



Observations on the National Competition Policy water reform program

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Australia is a significant consumer of water. Australians use about 24 000 gigalitres of water each year, of which about 80 per cent is surface water and 20 per cent groundwater. The typical Australian household uses more than 270 litres of water per day, about half of which is used for gardens and about a quarter for flushing the toilet (ABS 2002). This compares with the 400-500 litres used daily by households in the United States. Asian, African and Latin American households each use between 50-100 litres per day (ABS 2002).

Agriculture (livestock, pasture, grains and other agriculture) accounts for about 70 per cent of total use, with industry and urban communities the next biggest users (ABS 2002). Australian net water demand increased by 19 per cent between 1994 and 1997 (Lenzen 2002), increasing the importance of access to reliable high-quality water supplies. Australia's arid, semi-arid and drought prone climate increases the importance of reliable access to a secure water supply. In 2000, 11 per cent of Australia's surface water management areas were overdeveloped, with another 15 per cent approaching sustainable extraction limits. Some 11 per cent of groundwater management units were overdeveloped, with 19 per cent approaching sustainable extraction limits (ABS 2000).

Australia's governments have recognised the need to improve the management of water use, agreeing in 1994 to a strategic reform framework aimed at achieving an economically viable and ecologically sustainable water industry. They incorporated the 1994 reform framework into the National Competition Policy (NCP) in 1995. When establishing the 1994 reform framework, governments identified a number of problems with how Australia managed water use, which the 1994 reform framework was intended to address. These problems included:

- approaches to pricing such that commercial and industrial users of water services, in particular, were paying more than the costs of service provision (while irrigators and domestic users were not paying enough);
- past investment decisions that were proving to be suboptimal both from an economic and an environmental perspective;
- major asset refurbishment needs in rural areas for which, in general, adequate financial provision had not been made;

- limits on opportunities to trade water entitlements to enable water to be employed in higher value uses;
- service delivery inefficiencies;
- a lack of a clear definition of the roles and responsibilities of institutions in the industry; and
- issues involving water use and the wider natural resource base, including widespread natural resource degradation that was having an impact on the quality and/or quantity of the nation's water resources.

In 1994, governments envisaged that the program would be completed within five to seven years. Subsequently, however, the timeframe for implementing obligations on water allocation (including to the environment) and water trading was extended to 2005. The extension recognised constraints on reform implementation, including: the complexity of some of the reforms; the need for extensive public consultation and education before implementing changes; the significance (including financial significance) of some of the demands on governments, institutions and other stakeholders; and the low base from which many of the reforms were proceeding.

The National Competition Council was established in 1995 to assist the State and Territories implement the NCP agreements and to assess governments' progress in implementation. There have been four water assessments to date, with further assessments in 2004 and 2005. In the progress assessments, the Council considers whether governments have made sufficient progress against the agreed reform benchmarks. State and Territory governments' receipt of competition payments from the Australian Government is tied to their progress with implementing the reform framework.

The Council's 2003 assessment report is currently with the Australian Treasurer. The report and recommendations are confidential until the Treasurer decides on the allocation of 2003-04 competition payments. The assessment in 2004 will consider progress towards full cost recovery in rural water pricing, water trading arrangements and progress with implementing water rights arrangements and setting allocations, including for the environment. The assessment in 2005 will be a full review of governments' implementation of the agreed reform program.

I will outline today the content of the 1994 reform program and the progress made by governments in implementing the program, focusing on key areas that are contributing towards a more sustainable Australian water industry. I will then note the work that governments are embarking upon following the recent meeting of the Council of Australian Governments (CoAG).

Summary of the 1994 CoAG water reform framework

CoAG's 1994 water reform framework takes an integrated approach to water resource policy that addresses together the environmental, economic and social issues associated with water use. The program comprises environmental, economic and social measures, which together aim to achieve a more efficient, flexible and sustainable water industry capable of delivering higher quality and greater security of supply.

The 1994 water reform framework obliged State and Territory governments to:

- set prices based on full cost recovery and consumption-based pricing principles to ensure adequate provision for infrastructure investment and encourage efficient water use;
- eliminate inefficient cross-subsidies and make any remaining cross-subsidies transparent;
- require all proposals for investment in new rural water infrastructure to undergo rigorous appraisal to demonstrate that each project is both economically viable and ecologically sustainable;
- clarify users' water entitlements ('rights') and separate them from land title;
- allocate appropriate amounts of water to the environment, so that the environment is formally recognised as a legitimate user of water, with the amount allocated based wherever possible on the best scientific information available;
- introduce arrangements for water trading — the buying and selling of water entitlements or allocations — to allow water to be used where it is most highly valued;

- undertake institutional change to ensure there is no conflict of interest between service providers and the bodies responsible for management, standard setting and regulatory enforcement, and to improve accountability;
- integrate natural resource management arrangements, including catchment management, so that the interrelationships between soil, water, and vegetation are better understood and the impact of a land use decision in one area on the whole catchment is recognised;
- introduce the National Water Quality Management Strategy, which involves each jurisdiction implementing an overarching jurisdictional water quality management plan and specific policies for particular water sources and uses; and
- undertake public education and consultation to enhance public understanding of the reform program and the need for change, and provide opportunities for stakeholder involvement in decisions on water use issues.

The program shares the economic efficiency objectives of the broad NCP program, through for example: provisions on water pricing and the removal of cross-subsidies to better relate pricing to use; the requirement that investment in new rural water schemes be economically viable; the requirement to ensure clearly specified, secure water rights; the support for water trading so water is used where it is most valued; and the obligations on institutional reform to remove potential conflicts of interest between regulation and service provision.

The framework also has explicit environmental objectives and obligations. It requires that governments: explicitly recognise the environment as a legitimate water user and allocate water for environmental purposes; show that investments in new rural water infrastructure are ecologically sustainable; ensure that trading arrangements (particularly cross-border trading) have appropriate ecological safeguards; and implement integrated resource management arrangements and policies to improve water quality.

Several of the 'economic efficiency' reforms reinforce the focus on sustainability. Governments recognise that increasing rates of both surface and groundwater extraction

lead to deterioration of the health of water bodies. Relating price directly to water use provides an incentive for water conservation. The structural separation requirements ensure that the businesses providing water and wastewater services do not also have responsibility for regulation, including environmental regulation. The requirement that governments undertake public education and consultation programs on water reform helps the implementation of reform by improving people's understanding of the need for change.

Progress to date

The Council's assessments of water reform progress have found substantial progress by governments although there is still considerable work to do. The reforms, when fully implemented, are likely to contribute significantly to achieving sustainability. Aspects that are likely to be particularly important are water pricing, water management planning, water trading and source quality management.

Water pricing

The urban pricing reforms are substantially complete. Most urban service providers are now implementing consumption-based pricing via two-part tariffs which incorporate a use-based component (so encouraging water conservation and re-use) and achieving full cost recovery (thereby operating on a commercial basis and ensuring that sufficient income to enable appropriate levels of re-investment and maintenance of infrastructure is earned).

Urban price reform and individual household metering have assisted in water conservation as evidenced by a 9 per cent drop in water use across urban Australia between 1995 and 2000 (ABS 2000). Similarly per person water use in the last decade has fallen in Sydney by 7 per cent, in Melbourne by 12 per cent and in Newcastle by 14 per cent (WSAA 2001).

In the case of rural water, the concern is that prices are too low. Where possible, irrigators are being charged for their water use on a volumetric basis. Cross-subsidies between

users are being eliminated and those remaining are being made transparent. The situation is complicated by government subsidies supporting rural water schemes. Implementing the full cost recovery obligation will involve removal of government subsidies (or making them transparent where full cost recovery is unlikely to be achieved quickly), transparency of any cross-subsidies, and the efficient management and operation of schemes. The Council will consider governments' progress towards rural pricing reform in the 2004 NCP assessment.

The pricing obligations also require governments to ensure that new investment in rural water infrastructure is warranted. Governments need to show that new infrastructure developments and augmentations of existing infrastructure are economically viable and ecologically sustainable before investing in the project. The Council looks at relevant infrastructure projects in each assessment to ensure that governments have shown that projects meet economic and ecological tests. In the 2003 NCP assessment, for example, there were relevant new infrastructure proposals (including two proposals for new dams) in Queensland, South Australia and Tasmania.

Water management planning

All governments are developing water management planning arrangements aimed at allocating water between extractive and environmental purposes. Underpinning these arrangements is the requirement that governments introduce a comprehensive system of water entitlements that separates water property rights from land title and provides a clear specification of entitlements in terms of ownership, volume, reliability, transferability and, if appropriate, quality.

The legislative base for water rights is now settled in almost all jurisdictions, with governments passing legislation that separates water rights from land title, with ownership, volume, reliability and tradeability specified. Separating the water right from land title is important in facilitating water trading. Until relatively recently, the only way a water trade could occur was by selling land with a linked water entitlement. In 2003,

New South Wales was the only jurisdiction to have significant outstanding legislative and administrative issues relating to the development of its water rights system against the requirements of the 1994 water reform agreement. Governments through CoAG have recently recognised community concerns that more needs to be done concerning the security of entitlements and the consideration of compensation when the entitlements of existing users are reduced.

In formalising entitlements to water, governments must recognise the environment as a legitimate user of water. Governments must provide a better balance in water resource use including appropriate allocations to the environment determined, wherever possible, on the best scientific information available to enhance/restore the health of river systems and groundwater basins. Priority is given to stressed and overallocated river systems, with the water management planning process having to be substantially completed by 2005.

The process of allocating water for environmental purposes needs to acknowledge the existing rights of water users. The guiding principle is that governments should go as far as possible towards sustaining ecological values while recognising the existing rights of water users. This may require difficult decisions about the extent to which attainment of environmental objectives should be deferred for socioeconomic reasons. The Council's view is that such decisions must be taken on the basis of robust analysis, and that advice on the consequences of various options, including the environmental consequences, needs to be provided to affected communities. Decision-making groups should represent all interests – not just those of water users. In this regard, there is a need for continuing work to improve the level of knowledge about the needs of the environment and the dissemination of that knowledge within the community. Victoria's technical audit panel approach, which considers whether the information and method used to develop environmental flows are the best available at the time, and whether the assessment of risks is properly done (with results made public) appears to be a potentially useful model.

Water trading

Water trading within jurisdictions along individual river valleys is well established although, interstate trading of water is still relatively limited. Permanent interstate water trading is being introduced progressively via the Murray–Darling Basin Commission’s pilot interstate trading project. Trading will, however, remain relatively limited until governments finalise their water management planning arrangements. Water management plans are necessary to establish the amount of water available for extractive uses and to set regional trading rules. In addition, there are remaining constraints on trade out of irrigation districts in New South Wales and South Australia, potentially significant constraints in Western Australia, and lesser constraints in Victoria.

Increased water trading will have significant benefits for Australia, by enabling water to be used where it is most valued and by providing incentives for improvements in the efficiency of water use. Early minimal water trading in New South Wales (1997-98), increased the value of irrigated agriculture by \$65 million. In Victoria, the net present value of annual water trading is estimated to be over \$100 million. With diversions from the Murray Darling Basin capped since 1995 (to help prevent further degradation of the basin’s waterways), there needs to be greater efficiency in the use of the basin’s water. Because irrigators can benefit financially by selling water they no longer need, they have an incentive to improve the efficiency of their water use and sell their water savings into the market. There will also be environmental benefits from trading, where for example water moves from degraded areas to areas that are more suited to irrigation.

Source quality management

Integrated catchment management and the National Water Quality Management Strategy, two key elements of the reform program, specifically aim at preserving and improving water quality at the source.

Integrated catchment management recognises the inter-relationships between the land, land use and water sources, and aims to maintain the quality of rivers from flow, habitat and water quality stress. Managing these inter-relationships is key factor in developing

sustainability. Degradation of catchment areas threatens drinking water supplies, tourism, agriculture and aquaculture industries, and social, aesthetic and cultural values. Integrated catchment management arrangements were scheduled to be substantially in place in all jurisdictions by 2003.

Governments established the National Water Quality Management Strategy in response to community concerns about the quality of many of the nation's water supplies. The main objective of the strategy is 'to achieve sustainable use of the nation's water resources by protecting and enhancing their quality while maintaining economic and social development.' The NWQMS requires governments to implement nationally consistent drinking water standards, impose rigorous monitoring and testing regimes, and establish point source and diffuse waste water policies in urban and rural settings. Standards, monitoring and testing develop clear benchmarks which set trigger points for action and allow deviations to be clearly measured. Effective waste management helps prevent contamination in the first instance. The NWQMS program was scheduled to be largely completed by 2003.

The role of the National Competition Council

The National Competition Council was established in 1995 to assist governments implement the National Competition Policy. The Council is independent of the executive arm of any government; however its work program is set by agreement of a majority of Australian governments.

The broader 1995 National Competition Policy agreements require governments to:

- reform government businesses by undertaking structural reform, introducing competitive neutrality so government businesses do not enjoy unfair advantages when competing with private business, and considering the use of price oversight for public monopolies.
- review and, where appropriate, reform all legislation that restricts competition, ensure that any new restrictions provide a net community benefit and are necessary to

achieve the objective of the legislation, and adopt good regulatory practice in setting national standards;

- reform arrangements governing the electricity, gas, water and road transport industries; and
- establish access arrangements to major monopoly infrastructure such as electricity grids, pipelines and railway lines.

The Council has a role in assisting governments implement these reforms, assessing their progress with reform and providing advice to the Australian Government Treasurer, including whether the States and Territories have met their NCP obligations and whether they should receive NCP payments. These payments are dividends for implementing reform and provide a means of distributing the gains from reform. The payments recognise that while States and Territories are responsible for implementing significant components of the NCP, much of the financial dividend from economic growth accrues to the Australian Government through the taxation system.

Within the water industry, the Council assists governments to implement the agreed water reforms and assesses their progress against the various reform obligations.

A new CoAG agreement on water reform

At its meeting on 29 August 2003, CoAG agreed that there is a ‘pressing need to refresh the 1994 water reform agenda to increase the productivity and efficiency of water use, sustain rural and urban communities, and to ensure the health of river and groundwater systems’ (CoAG 2003).

CoAG considered, in particular, that there is a need to reduce uncertainty about long term access to water in some areas of Australia, improve current arrangements to ensure fully functioning water markets (to better target investment and ensure water is put to higher value and more efficient uses), and to address concerns about the pace of achieving adequate environmental flows and adaptive ecosystem management arrangements.

CoAG agreed to develop a National Water Initiative, involving specific implementation actions for jurisdictions, to:

- improve the security of water access entitlements, including by clear assignment of risks of reductions in future water availability and by returning overallocated systems to sustainable allocation levels;
- ensure ecosystem health by implementing environmental asset protection regimes at a whole-of-basin, aquifer and catchment scale;
- ensure water is put to good use by encouraging the expansion of water markets and trading across and between districts and States (where water systems are physically shared), involving clear rules for trading, robust water accounting arrangements and pricing based on full cost recovery principles; and
- encourage water conservation in cities, including better use of stormwater and recycled water.

Member jurisdictions of the Murray–Darling Basin agreed to provide new funding of \$500 million over five years to address water over allocation in the basin.

CoAG will set out the detail of the National Water Initiative in a new intergovernmental agreement on water, to be considered at its first meeting in 2004. CoAG's intention is that the new agreement will indicate specific actions to be undertaken by each jurisdiction to implement the National Water Initiative.

While the scope of the National Water Initiative reflects the 1994 water reform agreement (CoAG reconfirmed its commitment to the 1995 National Competition Policy agreement which incorporates the 1994 water reform agreement), there are some key differences.

First, unless fixed-term water access is required for particular purposes, access entitlements are to be defined as an open-ended or perpetual share of the water resource that is available for consumption.

Second, there should be national compatibility or consistency among jurisdictions in several key areas including arrangements governing water access entitlements, water trading and the management of environmental water.

Third, the earmarking of \$500 million to address overallocation in the Murray–Darling Basin will allow holders of water entitlements to be financially compensated for any clawback of entitlements for environmental purposes or for initiatives to improve water use efficiency.

Fourth, the urban water reform component explicitly recognises the need for improvements in the efficiency of urban water use via promoting water re-use and recycling and the adoption of more efficient technologies. Currently less than 5 per cent of all ‘waste water’ is being reused (ABS 2002) and up to 30-45 per cent of water is ‘lost’ in the distribution systems to urban users (ABS 2000).

Agreements that work

CoAG’s recommittal to the 1994 reform program and its agreement to develop a National Water Initiative that incorporates specific actions in each jurisdiction is an important step. The existing NCP program has succeeded because it has been flexible enough for governments to vary their approaches to suit the specific climatic, degradation and demand conditions within their jurisdiction, yet robust enough to avoid unnecessary modification that would undermine the reforms.

In developing an enhanced water reform agenda, there are three aspects that warrant consideration:

- first, a national approach that is sufficiently consistent, yet flexible enough to cope with the individual characteristics of industries and State and Territory arrangements, can be beneficial. There may be a need, however, for greater uniformity in some areas. For example while current water trading arrangements facilitate trading (particularly as exchange rates are developed), in the longer

term, improving the efficiency of trade and reducing costs may require more uniformity;

- agreements that set clearly specify reform obligations, include benchmarks and milestones with interim target dates (so that departures from the agreed course of action can be readily identified and managed), are likely to be more effective in achieving outcomes than statements of broad principle. A transparent assessment process that aims to facilitate reform, and competition payments that provide a dividend to governments for undertaking reform also contributes to developing a set of incentives to maintain reform momentum; and
- establishing a process for monitoring and managing structural change and adjustment within communities and industries is important. While reform can bring overall benefits, change can often involve transitional costs that need to be managed. Explicit recognition of the need to manage change management and the development of principles to guide access to assistance is beneficial.

Some concluding thoughts

There is considerable evidence that the pattern of water use that has developed in Australia is neither commercially nor environmentally sustainable. There is also considerable scope for improved efficiency in water use.

The 1994 water reform framework, which governments incorporated into the NCP in 1995, set up an important opportunity to achieve nationally coordinated improvements by all jurisdictions in the way Australia uses its water resources. The program is probably the most complex and challenging of the NCP commitments. If it is fully implemented, however, it will probably also be the most rewarding, in terms of improved economic and environmental sustainable outcomes.

The Council's assessments show that governments have, in general, made good progress towards implementing the agreed water reform obligations. Only eight years ago there was almost nothing in place to assure the creation of a sustainable and viable water

system. Today, the urban reform program agreed in 1994 is practically complete and elements of the rural reform program are well underway. There is substantial work remaining, however, particularly to implement systems of water entitlements and environmental provisions, and to establish effective water trading arrangements.

Governments and other stakeholders are well placed to implement water reform. Community awareness of the benefits of change (and the costs of inaction) is greater than ever before. This awareness has been reinforced by the experiences of the drought and is providing an environment that is generally supportive of reform. This is not to downplay the extent of work remaining or the significance of the challenges involved.

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