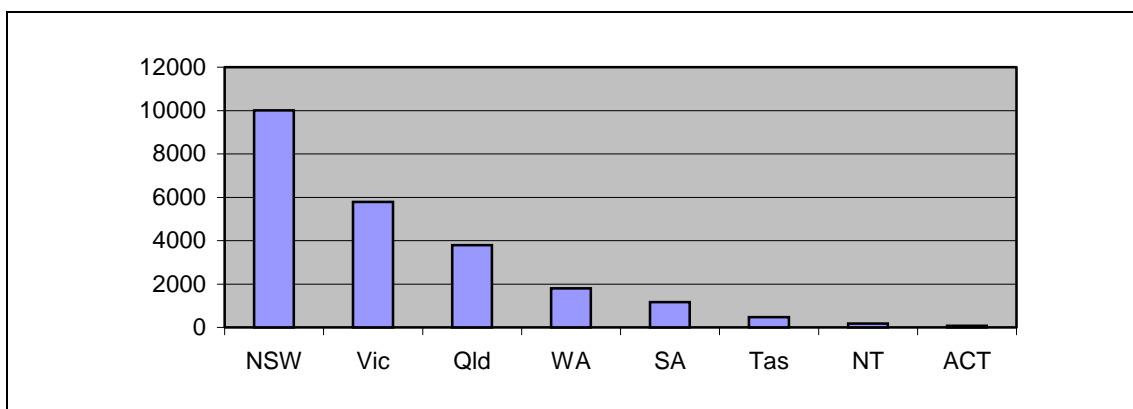


8 Water

Australia's water use is growing rapidly mostly due to increases in irrigated agriculture. Between 1983-84 and 1996-97, national water use grew by 59 per cent. Figure 8.1 illustrates the level of water use for each State and Territory in 1996-97.

Figure 8.1: Mean annual water use 1996-97 (gigalitres)



Source: National Land and Water Resources Audit (2001).

The NCP water reform framework is an integrated approach that addresses the environmental, economic and social issues associated with water use. It covers both surface and groundwater and recognises that while water reform is primarily a State responsibility some issues need to be addressed by coordination and cooperation between the States. The establishment of the Murray–Darling Basin Commission is an example of a coordinated approach across the Murray–Darling Basin. Another is the recent historic agreement by three governments to restore the Snowy River as shown in Box 8.1.

Box 8.1: A National Initiative to restore the Snowy River

On 6 October 2000, the Victorian, New South Wales, and the Commonwealth Governments announced a \$375 million agreement to breathe life back into the Snowy River and preserve a national icon for future generations. The Snowy initiative is an historic commitment to restore the Snowy River to a long-term target of 28 per cent of the river's natural flows, while protecting other river systems and water users. The Governments agreed to significant increases in environmental flows while, at the same time, securing the property rights of Murray–Darling irrigators by ensuring that there are no adverse impacts on existing water rights in South Australia or on the environment of the Murray, Murray-Goulburn or Murrumbidgee River systems. The agreement sets a target flow rate of 21 per cent to be returned to the Snowy River over 10 years. The remaining 7 per cent to reach the full 28 per cent is expected to be achieved through the development of new infrastructure projects involving the private sector.

The rescue plan marks a new awareness of the importance of Australia's dwindling water resources and a new political will to invest public money in a national icon. A joint government body will be created to invest in capital water saving projects such as pipelining, major engineering works, better water accounting, improved maintenance of irrigation distribution systems, and to purchase water for further environmental flows.

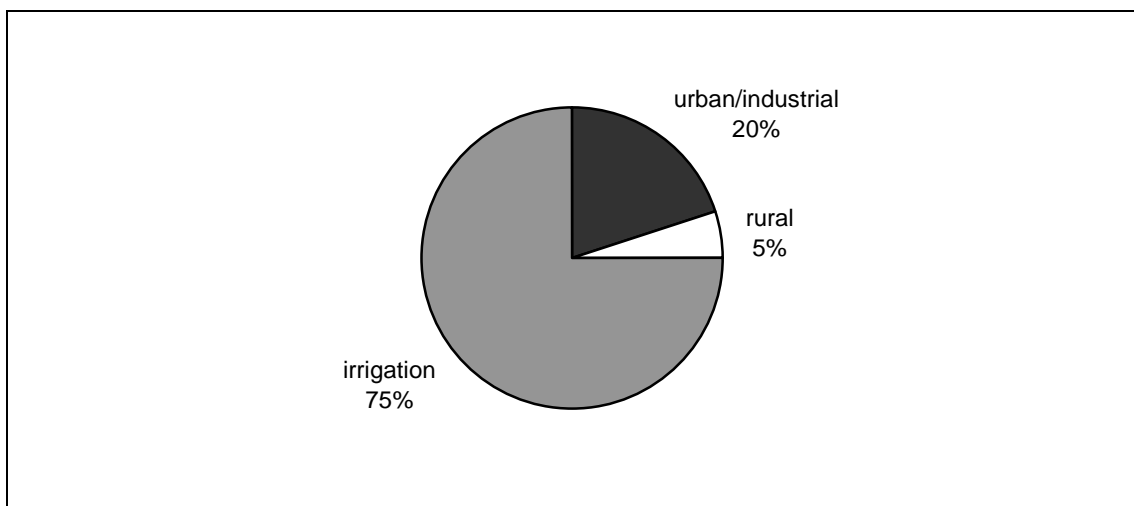
For the last seven years governments across Australia have been implementing the Council of Australian Governments (CoAG) strategic framework for the reform of the Australian water industry. As the reform program has progressed, there has been a growth in both the understanding of the complexity of these reforms and the level of national recognition of the importance of change.

There has been significant progress since governments first agreed to the water reform framework.

- Metropolitan water businesses have shifted from being part of large government bureaucracies to customer focused commercial operations. This has generated benefits such as a real reduction in customer bills of nearly five per cent over the last four years, and improvements in drinking water quality and effluent treatment.
- Most Australians living in urban areas now face water prices that reflect the amount of water they use and that reward water conservation.
- The need for water to be allocated to the environment is legally recognised across Australia.
- Regional planning processes on natural resource management issues have started in all States and Territories and communities are heavily involved in consultation on these processes.
- All governments recognise the difficulties that are arising from incomplete scientific information on the ecology and hydrology of water systems, particularly groundwater systems. Governments are addressing this by adopting a precautionary approach to any further allocations of water and increasing the level of monitoring and research.

This is the National Competition Council's second major assessment of progress with the implementation of water reform. The first (the second tranche assessment in June 1999) focused on the passage of legislation and urban water reform. The June 1999 assessment identified a number of issues that needed to be progressed further before the Council could conclude that all of the States and Territories had met their water reform commitments. Consequently, following the June 1999 assessment there were four follow-up or supplementary assessments that addressed matters that were not resolved at the time of the 1999 NCP assessment.

The 1999 assessment process saw the passage of legislation that provides the overarching framework for many of the water reforms. The 2001 NCP assessment starts the process of reviewing how these frameworks are being implemented and whether, in practice, they are delivering appropriate reform outcomes. Previous assessments also focussed on the implementation of reforms in the urban sector because the timeframes in the CoAG water reform agreements envisaged urban reforms occurring first. However, as illustrated in figure 8.2, rural and irrigation water make up the majority of water use in Australia.

Figure 8.2: Mean annual water use by category 1996-97 (gigalitres)

Source: National Land and Water Resources Audit (2001).

The Council's 2001 assessment has a much broader focus. While it discusses outstanding urban water pricing issues, its primary emphasis is on the rural water sector covering pricing, property rights, water trading and environmental issues. This is the first assessment in which the agreements call for the Council to examine the detail of rural water reform.

The 2001 NCP assessment also recognises the importance of establishing clear property rights and allocating water to the environment through a transparent process of community based planning. The key elements of these processes are:

- governments setting timetables and supporting the developmental plans to manage water resources;
- community consultation and involvement in the planning process;
- the development of scientific information on which to base the plans; and
- finalised plans that provide:
 - sufficient information for stakeholders to understand the plans and their implications for irrigators, the environment and the community generally;
 - water for the environment in a way that reflects the current understanding of environmental needs; and
 - well defined water allocations that provide irrigators with predictability in their property rights.

The Council based the 2001 NCP assessment on information provided by State and Territory governments, its own research, and other reports including:

- the Australian Urban Water Industry (WSAA Facts);
- the National Land and Water Resource Audit Assessment of Water Resources 2000; and
- work by the High Level Steering Group on Water.

Stakeholders also had a substantial input into this assessment. The Council received 10 submissions from irrigators and environmental groups. None of these submissions questioned the need for reform, or the underlying objectives of the water agreements. Generally, the submissions discussed the process and speed of reform and which aspects of the reform package should be given priority. However, there was universal recognition that appropriate water reforms are fundamental to Australia's future.

This chapter summarises the outcomes of the Council's 2001 NCP water assessments. It is supported by separate water volumes for each State and Territory and the Murray–Darling Basin Commission. These water volumes provide the detailed assessment for each State and Territory against all of the water reform criteria. The appendices in these volumes provide a full version of the criteria used in this assessment as outlined in the Council's 2001 water assessment framework.

Summary of assessment

In this assessment the Council found that an important issue for New South Wales is the development of well defined property rights including an appropriate registry system, while for Victoria the assessment raised questions about the process for allocating water for the environment. Both States have provided substantial responses to the Council detailing how they intend to deal with these matters both over the next twelve months and into the future. These issues will be important for the Council's 2002 NCP water assessment. New South Wales is consulting with stakeholders and will review its policy on the water rights registry system before November 2001. The Council will conduct a supplementary assessment in December 2001 to assess the New South Wales response to consultation on the water rights registry.

Overall, in this assessment the Council found that all States and Territories made sufficient progress to receive their 2001-02 NCP payments. However, while the Council found that the Queensland Government has taken a positive and active approach to encouraging reform among local governments, one local government, Townsville City Council has failed to explain why introducing reform of water pricing within its jurisdiction is not in the public interest. In this assessment, the Council recommended a permanent

reduction of \$270 000 in Queensland's NCP payments from 2001-02 (reflecting the remaining money available to Townsville Council for water reform through the Queensland Competition Authority's Financial Incentive Scheme). This reduction relates to the failure by Townsville City Council to take a rigorous approach to considering consumption-based price reforms. The Council will reconsider Townsville's approach to two-part tariffs in the 2002 NCP assessment. It will look at both the progress made by Townsville and the State Government's efforts to resolve the issue. At that time, the Council will reconsider whether a continued reduction in competition payments is warranted and the appropriate size of any such reduction.

Finally, Queensland has acknowledged that the Condamine-Balonne is now a stressed river system. Consequently, the establishment of water allocations for the environment and consumptive use is now overdue. The Council will address this issue in its 2002 assessment. The Council is not satisfied that any of the options for setting environmental allocations specified in the draft water resources plan would be adequate to meet the environmental needs of the lower Balonne basin and the internationally listed Narran Lakes wetlands. More generally, the Council is not satisfied with the transparency of current reporting arrangements of the Government's final decisions for setting allocations. Queensland has agreed to address these concerns over the next 12 months.

New South Wales

New South Wales is the largest water user in Australia. Around 90 per cent of the State's water use is sourced from surface water resources with the balance from ground water. New South Wales also has stressed river systems; the most of any State and Territory.

There are four major metropolitan service providers in New South Wales - Sydney Water Corporation, Hunter Water Corporation, Gosford City Council and Wyong Shire Council. The Sydney Catchment Authority provides bulk water to Sydney Water.

State Water, a ring-fenced commercial business entity within the Department of Land and Water Conservation provides bulk water to irrigators, riparian users, local governments and industrial customers. State Water is also responsible for managing infrastructure assets including 18 major dams and 300 weirs. Further, it provides river operations, and metering and billing services. Another division of the Department of Land and Water Conservation undertakes water resource management. All irrigation districts and areas are privatised companies in New South Wales.

There are a number of regulatory agencies. The New South Wales Environmental Protection Authority has regulatory functions as regards pollution and licensing of discharges. The Independent Pricing and Regulatory Tribunal (IPART) regulates pricing. The Department of Land and

Water Conservation provides water licensing, permits and regulation. The Healthy Rivers Commission provides independent advice on water quality and river flow objectives for critical coastal catchments.

Water and wastewater services to non-metropolitan urban areas, such as country towns and regional centres, are a local government responsibility. There are 124 non-metropolitan urban water utilities in New South Wales.

Progress on reforms

Pricing and cost recovery

Urban water services

All four major urban water providers achieve levels of cost recovery consistent with the agreed CoAG water pricing guidelines. However, neither Gosford nor Wyong have made provisions for recovering tax or tax equivalents as recommended by the guidelines. The Council is concerned that no progress has been made on this matter over the last two years, and will look for progress in the 2002 NCP assessment.

Consumption-based pricing is also being introduced by the major urban water service providers in New South Wales.

The rate of return earned by the Sydney Catchment Authority in 1999-2000 is significantly above that earned by the State's major retail and distribution services and is very high compared with all other large metropolitan service providers. The Council will continue to monitor this issue.

In regard to accounting for externalities such as environmental impacts, the Council notes that the potential for a catchment management levy was considered in the 2000 Sydney Catchment Authority price determination. IPART determined in the 2000 determination that a catchment management charge was not appropriate at this stage. The Council expects this matter to be reassessed in the future as the arrangements for pricing and costing water services are refined.

In the non-metropolitan urban sector, most of the service providers with greater than 1000 connections are earning a positive real rate of return. The Council will look for continued progress in the non-metropolitan urban sector in relation to the recovery of tax equivalents and improved approaches to accounting for asset consumption and the cost of externalities.

There has been continued progress on pricing, particularly in relation to the elimination of free water allowances by the urban providers. Cross-subsidies are being reduced by location specific pricing and developer charges. The

Council will look for further progress by these providers in the 2002 NCP assessment; in particular phasing out charges based on property values.

In progressing consumption-based water pricing among non-metropolitan urban service providers, New South Wales has adopted a targeted approach with priority given to the areas where the State expects reforms to result in the greatest gain. The Council has concerns that Tweed Shire, one of the State's largest non-metropolitan urban service providers, has not conducted a robust assessment of the cost effectiveness of two-part tariffs. However, given the information provided by New South Wales indicates that Tweed Shire has been improving its pricing arrangements, and a commitment by New South Wales that if local governments do not voluntarily commit to reviewing two-part tariffs the government will ensure the reform commitments are met, the Council will reconsider this issue in the 2002 assessment. In future assessments, the Council will look for progress to be extended to the smaller service providers. Thus, future assessments will look at remaining property value based charges and free water allowances and the potential for these to result in cross-subsidies. It will also review trade waste charging regimes among the non-metropolitan urban service providers.

Rural water services

As with rural water services in most States, past bulk water charges in New South Wales have been heavily subsidised and have not recovered the costs associated with service provision and water use. IPART has made price determinations since 1996. While State Water has gradually improved both its level of cost recovery and the structure of its charges, at the time of the 2000 price determination most systems were not forecast to be recovering full cost by July 2001. The Department of Land and Water Conservation's submission to IPART's next price determination proposes prices for the three years to 2003-04. The submission indicates that current prices recover 54 per cent of costs attributable to customers and that the proposed price paths will result in this figure increasing to 82 per cent by 2003-04.

Two-part tariffs have been, or are being, introduced for bulk water services provided by State Water. The Council does not have sufficient information to assess the transparency of reporting CSOs in the rural water sector. This is an issue that it will consider in the 2002 NCP assessment.

The Council is satisfied that, for the 2001 NCP assessment, New South Wales has complied with water pricing and cost recovery commitments in the urban and non-metropolitan urban water sectors. However in the rural water sector, New South Wales has not formally met its commitment to provide a timetable for when the water schemes will reach full cost recovery. Nonetheless, the price determinations by the IPART provide a rigorous assessment of the extent of cost recovery and a mechanism for moving to full cost recovery in the future. The Council will reassess New South Wales's progress towards cost recovery objectives in the 2002 NCP assessment.

Institutional reform

The *Water Management Act 2000* has played a key role in setting up the broader institutional framework for managing water resources in New South Wales.

Since the second tranche NCP assessment there has been some progress in reforming institutional structures for local government non-metropolitan urban water service providers. Currently, for example, there is an independent complaint mechanism through the State Ombudsman. Also there is reporting of standards in New South Wales's (publicly available) benchmarking report.

For non-metropolitan urban water service providers there are still outstanding issues relating to the standards for water service and water quality. To provide an appropriate level of transparency the Council considers that New South Wales needs some mechanism to inform water and wastewater customers of their rights and obligations. The Council will pursue this matter with New South Wales prior to the 2002 NCP assessment.

In regard to the rural bulk water sector, there is a question about whether there is sufficient separation between State Water and the Department of Land and Water Conservation. The Council has in the past suggested that a greater degree of separation may be necessary. More recently, IPART suggested several measures to ensure that State Water is adequately separated from the Department of Land and Water Conservation (IPART 2000).

New South Wales argued that State Water's operating licence, statement of corporate intent and access licence will improve transparency and the level of separation from the Department of Land and Water Conservation. These instruments are still being finalised. Thus, the Council was unable to consider them as part of this assessment. The Council will monitor this issue in the 2002 NCP assessment.

While there has been a small reduction in the number of State water service providers involved in benchmarking projects, New South Wales is still benchmarking water utilities against each other. In future assessments the Council will continue to monitor the involvement of New South Wales service providers in national benchmarking projects.

New South Wales has a high level of devolution of local irrigation management. The last of the New South Wales irrigation schemes was converted to local ownership in June 2000.

The Council is satisfied that New South Wales has complied with institutional reform commitments for this assessment

Allocation

The New South Wales water allocation process is implemented through the development of water management plans that deal with water sharing (known as water sharing plans) for catchments and basins. Water sharing plans are designed to establish environmental flows, water allocations and the conditions under which trading can take place.

The *Water Management Act 2000* clearly defines the types of rights by specifying several categories. It specifies that the rights will provide the holder with a share of the water declared available for consumption. Under the Act, the environment has first priority, followed by holders of basic landholder rights and then all other consumptive water uses. All water users (excluding basic landholder rights which include native title rights) must be licensed. The new licensing and approvals provisions are not expected to commence until mid to late 2002.

The Council has reviewed the efficacy of property rights under the New South Wales system and has identified questions concerning some aspects of water allocations, water property rights and trading. In particular, it is difficult to be certain of property rights and ownership, due to the staged nature of implementation of property rights. New South Wales argued that by focusing on the high priority water sources, 80 per cent of licensed water use could be given a more clear and secure water right by mid to late 2002.

Under the *Water Management Act 2000*, New South Wales expects to develop bulk access regimes on the priority water sources, including appropriate environmental flows by December 2001. These will be released as 51 water sharing plans.

Water sharing plans will determine how much water will be available for extraction by licensed water users. They will cover environmental water provisions, requirements for basic landholder water rights and various rules on operation and transfers. The plans will have effect for 10 years and are subject to compensation provisions with review and audit provisions. While it is important for bulk access regimes to be established without delay, they must also be done thoroughly. In particular, it is important to ensure that the basis for determining environmental flows for the regulated systems are set properly given they will be statutory plans in place for 10 years.

New South Wales argued that the security of ownership of property rights will be addressed in a registry system, which records the nature of the right and the share of the available water to which the licensee is entitled. New South Wales is developing a registry system database to be in place by December 2002, with an interim system established by June 2002.

The Water Management Act links the right into the water planning process. It is the combination of the water access licence including its share component and its reliability (to be determined in water sharing plans) that will provide for effective property rights.

The Council has found that the New South Wales system of water property rights does not meet the requirements for this assessment. New South Wales irrigators will not know the water sharing rules until December 2001, although they know what their likely volumetric licence entitlement will be, and administrative systems will not be in place until June 2002.

This, combined with a lack of detail on the registry and a number of transitional issues that are concerning stakeholders means that the Council considers there is insufficient information to determine that New South Wales's system of water property rights meets the requirements for this assessment. In accordance with the CoAG agreements and recommendations of the tripartite meeting, this should have been in place at least on stressed and overallocated rivers for this assessment. However, during the course of this assessment, New South Wales has provided a property rights action plan. The Council is of the view that this property rights action plan should provide a sufficient level of surety and that the issues identified are likely to be transitional concerns only.

Therefore, the Council intends to conduct a number of further assessments for New South Wales on this issue. First, the Council will conduct a supplementary assessment in December 2001 in accordance with the New South Wales property rights plan to consider the outcomes from public consultation on this issue including the ability of third party interests listed on the register to have priority over non-registered interests. New South Wales has advised that, at a minimum, the register will provide information on ownership of property rights and on third party interests. It is the Council's view that the introduction of a registry system that provides evidence of ownership and third party interests, and priority accorded to registered third party interests over non-registered interests should be able to be accommodated. In the supplementary assessment, the Council will look at how public consultation was managed and how New South Wales has responded to the issues raised in this consultation. Second, progress against the property rights timetable including development of the interim register will be a key area for the 2002 NCP assessment.

The Council considered suspending part of New South Wales's NCP payments for 2001-02 in this assessment, given the importance of property rights and the delays to date by New South Wales in finalising arrangements. However, the timetable provided by New South Wales and the detail on how property rights are expected to unfold, including consultation on the registry, have given the Council confidence that New South Wales intends to give these issues high priority and deal with them constructively. Hence, the Council will monitor developments closely in the December 2001 supplementary assessment and June 2002 NCP assessment. If, by the time of the 2002 assessment, New South Wales has achieved insufficient progress with implementing its action plan, the Council will recommend an ongoing reduction in New South Wales' NCP payments.

Further environmental allocations for stressed rivers in New South Wales have been delayed and will not be completed until December 2001. In the Council's second tranche report, New South Wales advised that it had 86

stressed or overallocated unregulated streams across seven regional catchments.

It is the Council's view that the determination of final water allocations for the environment is a question of timing rather than a lack of political commitment by New South Wales. Under the *Water Management Act 2000*, New South Wales has committed itself to water sharing plans for high stress or conservation areas by December 2001, including environmental flow requirements for the regulated rivers. The development of water sharing plans in New South Wales is a significant undertaking. New South Wales has been active in seeking ways to improve approaches to developing understanding of relationships between flows and ecological health.

The Council has taken into account the fact that New South Wales has interim environmental allocations already in place for all the regulated systems. These allocations are in year three of the original five year flow settings. As a result, the Council is of the view that New South Wales has implemented action on stressed rivers for the regulated systems which account for 80 per cent of all water use in New South Wales. In setting these existing allocations to the environment, New South Wales has demonstrated that it is taking into account the national principles developed by ARMCANZ and ANZECC.

Information provided to the Council indicates that the state water management outcomes plan is to set the overarching policy context, targets and strategic outcomes for the development, conservation, management and control of the State's water resources. The plan is to provide clear direction for water management action and is to ensure that interim water quality and river flow objectives are specifically addressed in water resource management action. It is currently anticipated that a draft of the plan will be available for consultation in July 2001.

The Council also understands New South Wales is proposing a range of environmental flow targets in the State Water Management Outcomes Plan. The targets, if adopted, will be referred to water management committees to ensure that draft water sharing plans comply with the targets. The New South Wales Government intends that water sharing plans will be implemented from 1 July 2002 at the beginning of the 2002-03 water year. Should the targets be adopted, the Council would need to be convinced in future assessments that there was a scientific basis for the levels chosen as the targets.

It has been the Council's concern for this assessment to ensure the process being employed to determine environmental flows for the December 2001 deadline is being developed in a rigorous and appropriate manner. On the issue of environmental flows, concerns have been expressed by environmental interests regarding the pace and potential outcomes for the water sharing plans to be set in December 2001. In particular, there is a real fear that there is inadequate knowledge to set these allocations that will be locked away for 10 years. There are concerns that the time between the commencement of the public consultation and finalisation of the plan is unlikely to be sufficient to

resolve any contentious issues. To ensure the integrity of the process, the Council has obtained from New South Wales Government a list of the information components to be provided to water management committees.

The prime concern the Council has with the New South Wales system, is to ensure that while it is important for bulk access regimes to be established quickly, they must also be done properly including the basis for determination of environmental flows to reflect the new 10 year timeframe under the Act. Otherwise, if the bulk access regimes and environmental flow requirements are poorly addressed, the issues for the environment will not be addressed for another 10 years. Given the system New South Wales has adopted, and the extent of the problems, the Council is of the view that where a review of the implementation of a plan identifies the environmental objectives are not being met, there should be a change within the 10 year life and compensation (as required under the Act) paid where the identified change is significant.

The Council has insufficient information to make an assessment of New South Wales progress on stressed rivers against the ARMCANZ/ANZECC national principles for the provision of water for ecosystems. The Council will examine the progress of New South Wales against these principles in the June 2002 assessment in terms of the timeliness and quality of the reforms achieved.

However, given New South Wales already has interim environmental flows in place on all regulated rivers, the Council is satisfied that New South Wales has met minimum commitments in relation to the provision of water for the environment for the 2001 NCP assessment.

Trading

In terms of water trading in New South Wales, the *Water Management Act 2000* Act is a clear improvement on the previous arrangements. However, the Act was proclaimed only in January 2001 and there has been little time for implementation. Provisions in the Act relating to licences and approvals are yet to commence. In the period until these provisions come into effect, the existing statutory framework for the transfer of water rights will continue.

Despite the improvements in the new Act, there are still several transitional issues. In particular, the water sharing plans are not finalised and the registry is not established. Consequently, trading rules are still to be further developed. Also, the uncertainty in property rights created by the transition could discourage trade. The limitation of trade out of regulated irrigation districts is also an impediment to both interstate and intrastate trade, especially as these irrigation districts are concentrated in the south of the State where the majority of water in New South Wales (and indeed the Murray–Darling Basin) is used. New South Wales is working with the irrigation districts to resolve this issue.

As the new arrangements are progressively implemented, the Council will examine through further NCP assessments that New South Wales' fully implements its commitments for water trading. The Council will review New South Wales' response to consultation on the registry system in a supplementary assessment in December 2001. The 2002 NCP assessment will focus on property rights and their effect on trade, and the roll out of water management plans and the embodied trading rules. The Council will also look for progress in resolving the limitation of trade out of regulated systems.

Environment and water quality

New South Wales devoted considerable resources to addressing the issue of integrated catchment management at the State, regional and local planning level. The State Government has statutory catchment management plans, vegetation management plans and water management plans. New South Wales is currently reviewing a series of proposals to ensure a more consistent framework among these different levels of plans.

The Council reviewed a number of these plans and considers that they indicate an ongoing commitment by New South Wales to implement integrated catchment management. Therefore, New South Wales has met the commitments related to integrated catchment management for this assessment. The Council will continue to monitor developments in the implementation of integrated catchment management arrangements in future assessments.

New South Wales continues to progress reforms to water quality management through the interim water quality and river flow objectives involving the Healthy Rivers Commission and a range of other programs at the State level. There have been significant achievements through projects developed under the Stormwater Trusts Grants scheme. New South Wales has also demonstrated a commitment to managing waste through developing market-based mechanisms and promoting effluent and biosolid reuse. The Council is satisfied that New South Wales continues to implement policies that support the objectives of the National Water Quality Management Strategy.

The Council is satisfied that New South Wales has complied with environment and water quality reform commitments for this assessment.

Consultation and education

New South Wales continues to actively consult the community through programs and communication strategies accompanying all major water reform initiatives to ensure the full benefits of the reforms are understood and achieved. For example, the Government consulted extensively regarding the *Water Management Act 2000*. This involved consultation across government, with peak stakeholder groups and through regional public meetings. Examples of consultation forums include the New South Wales

Water Advisory Council, State working groups with agency and key stakeholder representatives, catchment management boards and water management committees. New South Wales is also devoting considerable resources to public education on water reform.

The Council is satisfied that New South Wales has complied with public education and consultation reform commitments.

Victoria

Around 89 per cent of total water use in Victoria comes from surface water sources. There are two major drainage divisions in Victoria. Northern Victoria drains into the Murray–Darling Basin, which provides two-thirds of Victoria's surface water needs. Northern Victoria also contains most of the State's irrigation. The two major irrigation areas are the Goulburn-Murray and the Mallee irrigation areas around Mildura and Sunraysia. Southern and eastern Victoria are coastal drainage systems. Irrigation in this area includes the Wimmera and Gippsland. In the coastal division, domestic use followed by industry, services and power generation are the main urban uses. Rural water use across Victoria is dominated by pasture irrigation, followed by horticulture, and stock and domestic use.

Groundwater accounts for around 11 per cent of the total water use in Victoria. Of this, groundwater irrigated agriculture accounts for 70 per cent and urban/industrial uses for 20 per cent. Groundwater diversion in Victoria is controlled through volumetric licensing within 50 groundwater management areas.

Urban water and wastewater services in Melbourne are provided by four metropolitan service providers. Melbourne Water is the wholesaler providing bulk water supply, sewerage treatment, drainage, and floodplain management services to the three retail service providers. These are City West Water, South East Water and Yarra Valley Water. Outside of metropolitan Melbourne, there are 15 non-metropolitan urban service providers providing services to country towns.

Rural water services are delivered by 5 regional water authorities. These authorities manage irrigation systems and services, manage stock and domestic systems, manage headworks such as large dams, and licence private diversions and conduct environmental management initiatives. Goulburn-Murray Water is by far the largest authority accounting for 90 per cent of all entitlements used for irrigation, and supplying bulk water services to two other rural water authorities and several non-metropolitan urban areas.

Progress on reforms

Pricing and cost recovery

Urban water services

The Council is satisfied that for the most part Victoria's urban water and wastewater services are recovering costs consistent with CoAG commitments. However, the Council has noted its concern with the high level of returns being generated by some of the metropolitan service providers (City West Water in particular). The Council has also concluded that a number of non-metropolitan urban providers are not operating on a commercially viable basis as defined by the CoAG guidelines.

The Victorian Government is to release a 2001 Price Review which will establish a three year price path for full cost recovery from July 2001. Victoria has also announced that an Essential Services Commission will be created as an independent economic regulator to oversee the implementation of the price paths. Victoria will also apply a state based tax equivalent regime to the urban sector from July 2001. The Council therefore considers commitments have been met for this assessment.

Demonstration of further progress on full cost recovery particularly among the non-metropolitan urban providers will be a significant issue for the Council's 2002 NCP assessment. In future assessments, the Council will continue to look for Victoria to have made progress in the following areas:

- consideration of the treatment of externalities arising from urban water use;
- an independent audit of non-metropolitan urban providers' compliance on asset valuation;
- commercially based dividend arrangements consistent with CoAG commitments;
- a rigorous consideration of cross-subsidies; and
- more transparent reporting of CSOs.

The Council is satisfied that all Melbourne metropolitans and non-metropolitan urban providers throughout Victoria are applying two-part tariff arrangements consistent with consumption based pricing commitments.

The Council has found that Victoria's CSO framework meets 2001 commitments. The Council has however noted a concern with the level of transparency of CSO reporting for the metropolitan and non-metropolitan urban sectors. Victoria has advised that non-metropolitan urban providers

will be required to report on CSOs in their annual reports as a condition of the water service agreements with the State Government. The Council will look for progress on transparent reporting mechanisms in the 2002 NCP assessment.

The Council is satisfied that water reforms implemented by Victoria to date have decreased the potential for non-transparent cross-subsidies and met minimum commitments. Victoria will consider a broader examination of cross-subsidies between water and wastewater businesses including the development of guidelines for the non-metropolitan urban providers and rural water authorities sector over the next 12 to 18 months. The Essential Services Commission will then assume responsibility for regulating water and wastewater prices. The Council will review progress in this area as part of the 2002 NCP assessment.

Rural water services

Victoria provided indicative information only on the level of full cost recovery by the rural water authorities. For Goulburn-Murray Water, the largest rural authority, 25 of 34 schemes are recovering an amount consistent with the lower bound of the CoAG guidelines. However, there are some systems for Goulburn-Murray and First Mildura Irrigation Trust that are not operating on a commercially viable basis as defined by the CoAG guidelines. Goulburn-Murray Water has advised that the nine schemes in question (10 per cent of Goulburn-Murray's total rural services), will be shown to be commercially viable for 2000-01. Again the 2001 Pricing Review is considering issues of cost recovery for the rural sector, and Victoria has advised that the Essential Services Commission may have some responsibilities in this area.

Demonstration of further progress on full cost recovery for this sector will be a significant issue for the Council's 2002 NCP assessment. The Council will look for Victoria to have made progress in the following areas:

- finalised figures for full cost recovery by the authorities for 2000-01 and 2001-02 including state tax equivalent regime payments;
- resolved appropriate rates of return to be earned by rural authorities and non-metropolitan urbans on headwork services; completed arrangements to improve asset valuation;
- completed guidelines for renewals annuities and oversight by the Essential Services Commission;
- considered a process to improve the treatment of externalities; and
- set a process in place to ensure that where dividends are paid they reflect commercial realities and stimulate a competitive market outcome.

The Council is satisfied that all irrigation charges levied by the rural water authorities reflect consumption based pricing arrangements and that all NCP

commitments are met. Victoria has advised that the rural water authorities will be required to report on CSOs and cross-subsidies in their annual reports as a condition of the water service agreements with the State Government. The Council will look for progress on transparent reporting mechanisms in the 2002 NCP assessment.

The Council is satisfied that for the 2001 NCP assessment Victoria has complied with water pricing and cost recovery commitments.

Institutional reform

The Department of Natural Resources and the Environment is responsible for resource management and water allocations. Currently, the Minister for Environment and Conservation is also responsible for the non-metropolitan urban service providers and the rural water authorities, and is the joint shareholder of Melbourne Water with the Victorian Treasurer. The Treasurer is the Minister responsible for the three Melbourne water retailers. This can raise potential conflicts because the processes of water resource planning and ensuring compliance with water management requirements, can have an impact on the commercial viability of the non-metropolitan urban and rural water authority businesses. To address these issues the Council is looking for measures that ensure potential and actual conflicts of interest are minimised.

While the Council has concluded that Victoria has not yet completed the changes necessary to meet institutional reform commitments, it notes that Victoria is in the process of implementing a range of reforms over the next 12 months to improve transparency and accountability. These include:

- the proposed introduction of the Essential Services Commission as the economic regulator of the water industry and several other industries;
- the *2001 Price Review of Water, Drainage and Sewerage Services in Victoria*;
- Victoria transferred the responsibility for recommending prices in the metropolitan sector from the Department of Treasury and Finance to the Department of Natural Resources and Environment;
- establishing the Energy and Water Ombudsman to handle customer complaints in the water industry;
- the National Competition Policy Review of Victoria's Water Legislation;
- developing water services agreements that clearly specify the obligations on non-metropolitan urban and rural water authorities;
- developing a new regulatory framework for drinking water quality in Victoria;

- undertaking a review of the current regulatory arrangements for septic tank systems; and
- developing improved departmental guidelines for assessing the need for compulsory installation of small town sewage schemes.

The Council will reassess progress against these initiatives in the 2002 NCP assessment and for this assessment the Council will look for Victoria to have made progress in the following areas:

- defining the roles of the Essential Services Commission and establishing this organisation;
- demonstrated that the approach taken in the 2001 Pricing Review is consistent with the CoAG obligations;
- finalised the new drinking water standards framework so that there is independence (from the service provider) in the setting and enforcement of standards consistent with the 1996 Australian Drinking Water Guidelines;
- signed water services agreements with non-metropolitan urban providers and rural water authorities that provide the transparency and accountability necessary to remove any conflicts of interest between the ownership of these organisations and regulation;
- responded to any institutional reform issues that arise from the review of Victoria's water legislation; and
- responded to the Environmental Protection Authority's review of the regulatory arrangements for septic tank systems.

Victoria has met commitments in relation to benchmarking service providers, a commercial focus for metropolitan water authorities, and devolution of irrigation scheme management through water service committees that give customers a significant input into irrigation management.

The Council is satisfied that Victoria has complied with institutional reform commitments for this assessment.

Allocation

Bulk entitlements and take and use licences create water property rights under the *Water Act 1989* in Victoria. For the regulated systems, bulk entitlements legally define allocations of water and property rights to water authorities, including the environment. For unregulated rivers not covered by bulk entitlements, the management of diversions is undertaken through streamflow management plans which set conditions for take and use licences and environmental flow provisions. Licences are issued separately to the land title.

The Council is satisfied that Victoria's property rights system meets the requirements for the 2001 NCP assessment. For the 2002 NCP assessment, the Council will look for the Victorian Government to have made progress on the River Health Strategy, progress on the 2001 Farm Dams Review, and to revise the recent decision by Sunraysia rural water authority to reduce the duration of private diverter's licences from 15 years to five years.

Victoria's bulk entitlement and streamflow management plans do provide allocations for the environment. However, the Council has found for this assessment, that Victoria has made insufficient progress to meet commitments for allocations to the environment on overallocated or stressed river systems. In the second tranche assessment, Victoria identified 8 stressed surface water systems that required action for this assessment. Victoria has now added an additional 3 stressed river systems.

Victoria has advised that the policy on stressed rivers will be set by a River Health Strategy to be released for public comment in November 2001 and finalised by May 2002. The strategy is expected to:

- set a benchmark in defining what is an ecologically healthy river;
- propose the development of regional catchment strategies and waterway health plans;
- set regional targets in waterway health plans which draw from existing mechanisms such as streamflow management plans, bulk entitlements, and other integrated catchment management mechanisms;
- identify short to medium term targets at the State and regional level in the regional catchment strategies and water health plans; and
- aiming to put in place an integrated framework for waterway management which will maximise environmental improvements from investment.

Victoria has committed to finalise the Strategy by June 2002, and has provided a three-year timetable for actions on current priority stressed rivers based on the development of regional Waterway Health Plans.

While progress was made on consultation and the development of plans that were agreed in the second tranche assessment, the Council is concerned that change on-the-ground was not achieved on stressed rivers for the commitment to be met. The Council will reassess this issue in the 2002 NCP assessment. The Council considered imposing a suspension for this assessment until the reforms are in place. However, it is now satisfied that the Victorian Government has committed to a more comprehensive program to address this issue including a three-year action plan.

For the 2002 NCP assessment, the Council expects that Victoria will have a final publicly endorsed strategy in place, and will begin to implement plans in accordance with Victoria's new stressed rivers timetable. The Council will

also look for sufficient resources to be devoted to the environment to ensure improvements on stressed rivers are being made. Given the seriousness of this issue and the late delivery of this area of reform, the Council is of the view that insufficient progress in future assessments would be likely to result in a permanent penalty.

Trading

The majority of water entitlements in Victoria are contained within regulated irrigation districts. These irrigation districts are managed by rural water authorities who provide bulk water services to irrigators. Bulk entitlements are issued to these authorities as the basis for providing water to irrigators within the districts.

Water rights are transferable in regulated systems, although the right remains attached to land at all times. A transfer detaches the water right from one licence and reattaches it to the licence of the buyer. This has an impact upon the capital efficiency of the right. Water may be transferred into or out of an irrigation district, although only 2 per cent of water (net) can be transferred out of selected irrigation districts in a given year. This level has been reached twice in recent years.

In unregulated systems, streamflow management plans will set the balance between environmental and consumptive water allocations and, where appropriate, the rules for the transfer of water rights. Transfers may be made in unregulated systems on a similar basis to the regulated systems. Water remains attached to a land holding at all times. A prohibition on trade upstream and a 20 per cent levy on trade downstream (unless it is a winter-fill licence), limit trade in unregulated streams. These restrictions ensure that the environment is not further degraded until streamflow management plans are implemented.

Victoria has a well established trading market for high security water and trading has continued to play an increasingly important role in agricultural production in Victoria. Over the three years from 1997-98 to 1999-2000 many irrigators only coped with the low allocations of water, due to drought conditions by turning to the water market. This prompted record levels of water trading with permanent transfers up to 20 000 megalitres and temporary transfers of up to 250 000 megalitres. Water trading is now providing an alternative to high security allocations, as water users enter the market to buy additional water if needed to irrigate their crops.

The Council is satisfied that Victoria has met water trading commitments for the 2001 assessment. The Council will look for further progress in trading arrangements in future assessments.

Environment and water quality

Victoria is implementing regional catchment strategies. One of the primary objectives of these strategies is the protection of land and water resources. To implement the strategies, regional management plans are being developed by the nine catchment management authorities that cover non-metropolitan Victoria. These plans target Government investment in catchment areas in waterway management, floodplain management, salinity, drainage, groundwater management, water quality, soil conservation and land management.

Other catchment management initiatives developed by Victoria include Statewide benchmarking of the environmental health of all Victorian rivers. The data contained in the Index of Stream Condition is publicly available on a website. This Statewide benchmarking was undertaken by catchment management authorities. The release of Victoria's River Health Strategy is also likely to result in further developments for integrated catchment management.

Victoria continues to implement the National Water Quality Management Strategy through catchment management strategies and regional schedules to the state environmental protection policies. Nutrient management plans are being developed to minimise the outbreak of algal blooms. Victoria is also developing a new drinking water quality framework to be implemented in January 2002. Victoria has identified salinity targets to be addressed by catchment management authorities in developing regional management plans.

The Council is satisfied that Victoria has complied with environment and water quality reform commitments.

Consultation and education

Victoria has widespread public consultation and education mechanisms throughout its water industry. Customer consultative committees in the urban sector and water service committees in the rural sector ensure adequate consultation takes place. Substantial stakeholder involvement is also a key part of the process to develop bulk water entitlements and environmental flows.

The Council is satisfied there is a genuine commitment by Victoria to ongoing public consultation in the implementation of water reform. The implementation of reforms in such areas as the ongoing conversion of existing water rights to bulk entitlements, the setting of streamflow management plans on unregulated rivers, and the findings of the Farm Dams Review have been subject to considerable consultation.

With regard to public education, Victoria has established a Statewide Water Conservation Initiative which will set explicit obligations and targets for the water businesses themselves to undertake education campaigns. It is the Council's view that the features of the initiative should minimise the potential for any conflicts of interest in the roles of water service provision and public education. The initiative will ensure the Department of Natural Resources and Environment plays a greater role in coordinating water conservation and public education in Victoria. This will be achieved through setting clear obligations and targets in water service agreements with water businesses to meet Government expectations in this area.

The Council is satisfied that Victoria continues to comply with public education and consultation reform commitments.

Queensland

Queensland derives over 75 per cent of its total water needs from surface systems. Around 70 per cent of Queensland's surface water is derived from coastal systems. The Great Artesian Basin that also underlies parts of New South Wales, South Australia and the Northern Territory dominates the ground water resource in Queensland. Irrigation accounts for 65 per cent of total water use in the State, while urban water use accounts for 17 per cent. Stock and domestic, industry (including mining) and power generation represent 14 per cent, 3 per cent and 1 per cent of total water use respectively.

The major water service providers in Queensland include 125 local governments, four urban water boards, SunWater and several other providers. The *big 18* local government water service businesses account for 80 per cent of water connections in Queensland. The four urban water boards (South East Queensland Water Board, Townsville-Thuringowa Water Supply Board, Gladstone Area Water Board, and Mount Isa Water Board) provide water to a number of councils, industrial customers and power stations. SunWater (formerly State Water Projects) is a government owned corporatised entity that provides around 40 per cent of Queensland's irrigation water. SunWater is the State's largest water service provider accounting for nearly 50 per cent of all water consumed in Queensland.

The Department of Natural Resources and Mines is responsible for water allocation and management and water service provider regulation. Under the *Water Act 2000* all water service providers must be registered, with registration attaching a series of regulatory obligations, which must be met.

The Environmental Protection Agency is responsible for environmental protection and regulation of water quality (with the exception of drinking water). The Department of Health regulates drinking water quality. The Queensland Competition Authority is responsible for prices oversight of the largest providers in the water industry.

Progress on reforms

Pricing and cost recovery

Urban water services

Just over 70 per cent of the 125 local government water businesses in Queensland apply CoAG water pricing principles under a three-tier framework. Thirteen of the big 18 local government water businesses are commercialised and the remaining five have adopted full cost pricing. However, reform progress among the local government water businesses outside the big 18 has been slower.

The Local Government Association of Queensland and the Queensland Government developed a strategy to promote CoAG water reforms, including pricing reforms beyond the big 18. This strategy, the Business Management Assistance Program, includes assisting local government businesses to design two-part tariff regimes, enhancing their in-house capability to adopt pricing reforms and extending the deadline for receipt of incentive payments offered under the Local Government NCP Financial Incentive Package. The Council will monitor the outcomes from this Program. Furthermore, the Council will look for progress in including taxes or tax equivalent regimes within cost recovery arrangements outside the big 18 service providers.

Queensland does not explicitly incorporate environmental costs into urban prices. However, through Resource Operations Licences, it does improve environmental obligations to service providers who operate bulk infrastructure (such as dams).

While, the costs of complying with the licence (and thus the resource management costs) are to be met by the service providers, this is unlikely to fully reflect resource management costs associated with urban water use. The Council will review this matter in future assessments.

The Council notes that all but one of the big 18 service providers have implemented or in the process of implementing two-part tariffs. However, despite the Council raising its concerns in the June 1999 second tranche NCP assessment the Townsville City Council has failed to demonstrate that it objectively analysed the cost effectiveness of two-part tariffs and provided a public interest justification on why it will not implement price reforms. Consequently the Council has recommended a permanent reduction in Queensland's competition payments of \$270 000 from 2001-02. This amount reflects an approximation of the remaining money Townsville is entitled to through the Queensland Competition Authority's financial incentives scheme. The Council has chosen this approach to reflect that the Queensland State government has proactively encouraged reform. However, Townsville has neither committed to introducing two-part tariffs nor provided a public

benefit justification of why the implementation of two-part tariffs is not in the public interest.

The Council will reconsider Townsville's approach to two-part tariffs in its 2002 NCP assessment. It will look at both the progress made by Townsville and the State Government's efforts to resolve the issue. At that time the Council will reconsider whether a continued reduction in competition payments is warranted and the appropriate size of any such reduction.

The Council welcomes the progress made by many of the 10 next largest local government providers, in moving towards the introduction of two-part tariffs. The Council will look for continued progress in this area in future assessments.

Many of the 42 local government providers (with 1000 to 5000 connections) are considering the implementation of two-part tariffs. However, several have decided not to assess the cost effectiveness of introducing two-part tariffs. Some of these providers have the State's largest free water allowances. This raises questions about whether these providers are appropriately implementing the water pricing reforms. The Council will review progress again in the 2002 NCP assessment.

All four urban water boards charge for water consistent with the principles of volumetric based charging.

Domestic and commercial/industrial wastewater charges across the local government providers in Queensland are based on either a fixed charge or a fixed charge with an additional charge for each additional pedestal. The Council understands that some local governments also levy trade waste charges. Local governments provided no details of these charges. The Council is satisfied that wastewater charges are consistent with CoAG requirements but will consider the issue of trade waste charges at the 2002 NCP assessment.

The Council notes that the CSOs and cross-subsidies provided by the *big 18* water and wastewater businesses are being transparently reported. Queensland has made a policy decision that only type 1 and 2 businesses are required to identify and reports CSOs and cross-subsidies. As a result, only a few of local government providers outside the big 18 have disclosed such information. The Council will look for further progress on the identification and transparent reporting of CSOs and cross-subsidies of the local government providers beyond the big 18 in future 2002 NCP assessments. No CSOs have been identified as being provided by the urban water boards.

Rural water services

A move towards cost recovery by SunWater is being managed via a two-pronged approach. First, SunWater is required to achieve efficiency improvements leading to a 15 per cent reduction in operating costs by 2004. Second, a five-year price path for each of SunWater's 31 irrigation schemes

has been developed in consultation with the participants of the schemes. As a part of this approach an independent benchmarking exercise was completed to obtain a reliable base for SunWater's costs. The benchmarking exercise enabled SunWater to identify specific areas where cost reductions can be targeted. Queensland has undertaken to re-benchmark SunWater's costs in 2004.

Significant concerns have been raised by several irrigator groups in relation to the estimates of efficient costs used in setting the price paths and in regard to the level of consultation. SunWater is required to establish Customer Councils for all of its irrigation schemes. These councils are intended to give irrigators the opportunity to provide input into SunWater's decision making process on an advisory basis. The Council will look for evidence that Customer Councils have had an adequate opportunity to provide feedback in relation to standard setting decisions and efficiency improvements in the future. The Council will review the progress associated with cost recovery in the 2002 NCP assessment.

Two-part tariffs have been in place for most of the irrigation schemes operated by SunWater since 1997-98. The Council is satisfied that rural water services provided by SunWater reflect the principle of consumption based pricing consistent with CoAG commitments.

In the 2002 NCP assessment the Council will look for evidence that Queensland is refining its other rural water charges (applied in unregulated areas, water harvesting in regulated areas and water extraction in ground water management areas) and in particular is eliminating the current ceiling on volumetric charges. Further the Council will look for progress in addressing the potentially non-transparent cross-subsidies associated with the charges for other rural water services.

The Council is satisfied that Queensland has met the CoAG commitments for this assessment in relation to ensuring economic viability and ecological sustainability of new investment in rural water schemes.

Institutional reform

The Council concluded in its supplementary second tranche NCP assessments that Queensland had met institutional reform requirements. Since the second tranche NCP assessment Queensland has made further progress in reforming the institutional role separation in the water sector. For example, the enactment in September 2000 of the *Water Act 2000* provides a framework for the allocation, management and regulation of the State's water resources. Other key reform initiatives include prices oversight by the Queensland Competition Authority, corporatisation of SunWater and restructuring the Department of Natural Resources and Mines.

In the area of economic regulation, most of the significant water businesses (including the *big 18* local government water service businesses) have, or will

be, declared for prices oversight. Under the *Water Act 2000* all service providers are required to prepare customer service standards and provide a copy of those standards to all customers not covered by a contract.

Under the current arrangements, the Department of Natural Resources and Mines has resource management and water allocation roles while all the service delivery functions are now the responsibility of SunWater. The Minister for Natural Resources and Mines is a joint shareholder in SunWater. Hence, certain ministerial decisions could potentially affect the commercial aspects of the SunWater's business. Given Queensland's existing arrangements for separating service delivery and regulation, and the commitment to improve transparency in reporting the final water resource plan, the Council has concluded that there is sufficient transparency in decision making.

Arrangements for regulation of drinking water quality are being reviewed in Queensland as part of the review of the *Health Act 1937*. In the 2002 NCP assessment the Council will look at what arrangements are in place to manage drinking water standards across the State.

Queensland is continuing to meet its commitments on the commercial focus of urban service providers and participate in benchmarking arrangements.

The Council considers that Queensland's approach to local management of irrigation is restrictive. Irrigators only had until mid-2001 to negotiate on local management. This is a very short time frame. After mid-2001 irrigators will not have another opportunity to negotiate the adoption of local management until 2003.

Customer Councils are intended to give irrigators the opportunity to provide input on an advisory basis into SunWater's decision making process. The Council will monitor the operations of the Customer Councils to ensure that SunWater is using them as an effective mechanism for seeking input from irrigators into decision making.

The Council is satisfied that Queensland has complied with institutional reform commitments for this NCP progress assessment.

Allocation

The framework for allocation, management and regulation of water in Queensland is set out in the *Water Act 2000*. Water resource plans are the principal water-planning tool under the Water Act. They specify the rules on how water will be allocated, environmental flow provisions and water allocation security objectives. Water resource plans are of a 10-year duration and are implemented through resource operation plans.

As at March 2001, water resource plans have been completed for Fitzroy River Basin, Cooper Creek Basin, Boyne River Basin and Burnett River

Basin. Further, draft plans have been released for the Condamine–Balonne, Moonie and Warrego/Paroo/Bulloo/Nebine. To date, no resource operation plans have been finalised. Draft resource operation plans for the Fitzroy River Basin and Boyne River Basin are currently being prepared with the former to be the first released for public comment in September 2001.

Since its supplementary second tranche NCP assessments the Council has considered further the provisions of the *Water Act 2000* including progress in implementing the water resource plans and resource operation plans and the efficacy of water property rights. The Council is of the view that Queensland's system of water property rights meets the requirements for this assessment.

Under the *Water Act 2000*, periodic reports are to be prepared for each water resource plans covering issues such as: an assessment of the effectiveness of the implementation of the water resource plans in meeting the water resource plans' objectives (including environmental objectives); any new information available about water covered by the plan; and information about any non-compliance with the water resource plan and the resource operation plan. The Council will continue to review further progress in implementing the water resource plans and related processes in future assessments.

Water resource plans identify and specify water for the environment. This is done on the basis of best scientific information available. The Council has examined the completed plans and has concluded that overall the allocations in the plans for the Fitzroy Basin, Cooper Creek, Boyne Basin and Burnett Basin adequately meet environmental requirements.

The Council has also examined the Condamine–Balonne Basin draft water resource plans. On the basis of the evidence available, including the findings of the Independent Audit Group of the Murray–Darling Basin Commission, the Council notes that the lower portion of the basin may now be considered a stressed river system. The Condamine–Balonne Basin is a region of intensive water use within Queensland's area of the Murray–Darling Basin and the region contains 20 per cent of all Murray–Darling Basin wetlands. The Council has serious concerns with the three options currently being proposed to establish environmental flow objectives in the Condamine–Balonne Basin draft water resource plan. On the basis of information currently before the Council, it considers that adoption of any of the three options proposed in the draft water resource plan is likely to lead to a substantial reduction in Queensland's NCP payments in the 2002 NCP assessment. For the 2002 NCP assessment, the Council would expect Queensland to have in place a robust and an appropriate final water resource plan for the Condamine–Balonne Basin and the associated resource operation plan.

The Council has noted general concerns in relation to the lack of transparency in developing the water resource plans. The Queensland Government has recognised this and has made a commitment to address it by increasing the scope of information released when the water resource plan is finalised.

Trading

The *Water Act 2000* provides the framework for water trading in Queensland. Primarily this would require the full implementation of the water resource plans and the associated resource operation plans in the prospective water trading areas. The Council considers that, in the main, the legislative framework in the Water Act should ensure clear specification of the water property rights. However, there are a number of aspects in the framework that could potentially hinder trading. In particular, provisions in the legislation could limit the volume of water that may be transferred between locations, whether inside or outside Queensland, or for different purposes. Another area of potential concern is the provision that limits water trade to primary production. This is not in the spirit of the CoAG guidelines as it may prevent water from moving to its highest value use.

Trade in Queensland is currently limited. There has been one pilot program of permanent water trading in the Mareeba—Dimbulah Irrigation Area since 1999. The demand for permanent trade in the Mareeba—Dimbulah Irrigation Area has been low with only four trades in 1999-2000, totalling 164 megalitres. Queensland has indicated that interim arrangements will be established in other regions to allow permanent trade until trading rules are developed with the resource operation plans.

Queensland has made significant progress towards developing a framework for efficient water trading. However, there is still a long way to go in implementing the required mechanisms. The Council will make a further NCP assessment in 2002 to evaluate the extent of progress with the implementation of first, the use of interim trading arrangements and second, the resource operation plans and the associated trading rules in the prospective trading areas.

The Council is satisfied that Queensland has complied with water allocation and trading reform commitments for this assessment.

Environment and water quality

In its second tranche NCP assessment the Council noted the progress made by Queensland towards meeting its commitments in relation to the environment and water quality aspects of the water reform framework. Since the second tranche NCP assessment the 13 regional strategy groups operating in Queensland are developing natural resource and biodiversity management strategies. The 38 Catchment Management Coordinating Committees are continuing with development of catchment strategies with 27 of them receiving endorsement. The Council considers there is adequate evidence of on-the-ground implementation of catchment management in Queensland.

The *Water Act 2000* requires water use plans to be prepared when there is a risk of land and water degradation in an area. In light of the potential for

growth in water allocations, due to the water resource plans process occurring across Queensland, the Council will monitor the use of water use plans to control any adverse impacts likely to arise from the new allocations.

In relation to water quality, Queensland is demonstrating a high level of commitment to ongoing implementation of the National Water Quality Management Strategy guidelines. With regard to water quality monitoring, the Council observes that there appears to be insufficient water quality data relating to some river basins in Queensland. Queensland needs to address this issue.

The Council is satisfied for this NCP assessment that Queensland has complied with environment and water quality reform commitments.

Consultation and education

The Queensland Government has engaged in a number of community consultation and public education programs regarding the implementation of water reforms. For example, Queensland released for consultation a number of policy papers and a draft Bill in developing the *Water Act 2000*.

The *Water Act 2000* provides a statutory basis to ensure all stakeholders are consulted during the development of water resource plans and resource operation plans for catchment areas. There is some concern regarding the adequacy of information available to the stakeholders from the draft water resource plan stage to the final plan. The Council has raised this issue with Queensland. In preparing water resource plans, Queensland has committed to provide adequate information relating to a move from a draft to final stage and to indicate any trade-offs made in the final water resource plan.

The Council is satisfied for this NCP assessment that Queensland has complied with public education and consultation reform commitments. The Council will monitor developments in the area of public consultation and the provision of information relating to the development of water resource plans in future assessments.

Western Australia

Around 60 per cent of total water use in Western Australia comes from groundwater sources. The most intensively used groundwater area is the Perth Division followed by the Yilgarn Division. On a State-wide basis groundwater is used for mining (35 per cent), irrigated agriculture (25 per cent) and households and private household bores (19 per cent). Parks and gardens, services, industry and stock watering account for the remaining 21 per cent of groundwater use.

Surface water accounts for around 40 per cent of the total water use in Western Australia. Irrigated agriculture and households account for 65 per cent and 5 per cent of surface water use respectively, while services, industry, mining and stock watering account for the remaining 20 per cent. Most of the surface water use in Western Australia is restricted to South–West drainage Division and the Timor Sea Division. The Ord River basin irrigation accounts for nearly all of the water use in the Timor Sea Division.

There are three major providers of urban water services in Western Australia: the Water Corporation, Aqwest (formerly the Bunbury Water Board) and Busselton Water Board. In addition there are 20 local government authorities operating sewerage schemes. Water Corporation, which is a corporatised entity, is by far the largest water service provider supplying bulk water storage and transfer, water treatment and reticulation, wastewater treatment and reticulation and storm water services. Western Australia has four irrigation scheme providers, the South–West, Preston Valley, Carnarvon and Ord irrigation schemes. Water Corporation supplies bulk water to these schemes.

The South–West and Preston Valley schemes are owned and operated by farmers co-operatives. Both the Carnarvon and Ord irrigation schemes are publicly owned. Plans are underway to transfer ownership of both schemes to privately owned growers' cooperatives.

The Water and Rivers Commission is responsible for water management and resource allocation. The Office of Water Regulation administers a water-licensing scheme and provides policy advice relating to water services (including charges levied for the provision of water services). The Minister for Water Resources has the overall responsibility for water service provision and standard setting, resource management and water regulation.¹

Progress on reforms

Pricing and cost recovery

Urban water services

The Council is satisfied that for the most part, Western Australia's urban water and wastewater services are recovering costs consistent with CoAG commitments. Western Australia has advised that water and wastewater

¹ Changes since 30 June 2001 have established separate portfolios, with resource management and water service regulation the responsibility of the Minister for Environment and Heritage, and water service delivery the responsibility of the Minister for Government Enterprises.

providers will soon be subject to independent prices oversight. This will also provide a means for achieving improved asset valuation for price setting purposes.

In the 2002 assessment the Council will look for Western Australia to have made progress in the following areas: further consideration of the treatment of externalities associated with broader environmental effects of urban water use; improved asset valuation by Aqwest, Busselton Water Board and the Kalgoorlie-Boulder service provider; and consideration of avenues for recovering taxes or tax-equivalents in charges by the Kalgoorlie-Boulder service provider.

The Water Corporation, Aqwest and Busselton Water Board have all substantially implemented two-part tariffs. Two-part tariffs apply to all Water Corporation customers and all residential customers of Aqwest and the Busselton Water Board. Aqwest and the Busselton Water Board are currently in the process of moving the non-residential customers to a two-part tariff regime. The full implementation of two part-tariffs is expected to be completed by mid 2002. This process should eliminate from water charges the current arrangement of free water allowances as well as the fixed charge based on the gross rental value. The Council will monitor the progress in this area.

The Water Corporation is implementing a single fixed charge for residential sewerage services, which will replace existing charges based on gross rental value. The Council will look for consideration by other waste service providers to replace existing charges based on gross rental value.

Western Australia released the Community Service Obligations Policy in Western Australia in April 2000, which updates a 1996 document and provides a more coordinated and well-focussed framework for endorsing new community service obligations (CSOs). The Council welcomes this new framework. Western Australia is continuing to comply with CoAG commitments in regard to the CSOs as they relate to the urban water sector.

Western Australia has advised that ring-fenced arrangements have been established within the Water Corporation. This allows for the use of internal volumetric bulk water transfer prices that recover full operating costs and reduce the potential for cross-subsidies between business segments. The Water Corporation also uses volumetric charges for country water customers that reflect the cost of providing such services. This reduces the potential for cross subsidies between different groups of customers. A broader and a more systematic examination of cross-subsidies in the Western Australian water sector will be an issue for consideration for the Council's 2002 NCP assessment.

Rural water services

Among the regulated irrigation districts in Western Australia, the South-West and the Preston Valley irrigation schemes meet the lower bound of the

agreed pricing guidelines to meet cost recovery. As a result of the price paths that have been established for the Ord and Carnarvon irrigation schemes, their full cost recovery is expected, albeit in a decade or so. Hence the arrangements in the rural water services to recover full costs still have some way to go. The Council will examine the cost recovery of these schemes during the 2002 NCP assessment.

In terms of unregulated water resources, the Council can find little evidence that licence fees in any way reflect cost recovery. The Council will look at progress in this area in the 2002 NCP assessment.

Currently, the South–West and the Preston Valley irrigation co-operatives, and the Carnarvon scheme use volumetric charges to recover water costs. The Ord scheme recovers costs through an area-based charge. As indicated earlier the irrigation schemes receive bulk water from the Water Corporation. The corporation's bulk water charges to the South–West and the Preston Valley irrigation co-operatives are volumetric based. It charges the Ord and Carnarvon irrigation schemes on a fixed basis for their bulk water. The Council finds that Western Australia has met minimum commitments on consumption based pricing for rural water and it will monitor further progress in this area in the 2002 NCP assessment.

The Water Corporation's bulk water charges to the South–West and the Preston Valley irrigation co-operatives are set to recover only the lower bound of the CoAG pricing guidelines. The Council understands that the Water Corporation is compensated through a CSO payment for the fact that the Ord and Carnarvon irrigation schemes are charged for their bulk water at a price less than the lower bound. The lack of transparency in the reporting of these arrangements makes it difficult to clearly estimate the CSO payments in the rural water sector in Western Australia. The Council will look for consideration of further disclosure of CSOs for rural water supply in future assessments.

Western Australia has indicated its commitment to establishing a comprehensive framework for assessing the economic viability and environmental sustainability of future investment in new rural water schemes. The framework is expected to be completed in 2001. In looking at the economic viability criteria of the framework, the Council notes that it is an improvement on previous arrangements. The Council will continue to monitor this issue. In terms of new infrastructure, the Council notes the Stirling–Harvey redevelopment scheme will provide security of water supply to Perth. The development of Stage 2 of the Ord irrigation area has not been approved yet. The Council will look for appropriate economic and environmental assessments once this approval has been given.

The Council is satisfied that for the 2001 NCP assessment, Western Australia has complied with water pricing and cost recovery commitments.

Institutional reform

The three major urban water service providers, the Water Corporation, Aqwest and Busselton Water Board are responsible to the Minister for Water Resources in Western Australia. Furthermore, the Minister is also responsible for the Office of Water Regulation and the Water and Rivers Commission. Such an arrangement could potentially lead to conflict of interest, and hence there needs to be a greater degree of transparency and accountability in this regard. This arrangement where one Minister is responsible for service provision, resource management and regulation is under review as a part of the Western Australian Government's current Machinery of Government Review.

The Office of Water Regulation does not currently have a role in price regulation in the water sector. Western Australia has indicated its commitment to establishing an independent economic regulator that will deal with the economic regulatory aspects in the water sector, in particular price regulation. The Council will monitor progress in this area in the 2002 NCP assessment.

Western Australia's approach to the regulation of resource allocation and water management is likely to provide sufficient transparency and separation in the roles of the responsible minister. A combination of mechanisms including the role of the Water and Rivers Commission Board, public consultation in water management through the water resource management committees and the provisions which allow Water and Rivers Commission decisions to be appealed appear to address any potential conflict of interest. These mechanisms are still being implemented and the Council will monitor their progress.

In relation to drinking water quality, the Water Corporation has agreed to move from the 1987 drinking water guidelines to the 1996 Australian drinking water guidelines over a period of five years. The Department of Health will monitor the phasing in of the changes.

Western Australia is continuing to participate in the Water Services Association of Australia performance monitoring and benchmarking process. In relation to the devolution of irrigation scheme management, Western Australia is continuing to make progress.

The Council is satisfied that the Western Australia has complied with institutional reform commitments.

Allocation

Licences issued under the *Rights in Water and Irrigation Act 1914* create water property rights in Western Australia. Licences are issued separately to the land title. The Act also formalises Western Australia's approach to providing water for the environment and consumptive uses. This is done

through a system of statutory water management plans. The Act provides for three levels of water management plans. The purpose of these plans is to manage both groundwater and surface water quantity and quality within a catchment. The three levels of plan are regional management plans, sub-regional management plans and local area management plans. These plans are of an indefinite duration, and are to be reviewed at least every seven years. Western Australia has a timetable for the preparation of water management plans including the current status of the plans.

Water resource management committees will aid the Water and Rivers Commission in the setting up of water management plans. These committees will include water users and other stakeholders. Currently there are no water resource management committees in place. Two committees are expected to be established in 2001 and another two in 2002. Eventually there will be 16 such committees in Western Australia.

In Western Australia, environmental water provisions are set in water management plans for all water systems in one of two ways: in the form of a 'notional or interim allocation limit' or in the form of formal assignment of environment water provisions in areas that are highly of fully developed.

There are no stressed or over allocated surface water systems in Western Australia that required action in June 2001. The Council will monitor both the progress in developing water management plans and any increased water use which may indicate a need to bring forward the schedule for completion of particular plans.

Trading

Around a third of Western Australia's water resource systems are at a highly or fully allocated level. It is in these areas, in particular, that water trading will allow new users to obtain water or existing users to raise their supply without impacting on the sustainability of the water system.

Provisions for water trading in Western Australia have been established through amendments to the *Rights in Water and Irrigation Act 1914*. The amendments came into effect in January (2001a). The Water and Rivers Commission has released a draft policy document on transferable (tradeable) water entitlements for Western Australia (2001) for public consultation. This document, once formalised, is expected to provide a broad template for water trading including the trading rules.

Water trading in Western Australia is still at an embryonic phase. At present water trading occurs only within the South-West Irrigation Area. The only prospect for interstate trading is with the Northern Territory where the proposed stage two of the Ord irrigation project crosses the state boundary.

The Council is satisfied that Western Australia has made satisfactory progress in water allocation reform commitments and has met minimum

water trading commitments for the 2001 NCP assessment. The Council will look for further progress in these areas in the 2002 NCP assessment.

Environment and water quality

In Western Australia integrated resource management occurs primarily through regional natural resource management groups and with the help from local and state government agencies. Activities undertaken in this regard include the provision of advice to community groups on river restoration and management, establishment of 145 Land Conservation District Committees and preparation of initiatives to protect the quality and quantity of ground water used in Perth.

Implementation of specific actions to address broader catchment management issues in Western Australia is progressing gradually. The Council will monitor further progress in this area in the 2002 NCP assessment.

In 2000, the Western Australian government developed the State water quality management strategy as the framework through which the National Water Quality Management Strategy will be implemented. The Western Australian Cabinet endorsed the State strategy in April 2001. As a part of this overall process a State water quality implementation plan is to be developed setting the priorities for implementing the National Water Quality Management Strategy guidelines. Western Australia has a provisional timetable spanning for the next two years to implement the State strategy. The Council will monitor the progress against this timetable during future assessments.

By the 2002 NCP assessment, the Council would expect to see the following: the State water quality implementation plan finalised and released as a public document; and completed drafts for public release showing the means of implementation of specific National Water Quality Management Strategy guidelines for fresh and marine water quality, drinking water, and water quality monitoring and reporting.

The Council is satisfied that Western Australia has complied with environment and water quality reform commitments.

Consultation and education

The Western Australian Government has undertaken widespread public consultation and education programmes in relation to its water industry reforms. For example in developing the environment water provisions policy, considerable public and stakeholder consultation has been undertaken. Local water management advisory committees are important means by which public consultation is achieved.

In the second tranche NCP assessment, the Council noted that it is inappropriate for service providers to decide on the level of public education on matters such as water conservation. Western Australia has indicated that it recognises that there may be a potential conflict of interest in suppliers providing public education on water conservation. However it indicates that there are incentives for suppliers to manage water conservation in a responsible manner.

The Council is satisfied that Western Australia has complied with public education and consultation reform commitments.

South Australia

The Murray River is South Australia's primary source of water. It also provides water to metropolitan Adelaide and South Australian country towns. Ground water is an important source of water for the Adelaide plains (supplying vegetable and wine grape growers) and the south-east corner of the state around Mt Gambier, Eyre Peninsula and the Murray Mallee. The Great Artesian Basin extends into the northern part of South Australia.

The South Australian Water Corporation (SA Water) is the state's major water service provider. It is a corporatised entity that is responsible for the provision of urban and rural water and wastewater services. The Minister for Government Enterprises is responsible for water services legislation, including SA Water. The Minister for Water Resources is responsible for most water matters including water resource management.

Rural water use in South Australia is dominated by irrigated agriculture. Irrigated agriculture accounts for around 80 per cent of total water use in the state.

Progress on reforms

Pricing and cost recovery

Urban water services

In South Australia, water charges for commercial and non-commercial customers are based on different pricing structures. Recent reforms have made customer payments more responsive to the volume of water used. The Council notes the sound financial performance of SA Water and commends efforts to improve service quality and the overall efficiency. The Council also

notes the measures taken by South Australia to take account of the cost of environmental externalities associated with water use.

The Council is concerned about the high and increasing proportion of profits being returned by SA Water to the government as dividends. The Water Services Association of Australia reported SA Water's dividend pay out ratios of 119 per cent and 124 per cent in 1998-99 and 1999-2000 respectively (WSAA 2000). The 1999-2000 figure was the highest among Australia's large metropolitan services. The Council notes that if continuation of this policy was to lead to insufficient funds being retained within the business to fund initiatives such as future investment in water supply, this potentially raises an issue for future NCP assessments. The Council will review this matter in future assessments to ensure that SA Water's dividend policy is consistent with CoAG guidelines.

South Australia has indicated its commitment to implement a package of reforms that will remove free water allowances from commercial water pricing via a phased introduction of user charges (through amending the *Waterworks Act 1932*) by December 2001. It has also indicated its commitment a broader-based trade waste charge regime from 2002-03. The Council will look for evidence of progress with introducing the new arrangements for commercial water prices and trade waste charges.

South Australia has initiated reform processes that will reduce the potential for non-transparent cross subsidies in the urban water sector. The Council will continue to monitor the progress of these in future assessments.

Rural water services

South Australia has advised that all irrigation schemes are recovering the lower bound of the CoAG pricing guidelines. The costs of externalities in prescribed areas are covered through levies charged by the Catchment Water Management Boards. South Australia has also advised that no community service obligation (CSO) payments have been made to privately managed irrigation schemes. The Council will look for further evidence of compliance with CoAG cost recovery requirements including provisions for taxes or tax-equivalents by irrigation schemes in the 2002 assessment.

There have been proposals for the supply of additional irrigation water to areas such as the Barossa Valley and Clare Valley. The Council is satisfied that, if these proposals proceed, they will be on an economically viable basis. There are also proposals to rehabilitate the Loxton and lower Murray irrigation areas. The Council will look for evidence demonstrating the ecological sustainability of the Barossa Valley, Clare Valley, and the Loxton and lower Murray irrigation areas in future assessments.

The Council is satisfied that for the 2001 NCP assessment South Australia has complied with water pricing and cost recovery commitments.

Institutional reform

The recently released State Water Plan 2000 outlines South Australia's approach to further enhancing the structural separation of water resource management, service provision, standard setting and regulation. The Plan clarifies and improves transparency in water management and environmental regulation, expands the number of catchment water management boards and identifies strategies to work with stakeholders such as the local governments and the Murray–Darling Basin Commission.

Following a 1999 confidential review of water and wastewater pricing options by the South Australian Government, some approaches to pricing have been announced. However, the Council has significant concerns about the transparency of water price setting in South Australia. This lack of transparency makes it impossible for the Council to be confident that pricing decisions will be based consistently on the principles set out in the water agreements. Moving to a more transparent approach to price setting and monitoring would remove the need for the Council to be closely involved in price related assessments in the future. The Council will continue to look for progress in resolving the issue of a commitment from the South Australian Government to implement a more transparent approach to price regulation for the water industry.

SA Water is continuing to participate in the Water Services Association of Australia performance monitoring process. In addition South Australia has undertaken a series of irrigation benchmarking projects across a number of regions in the state.

South Australia is continuing to devolve the responsibility of irrigation management to local bodies supported by the irrigators. The Loxton Irrigation District is one of the last major irrigation areas to be converted to self-management in July 2001. The transfer of irrigation districts in the lower Murray reclaimed irrigation area is also being discussed. The Council will review the progress of the devolution process in the 2002 assessment.

The Council is satisfied that South Australia has complied with institutional reform commitments for this assessment. It will continue to address the issue of independent prices oversight with South Australia for future assessments.

Allocation and trading

Water allocation

The *Water Resources Act 1997* provides the framework for an effective allocation system for prescribed water resources in South Australia. The framework consists of water allocation plans, local water management plans and regional catchment water management plans. Water allocation plans are the main tool for the allocation of water to the environment and other users.

Water allocation plans have now been prepared for all licensed water use in the 16 prescribed water resource areas in the state. Consequently, South Australia is ahead of a number of other jurisdictions in finalising a sizeable number of robust allocation plans. The Council notes that further research will be required before environmental needs will actually be implemented in the case of several water allocation plans.

The Council is concerned about the level of farm dam development in some areas of South Australia and the potential impact on environmental flows. South Australia has recognised this issue and is implementing measures to address the concern. The Council will monitor the farm dams issue in future assessments.

The current knowledge of environmental water needs and definitions of stressed resources are key areas that South Australia has identified the need to improve. South Australia proposed to commence the 'Stressed Resources Assessment Review' to examine these issues during 2001. The Council will look at the outcome of this review in the 2002 assessment.

Water trading

Water rights are issued to water users in prescribed areas through licences issued under the *Water Resources Act 1997*. Water trading is possible in any prescribed area where licences have been issued. There are rules for trade in each of the water allocation plans that have been completed.

South Australia has dominated interstate trade, with more than 90 per cent of water being traded to the state. Scarcity of additional allocations of water, combined with the growing demand from industries such as viticulture, has created a strong demand for water trading in South Australia.

The increased water use has the potential to contribute to an increase in salinity in South Australia. In order to address this issue, South Australia is currently implementing a specific water licensing condition for approval to use all traded water. This specific condition requires water users to complete Irrigation and Drainage Management Plan and a Salinity Prevention Obligation to manage the salinity impacts.

The Council is satisfied that South Australia has made satisfactory progress in water allocation and trading reform commitments for the 2001 assessment. The Council will continue to monitor the efficacy of the trading arrangements in future assessments.

Environment and water quality

The South Australian Government is currently reviewing the institutional arrangements to deliver integrated natural resource management. A draft

Bill has been released for public comment. The Council has reviewed the draft Bill and is satisfied with it.

South Australia is progressing the integrated catchment water management plans through the eight catchment water management boards, which cover 95 per cent of the State. South Australia is also proposing to review the operation of the catchment management planning process as a part of the review of the *Water Resources Act 1997* in 2002 to clarify and refine the existing frameworks.

There is an ongoing commitment in South Australia to a coordinated approach to water quality management including the implementation of the National Water Quality Management Strategy. However the Council is concerned about the slow pace of finalisation of the draft Environment Protection (Water Quality) Policy to implement the national strategy. The Council will continue to monitor this issue and would expect the draft Policy to be implemented before the 2002 assessment.

The Council is satisfied that South Australia has complied with environment and water quality reform commitments.

Consultation and education

South Australia continues to consult the community through significant programs and communication strategies accompanying all major water reform initiatives. For example, South Australia undertook extensive communication and education before the release of the State Water Plan 2000 in September 2000.

State Government agencies and community-based bodies, including catchment water management boards, are undertaking a range of important initiatives to raise community awareness on sustainable water resources management and use. The devolution of a range of water management responsibilities to catchment water management boards has significantly enhanced the level of community awareness of water and wastewater as a valuable resource. Each of the boards allocates a significant proportion of their budget to community education and awareness.

South Australia continues to participate in national initiatives such as Waterwatch and National Water Week. Waterwatch has been increased to 13 regional programs to reach more community groups and students in South Australia's key catchments.

As discussed earlier, the Council continues to have concerns with the level of transparency and consultation in water pricing and this will be examined further in future NCP assessments. The Council has reviewed the information provided by South Australia and believes the development of the water allocation plans and catchment water management plans have been subject to considerable consultation. The Council is satisfied that South

Australia has complied with public education and consultation reform commitments.

Tasmania

Around 97 per cent of total water use in Tasmania comes from surface water sources. Water management, use and supply in Tasmania is dominated by hydroelectricity generator 'Hydro Tasmania' with a network of 51 major dams and a storage capacity of 26 000 gegalitres. Other industry uses include instream fish farming (353 gegalitres per year), irrigated agriculture (276 gegalitres per year), industrial and commerce (60 gegalitres per year), and domestic supply (42 gegalitres per year).

Groundwater accounts for around 3 per cent of the total water use in Tasmania. For groundwater, irrigated agriculture accounts for 46 per cent of use and mining for 35 per cent. Characteristics of many of the aquifers mean that low volumes of groundwater are used for stock and domestic purposes.

Urban water and wastewater services in Tasmania are provided by 29 local governments. There are three metropolitan bulk water authorities that provide services to 18 local governments. These are Hobart Regional Water Authority, the North West Regional Water Authority and the Esk Water Authority. The remaining local governments take, treat and reticulate water themselves. The exceptions are the Tasman Council that does not provide urban water services and the Glamorgan—Spring Bay Council that operates the Prosser Water Supply Scheme under contract to the Rivers and Water Supply Commission.

Less than 10 per cent of irrigation water used in Tasmania comes from publicly-owned water infrastructure. The vast majority of irrigation water is sourced from unregulated streams or on-farm storages using privately owned infrastructure. Tasmania has three government irrigation scheme providers: the Cressy—Longford, South-East and the Winnaleah schemes. All schemes are managed by the Rivers and Water Supply Commission.

The Minister for Primary Industries, Water and the Environment is responsible for resource management and water allocations. The Minister is also one of the shareholders of the Rivers and Water Supply Commission.

Progress on reforms

Pricing and cost recovery

Urban water services

The Council is satisfied that for the most part Tasmania's urban water and wastewater services are recovering costs consistent with minimum CoAG commitments. Prices for urban services are set by local governments although the Government Prices Oversight Commission is currently completing an audit of progress by service providers against the CoAG commitments.

Tasmania has initially focused its efforts on the largest service providers and on the performance of water rather than wastewater services and is generally meeting commitments. However, there is evidence that a substantial number of the State's largest urban retail and distribution services are not operating on a commercially viable basis as defined by the CoAG guidelines. This includes Launceston water services, Hobart water and wastewater businesses, Glenorchy wastewater, and Clarence water services.

The Council understands that Launceston expects to reach the lower band of the CoAG guidelines next financial year. Tasmania has also advised that improvements in Hobart's water and wastewater businesses will be pursued before the 2002 NCP assessment.

Demonstration of further progress on full cost recovery particularly among the major service providers, will be a significant consideration for the 2002 NCP assessment. The Council will also look for Tasmania to have made progress for all service providers in the following areas: consideration of a more explicit and rigorous treatment of externalities associated with broader environmental effects of urban water use; improved asset valuation; and consideration of avenues for recovering taxes or tax-equivalent regimes in charges by service providers.

Hobart Water and North West Regional Water Authorities already have two-part tariffs, and Esk Water Authority will implement two-part tariff arrangements from July 2001. Tasmania provided a timetable for implementing two-part tariffs among urban water providers. The full implementation is expected to be largely completed by 2002. From July 2001, all free water allowances with the exception of the Derwent Valley will be removed. While bulk wastewater charges are consistent with CoAG commitments, the Council has encouraged Tasmania to consider introducing trade waste charges. The issue of trade waste charges and continued progress with implementation of two-part tariffs will be considered in the Council's 2002 NCP assessment.

Tasmania has released its 'Community Service Obligations Policy and Guidelines for Local Government in Tasmania' (Department of Premier and

Cabinet 2000) which provides a more coordinated and focused framework for endorsing new CSOs. Two of the three bulk water providers are transparently identifying CSOs, and all local governments are now required to identify and report against the CoAG guidelines. However to date very few CSOs have been identified. Tasmania expects to progress reform further as a result of the Government Prices Oversight Commission audit. Again the Council will look for significant progress in the 2002 NCP assessment.

The Council is satisfied that reforms undertaken by Tasmania to date have decreased the potential for non-transparent cross-subsidies and minimum commitments have been met. The Council will undertake a broader and a more systematic examination of cross-subsidies in the Tasmanian water sector particularly among retail and distribution services as part of future assessments.

Rural water services

Of the three government irrigation scheme providers, the Cressy—Longford Irrigation Scheme and the Winnaleah Irrigation Schemes meet the lower bound of the CoAG pricing guidelines. Consistent with CoAG commitments, a price path has been established for the South East Irrigation Scheme. However full cost recovery is expected albeit within the decade. Tasmania has advised that full cost recovery for the South East Irrigation Scheme could be expected much sooner as a result of efficiency gains. Hence the arrangements in rural water services to recover full costs still has some way to go. The Council will revisit this issue in future assessments to ensure progress toward full cost recovery for the South East Irrigation Scheme.

In terms of unregulated water resources, Tasmania has established a new raw water pricing system to reflect the costs of licences, and an administration fee for licence administration and variable management fees to cover bailiffing, compliance auditing, and water quality monitoring. This has resulted in charges that reflect the services provided.

The Council is satisfied that the consumption based pricing arrangements for both regulated and unregulated rural water resources meet the 2001 commitments. The Cressy—Longford and Winnaleah schemes use two-part pricing consisting of a fixed charge per megalitre of irrigation right, and a volumetric charge based on water used. The South East Irrigation Scheme water charges are based on the volume of water right held by the user.

The Council is satisfied that all subsidies to these schemes for the costs of repayments and interest on loans are transparently reported and do not undermine the objectives of the CoAG framework. The Council is also satisfied that commitments in regard to cross-subsidies have been met.

In the 2001 Tasmanian Budget Statement, Tasmania provided \$10 million to finalise a Water Development Plan by the end of 2001. The Plan is expected to recommend the construction of new water storages across the State. As none of the projects identified in the Plan has been given the approval of the

Tasmanian Government to proceed, 2001 NCP commitments have been met. The Council will look for economic and environmental assessments consistent with CoAG's requirements for ecologically sustainable and economic viability once any approval for new dam developments has been given.

The Council is satisfied that for the 2001 NCP assessment Tasmania has complied with water pricing and cost recovery commitments.

Institutional reform

As noted earlier the Tasmanian Government has only a small role in service provision. The State Government owned Rivers and Water Supply Commission manages only three irrigation schemes and supplies some bulk water and other services. Urban and bulk water service provision is largely a local government responsibility. As noted in the second tranche assessment the urban bulk water service providers are subject to price regulation by the Government Prices Oversight Commission. Therefore, there is full separation in price regulation. For local government retail service providers the Council recognises that the size of many of these water businesses means that the best approach to meeting the institutional reform commitments is to provide for accountability and transparency in setting and reporting prices and service standards.

Tasmania is improving transparency and accountability through:

- the involvement of the Government Prices Oversight Commission, as an independent regulator, in monitoring and reporting;
- the local government key performance indicator project;
- a commitment by Tasmanian officials to take a proposal to the Premier within 12 months, on mechanisms to improve the transparency of reporting on local government performance; and
- the Government's intention to develop service charter and complaints handling mechanisms with local government water providers.

The Council will reassess progress against these initiatives in 2002.

For rural services, the Rivers and Water Supply Commission is currently negotiating moving its three irrigation districts to local management. This will significantly affect its business and the type of customer service standards and pricing arrangements that are applicable. While the Council has concerns about the level of separation and transparency in the current arrangements, it will reconsider this in the 2002 NCP assessment when the scope of the Rivers and Water Supply Commission will be clearer. In particular, the Council will look at the progress and outcomes of the water planning process and the scope and monitoring processes for the Rivers and Water Supply Commission's Operating Licence, to determine whether these

mechanisms are delivering sufficient transparency to minimise any potential conflicts of interest.

Tasmania has made sufficient progress for the 2001 NCP assessment in the areas of national benchmarking and commercial focus for metropolitan service providers.

With regard to devolution of irrigation scheme management, Tasmania has reviewed options for local management and considered a range of alternatives with local irrigators involved in defining and considering those alternatives. A decision has been made on local management for the Cressy—Longford Irrigation Scheme. However, the institutional arrangements for the other two schemes, Winnaleah and South East Irrigation, are still to be finalised. One of the key reasons why decisions have not been made for these schemes is that irrigators have chosen to wait until research and information is available from the Cressy—Longford process to assist them in their decision-making.

The Council has found that Tasmania is working through the processes to satisfy the commitment for a greater degree of responsibility in the management of irrigation areas including moves toward formal devolution of the Winnaleah and South East Irrigation schemes. The Council understands that all legal impediments to devolution have been removed and the decision now rests with the irrigators themselves. The Council is satisfied that Tasmania has complied with institutional reform commitments for this assessment, and will monitor developments in the 2002 NCP assessment.

Allocation

Licences, including special licences are issued under the *Water Management Act 1999* and are the main tools used to ensure water property rights in Tasmania. Licences are issued separately to the land title. The Act also formalises Tasmania's approach to providing water for the environment and consumptive uses. This is done through statutory water management plans. The Act provides for water management plans where there is significant competition for water resources (particularly between consumptive users and the needs of the environment). The purpose of these plans is to manage both ground and surface water quantity and quality within a catchment. These plans are of an indefinite duration, and are to be reviewed at least every five years. Tasmania has a timetable for the preparation of water management plans including the current status of the plans. A stakeholder steering committee will aid the Minister in the setting up of water management plans.

In Tasmania, water provisions for the environment are set as environmental water requirements for all water systems in one of two ways: in the form of a 'notional or interim allocation limit' in under-utilised catchments together with triggers at which robust environmental flow assessments will occur, or the formal assignment of environment water provisions in areas that are highly or fully developed or stressed to be set in water management plans.

Tasmania has identified 16 stressed surface water systems that required action in June 2001. Tasmania has determined the environmental water requirements for all stressed systems and is now well underway to meet the timetable for completion of water management plans.

Trading

Trading in Tasmania will occur where the water resource system is at a highly or fully allocated level. Water trading will allow new users to obtain water or existing users to raise their supply without impacting on the sustainability of the water system.

Water trading in Tasmania has been established through the *Water Management Act 1999* (for water resources outside formal irrigation districts) and the *Irrigation Clauses Act 1973* (within formal irrigation districts), which provides for widespread trading including in unregulated areas. Outside formal irrigation districts, the Minister for Primary Industries, Water and Environment regulates all transfers. Within formal irrigation districts, the water entity responsible for the administration of the district regulates all transfers.

Water trading in Tasmania is at an early stage of development. It has been occurring for the last two years within the three regulated irrigation districts and to a small extent in unregulated areas. The development of water management plans as competition for water resources emerges is expected to provide for the further expansion of trading arrangements, including trading rules for the temporary and permanent transfer of water allocations within areas.

The Council is satisfied that Tasmania has made satisfactory progress in water allocation reform commitments and has met water trading commitments for the 2001 assessment. The Council will look for further progress in trading arrangements in future assessments particularly with the introduction of water management plans.

Environment and water quality

Tasmania is implementing integrated resource management through a Resource Management Planning System. There are 28 catchment management and regional natural resource management committees operating throughout the State. These committees are developing catchment management plans and regional natural resource management strategies. The State Government is coordinating the program through partnership agreements with local government. The Government is to develop a State Natural Resource Management Strategy as an overarching framework to coordinate all natural resource management activities by end 2001.

Specific actions to address broader catchment management issues include the development of rivercare plans and weed management plans. The Council will monitor further progress in this area including developments concerning the State Natural Resource Management Strategy in the 2002 NCP assessment.

Tasmania has continued to implement a further four National Water Quality Management Strategy modules through a State policy on water quality management. As part of this policy, protected environmental values for surface water quality are almost complete. These will be used to set water quality objectives across catchments in accordance with the national strategy and a state strategy to be developed. Other initiatives in this area include the development of landcare guidelines and investment in effluent and wastewater re-use.

The Council is satisfied that Tasmania has complied with environment and water quality reform commitments.

Consultation and education

The Tasmanian Government has undertaken extensive public consultation on such matters as the Water Management Act, the new licence fee structure, the setting of environmental water requirements, and the development of water management plans. For urban water services, the Tasmanian Government uses the strategic and operational plan requirements of the Local Government Act to require local councils to undertake public consultation processes in relation to water delivery issues including pricing. For rural supply areas, the Rivers and Water Supply Commission undertakes consultation on water pricing through meetings with customers including irrigators and the water management committees.

In regard to developments in public education, the Department of Primary Industries, Water and the Environment is developing a community access water information website, and continues to publicly release state of rivers reports on water quality and environmental monitoring.

The Council is satisfied that Tasmania has complied with public education and consultation reform commitments.

ACT

The Cotter and Queanbeyan rivers, which are tributaries of the Murrumbidgee River, are the main sources of water supply in the ACT. Metropolitan and urban use dominates the ACT water sector. The major users are the household and the business sectors located in Canberra and Queanbeyan. Groundwater use in the ACT is relatively small, mainly for golf

courses and on farms for domestic, stock and irrigation purposes. The ACT does not have any overallocated or stressed water systems. There is no publicly funded rural water supply in the ACT.

ACTEW Corporation, a Territory-owned corporation, is the service provider that supplies metropolitan water and sewerage services. ACTEW and AGL recently formed a joint venture (ActewAGL) with the aim of improving the performance of the Territory's water, wastewater and energy services. Under the new partnership arrangements, ACTEW retains the ownership of water and wastewater assets. Service delivery is contracted to the partnership entity ActewAGL.

The water resource service manager in the ACT is Environment ACT within the ACT Department of Urban Services. The Independent Pricing and Regulatory Commission (ICRC) (formerly the IPARC) set standards for economic performance. The Environment Management Authority of Environment ACT and the Department of Urban Services set the environmental and other standards respectively. The ICRC and the Environment ACT undertake price and environmental regulation respectively. Under the *Utilities ACT 2000*, the Essential Services Consumer Council (ESCC) and the Safety and Technical Regulator can provide other required regulatory functions.

Progress on reforms

Pricing and cost recovery

In its second tranche NCP assessment the Council concluded that the ACT had substantially implemented urban water pricing and cost recovery reforms. These included: introducing two-part tariffs; removing cross-subsidies from pricing structures; implementing well defined and targeted community service obligation (CSO) regimes; achieving a positive rate of return on assets in urban water supply; and fulfilling the requirement to assess the economic viability and ecological sustainability of new investments.

The ACT has further improved cost recovery by adopting a water 'abstraction charge' on all licensed use, including water harvested by ACTEW. The Independent Competition and Regulatory Commission recommended in February 2000 recommended that the 10c per kL abstraction charge be fully passed through to the consumers. The abstraction charge reflects catchment management costs, environmental costs of water supply and use, and a scarcity value of water.

ACTEW's has a two-part tariff with a stepped volumetric charge. ACTEW has been reducing the level of consumption that triggers a higher per unit charge.

The Council supports this reform as long as it does not lead to monopoly returns.

ACTEW water and water services have continued to recover costs above the lower bound of the CoAG guidelines.

The Council is satisfied for the 2001 NCP assessment that the ACT has complied with urban water pricing and full cost recovery commitments.

Institutional reform

The Council concluded in its second tranche NCP assessment that the ACT had met the institutional reform requirements to a large extent, particularly given its intention to implement the reforms to regulation proposed in the Statement of Regulatory Intent for Utilities in the ACT. The ACT has passed the Utilities Act. This gives effect to the framework set out in that Statement of Intent. The new regulatory framework enhances the ACT's institutional reforms, for example, it clearly defines the responsibilities of industry and technical codes that will be binding on all utilities, including water utilities. The ICRC, ESCC and the Safety and Technical Regulator will administer the Act's provisions. Environment ACT will continue to retain the responsibility for environmental management and the Chief Health Officer will have responsibility for ensuring public health requirements, including protecting drinking water quality. The ACT is still in the process of implementing these reforms. While considerable progress has been made since the second tranche NCP assessment the Council has identified several issues that it will monitor in the 2002 assessment.

The ACT is still in the process of implementing these reforms. While considerable progress has been made since the second tranche NCP assessment, the Council has identified several issues that it will monitor in the 2002 NCP assessment.

The Utilities Act and in particular, the draft operating licence requires ACTEW to participate in the WSAA performance monitoring and benchmarking arrangements. Under the ACTEW and AGL partnership arrangements, ACTEW will manage the water and wastewater assets according to agreed standards and performance indicators. The new partnership arrangements are expected to strengthen ACTEW's commercial focus. The Council is satisfied for the 2001 NCP assessment that the ACT has complied with institutional reform commitments.

Allocation and trading

In its second tranche NCP assessment the Council concluded that the *Water Resources Act 1998* provided for a comprehensive system of water entitlements and that the ACT had procedures and policies that will allow allocations to be developed for the environment. The Council noted the need

to monitor the Territory's commitment to complete the water allocation process and its development of trading rules and interstate trade before the 2001 NCP assessment.

The Water Resources Act was supplemented by the environmental flow guidelines in December 1999 and the Water Resource Management Plan in February 2000. Water allocations are managed through the plan, which sets out estimates of total water resources, environmental flow requirements and water available for consumption. Under the plan, environmental flows are allocated for 10 years for all 32 subcatchments in the ACT. The ACT has advised that there will be a review of these allocations in 2003.

While groundwater use is relatively minor in the ACT, the Government continues to require groundwater bores to be metered so by 2002 it will have a better basis to allocate water for groundwater use. The Council has reviewed water allocation arrangements in the ACT and remains of the view that almost all water use in the Territory is covered by a comprehensive licensing and allocation system.

There is no demand for intra-territory trading in water, so no trading rules have been developed. However, as demand for water expands, it is important that trading rules are developed, clearly understood and implemented. Interstate trade, particularly between the ACT and New South Wales, is likely to occur in the future. It has been constrained by two factors: first, the lack of trading rules for the Murrumbidgee Valley; and second, the absence of the ACT component of the Murray Darling Basin Commission cap on water extraction. The Commission needs to develop rules for a wider water trading market that could enable the ACT to take part in interstate trade.

The ACT's conservative approach to environmental allocation implies that the absence of a cap is not putting the environmental water requirements at risk. However, an ACT cap is being negotiated. The Council notes that the current arrangement whereby the ACT cap remains unspecified is not in the long-term interest of the Territory or of the integrity of the general operation of the Murray Darling Basin Commission cap.

In the 2002 NCP assessment, the Council will review the ACT's progress in negotiating of the cap and resolving other impediments to interstate trade. The Council is satisfied for the 2001 NCP assessment that the ACT has complied with water allocation and trading reform commitments.

Environment and water quality

In its second tranche NCP assessment the Council noted the need to monitor the development of integrated resource management initiatives in the ACT. Developments since the second tranche NCP assessment include the release of the Territory's integrated catchment management framework in March 2000. The framework supports the development of subcatchment

management plans by community groups working with the government. Two such subcatchment management plans were released in 2000.

In relation to the implementation of the National Water Quality Management Strategy guidelines, the Council's second tranche NCP assessment noted the need to monitor the ACT's progress in developing necessary arrangements. With regard to drinking-water quality the ACT developed the Drinking Water Quality Code of Practice in 2000 under the *Public Health Act 1997*. It is a performance-based code that references the 1996 Australian Drinking Water guidelines. The code clearly specifies the roles of the water service provider, ACTEW, and the ACT Chief Health Officer in ensuring the quality of drinking-water.

In 2000 the ACT also implemented a polluter-pays charging system for environmental authorisation to maintain water quality. The Council is satisfied that for the 2001 NCP assessment, that the ACT has complied with environment and water quality reform commitments.

Consultation and education

The ACT Government has undertaken widespread public consultation and education programs in relation to its water industry reforms in developing the Utilities Act. For example the ACT Government (particularly through the Department of Treasury) has undertaken an extensive two-year consultation process. This has involved public workshops and community forums. The Department of Urban Services has an ongoing role in promoting community involvement and partnership in the management of natural resources, including water, through Waterwatch, Landcare, school groups and catchment management initiatives.

In its second tranche NCP assessment, the Council noted that service providers are inappropriate public education suppliers on matters such as water conservation. The ACT has indicated that it agrees that responsibility for appropriate public education lies with the relevant Government agency, not with the service provider. The Council is satisfied for the 2001 NCP assessment that the ACT has complied with public education and consultation reform commitments.

Northern Territory

The Power and Water Authority, a Government owned and vertically integrated public utility is the key service provider in the Territory. It supplies water and sewerage services to the Northern Territory's four major urban areas (Darwin, Katherine, Tennant Creek and Alice Springs). The

Power and Water Authority also supplies water and wastewater services to a number of rural and remote communities in the Territory.

Around 85 per cent of Darwin's water comes from the Darwin River Dam, with the remainder supplied from the McMinns borefield. The Manton Dam provides a back-up of supply. Katherine receives its water from a mix of river water and groundwater, while Alice Springs and Tennant Creek rely on groundwater. The Northern Territory does not have any overallocated or stressed water systems.

The water resource manager in the Territory is the Department of Lands, Planning and Environment. It is the lead agency for the delivery of regional natural resource management strategies and integrated catchment management throughout the Territory. An Inter Departmental Land Resource and Environment Subcommittee provides broader coordination of regional natural resource management planning. The subcommittee consists of the chief executive officers from the Department of Lands Planning and Environment, Parks and Wildlife Commission, the Department of Primary Industry and Fisheries, and the Department of Mines and Energy. Under the *Water Supply and Sewerage Services Act 2000*, the Utilities Commission licenses all service providers, monitors service standards and provides advice to the regulatory Minister (currently the Treasurer) on pricing matters, service standards and CSOs.

Progress on reforms

Pricing and cost recovery

Overall, the Power and Water Authority's water and wastewater businesses earned sufficient revenue to achieve a positive rate of return in 2000. The Council notes that the recent measures undertaken by the Power and Water Authority to improve cost recovery, include: improved asset valuation and management; better internal allocation of costs to relevant business units within the Power and Water Authority and the application of internal charges accordingly; and the development of a financial model for calculating future price paths. The Power and Water Authority also made arrangements to ring-fence its vertically integrated business activities.

The Power and Water Authority applies a two-part tariff for water services and a fixed charge to wastewater services. The Northern Territory Government approved a 5 per cent increase in water and sewerage charges for 2000-01. The 5 per cent price rise applied to all fixed charges and volumetric charges of non-government customers. The Northern Territory indicated that it intends to phase out the cross-subsidies from government water customers to domestic and commercial customers in future price pathways. From July 2001, internal water charges within the Power and Water Authority will incorporate operational costs, allocated overheads,

depreciation charges and a return on assets. The Power and Water Authority also indicated that it plans to introduce trade waste management and charging arrangements from 1 July 2001. There is no explicit provision for externalities (for example, to take account of any environmental spill-over effects arising from water supply and use) in the setting of water prices. The Council will look for progress on this issue in future NCP assessments.

The Council has reviewed the various pricing and cost-recovery reforms undertaken by the Territory Government, and expects these reforms to further improve full cost recovery and efficient pricing. The Council is satisfied for the 2001 NCP assessment that the Northern Territory has complied with urban water pricing and full cost-recovery commitments.

Institutional reform

Following earlier assessments, the Northern Territory made substantial progress in further reforming the institutional role separation in the water sector. For example, the enactment in January 2001 of the Water Supply and Sewerage Services Act gave effect to improved enforcement of economic regulation and standard setting. The Act introduced a licensing system for all water and wastewater providers, with the Utilities Commission to issue licences. The Act also transferred price-setting powers and the responsibility for determining service and supply conditions to the regulatory Minister.

No specific water quality is set for drinking water in the Territory. Further, the Power and Water Authority's compliance with Australian Drinking Water Guidelines has not been independently audited. The Northern Territory indicated that it envisages addressing these issues through its new licensing system for the Power and Water Authority and the associated monitoring and reporting arrangements. In the 2002 NCP assessment, the Council will review the Territory's approach to enforcing drinking water quality standards.

The Power and Water Authority is continuing to participate in the WSAA performance monitoring and benchmarking arrangements. Recent structural reforms — including management and accounting separation into product lines and the allocation of costs to relevant business units — are expected to improve the Power and Water Authority's commercial focus. The Council is satisfied for the 2001 NCP assessment that the Northern Territory has complied with institutional reform commitments.

Allocation and trading

Under the *Water Amendment Act 2000*, water allocation planning occurs via an integrated regional resource management process covering both ground water and surface water. Water allocation plans may be declared for water control districts in the Territory. These plans are set for 10 years and water advisory committees are expected to oversee their implementation and review

every five years. Plans include contingent allocations for the environment — the aim being to provide a conservative sustainable balance between environmental needs and other water uses. At the time of this assessment, water allocation plans were being developed for four of the six water control districts.

The Territory has a comprehensive system of water entitlements supported by a separation of water property rights from land title. Property rights are well defined and specified in surface water and groundwater extraction licences issued under the *Water Act 1992*. Licence-holders are required to report regularly on water use, to help minimise the scope for the allocation of dormant water rights. The Council notes, with the establishment of water control districts and the proposed formal declaration of water allocation plans for priority regions of water use, that the Northern Territory continued to demonstrate that no further water allocations will be made without considering the availability and quality of water and the environmental needs.

The Water Amendment Act allows for trading in water extraction licences. Given the geographically dispersed nature of developed water resources in the Northern Territory, the Act limits trade in water entitlements to individual water control districts. There has been no trade in licensed water entitlements to date. The Council is satisfied for the 2001 NCP assessment that the Northern Territory has complied with water allocation and trading reform commitments.

Environment and water quality

The Council in its second tranche NCP assessment indicated that in the 2001 NCP assessment it would look for information on how generic approaches to developing a water resource management strategy had been implemented and how best practice is being achieved.

Declaration of water resource beneficial uses (under the Water Act) provides a framework for integrated catchment management in the Territory. The range of beneficial uses which may be declared for water resources includes agricultural, aquaculture, environmental, cultural, public water supply, manufacturing industry and riparian activities. The water advisory committees are responsible for developing and implementing the relevant catchment management plans. While 16 catchments, 5 regional groundwater systems and 6 coastal areas are declared for beneficial use, only three catchment management plans have been prepared to date. The Northern Territory Government indicated that the development of integrated catchment management plans will be undertaken on a needs basis.

The Government used statutory declaration of beneficial uses for water quality management (under the Water Act) to implement the National Water Quality Management Strategy guidelines. To date, the Territory has completed such declarations for surface water quality management in 16

catchments, five regional groundwater systems, and six coastal areas. The declarations of beneficial uses for water quality management also led to the issue of waste discharge licences. Seventeen such licences are in place, predominantly covering mines and sewage treatment plants in the Territory.

The Northern Territory's 2001 NCP annual report stated that the Power and Water Authority is moving to introduce the Drinking Water Quality Management Framework into major and regional water supplies in the Territory. The Council is satisfied that the Northern Territory has complied with environment and water quality reform commitments for the 2001 NCP assessment.

Consultation and education

The Northern Territory Government has engaged in a number of community consultation and public education programs regarding the implementation of water reforms. Public consultation was undertaken, for example, to secure public and customer input into the development of the Water Supply and Sewerage Services Act.

Considerable public consultation was also undertaken on water allocation and trading. Recent examples include the intensive consultation efforts in the development of a water allocation plan for the Ti-Tree Regional Water Strategy.

In the second tranche NCP assessment the Council noted that care needs to be taken to avoid any conflict of interest where service providers such as the Power and Water Authority are also responsible for public education programs addressing water conservation. The Northern Territory indicated that the Natural Resources Division of the Department of Lands, Planning and Environment is developing public education programs for water conservation, including initiatives such as WaterWise to educate school children about water issues.

The Council is satisfied that the Northern Territory has complied with public education and consultation reform commitments for the 2001 NCP assessment.

Murray–Darling Basin Commission

The Murray–Darling Basin is Australia's largest and most developed river system. It covers more than one million square kilometres of land from southern Queensland through to the River Murray mouth in South Australia. It incorporates 75 per cent of Australia's irrigation and underpins more than 40 per cent of Australia's gross value of agricultural production.

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

Progress on reforms

Pricing and cost recovery

The Murray–Darling Basin Commission has completed an internal review of its revised cost-sharing arrangements across New South Wales, Victoria and South Australia. The revised cost-sharing arrangements were first adopted in 1998-99 and will continue through 2000-01. They are expected to reflect the level of services provided to these States and thus reduce the cross-subsidies in the pricing structure. The internal review of the revised cost sharing arrangements is due for an independent audit, which is expected to be completed before the end of 2001. In the 2002 NCP assessment, the Council will look at the recommendations of the audit and the response of the Murray–Darling Basin Commission and the Murray–Darling Basin Ministerial Council to these recommendations.

River Murray Water recovers the operational, maintenance and administration costs of providing water to New South Wales, Victoria and South Australia under the Murray–Darling Basin Agreement. The Council considers that the cost of asset refurbishment and replacement, to be consistent with agreed CoAG pricing guidelines, would need to be included within the costs of service provision of River Murray Water. River Murray Water also recovers 75 per cent of the costs of refurbishment and replacement from the three States. The Commonwealth pays the remaining 25 per cent as part of its contribution. The treatment of asset consumption is less than ideal and should be more explicit and transparent in River Murray Water costs.

The Council is satisfied that the Murray–Darling Basin Commission has complied with minimum water pricing and cost-recovery commitments for the 2001 NCP assessment. The Council will further assess cost recovery, particularly the treatment of asset consumption, in light of the proposed independent audit of the internal review of cost-sharing arrangements.

Institutional reform

The Council concluded in its second tranche NCP assessment that the Murray–Darling Basin Commission had met the institutional reform

commitments, with the creation of River Murray Water as a ring-fenced business unit within the Commission. However, the Council noted the strong need for independent prices oversight. Progress on this issue has been slow. Although, the independent pricing audit will assist in the Murray–Darling Basin Commission meeting these commitments.

In future assessments the Council will look at the outcomes of the independent pricing audit and for pricing audits to occur periodically to ensure the transparency and rigour necessary for efficient pricing-setting arrangements. The Council will also continue to monitor the appropriateness of the current ring-fenced arrangements in the light of ongoing changes in the structure and regulation of the water industry in general. The Council is satisfied that the Murray–Darling Basin Commission has complied with institutional reform commitments for the 2001 NCP assessment.

Allocation

The cap on diversions from the basin continued to make an important contribution to ensuring environmental flows. The Ministerial Council formally adopted the cap on diversions in August 2000 as part of the Murray–Darling Basin Agreement. The cap is now legally enforceable. Under the Agreement, States' water allocations are independently audited each year and any breaches of the cap are declared by the Commission and referred to the Ministerial Council.

New South Wales, Victoria and South Australia have continued their commitment to implementing the cap. Queensland is expected to adopt the cap by June 2001. The ACT cap is being negotiated.

The Murray–Darling Basin Commission recently completed the first five-yearly review of the operation of the cap. According to the review, the current cap on diversions does not reflect a sustainable level of diversions and may not guarantee the river ecosystem health. The Council notes a strong case for the cap to be tightened over time, based on the findings of the review. The continuing analysis and scientific studies on the cap, environmental flows and the river ecosystem health will shed more light on these issues.

According to the National Land and Water Audit 2000, all rivers in the basin (except the Ovens River in Victoria) are stressed. The Murray–Darling Basin Commission advised that it is committed to providing environmental flows as opportunities arise and on the basis of the best scientific advice on the potential impacts. It commenced a project — the environmental flows and water quality objectives for the river Murray — aimed at establishing water quality and environmental flow objectives and a flow regime to achieve them. The Council will continue to monitor the progress of this and similar projects in future assessments.

In its second tranche NCP assessment the Council noted the work of the Murray–Darling Basin Commission and the Murray–Darling Basin

Ministerial Council in progressing interstate trade through the pilot project. The Council was satisfied that the second tranche reform commitments had been met.

Trading

After two years of operation of the pilot water-trading project, the project recently underwent a review. The review focused on two major areas: the administration of the project and the economic, environmental and social impacts of trading. It also highlighted the need for improvements in the administrative arrangements of the pilot project. Improvements to licence registration arrangements and record-keeping procedures and the separation of volumetric trading from access or environmental consideration are examples of where efficiency gains could be found, according to the review. Further, the buyers and sellers in the market poorly understand exchange rates, so there is a need for improved communication.

From an economic perspective, the review confirms that interstate trading is increasing the value of water use in the basin. From a social perspective, interstate trading during the two-year trial period had no measurable adverse social implication for the districts that sold water interstate. From an environmental perspective the review findings are qualified: the environmental flow impact of trading was probably positive but very small. Progress is required in three key areas in relation to water allocation and trading — namely, ensuring the consistency of property rights, managing the environmental impact of trading, and improving the administrative aspects of the pilot project.

Different types of water property rights exist within the basin. In some instances, inconsistent property rights could impede interstate trade. A consistent approach to the key components of property rights, for example, security of tenure and security of water — is needed. Also needed is an exploration of opportunities to better define and specify the water property rights across the basin and to improve the exchange rate arrangements to reflect fully the extent of overallocation, security of tenure and the salinity impact. The Council notes the effort of the Murray–Darling Basin Commission in attempting to resolve some of these issues. In the 2002 NCP assessment, the Council will review the progress in addressing concerns about property rights and where relevant, check whether all jurisdictions have co-operated to resolve difficulties.

The broader environmental impacts of trading will depend on the degree to which individual States set and enforce irrigation and drainage plans. The Murray–Darling Basin Commission and the member States need to consider further consider the best means by which to address environmental impacts of interstate trade. The Council will reconsider the issue of the environmental impacts of water trade in future assessments.

Concerns have been raised regarding the administration of water trade, particularly the time taken to effect trade. This is another area where administrative improvements are required to facilitate efficient and timely functioning of the pilot trading project. Overall, the Council is satisfied that the Commission has complied with water allocation and trading reform commitments for the 2001 NCP assessment.

Environment and water quality

The Murray–Darling Basin Commission released an *Integrated Catchment Management Policy Statement* (June 2001), that sets a 10-year agenda and outlines a strategy to set targets for catchment health and build the capacity of the community and governments to achieve those targets. The targets will cover water quality (salinity and nutrients), water sharing (consumptive and environmental flows), riverine system health and terrestrial biodiversity. The Council applauds the vision encapsulated in the policy statement.

The Commission continues to implement the National Water Quality Management Strategy standards and procedures associated with nutrient pollution in the Basin. It is also moving from a facilitation role to setting salinity targets for every end-of-valley in the Basin. The Council is satisfied that the Murray–Darling Basin Commission has complied with environment and water quality reform commitments for the 2001 NCP assessment.

Consultation and education

The Murray–Darling Basin Commission undertook extensive consultation and education in relation to various aspects of natural resource management issues, including water reforms. More recent areas of wider consultation and communication relate to the development of the Integrated Catchment Management Strategy and the Basin Salinity Management Strategy. The ongoing consultation involves all relevant stakeholders.

In all major initiatives the Commission has adopted a generic communication strategy involving stakeholder/government partnerships and ongoing stakeholder participation. As part of the pilot program on interstate water trading, the Commission has promoted trading and its benefits through publications and media coverage. The Council is satisfied that the Murray–Darling Basin Commission has complied with public education and consultation reform commitments for the 2001 NCP assessment.