

# 2 New South Wales

## 2.1 Best practice pricing

Water and wastewater businesses should earn sufficient revenue to ensure their ongoing commercial viability while avoiding monopoly returns. To this end, governments agreed the following principles should apply:

- The jurisdictional independent pricing body should set or review prices or pricing processes for water storage and delivery and report publicly.
- To be viable, a water business should recover at least the operational, maintenance and administrative costs, externalities (defined as the natural resource management costs attributable and incurred by the water business), taxes or tax equivalents (not including income tax), the interest cost on debt, dividends (if any) and provision for future asset refurbishment/replacement. If a dividend is paid, it should be set at a level that reflects commercial realities and simulates a competitive market outcome. This is defined to be the lower bound of cost recovery.
- To avoid monopoly rents, a water business should not recover more than the operational, maintenance and administrative costs, externalities (all external costs and benefits), taxes or tax equivalent regimes, and provision for the cost of asset consumption and the cost of capital, the latter being calculated using a weighted average cost of capital. This is defined to be the upper bound of cost recovery.
- In determining prices, the independent pricing body should determine the level of revenue for a water business based on efficient resource pricing and business costs. Specific circumstances may justify transition arrangements to that level. Cross-subsidies that are not consistent with efficient and effective service, use and provision should ideally be removed.
- Where service deliverers are required to provide water services to customer classes at less than full cost, the cost of this should be fully disclosed and ideally paid to the service deliverer as a community service obligation (CSO).
- Asset values should be based on a deprival value method unless an alternative approach can be justified, and an annuity approach should be used to determine medium to long term cash requirements for asset replacement/refurbishment.
- Transparency is required in the treatment of CSOs, contributed assets, the opening value of assets, externalities (including resource management costs), tax equivalent regimes and any remaining cross-subsidies.

**Future reform:** Metropolitan water systems should continue movement toward the upper bound of cost recovery by 2008. Rural and regional water systems should achieve the lower bound of cost recovery, and continue to move towards the upper bound where practicable. Where upper bound pricing is unlikely and a CSO is necessary, it should be publicly reported and the government should consider alternative management arrangements. Jurisdictions' approaches to pricing and attributing the costs of water planning and management should be consistent by 2006. Water prices should be set on a consumption basis, comprising a fixed component and a variable use component, where this is cost effective.

**References:** 1994 Council of Australian Governments (CoAG) water reform agreement, clauses 3(a)–(d); guidelines for the application of section 3 of the CoAG strategic framework and related recommendations in section 12 of the expert group report (1998 CoAG pricing principles); Intergovernmental Agreement on a National Water Initiative

## Cost recovery and consumption based pricing by rural water service providers

**Assessment issue:** New South Wales is to demonstrate that government-owned irrigation schemes and government-owned suppliers of bulk water are setting prices based on the principles of full cost recovery and consumption based pricing. Government-owned water businesses must also show that they are managing any subsidies consistent with efficient and effective service provision and use. For the government-owned bulk water service provider, State Water, prices are regulated by the Independent Pricing and Regulatory Tribunal (IPART) via a three-year price path (to 30 June 2004). The price path aimed to move bulk water supply prices towards the lower bound of cost recovery. (Some State Water bulk water services will not achieve full cost recovery by 2004 under the price path.) Previous National Competition Policy (NCP) assessments found that the New South Wales Government did not transparently report its CSO payments to State Water. IPART also identified variations in the balance between entitlement and use charges in regulated systems, and considered that these variations may not reflect the different costs involved. It encouraged the government to investigate the composition of the tariffs (IPART 2001, p. 73). For the 2004 NCP assessment, the National Competition Council looked for New South Wales to:

- provide information on the implementation of the IPART price paths, indicating the services for which full cost recovery is likely to be achieved by 30 June 2004 and those for which it is not. For bulk water supply services that will not achieve full cost recovery by 30 June 2004, the Council looked for New South Wales to show that State Water is continuing to move towards the lower bound of cost recovery and indicate when this is likely to be achieved. The Council also looked for New South Wales to determine arrangements for price setting for State Water's bulk water services after 30 June 2004, when the price path concluded.
- demonstrate substantial application of consumption based pricing, report on the outcomes of investigations conducted in response to the IPART comments, and outline the basis for State Water's bulk water supply prices for the various customer categories across regulated, unregulated and groundwater systems
- demonstrate that rural sector CSO payments are transparently reported.

**Future reform:** Governments should apply consumption based pricing, achieve lower bound pricing for all rural systems and continue towards upper bound pricing. Any subsidies must be transparent, and alternative management arrangements aimed at removing the need for a continuing subsidy should be introduced where practicable.

**References:** 1994 CoAG water reform agreement, clauses 3(a) and (d); 1998 CoAG pricing principles; Intergovernmental Agreement on a National Water Initiative 2004

## Cost recovery

State Water is a commercial business unit of the Department of Energy, Utilities and Sustainability, incorporating into a single business all the state's bulk water delivery functions outside the areas of operation of the Sydney Catchment Authority, Sydney Water Corporation, Hunter Water Corporation and a small number of other water supply authorities. It is responsible for the operation and maintenance of 18 major dams and storages and 264 weirs across New South Wales. About 6200 licensed bulk water users are supplied from rivers regulated by State Water dams and weirs. State Water has a further 15 000 groundwater and unregulated river customers (Department of Energy, Utilities and Sustainability 2004).

In December 2001, IPART announced caps on annual price rises for bulk water supplied by State Water, to apply from 1 October 2001 until 30 June 2004. The tribunal capped annual price increases at 15 per cent plus the consumer price index for bulk water from regulated rivers, and 20 per cent plus the consumer price index for water from unregulated rivers and groundwater. The tribunal's objectives in setting the price path included moving towards cost recovery and disclosing State Water's costs. In setting the price path, IPART accounted for the (efficient) costs of operations, maintenance and administration, water resource management activities, capital costs and taxes. Dividends are paid only out of profits.

New South Wales advised that it implemented the IPART three-year price paths in full (NSW 2004). It noted that the estimated share of recovered (lower bound) costs increased from 61 per cent in 2000-01 to 74 per cent in 2003-04 (table 2.1).

**Table 2.1:** Cost recovery for water services, by New South Wales region/river valley

<i>Region/river valley</i>	<i>2000-01</i>	<i>2003-04</i>
	%	%
Barwon (Border, Gwydir, Namoi, Peel)	66	82
Central West (Lachlan, Macquarie)	81	89
Far West	20	33
Murray	77	96
Murrumbidgee	78	88
North Coast	12	20
Hunter	30	45
South Coast	12	19
<b>Total New South Wales</b>	<b>61</b>	<b>74</b>

*Source:* IPART 2001

Cost recovery outcomes differed for the various types of water source and the different regions. The regulated river systems, which account for 86 per cent of revenue from bulk water sales, recovered 94 per cent of (lower bound) costs in 2003-04, while unregulated river and groundwater systems each recovered just over 30 per cent of lower bound costs (table 2.2).

New South Wales confirmed that it is committed to full cost recovery in rural bulk water prices. It noted, however, that it will be difficult to achieve cost recovery in the coastal regulated river valleys without significantly increasing prices for the relatively few extractors in the valleys. The level of cost recovery is currently well short of the lower bound benchmark. New South Wales indicated that it may continue to subsidise water users' shares of attributable costs for these regulated systems.

New South Wales has deferred IPART's next determination of State Water prices by 12 months, meaning the new price paths will apply from 2005-06. For the interim year, 2004-05, State Water will increase its prices by the

amount of the consumer price index. New South Wales considered it necessary to delay determination of the next price path because it is introducing new institutional arrangements for rural water services. State Water was corporatised on 1 July 2004, and the State Government was then deciding the functions of State Water and the new Department of Infrastructure, Planning and Natural Resources (DIPNR). IPART will regulate both State Water's delivery costs and DIPNR's water resource management costs.

**Table 2.2:** Estimated share of allocated costs recovered from tariffs in 2003-04, by New South Wales region/river valley

<i>Region/river valley</i>	<i>Regulated water</i>	<i>Unregulated water</i>	<i>Groundwater</i>
	%	%	%
Border	100	42	
Gwydir	100	89	Barwon region
Namoi	100	43	37
Peel	55	Included in Namoi	–
Lachlan	100	28	Central West
Macquarie	107	71	35
Far West	No regulated rivers	33	34
Murray	100	33	56
Murrumbidgee	100	71	28
North Coast	11	21	22
Hunter	53	31	21
South Coast	35	20	8
<b>Total</b>	<b>94</b>	<b>31</b>	<b>32</b>

*Source:* IPART 2001

New South Wales advised that State Water will submit a water delivery pricing proposal to IPART by the end of October 2004. This will include a three to four year price path, commencing 1 July 2005, with real annual price increases. State Water will seek to have IPART raise the maximum allowable price increase for regulated rivers to achieve cost recovery for water delivery services by the end of the determination. Water delivery charges account for over 70 per cent of total bulk water revenue.

New South Wales also advised that DIPNR will submit a natural resource management pricing proposal that considers the allocation of the Murray–Darling Basin Commission's (MDBC) natural resource management costs to the Murray–Darling Basin valleys in New South Wales. Costs are to be allocated on an 'impactor pays' basis (see the later section on River Murray Water cost allocation). New South Wales advised that the DIPNR submission will be provided to IPART by the end of October 2004.

## Community service obligations and subsidies

IPART (2001) estimated that rural sector CSOs — the shortfall between State Water’s customer revenue and its expenditure — in 2003-04 would total almost \$16 million (measured in 2001-02 prices). Table 2.3 shows the estimated shortfall for 2003-04 in New South Wales regions/river valleys, by water source, as reported in IPART’s 2001 price determination.

New South Wales advised that future State Water CSOs (including shortfall amounts) will be clearly defined, costed and transparently reported in State Water’s annual reports. The State Government will provide additional funding to State Water to meet external requirements such as dam safety.

**Table 2.3:** CSOs<sup>a</sup> for 2003-04 by New South Wales regions/river valleys and water source (\$m, 2001-02 prices)

<i>Region/river valley</i>	<i>Regulated water</i>	<i>Unregulated water</i>	<i>Groundwater</i>	<i>Total</i>
Border	0.0	0.1		
Gwydir	0.0	0.0		
Namoi	0.0	0.3		
Peel	0.4	Included in Namoi	Barwon region 1.4	Barwon region 2.2
Lachlan	0.0	0.3	Central West 1.0	Central West 1.2
Macquarie	-0.2	0.2		
Far West	No regulated rivers	0.9	0.8	1.6
Murray	0	0.2	0.4	0.5
Murrumbidgee	0	0.1	1.1	1.2
North Coast	0.4	2.0	0.4	2.8
Hunter	1.9	0.8	0.4	3.2
South Coast	0.3	2.2	0.8	3.3
<b>Total</b>	<b>2.6</b>	<b>7.0</b>	<b>6.3</b>	<b>15.9</b>

<sup>a</sup> Shortfall between revenue raised and the allocated user share of costs.

Source: IPART 2001

## Consumption based pricing

New South Wales reported that it prices most bulk water services on a consumption basis using two-part tariffs. The two-part tariffs, comprising a fixed (volume of entitlement) component and a variable (use) component, are being implemented as determined by IPART in 2001:

- A two-part tariff is in place for all regulated river services.

- For unregulated rivers, a two-stage program is underway to move towards consumption based pricing. The first stage involved converting licences based on irrigation area to a volumetric entitlement. New South Wales reported that this stage is now complete, and customers will be charged per megalitre based on their annual entitlement instead of an area-based charge. The second stage will involve defining the volume of water that licence holders extract. This requires monitoring annual water use through metering or some other calibrated, auditable process. Metered customers will face the two-part tariff instead of a single entitlement charge as this stage is implemented across the State. New South Wales expects to implement metering in the unregulated river water sharing plan areas over the next five years.
- Two-part tariffs are also in place in groundwater management areas where metering and monitoring of water use is possible.

New South Wales reported that the cost structure of bulk water delivery will be redefined with the corporatisation of State Water. The government will require State Water to operate commercially. In this context, State Water is investigating differential pricing, premium pricing, the ratio of the fixed and variable cost components of price, and the relativity between the price of high security and general security water. The new board of directors will set the principles for future pricing submissions to IPART, based on State Water's Statement of Corporate Intent.

As discussed above, State Water will make a pricing submission to IPART in September 2004. New South Wales advised that the submission will seek to achieve best practice rural bulk water pricing. Accordingly, the submission will encompass consumption based pricing and recovery of the efficient costs of State Water's bulk water services for regulated rivers, unregulated rivers and groundwater sources.

## Submissions

### Nature Conservation Council of NSW Incorporated and the Inland Rivers Network

The Nature Conservation Council of NSW and the Inland Rivers Network jointly submitted that rural bulk water prices and urban water prices in New South Wales do not reflect the full cost of the resource so do not accord with the 1994 CoAG water reform agreement. Regarding rural water pricing, the submissions argued that infrastructure assets are undervalued, environmental costs are excluded, prices are maintained at levels below cost recovery to support marginal users, externality costs are determined at a state level (which does not allow for variations among valleys) and delivery costs are averaged across lengthy and disparate river reaches. The submissions argued that the result is significant undervaluing of services and, therefore, underpricing.

The Nature Conservation Council of NSW and the Inland Rivers Network supported the use of independent bodies such as IPART because this use provides for transparent and accountable pricing processes. Regarding national benchmarking, they considered that the appropriate benchmark is the pricing policy rather than the actual price, because variations in the treatment of externality costs will influence the price of water in any given area.

### NSW Irrigators' Council

The NSW Irrigators' Council raised several issues regarding the state's application of rural water reform obligations:

- It commended State Water on its involvement of customers in the preparation of the next pricing submission to IPART.
- It acknowledged the significant progress towards institutional separation, with State Water and DIPNR making separate submissions to IPART, and noted the scope for DIPNR (through the work of regulators and the government) to achieve a more commercial focus.
- It raised several concerns regarding the government's approach to full cost recovery, including that:
  - the costs of natural resource management appear as a single figure in financial reporting and are not sufficiently transparent because DIPNR does not report natural resource management costs in the same way that State Water reports costs
  - the focus on recovering costs solely from irrigators is not appropriate because some natural resource management benefits accrue to groups other than irrigators (in which case, the NSW Irrigators' Council considered that part of the cost should be funded by the identified groups or government)
  - current irrigators should not be responsible for sunk costs (which should be paid by the government)
  - the current flat fee charged to water users for externalities is inequitable, overly blunt and not transparent (whereas transparent cost attribution between states, then valleys and then users would be appropriate)
  - The Living Murray Initiative policy costs should not be charged to River Murray Water, so should not flow through to water users
  - the government should not seek to achieve a return on infrastructure assets (because this will increase production costs for water users and contradict other CoAG pricing principles)

- the government has not identified CSOs, despite a strong case based on some water users' incapacity to pay prices that achieve cost recovery,
- River Murray water users and users in other valleys have not been informed of any progress with the determination of a robust and transparent method for allocating the MDBC's water resource management costs to users.
- It argued that some users are experiencing delays in the processing of permanent licence transfers because the government is focusing on cost recovery without necessarily providing an efficient service.
- It supported the accurate and efficient measurement of all water use, proposing that State Water use real-time technology and an auditing approach to improve compliance, and that the government identify associated costs as a CSO where they are prohibitive for users.

## Discussion and assessment

### Cost recovery

Under the 1994 water reform agreement (confirmed by the National Water Initiative), New South Wales needs to show that all rural systems at least achieve lower bound cost recovery in accord with the CoAG pricing principles, and it needs to move towards the upper bound where practicable. The lower bound of cost recovery should recover at least the operational, maintenance and administrative costs, externalities (defined as the natural resource management costs attributable and incurred by the water business), taxes or tax equivalents (not including income tax), the interest cost of debt, provision for future asset refurbishment/replacement, and dividends (if any).

IPART's approach to setting maximum prices for bulk water delivery services accounts for the CoAG pricing principles. The IPART 2001 price determination established, as a first step, the efficient costs of bulk water supply operations, water resource management and capital costs. Further progress towards the lower bound of full cost recovery is expected to be achieved through the next IPART pricing determination, to apply from 2005-06.

New South Wales made significant changes to its institutional arrangements following the 2003 NCP assessment. It advised that it will require the corporatised State Water to operate in a commercial manner, consistent with the *State Owned Corporations Act 1989*. The corporatisation of State Water more clearly defines the role of rural water service provision in the state. This change, while not a direct pricing matter, should nevertheless provide a strong framework for applying best practice pricing principles. The other change is IPART's separate regulation of State Water costs and charges and



---

DIPNR's natural resource management costs — a distinction that is likely to provide greater transparency in water pricing.

The state's rural systems are yet to achieve lower bound cost recovery, although cost recovery performance is improving. Through the IPART bulk water pricing process, New South Wales has established price paths that moved cost recovery by State Water services from 61 per cent of lower bound costs in 2000-01 to 74 per cent in 2003-04. Moreover, it has indicated that it will establish a further price path to continue to move State Water services and DIPNR water resource management towards the lower bound of cost recovery. New South Wales confirmed that State Water's submission to IPART for the forthcoming price determination will aim to move the corporation to full cost recovery (presumably the lower bound of cost recovery) for most regulated systems. The government's postponement of the price determination by 12 months is not inconsistent with implementing its CoAG pricing commitments.

Asset valuation methods and cost of capital related issues were raised by the two submissions that addressed rural pricing in New South Wales. IPART has determined that all water assets in place before 1 July 1997 should not be part of the asset base for pricing purposes. This means that depreciation or a rate of return on pre-1997 expenditure is not a cost to be recovered in price setting. All post-1997 expenditure that is attributed to users, including renewal and compliance expenditure, attracts a discount rate set at State Water's cost of capital. The Council has previously commented on the state's approach to treating infrastructure assets in price setting, taking the view that it accords with the requirements of the CoAG pricing principles' lower bound of cost recovery.

The two submissions presented different arguments regarding treatment of infrastructure assets for pricing purposes. The Nature Conservation Council of NSW and the Inland Rivers Network argued that State Water infrastructure assets are undervalued and hence the corporation's services are underpriced. The NSW Irrigators' Council argued that a zero rate of return on assets is appropriate, and to seek a positive return would only increase production costs for water users. New South Wales, in response to the submissions, indicated that it does not agree that it should refrain from earning a return on infrastructure capital investments. The Council notes that earning a return on infrastructure assets is consistent with the commitments on full cost recovery in both the 1994 CoAG water reform agreement and the National Water Initiative, and is necessary if State Water is to move towards the upper bound of cost recovery.

The two submissions also raised issues regarding the state's treatment of natural resource management costs and compliance with CoAG pricing requirements relating to the treatment of externalities. The CoAG pricing principles define externalities (for the purpose of the lower bound of cost recovery) as the environmental and natural resource management costs attributable to and incurred by the water business, and require the treatment of externalities to be transparent. New South Wales recently reviewed its approach to natural resource management and its treatment of relevant

costs, and established new institutional frameworks and processes. DIPNR will be required to submit a natural resource management pricing proposal that considers the allocation of MDBC natural resource management costs, and IPART, as part of its next price determination, will regulate these costs separately from water delivery costs. The Council considers that this approach is likely to improve the treatment and transparency of natural resource management costs. New South Wales explained that variances in financial reporting between DIPNR and State Water, an issue raised in submission, arise because of the different requirements for reporting by government agencies and government businesses. (The section on River Murray Water cost allocation provides further information on the treatment of environmental and natural resource management costs in New South Wales.) New South Wales noted that the area of attributable environmental costs is an evolving one, as signatory governments have recognised under the National Water Initiative. It explained that IPART, DIPNR and other natural resource management agencies will continue to work collaboratively on this issue.

Acknowledging that the government intends to establish a new price path for State Water to move closer to full cost recovery, and that IPART undertakes the price setting process independently, the Council considers that New South Wales has made sufficient progress with rural water pricing for the 2004 NCP assessment. New South Wales will not have complied with the CoAG pricing obligations, however, until it has achieved the lower bound of cost recovery or established the proposed price path that achieves the lower bound of cost recovery (with transitional CSOs made transparent).

### Transparent reporting of subsidies

The 1994 CoAG water reform agreement requires the removal of subsidies that are inconsistent with efficient service provision or, at a minimum, the transparent reporting of the objective and quantum of remaining subsidies. Where services are provided to classes of customer at less than full cost, the cost must be fully disclosed and ideally paid to the service providers as a CSO. Where full cost recovery is unlikely to be achieved in the long term, governments should report publicly and, where practicable, consider alternative management arrangements aimed at removing the need for an ongoing CSO.

New South Wales does not publicly report the actual CSO payments that it makes to State Water to address revenue shortfalls relating to bulk water supply services. The IPART rural bulk water price determination indicated, however, the level of forecast cost recovery benchmarked against efficient lower bound costs, and the level of subsidy (revenue shortfall) on a valley-by-valley basis (IPART 2001). The IPART work shows that the level of subsidisation fell between 2001 and 2004, and will fall further over the period of the next price path (expected to commence on 1 July 2005).

The New South Wales Government's commitment to continue moving towards the lower bound of cost recovery means these subsidies will be phased out in

accord with IPART's price determinations. However, the government has asked IPART, in determining rural water price paths, to balance the achievement of full cost recovery against the capacity of bulk water users to absorb the price rises required to achieve full cost recovery. New South Wales advised that the lower bound of cost recovery may not be feasible to achieve in some coastal regulated systems regions and, as a result, that it may continue subsidising water users' share of attributable costs. It also advised that future State Water CSOs will be clearly defined, costed and transparently reported in the corporation's annual reports. The government intends to also separately report any additional funding that it provides to State Water to meet external requirements such as dam safety requirements.

The Council considers that New South Wales has made sufficient progress against its CoAG rural water pricing obligations for the 2004 NCP assessment.

### Consumption based pricing

Under the 1994 CoAG water reform agreement (confirmed by the National Water Initiative), governments need to adopt pricing regimes based on the principle of consumption based pricing. New South Wales reported that it applies or is implementing consumption based pricing for most bulk water services. All regulated service charges are two-part tariffs, all services in unregulated river water sharing plan areas will be charged on a two-part tariff basis within five years and services in groundwater management areas are charged on a two-part tariff basis where water use is metered. New South Wales did not provide information on groundwater metered use.

In 2001, IPART identified wide variations in the balance between entitlement and use charges in regulated systems, and considered that these variations may not reflect the different costs involved. It encouraged the government to investigate the composition of the tariffs with reference to implications for revenues, impacts on customers and the potential signalling effects on water use (IPART 2001). The Council understands that these issues will be addressed in State Water's work on pricing practices, which is to be provided to IPART by the end of October 2004.

While New South Wales is yet to apply consumption based charging in the State's unregulated systems (and noting IPART's questions about the basis of the two-part tariffs in regulated systems), the Council is satisfied that New South Wales is committed to the broad application of consumption based pricing. The Council considers that New South Wales has addressed its obligations in this area for the 2004 NCP assessment.

## Cost recovery in issuing licences for water extraction

**Assessment issue:** New South Wales is to demonstrate that its approach to charging for water licences, renewals and transfers will achieve cost recovery in accord with the CoAG pricing principles. IPART considered the level of fees in 2001, but recommended no change until it makes a specific determination or until it reviews the level of the fees associated with the state's system of access licences (which commenced on 1 July 2004). For the 2004 NCP assessment, the Council has looked for New South Wales to provide information on the extent to which current water licence fees reflect costs.

**Future reform:** Signatories to the National Water Initiative are to bring into effect by 2006 consistent approaches to pricing and attributing the costs of water planning and management. This should involve identifying all costs associated with water planning and management, including the proportion of those costs that can be attributed to water access entitlement holders, consistent with the principle of linking charges as closely as possible to the costs of activities or products. These approaches should be consistent across sectors and jurisdictions in which water entitlements can be traded.

**Reference:** 1994 CoAG water reform agreement, clauses 3(a), (d) and (e); 1996 Agriculture and Resources Management Council of Australia and New Zealand (ARMCANZ) paper; 1998 CoAG pricing principles; 1999 tripartite meeting; Intergovernmental Agreement on a National Water Initiative

New South Wales advised that since the licensing provisions under the *Water Management Act 2000* commenced in July 2004 it has applied the existing fee structure to new water access licences and approvals in areas covered by water sharing plans. This is an interim approach pending the relevant Minister's approval of a new fee structure. In areas where water plans do not apply, the current *Water Act 1912* licensing fees are continuing.

In its new determination IPART has set maximum licence fees that will apply from 2005-06. New South Wales advised that DIPNR will make a submission to IPART on natural resource management pricing. This submission will propose full cost recovery for water access licences. New South Wales stated that arrangements being introduced under the Water Management Act, with sufficient costing data being available, will result in a robust cost-reflective fees structure. It considers that the extent of change brought about by its new water management initiatives and other changes under the National Water Initiative meant it was impractical to develop a comprehensive fee structure in advance of the new arrangements commencing on 1 July 2004.

## Discussion and assessment

The National Water Initiative commits governments to bring into effect by 2006 consistent approaches to pricing and attributing costs of water planning and management. This should involve the identification of all costs associated with water planning and management, and the identification of the proportion of costs that can be attributed to water access entitlement holders consistent with the principle of linking charges as closely as possible to the costs of activities or products. The National Water Initiative requires consistency in pricing policies across sectors and jurisdictions where

entitlements can be traded. The measures that New South Wales is proposing are likely to lead to compliance by 2006 with the best practice pricing objectives regarding water access licence fees. The Council considers that New South Wales has made sufficient progress against its CoAG obligations in this area for the 2004 NCP assessment.

## Murray–Darling Basin Commission costs — River Murray Water and water resource management cost allocation

**Assessment issue:** The River Murray Basin states have different policies on passing on River Murray Water costs to water users. IPART (2001) noted that much information has been gathered on the MDBC's costs and the allocation of the state's share of these costs to users. Given the availability of this information, IPART requested that the Department of Land and Water Conservation (now incorporated in DIPNR) develop a robust and transparent method for allocating the MDBC's water delivery and water resource management costs to users for the next price determination. For the 2004 NCP assessment, the Council has looked for New South Wales to show that it allocates MDBC costs robustly and transparently among users.

**Future reform:** Signatories to the National Water Initiative are to bring into effect by 2006 consistent approaches to pricing and attributing costs of water planning and management. This should involve (i) the identification of all costs associated with water planning and management and (ii) the identification of the proportion of costs that can be attributed to water access entitlement holders consistent with the principle of linking charges as closely as possible to the costs of activities or products.

**References:** 1994 CoAG water reform agreement, clauses 3(a) and (d); 1998 CoAG pricing principles; Intergovernmental Agreement on a National Water Initiative

In previous assessments, the Council found that the Murray–Darling Basin states have different policies on passing on River Murray Water costs and water resource management costs to water users. New South Wales and Victoria pass on to irrigators the River Murray Water charges for bulk water, but apply different charging arrangements.<sup>1</sup> Charges are part fixed and part variable in New South Wales and mostly fixed in Victoria. South Australia does not pass on River Murray Water costs to irrigators. A consultancy study undertaken for the MBDC found that these differential charging arrangements for bulk water are likely to impede the expansion of permanent interstate trade (Scrivco & Hassall and Associates 2003).

The MDBC's independent audit of cost sharing arrangements considered that the following actions are necessary to provide clear price signals to water users:

<sup>1</sup> River Murray Water recovers the full cost of constructing, operating, maintaining and renewing assets from the MDBC's member governments. River Murray Water recovers 75 per cent of the cost of asset refurbishment and replacement from the states, with the Australian Government paying the remaining 25 per cent. The states meet the full cost of asset operation and maintenance.

- All River Murray Water costs need to be recognised and all subsidies and CSOs need to be disclosed.
- Financial and pricing information for River Murray Water should be publicly available.
- States should disclose the level of subsidy and/or CSO per megalitre provided to each water business that receives bulk water from River Murray Water. Disclosure of the level of subsidy is particularly important because the Murray–Darling Basin states have different policies on passing on River Murray Water costs to water users.

IPART's 2001 bulk water price determination provides information on the approach in New South Wales. In the price determination, IPART allocated:

- all costs of water delivery to the Murray Valley
- half of the MDBC's water resource management costs to the Murray Valley (93 per cent), the Murrumbidgee Valley (5 per cent) and other inland valleys
- the other half of the MDBC's water resource management costs to the Murray and Murrumbidgee valleys based on estimates of long term extraction costs.

For each year of the current price determination, IPART determined the shares of River Murray Water costs that should be recovered from users and from the New South Wales Government. IPART recognises that the costs incurred are not related exclusively to bulk water delivery. Some of these costs, for example, are incurred to meet other needs, such as environmental protection, flood mitigation and navigation. Some current and future costs also relate to past practices and activities.

During the 2001 price review, IPART noted that much information had been gathered on the nature of the MDBC's costs and the allocation of the state's share of these costs among users. IPART asked the former Department of Land and Water Conservation (now DIPNR) to use this information to review and develop a robust and transparent method for allocating the MDBC's costs to users for the next price path (expected to commence on 1 July 2005).

New South Wales has indicated it will ask IPART to account for the State's share of River Murray Water costs and the MDBC's natural resource management costs in determining prices for bulk water delivery. New South Wales has submitted that IPART should examine both natural resource management and water delivery costs in the next pricing review, because at least some of the cost of the MDBC's natural resource management activities will be attributable to New South Wales licence holders, in addition to River Murray Water's water delivery activities. New South Wales proposed the following process for passing on the MDBC's water management and River Murray Water delivery costs to users:

- 
- The Murray–Darling Basin Ministerial Council should determine the share of funds that New South Wales should provide to the MDBC for water delivery and resource management under the Murray–Darling Basin Agreement.
  - The state’s funding share should be applied to total MDBC expenditure for each bulk water activity to determine the expenditure attributable to each of these activities in New South Wales. These expenditures, together with other non-MDBC bulk water expenditures incurred by New South Wales, should be allocated to water users and the government according to cost sharing ratios set by IPART. The resultant aggregate expenditure to water users can then be recovered through bulk water charges.
  - The state’s share of River Murray Water’s water delivery costs for the operation and maintenance of Murray River bulk water infrastructure should be allocated to users in the Murray valley.
  - The MDBC’s natural resource management costs comprise the costs of activities aimed at ensuring basin sustainability plus a small proportion of River Murray Water’s non-water delivery costs. Currently, most of these costs are allocated to users in the Murray River valley. The forthcoming DIPNR pricing submission to IPART will propose that the state’s share of the MDBC’s natural resource management costs be allocated to the New South Wales Murray–Darling Basin valleys on an ‘impactor pays’ basis. Costs would be allocated to users based on the volume of water they extract. This approach would reduce the natural resource management costs allocated to users in the Murray River valley and increase costs allocated to users in other river basin valleys. New South Wales considers that this would be a robust, logical and transparent method of allocating the costs to the users who cause the costs to be incurred. This cost allocation method is consistent with that for the Murray–Darling Basin salinity and drainage strategy.

## Discussion and assessment

The National Water Initiative commits signatory governments to implementing by 2006 consistent approaches to pricing and attributing costs of water planning and management. This should involve the identification of all costs associated with planning and management (including the costs of underpinning water markets), and the identification of the proportion of costs that can be attributed to water access entitlement holders consistent with the principle of linking charges as closely as possible to the costs of activities and products. This information should be publicly reported. Pricing arrangements should facilitate the efficient functioning of water markets, including interjurisdictional water markets.

New South Wales has reviewed the allocation of MDBC costs relating to River Murray Water and natural resource management. It intends to continue passing on all River Murray Water delivery costs and MDBC natural resource

management costs on an ‘impactor pays’ basis, and to allocate costs between users and the government. New South Wales did not provide any information on the review, so the Council cannot comment on the robustness of the allocation. The Council considers, however, that IPART regulation of water delivery and natural resource management costs would add rigour and transparency to the process of cost allocation.

The New South Wales Government’s proposed approach to allocating costs will attribute appropriate costs to water users such that all costs are fully recovered. This will address obligations under the 1994 water reform agreement and components of the state’s best practice pricing commitments under the National Water Initiative. New South Wales should ensure, however, that its policies for attributing MDBC costs to users and the government do not create inefficient functioning of water markets.

## **Cost recovery and consumption based pricing by nonmetropolitan urban water and wastewater services**

**Assessment issue:** New South Wales is to demonstrate that all larger providers of nonmetropolitan urban water and wastewater services (those providers with more than 1000 connections) are achieving full cost recovery and applying consumption based pricing. In the 2003 NCP assessment, the Council found that some local government water and wastewater service providers with more than 1000 connections were unlikely to be achieving full cost recovery, and some were not applying consumption based pricing. For the 2004 NCP assessment, the Council has looked for New South Wales to provide data to demonstrate that all remaining local water and wastewater utilities have substantially complied with full cost recovery and consumption based pricing obligations.

**Future reform:** Metropolitan businesses should price, on a consumption basis, at least at the lower bound of cost recovery, and continue moving towards upper bound pricing by 2008. Metropolitan water systems are to develop pricing policies for recycled water, stormwater and tradewaste by 2006.

**References:** 1994 CoAG water reform agreement, clauses 3(a) and (b); 1998 CoAG pricing principles; Intergovernmental Agreement on a National Water Initiative

At 1 April 2004, 15 local government water utility (LWU) water services and 22 LWU wastewater services were not achieving the lower bound of cost recovery. New South Wales advised that all underrecovering LWUs have agreed to move to cost recovery within three years (and the full three years where an increase in charges of more than 10 per cent is required).<sup>2</sup>

Also at 1 April 2004, 24 LWU water services were yet to introduce consumption based pricing. New South Wales advised that 12 of these services will implement consumption based pricing, two will merge with other LWUs in 2004-05, and eight will implement consumption-based pricing in

---

<sup>2</sup> The information provided by New South Wales does not specify whether the state’s cost recovery goal accords with the CoAG pricing principles upper bound or lower bound.



2005-06. While the remaining two LWUs have not confirmed when they will introduce consumption based pricing, the New South Wales Government expects them to do so by 2005-06.

New South Wales reported that it is continuing to actively support and encourage best practice pricing by all LWUs. In this regard, the Department of Energy, Utilities and Sustainability (DEUS) has produced pricing guidelines that explain the benefits of best practice pricing for water utilities, their customers and the environment, and that provide utilities with the tools to move towards the upper bound of cost recovery and consumption based pricing. The aim of the guidelines is to ensure all providers of LWU services that are not best practice pricing achieve cost recovery and set water service prices on a consumption basis. The DEUS has issued the guidelines and associated pricing software to all LWUs, conducted pricing workshops, and provided a performance coordinator to facilitate the implementation of best practice pricing. IPART and DEUS monitor adherence to the guidelines.

Under the *Local Government Amendment (National Competition Policy Review) Act 2003*, LWUs need to demonstrate substantial compliance with best practice management guidelines by:

- preparing a strategic plan and a minimum 20-year financial plan to establish an appropriate level of annual income required from each of water supply and sewerage
- complying with best practice water supply, sewerage and trade waste pricing, commercial developer charges and liquid trade waste approvals
- complying with criteria for demand management, drought management, performance reporting and integrated water cycle management.

New South Wales confirmed that LWUs must comply with the best practice management guidelines and best practice pricing to perform certain functions. Compliance with the best practice management guidelines is necessary, for example, before an LWU may pay a dividend from the surplus earned by its water supply or sewerage business to general local government revenue. Compliance with the best practice management guidelines is a prerequisite to eligibility for financial assistance towards the capital cost of backlog infrastructure (under the New South Wales Government's country towns water supply and sewerage program). LWU best practice pricing is a condition also for local governments applying for special variations to general income or for loan approvals.

## Discussion and assessment

LWUs with more than 1000 connections have improved their compliance with best practice pricing obligations. At the time of the 2003 NCP assessment, 23 LWU water and wastewater services were not achieving the lower bound

of cost recovery, whereas now 15 are not achieving the lower bound. While the number of LWU water services applying consumption based pricing has increased only slightly since the 2003 NCP assessment, New South Wales anticipates significant adoption of consumption based pricing during 2004-05. Overall, only a relatively small proportion of the state's property connections (less than 3 per cent) is not facing cost-reflective consumption based prices.

New South Wales continues to encourage and support the adoption of best practice pricing by LWUs. In most cases where LWUs are yet to adopt best practice pricing, they have committed to do so within a short time frame. The state's best practice pricing guidelines and best practice management guidelines are likely to provide incentives and assistance to the remaining LWUs to move to at least the lower bound of cost recovery and adopt consumption based pricing. LWUs that pay a dividend to their local government owner will move towards the upper bound of cost recovery.

The Council considers that New South Wales has satisfactorily progressed its 1994 water reform agreement cost recovery and consumption based pricing obligations for the 2004 NCP assessment. New South Wales will need to ensure its regional water businesses (up to 50 000 connections) continue to move toward the upper bound of cost recovery in accord with the state's commitments under the National Water Initiative. Any water businesses with more than 50 000 connections will need to move towards upper bound pricing by 2008.

## 2.2 Water access entitlements

**Assessment issue:** Governments are to institute a statutory water access entitlement system and support systems for the consumptive use of water, separate from land. The water access entitlement system should be specified as a perpetual or open-ended share of the consumptive pool of a water source. These arrangements should be in place by 2006.

At the time of the 2003 NCP assessment, New South Wales was converting its system of five-year water licences to a new system of water access entitlements and 15-year access licences under the Water Management Act. The reliability of water access entitlements was to be further determined by water sharing plans, which seek to provide security of access for all water users (including the environment) during their 10-year term. New South Wales was also working on a system for registering water access entitlements. While the new systems were to be in place by January 2003, New South Wales deferred their commencement — initially to January 2004 and subsequently to July 2004 — to accommodate the then foreshadowed National Water Initiative. Given that the outstanding obligation was for New South Wales to implement its new access licensing and registry systems, the Council deferred this element of the 2003 assessment, initially to a deferred 2003 assessment and subsequently to the 2004 NCP assessment.

For the 2004 NCP assessment, the Council has looked for New South Wales to establish its new water access licensing and registry systems, and to introduce perpetual water access entitlements consistent with the state's commitments under the National Water Initiative.

**References:** 1994 CoAG water reform agreement, clause 4; 1999 tripartite meeting; Intergovernmental Agreement on a National Water Initiative

At the time of the 2003 NCP assessment, New South Wales was converting its system of five-year licences under the *Water Act 1912* to a new system of 15-year access licences under the Water Management Act. It was also working on a system for registering water access entitlements. New South Wales was to have established its new water access licensing and registry systems in January 2003. It deferred these measures — along with the commencement of its water sharing plans — initially to 1 January 2004 and later to 1 July 2004 to accommodate the then foreshadowed National Water Initiative.

The access licensing and registry systems proposed by New South Wales at the time of the 2003 NCP assessment included the following arrangements:

- Most water extractions are required to be licensed.<sup>3</sup> Licences are separate from land title, transferable, divisible and enforceable. It is not necessary to own or occupy land to hold an access licence. Licences include a share component (specifying shares in the available volume of water from the relevant water source) and an extraction component (specifying the times, rates, circumstances and locations of extractions). Licences are categorised according to the priority of access — for example, in regulated rivers, there are both high security and general security access licences. Reliability is further determined by water sharing plans, which seek to provide security of access for all water users (including the environment) during their 10-year term (see section 2.3). Water access licence holders can claim compensation for access reductions made during the term of a water sharing plan that are inconsistent with the provisions of the plan.
- The water access licence register records all water access entitlements, their ownership, third party interests and transfers. The register is to be administered by Land and Property Information NSW, which is also responsible for the Land Titles Register. It is to be publicly available, including on the Internet.

Given that the outstanding obligation was for New South Wales to implement its new access licensing system and registry, the Council deferred this element of the 2003 assessment, initially to a deferred 2003 assessment and subsequently to the 2004 NCP assessment.

## Reform progress

New South Wales implemented its new water access licensing and registry systems on 1 July 2004, following the commencement of the relevant sections of the Water Management Act, the Water Management (Access Licences and Approvals) Regulation 2004 and the Water Management (Access Licences and

---

<sup>3</sup> Licences are not required for the landholders' basic right to use water for domestic and stock purposes, harvestable rights (a percentage of rainfall run-off captured in a farm dam) and native title rights and interests.

Approvals) Savings and Transitional Regulation 2004. The new arrangements initially apply to the areas covered by the 31 water sharing plans that also commenced on that date (see section 2.3). Application of the new arrangements to these areas involved the conversion of approximately 7000 licences to new access licences and 'works and use' approvals (covering the construction of works to take water and the use of water on land).

In late June 2004, before the new arrangements commenced, New South Wales amended the Water Management Act, including changes to accommodate elements of the National Water Initiative. Some amendments related to the new access licensing and registry systems. In particular, New South Wales made most water access entitlements perpetual (replacing the previously proposed 15-year duration).<sup>4</sup> In addition, it made provision for term transfers of water access licences (similar to a lease of land). Other amendments gave effect to and/or clarified elements of the water access licence register (for example, to ensure parties with a mortgage or other interest in a water access entitlement can exercise the same powers that they can exercise in relation to land under the *Real Property Act 1900*). New South Wales also simplified the process for administering works and use approvals.

New South Wales advised that the water access licence register has not been fully validated, because ownership details are being verified and financial institutions need time to record their interests. It indicated that it will use its best endeavours to introduce indefeasibility of title within three years, with progress to be reviewed in 2006.

## Submissions

The Murrumbidgee Horticulture Council considered that the integrity of high security water entitlements must be protected (that is, 100 per cent delivered in all but the worst drought years) to continue the significant levels of investment in horticulture. It stated that 'permanent plantings with living infrastructure cannot survive fluctuations in annual allocations' (Murrumbidgee Horticulture Council submission, p. 3).

The NSW Irrigators' Council emphasised the importance of providing long term security for water entitlements. It considered that water entitlements (including supplementary entitlements) should be issued in perpetuity. In addition, it argued that governments should take responsibility for compensating entitlement holders for reduced access when new rules are introduced to meet environmental objectives.

---

<sup>4</sup> The entitlements are for access to a perpetual share of the available water (not a guaranteed volume of water). Some categories of access entitlements that are for specific purposes at specific locations (such as water utility, domestic and stock access entitlements) will not be perpetual but will not have a fixed term. Supplementary water access (previously known as off-allocation water) also will not be perpetual.

## Discussion and assessment

The Council concluded in previous NCP assessments that the new access licensing and registry systems proposed by New South Wales were consistent with 1994 CoAG obligations on water entitlements. The arrangements include a comprehensive system of water entitlements separated from land title and specified as volumetric shares. The water access licence register is similar to the state's land titles register and includes third party interests.

At the time of the 2003 NCP assessment, the state's outstanding obligation was to implement the access licensing and registry systems. Subsequently, the National Water Initiative required participating states and territories to introduce perpetual water access entitlements (with similar status to freehold land) and to have compatible, publicly accessible and reliable systems for registering entitlements (including any encumbrances) and (permanent and temporary) trades.

New South Wales adopted perpetual water access entitlements as a result of the amendments to the Water Management Act in June 2004. The state's water access licence register is operational and the government is working to verify details, including ownership interests, within three years.

The Council considers that New South Wales has met its CoAG obligations relating to water access entitlements for the 2004 NCP assessment.

### 2.3 Water planning — providing a better balance in water use

**Assessment issue:** Governments are to establish water allocation systems that provide a sustainable balance between the environment and other uses of water, including by formally providing water in rivers and groundwater systems for use by the environment.

Under the 1994 CoAG water reform agreement, governments committed to determine environmental water requirements using the best available scientific information, wherever possible, and to have regard to the intertemporal and interspatial environmental water requirements needed to maintain the health and viability of river systems and groundwater basins. For river systems that are overallocated or deemed to be stressed, governments committed to provide a better balance in water use to enhance or restore the health of the river systems. Governments also committed to consider establishing environmental contingency allocations and to review allocations five years after they have been determined. In allocating water to the environment, governments agreed to have regard for the ARMCANZ/Australian and New Zealand Environment and Conservation Council (ANZECC) National Principles for the Provision of Water for Ecosystems (see appendix B).

Arising from the 1994 CoAG water reform agreement, each state and territory established a program in 1999 for implementing water allocations for priority river systems and groundwater resources. Governments committed to substantially complete their 1999 programs by 2005 (including allocations for stressed and overallocated rivers by 2001). Under the National Water Initiative, signatory governments confirmed the importance of water planning as a mechanism for assisting water management and allocation decisions.

*(continued)*

Signatory governments committed to prepare water plans for surface water and groundwater systems in which entitlements are issued, to assist with water management and allocation decisions to meet productive, environmental and social objectives. They agreed that management and allocation decisions would involve judgments informed by the best available science, socioeconomic analysis and community input. Signatory governments committed to substantially complete allocation arrangements by 2005 for overallocated and overused surface and groundwater systems covered by their 1999 implementation programs, and to prepare water plans by the end of 2007 for other systems that are overallocated, fully allocated or approaching full allocation and by the end of 2009 for other systems that are not approaching full allocation.

At the time of the 2003 NCP assessment, New South Wales had gazetted its State Water Management Outcomes Plan and 35 (of 39) first-round water sharing plans. It had not, however, provided information on the supporting science or expected ecological health outcomes that it used to develop its plans or on any productive or social objectives that affected the water allocations in the plans. The Council needed this information to finalise its assessment of whether New South Wales had satisfactorily addressed 1994 CoAG obligations, including whether the state had shown regard for ARMCANZ/ANZECC national principles 4, 5 and 7. Given that New South Wales deferred commencement of its water sharing plans to accommodate the (then foreshadowed) National Water Initiative, the Council deferred this element of the 2003 NCP assessment for New South Wales.

The Council conducted the deferred 2003 NCP assessment in June 2004, concluding that New South Wales had not shown that it has met the obligation to provide appropriate allocations of water to the environment in stressed and/or overallocated rivers. It stated that it would consider recommending in the 2004 NCP assessment a substantial suspension or reduction in competition payments to New South Wales (to apply from 2004-05), unless the state either:

- provides evidence to show its water sharing arrangements go as far as possible towards meeting the water regimes necessary to sustain the ecological values of aquatic ecosystems while recognising the existing rights of other users, or
- commits (as part of the 2004 NCP assessment) to further develop its arrangements by 1 July 2005 so they are more likely to achieve the above objective within a reasonable timeframe.

**References:** 1994 CoAG water reform agreement, clause 4; 1999 tripartite meeting; Intergovernmental Agreement on a National Water Initiative

The Council considered New South Wales's progress against the environmental allocation obligation in the 2001 and 2002 NCP assessments, a supplementary 2002 assessment and the 2003 NCP assessment. In the supplementary 2002 assessment, the Council considered a sample of 10 New South Wales water sharing plans then due to become operational on 1 July 2003. While acknowledging that the plans would improve environmental outcomes in most cases, the Council could not determine from the limited information provided by New South Wales whether the plans satisfy the CoAG obligation to provide appropriate allocations of water to the environment. In particular, New South Wales provided insufficient information on the basis of water allocations for consumptive and environmental uses, and on the nature and extent of socioeconomic trade-offs from recommended environmental flows (ARMCANZ/ANZECC national principles 4, 5 and 7).

At the time of the 2003 NCP assessment, New South Wales had gazetted 35 (of 39) first-round water sharing plans covering about 80–90 per cent of the state's water, but had deferred commencement of the plans to 1 January 2004. Given that the deferral was to accommodate CoAG work on the then

---

foreshadowed National Water Initiative, the Council deferred this element of the 2003 NCP assessment for New South Wales.

By the time of the deferred 2003 assessment in June 2004, New South Wales had:

- confirmed it would commence 30 of the 35 gazetted water sharing plans on 1 July 2004 (deferred from 1 January 2004), and advised that it would not alter the essential content of each of the 30 plans
- confirmed it would commence the remaining five gazetted groundwater plans (for the Lower Gwydir, Upper and Lower Namoi, Lower Macquarie, Lower Lachlan and Lower Murrumbidgee groundwater sources) on 1 July 2005 (deferred from 1 January 2004), and indicated that it is reviewing its approach to reducing water access in these plans
- published the guides and fact sheets for all of the gazetted water sharing plans and provided some additional information to the Council on the action it has taken to allocate water to the environment
- progressed, but not finalised, the four remaining first-round water sharing plans (for the regulated Hunter River, the Orara River, the Lower Murray groundwater and the Great Artesian Basin), with the Orara River plan the only first-round non-groundwater plan still to be completed
- completed the implementation programs for the 35 gazetted plans
- commenced a process to develop ‘macro plans’, within a ‘reasonable timeframe’, for the rivers and groundwater sources not covered by the 39 first-round water sharing plans.

The Council’s main findings from the deferred 2003 NCP assessment are as follows:<sup>5</sup>

- New South Wales now has mechanisms — the water sharing plans and implementation programs — for allocating water (including to the environment) and facilitating trading in place and ready to commence for almost all water resources. New South Wales has not shown, however, that it has not gone as far as possible to provide water to sustain ecological values (including by re-allocating water), while recognising the existing rights of water users (in line with ARMCANZ/ANZECC national principles 4 and 5).
  - For only two water sources covered by the 10 water sharing plans examined by the Council (the plans for the Lower Lachlan groundwater and Stuarts Point groundwater), New South Wales stated that extraction limits are set at levels that will sustain ecological values. However, despite several opportunities, New South Wales provided insufficient information to support these statements.

---

<sup>5</sup> The Council’s findings are detailed in the deferred 2003 NCP assessment report (NCC 2004a, pp. 23–6 and appendix B).

- For the remaining eight water sources covered by the 10 water sharing plans examined by the Council, New South Wales made no statement that the planned allocations will sustain ecological values. Neither did New South Wales provide any publicly available information to demonstrate that (1) the planned allocations were based on the best available science and (2) that any trade-offs in setting extraction limits were made on the basis of a rigorous assessment of social and economic interests.<sup>6</sup> For four of the eight water sources (the regulated Gwydir River, the regulated Namoi River, the Kangaroo River, and the Upper and Lower Namoi Groundwater Sources), the Council noted evidence (primarily from the former Department of Land and Water Conservation) indicating significant environmental challenges that the gazetted water sharing arrangements are unlikely to satisfactorily address (although for the Upper and Lower Namoi Groundwater plan, New South Wales is reviewing its approach to reducing water access before the plan commences on 1 July 2005).
- Information on ecological sustainability and the socioeconomic trade-offs made in developing the water sharing plans may become publicly available through the new role of the Natural Resources Commission in reviewing the water sharing plans. It could be 10 years, however, before the existing water sharing plans are subject to scrutiny by that commission.
- Accepting that governments sometimes cannot introduce arrangements that immediately achieve a sustainable balance, particularly in systems where the volume of water already allocated for consumptive use is significant, the Council took account of possible changes in water allocation arrangements that might enable a sustainable balance to be achieved during the 10-year life of the New South Wales plans. The Council considered, however, that the constraints on permitted amendments to allocation arrangements mean there is little, if any, prospect that New South Wales can change its plans during their 10-year life to satisfactorily address current environmental challenges. While the proposed role for catchment management authorities in managing environmental water (and trust funds) offers scope for improved environmental outcomes during the life of the water sharing plans, New South Wales did not provide any information on the expected extent of potential improvements.
- The Council questions the regard shown by New South Wales for ARMCANZ/ANZECC national principle 7. Under this principle, accountabilities in all aspects of the management of environmental water provisions should be transparent and clearly defined. While New South Wales undertook considerable public consultation when preparing the

---

<sup>6</sup> In relation to socioeconomic trade-offs, the Council noted that the independent assessment of the economic impacts of the draft water sharing plans (undertaken by ACIL Consulting for the New South Wales Government) considered the economic consequences to be minor in regional and statewide terms.



---

water sharing plans, there is little public information on the manner in which it considered environmental science in developing the plans. New South Wales also provided little information on the extent to which it expects the plans' rules and limits to achieve environmental outcomes. The recently announced involvement of the Natural Resources Commission goes only part of the way to addressing the gap in the process, given that the commission's role appears to be limited to reviewing already gazetted plans, and then only towards the end of each plan's life.

The Council considered that New South Wales had not shown that it has met its CoAG obligation to provide appropriate allocations of water to the environment in stressed and/or overallocated rivers. Acknowledging CoAG's 1994 statement that action needs to be taken to address widespread natural resource degradation occasioned in part by water use, along with CoAG's considerable concern (expressed in August 2003) about the pace of securing adequate environmental flows and adaptive management arrangements to ensure ecosystem health in Australia's river systems, the Council attached a great deal of importance to this matter.

To give New South Wales full opportunity to provide information to support the allocation arrangements in its water sharing plans, the Council delayed finalising the deferred 2003 NCP assessment beyond the original timeframe for this work. The Council sought to provide scope for the New South Wales Government either to provide (scientific and socioeconomic) evidence that its gazetted water plans will deliver appropriate environmental allocations (in line with the 1994 CoAG water reform agreement) for its stressed and overallocated surface water and groundwater systems, or to commit to further developing its water planning arrangements so they provide appropriate environmental allocations. New South Wales did not provide the information sought by the Council. It also did not respond to the Council's invitation to verify the Council's understanding of the effects of the environmental allocation arrangements in the sample of 10 water sharing plans (which the Council provided to New South Wales in draft form in April 2004).

Given the delay in finalising the deferred 2003 NCP assessment, the Council decided to defer to the 2004 NCP assessment any recommendation on competition payments to New South Wales for compliance with CoAG environmental allocation obligations. The Council stated in the deferred 2003 NCP assessment that it would consider recommending in the 2004 NCP assessment a substantial suspension or reduction in competition payments to New South Wales (to apply from 2004-05) unless the state either:

- provided (scientific and socioeconomic) evidence to demonstrate that its water sharing arrangements go as far as possible to meeting the water regimes necessary to sustain the ecological values of aquatic ecosystems while recognising the existing rights of other users, or
- committed (as part of the 2004 NCP assessment) to further developing its arrangements by 1 July 2005 to improve the likelihood that they will achieve the above objective within a reasonable timeframe.

## Developments since the deferred 2003 assessment

New South Wales commenced 31 water sharing plans (including the recently gazetted plan for the regulated Hunter River) on 1 July 2004. It deferred the remaining five gazetted plans, including three of the 10 that the Council considered in previous assessments, to 1 July 2005.

Immediately before their commencement, New South Wales amended eight (of the 10) plans that the Council considered in the deferred 2003 NCP assessment. For the regulated Gwydir River water sharing plan, the state's latest modelling (noted in the amendments) indicated that the plan will provide 66 per cent of average annual flows to the environment rather than the 56 per cent previously estimated.<sup>7</sup> The amendments relating to environmental allocations in the other plans appear to be relatively minor.<sup>8</sup>

In late June 2004, the New South Wales Parliament passed the Water Management Act amendments introduced by the government in May 2004. As noted in the deferred 2003 NCP assessment, several of the amendments are relevant to the provision of water to the environment (NCC 2004a):

- Catchment management authorities have been given the capacity to administer environmental water as an integral part of overall catchment management. They can hold access licences for environmental water and establish trust funds for acquiring and managing the environmental water.
- The independent Natural Resources Commission is required to review the water sharing plans before the end of their 10-year life. It will advise the Minister on whether the provisions in the water sharing plans are materially affecting the achievement of the targets and standards in the catchment action plans.
- A Water Innovation Council will be established to advise the Minister and the catchment management authorities in identifying and pursuing

---

<sup>7</sup> The estimated total annual flow increased from 875 400 megalitres to 1 141 000 megalitres. The estimated long term annual extraction also increased, from 388 000 megalitres to 392 000 megalitres.

<sup>8</sup> The changes to the water sharing plan for the regulated Namoi River provide marginally less water for the environment; the maintenance of minimum flows at Walgett was made contingent on a specified minimum aggregate volume of water being held in Keepit and Split Rock dams, and the trigger for taking supplementary water in part of the system was reduced. The amended plans for the two unregulated rivers (the upper Brunswick and Kangaroo rivers) allow minor additional extractions from very low flows to comply with legislation on food safety and the prevention of cruelty to animals, but reduce the maximum carry-over of water by licence holders from one year to the next. The amended plan for the Stuarts Point groundwater targets two high priority groundwater dependent ecosystems, whereas the original plan stated that groundwater dependent ecosystems should be identified and the plan should manage water for them.

---

opportunities for water conservation and environmental protection (including opportunities for recovering water for the environment, water re-use and water use efficiency).

## Submissions

For the 2004 NCP assessment, the Council received two submissions that raised issues relevant to the state's compliance with CoAG obligations relating to the provision of water to the environment. The Council received the submissions from the NSW Irrigators' Council and the Nature Conservation Council of NSW/Inland Rivers Network while conducting the deferred 2003 assessment, so it considered and reported on the relevant elements in that assessment.

In addition to the two submissions, in late September 2004 the Gwydir Valley Irrigators Association wrote to the Council in response to the deferred 2003 NCP assessment. The association was concerned, in particular, with the Council's comparison of data on the indicative long term average extraction limit in the water sharing plan for the regulated Gwydir River (388 000 megalitres a year, since revised to 392 000 megalitres a year) with data on historical extractions in a 1998 report by the former Department of Land and Water Conservation (which estimated that licensed and off-allocation extractions averaged 220 000 megalitres a year between 1990 and 1998). The association indicated that average extractions over the longer term have been much closer to the Murray–Darling Basin Ministerial Council cap of 415 000 megalitres a year, stating that the difference between this and the figure in the department's 1998 report is attributable to supplementary water extractions and floodplain harvesting.

The association considers that the water sharing plan for the regulated Gwydir River will reduce average extractions rather than increase them. In addition, in response to the Council's use of a quote from the department's 1998 report — indicating that there is clear evidence of increasing environmental stress within the river and its wetland areas — the association stated that there is insufficient information to draw conclusions about the health of the wetlands. It indicated that the wetlands regularly receive substantial flows of up to 300 000 megalitres a year (in line with the volumes required to flood the wetlands recommended in a study in 1996).

## Discussion and assessment

In the deferred 2003 NCP assessment, the Council stated that it would look in the 2004 NCP assessment for New South Wales to:

- provide (scientific and socioeconomic) information to support the environmental allocations in its water sharing arrangements, showing these go as far as possible to meeting the water regimes necessary to

sustain the ecological values of aquatic ecosystems while recognising the existing rights of other users, or

- commit (as part of the 2004 NCP assessment) to further develop its water sharing arrangements by 1 July 2005 to improve the likelihood that they will achieve the above objective within a reasonable timeframe.

New South Wales did not respond to the deferred 2003 NCP assessment. It also is still to respond to the Council's invitation (in April 2004) to verify the Council's understanding of the effects of environmental allocation arrangements in the sample of 10 water sharing plans considered in the deferred 2003 NCP assessment.

While New South Wales amended the allocation arrangements in some water sharing plans (including for some overallocated and stressed systems), these changes do not appear to address the environmental challenges evident in those systems. The latest modelling of environmental flows reflected in the amended plan for the regulated Gwydir River indicate that the plan will provide 66 per cent of average annual flows to the environment (rather than the 56 per cent previously estimated). In the absence of additional information (including historical data on supplementary water extractions and floodplain harvesting), the Council is not in a position to verify the information on historic extraction levels provided by the Gwydir Valley Irrigators Association. The Council notes, however, that there is further information (to that reported in the deferred 2003 NCP assessment) indicating a decline in the condition of the region's Ramsar listed wetlands.<sup>9</sup> It is also aware of data that indicate the water flows to the wetlands may be less than suggested by the association.<sup>10</sup> New South Wales provided no new evidence to support the sustainability of the long term extraction limit and other rules established under the Gwydir River plan, including to show that

---

<sup>9</sup> The Murray Darling Basin Ministerial Council (1995) in an audit of water use in the basin found that the Lower Gwydir water couch wetlands have been reduced by 90 per cent as a result of water resource development and use in the Gwydir Valley. Murdoch University (2001) conducted a study on the water requirements of the Gwydir wetlands, using a method endorsed by Environment Australia. The study stated that a reduction in the frequency of small to medium floods (as a result of diversion for irrigation) is considered responsible for the displacement of aquatic vegetation with terrestrial vegetation and weeds. This finding is supported by an investigation by Earl (2003) on the distribution of the noxious weed lippia (*Phyla canescens*) that covers large areas of the Gwydir wetlands as a result of the decrease in water inflows and increased terrestrial conditions. The Murdoch University study concluded that the overriding threat to the Gwydir wetlands is a reduction in the frequency and magnitude of flooding resulting in a reduction in the quantity of water reaching the wetlands. It found that there has been a 70 per cent reduction in the occurrence of flows large enough to flood the Lower Gwydir watercourse.

<sup>10</sup> Data from the MDBC (1999, 2000, 2001, 2002, 2003 and 2004) indicate that the flow of water to the Gwydir wetlands over the period 1997-98 to 2002-03 has averaged 103 000 megalitres a year, ranging from 74 000 megalitres in 1997-98 to 157 000 megalitres in 1999-2000.

the 66 per cent of mean annual flow provided to the environment will translate to two-thirds of natural flow for seasonal ecologically-significant flow events.

The amendments relating to environmental allocations in the other plans that the Council considered in the deferred 2003 NCP assessment do not appear to have any implications for the Council's conclusions in that assessment. New South Wales has provided no new information to support the sustainability of the extraction limits and rules established by the other water sharing plans. It has also not provided new socioeconomic evidence to support any trade-offs that it made for social and economic reasons in setting the water sharing rules in the plans. The Council considers, therefore, that there is insufficient evidence to enable it to conclude that New South Wales has met its CoAG obligation to provide appropriate allocations of water to the environment in stressed and/or overallocated rivers and groundwater systems.

For the rivers and groundwater sources covered by the state's 1999 implementation program but not covered by the 39 first-round water sharing plans (see appendix A), New South Wales has advised that it intends to develop 'macro plans' within a 'reasonable timeframe'. At the time of the 2003 NCP assessment, New South Wales indicated that two pilot plans would be ready for public consultation in June 2004. Although New South Wales provided only limited information on its proposed approach, the macro plans appear to offer a cost-effective and timely means for implementing water management arrangements for the state's lower priority rivers and groundwater sources.

Since the 2003 NCP assessment, New South Wales has provided no information on its progress with the proposed macro plans. Accordingly, the Council could not consider in this 2004 NCP assessment whether and how New South Wales is addressing water allocation obligations beyond the systems covered by the 39 water sharing plans. Accepting advice from New South Wales that the 39 plans cover 80–90 per cent of the state's water, the Council has not accounted for the remaining systems in formulating its conclusions in this 2004 NCP assessment on the state's progress toward compliance with the CoAG obligations on the provision of water to the environment.

## 2.4 Water trading

**Assessment issue:** Trading arrangements in water entitlements are to be instituted to maximise water's contribution to national income and welfare, where systems are physically shared or hydrologic connections and water supply considerations permit trading. Under the 1994 CoAG water reform agreement, trading arrangements were to be finalised by 2005. However, the National Water Initiative extends to 2007 the timeframe for establishing institutional and regulatory arrangements that facilitate intra- and interstate trade, and requires the removal of certain barriers to trade.

*(continued)*

Under the National Water Initiative, governments are to immediately remove all restrictions on temporary trade. Also, except in the southern Murray–Darling Basin, governments are to immediately remove barriers to permanent trade out of water irrigation areas (up to an annual threshold limit of 4 per cent of the area's total water entitlement), subject to a review by 2009, and move to full open trade by 2014 at the latest. In the southern Murray–Darling Basin, the relevant governments (including New South Wales) are to take all necessary steps to enable exchange rates and/or tagging of water access entitlements by June 2005, and establish an interim annual threshold limit of 4 per cent on permanent trade out of water irrigation areas, with a review in 2009 to consider raising the interim annual limit.

In the 2003 NCP assessment, which considered intrastate trading arrangements, the Council found that New South Wales had developed an effective framework for water trading under the Water Management Act. The new trading arrangements were still to commence, however, with the water sharing plans and the registry system to be implemented. In addition, the Council identified constraints on trading that are inconsistent with CoAG obligations, including: limits on trade out of some irrigation districts; and, in some water sharing plans, restrictions on trading that do not appear to be required to protect the environment or ensure the practical management of trading. Permanent interstate trade is permitted only in high security water entitlements in the area covered by the MDBC's pilot interstate trading project.

New South Wales needs to:

- make substantive progress towards removing constraints on trade out of irrigation districts
- ensure the trading rules in water sharing plans facilitate trading where systems are physically shared or hydrologic connections and water supply considerations permit trading
- develop arrangements for interstate water trade beyond the MDBC's pilot interstate trading project.

**References:** 1994 CoAG water reform agreement, clause 5; 1999 tripartite meeting; Intergovernmental Agreement on a National Water Initiative

In New South Wales, the Water Management Act includes the following main provisions related to water trading:<sup>11</sup>

- Water access licences are separated from land, are divisible and can be transferred permanently or temporarily.<sup>12</sup> In irrigation schemes, the irrigation corporations hold bulk access licences. The corporations provide a share of the water to each of the landholders within the irrigation district. Only the corporations can legally trade entitlements into or out of their districts. Some corporations limit trade out of their irrigation districts.

---

<sup>11</sup> Previously, the Water Act provided for the temporary or unlimited transfer of water allocations where the allocations were specified volumetrically. Only landholders could purchase water allocations.

<sup>12</sup> Basic landholder rights to water, including stock and domestic rights, are tied to land and are not transferable. Towns can buy and sell water entitlements, although sales are restricted to temporary trades of one-year duration.

- 
- The ‘share’ (or volumetric) component of a water access licence is separated from the ‘extraction’ component (which specifies the sections of the water source from which water may be taken). These components may be independently transferred. By separating the share component from the extraction component, water can be traded without requiring complex environmental assessments for approving extraction and use.
  - The register of access licences allows third party interests to be registered. The consent of third parties is required before a transaction may proceed.
  - An application to trade must comply with the provisions of the Act and any transfer rules established in the water sharing plans for the relevant water sources.

At the time of the 2003 NCP assessment, New South Wales had deferred the commencement of its gazetted water sharing plans and new access licensing and registry systems — initially to 1 January 2004 and later to 1 July 2004 — to accommodate the then foreshadowed National Water Initiative (see section 2.2). As a result, the state’s new water trading arrangements were also still to commence.

In the 2003 NCP assessment, the Council found that New South Wales had developed an effective framework for water trading. It identified, however, constraints on trading that are inconsistent with CoAG obligations, including: limits on trade out of some irrigation districts; and, in some water sharing plans, restrictions on trading that do not appear to be required to protect the environment or ensure the practical management of trading.

New South Wales participates in the MDBC’s pilot project for permanent interstate water trading (see chapter 10). The pilot project is limited to the permanent transfer of high security water entitlements in the Mallee region of South Australia, Victoria and New South Wales (downstream of Nyah). Formal arrangements for interstate trade between New South Wales and Queensland, and New South Wales and the ACT are still to be developed.

## **Trading rules in the water sharing plans**

To provide a basis for the trading rules in water sharing plans, New South Wales gazetted statewide ‘access licence dealing principles’ under the Water Management Act in 2002. Access licence dealings include:

- a change to the ownership of an access licence (referred to as a ‘transfer’)
- a change in the category of an access licence (a ‘conversion’, such as from general security to high security)
- the separation (‘subdivision’) or amalgamation (‘consolidation’) of access licences

- the movement of the share component or extraction component from one access licence to another (an ‘assignment’)
- the movement of water allocations from the account of one access licence to another
- a change in the location at which water allocations credited to the access licence may be extracted.

Under the access licence dealing principles, the objective of access licence dealings is to:

*... help to facilitate maximising social and economic benefits to the community of access licences as required under the objects of the Act. Dealings do this by:*

- (a) allowing water to move from lower to higher value uses, and*
- (b) allowing the establishment of water markets that value the access licences, thereby encouraging investment in water efficient infrastructure, and*
- (c) allowing greater flexibility to access licence holders.*

Box 2.1 summarises the general principles applying to access licence dealings in New South Wales.

**Box 2.1:** General principles for access licence dealings in New South Wales

Dealings should:

- not adversely affect environmental water and water dependent ecosystems
- be consistent with strategies to maintain or enhance water quality
- in unregulated rivers, not increase commitments to take water from areas of high conservation value
- in unregulated river and groundwater sources, not increase commitments to take water above sustainable levels
- in regulated rivers, not increase daily demand at locations and times where demand exceeds delivery capacity
- in regulated rivers, not increase commitments to take water in lower river or effluent systems where this would result in flow for water delivery exceeding 80 per cent of channel capacity for more than 10 per cent of days
- not adversely affect geographic and other features of Indigenous significance or of major cultural, heritage or spiritual significance
- not adversely affect the exercise of basic landholder rights and have no more than a minimal effect on the taking of water from an approved water supply work.

*Source:* Access Licence Dealing Principles Order 2002



---

Apart from the general principles, the following principles also apply for specific types of access licence dealing:

- Most access licence dealings are prohibited if there is an outstanding debt under the Act in respect of the licence or if the licence has been suspended.
- Access licence dealing rules in a water sharing plan are not permitted to regulate or prohibit intrastate transfers of access licences (that is, the transfer of the licence from one person to another), or the subdivision or consolidation of access licences.
- Access licence dealing rules in a water sharing plan may regulate or prohibit other access licence dealings (that is, apart from intrastate transfers, or subdivisions or consolidations) if doing so in a manner consistent with the general principles.
- Dealings involving a change of water source are prohibited where the movement is from an unregulated to a regulated water source (but not vice versa), or from a groundwater source to a regulated river or unregulated river (or vice versa), and no water allocations remaining in the water allocation account of the cancelled licence may be credited to the new licence.
- Interstate dealings must be consistent with the relevant interstate agreement.

In developing the trading rules that apply to each water source, water management committees tailored the statewide access licence dealing principles to account for the level of stress on the water source and operational constraints. Many of the water sharing plans nominate zones in which water dealings are restricted. For the 2003 NCP assessment, New South Wales advised that these restrictions are for environmental reasons or because there is limited supply capacity. It also advised, however, that water management committees were required when developing the water sharing plans to assess the socioeconomic impacts, including the impacts of retaining or removing trading restrictions. New South Wales stated:

*A key objective ... has been to remove as many restrictions on trade as possible, and the final plans reflect a freeing up of the trading environment. In the Murrumbidgee plan, for example, many of the previous restrictions and penalties on trading, such as the loss of carry-over water, have been removed.* (Government of New South Wales 2003, p. 10)

Box 2.2 contains examples of restrictions on trading in three of the gazetted water sharing plans (one regulated river plan, one unregulated river plan and one groundwater plan).

**Box 2.2:** Examples of trading restrictions in gazetted water sharing plans in New South Wales

**Lachlan River regulated water source**

- Any dealing that would increase the total volume of share components of access licences allowed to take water from the Lachlan River downstream of Booligal is prohibited.
- The trading of access licences or share components between upstream of Lake Cargelligo and downstream of Lake Cargelligo is limited until a full review is completed.
- The trading of access licences from the Lachlan River regulated water source to the Lachlan River effluent creeks or Willandra Creek downstream of Willandra Homestead is prohibited.
- The assignment of water allocations from a Lachlan River regulated water access licence to an access licence in another water source (such as the tributaries) is prohibited.
- Access licences in the Lachlan River regulated water source may not be transferred to another state.

**Kangaroo River unregulated water source**

- Individual daily extraction limits of unregulated river access licences can be traded only within the Kangaroo River water source.
- In the escarpment zone, there is to be no net increase in the share component or extraction component to more than specified levels.

**Upper and Lower Namoi groundwater sources**

There are prohibitions on dealings:

- to or from water sources outside the plan area if the total share component or water allocated would exceed 600 megalitres per year per square kilometre
- if adverse local impacts would result
- of water allocations from the Quirindi local water utility
- of supplementary water access licences or allocations
- of aquifer access licences and water allocations into or out of the Lower Namoi groundwater source
- of aquifer access licences and water allocations into any Upper Namoi groundwater source, with the exception of zone 10
- if the total share component of all access licences and the total water allocations in zone 10 would exceed 70 per cent of its recharge.

In the 2003 NCP assessment, the Council found that the water sharing plans generally facilitate water trading, but that some contain restrictions on trading that appear unrelated to a need to protect the environment or to ensure the practical management of trading. Some constraints (for example, the restriction on dealings involving a change of water source where the movement is from an unregulated to a regulated river) appear to be a response to socioeconomic concerns.

## Trade out of irrigation districts

Irrigation corporations and trusts in New South Wales impose a range of restrictions on (permanent and/or temporary) water trade out of irrigation districts (see box 2.3). The restrictions were typically erected in response to fears of 'stranded assets' (Hassall and Associates 2002). 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. In previous NCP assessments, the Council identified the prohibition on trade out of some irrigation districts as a significant impediment to the expansion of water trading both within New South Wales and interstate.

**Box 2.3:** Examples of New South Wales irrigation company rules for water trading out of irrigation districts

### **Coleambally Irrigation Co-operative Limited**

- Permanent transfers out of the area are prohibited if the irrigation area's entitlements would fall below 632 gigalitres (the level of entitlements in 2002).
- A minimum of 4 megalitres per hectare must be retained on each property.

### **Jemalong Irrigation**

- An exit fee may be applied to temporary transfers out of the area but has not been implemented.

### **Macquarie Valley (six small irrigation schemes established as trusts)**

- No permanent transfers out of each trust's scheme are permitted.
- No permanent transfers out of the area are permitted.

### **Murray Irrigation Limited**

- Permanent transfers out of the area must not exceed the sum of permanent transfers into the area.
- A minimum 60 per cent of 1995 entitlements must remain on each property.

### **Murrumbidgee Irrigation**

- For high security licences, total permanent transfers out of the area were limited to 1 per cent of high security entitlements in 2001-02.
- For general security licences, no permanent transfers out of the area were permitted in 2001-02.
- A minimum 25 per cent of entitlements must remain on each property.

### **West Corugan Irrigation Trust**

- No temporary transfers out of the area are permitted unless the water to be traded out was previously traded into the area.
- No permanent transfers out of the area are permitted.

### **Western Murray Irrigation**

- No permanent transfers out of the area are permitted.

*Source:* Hassall and Associates 2002

## Recent trading activity

Significant volumes of water are traded in New South Wales each year. In the 2003 NCP assessment, the Council reported that around 710 gigalitres of water were traded in the state's regulated river systems in 2001-02 (NCC 2003a). Temporary trade accounted for more than 95 per cent of the total volume of water traded. New South Wales did not provide more recent information.

Trading is concentrated in the irrigation areas in southern New South Wales. In 2001-02, the Murray and Murrumbidgee river systems accounted for almost 60 per cent of total trade, with the Darling and Lachlan systems accounting for a further 15 per cent. Pending the commencement of the water sharing plans, the Council understands that only limited trading in unregulated river and groundwater systems has occurred.

Since the establishment of the MDBC's pilot project for permanent interstate water trading in 1998, net trade out of New South Wales has amounted to around 4.6 gigalitres. Net transfers from New South Wales to South Australia of 7.3 gigalitres have been partly offset by net transfers from Victoria to New South Wales of 2.7 gigalitres (see chapter 10). Temporary interstate transfers are significantly higher. Net temporary transfers from South Australia to New South Wales in 2002-03 alone, for example, amounted to 6.1 gigalitres (see chapter 6).

## Reform progress

As discussed in sections 2.2–3, New South Wales commenced 31 water sharing plans, along with its new water access licensing and registry systems, on 1 July 2004. The state's new water trading arrangements also commenced on that date for the areas covered by the water sharing plans. A further eight plans are scheduled to commence on 1 July 2005. For the unregulated rivers and groundwater sources not covered by the 39 water sharing plans, New South Wales intends to develop 'macro plans' within a 'reasonable timeframe'.

In late June 2004, New South Wales amended the Water Management Act, including changes to refine its trading arrangements. Apart from the move to perpetual water access entitlements and other amendments discussed in section 2.2, the changes included:

- the provision that entitlements may be leased, for a specified period of not less than six months
- the provision that entitlement holders who are tenants in common can transfer their access entitlements
- the provision that information on water dealings (such as volumes of water traded and prices paid) may be made public

- the removal of the requirement for the Minister's consent to a change in ownership of a licence that does not involve a change in the location at which the water is extracted (given that environmental issues are unlikely to arise in such cases)
- the simplification of procedures for interstate trading, by allowing water access entitlements from one state to be used to supply water in another state (removing the need for the entitlement to be converted).

In a Ministerial statement on the New South Wales water reforms in June 2004, the Minister for Natural Resources indicated that the government will consider ways of establishing a transparent process for setting exchange rates for water trades (Knowles 2004). In particular, the Minister intends to request that the new Water Innovation Council advise on appropriate exchange rates and methods for determining such rates. The Minister also indicated that he would seek the Water Innovation Council's advice on whether brokers who arrange water trades should be registered (like brokers involved in land-related dealings).

In its 2004 NCP annual report, New South Wales reiterated its view that the ability to vary trading rules that constrain trade out of irrigation districts rests with the irrigation corporations' boards and shareholder customers (Government of New South Wales 2004). It indicated, however, that the Australian Competition and Consumer Commission is investigating the issue at the request of the Murray–Darling Basin Ministerial Council. In addition, New South Wales stated that it is continuing to investigate ways to resolve these concerns through discussions with the Australian Government and the irrigation corporations. In his June 2004 Ministerial statement, the Minister for Natural Resources indicated that he will request that the Water Innovation Council advise possible methods for facilitating trade into and out of irrigation areas, including annual limits on trading out, access fees and exit fees.

## Submissions

The Murrumbidgee Horticulture Council, which represents 1000 high security horticultural irrigators, raised concerns with the trading arrangements in the water sharing plan for the regulated Murrumbidgee River. In particular, it highlighted the plan's prohibition on the transfer of water allocations from a regulated river (high security) access licence water allocation account for applications received after 1 September in any water year. It stated:

*We are particularly concerned with ongoing restrictions to high security irrigators' ability to enter a free and competitive market (both temporary and permanent) in the Murrumbidgee valley. This restriction has significant negative impacts on both buyers and sellers in the valley, including the environment as a potential purchaser in the market place.*

*... we have significant concerns over the inclusion of restrictions to temporary trade ... which reduce competition and severely undermine the property right of high security entitlement holders.* (Murrumbidgee Horticulture Council submission, p. 1)

It indicated that the effect of the trading rule is to prevent high security access licence holders from using all of their entitlements via trading. If the water is not used by high security licence holders (on farm or via trade), it reverts to the resource pool available to general security licence holders in the following year (and not to the environment). The Murrumbidgee Horticulture Council was concerned that the rule may promote a 'use it or lose it' attitude among high security irrigators. It also considered that the restriction reduces competition (potentially increasing prices) for water traded by general security licence holders, who are not constrained by the 1 September cut-off.

The Murrumbidgee Horticulture Council unsuccessfully challenged in the Land and Environment Court the Minister's inclusion of the rule in the water sharing plan. It considers that the rule is contrary to CoAG water reform requirements, despite the Minister being found to have the legal right to apply the restriction under the Water Management Act. It argues that the evidence presented by New South Wales during the court hearing established that the restriction is not for any public or environmental benefit or for the practical management of trading. Rather, the rule is aimed at providing relief to lower priority water users from reductions in their announced water allocations.

The NSW Irrigators' Council noted the following considerations:

- The water trading rules agreed by members of irrigation corporations, in accord with the corporations' memoranda and articles of association, should not be regarded as 'barriers' to trade. Some of the rules are aimed at operational constraints.
- The fact that trade is demand driven explains why there have not been permanent trades out of some corporation areas, regardless of the rules. Trade within regions and districts needs to be recognised as a major portion of water trade.
- Consistent with the objectives of CoAG's trading reforms, significant adjustments are occurring (including changes of ownership and the development of properties) despite the lack of permanent trade.
- Clearly defined property rights, based on water users' requirements for security, will enhance trade out of irrigation corporation areas.
- Several contentious issues relating to water trade are yet to be resolved, including the tagging of entitlements versus exchange rates, the meaning of 'best use' and 'public interest', the need for socioeconomic restrictions (in

---

response to the social circumstances of rural communities), and the required operational and physical constraints.<sup>13</sup>

- Government agencies need to be able to process trades in a commercial timeframe. Some water users have experienced unacceptable delays in DIPNR's processing of permanent water transfers (for example, up to 18 months in the Macquarie Valley).

## Discussion and assessment

In previous NCP assessments, the Council found that the Water Management Act provided an effective framework for water trading in New South Wales, although it identified constraints on trading that are inconsistent with CoAG obligations. New South Wales is also still to develop interstate trade arrangements beyond the MDBC's pilot project, including arrangements for trade with Queensland and the ACT.

Following the commencement of the new water access licensing and registry systems and 31 water sharing plans on 1 July 2004, the water trading arrangements cover a substantial proportion of the state's water. With a further eight water sharing plans scheduled to commence on 1 July 2005, the trading arrangements will apply to 80–90 per cent of the state's water. The water sources accounting for the remaining 10–20 per cent will continue to be administered under the more restrictive Water Act until New South Wales finalises its macro plans (or other arrangements) for these areas.

Under the 1994 CoAG water reform agreement, trading arrangements were to be substantially implemented by 2005 for the water sources covered by governments' 1999 implementation programs. The National Water Initiative extends to 2007 the timeframe for the establishment of institutional and regulatory arrangements that facilitate intra- and interstate trade (although barriers to temporary trade must be removed immediately). In the southern Murray–Darling Basin, the relevant governments (including New South Wales) committed to take all steps (including legislative and administrative changes) to enable exchange rates and/or tagging of water access entitlements traded from interstate sources to buyers in their jurisdictions by June 2005. The recent legislative amendments by New South Wales to simplify procedures for interstate trading represent the first step in this process.

---

<sup>13</sup> The NSW Irrigators' Council indicated that trading restrictions may be required in some cases because different arrangements apply in regulated and unregulated rivers. Enabling trade from regulated to unregulated parts of the Gwydir system, for example — such as from the regulated Mehi River to the unregulated Barwon River — may trigger commence-to-pump conditions in the Barwon, because these conditions are often based on river height. Given that the trade may create an artificial flow and an access event in the unregulated system, the buyer might have difficulty accessing the water purchased.

In the areas covered by the water sharing plans, water access licences are separated from land title, are divisible and can be transferred permanently or temporarily (including by lease). It is not necessary to own or occupy land to hold an access licence. The water access licence register is similar to the state's land titles register. It includes third party interests, whose consent is required before transfers may proceed. The government is working to verify details on the register (including ownership interests) within three years to provide indefeasibility of title. While the time taken to process trades has been a problem in the past, New South Wales expects significant improvements under the new arrangements.

Trading mechanisms are well developed in New South Wales, with trade occurring through formal water exchanges, brokers and private sales. While some market information is available (for example, through the water exchanges), the availability and comprehensiveness of information should improve as a result of the recent legislative changes. The water access licence register is open to the public, and the water sharing plans (including the rules for trading to and from a particular water source) are available on the Internet.

The new arrangements also include measures to ensure water trades do not adversely affect the environment or the rights of other water users. All water transfers that involve a change to the location at which water may be extracted must be approved by the government and must be consistent with the Water Management Act, the access licence dealing principles and the trading rules in the relevant water sharing plans.

The water sharing plans and the statewide access licence dealing principles provide greater scope for trading than previously possible — for example, trade is permitted in unregulated river systems where previously it was generally not possible. Some constraints remain, however. The access licence dealing principles prohibit dealings involving, for example, a change of water source where the movement is from an unregulated to a regulated water source. In addition, the water sharing plans often nominate zones in which dealings are restricted and, in some cases, impose wider restrictions. The guides to the water sharing plans published by New South Wales indicate that the rules regulating dealings are required generally for practical management reasons and to protect the environment and the interests of other access licence holders.

Nevertheless, other rationales also underpin the restrictions on trading in some plans:

- In the 2003 NCP assessment, New South Wales advised that the restriction on dealings involving a change of water source from an unregulated to a regulated water source is in place to protect an immature water market (on the unregulated rivers) from a well-developed market (on the regulated rivers). This restriction appears likely to constrain the extent to which water is put to its most profitable use and, therefore, is likely to work against the achievement of CoAG water reform objectives.



- The Murrumbidgee Horticulture Council highlighted the regulated Murrumbidgee River plan's prohibition on the transfer of water allocations from high security water allocation accounts after 1 September each year. The rule restricts trade and appears to advantage lower security licence holders, but does not seem to be required for environmental reasons or the practical management of trade. New South Wales did not respond to the issues raised in the Murrumbidgee Horticulture Council's submission.
- New South Wales previously indicated that it required water management committees to assess socioeconomic impacts when developing the water sharing plans, including the impacts of retaining or removing trading restrictions. As an example, the guide for the Lachlan River regulated water source states that the dealing rules may be required to protect social infrastructure.

In its 2004 NCP annual report, New South Wales stated that it:

*... continues to support the removal of barriers to trade except for those protecting the environment or protecting the interests of third party water users directly affected in an adverse way by proposed dealings.*  
(Government of New South Wales 2004, p. 13)

Under the extended timetable in the National Water Initiative, New South Wales will need to ensure the trading rules in its water sharing and subsequent plans facilitate trading by 2007 where water systems are physically shared or hydrologic connections and water supply considerations permit water trading.

The limits on trade out of irrigation districts, particularly the prohibition that applies in some districts, appear to be a response to community concern that trade out of a district may result in adverse outcomes, including: the diminution of local production and regional economies; a reduction in the rate base for local governments; the loss of economies of scale; and potential 'stranding' of irrigation infrastructure. In addition, directors of irrigation corporations have responsibility for the ongoing value of the corporation and, therefore, want to ensure no adverse impacts for their shareholder customers. The restrictions impede water trading, however, both within New South Wales and interstate, limiting the capacity of New South Wales to achieve CoAG trading objectives. While the ability to vary trading rules rests with the corporations' boards and shareholder customers, the CoAG water agreements place responsibility on the New South Wales Government to facilitate trading in water, subject to protecting the environment and third party interests.

In his June 2004 Ministerial statement, the Minister for Natural Resources stated:

*The government is committed to facilitating water trading into and out of irrigation corporations and cooperatives. It will work closely with the corporations and cooperatives to assist them in removing unjustified barriers to trade and in implementing measures, such as 'retail tagging', to mitigate any potential adverse consequences flowing*

*from the removal of trading restrictions, including the residual costs of managing water supply infrastructure.*

*The Water Innovation Council will be asked to advise the government on this and other possible methods for facilitating trading into and out of irrigation areas, consistent with arrangements agreed under the National Water Initiative. These measures include annual limits on trading out, access fees and exit fees. (Knowles 2004, p. 16)*

Subsequently, under the National Water Initiative, New South Wales and other signatory governments committed to remove by June 2005 the barriers to permanent trade out of water irrigation areas (up to an annual threshold of 4 per cent of the area's total water entitlements), subject to a review by 2009, and to move to full open trade by 2014 at the latest (except for the southern Murray–Darling Basin). The governments agreed to remove barriers to temporary trade immediately. For the southern Murray–Darling Basin, New South Wales and the other relevant governments committed to take all necessary steps by June 2005 to facilitate permanent trade out of water irrigation areas (up to an interim annual threshold limit of 4 per cent), with a review in 2009 to consider raising the threshold. New South Wales specifically committed to make the necessary legislative changes by June 2005 to effect a Heads of Agreement between the government and major irrigation corporations to permit permanent trade up to the interim threshold of 4 per cent per year.

Given the commitments made by New South Wales under the National Water Initiative, and the extended timeframes applying to the implementation of trading arrangements outside the southern Murray–Darling Basin, the Council considers that New South Wales has made satisfactory progress against its CoAG water trading obligations for the 2004 NCP assessment.