same way as any other cost of production.

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