

9 Northern Territory

The elements of the Council of Australian Governments (CoAG) water reform program that are relevant for the Northern Territory 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 Northern Territory'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 Northern Territory with 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).

9.1 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 Northern Territory is to demonstrate that water and wastewater pricing by the Power and Water Corporation achieves full cost recovery, in accordance with the CoAG pricing principles. In the 2001 NCP assessment, the Council found that the Northern Territory had met most if its CoAG full cost recovery obligations. The Council expected the Power and Water Authority (now the Power and Water Corporation, or PowerWater) to continue to improve cost recovery in services provided to small regional centres, and to further consider transparently reporting the costs of identified externalities.

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

PowerWater provides the vast majority of the Northern Territory's urban water and wastewater services. A small amount of water is also provided privately, such as to employees of remote mining operations.

Commercial viability

The Northern Territory reported that water and wastewater operations earned sufficient operating income and community service obligation (CSO) revenue to recover total operating, debt servicing and asset refurbishment costs in 2001-02. Operating losses were incurred in most urban centres apart from Darwin, arising from the Government's decision that the water authority should impose uniform tariffs. The authority, now PowerWater, is moving towards compliance with CoAG cost recovery requirements in all urban centres.

Taxes and tax equivalents

As a Government-owned corporation, PowerWater is required to operate in accord with the Northern Territory's competitive neutrality policy framework. The tax-related costs incurred by PowerWater include:

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- income tax equivalent payments made in accord with the national tax equivalent regime administered by the Australian Tax Office;
 - goods and service tax compliance costs;
 - local government rate equivalent payments made in accord with the Northern Territory's tax equivalents regime administered by the Northern Territory Treasury; and
 - the direct payment of other Northern Territory taxes, including payroll tax and stamp duty on conveyances, leases, insurance and motor vehicles.

Dividends

PowerWater was established as a Government-owned corporation on 1 July 2002. Under the Government-owned corporation arrangements, dividends are agreed between the shareholding Minister and the PowerWater board. Dividends are transparently reported (in PowerWater's annual report, the statement of corporate intent and the Budget papers) and the Utilities Commission is able to report publicly on pricing and in its annual report. While there is no provision in the Government Owned Corporation Act specifying the quantum of annual dividend payments, the Northern Territory's Government Business Division Dividend Policy Statement is a reference for the dividend paid by PowerWater. The policy sets a dividend target of 50 per cent of after-tax profits. PowerWater's water and wastewater operations contributed A\$1.7 million to the corporation's total dividend paid to the Northern Territory Government from earnings in 2000-01.

Assets

The Northern Territory reported that PowerWater derives asset consumption costs from a written-down replacement cost for internal transfer pricing. PowerWater also calculates asset consumption costs on a replacement annuity basis for comparative purposes and to ensure compliance with the lower band of CoAG cost-recovery. It applies these methods uniformly for both water and wastewater charges.

Externalities

Legislation administered by the Department of Infrastructure, Planning and Environment imposes a number of environmental requirements on PowerWater.

Most of these requirements are conditions of extraction and discharge licences issued under the *Water Act 1999*. While a licence may be issued for up to 50 years, the terms of the licence may be varied at any time. The controller of water can thus continuously revise (as is occurring) licence conditions in the

light of ongoing water allocation planning and environmental monitoring programs. The Act allows the controller of water to require a licensee, at the licensee's expense, to provide data.

Operational environmental requirements imposed on PowerWater include the requirement to: monitor water quality and quantity daily, weekly and monthly; investigate environmental dynamics and impact mitigation measures; and report monitoring and investigation results monthly and annually. Further environmental requirements (and costs) are associated with pollution incident reporting (under the *Waste Management and Pollution Control Act 1998*) and national pollution inventory reporting.

The Northern Territory advised that PowerWater's use of water resources is limited to water allocations defined in extraction licences, which are set at environmentally sustainable levels. This provision will mitigate the adverse environmental implications of water consumption in the Northern Territory.

PowerWater's annual report details the costs of complying with water allocations and monitoring and reporting requirements.

Discussion and assessment

The Council considers the Northern Territory has satisfactorily addressed 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. Cross-subsidies should ideally be removed where they are inconsistent with efficient service provision and use. Any remaining cross-subsidies should be transparently reported.

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)

PowerWater introduced a two-part tariff consistent with CoAG commitments, so all water charges in the Northern Territory are based on use. There are no free water allowances, ensuring all water customers face a price incentive to use water economically. Domestic and nondomestic wastewater charges are based on the number of sanitary units. Charges reflect the level of service provided, to the extent that the number of units is a good proxy for the volume and quality of waste discharged.

For previous NCP assessments, the Northern Territory Government reported on its progress against obligations to eliminate cross-subsidies and transparently report those remaining.

- Future PowerWater price path submissions to PowerWater's Regulatory Minister will be based on the phased elimination of cross-subsidies, including cross-subsidies from Government users to commercial and domestic customers.
- PowerWater developed a trade waste management system in 2002 as a framework to administer, accept and regulate the disposal of trade wastes. The trade waste charges reduce cross-subsidies from businesses that produce low volume and toxic discharges to those producing high volume and toxic discharges.
- The Government provides CSO funding to subsidise water and wastewater charges for pensioners in all Northern Territory centres. It provides additional CSO funding for services in the Katherine, Tennant Creek and Alice Springs regions, to maintain uniform tariffs across the Northern Territory. External funding means these CSOs are not funded through cross-subsidies.
- PowerWater reports cross-subsidies in its annual reports.

Discussion and assessment

The National Competition Council considers the Northern Territory has satisfactorily addressed its consumption-based pricing obligations.

Rural water pricing: progress report

Progress report: For Government-owned rural water supply businesses, prices are to reflect the volume of water supplied to encourage more economical water use and to defer the need for costly investments.

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 Northern Territory has no publicly funded or owned rural water infrastructure.

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

Establishment of water rights systems

Progress report: The Northern Territory 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

In previous NCP assessments, the Council found that the Northern Territory had established a comprehensive system of water entitlements, separated from land title and specified in terms of ownership, reliability, volume, transferability and, if appropriate, quality. Water entitlements are specified via surface water and groundwater extraction licences issued under the *Water Act 1992*. Licences are generally issued for up to 10 years, with the Minister able to approve a longer period. Subject to the Act, water rights and the rights to the use, flow and control of all water are vested in the Northern Territory Government.

In relation to the Northern Territory's registry system, a hard copy of the register is available from the Department of Infrastructure, Planning and Environment. The register is a public database and contains details of licence holders, quantities of water and dates for renewal, but does not provide for third party interests to be registered. In the 2001 NCP assessment, the Council noted that the ability of third parties to register an interest was not an issue in the Northern Territory at that time, given the zero value of water licences and the absence of trading (because water is not scarce).

Reform progress

The Department of Infrastructure, Planning and Environment established a new electronic database to improve the administration of water licences. The department indicated that a formal policy for public access to water licence information (including access via the Internet) is to be prepared in accordance with the *Information Act 2002*, which commenced on 1 July 2003.

Provision of water to the environment

Progress report: The Northern Territory is to report on progress in implementing allocations to the environment by listing all draft and final water allocation plans and explaining each plan's stage of development.

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)

Water allocation planning in the Northern Territory occurs through an integrated regional resource management process covering both surface water and groundwater. Water allocation plans may be declared for water control districts. The plans include contingent allocations for the environment. The plans are set for 10 years and reviewed every five years. Water advisory committees oversee implementation of the plans.

At the time of the 2002 NCP assessment, water allocation plans were being developed for four of the Northern Territory's six water control districts. The Northern Territory Government does not intend to develop water allocation plans for the other two districts (Tennant Creek and Gove) at this stage. Given that the Northern Territory has no stressed or overallocated surface water systems, it has until 2005 to implement environmental allocations for the four water control districts in its agreed implementation program.

In the 2001 NCP assessment, the Council found that the Northern Territory had met minimum commitments in relation to the National Principles for the Provision of Water for Ecosystems, but was at an early stage in developing a scientific basis for determining environmental water requirements. In 2002, the Council reviewed the Northern Territory's progress on five major research projects on environmental flows in the Daly and Douglas rivers, the only river system where significant levels of development are planned. One of the five projects had been completed, with the other four under way. The Council was satisfied that the Northern Territory was addressing the obligation to establish a 'best available' scientific basis for determining environmental flows, and indicated it would re-examine progress in the 2004 NCP assessment.

Reform progress

The Northern Territory Government advised that the water allocation plan for the Ti-Tree Water Control District was finalised in August 2002. The remaining three plans are expected to be finalised in 2003-04. The Northern Territory's progress is summarised in table 9.1.

Table 9.1: Stocktake of water allocation plans in the Northern Territory

<i>Water control districts</i>	<i>Progress with water allocation plans</i>
Ti-Tree	Plan was formally declared under the Water Act on 16 August 2002. It is being implemented by the Ti-Tree Water Advisory Committee. Ti-Tree regional land use plan is being developed based, in part, on the water allocation plan.
Darwin	Preliminary draft plan is nearing completion. Consultation with key stakeholders is under way. Plan is expected to be declared around August 2003.
Katherine/Daly	Preliminary draft plan for the Daly River is nearing completion. Consultation process is being developed in conjunction with the regional land use plan, biodiversity conservation strategy and new vegetation clearing controls. Plan is expected to be declared in 2003-04.
Alice Springs	Resource assessment work is largely completed. Consultation is programmed for the second half of 2003. Declaration of the plan is targeted for early 2004.

Over the past year, the Northern Territory also made progress in its scientific research on environmental water requirements. In particular, the four remaining research projects on environmental flows in the Daly and Douglas rivers were completed and a summary report covering all five projects was prepared. The Northern Territory advised that the summary report and each of the project reports are being used to guide the drafting of the water allocation plan for the Daly River region. The reports will also be used as references during the regional consultation process for the plan. The consultation process is to be undertaken as part of an integrated regional planning initiative, which will also include the development of a regional biodiversity conservation strategy, a regional land use planning framework, an agricultural development strategy and native vegetation clearing controls.

9.3 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 Northern Territory had removed legislative impediments to trading. While there had been no trade in licensed water entitlements, this reflected the level of development and the plentiful water supplies relative to demand. The Northern Territory was still developing water allocation plans, including trading rules.

The Northern Territory needs to ensure that trading rules in water allocation plans facilitate trading where this is socially, physically and environmentally sustainable.

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

Reference: CoAG water reform agreement, clause 5

Following amendments to the Water Act in May 2000, water entitlements are clearly specified and fully separated from land title. In terms of trading, the legislation provides for:

- trading in water entitlements between consumptive beneficial uses¹ in water control districts where water allocation plans have been declared — 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;
- trading rules for regions to be developed under each water allocation plan;
- property rights that are well specified;
- a publicly available register, which contains details of licence holders, quantities held and dates for renewal; and
- no compensation, although the conservative basis used for setting allocations and environmental flows in the Northern Territory means there is little risk of a reduction in allocations.

There has been no water trading within the Northern Territory or between the Northern Territory and another jurisdiction.

¹ Consumptive beneficial uses listed in the Act are agriculture, aquaculture, public water supply, manufacturing and riparian use.

Changes in the regulatory environment since 2001

Under the Ti-Tree Region Water Resource Strategy, the only water allocation plan completed to date (see section 9.2), groundwater resources are managed in separate zones. Management is based on a consideration of water quality, aquifer recharge processes and demands for irrigation, public water supply, and stock and homestead needs. The strategy sets limits for total licensed entitlements and includes specific trading rules that restrict trading to within-zone transactions. Trading within each zone is not constrained. No trading has occurred in the Ti-Tree district.

For all water allocation plans, the Northern Territory advised that trading of entitlements from downstream to upstream within a specific river system will not be permitted without approval, and that trading of groundwater entitlements will be restricted to within-aquifer transactions.

Discussion and assessment

At current levels of development, water supplies in the Northern Territory are plentiful relative to demand. As a result, there is little, if any, demand for water trading and there has been no trade in licensed water entitlements. The Northern Territory's legislation prohibits trade between consumptive and nonconsumptive water uses, to prevent environmental and cultural water allocations from being traded to water irrigators and other water users. In the 2001 NCP assessment, the Council accepted that this rule is consistent with CoAG requirements.

While the Northern Territory removed previous legislative impediments to water trade, it has finalised only one water allocation plan, meaning that trading of water entitlements is possible in only one water control district. The Northern Territory has no stressed or overallocated surface water systems. In line with the CoAG assessment timetable, the Council will consider the four water allocation plans in the Northern Territory's agreed implementation program in 2005 (see section 9.2). Consistent with the objectives set by CoAG, the trading rules in the water allocation plans should facilitate trading where this is socially, physically and environmentally sustainable.

The Northern Territory foreshadowed two general restrictions on water trading in all its water allocation plans.

- For river systems, the trading of entitlements from downstream to upstream within a specific system will not be permitted without approval. The Northern Territory advised that this requirement reflects concern that uncontrolled downstream to upstream trade could have an impact on environmental water provisions and adversely affect the environment. Upstream trade will be approved only after it has been demonstrated that there will be no impact on the environmental provisions of the relevant water allocation plan.
- For groundwater sources, trading of entitlements will be restricted to within-aquifer transactions, reflecting physical and environmental constraints.

In the one water allocation plan that has been declared (that for the Ti-Tree Water Control District), trading in groundwater is restricted to within-zone transactions. The Northern Territory advised that this restriction reflects the management of the groundwater resources within separate zones and the need to limit extractions within each zone to a sustainable level.

As the general restrictions on water trading and the trading rules in the Ti-Tree plan reflect physical and environmental constraints, the Council considers these are consistent with CoAG obligations.

The Council notes that the Northern Territory's water licence register does not provide scope to register third party interests in a licence. The Northern Territory considers that the registration of third party interests is unnecessary at this stage, given the negligible value of water licences and the lack of trading. As indicated in the 2001 NCP assessment, however, the Council will look for the Northern Territory Government to address this matter as demand increases, along with other matters required for an effective water market (including robust and timely trading and clearance procedures, a variety of market mechanisms to effect trade, and accessible market information).

The Council considers that the Northern Territory made sufficient progress against its CoAG obligations on intrastate water trading for the 2003 NCP assessment.

9.4 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.

In the 2001 NCP assessment, the Council found that the Northern Territory's institutional arrangements provide appropriate separation of water resource management, standard setting and regulatory enforcement, and service provision.

The Northern Territory needs to ensure appropriate separation of responsibilities continues following corporatisation of the former Power and Water Authority.

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)

On 1 July 2002, the Power and Water Authority became the first Government business to be covered by the Northern Territory's *Government Owned Corporations Act 2001*. The authority is now known as the Power and Water Corporation (or PowerWater). Under the Government Owned Corporations Act, PowerWater's board of directors is accountable to a shareholding Minister (currently the Treasurer) for the performance of the corporation through a formal statement of corporate intent. Under the Water Act, resource management, water allocation and environmental regulation are the responsibility of the Minister for Lands and Planning. Under the *Water Supply and Sewerage Services Act 2000*, economic regulation and the setting of service standards are the responsibility of the regulatory Minister (currently the Treasurer) acting on independent advice from the Utilities Commission.

Discussion and assessment

In the 2001 NCP assessment, the Council found that the Northern Territory had made substantial progress in reforming institutional arrangements in the water industry. The Northern Territory's arrangements provide appropriate separation of water resource management, standard setting and regulatory enforcement, and service provision.

Under the new arrangements, the Northern Territory Treasurer continues to be responsible for agreeing with PowerWater on dividends (but as the shareholding Minister rather than as Treasurer), as well as for setting prices (as the regulatory Minister). As the Council noted in its supplementary second tranche NCP assessment in February 2001, the vesting of responsibility for dividends and price setting in the one office theoretically

provides a potential for higher prices and dividends, and therefore higher returns to the Government.

In performing these two roles, however, the Treasurer is advised by different agencies — by the Northern Territory Treasury on dividends and by the independent Utilities Commission on price regulation — and must comply with the relevant legislation (the Government Owned Corporations Act for dividends and the Water Supply and Sewerage Services Act for price regulation). Dividends are transparently reported (in PowerWater’s annual report, the statement of corporate intent and Budget papers), and the Utilities Commission is able to report publicly on pricing and in its annual report.

The Council considers that the Northern Territory’s arrangements provide an adequate safeguard against conflicts between regulatory and shareholder roles and, for a small jurisdiction, are consistent with CoAG obligations. The Council will, however, continue to monitor outcomes in future NCP assessments.

Commercial focus: PowerWater

Assessment issue: Service delivery organisations in metropolitan areas in particular are to have a commercial focus.

In previous NCP assessments, the Council was satisfied with the commercial focus of the predecessor of PowerWater.

The Northern Territory needs to demonstrate that PowerWater continues to operate on a commercial basis following corporatisation.

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, clause 6(f)

The Northern Territory’s Government Owned Corporations Act covers PowerWater. It establishes a shareholder model of corporate governance for Government businesses and provides for Government-owned corporations to have a commercial board of directors. The board is accountable to a shareholding Minister (currently the Treasurer) for the performance of the corporation. The objectives of a Government-owned corporation include performing at least as efficiently as any comparable business and maximising the sustainable return on the Northern Territory’s investment in the corporation.

Discussion and assessment

In previous NCP assessments, the Council found that the predecessor of PowerWater, the Power and Water Authority, operated on a commercial basis. The new Government Owned Corporations Act enhances the commercial focus of PowerWater. It requires PowerWater to operate, as far as possible, on a basis similar to that of a private sector corporation.

Integrated catchment management

Assessment issue: The Northern Territory 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 Northern Territory 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 Northern Territory Department of Infrastructure, Planning and Environment is the lead agency in natural resource management, including integrated catchment management. An interdepartmental committee facilitates coordination between agencies.²

The *Water Act 1992* provides for the establishment of catchment advisory committees in areas where beneficial uses have been declared.³ The committees:

- clarify the beneficial water uses for a region or catchment;
- identify potential threats to those uses; and

² The committee comprises representatives of the Department of Infrastructure, Planning and Environment and the Department of Business, Industry and Resource Development.

³ Beneficial water uses include agriculture, aquaculture, public water supply, environment, cultural, manufacturing industry and riparian stock and domestic use.

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- develop catchment plans with strategies and action plans to manage threats.

Catchment advisory committees are established under the Water Act as water advisory bodies that report to the Minister for Lands and Planning. The committees comprise regional stakeholders with expertise in catchment issues. Where possible, the Minister invites community, land care groups, environmental and industry groups, local government and Northern Territory agencies to provide nominations for committees.

The Government establishes catchment advisory committees on a needs basis in response to the resource management issues identified during public consultation to establish beneficial uses.⁴ Six of the 26 areas declared for beneficial use have a catchment management plan in place or being developed. Catchment plans are developed through transparent and inclusive community consultation processes. The pace and extent of catchment activity depends on the interests and capabilities of the relevant regional community.

Programs established under the catchment plans include sustainable use and conservation of coastal waters, urban waterways, rural floodplains and broad-scale regional planning. These activities are supported by the monitoring of waterway condition and reporting on water quality (see section 9.5 on the National Water Quality Management Strategy). Table 9.2 lists the Northern Territory's catchment management plans, and summarises their content and stage of development.

The principal initiatives since the 2001 NCP assessment are the Ilparpa Swamp Rehabilitation Plan (released in 2003) and the Darwin Harbour Plan of Management (scheduled for release in 2003). The Ilparpa Swamp plan provides direction for action and investment to rehabilitate the swamp, located near Alice Springs. The management plan will be implemented over a three year period, with annual reviews of the action plan and work programs. PowerWater is funding the management plan budget. Development of the rehabilitation plan followed community consultation on environmental concerns, and designation of the swamp for environmental and cultural uses under the Water Act (Ilparpa Swamp Rehabilitation Committee 2003).

⁴ The declaration of beneficial uses can be the basis for one or more of:

- waste discharge licensing to limit water quality impacts (see section 9.5);
- water allocation planning to manage water consumption to sustainable levels (see section 9.2); and/or
- catchment management planning of water quality issues.

Most declarations have been made only for the purpose of issuing waste discharge licences.

The Darwin Harbour catchment supports the largest concentration of residential, commercial and industrial activities in the Northern Territory. In recognition of the diverse values associated with the catchment, the Government in 2002 appointed the community-based Darwin Harbour Advisory Committee to develop a management plan to facilitate economic development while protecting biodiversity and the environment. The plan will encompass a coastal marine protection strategy, a management plan for Darwin Harbour, and the protection of mangroves in the harbour (Government of the Northern Territory 2002a, 2002b). The committee was engaged in community consultation in 2003. The Government expects the management plan to be completed before the end of 2003.

The Northern Territory signed bilateral agreements with the Commonwealth Government to implement the National Action Plan for Salinity and Water Quality (in February 2003) and the Natural Heritage Trust extension (in June 2003).⁵ The Northern Territory stated that, in preparing integrated regional natural resource management plans under these agreements, it will adopt the approaches set out in the National Framework for Natural Resource Management Standards and Targets 2002. The plan and trust provide for assistance to catchment advisory committees in developing integrated regional natural resource management plans for accreditation. The Northern Territory Landcare Council acts as a coordinating body for catchment committees.

The Mary River integrated catchment management plan is being reviewed to address accreditation criteria under the national action plan. The Northern Territory expects a long period of public consultation as required under the national frameworks before the plan can be submitted for accreditation, probably around June 2004.

⁵ The Commonwealth Government extended the Natural Heritage Trust to 2006-07 in the May 2001 budget. The implementation framework was endorsed in October 2002 by the Natural Resource Management Ministerial Council and State, Territory and Commonwealth Ministers. A significant focus is on measures to improve water quality.

Table 9.2: Catchment management plans in the Northern Territory

<i>Catchment management plan</i>	<i>State of development</i>	<i>Focus</i>	<i>Advisory Committee membership</i>
Mary River Integrated Catchment Management Plan	Released in 1998 and updated in 2000. Currently under review.	Addresses salt water intrusion, weeds, aquatic habitats, fire, grazing, pastures, nature conservation, clearing, water quality, erosion, visitor experience and feral pests.	Representatives from Mary River Landcare Group, pastoral, fishing, tourism and mining industries, Department of Business, Industry and Resource Development, Department Infrastructure, Planning and Environment, Commonwealth Parks North and Defence North.
Rapid Creek Management Plan (Darwin)	Released in 1994 and currently under review.	Management issues include fire, weeds, access, illegal dumping, water quality and open space planning.	Representatives from Defence North, Darwin Airport, Larrakia Association, NT University, Greening Australia, Rapid Creek Landcare Group, Department Infrastructure, Planning and Environment, Darwin City Council and the local Member of the Legislative Assembly.
Iparpa Swamp Rehabilitation Plan (Alice Springs)	Released in 2003.	Environmental issues identified are public health (mosquitos), altered hydrology, salinity, fire, weeds, feral animals, threats to flora, waterbird habitat and heavy metal contamination. Infrastructure issues include reduction of sewage inflow to the Alice Springs Sewage Ponds, timing of sewage overflows into swamp, road overflows and erosion.	Representatives from Central Land Council, PowerWater Corporation, Department of Infrastructure, Planning and Environment, Greening Australia, Arid Lands Environment Centre, NT Fire Police and Emergency Services, Tangentyere Council, Department of Health and Community Services, Alice Springs Town Council, Iparpa Valley Landcare Group, Blatherskite Park Trustees, Old Timers Village and Caravan Parks Association.

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Table 9.2 continued

<i>Catchment management plan</i>	<i>State of development</i>	<i>Focus</i>	<i>Advisory Committee membership</i>
Darwin Harbour Plan of Management	In preparation through public consultation. To be released in 2003.	Issues include pollution, altered catchment hydrology and geomorphology, harbour hydrodynamics and sediment transport, introduced flora, fauna and pathogens, impacts on biodiversity and ecosystems, habitat degradation and loss, groundwater extraction, fishing and harvesting of native flora/fauna, disturbance to fauna and flora by vessel movement, coastal erosion and climate change.	Representatives of Darwin City Council, Amateur Fisherman's Association, NT Environment Centre, Larrakia Nation, NT University, Darwin Port Corporation, Northern Land Council, NT Tourist Commission, Perkins Shipping Pty Ltd, Australian Institute of Marine Science, Marine and Coastal Community Network, Dover Investments, NT Chamber of Commerce and Industry, Department of Business, Industry and Resource Development and Department of Infrastructure, Planning and Environment.
Gulf Region Natural Resource Management Strategy (Gulf of Carpentaria)	At preliminary community consultation stage. Expected to be completed in 2004.	Management issues include erosion, weeds, dust, fire, ground and surface water quality and quantity, feral animals, tourism, sustainable fishing, dugong and turtle management, lack of people on country, cultural and historical sites, rubbish tips and marine debris, best management practice training, mining and cross border links with Queensland.	Stakeholders include Pastoral Land Board, McArthur River Mine, Merlin Mine, Rio Tinto, Department of Business, Industry and Resource Development, Department of Infrastructure, Planning and Environment, Mabunji Resource Centre, Mungoorbada Aboriginal Association, Northern Land Council, ATSIC, Indigenous Land Management Facilitator, Aboriginal Landcare Education Program, Amateur Fisherman's Association, Katherine Regional Tourism Association, Gulf Savanna Guides, King Ash Bay Fishing Club, Borroloola Community Government Council, Greening Australia, Gulf Extension Group, Numberinid and Warrahaliba Fishery Committees, South West Gulf Fishing Group, Tropical Savannas CRC, World Wildlife Fund for Nature, Environment Centre, Bushfires and Border Action Group.
Tiwi Islands Natural Resource Management Strategy	In preparation by Tiwi Land Council appointed steering committee. Expected to be completed in 2006.	Issues are quarantine matters including cane toad exclusion, weeds, water quality, groundwater sustainability, coastal monitoring and community planning, marine management and illegal fishing.	Steering committee comprises Land Council delegates, Tiwi Islands Training and Employment Board, Tiwi Islands Local Government and others on case by case basis.

Source: Adapted from Government of the Northern Territory 2003a, 2003b.

The Northern Territory indicated in 2001 that water allocation plans may be expanded to include complementary regional water resource strategies that address integrated catchment management. (The only water allocation plan in place in 2003 is the Ti-Tree Region Water Resource Strategy.) The Northern Territory advised that it sees no reason to expand the strategy to address integrated catchment management principles until the strategy's first review, which must occur by mid 2007. The Northern Territory noted, however, that the five-year work program for the strategy includes reassessment for the presence of water dependent ecosystems and the possible need for their management. The plan also requires investigation and reporting on surface and groundwater pollution vulnerability and any actions that may be required to address these issues. The Northern Territory stated that the findings of these assessments would determine whether there is a need for specialist environmental representation on the advisory committee.

Land care

Land care groups operate in over 70 per cent of the Northern Territory. A high percentage of membership comprises primary producers and Aboriginal groups. Land care groups in the catchments of the Howard River, Rapid Creek and Ludmilla Creek carry out revegetation of riparian corridors, weed eradication, erosion control, bank stabilisation and wildfire management. Land care groups are represented on the advisory committees for the Rapid Creek and the Mary River catchments. Waterwatch is also active, with over 80 groups monitoring over 150 sites in 12 catchments.

The Northern Territory has introduced a number of land care policies since the 2001 NCP assessment. In particular, the Northern Territory released land clearing guidelines in February 2002, and introduced a requirement for development permits for the clearing of native vegetation in December 2002.

Salinity

The National Land and Water Resources Audit Australian Dryland Salinity Assessment 2000 did not classify any part of the Northern Territory as a high salinity hazard. The audit found the overall salinity hazard for the Northern Territory to be relatively low, with 6 per cent of areas classified as moderate hazard, 34 per cent classified as low hazard and 60 per cent classified as very low hazard (NLWRA 2001). Nevertheless, catchment management committees identified salinity as an environmental issue (see, for example, Iparpa Swamp Rehabilitation Committee 2003, p. 28), and the Northern Territory Government signed a bilateral agreement with the Commonwealth Government to implement the National Action Plan for Salinity and Water Quality. The Northern Territory reported that, in accord with Commonwealth Government priorities, the agreement will not address dryland salinity in Alice Springs.

Discussion and assessment

The Northern Territory made some progress in integrated catchment management since the 2001 assessment. The principal achievements were:

- the bilateral agreements with the Commonwealth Government on the National Action Plan for Salinity and Water Quality and Natural Heritage Trust extension;
- the implementation of the Ilparpa Swamp Rehabilitation Plan (Alice Springs);
- the appointment of an advisory committee for the Darwin Harbour plan of management, and the conduct of extensive community consultation on the plan; and
- the implementation of new land clearing guidelines and controls.

The Northern Territory stated that closer integration of water allocation and catchment management processes is unlikely in the near future. However, the work program for the Ti-Tree Water Resource Strategy appears to take some preliminary steps towards coordinating these processes.

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

- 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.

The Northern Territory's natural resource management framework appears to facilitate consideration of and support for land care practices to protect rivers with high environmental values. This focus is likely to increase as a result of the Northern Territory's participation in the National Action Plan for Salinity and Water Quality and the Natural Heritage Trust extension. The Council will look for the Northern Territory to have finalised its remaining catchment plans when it next assesses progress in the 2005 NCP assessment.

9.5 National Water Quality Management Strategy

Assessment issue: The Northern Territory 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 generally satisfied that the Northern Territory was meeting its 2001 obligations on NWQMS implementation, but was concerned that regulatory arrangements for drinking water quality may be inadequate.

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 Northern Territory continues to implement mechanisms that take account of the National Water Quality Management Strategy (NWQMS). These initiatives are principally incorporated through the application of the Australian Drinking Water Guidelines 1996 and a code of practice covering trade waste. The Northern Territory contributed to the revised Australian and New Zealand Guidelines for Fresh and Marine Water Quality, the Australian Guidelines for Water Quality Monitoring and Reporting, Guidelines for Sewerage Systems Sludge (Biosolids) Management and Guidelines for Sewerage Systems Overflows. The Northern Territory also contributed to proposed revisions to the Australian Drinking Water Guidelines, including the use of the Katherine water supply in a pilot project.

Declaration of beneficial uses

The Northern Territory manages water quality issues through the statutory declaration of beneficial water uses under the *Water Act 1992*.⁶ The Northern Territory considers the categories of beneficial use defined in the Act as consistent with the framework of environmental values in the Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000 (NWQMS paper no. 4). A declaration refers each beneficial use to the relevant water quality guidelines in NWQMS paper no. 4.

The Northern Territory has made 26 declarations of beneficial uses, covering surface water catchments, coastal waters and groundwater systems (see table 9.3). The declarations cover three ports and areas of major environmental and cultural value. Seven declarations have been made since the 2001 NCP

⁶ Beneficial water uses include agriculture, aquaculture, public water supply, environment, cultural, manufacturing industry and riparian stock and domestic use.

assessment, including for the Mary River (surface water and groundwater), the Ti Tree catchment (surface water and groundwater) and Ilparpa Swamp. The beneficial uses declared for these areas include environment, cultural, riparian, agriculture and public water supply uses.

Table 9.3: Beneficial uses declared in the Northern Territory

<i>Location</i>	<i>Environmental values (beneficial uses)</i>
1994 Mount Bunday Creek	aquatic ecosystem protection, stockwater
Ryan Creek	aquatic ecosystem protection, stockwater
1995 Copperfield Creek and Tributaries	aquatic ecosystem protection, drinking water
Hudson Creek and Tributaries	aquatic ecosystem protection
1996 Edith Creek and Tributaries	aquatic ecosystem protection
Howley Creek and Tributaries	aquatic ecosystem protection
Darwin Harbour and Estuaries	aquatic ecosystem protection, recreational water quality and aesthetics
1997 Katherine River	aquatic ecosystem protection, recreational water quality and aesthetics, raw water for drinking water supply, agricultural water use
1998 Coomalie Creek and Tributaries	aquatic ecosystem protection, recreational water quality and aesthetics, agricultural water use
Coastal Waters: Groote Eylandt, Fog Bay, Gove, McArthur River, Shoal Bay-Vernon Island	aquatic ecosystem protection, recreational water quality and aesthetics
Crater Lake	recreational water quality and aesthetics
McKinlay River	aquatic ecosystem protection
Darwin and Blackmore River Catchments	aquatic ecosystem protection, recreational water quality and aesthetics, raw water for drinking water supply, agricultural water use
Katherine River Tributaries	aquatic ecosystem protection, recreational water quality and aesthetics, agricultural water use
1999 Katherine Region Groundwaters	raw water for drinking water supply, agricultural water use, industrial water use
2000 Rapid Creek – Freshwater Reaches	aquatic ecosystem protection
Elizabeth and Howard River Region Waterways	aquatic ecosystem protection, recreational water quality and aesthetics

(continued)

Table 9.3 continued

<i>Location</i>	<i>Environmental values (beneficial uses)</i>
Elizabeth and Howard River Region Groundwater	raw water for drinking water supply, agricultural water use
2001 McArthur River Catchment Area	environment, cultural, riparian
2002 Mary River Surface Water	environment, cultural, riparian
Mary River Groundwater	environment, agriculture, riparian
Ti Tree Surface Water	environment, cultural, riparian
Ti Tree (Western Zone) Groundwater	agriculture, public water supply, riparian
Ti Tree (Central Zone) Groundwater	agriculture, riparian
Ti Tree (Eastern Zone) Groundwater	riparian
Ilparpa Swamp	environment, cultural

Source: Government of the Northern Territory 2003b

The Northern Territory consults with regional stakeholders interested in water quality management prior to making beneficial use declarations. In this way, declarations are intended to reflect community values and expectations on sustainable water use and management. A beneficial use declaration activates water quality management strategies that can include catchment management planning (see the discussion on integrated catchment management in section 9.4) and waste discharge licensing. Each process is subject to monitoring requirements.

Waste discharge

Regulatory agencies in the Northern Territory recognise and use the NWQMS guidelines on point and diffuse source pollution where their use is considered appropriate. Currently, some guidelines are not relevant to the Northern Territory as the particular sources of potential pollution are not present (for example, NWQMS papers 16–20). In some cases, the Northern Territory considers the national guidelines to be inadequate (for example, the guidelines on effluent re-use; NWQMS paper no. 14).

The Government manages point source waste discharge into Northern Territory waters via a statutory requirement that waste discharge be licensed. Licences are only available in areas where beneficial uses have been declared. The licences currently in place regulate all known point waste discharge sources, including mines, sewage treatment plants, an aquaculture operation and several marinas on the Darwin Harbour.

The Northern Territory applies NWQMS guidelines (including the Australian and New Zealand Water Quality Guidelines) to waste discharge licensing under the Water Act, to ensure that declared environmental values are not

compromised. In particular, a waste discharge licence requires the discharger to monitor and report the quality of receiving waters and to limit water quality impacts beyond the immediate contact zone so that beneficial uses are maintained. The Department of Infrastructure, Planning and Environment and the Department of Business, Industry and Resource Development conduct independent random auditing of water quality. The former normally conducts two or three checks per year, while the latter conducts continuous monitoring as a check on the data supplied by dischargers.

Routine monitoring is conducted mainly for sewage treatment plant effluent and mine-site wastewater discharges. (This reflects the nature of development in the Northern Territory). Monitoring is also undertaken at point sources that include aquaculture sites, marine waters in Darwin Harbour, and streams in Darwin's rural hinterland. The Northern Territory applies the Australian Guidelines for Water Quality Monitoring and Reporting (NWQMS paper no. 7) to the design and conduct of monitoring programs. The departments make water quality information available through published reports and on request as a free information service. The departments do not currently provide internet access to information.

PowerWater developed a Trade Waste Management System in 2002 as a framework to administer, accept and regulate the disposal of trade wastes. The system, which was developed in consultation with dischargers, adopts NWQMS guidelines to set acceptable concentrations of various wastes. The Trade Waste Code, a key document under the Trade Waste Management System, establishes criteria under which approval is granted to allow the discharge of trade waste into the sewerage system. The code is based on user-pays principles to encourage industry to minimise waste by implementing effluent improvement strategies.⁷ The code is self-regulated.

In developing the system and code, PowerWater aligned its approach with the approaches set out in NWQMS paper No. 12 (Guidelines for Sewerage Systems Acceptance of Trade Waste). Power Water also considered the trade waste policies of interstate sewerage businesses to ensure its approach is consistent with the national approach.

Water quality monitoring

The Northern Territory monitors surface, marine and ground water quality on a needs basis in the context of waste discharge licensing (see the discussion above on waste discharge) and integrated catchment management. The Department of Infrastructure, Planning and Environment is working with the Australian Institute of Marine Science to monitor water quality in

⁷ PowerWater consulted with waste dischargers and industry representative bodies on the commencement of trade waste charges. The commencement date is being reviewed to allow dischargers time to invest in pre-treatment facilities.

the greater Darwin Harbour as part of the development of a catchment management plan (AIMS 2003).

The National Land and Water Resource Audit (NLWRA 2001) found that Northern Territory water quality data sets did not meet minimum requirements in terms of sampling frequency and length of monitoring record. The Northern Territory considers that the national audit methodology did not reflect the risk management approach adopted in the NWQMS water quality monitoring guidelines. The Northern Territory applies risk management principles in assigning limited resources to the expensive task of water quality monitoring in a large and sparsely populated jurisdiction. Consequently, the Northern Territory considers that while its monitoring framework meets public health and environmental management priorities, the resultant data sets could not be expected to comply with the more comprehensive approach in the national audit.

Drinking water

PowerWater has primary responsibility for providing safe drinking water. The Northern Territory Department of Health and Community Services sets minimum drinking water standards and monitors compliance.

The *Water Supply and Sewerage Services Act* requires that water and wastewater service providers be licensed by the Utilities Commission. The Commission issued a licence to PowerWater in February 2002, requiring it to apply water quality service standards and provide information on its performance to the Utilities Commission and the Northern Territory's Chief Health Officer.

PowerWater introduced a formal drinking water quality policy in 2002 that aims to 'minimise risks to drinking water quality at all points along the delivery chain from source water to the consumer' (PowerWater 2002). A central aspect of the policy is the adoption and progressive implementation of the Framework for Management of Drinking Water Quality developed by the National Health and Medical Research Council for future inclusion in the Australian Drinking Water Guidelines. PowerWater trialled the framework and participated in its development. Under the drinking water quality policy, PowerWater committed to:

- implement and maintain a drinking water management system consistent with the Australian Drinking Water Guidelines (NWQMS paper no. 6);⁸ and

⁸ Consistent with the guidelines, all centres except Tennant Creek have two contamination barriers, major centres have at least three and centres that rely on surface water have additional barriers.

- develop a drinking water monitoring program in consultation with the Northern Territory's Department of Health and Community Services, monitor the quality of drinking water supplies in accord with the agreed program and report annually to the Chief Health Officer.

PowerWater's drinking water quality and microbiology monitoring program is based on the 1996 NWQMS guidelines for major water centres and the 1987 guidelines for minor centres (supplying water to about 15 per cent of consumers). The main difference relates to the frequency of monitoring, with the 1996 guidelines based on a weekly sampling program and the 1987 guidelines based on monthly sampling. Aesthetic, chemical and radiological monitoring is assessed against the 1996 guidelines for all centres. PowerWater published its first annual report on drinking water quality in 2002 (PowerWater 2002).

As a relatively small utility, PowerWater has sought to enhance its research and development capacity by participating since 2001 in the national Cooperative Research Centre for Water Quality and Treatment. The centre's work program includes a focus on water quality issues in regional and rural areas.

Groundwater

The Northern Territory applies the NWQMS Guidelines for Groundwater Protection (NWQMS paper no. 8) where it considers their use is warranted. In particular, the Northern Territory applies the guidelines to manage wellhead protection zones at McMinns and Howard East borefields, which supply 15 per cent of Darwin's water supply and are in close proximity to residential and horticultural developments. The Northern Territory considers that other borefields do not face management pressures warranting the degree of attention set out in NWQMS paper no. 8.

Discussion and assessment

The Council considered in the 2001 NCP assessment that regulatory arrangements for drinking water in the Northern Territory may be inadequate. The Northern Territory has since introduced the Framework for Management of Drinking Water Quality, and PowerWater published the Northern Territory's first comprehensive report on drinking water quality.

While the Northern Territory's drinking water monitoring program is partly based on the 1987 guidelines, the NWQMS recognises the practicalities and costs of sampling in widely-dispersed minor centres by providing some scope for jurisdictions to adapt guidelines to their particular circumstances. PowerWater will review its drinking water monitoring program in 2003 to evaluate its effectiveness and will update the program as required. The

Council is satisfied that the Northern Territory has met its NCP obligation in this area.

Other Northern Territory initiatives since 2001 include:

- the declaration of seven additional areas for beneficial use, resulting in the activation of water quality management processes that can include waste discharge licensing and catchment management;
- improved point source pollution management by introducing the Trade Waste Management System and the Trade Waste Code.

The Council considers that the Northern Territory made satisfactory progress for the 2003 NCP assessment in implementing policies that reflect the NWQMS guidelines. The Council will consider the Northern Territory's progress in this area as part of its full assessment of water reform in 2005.

9.6 Water legislation review and reform

Assessment issue: The Northern Territory 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 Northern Territory reviewed the Water Act and regulations — the legislation providing for the use, control, protection and management of the Northern Territory's water resources — in 2000. Following amendments in May 2000, the Water Act clearly specifies water entitlements that are fully separated from land title. The Act provides for trading in water entitlements in water control districts where water allocation plans have been declared (see section 9.3) and for trading rules for regions to be developed under each water allocation plan. The Northern Territory also reviewed the Water Supply and Sewerage Act in 2000. This Act was repealed by the Water Supply and Sewerage Services Act, which retained the single service provider status of PowerWater and implemented an economic regulatory framework.

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