8 Australian Capital Territory

The elements of the Council of Australian Governments (CoAG) water reform program that are relevant for the ACT in this 2003 National Competition Policy (NCP) assessment are: water and wastewater pricing; intrastate water trading arrangements; the remaining institutional reform requirements; the implementation of the National Water Quality Management Strategy (NWQMS); and the completion of the review and reform of water industry legislation that restricts competition. The National Competition Council assessed the ACT's compliance with the CoAG obligations in these areas in this 2003 NCP assessment. As required by CoAG, the Council also considered public education and consultation activity in the reform areas assessed. In addition, the Council reported on progress by the ACT towards meeting water reform obligations on converting existing water allocations to water entitlements (which will be assessed in 2004), and towards meeting CoAG obligations on the provision of water to the environment (which will be assessed in 2005).

8.1 Water and wastewater pricing

Full cost recovery

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

- To be viable, a water business should recover at least the operational, maintenance and administrative costs, externalities, taxes or tax equivalents (not including income tax), the interest cost on debt, dividends (if any) and make provision for future asset refurbishment/replacement. Dividends should be set at a level that reflects commercial realities and simulates a competitive market outcome.

- To avoid monopoly rents, a water business should not recover more than the operational, maintenance and administrative costs, externalities (defined for the purpose of the pricing obligation to be natural resource management costs attributable and incurred by the water business), taxes or tax equivalent regimes, provision for the cost of asset consumption and cost of capital, the latter being calculated using a weighted average cost of capital.

- In determining prices, the regulator or equivalent should determine the level of revenue for a water business based on efficient resource pricing and business costs. Specific circumstances may justify transition arrangements to that level. Cross-subsidies that are not consistent with efficient and effective service, use and provision should ideally be removed.
- Where service deliverers are required to provide water services to classes of customers at less than full cost, the cost of this should be fully disclosed and ideally paid to the service deliverer as a community service obligation.
- Asset values should be based on deprival value methodology unless an alternative approach can be justified, and an annuity approach should be used to determine medium to long term cash requirements for asset replacement/refurbishment.
- Transparency is required in the treatment of community service obligations, contributed assets, the opening value of assets, externalities including resource management costs, tax equivalent regimes and any remaining cross-subsidies.

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

Urban water and wastewater services

Assessment issue: The ACT is to demonstrate that water and wastewater pricing achieves full cost recovery, in accord with the CoAG pricing principles. In the 2001 NCP assessment, the Council found that the ACT had complied with all aspects of full cost recovery except the level of dividend. In the 2002 NCP assessment, the Council found that the ACT had met all pricing obligations.

Next full assessment: The Council will conduct a full assessment across the entire package of reforms in 2005.

Reference: CoAG water reform agreement, clauses 3(a) and (b); CoAG pricing principles

The ACT Electricity and Water Corporation (ACTEW) — a Government owned corporation — supplies metropolitan water and sewerage services in the ACT. ACTEW and AGL formed a joint venture (ActewAGL) with the aim of improving the performance of the ACT's water, wastewater and energy services. Under the partnership arrangements, ACTEW retains ownership of water and wastewater assets. Service delivery is contracted to the partnership entity ActewAGL. The Independent Competition and Regulatory Commission sets the standards for economic performance and prices independently of the service provider.

Rate of return

ACTEW achieved a combined water and wastewater rate of return on assets of 6.07 per cent in 2001-02 (WSAA 2003).

Taxes and tax equivalents

ACTEW is subject to all Commonwealth and ACT taxes and tax equivalents, as required under the *Territory Owned Corporations Act 1990* (ss. 29 and 30B).

Dividends

As an incorporated entity, ACTEW is bound by the *Corporations Act 2001*, which stipulates that it may pay dividends only from profits (including accumulated retained profits). The ACT's approach is to require ACTEW to pay a dividend equivalent to 100 per cent of after-tax profits, subject to a consideration of factors such as the business's cash needs and its requirements for capital restructure and capital expenditure. The ACT Government reviews these factors annually when negotiating ACTEW's statement of corporate intent, to determine whether the 100 per cent dividend policy should apply. As a result, ACTEW does not always pay a dividend equal to 100 per cent of after-tax profits. After considering the advice of ACTEW's board of management, the ACT Government reduced the 2000-01 dividend to 74 per cent of after-tax profits.

Assets

In setting maximum prices, the Independent Competition and Regulatory Commission valued ACTEW water and wastewater assets at their estimated economic value (recoverable amount), adjusting for contributed assets and asset augmentation. The commission used straight line depreciation to project asset roll-forward. This method involved adjusting the initial asset base to reflect changes in the value of the productive capacity of existing assets and new investment.

Externalities

The ACT Government applies a water abstraction charge of 10 cents per kilolitre. This covers the environmental costs of water use (externalities) and the scarcity value of water, and applies to all customers (including urban customers). The (former) Independent Pricing and Regulatory Commission directed that the water abstraction charge should be treated as a direct cost to consumers and shown separately on water bills. In making its direction, the commission stated that:

> *For the water abstraction charge to have the desired effect in terms of signalling the scarcity value of water and the environmental costs associated with its use, the commission considered that it was desirable that there be a pass through of the charge in a manner such that final consumers could both identify the cost involved and were required to pay that cost.* (IPARC 2000, p. 5)

Assessment

The Council assesses the ACT as having complied with its full cost-recovery pricing obligations.

Consumption-based pricing

Assessment issue: Prices are to reflect the volume of water supplied, to encourage more economical water use and to defer the need for costly investments. In the 2001 and 2002 NCP assessments, the Council was satisfied that ACTEW had applied charges for water and wastewater services, and had identified and made transparent community service obligations and cross-subsidies, consistent with CoAG commitments. The one exception was that the ACT had not provided information to demonstrate that the lack of a systematic trade waste charge for high volume or toxic waste dischargers does not lead to nontransparent cross-subsidies.

Next full assessment: The Council will conduct a full assessment across the entire package of reforms in 2005.

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

The ACT reported that ACTEW, as the utility provider, implemented trade waste acceptance practices. The policy for accepting nondomestic water (trade waste) into the sewerage network — which requires the customer to enter a formal agreement with ACTEW following an application process — was introduced on 1 July 2003 after public consultation.

The ACT advised that the acceptance policy complies with the requirements of the water supply and sewerage services standards code under the *Utilities Act 2000*. The code allows for negotiated contracts between the utility provider and customers. Within these contracts, users contribute to the costs of monitoring and, as a transitional measure in a few cases, to additional waste treatment costs based on the volume and strength of the discharge.

ACTEW is assessing the approach to trade waste charging from a broader charging perspective. It aims to determine an appropriate and cost-effective charging regime that accounts for the specific trade waste circumstances of the ACT. To ensure trade waste charges are cost-reflective and minimise cross-subsidies, ACTEW is assessing the nature of customer loads and the cost of treating such wastes.

The ACT stated that the results of ACTEW's assessment will be included in submission material to the Independent Competition and Regulatory Commission for the commission's review of the ACTEW water and wastewater charges to apply from July 2004 to June 2009.

Discussion and assessment

The ACT's progress with trade waste reform is consistent with the timetable that ACT proposed in 2002. The Council thus assesses the ACT as having met its consumption-based pricing obligations for the 2003 NCP assessment.

Rural services: progress report

Progress report: Governments are to demonstrate progress towards full cost recovery and consumption-based pricing by rural water authorities.

Next full assessment: The Council will assess rural full cost recovery and pricing reform in 2004.

Reference: CoAG water reform agreement, clauses 3(a) and (b); CoAG pricing guidelines

The ACT has no publicly owned rural water infrastructure. It does not contribute to the operation costs of River Murray Water.

8.2 Water management progress report: water rights and provisions to the environment

Establishment of water rights systems

Progress report: The ACT is to report on progress towards converting existing allocations to new water rights systems, and in implementing mechanisms to support these systems.

Next full assessment: The Council will assess the Government's compliance with CoAG obligations on implementing water rights arrangements in 2004.

Reference: CoAG water reform agreement, clause 4

The *Water Resources Act 1998* is the legal basis for the allocation of water, the issuing of licences to take water, and the determination of environmental flow requirements in the ACT. Water rights are separated from land title, are issued in perpetuity and provide the holder with a right to a share of the available resource.[1] The Environment Management Authority maintains a

[1] Holders of Territory leases issued before December 1998 have common law rights to groundwater. The rights to groundwater remain connected to land until the lease is re-issued. The ACT expects that most groundwater use will be subject to the

register of licences and water allocations. There is no facility to record third party interests in an allocation, but the ACT previously advised that it can readily address this issue when the need arises.

Under the Act, water allocations are managed through the ACT's Water Resources Management Plan, which came into effect in 2000. The plan sets out estimates of total water resources, environmental flow requirements and water available for consumption to 2010. The ACT component of the Murray–Darling Basin Ministerial Council cap on water diversions is still to be finalised.

Reform progress

Progress in establishing the ACT cap on water diversions is reported in section 8.3. Subject to matters beyond its control, the ACT Government anticipated reaching a final position on the cap during 2003.

Provision of water to the environment

Progress report: The ACT is to report on progress in implementing allocations to the environment.

Next full assessment: The Council will assess the Government's progress in implementing CoAG obligations on the allocation of water to the environment in 2004, consistent with the CoAG requirement that allocations be substantially completed by 2005.

Reference: CoAG water reform agreement, clauses 4(b)–(f)

Under the Water Resources Act, water is allocated for environmental flows before consumptive uses. The ACT adopted a conservative approach to water extractions. Under the ACT's environmental flow guidelines, flows are protected up to the 80th percentile (that is, the flow that is exceeded 80 per cent of the time). For most subcatchments, extraction for consumptive use is limited to 10 per cent of flows above the 80th percentile. For water supply catchments, 100 per cent of flows above the 80th percentile are available for abstraction (except for spawning flows). Groundwater extraction is limited to 10 per cent of average annual recharge.

The Water Resources Management Plan sets out the environmental allocations for each of the ACT's 32 subcatchments. Environmental flows were in place for all of the subcatchments at the time of the 2001 NCP assessment. No new allocations of water can be made for consumptive use unless the plan provides for them. There are no stressed or overallocated

allocation system in five to 10 years, because leases for many significant users of groundwater are due for renewal over that period.

systems within the ACT. The Environment Management Authority is required to keep water resources (and the Water Resources Management Plan and environmental flow guidelines) under review.

Reform progress

The ACT is developing an integrated water resource strategy (see section 8.5). The strategy is to address the full range of issues relating to the management and development of water resources in the ACT. The Government expects to finalise the strategy in late 2003 following a community consultation process.

8.3 Intrastate trading

Assessment issue: Trading arrangements in water allocations or entitlements are to be instituted to maximise water's contribution to national income and welfare, within the social, physical and ecological constraints of catchments. Any restrictions on trading need to be shown to be in the public interest. According to the CoAG timetable for assessment of reform progress by the Council, arrangements to enable intrastate trade are to be assessed in 2003.

In the 2001 NCP assessment, the Council found that the ACT had removed legislative impediments to trading. While there had been no water trading within the ACT, this largely reflected the available resource and the relatively small industrial and agricultural sectors in the ACT. The ACT Government considered demand in the Territory was insufficient to justify the establishment of intraterritory trading rules.

The Council noted in 2001 that interstate trade between the ACT and New South Wales, although not then occurring, might be likely in the future. The Council identified two matters that needed to be progressed: (1) the development of trading rules applying to the Murray and Murrumbidgee rivers to allow transfers of water entitlements; and (2) a final decision on the size of the Murray–Darling Basin Ministerial Council cap on diversions for the ACT and the way in which the cap is determined.

Next full assessment: The Council will assess arrangements for water trading in 2004.

Reference: CoAG water reform agreement, clause 5

The Water Resources Act permits the permanent or temporary transfer of all or part of a water allocation with the approval of the Environment Management Authority. In determining whether to approve the transfer, the authority is required to account for the environmental record of the applicant. Where the authority refuses the transfer, the Act permits the ACT Administrative Appeals Tribunal to review the decision.

There has been no water trading in the ACT or between the ACT and another jurisdiction. The lack of trade largely reflects the available resource and the relatively small industrial and agricultural sectors in the ACT compared with other jurisdictions. The ACT Government previously advised that there is insufficient demand in the Territory to justify the establishment of intraterritory trading rules (beyond the requirement for the approval of the

Environment Management Authority) or an intraterritory trading market. Interstate trade involving the ACT depends on the development of trading rules for the Murrumbidgee and Murray rivers and the finalisation of the Murray–Darling Basin Ministerial Council cap on water diversions for the ACT.

Changes in the regulatory environment since 2001

In November 2002, the ACT established a Senior Executives Water Coordinating Group. The group consists of senior officers of the Chief Minister's Department, Treasury, ACTEW, Environment ACT and the ACT Office of Sustainability. As part of its work on developing a comprehensive and integrated water resource strategy for the Territory, the group is progressing the establishment of the ACT cap on water diversions and the development of arrangements for cross-border trading.

The ACT conducted a workshop in February 2003 to consider the cap on diversions to the ACT and water trading. The workshop was attended by senior ACT officials, representatives of the Murray–Darling Basin Commission and the Commonwealth, and an observer from New South Wales. The workshop developed a forward work plan to progress consideration of the cap on diversions and noted that the main impediment to water trading is the absence of a basin-wide trading system.

The ACT Government anticipated reaching a final position on the cap on diversions during 2003. It noted, however, that matters beyond its control could influence this timing.

Discussion and assessment

In previous assessments, the Council found that the ACT Government had removed all legislative impediments to intrastate trade in water through the Water Resources Act. The Council noted that for future assessments it would look for the Government to consider developing trading rules beyond the requirement for the Environment Management Authority's approval.

The Council considers that the ACT met obligations on water trading for the 2003 NCP assessment. The continuing lack of demand for water trade in the ACT means that the absence of trading rules does not currently affect trade. As water use and scarcity, and therefore the demand for trade, increase, however, trading rules will need to be developed.

In the 2004 NCP assessment, the Council will consider the ACT's progress in finalising the Murray–Darling Basin Ministerial Council cap on water diversions and developing arrangements for interstate trade in water.

8.4 Institutional reform

Structural separation

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

At the time of the 2001 NCP assessment, the ACT had developed a new institutional framework for the water industry but was still implementing it. In the 2002 NCP assessment, the Council reported on the ACT's progress in addressing outstanding implementation issues — in particular, a standard customer contract, a utility services licence, and industry and technical codes.

Next full assessment: The Council will assess institutional reform in 2005 as part of a full assessment across the entire package of water reforms.

Reference: CoAG water reform agreement, clauses 6(c) and 6(d)

The ACT's institutional framework for the water industry is established through the *Utilities Act 2000* and related arrangements:

- all utilities (including water) are required to be licensed;
- the Independent Competition and Regulatory Commission is responsible for licensing and prices oversight;
- the Safety and Technical Regulator is responsible for developing technical standards and monitoring compliance;
- Environment ACT retains responsibility for environmental management; and
- the Chief Health Officer is responsible for protecting drinking water quality (according to drinking water quality requirements that are consistent with the 1996 Australian Drinking Water Guidelines).

In the 2002 NCP assessment, the Council revisited several outstanding implementation issues. It reported that the ACT had finalised:

- a standard customer contract setting out the terms and conditions for the supply of water and sewerage services to customers, including the obligations on both ACTEW and customers;
- ACTEW's utility services licence, which includes ACTEW's obligations regarding its operations, the environment and its participation in benchmarking processes; and
- a range of industry and technical codes covering, for example, customer protection; connections to water and sewerage networks; dam safety;

minimum standards for the design, construction and maintenance of water and sewerage networks; water metering; and minimum standards for the quality and reliability of water and sewerage services.

Discussion and assessment

The matters finalised by the ACT by the time of the 2002 NCP assessment addressed the outstanding implementation issues from 2001. The Council is satisfied that the ACT met its CoAG obligations on institutional separation.

Integrated catchment management

Assessment issue: The ACT is to:

- develop administrative arrangements and decision-making processes to ensure an integrated approach to natural resource management;
- adopt an integrated catchment management approach to water resource management and set in place arrangements to consult with the representatives of local government and the wider community in individual catchments; and
- support the consideration of establishing land care practices that protect areas of rivers that have a high environmental value or are sensitive for other reasons.

In the 2001 NCP assessment, the Council found that the ACT was meeting its 2001 obligations on integrated catchment management.

Next full assessment: The Council will conduct a full assessment across the entire package of water reforms in 2005.

Reference: CoAG water reform agreement, clauses 6(a), 6(b), 8(b) and 8(c)

The ACT Territory Plan 1993 requires that planning for land and water resources:

- be integrated, based on total catchment management principles;
- seek to protect identified environmental values and beneficial uses of water resources; and
- be guided by principles of ecological sustainability and exclude catchment land and water uses that have an impact on the sustainability of designated environmental or water use values.

Integrated catchment management framework

Environment ACT released *An Integrated Catchment Management Framework for the ACT* in March 2000. The framework adopts a 'whole of system' approach and recognises the role of communities in managing natural

resources. Environment ACT released an implementation plan for 2001–2003 in October 2001.

The catchment management framework reflects national, regional and local contexts. Since the ACT lies within the Murray–Darling Basin, the framework reflects the objectives set out in the Murray–Darling Basin Commission's *Natural Resource Management Strategy 1990*. The ACT participates in the Murray–Darling Basin Initiative, including in activities aimed at halting degradation and improving the quality of resource management in the Basin.

At the regional level, the ACT falls entirely within the catchment of the Murrumbidgee River. In recognition of this, the Territory participated in the preparation of the Murrumbidgee catchment blueprint by the Murrumbidgee Catchment Management Board (based in New South Wales). In addition, the ACT is developing its own integrated natural resource management plan. This plan reflects the objectives set out in the blueprint, while setting catchment targets for issues over which the ACT has responsibility. Some management targets in the ACT plan are identical with those in the blueprint, actions and activities are the same, and none is inconsistent (Murrumbidgee Catchment Management Board 2002, p. 14). The ACT plan will be the basis for the ACT's participation in the National Action Plan for Salinity and Water Quality (Environment ACT 2001b, p. 4).[2]

At the local level, the catchment framework supports the development of subcatchment management plans by community groups working in partnership with the Government. The process brings together community groups that may have been working in isolation, or focusing on a single issue, to develop a more strategic approach to subcatchment activities.

The plans are intended to eventually form an integrated network of subcatchment plans across the ACT (Environment ACT 2002, p. 36). The Sullivan's Creek Catchment Group and the Ginninderra Catchment Group released subcatchment management plans during 2000 (see box 8.1).[3] The plans have attracted investment activity from the private sector, the ACT Government and Natural Heritage Trust. The ACT Government signed a bilateral agreement with the Commonwealth on the Natural Heritage Trust extension in March 2003.[4]

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[2] The ACT has not reached agreement with the Commonwealth Government on implementation of the national action plan. The ACT expects that an agreement will be in place before the end of 2003.

[3] The ACT reported that the Molongolo catchment community, extending from inner north Canberra to Captains Flat and Burra in NSW, will form a subcatchment group. This will complete subcatchment group coverage for the ACT and surrounding New South Wales.

[4] The Commonwealth Government extended the Natural Heritage Trust to 2006-07 in the May 2001 budget. The implementation framework was endorsed in October 2002

Box 8.1: Riparian projects undertaken by ACT subcatchment groups

Sullivan's Creek Catchment Group constructed the ACT's first wetland to be retrofitted into an established suburb. The wetland, built in September 2001, involved the diversion of low flows from the O'Connor stormwater tributary into an excavated pond. The stormwater is detained in the pond and treated. Over time, nutrient and bacterial pollutants should be reduced and the quality of the water should rise by about 50 per cent. The water is then diverted back into the O'Connor channel in a much healthier state. The wetland has been landscaped with over 55 000 native plants including water plants, grasses, shrubs and trees. Volunteers undertook the planting of the wetland. Construction was funded by the private sector and the Natural Heritage Trust

Ginninderra Catchment Group established a comprehensive water quality and monitoring program and removed more than 10 000 willow stems. There has been a significant increase in the creek's discharge, and in the number and diversity of water birds using the creek. Control of weed infestations in the creek corridor continues to be a major focus for on-ground works. Revegetation activities since 1998 have seen more than 8 000 native trees and shrubs planted in the Creek corridor and maintained by Landcare groups.

Source: Environment ACT 2002, p. 37

Environment ACT and the Natural Heritage Trust are sponsoring the development by community groups of six additional subcatchment plans. The first plans under this program, for Tuggeranong-Tharwa and Woden-Weston, were published in 2002. Community groups in these subcatchments formed an umbrella Southern ACT Catchment Group in 2002 to further integrate their activities and progress the plans. In addition work has started on the development of a plan for the rural areas south of the Murrumbidgee River.

The subcatchment plans form the basis for future environmental investment. The plans must be submitted to the Integrated Catchment Management Working Group for accreditation based on criteria defined in the ACT Subcatchment Management Planning Guidelines and the Commonwealth Accreditation Criteria for Integrated Catchment/Regional Management Plans (Southern ACT Catchment Group 2003, p. 41). In response to Commonwealth requirements, the plans are being developed to incorporate a monitoring system that reflects the Catchment Health Indicators Program (Southern ACT Catchment Group 2003, p. 43). This program, developed by Environment ACT and CSIRO Land and Water, is funded by the Natural Heritage Trust. The Government expects to implement it in all major populated subcatchments by the end of 2003 (Environment ACT 2001b, p. 7).

The ACT published a support strategy for volunteers engaged in natural resource management in October 2001. The strategy, *Working Together for the ACT's Environment*, includes an action plan for community support. A community-based Catchment and Landcare Association was formed in 2003 to provide overarching leadership for catchment groups in the Territory. Government agencies participate as observers.

by the Natural Resource Management Ministerial Council and State, Territory and Commonwealth Ministers. A significant focus of the framework is on measures to improve water quality.

Environment ACT recognises that the regional emphasis of the Natural Heritage Trust and the national action plan requires some shift in approach in the ACT's approach to catchment management (Environment ACT 2001b, p. iv). The ACT Government reported in 2003 that:

- interim priority funding is being provided to subcatchment groups to realign their plans to satisfy the national accreditation frameworks;
- it is using the National Framework for Natural Resource Management Standards and Targets 2002 as the basis for developing the ACT Monitoring, Evaluation and Reporting Strategy and expects to finalise the strategy by the end of 2003; and
- a coordinator support network, jointly funded by the Natural Heritage Trust and the ACT Government, is helping subcatchment groups interpret the Natural Heritage Trust and national action plan frameworks.

The ACT reported that its natural resource management frameworks recognise relationships between processes for subcatchment planning and water resource management planning. The Water Resources Task Force consults with catchment communities, while subcatchment plans must reflect broader community targets for water that are identified through the work of the task force.

Land care

Some 57 community groups participate in on-ground Landcare activities in the ACT, including in the work of subcatchment groups. Their activities include weed removal and management, revegetation, education and awareness raising, riparian restoration and wetlands management, surveying, monitoring, research, and planning (Environment ACT 2001b, p. 7).

Salinity issues

Salinity is not an issue in the ACT. However, the ACT monitors the emergence of salinity risk through its water quality and water monitoring policies (see National Water Quality Management Strategy). The ACT engages in salinity management initiatives through its participation in the Murray–Darling Basin Initiative and the Murrumbidgee catchment blueprint.

Discussion and assessment

The ACT has made considerable progress in integrated catchment management since the 2001 NCP assessment. The ACT has:

- published an implementation plan and support strategy for volunteers engaged in natural resource management;

- participated in developing the Murrumbidgee catchment blueprint in conjunction with the Murrumbidgee Catchment Management Board, and is developing its own integrated natural resource management plan to complement the Murrumbidgee blueprint;

- reached bilateral agreement with the Commonwealth on the Natural Heritage Trust extension; and

- assisted with the development and publication of subcatchment plans for Tuggeranong-Tharwa and Woden-Weston by the Southern ACT Catchment Group.

The Council considers that the ACT made satisfactory progress for the 2003 NCP assessment against its integrated catchment management obligations. In particular, the ACT:

- developed administrative arrangements and decision making processes to ensure an integrated approach to natural resource management; and

- adopted an integrated catchment approach to water resource management, and set in place arrangements to consult with local government and the wider community in individual catchments.

Moreover, the ACT's natural resource management framework appears to facilitate consideration of and support for land care practices to protect rivers with high environmental values. The Council will assess the ACT's progress in the development and implementation of subcatchment plans as part of its full assessment of water reform in 2005.

8.5 National Water Quality Management Strategy

Assessment issue: The ACT is to demonstrate a high level of commitment to the ongoing implementation of the objectives of the National Water Quality Management Strategy (NWQMS), including action (through market-based and regulatory measures, water quality monitoring, catchment management policies, town wastewater and sewage disposal, and community consultation and awareness) to achieve the agreed objectives.

In the 2001 assessment, the Council was satisfied that the ACT was meeting its 2001 obligations on NWQMS implementation.

Next full assessment: The Council will conduct a full assessment across the entire package of water reforms in 2005.

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

The ACT continues to implement mechanisms that take account of National Quality Water Management Strategy (NWQMS) guidelines. NWQMS initiatives are principally incorporated through codes of practice covering water quality, water monitoring and wastewater management. The ACT has codified drinking water quality practices, developed a draft policy to manage trade waste and implemented the Canberra Water Supply Catchment Project.

Water Pollution Environment Protection Policy

The Water Pollution Environment Protection Policy 1998 aims to maintain, and where appropriate, enhance water quality by minimising water pollution. The policy is based on the environmental values set out in the Territory Plan, and covers the following water uses: conservation, water supply, and drainage and open space. Each category has a water use policy that sets out specific objectives and environmental values for particular waterways.

The ACT Water Quality Standards set out indicators and maximum acceptable concentrations of substances and materials for the maintenance of the environmental values for water outlined in the Territory Plan. The standards are set out at schedule 4 of the Environment Protection Regulations 1997. The Water Pollution Environment Protection Policy states that situations or activities that are not included in the Water Quality Standards are managed under the appropriate NWQMS guidelines (Environment ACT 1999, p.7).

The Water Quality Standards were developed prior to the Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000 (NWQMS paper no. 4). The ACT reported that a review of the Water Quality Standards in 2004 will address consistency with the national guidelines.

Water quality monitoring

Environment ACT manages a water monitoring and assessment program that includes water quality, streamflow monitoring and biological monitoring. The information is used to assess the effectiveness of management strategies to maintain the aquatic values set for ACT waters. Environment ACT is moving towards a holistic ecosystem health monitoring system as prescribed by the Murray–Darling Basin Commission's Sustainable River Audit. The approach uses biological data to ascertain ecosystem diversity and water quality data to determine trends. The results are then compared with the environmental values and standards set out in the *Environment Protection Act 1997* and its regulations. Environment ACT makes water quality data available through its annual water quality report and information on its web site.

The ACT reported that water monitoring contracts are due for review in 2004. At that time, the ACT will review the consistency of monitoring arrangements with the Australian Guidelines for Water Quality Monitoring and Reporting 2000 (NWQMS paper no. 7).

ACTEW conducts water monitoring in the Cotter and Queanbeyan water supply catchments. The program encompasses physical, chemical, biological, and fish components and supports an investigation into environmental flows being undertaken by the Cooperative Research Centre for Freshwater Ecology (Environment ACT 2002, p. 2).

Urban stormwater management

Urban stormwater generated in the ACT is ultimately discharged into the Murrumbidgee River. The ACT draft policy for sustainable water resource management signalled the need to improve management of stormwater and urban runoff to avoid significant water quality and ecological impacts on urban waterways and lakes. The policy proposes measures to reduce the volume and intensity of urban stormwater flows (Government of the ACT 2003b, pages 8 and 11).

Drinking water

The ACT became the first Australian government to formally regulate drinking water quality when, in 2001, it adopted the Australian Drinking Water Guidelines 1996 (NWQMS paper no. 6). ActewAGL Distribution, which operates the water and wastewater assets of ACTEW Corporation Ltd, supplies water to ACT properties and bulk water to Queanbeyan City Council. It monitors drinking water quality and assesses the results against the Australian Drinking Water Guidelines as specified in the ACT Drinking Water Quality Code of Practice. In line with the guidelines, ActewAGL uses a multiple barrier approach (catchment protection, water treatment,

coagulation, settling, filtration and disinfection) to protect the quality of drinking water. ActewAGL's water quality monitoring program includes physical, chemical, biological and microbiological parameters and takes place from catchment to point-of-customer-supply.

The ACT uses the Australian Drinking Water Guidelines to set trigger levels which, if exceeded, require licensees to undertake remedial action. Licensees are assessed in terms of actions undertaken to address exceedances, subject to local operation constraints. The code of practice requires ActewAGL to report annually on the ACT's drinking water standards to meet community consultation requirements. The Water Services Association of Australia reported that ActewAGL Corporation complied with the Australian Drinking Water Guidelines 1996 for microbiological and physical/chemical requirements (WSAA 2003).

Waste management

The ACT has made progress since the 1980s in the re-use of treated wastewater. Currently, 5 per cent of wastewater effluent is treated and re-used for irrigation. The ACT proposes to increase the re-use rate to 20 per cent by 2013 (Government of the ACT 2003b, pages 7 and 11). The ACT Wastewater Reuse for Irrigation Environment Protection Policy 1999 provides guidance on meeting environmental, health and planning requirements for wastewater reuse. Several local effluent reuse systems in the ACT allow for treated wastewater to be reused for irrigation. The systems operate under an agreement with the Environment Protection Authority and require compliance with monitoring arrangements set out in the policy.

ACTEW expects a draft policy for Acceptance of Non-Domestic Waste (Trade-Waste) into the Sewerage Network to be in place by 1 July 2003, following public consultation. The policy allows ACTEW and users to negotiate a contribution to monitoring costs and, in a small number of cases, extra treatment discharge costs based on volume and strength (Government of the ACT 2003a, p. 42). The draft policy and acceptance criteria are consistent with NWQMS paper no. 12: Guidelines for Sewerage Systems — Acceptance of Trade Waste (Industrial Waste). In particular, discharge limits are within the recommended limits prescribed in NWQMS paper no. 12.

The ACT Government has commenced an assessment of trade waste charging arrangements to develop an appropriate charging regime that takes into account specific trade waste issues in the ACT. This assessment will form part of a submission to the Independent Competition and Regulatory Commission, which is investigating prices for water and wastewater services for the ACT.

Environment ACT manages the licensing of end-of-pipe discharges and non-point source discharges, through erosion and sediment control plans (Environment ACT 2002, p. 5). A polluter-pays scheme was introduced in July 2000 to charge regulated industries according to the level of pollutants they

emit. The ACTEW sewage treatment at the Lower Molongolo Water Quality Control Centre and the Queanbeyan Sewage Treatment Works are the principal activities affected by this fee.

The WSAA reported that ACTEW Corporation complied with the EPA licence for wastewater and fully complied with treated wastewater standards (WSAA 2003, p. 3).

Discussion and assessment

The ACT continues to implement the NWQMS framework, giving priority to areas of relevance to the Territory. The ACT became the first Australian government to formally regulate drinking water quality when, in 2001, it adopted the Australian Drinking Water Guidelines 1996. ActewAGL published its first annual report on drinking water quality in 2002.

The ACT also:

- published a draft policy for sustainable water resource management, including proposals to improve stormwater and waste management; and
- developed a draft policy for acceptance of non-domestic trade waste into the sewerage network, based on NWQMS principles.

While the ACT made progress in implementing parts of the NWQMS, it is still to fully implement the Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000 (NWQMS paper no. 4) and the Australian Guidelines for Water Quality Monitoring and Reporting 2000 (NWQMS paper no. 7). The Council will look for the ACT to have addressed these areas when it next assesses progress in the 2005 NCP assessment.

8.6 Water legislation review and reform

Assessment issue: The ACT is to have reviewed and, where appropriate, reformed all water industry legislation that restricts competition. Legislative restrictions that are retained must be shown to provide a net benefit to the whole community. Completion of review and reform obligations is a key element of the 2003 assessment. Where review and/or reform implementation is not complete (or an appropriate transitional path to reform is not in place), the Council will consider that the relevant government has not complied with National Competition Policy obligations.

Next full assessment: This is the final assessment for legislation review and reform matters.

Reference: Competition Principles Agreement, clause 5

The ACT identified five water industry Acts for review in accord with the Competition Principles Agreement. All five Acts have been repealed.

The Water Resources Act is the legal basis for the allocation of water, the issuing of licences to take water, and the determination of environmental flow requirements in the ACT. The Act does not restrict water trading: the permanent or temporary transfer of all or part of a water allocation can occur with the approval of the Environment Management Authority.

The Council considers that the ACT has completed all obligations under the Competition Principles Agreement in relation to the review and reform of the stock of water industry legislation.