

# **1 Water reform: background and scope of the 2003 National Competition Policy assessment**

The Council of Australian Governments (CoAG) agreed in 1994 on a water resource policy and strategic reform framework (the CoAG water reform agreement) for Australia's water industry. Overall, the agreement is aimed at improving the efficiency and effectiveness of Australia's water supply and wastewater industries and implementing sustainable water management arrangements that consider the effects of all water use (by agriculture, industry, households and the environment). CoAG brought water reform within the ambit of the National Competition Policy (NCP) in 1995 as one of the four NCP 'related' reforms.

The CoAG water reform agreement takes an integrated approach that addresses together the environmental, economic and social issues associated with water use. It shares the economic efficiency objectives of the NCP, through: provisions on water pricing and cross-subsidies to better relate pricing to use; the requirement that investment in new rural water schemes be economically viable; the requirement to ensure clearly specified, secure water rights; the support for water trading so water is used where it is most valued; and obligations on institutional reform to remove potential conflicts of interest between regulation and service provision.

The agreement has explicit environmental objectives and obligations. It requires that governments: allocate water for environmental purposes; show that investments in new rural water infrastructure are ecologically sustainable; ensure that trading arrangements (particularly cross-border trading) have appropriate ecological safeguards; and implement integrated resource management arrangements and policies to improve water quality. Several of the 'economic efficiency' reforms reinforce this focus on sustainability. Relating price directly to water use provides a better incentive for water conservation. The structural separation requirements ensure that the businesses providing water and wastewater services do not also have responsibility for regulation, including environmental regulation. The requirement that governments undertake public education and consultation programs on water reform helps the implementation of reform by improving people's understanding of the need for change.

This is the fourth NCP assessment of governments' progress with implementing the CoAG water reform agreement, following assessments in 1999, 2001 and 2002. The National Competition Council also conducted

several supplementary assessments on issues in particular jurisdictions.<sup>1</sup> This 2003 assessment considered progress against the reforms that CoAG senior officials scheduled for assessment this year as well as matters that the Council had found in earlier NCP assessments to be incomplete. Water reform activity assessed in 2003 thus encompassed:

- the reform areas that CoAG senior officials determined should be assessed in 2003 — urban water pricing (full cost pricing and consumption-based pricing), institutional reforms (structural separation, performance monitoring and benchmarking of water businesses, a commercial focus by water businesses, devolution of irrigation scheme management and integrated catchment management, except where the Council reached a final conclusion on the implementation of these reforms in an earlier assessment), intrastate trading arrangements and the National Water Quality Management Strategy;
- the achievement of appropriate environmental flow regimes in New South Wales (arising from the supplementary 2002 NCP assessment for New South Wales), Victoria (for five stressed rivers) and Queensland (progress in developing the new Condamine–Balonne Basin water resource plan);
- the implementation of water rights arrangements in New South Wales (primarily establishment of the State’s water access licence system and register of water entitlements);
- new investments in water infrastructure, which need to be shown to be economically viable and ecologically sustainable, in Queensland, South Australia and Tasmania;
- public education and consultation activity, which CoAG senior officials determined needed to be undertaken in conjunction with other reforms; and
- the review and reform of water legislation, in line with the Competition Principles Agreement obligation to review and, where appropriate, reform legislation that restricts competition by 30 June 2002.

All matters considered in this assessment were previously addressed in the 2001 NCP assessment, in which the Council set out what needed to be done to implement the reform program. Governments should have had sufficient time since the 2001 assessment to put in place arrangements that appropriately implement all reform matters being assessed this year. Consequently, the Council made recommendations for reductions or suspensions of 2003-04 competition payments where governments failed to implement appropriate arrangements on significant reform issues. The Council’s recommendations on competition payments for water reform are set out in the findings and recommendations section of this volume and in the overview of progress and recommendations in volume 1.

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<sup>1</sup> All NCP assessment and supplementary assessment reports are available on the Council’s web site ([www.ncc.gov.au](http://www.ncc.gov.au)).

In concluding on reform performance and competition payments, the Council accounted for the scope of the work under way under the auspices of CoAG. This work is focusing on sustaining Australia's river systems, particularly matters of resource security, water trading, compatibility between jurisdictions' systems of water management, and change management. The Council also accounted for the Deputy Prime Minister's announcement on 4 June 2003 foreshadowing a new intergovernmental agreement on water, for consideration at the CoAG meeting in August 2003. The foreshadowed CoAG work led New South Wales to postpone the application of its water management arrangements and new licensing system to 1 January 2004. The New South Wales water management arrangements encompass reform elements that were due for assessment in 2003.

The 2003 NCP assessment also reports briefly on governments' progress with implementing the reforms that CoAG senior officials scheduled for Council assessment in 2004 and 2005. The reforms scheduled for assessment in 2004 are rural water pricing, interstate trading arrangements, the conversion of existing water allocations to new water rights systems and progress in implementing environmental allocations. The 2005 assessment will consider governments' implementation of the entire package of reforms. By reporting on progress against the 2004 and 2005 obligations in 2003, the Council sought to encourage governments to continue to attend to delivering the CoAG program in full and on time. There are no recommendations on 2003-04 competition payments arising from the progress reporting against the 2004 and 2005 water reform obligations. Table 1.1 lists the assessment and progress report issues considered in the 2003 NCP assessment.

**Table 1.1:** Assessment and progress report issues for the 2003 NCP assessment

<i>Assessment issues</i>	<i>Progress report issues</i>
<ul style="list-style-type: none"> <li>• Urban pricing reforms: all State and Territory governments</li> <li>• Intrastate trading arrangements: all State and Territory governments</li> <li>• Institutional reform arrangements: all State and Territory governments</li> <li>• Implementation of the National Water Quality Management Strategy: all State and Territory governments</li> <li>• Completion of NCP legislation review and reform commitments for all water legislation: all State and Territory governments</li> <li>• Access licences and registry system: New South Wales</li> <li>• Provision of environmental water to stressed and overallocated river systems: New South Wales, Victoria and Queensland</li> <li>• Investments in new or extended rural water schemes: Queensland, South Australia and Tasmania</li> <li>• Public consultation and education on the above issues: all State and Territory governments</li> </ul>	<ul style="list-style-type: none"> <li>• Progress towards full cost recovery in pricing by rural water authorities: all State and Territory governments</li> <li>• Progress in converting existing allocations to new water entitlements systems: all State and Territory governments</li> <li>• Progress in determining environmental water allocations: all State and Territory governments</li> </ul>

# 1.1 The elements of the water reform program assessed in 2003

## Water pricing

### Full cost recovery

Water and wastewater businesses are to set prices to earn sufficient revenue to ensure their ongoing commercial viability but avoid monopoly returns. To this end governments agreed that prices should be set by the nominated jurisdictional regulator (or its equivalent) as follows.

- To be viable, a water business should recover at least the operational, maintenance and administrative costs, externalities, taxes or tax equivalents (not including income tax), the interest cost on debt, dividends (if any) and make provision for future asset refurbishment/replacement. Dividends should be set at a level that reflects commercial realities and simulates a competitive market outcome.
- To avoid monopoly rents, a water business should not recover more than the operational, maintenance and administrative costs, externalities (defined for the purpose of the pricing obligation to be the natural resource management costs attributable to and incurred by the water business), taxes or tax equivalent regimes, provision for the cost of asset consumption and cost of capital, the latter being calculated using a weighted average cost of capital.
- In determining prices, the economic regulator or equivalent 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 classes of customer 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.
- Asset values should be based on deprival value methodology 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 community service obligations, contributed assets, the opening value of assets, externalities including resource management costs, tax equivalent regimes and any remaining cross-subsidies.

**Reference:** CoAG water reform agreement, clauses 3(a)–3(d); guidelines for the application of section 3 of the CoAG water reform agreement and related recommendations in section 12 of the expert group report (the CoAG pricing principles)

Pricing has a significant impact on the amount of water used, the provision of future supply capacity and the total amount of investment in the water industry. Recognising the link between prices and consumption and investment activity, the CoAG water reform agreement sought to address a range of problems. Notably, the price of water and wastewater services in

urban areas often had little regard to patterns of production, usually incorporated cross-subsidies that disadvantaged industrial and commercial customers and, most importantly, provided no incentive to conserve water. For rural water, below-cost pricing distorted rural production decisions, encouraged wasteful water use and often led to water providers making insufficient financial provision for asset maintenance and replacement.

As recognised by the Expert Group on Asset Valuation Methods and Cost Recovery Definitions for the Australian Water Industry, prices need to reflect all known resource costs (Expert Group 1995, p. 14). In both urban and rural areas, the CoAG water agreement obliges water and wastewater businesses to set prices that are consumption-based and fully recover costs (including operating and maintenance expenses, administrative costs, the natural resource management costs imposed on and incurred by the business, finance costs, depreciation expenses and a non-negative rate of return reflecting the opportunity cost of capital). Because most of the cost of providing wastewater services to domestic and small commercial consumers is fixed, use-based charges for services provided to these categories of consumers are less relevant, although charges for services provided to high level waste dischargers should be linked to use.

Water and wastewater businesses are generally the only provider of water and wastewater services in a geographic area. Reflecting this, the CoAG pricing principles impose a stricture that businesses avoid monopoly pricing. Prices should be set to recover no more than efficient business and resource management costs, with the rate of return on capital calculated using the weighted average cost of capital. Most States and Territories subject their monopoly water businesses to price regulation by the jurisdictional economic regulator.

Where service providers are required to provide services to classes of customers at a price below full cost, the cost should be fully disclosed and ideally paid to the service provider as a community service obligation. Cross-subsidies that create inefficiencies should be eliminated and those retained reported transparently. Governments have an obligation to explain the intent of any community service obligations and cross-subsidies to show that they do not undermine CoAG's overall policy objective of an efficient and sustainable water industry. The National Competition Council does not assess the adequacy of governments' explanations — rather it seeks to understand how in totality the community service obligations and cross-subsidies cases do not undermine CoAG's policy objective.

The water reform agreement set a timeframe for implementing the water pricing reforms: 1998 for urban service providers and 2001 for those in rural areas. Following the 2001 NCP assessment, CoAG senior officials agreed the National Competition Council would assess governments' implementation of urban and rural water pricing reforms in 2003 and 2004 respectively. Consequently, in this 2003 NCP assessment, the Council examined cost recovery by urban metropolitan and nonmetropolitan water and wastewater businesses, focusing on those with more than 1000 property connections. The Council also reported on progress towards cost recovery by rural water businesses. The Council considered the following questions in assessing governments' compliance with the CoAG obligation on cost recovery.

- Are urban water and wastewater businesses setting prices that achieve full cost recovery in accordance with the CoAG pricing principles? Pricing by water and wastewater businesses that fully recover costs and is based on efficient resource pricing and business costs encourages efficient customer-driven service provision and appropriate price signals for consumers.
- Are urban water and wastewater businesses applying appropriate asset valuation methods and are businesses earning a real rate of return on the written-down replacement cost of their assets? Robust information on the replacement cost (real cost) of providing water infrastructure, rather than on measures such as historic cost (original purchase price), enables service providers to properly provide for asset replacement/refurbishment in prices. Achieving a non-negative rate of return safeguards against undermining the business's asset base. Factoring the cost of infrastructure into water and wastewater service prices using asset values based on the deprival value method (unless an alternative approach can be justified) better signals the true cost of water consumption.
- Are dividend payment policies and the dividend distributions by water and wastewater businesses reflecting commercial reality and simulating a competitive market outcome? Setting an upper limit for dividend distribution by government water service businesses — on the basis of the corporations law requirement that dividends be paid only out of profits (the current year's profit plus accumulated retained profits) — guards against water and wastewater service providers having insufficient financial resources to conduct their business and is consistent with the Competition Principles Agreement obligations on competitive neutrality.
- What natural resource management requirements are imposed on water businesses and what are the costs of these requirements? Are the costs transparently passed on to water users in prices? To remain viable, water and wastewater businesses need to recover the costs of any environmental and natural resource management obligations imposed on them by governments. Prices that reflect an appropriate level of environmental costs encourage environmentally-aware water use.

- Have cross-subsidies that are not consistent with efficient service provision been eliminated or, at a minimum, has the objective and quantum of remaining cross-subsidies been transparently reported? The Council does not consider whether the rationale for a cross-subsidy is appropriate. Rather, it looks for an explanation of the intent of any cross-subsidies, to ensure that they are consistent with an efficient and sustainable water industry.
- Do community service obligations (CSOs) have an explicit public benefit objective? Are they clearly defined, transparently reported and directly funded, with the cost fully disclosed? The Council does not consider whether the rationale for an individual CSO is appropriate. Rather, it looks for governments to demonstrate that CSOs are provided in a way that does not undermine the achievement of an efficient and sustainable water industry.
- Are urban water and wastewater businesses recovering rates and taxes (or rate and tax equivalents)? The CoAG pricing principles recognise taxes (or tax equivalents) as a component of the full (economic) cost that water businesses are to recover to ensure viability. Most urban water authorities have introduced tax equivalent regimes or the National Tax Equivalent Regime.

## Consumption-based pricing

Water businesses are to set prices that reflect the volume of water supplied to encourage more economical water use. Businesses should implement a two-part tariff (comprising a fixed access component and a volumetric cost component), where this is cost effective. Bulk water suppliers should set use-based charges (or a two-part tariff with an emphasis on the volumetric component).

**Reference:** CoAG water reform agreement, clauses 3(a)-(c)

Consumption-based (or volumetric) pricing provides a financial incentive to use water efficiently, thus rewarding water conservation. Conserving water can defer the need to invest in new water infrastructure, meaning potentially substantial savings to the community and environmental benefits. Most urban water providers had introduced consumption-based pricing by the 2002 NCP assessment. Some water businesses, however, were still setting prices linked to factors such as property value and providing free water allowances. Water charges linked to property value are less likely to provide a strong volumetric signal, and free water allowances in most cases inhibit incentives for economical water use. Wastewater charges can also have a volumetric focus where the charge is linked to the volume of waste and pollutant/toxicity load.

The Council looked for evidence that customers of water businesses (with more than 1000 connections) face a strong volumetric signal, and for entities discharging large volumes of waste and/or high-strength waste to face charges linked to the volume or strength of the discharge. Because use-based

charges for domestic and small commercial consumers of wastewater are unlikely to be cost effective, a fixed charge for the wastewater services provided to these categories of consumers is appropriate.

Where businesses had not introduced consumption-based pricing by 30 June 2003 or committed to do so, the Council looked for robust evidence that the introduction of consumption-based pricing would not be cost effective. Where water charges (or a component of charges) continued to be based on property value or some other measure, the Council looked for governments to show that the method of charging does not undermine the principle of consumption-based pricing or lead to nontransparent cross-subsidies among different customer classes. Where free water allowances are retained or are being phased out over a period beyond 30 June 2003, the Council looked for evidence that most customers face a strong volumetric signal for the bulk of the water that they receive.

## **Water allocations and entitlements, including provision of water to the environment**

Governments are to establish comprehensive systems of water entitlements backed by the separation of water property rights from land title and the clear specification of entitlements in terms of ownership, volume, reliability, transferability and, if appropriate, quality. Governments must have determined and specified water rights, including reviewing dormant rights.

A comprehensive system of water entitlements is defined as *'establishing water allocations to be put in place which recognise both consumptive and environmental needs. The system is to be applicable to both surface and ground water. However, applications to individual water sources will be determined on a priority needs basis (as determined by an agreed jurisdiction-specific implementation program).'*

**Reference:** COAG water reform agreement, clause 4; and the January 1999 tripartite meeting. The tripartite meeting was held between representatives of the National Competition Council, the High Level Steering Group on Water (augmented by representatives from the Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ) and the Australian and New Zealand Environment and Conservation Council (ANZECC)) and the Committee on Regulatory Reform to consider the implementation of the CoAG water reform framework. CoAG subsequently endorsed the recommendations from the meeting.

The CoAG water reform agreement acknowledged a need to better define the nature of water rights and to separate them from land title. The agreement also obliged governments to specify the amount of water (in terms of ownership, volume, reliability, transferability and, if appropriate, quality) available for extractive uses and to formally recognise the environment as a legitimate user of water. Governments must make an appropriate amount of water available for the environment. This amount should be determined, wherever possible, on the basis of the best scientific information available and account for the water required to enhance/restore the health of river systems and groundwater basins.



In previous NCP assessments, the Council found that all governments had legislated to establish systems of water rights separate from land title. Implementing these systems involves converting existing water allocations to the new entitlements systems, developing operational systems for registering entitlements, and developing and implementing water management plans for river systems and groundwater basins. Water management plans establish the amount of water that is available in a system and set out the arrangements for sharing that water among different users, including the environment.

In previous NCP assessments, the Council considered the legislative basis for establishing water rights in each jurisdiction. It also previously considered governments' progress in water management planning and in implementing the institutional arrangements needed to support effective water rights systems. On these matters, the Council draws the following interpretations from CoAG decisions.

- Water rights should be linked to a robust adaptive resource planning system.
- Water rights should be clearly specified so as to promote efficient trade within the social, physical and ecological constraints of the catchments.
- Water rights should be specified over the long term, exclusive, enforceable and enforced, transferable and divisible to provide for sustainability and community needs and to reflect the scarcity value of water.
- Water users should have the highest possible level of security in terms of the nature of the right, and absolute security of ownership. (While a 'lease in perpetuity' maximises security, it is not required by the CoAG water reform agreement.)
- Governments may provide compensation where, for example, reductions in reliabilities or other parameters are abrupt or extensive, but the CoAG water reform agreement does not require them to provide compensation. Consequently, whether compensation is provided is not relevant to the assessment of compliance.
- Any constraints on the capacity to trade water rights should be based on a sound public benefit justification and minimise impacts on efficient trading.

This 2003 NCP assessment reported on governments' progress in implementing new water rights arrangements following the passage of legislation in all jurisdictions that created water rights that are separate from land title. The major implementation issues centre on progress with water management planning, the conversion of existing water allocations to new licence systems and the development of systems for registering entitlements. The Council also considered one matter remaining from the 2002 NCP assessment. New South Wales was to have established a new access licensing system (including regulations under the *Water Management Act 2000* to put

in place a system for renewing access licences) and a new system for registering water rights in January 2003. The New South Wales Government deferred these measures — along with the commencement of its water sharing plans — to 1 January 2004 as a result of the Commonwealth Government foreshadowing CoAG work on a new intergovernmental agreement on water.

## Provision of water to the environment

Governments are to establish a sustainable balance between the environment and other uses, including formal provisions for the environment for surface water and groundwater. In doing so, governments are to have regard for the ARMCANZ/ANZECC National Principles for the Provision of Water for Ecosystems (box 1.1).

Environmental requirements are to be determined wherever possible on the best available scientific information and governments are to have regard to the intertemporal and interspatial water needs required to maintain the health and viability of river systems and groundwater basins. For river systems that are overallocated or deemed to be stressed, governments are to provide a better balance in water resource use, including appropriate allocations to the environment to enhance/restore the health of river systems.

Governments should also consider environmental contingency allocations, with a review of allocations five years after they have been initially determined.

The 1999 tripartite meeting clarified the commitment to provide water for the environment and timeframes:

*For the second tranche [1999], jurisdictions submitted individual implementation programs, outlining a priority list of river systems and/or groundwater resources, including all river systems which have been over-allocated, or are deemed to be stressed and detailed implementation actions and dates for allocations and trading to the NCC for agreement, and to Senior Officials for endorsement. This list is to be publicly available.*

*For the third tranche [2001], States and Territories will have to demonstrate substantial progress in implementing their agreed and endorsed implementation programs. Progress must include at least allocation to the environment in all river systems which have been over-allocated, or are deemed to be stressed.*

*By 2005, allocations and trading must be substantially completed for all river systems and groundwater resources identified in the agreed and endorsed individual implementation programs.*

**Reference:** CoAG water reform agreement, clauses 4(b)–4(f); and 1999 tripartite meeting

Provision of water to the environment recognises the importance of maintaining biodiversity, addressing salinity, visually improving waterways, lakes and dams, improving habitats for fauna and flora and contributing to reduced land degradation. Achieving improved environmental outcomes is a central objective of the CoAG water reform agreement. Clause 4 of the agreement obliges governments to determine comprehensive systems of water allocations including environmental allocations for surface and groundwater resources. The 1999 tripartite meeting on water determined that progress should involve allocations for environmental purposes in all stressed and overallocated river systems by 2001. By 2005, allocations must be substantially completed for all river systems and groundwater resources identified in governments' endorsed programs.

A further outcome of the tripartite meeting was that governments, in demonstrating a sustainable balance between the environment and other uses for surface water and groundwater, should provide formal allocations for water systems consistent with the Agriculture and Resource Management Council of Australia and New Zealand/Australian and New Zealand Environment and Conservation Council (ARMCANZ/ANZECC) National Principles for the Provision of Water for Ecosystems (box 1.1). The national principles, while not the framework for decisions on water allocation, provide direction on how water management processes should deal with the issue of providing water for ecosystems. The key objective of the national principles is to sustain and, where necessary, restore ecological processes and the biodiversity of water-dependent ecosystems, recognising that adequate water flow is critical for maintaining natural ecological processes and biodiversity.

National principle 5 requires action (including reallocation) be taken to meet environmental needs where environmental water requirements cannot be met because of existing uses. Principle 4 states that the provision of water for ecosystems should go as far as possible to meeting the water regime necessary to sustain the ecological values of aquatic ecosystems while recognising the existing rights of other users. This principle introduces scope for socioeconomic outcomes to also guide water allocations. Principle 12 requires that all relevant environmental, social and economic stakeholders be involved in water allocation planning and decision-making on environmental water provisions.

The national principles (specifically principles 4 and 5) recognise that where there are existing users, allocations of water for consumptive and environmental purposes should be decided on the basis of full information about the ecological requirements of systems and the impacts on existing users, with the objective of ultimately achieving appropriate environmental outcomes. Integral to this is that the reference groups developing water management arrangements (and therefore determining the amount of water for extractive uses and environmental allocations) be broadly representative of the affected community. The appropriate application of the CoAG water reform agreement (incorporating the national principles) thus depends on governments ensuring that reference groups and their communities have access, wherever possible, to information on: the science-based calculation of the water requirements for sustaining ecological values; the extent of any socioeconomic trade-offs from the recommended water requirements and the rationales for the trade-offs; and the expected impact of any trade-offs on ecological values. The availability of this information (particularly an awareness of the consequences of departing from scientifically-recommended environmental flows) and access to the views of a well-informed community mean that reference groups will be better placed to decide how much water should be provided for environmental purposes.

Obligations relating to environmental allocations were relevant in the 2003 NCP assessment for New South Wales, Victoria and Queensland — all of which have stressed or overallocated river systems. The Council considered the progress made by New South Wales and Queensland in this area in

supplementary assessments in 2002 (see section 1.4). Victoria provided a three-year program for improving the health of its stressed rivers in 2001. Under this program, Victoria committed to establish river health/flow rehabilitation plans for five priority river systems by 30 June 2003. Apart from assessing progress by these three jurisdictions, the Council reported on all governments' implementation of their water management arrangements against the 2005 CoAG deadline for substantial completion of allocations.

Other elements of the CoAG water reform agreement also have implications for environmental outcomes. Clauses 3 (a)–(d) require water pricing regimes to be based on the principle of consumption-based pricing, thus providing a greater incentive for water conservation. Clause 3(d)(iii) obliges governments to show that new rural infrastructure projects or extensions to existing schemes are ecologically sustainable before investing in those schemes. Clause 5, which seeks to facilitate water trading, recognises that trading (particularly cross-border trading) may be legitimately constrained for ecological reasons. Clause 6(c) requires that, as far as possible, the role of water industry standards-setting and regulation — including environmental regulation — be separated institutionally from businesses providing water and wastewater services. Clause 8 defines several obligations relating to the environment including the implementation of the National Water Quality Management Strategy (NWQMS) and the establishment of land care practices to protect rivers with significant environmental value. These reforms are discussed in the following sections.

**Box 1.1:** ARMCANZ/ANZECC National Principles for the Provision of Water for Ecosystems

*Principle 1:* River regulation and/or consumptive use should be recognised as potentially impacting on ecological values.

*Principle 2:* Provision of water for ecosystems should be on the basis of the best scientific information available on the water regimes necessary to sustain the ecological values of water dependent ecosystems.

*Principle 3:* Environmental water provisions should be legally recognised.

*Principle 4:* In systems where there are existing users, provision of water for ecosystems should go as far as possible to meet the water regime necessary to sustain the ecological values of aquatic ecosystems whilst recognising the existing rights of other water users.

*Principle 5:* Where environmental water requirements cannot be met due to existing uses, action (including reallocation) should be taken to meet environmental needs.

*Principle 6:* Further allocation of water for any use should only be on the basis that natural ecological processes and biodiversity are sustained (that is, ecological values are sustained).

*Principle 7:* Accountabilities in all aspects of management of environmental water should be transparent and clearly defined.

*Principle 8:* Environmental water provisions should be responsive to monitoring and improvements in understanding of environmental water requirements.

*Principle 9:* All water uses should be managed in a manner which recognises ecological values.

*Principle 10:* Appropriate demand management and water pricing strategies should be used to assist in sustaining ecological values of water resources.

*Principle 11:* Strategic and applied research to improve understanding of environmental water requirements is essential.

*Principle 12:* All relevant environmental, social and economic stakeholders will be involved in water allocation planning and decision-making on environmental water provisions.

## Intrastate water trading

Water trading arrangements are to maximise water's contribution to national income and welfare, within the social, physical and ecological constraints of catchments.

**Reference:** CoAG water reform agreement, clause 5

The CoAG water reform agreement emphasises the importance of maximising the contribution of water to national income and welfare (within the social, physical and ecological constraints of catchments) through water trading. Where they have not already done so, governments are to implement arrangements for water trading once they have settled water entitlements. The CoAG agreement recognises a need for consistency in trading arrangements, to facilitate cross-border trading where this is possible.

In most jurisdictions, water rights may be traded temporarily (for an agreed number of seasons, including consecutive seasonal assignments) or permanently. In some jurisdictions, it is also possible to lease rights with no limit on the duration of the lease. The water management arrangements

being developed under State and Territory legislation establish the quantum of tradeable volumetric allocations and set the rules governing trading.

Several implementation issues need to be resolved to achieve effective trading outcomes. The Murray–Darling Basin Commission is examining how best to manage many of these issues.

- Definitions of tradeable water rights (the commodity being traded) need to be consistent across supply systems. Where this is not possible, mechanisms such as exchange rates need to be in place to equate levels of entitlement across systems.
- Environmental clearance processes need to be robust.
- Appropriate administrative arrangements, including reliable and accessible water rights registers are necessary. Ready access to data on the price and volume of water being traded will help to develop water markets.
- Institutional and regulatory arrangements and operational decisions by licence holders (including irrigation trusts) need to facilitate trade unless there is a clear public interest argument for restricting trade.

CoAG determined that the National Competition Council should assess governments' progress with intrastate water trading in 2003 and interstate water trading in 2004. By 2005, arrangements to enable trading must be substantially in place. Some of the matters that are important for intrastate trading are also relevant for interstate trading. The Council may therefore revisit matters considered in this and previous assessments (such as consistency in registry systems) when it examines interstate trade in 2004.

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## Institutional reforms

As far as possible, the roles of water resource management, standard setting and regulatory enforcement, and service provision are to be separated institutionally.

Service providers, in metropolitan areas in particular, are to have a commercial focus, whether achieved by contracting out, corporatisation or privatisation as determined by the relevant government. Service providers are to benchmark their performance and should seek to achieve international best practice.

Constituents are to be given greater responsibility in the management of irrigation areas, for example, through devolution of operational responsibility to local bodies, subject to appropriate regulatory frameworks being established.

Governments are to adopt an integrated approach to natural resource management practices, including:

- demonstrated administrative arrangements and decision-making processes to ensure an integrated approach to natural resource management and integrated catchment management;
- an integrated catchment approach to water resource management, including consultation with local government and the wider community in individual catchments; and
- a consideration of land care practices to protect rivers with high environmental values.

**Reference:** CoAG water reform agreement, clause 6

Governments should, at a minimum, separate the responsibility for the provision of water and wastewater services from the responsibility for regulation, water resource and environmental management and standards-setting in areas such as health and plumbing. The separation of roles is intended to remove the potential for conflicts of interest, which might arise if, for example, a monopoly water business (or its Minister) has responsibility both for providing water and determining the price and quality of that water. Independent economic regulation is appropriate, given water and wastewater businesses are public monopolies. Independent economic regulation, where the regulator recommends on prices taking account of the CoAG pricing principles and provides its recommendations in a public report, also addresses pricing obligations. If water businesses are too small to justify full monitoring (as is often the case for local government businesses), then there should at least be transparency and accountability in the setting and reporting of prices and service standards. The CoAG agreement does not rule out a water industry regulator and a service provider being responsible to the same Minister, but the relevant government must adequately address potential conflicts of interest in such cases.

The devolution of irrigation scheme management to local bodies can take different forms, ranging from the scheme manager's consultation with local constituents on irrigation management issues to the devolution of operational responsibility to the local level, although the obligation does not require

governments to go that far. Any devolution of operational responsibility should occur within an appropriate regulatory framework.

The objective of integrated catchment management is to establish institutional arrangements that enable management outcomes that achieve sustainable ongoing use of land and water resources. Problems such as salinity, river degradation and pollution, biodiversity loss and soil degradation threaten agriculture, rural communities, urban communities and other environmental assets, and are a focus of catchment management activity. Institutional arrangements best have a statutory underpinning and incorporate mechanisms for ensuring effective stakeholder participation. Catchment management should be implemented via partnerships among the different levels of government and nongovernment organisations. Relevant regional strategies include those being developed under bilateral agreements between the Commonwealth, State and Territory governments under the National Action Plan on Salinity and Water Quality.

The requirement to benchmark businesses' performance and the objective that businesses seek to achieve international best practice aim at ensuring that water services are delivered as efficiently as possible. Consistent with this, and with the pricing reforms that seek to ensure water and wastewater businesses earn sufficient revenue to maintain and refurbish their infrastructure, services in metropolitan areas must have a commercial focus. It is up to each State and Territory government to determine how its businesses achieve a commercial focus, whether by contracting out, corporatisation or privatisation.

## National Water Quality Management Strategy

Governments are to support ANZECC and ARMCANZ in developing the National Water Quality Management Strategy, by adopting market-based and regulatory measures, water quality monitoring, catchment management policies, town wastewater and sewage disposal measures, and community consultation and awareness.

Governments are to demonstrate a high level of political commitment and a jurisdictional response to the ongoing implementation of the principles contained in the National Water Quality Management Strategy guidelines, including on-the-ground action to achieving the policy objectives.

**Reference:** CoAG water reform agreement, clauses 8(b) and 8(d)

The National Water Quality Management Strategy (NWQMS) is a response to community concern about the condition of the nation's water. The policy objective is to achieve sustainable use of Australia's water resources by protecting their quality, while maintaining economic and social development. The strategy incorporates a full mix of approaches including, but not limited to, regulatory and market based approaches, education and guidance. It is based on principles of ecologically sustainable development, an integrated approach to water quality management and community involvement in setting water quality objectives. The strategy requires governments to adopt



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an overarching jurisdictional water quality management plan, supported by endorsed objectives for particular water bodies, catchments or uses.

The NWQMS comprises 21 guidelines for delivering a high standard, nationally consistent approach to water quality management (box 1.2). The 21 guidelines have a shared national objective but offer governments the flexibility to respond differently to circumstances at regional and local levels. In particular, developments in integrated resource management (for example, through the National Action Plan on Salinity and Water Quality and the Natural Resource Management Ministerial Council process) have enhanced the original NWQMS guidelines.

The Commonwealth Government, after consulting with the States and Territories, proposed a two-yearly review to assess the implementation of the NWQMS guidelines. The Council indicated in the 2001 NCP assessment that it would look in subsequent assessments for governments to show how they have adopted the NWQMS guidelines. Because the two-year timeframe expired in 2003, the Council expected State and Territory governments to have largely implemented the NWQMS by this NCP assessment.

The process for water quality management is described in the NWQMS Implementation Guidelines (1998), the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000) and the Australian Guidelines for Water Quality Monitoring and Reporting (2000). While flexible, the following key elements should be implemented.

- There should be active consultation and engagement with the community in setting the environmental values of water, determining water quality objectives and undertaking management actions, including water quality monitoring.
- Environmental values (values of water use for aquatic ecosystems, primary industries, recreation, aesthetics and drinking) of water resources (freshwater, groundwater, marine water and estuarine water) should be identified. Values should be reported according to the scale (the State, regional or local level) at which they have been determined through public consultation. Governments should detail processes and mechanisms for identifying and amending environmental values, and describe the extent to which they have been implemented.
- Water quality and quantity issues that threaten environmental values should be identified and reported. Governments should detail the mechanisms or processes for identifying and reporting water quality and quantity issues in the context of identified environmental values.
- Water quality objectives and environmental water provisions to protect the declared environmental values should be identified and implemented. Water quality and quantity issues are intrinsically linked. Altered flow regimes cause or exacerbate many water quality problems, so integrated management is required.

- Management actions to achieve water quality objectives should be identified and implemented. Governments should describe the extent to which management actions attain and protect environmental values, water quality objectives and environmental flow provisions, and their status (for example, drafted, gazetted, reviewed). Examples of management actions include protocols for environmental impact assessment, environmental protection policies, load-based licensing, codes of practice, pollution offset programs and catchment management plans and policies.
- Monitoring programs to review and refine water quality objectives, identify the sources of pollution and evaluate the effectiveness of management actions in meeting water quality objectives should be designed and implemented. The programs should include the role of community water quality monitoring.
- There should be public processes for periodic independent auditing and reporting on the effectiveness of actions to achieve water quality objectives and protect environmental values.
- There should be systematic/mainstream application of relevant national guidelines (for example, application for stormwater and sewage systems).

**Box 1.2:** The National Water Quality Management Strategy guidelines

<b><i>Policies and Process for Water Quality Management</i></b>	<b><i>Release date</i></b>
1. Water Quality Management — An Outline of the Policies	1994
2. Policies and Principles — A Reference Document	1994
3. Implementation Guidelines	1998
<b><i>Water quality benchmarks</i></b>	
4. Australian and New Zealand Guidelines for Fresh and Marine Water Quality	2000
4a. An Introduction to the Australian and New Zealand Guidelines for Fresh and Marine Water Quality	2000
5. Australian Drinking Water Guidelines — Summary	1996
6. Australian Drinking Water Guidelines	1996
7. Australian Guidelines for Water Quality Monitoring and Reporting	2000
7a. Australian Guidelines for Water Quality Monitoring and Reporting — Summary <sup>s</sup>	2000
<b><i>Groundwater management</i></b>	
8. Guidelines for Groundwater Protection	1995
<b><i>Guidelines for diffuse and point sources*</i></b>	
9. Rural Land Uses and Water Quality — A Community Resource Document	2000
10. Guidelines for Urban Stormwater Management	2000
11. Guidelines for Sewerage Systems — Effluent Management	1997
12. Guidelines for Sewerage Systems — Acceptance of Trade Waste (Industrial Waste)	1994

(continued)

**Box 1.2** continued

<b><i>Policies and Process for Water Quality Management</i></b>	<b><i>Release date</i></b>
13. Guidelines for Sewerage Systems — Sludge (Biosolids) Management	To be released
14. Guidelines for Sewerage Systems — Use of Reclaimed Water	2000
15. Guidelines for Sewerage Systems — Sewerage System Overflows	To be released
16a. Effluent Management Guidelines for Dairy Sheds	1999
16b. Effluent Management Guidelines for Dairy Processing Plants	1999
17. Effluent Management Guidelines for Intensive Piggeries	1999
18. Effluent Management Guidelines for Aqueous Wool Scouring and Carbonising	1999
19. Effluent Management Guidelines for Tanning and Related Industries in Australia	1999
20. Effluent Management Guidelines for Australian Wineries and Distilleries	1998

\*The guidelines for diffuse and point sources are national guidelines that aim to ensure high levels of environmental protection that are broadly consistent across Australia.

## **Water industry legislation review and reform**

As well as implementing the CoAG water reform agreement, governments are to review and, where appropriate, reform water industry legislation that restricts competition. In accord with the Competition Principles Agreement, governments must ensure that existing and new legislation does not restrict competition unless:

- the benefits of the restriction to the community as a whole outweigh the costs; and
- the objectives of the legislation can be achieved only by restricting competition.

**Reference:** Competition Principles Agreement, clause 5

Governments had to review and, where appropriate, reform all legislation that restricts competition existing at June 1996 by 30 June 2002. Reform is appropriate where competition restrictions do not provide a net benefit to the whole community and are not necessary to achieve the objective of the legislation. Any new legislation that restricts competition must also meet this test.

Completion of review and appropriate reform obligations is a key element of the 2003 NCP assessment. Where review and reform implementation was not complete (or a firm transitional path to reform that is in the public interest was not in place) at 30 June 2003, the Council assessed the relevant jurisdiction as having not complied with its legislation review and reform obligation. The Council considered water industry legislation review and reform activity by each jurisdiction, focusing on activity that was still to be completed at the time of the 2002 NCP assessment. Appendix B outlines the status of water legislation review and reform activity by all jurisdictions at 30 June 2003.

## New rural water infrastructure

Investments in new rural water schemes or extensions to existing rural schemes are to be undertaken only after appraisal indicates that the scheme/extension is economically viable and ecologically sustainable.

**Reference:** CoAG water reform agreement, clause 3(d)(iii)

In the past, it was not uncommon for governments to invest in new water infrastructure without appropriate justification. Capital subsidies encouraged investment in noneconomic facilities and overengineering of systems, with adverse economic and fiscal outcomes. Subsidies also encouraged fragmentation, for example where their availability encouraged smaller communities to develop their own facility rather than seek to obtain services from nearby larger authorities. Also, there was often insufficient regard to environmental outcomes.

The CoAG water resource agreement seeks to ensure investment in water infrastructure is justified by requiring that all new investments in rural water schemes or extensions to existing schemes be undertaken only if they are shown, prior to construction commencing, to be economically viable and ecologically sustainable. The Council considers evidence on economic viability where governments contribute funds to a project. It considers evidence on ecological sustainability for all new rural projects, including private investments.

The Council found in previous NCP assessments that State and Territory government mechanisms for appraising the economic and ecological aspects of new schemes are generally satisfactory. Governments' processes appear to provide for appropriate independence, public consultation and scrutiny, and have enough flexibility to match the depth of analysis with the size and significance of the project. The Council's task of assessing compliance involves considering whether governments are applying approval processes appropriately, so new infrastructure decisions are based on robust economic and environmental assessments.

For evidence of economic viability, the Council looks for governments to have analysed relevant economic and social costs and benefits, including any costs of mitigating adverse environmental effects resulting from the new scheme.<sup>2</sup> For large developments, a robust cost–benefit analysis is an effective way of meeting the CoAG obligation. Appraisals should be based on the best information available, with any assumptions and limitations clearly stated. For appraisals of ecological sustainability, the Council looks for information on the nature of the assessment and decision-making processes as well as mechanisms to monitor the impacts of the development and its compliance with environmental standards. The Council considered economic and ecological evidence on the following three projects in this 2003 NCP assessment.

- The Burnett Water Infrastructure Project in Queensland is a proposal for the construction of the 300-gigalitre Burnett River Dam (previously referred to as the Paradise Dam), Eidsvold Weir and Barlil Weir, and the raising of Jones Weir and Ned Churchward (formerly Walla) Weir. The capital cost of the project is estimated at around A\$210 million.
- The Clare Valley Water Supply Scheme in South Australia involves the construction of 83 kilometres of new pipeline, two pumping stations and a 4-megalitre water storage to transfer up to 7.3 gigalitres per year of filtered and treated River Murray water to the Clare Valley. The water will be used to improve the reticulated supply of high quality water to several townships, to augment supplies to the Mid-North region and to supply water to the Clare Valley region for irrigation and bulk water purposes. While initially expected to be a private sector project, the project proceeded as a SA Water project. It is expected to be completed in November 2003.
- The Meander Dam Project in Tasmania is a proposal for the construction of a 43-gigalitre dam on the Meander River to supply licensed water users including irrigation, town domestic water supplies, and a proposed mini hydroelectric power plant, and to provide environmental flow requirements for the Meander River.

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<sup>2</sup> Economic viability assessments should discount cash flows using an appropriate discount rate such as a project specific weighted average cost of capital.

## Public education and consultation

Governments are to consult on the significant CoAG reforms (especially water pricing and cost recovery for urban and rural services, water allocations and trade in water entitlements). They should implement education programs on the benefits of reform.

**Reference:** CoAG water reform agreement, clauses 7(a)-(e)

CoAG recognises the importance of governments consulting on water reform and involving the community in taking decisions on policy, and putting in place educational programs that show the benefits of reform. Wide consultation and community involvement produces more and better information on which to base decisions. Decisions that are consensus driven are more likely to satisfy stakeholders, and a community that is better informed about water issues and their importance is much more likely to accept change.

The Council assesses governments' performances against public education and consultation obligations each year, focusing on the areas of reform that are due for assessment. Consequently, for 2003, the Council considered governments' public education and consultation activity concerning urban pricing, water management planning (including allocations to the environment), institutional reform, intrastate water trading, integrated catchment management and the water quality commitments relating to the NWQMS.

## 1.2 The 2003 assessment process

### The 2003 NCP assessment framework

As for the previous NCP annual assessments of governments' progress with water reform, the Council released a framework before the 2003 assessment outlining the scope of the assessment. The framework was intended as a guide to the matters being assessed for both governments and water industry stakeholders. The assessment framework aimed to:

- provide a transparent basis for assessing governments' actions to implement the objectives set by CoAG;
- identify the type of information that governments need to provide to demonstrate compliance;
- outline the scope of the assessment, to guide public submissions; and
- provide a basis for identifying areas where reform is proving difficult, as a focus for discussion between the Council and the relevant government.

The Council released the 2003 NCP assessment framework for water reform in February 2003. The Council publicised the existence of the framework directly to many interested parties on its Enews facility and placed the framework on its web site. The Council provided the framework to all governments and upon request to interested parties.

## Governments' NCP annual reports

Governments report annually on their progress with implementing the NCP program. For this 2003 assessment, the Council asked governments to report by 31 March 2003, with a focus on the matters being assessed in 2003. Governments provided their annual reports on water reform on the dates noted in table 1.2. To assist the Council, some jurisdictions provided an advance copy in draft pending formal endorsement by the Government.

At the request of the Council, all governments provided additional information on their approach to water reform, augmenting the material in their annual reports. The Council secretariat also met with competition policy and other officials in New South Wales, Victoria, Queensland, South Australia and Tasmania to discuss those jurisdictions' progress on the water reform matters assessed in 2003.

**Table 1.2:** Governments' provision of NCP annual reports on water reform

<i>Government</i>	<i>Date on which the Council received the 2003 report on water reform*</i>
Commonwealth	17 April 2003 (draft)
New South Wales	27 June 2003
Victoria	31 March 2003
Queensland	11 April 2003
Western Australia	29 May 2003 (draft)
South Australia	28 May 2003 (draft)
Tasmania	23 May 2003
ACT	2 April 2003
Northern Territory	15 April 2003

\* To assist the Council, some governments made their reports available initially in draft form, before the relevant government endorsed the draft for public release. The dates reported are the dates on which governments submitted their reports, whether draft or endorsed. All State and Territory reports are now endorsed and publicly available.

## Submissions from stakeholders

The Council invited interested parties to make submissions on their views of and experiences with governments' water reform activity. The purpose of inviting submissions was to ensure, as far as possible given available resources, that the Council had access to stakeholder views on governments'

reform progress. Submissions were provided by a range of stakeholders, including environmental organisations, irrigators and irrigator representatives, reference groups involved in water management, water authorities and interested individuals.

The Council advised in the 2003 assessment framework that it invited submissions. It asked interested parties to provide submissions where possible by 4 April 2003, so it could consider submissions in conjunction with governments' NCP annual reports. The Council received 16 submissions and placed them on its web site. Appendix C lists the individuals and organisations that made a submission.

The Council considered all submission matters that were relevant to 2003 NCP assessment obligations. Where a submitter raised issues concerning the reform performance of a particular government(s), the Council provided the submission to the relevant government(s) and sought comment on the issues raised, noting these comments in its findings on compliance.

## **1.3 The 2002 supplementary assessments in summary**

The Council conducted supplementary NCP assessments and consultation meetings with governments during 2002-03 on aspects of the CoAG water reforms that governments had not fully addressed in the 2002 NCP assessment and for which the Council had foreshadowed potential reductions in competition payments. The supplementary assessment and meeting outcomes that are relevant for 2003 are summarised below.

### **New South Wales**

The Council conducted a supplementary assessment to consider the New South Wales Government's progress against the requirement that a legislative and institutional framework be in place by 2001 to enable the determination of water entitlements and trading, including at least allocations for all overallocated and stressed rivers (NCC 2003). Environmental allocations need, wherever possible, to be determined on the best scientific information available, and to have regard to the water requirements for maintaining the health and viability of river systems and groundwater basins.

At the time of the 2002 NCP assessment, the New South Wales Government was reviewing an interim State Water Management Outcomes Plan (SWMOP) — a plan setting the overarching policy, targets and strategic outcomes for the development, conservation, management and control of the State's water sources — to address issues raised during public consultation.



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The Government was also developing the first round of water sharing plans (covering about 80 per cent of the State's water, including major water sources), which were intended to achieve a sustainable balance between consumptive and environmental uses. When gazetted, the water sharing plans would set water sharing and operation rules (including rules governing allocations to water users and the environment) for 10 years. In addition, New South Wales has had interim environmental flow rules in place for regulated river systems since 1998.

In the supplementary assessment, the Council found that New South Wales was continuing to work towards implementing the allocation frameworks required by CoAG. New South Wales gazetted the SWMOP in December 2002 and subsequently also gazetted 35 water sharing plans, which are due to come into operation on 1 January 2004. The SWMOP provides water use targets, explains why those targets are needed and describes the anticipated outcomes from meeting the targets. It also specifies requirements to be met by water sharing plans in setting long-term extraction limits for each water source. Provided the water sharing plans (and catchment blueprints and subsequent water management plans) substantially adopt relevant targets, the SWMOP should contribute significantly to the long-term sustainable use of water resources in the State.

The Council identified one matter relevant to the SWMOP, regarding the application of extraction limits for unregulated rivers. Although the SWMOP indicates that all unregulated river water sources will ultimately be subject to daily flow extraction limits, the relevant SWMOP target means that daily extraction components will not be specified in licences (or tradeable) for 20 per cent of stressed unregulated rivers until at least 2008. New South Wales advised that many unregulated rivers, including some stressed unregulated rivers, may not warrant the level of management inherent in daily flow sharing arrangements. For these rivers, which account for a relatively minor share of overall water diversions, New South Wales indicated that it will introduce a sufficient degree of management to protect the environment and the rights of other users; in the meantime, annual allocations and extraction limits during low flows are in place.

The Council considered a sample of the gazetted water sharing plans against the ARMCANZ/ANZECC National Principles for the Provision of Water to Ecosystems. The CoAG water agreement requires governments to have regard for these principles in determining provisions of water for the environment. The Council concluded that New South Wales demonstrated regard for the national principles, except 4, 5, 7 and 9 (detailed in box 1.1).

Principle 4 obliges governments to go as far as possible to provide water to sustain ecological values, while recognising the existing rights of water users. New South Wales advised the Council that extraction limits and environmental water allocations in the water sharing plans generally reflected trade-offs between the needs of the environment and socioeconomic factors. According to the New South Wales Government's own assessment, several of the water sharing plans will make only a low or partial contribution to achieving some of the State's key environmental targets. New South Wales

did not provide the Council with specific information on anticipated environmental impacts or the extent of the trade-offs made in deciding on environmental allocations for each plan. The Council could not assess, therefore, whether New South Wales had gone as far as possible to meeting environmental objectives.

In relation to principle 5, New South Wales advised that the rules in several water sharing plans provide for improved environmental outcomes without taking additional water from users, and that the extraction levels under the existing environmental flow rules in other plans are appropriate. New South Wales also noted that for the unregulated rivers the water sharing plans provide the first formal allocation of water to the environment.

The Council could not conclude in the supplementary assessment on the regard had by New South Wales for principle 5. New South Wales provided no information to the Council to show how the rules in the water sharing plans deliver appropriate environmental outcomes or to support its advice concerning existing environmental flows. The Council acknowledged the Government's argument that the plans provide the first formal environmental allocations for the unregulated rivers, but New South Wales provided no information to substantiate whether these allocations (particularly above the very low flow classes) would change the amount of water available to the environment.

In relation to principle 7, New South Wales advised that considerable public consultation occurred during the preparation of the water sharing plans, with each plan being developed by a local water management committee that accounted for the SWMOP targets and the State's national and international obligations. New South Wales provided no information to the Council, however, on the extent to which it had based the extraction limits and environmental provisions in the plans — particularly the surface water plans — on the available scientific information. There was also little information provided on the extent to which the various rules and limits are expected to achieve environmental outcomes.

The Council also considered the actions taken by New South Wales in relation to the SWMOP and the water sharing plans against ARMCANZ/ANZECC national principle 9, which requires that all water uses be managed in a manner that recognises ecological values. The Council found that the New South Wales Government had demonstrated regard for principle 9 in developing the *Water Management Act 2000*, in setting the targets in the SWMOP and in the policy advisory notes provided to the water management committees responsible for developing the water sharing plans. The Government's own assessments of several plans nevertheless indicate that the plans do not fully meet SWMOP targets on ecological values.

The Council considered that the water sharing plans will have at least an indirect impact on water use, but accepted the New South Wales argument that mechanisms other than water sharing plans will be more significant in managing water use to recognise ecological values — the focus of national principle 9. In the supplementary assessment, therefore, the Council did not

conclude on the regard demonstrated for principle 9 by New South Wales. The Council indicated that it would address this matter in future NCP assessments when it considered the State's implementation of relevant elements of the CoAG water reform agreement, including the catchment blueprint process, the water quality objectives for each major river system and future water management plans that extend beyond water sharing.

At the time of the supplementary assessment, New South Wales undertook to release a series of public information sheets on its new water management arrangements including the expected environmental benefits. To conclude on the regard demonstrated by New South Wales for national principles 4, 5 and 7, the Council indicated to the Government that it should present robust information on the extent to which each water sharing plan improves environmental flows and addressed SWMOP environmental objectives, and how and why socioeconomic trade-offs influenced decisions on the allocation of water for consumptive and environmental uses. The Council advised that in the 2003 NCP assessment it would finalise its consideration of the regard shown by New South Wales for the ARMCANZ/ANZECC national principles.

The 2002 supplementary assessment found that New South Wales needed to undertake other work before it could be considered to have met all of its 2002 water reform obligations. This work included gazetting the four remaining first round water sharing plans, developing the implementation programs to allow the gazetted plans to become operational, and determining a process and timeframe for developing the second round of water sharing plans for the remaining stressed and overallocated systems. (The timing of some of these actions is now affected by the Government's decision to defer the commencement of the gazetted water sharing plans to 1 January 2004.) Given the State's progress in gazetting the SWMOP and 35 water sharing plans (covering the majority of the State's water), as well as the prospect that New South Wales would make available information on the effect of its plans, the Council considered, however, that the outstanding matters did not warrant an adverse recommendation on 2002-03 competition payments.

## Queensland

The Council considered two outstanding water reform obligations relating to Queensland in two 2002 supplementary assessments. The first concerned the Queensland Government's actions to manage the Condamine–Balonne Basin and the second concerned the Townsville City Council's actions on water pricing.

### Management of the Condamine–Balonne Basin

Water management obligations for the Condamine–Balonne Basin, including allocations of water for environmental purposes, became relevant for Queensland for the 2002 NCP assessment after evidence emerged in 2001 that the basin may be stressed. At the time of the 2002 assessment, the

Queensland Government had not finalised a water resource plan for the basin,<sup>3</sup> but was discussing management options with the Commonwealth and New South Wales governments. The Queensland Government had also announced a six-month independent review of the science underpinning the assessment of the current and future ecological condition of the Lower Balonne River system and it had committed to act on the recommendations of this review.

The independent scientific review reported in January 2003,<sup>4</sup> finding that the rivers and wetlands of the system are in a reasonable ecological condition but that less irrigation water had to be drawn from the system to avoid significant long-term degradation (Independent Scientific Review Panel 2003). In short, the review found that the system was not stressed but may be overallocated. In responding to the review, the Queensland Government committed to implement the recommendations of the review in full via a new Condamine–Balonne Basin water resource plan. The Government confirmed that it intended, consistent with the recommendations of the review, to develop management targets for the Lower Balonne in consultation with the community. Subject to advice from the community reference group, the Government expected to release the new draft Condamine–Balonne Basin water resource plan for public consideration in mid-2003 and to finalise the new plan by the end of 2003. The Government also expected to commence preparation of the resource operations plan (needed to implement the water resource plan) in mid-2003, with a view to finalising it during the first half of 2004.

The Council was satisfied that the Queensland Government's proposed actions met the State's remaining water reform obligations for 2002. The Council indicated that in future assessments it would monitor Queensland's progress in producing a new Condamine–Balonne Basin water resource plan and the associated resource operations plan, which are to be finalised by the 2004 NCP assessment. For the 2003 assessment, the Council indicated it would look for Queensland to have produced a new draft water resource plan, including:

- adoption in the draft water resource plan of outcomes and strategies consistent with the recommendations of the scientific review to ensure the delivery of adequate environmental flows within a reasonable time period;
- close consultation with the community and transparency in developing the plan, as required under the *Water Act 2000*; and

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<sup>3</sup> A satisfactory Condamine–Balonne Basin water resource plan is critical for setting Queensland's diversion limits under the Murray–Darling Basin cap and for end-of-valley flows for the Narran Lakes in northern New South Wales, which are a wetland of international importance.

<sup>4</sup> The Queensland Government released the review report on 23 January 2003.

- a commitment by Queensland to the further research recommended by the scientific review, in particular to refine the environmental flow requirements.

## Urban water pricing by the Townsville City Council

The CoAG water reform strategic framework required governments to adopt, by no later than 1998, a charging arrangement for water services comprising an access or connection charge and an additional charge to reflect use. Governments did not need to comply with this obligation if they could show that such a pricing arrangement would not be cost effective.

In a supplementary assessment in June 2000, the Council recommended the suspension of 5 per cent of Queensland's competition payments for 2000-01 because Townsville and two smaller local government water service providers had made insufficient progress towards pricing water on a consumption basis. The Council was particularly concerned about Townsville's approach. Townsville is one of the 18 largest Queensland local governments, for which the benefits from pricing reform — more economical water use and savings from deferred investments in water infrastructure — are likely to be greater. The competition payments suspension was lifted in January 2001 when Townsville agreed to bring forward its formal resolution of this matter to June 2001.

Townsville had not satisfactorily resolved this matter by the time of the 2001 NCP assessment, when the Council noted that Townsville had not introduced a two-part tariff for its residential consumers or undertaken to do so. Townsville was, however, employing a user pays approach for charging nonresidential customers. Townsville provided a brief report on the reasons for its approach to pricing water services to residents and undertook to form a committee to review the impacts of pricing changes. The Council was not satisfied, however, that Townsville had provided a sufficiently robust statement of reasons for not introducing a two-part tariff, or that the proposed review of pricing impacts constituted progress towards complying with the CoAG water pricing principles. The Council recommended a permanent reduction of A\$270 000 per year in Queensland's competition payments from 2001-02 until Townsville introduced consumption-based pricing or until there is satisfactory evidence showing that consumption-based pricing would not be cost effective.

Townsville commissioned a further report on the cost-effectiveness of introducing consumption-based pricing, providing the report to the Council in January 2002. This second study concluded that introducing a two-part tariff for residential customers would not provide a net benefit (MWA 2001). It found that the phased introduction of a two-part tariff over five years would cost between A\$1.45 million and A\$3.5 million depending on the treatment of meter upgrade costs. The study argued that there is little opportunity for Townsville to reduce the costs of supplying water because up to 95 per cent of costs are fixed and nonvolume related. The study also argued that there are public interest reasons for not introducing a two-part tariff for residents: the

impact on the corporate vision of 'Greening Townsville'; that reducing water use would increase water prices, given the high level of fixed costs; the need for further investigation of ways of mitigating expected impacts on customer groups; and the effect on the stability of the water business's revenue, given the level of the initial impact of the price increases on demand is unknown.

In the 2002 NCP assessment, the Council questioned the analysis supporting the findings of this second Townsville cost-effectiveness study, including whether:

- the estimated price increases overestimated the effect of introducing consumption-based prices because they included both the move to two-part tariffs and the move to full cost recovery;
- the estimated meter replacement costs and revenue gains accounted for meters needing to be replaced regardless of any decision to introduce consumption-based prices;
- the 'Greening Townsville' objective implied that any reduction in water consumption would mean that two-part tariffs should not be adopted; and
- the inability to identify cost savings from consumption-based pricing is the result of the premise that NQ Water (which supplies bulk water to the Townsville City Council) does not price on a volumetric basis.

In the 2002 NCP assessment, the Queensland Government agreed to ask its independent regulator, the Queensland Competition Authority (QCA), for advice on whether the approach in Townsville's second study met Queensland Government guidelines on the introduction of two-part tariffs and on the questions raised by the Council. While the Queensland Government's actions showed its commitment to resolving questions about Townsville's water prices, there had been little progress in the three years since the matter was first raised. Accordingly, the Council recommended continuing in 2002-03 the permanent reduction of A\$270 000 in Queensland's competition payments, but immediately lifting the 2002-03 penalty if the QCA found the second Townsville cost-effectiveness study to be robust (NCC 2002).

The QCA reported in April 2003, focusing on the rigour of the arguments for nonimplementation of consumption-based pricing in the Townsville cost-effectiveness study and in an addendum (July 2002) that further analysed the demand impacts of a two-part tariff. The QCA also considered additional information that Townsville provided in January 2003. The QCA concluded that the Townsville study did not accord with Queensland's 'Guidelines for Evaluation of Introducing and Improving Two-Part Tariffs', but that the July 2002 addendum and the January 2003 additional information provided a better analysis of the impact of a two-part tariff on water demand, and largely addressed the main shortcomings of the Townsville study.

Nevertheless, the QCA considered that the report and addendum underestimated the reductions in costs from reduced purchases of bulk water, and therefore underestimated the cost savings potentially available to

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Townsville (QCA 2003, p. 21). On the basis of likely savings from reduced bulk water purchases, the QCA found that the introduction of a two-part tariff would 'break even' if the demand for bulk water fell by 6.3 per cent. Comparing this to the likely achievable demand reduction for the detached houses sector of about 5 per cent, the QCA agreed there would be no net financial benefit to Townsville from introducing a two-part tariff. The QCA noted, however, that it would be prudent for the Townsville City Council to keep the appropriateness of a two-part tariff under review.

The QCA found that the Townsville study incorrectly combined the effect of implementing both a two part tariff and full cost pricing and did not make the relative impacts of each clear, but that these shortcomings were addressed in the later material. The QCA accepted there are likely to be significant net benefits in terms of tourism, liveability and quality of life from the 'without two-part tariff' case. It considered the benefits of Greening Townsville, while nonquantifiable, could be compared to the potential financial benefits of implementing a two-part tariff. The QCA also noted that practices other than pricing can influence water use and considered that Townsville was implementing comprehensive water use efficiency measures. Overall, the QCA was satisfied that Townsville City Council's decision not to implement a two-part tariff is consistent with CoAG water reform objectives (QCA 2003, p. 27).

The Council considered that the QCA's analysis and findings provided sufficiently robust support for the Townsville case and concluded, therefore, that Queensland had met its NCP obligations on consumption-based water pricing relating to Townsville. The Council recommended that the competition payments penalty imposed on Queensland for 2002-03 be lifted and that the Federal Treasurer reimburse all 2002-03 payments withheld. The Council also noted comments by the QCA recommending that Townsville keep under review the case for introducing consumption-based pricing (NCC 2003a).

## Western Australia

In the 2002 NCP assessment, the Council found that Western Australia had not met certain water reform obligations relating to the NWQMS. In discussions at the time of the assessment, Western Australia agreed to address its NWQMS obligations via consultative meetings with the Council in December 2002 and March 2003, such that it would have appropriate arrangements in place by the 2003 NCP assessment. It was agreed that Western Australia would:

- finalise the State Water Quality Management Strategy implementation plan, which has the objective of ensuring integrated and coordinated action across Government agencies and with stakeholders;

- finalise specific State-based implementation plans to reflect the national strategy guidelines for freshwater and marine water quality (national guideline 4), drinking water quality (national guidelines 5 and 6), and water quality monitoring and reporting (national guideline 7); and
- achieve demonstrable progress in implementing NWQMS guidelines 8 and 11–15, including draft State implementation plans for these national guidelines where possible.

At the second meeting on 31 March 2003, Western Australia noted the following progress and anticipated outcomes in relation to NWQMS implementation.

- It had completed a final draft of the State Water Quality Management Strategy implementation plan and was preparing it for publication by 30 June 2003.
- It had made progress in implementing the Australian Drinking Water Guidelines, including:
  - verifying in December 2002 that the Perth metropolitan water supply met the guidelines, and expecting to have adopted the guidelines across the State by the end of 2005;
  - developing a memorandum of understanding between the Department of Health and the Water Corporation;
  - obtaining Cabinet approval for public release of a Statement of Planning Policy for Public Drinking Water Sources by June 2003;
  - preparing a recreation policy for Crown land priority 1 drinking water areas for Government endorsement and release; and
  - releasing a manual on land use planning and drinking water protection.
- It reported its progress in implementing NWQMS guidelines 8 and 11–15, including:
  - preparing a position paper to guide the development of an implementation plan for groundwater protection (national guideline 8);
  - scheduling work on developing a guideline on effluent management (national guideline 11) for 2003-04;
  - having guidelines in place regarding the handling and disposal of trade and industrial waste (national guideline 12);
  - releasing the biosolids guidelines in February 2002, outlining the State's current requirements (national guideline 13);



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- releasing the State Water Strategy in February 2003, which included the proposed development of State guidelines on reclaimed water (national guideline 14); and
  - having in place an implementation guide on sewerage system overflows (national guideline 15).

Western Australia was still to release guidelines on freshwater and marine quality — one of the requirements of the NWQMS. The Government considered it important to first ensure consistency between the approaches being taken by the Environmental Protection Authority and the Natural Resource Management Council (both of which have responsibilities in this area) before finalising and releasing the guidelines.

Under the assessment timetable determined by CoAG, governments needed to be satisfactorily progressing their NWQMS obligations by 2003. The Council noted that Western Australia had made some progress, but reiterated the need for the State to have finalised and released its major strategy documents by the 2003 NCP assessment. Acknowledging Western Australia's progress, the Council considered that a reduction in competition payments for 2002-03 was not warranted. The Council advised Western Australia, however, that it would regard any further slippage against the CoAG timetable unfavourably in the 2003 NCP assessment.

## Tasmania

The Council conducted a supplementary assessment in November 2002 on the progress of the State's water authorities in applying full cost recovery principles to urban water pricing and in applying appropriate asset valuation principles. The Council found that Tasmania had met the CoAG obligation in relation to the asset valuation method applied by urban water and wastewater providers. Although most providers do not strictly adhere to the deprival value method, the Council agreed that the application of the accounting standard AASB 1041 (using fair value for specialised assets) achieves a similar outcome. The end result is the application of the depreciated replacement cost method or the depreciated optimised replacement cost method.

The seven local governments previously found not to be complying with full cost recovery commitments each committed to a strategy for achieving full cost recovery, which will see them fully recovering costs by the 2005 NCP assessment. Tasmania reported that the smaller local governments, with relatively limited access to resources, tended to have less comprehensive and more varied approaches. It undertook to provide additional educational support to local governments to assist them meet the CoAG water reform obligations. Specifically, Tasmania committed to:

- developing a water reform education support program for local governments, setting out the scope, objectives, methods and timing;
- revising and issuing guidelines and policy statements, providing educational material, and targeting consultation and correspondence;
- conducting regional seminars and workshops for practitioners; and
- establishing a web site that draws together government water-related information.

The Council was satisfied that Tasmania's proposals in the supplementary assessment met obligations for 2002, but noted that the Tasmanian Government needed to implement the measures that it proposed. The Council indicated that in the 2003 NCP assessment it would consider Tasmania's implementation of its undertakings on full cost recovery, asset valuation and education to support the reform process.